

Register your product and get support at  
[www.philips.com/welcome](http://www.philips.com/welcome)

4109

40PFT4109  
40PFT4109  
47PFT4109  
50PFT4109

# Lámhleabhar

**PHILIPS**

# Ábhar

## 1 Do theilifís nua 3

- 1.1 An teilifís a chur ar sos agus taifeadtaí 3
- 1.2 EasyLink 3

## 2 Suiteáil 4

- 2.1 Léigh sábháilteacht 4
- 2.2 Seastán teilifíse agus gléasadh balla 4
- 2.3 Leideanna maidir le láithriú 5
- 2.4 Cábla cumhachta 5
- 2.5 Cábla cumhachta 5
- 2.6 Cábla na haeróige 6

## 3 Naisc 7

- 3.1 Leideanna maidir le naisc 7
- 3.2 EasyLink HDMI CEC 8
- 3.3 Comhéadan Coiteann - CAM 9
- 3.4 Bosca bairr - STB 9
- 3.5 Glacadóir satailfíte 10
- 3.6 Córás Amharclainne Baile - HTS 10
- 3.7 Seinnteoir Blu-ray 11
- 3.8 Seinnteoir DVD 12
- 3.9 Consól cluichí 12
- 3.10 Diosca Crua USB 12
- 3.11 Méarchlár nó luch USB 13
- 3.12 Méaróg USB 14
- 3.13 Camthaifeadán 14
- 3.14 Ríomhaire 15
- 3.15 Cluasáin 15

## 4 Cas air 16

- 4.1 Air nó Fuireachas 16

## 5 Cianrialtán 17

- 5.1 Forbhreathnú ar na heochracha 17
- 5.2 Braiteoir IR 17
- 5.3 Ceallraí 18
- 5.4 Glanadh 18

## 6 Cainéil teilifíse 19

- 6.1 Ag breathnú ar chainéil teilifíse 19
- 6.2 Suiteáil cainéil 23

## 7 Eolaire teilifíse 27

- 7.1 An t-eolaire teilifíse a úsáid 27
- 7.2 Taifeadtaí 27
- 7.3 Ag fáil sonraí ón eolaire teilifíse 27

## 8 Foinsí 28

- 8.1 Liosta foinsí 28
- 8.2 Ó fhuireachas 28
- 8.3 EasyLink 28

## 9 Uaineadóirí agus clog 29

- 9.1 Uaineadóir codlata 29
- 9.2 Clog 29
- 9.3 Múch go huathoibríoch 29

## 10 Do ghrianghraif, fiseáin agus ceol 30

- 10.1 Ó nasc USB 30

## 11 Cuir teilifís ar sos 32

- 11.1 Cuir teilifís ar sos 32

## 12 Taifeadadh 33

- 12.1 Na rudáí a bheidh ag teastáil uait 33
- 12.2 Clár a thaifead 33
- 12.3 Féach ar thaifeadadh 33

## 13 Socruithe 34

- 13.1 Pictiúr 34
- 13.2 Cluiche nó ríomhaire 36
- 13.3 Formáid agus ciumhaiseanna 36
- 13.4 Fuaim 36

## 14 Sonraíochtaí 39

- 14.1 Comhshaol 39
- 14.2 Glacacht do PxHxxx9/PxTxxx9 39
- 14.3 Taispeáint 40
- 14.4 Cumhacht 41
- 14.5 Toisí agus meáchain\_41x9/4209 41
- 14.6 Toisí agus meáchain\_41x9/4209 42
- 14.7 Toisí agus meáchain\_4009 42
- 14.8 Toisí agus meáchain\_43x9 43
- 14.9 Toisí agus meáchain\_5109 43
- 14.10 Dimensions and weights\_5199/5209 43
- 14.11 Toisí agus meáchain\_5219 44
- 14.12 Nascacht\_20"-28"\_4009/4109/4209/5219 44
- 14.13 Nascacht\_32"-39"\_41x9 44
- 14.14 Nascacht\_40"-50"\_41x9 44
- 14.15 Nascacht\_32"-55"\_4009/43x9/5109/5199/5209 45
- 14.16 Nascacht 45
- 14.17 Fuaim 45
- 14.18 Ilmheáin 46

## 15 Bogearáí 47

- 15.1 Nuashonrú bogearráí 47
- 15.2 Leagan bogearráí 47
- 15.3 Bogearráí foinse oscailte 47
- 15.4 Open source license 47

## 16 Fabhtcheartú agus tacaíocht 66

- 16.1 Fabhtcheartú 66
- 16.2 Cláraigh 67
- 16.3 Cabhair 67
- 16.4 Cabhair ar líne 67
- 16.5 Cúram Custaiméirí / Athdheisiú 68

## 17 Sábháilteacht agus cúram 69

- 17.1 Sábháilteacht 69
- 17.2 Cúram scáileáin 70

## 18 Téarmaí Úsáide, cóipchearta agus ceadúnais 71

- 18.1 Téarmaí Úsáide 71
- 18.2 Cóipchearta agus ceadúnais 71

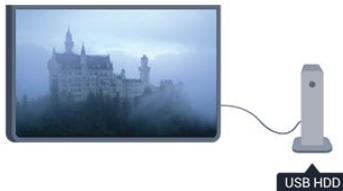
## Innéacs 73

# Do theilifís nua

1.1

## An teilifís a chur ar sos agus taifeadtaí

Má nascann tú Diosca Crua USB, is féidir leat craoladh a chur ar sos agus a thaifeadadh ó chainéal teilifíse digitál.



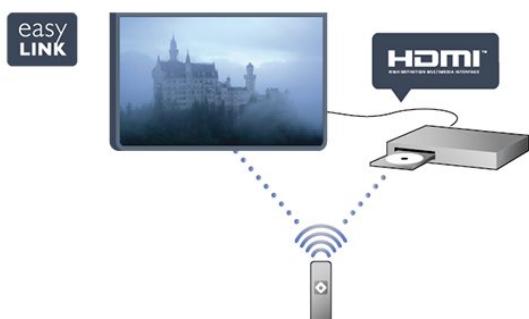
Cuir do theilifís ar sos agus freagair an fón, nó díreach bíodh briseadh agat i rith cluiche. Stórálann an teilifís an craoladh ar an Diosca Crua USB agus is féidir leat féachaint air arís ar ball.

1.2

## EasyLink

Is féidir leat gléas nasctha, cosúil le seinnteoir Diosca Blu-ray, a oibriú le cianrialtán na teilifíse nuair atá **EasyLink** agat.

Baineann EasyLink úsáid as HDMI CEC chun cumarsáid a dhéanamh leis na gléasanna nasctha.



# Suiteáil

2.1

## Léigh sábháilteacht

Léigh na treoracha sábháilteachta i dtosach sula n-úsáideann tú an teilihís.

In Cabhair, téigh go **Sábháilteacht agus cúram > Sábháilteacht**.

2.2

## Seastán teilifíse agus gléasadh balla

### Seastán teilifíse

Is féidir leat na treoracha chun an seastán teilifíse a ghléasadh a fháil sa Treoir Mhearthosaithe a tháinig leis an teilihís. Is féidir leat an treoir seo a íoslódáil ó [www.philips.com](http://www.philips.com) sa chás gur chaill tú í.

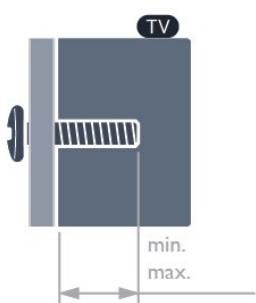
Úsáid uimhir chineál táirge na teilifíse chun cuardach a dhéanamh don Treoir Mearthosaithe atá le híoslódáil.

### Gléasadh balla

Tá do theilihís ullamh freisin do bhrac ghléasadh balla atá oiriúnach le VESA (díoltar as féin é).

Bain úsáid as an gcód VESA seo a leanas nuair atá an gléasadh balla á cheannach agat . . .

Úsáid scriúnna a bhfuil fad acu atá léirithe sa léaráid chun an brac a ghléasadh go daingean.



- 20Pxx4109 - VESA MIS-F 75x75, M4
- 22Pxx4109 - VESA MIS-F 75x75, M4
- 23Pxx4009 - VESA MIS-F 75x75, M4
- 24Pxx4109 - VESA MIS-F 75x75, M4
- 28Pxx4109 - VESA MIS-F 100x100, M4

- 32Pxx41x9 - VESA MIS-F 400x200, M6
- 39Pxx41x9 - VESA MIS-F 400x200, M6
- 40Pxx41x9 - VESA MIS-F 400x200, M6
- 42Pxx41x9 - VESA MIS-F 400x200, M6
- 47Pxx41x9 - VESA MIS-F 400x200, M6

- 50Pxx41x9 - VESA MIS-F 400x400, M6

- 32Pxx4009 - VESA MIS-F 100x100, M4

- 40Pxx4009 - VESA MIS-F 200x200, M4

- 50Pxx4009 - VESA MIS-F 400x200, M6

- 22Pxx4209 - VESA MIS-F 75x75, M4

- 24Pxx5219 - VESA MIS-F 75x75, M4

- 32Pxx43x9 - VESA MIS-F 100x100, M4

- 40Pxx43x9 - VESA MIS-F 200x200, M4

- 50Pxx43x9 - VESA MIS-F 400x200, M6

- 32Pxx5109 - VESA MIS-F 400x200, M6

- 40Pxx5109 - VESA MIS-F 400x200, M6

- 48Pxx5109 - VESA MIS-F 400x200, M6

- 55Pxx5109 - VESA MIS-F 400x400, M6

- 42Pxx5199 - VESA MIS-F 200x200, M6

- 47Pxx5199 - VESA MIS-F 400x400, M6

- 55Pxx5199 - VESA MIS-F 400x400, M6

- 42Pxx5209 - VESA MIS-F 200x200, M6

- 47Pxx5209 - VESA MIS-F 400x400, M6

- 55Pxx5209 - VESA MIS-F 400x400, M6

### Rabhadh

Teastaíonn scileanna sainiúla chun an teilihís a ghléasadh ar an mballa agus ní ceart d'aon duine ach pearsanra atá cáilithe tabhairt faoi. Ba cheart go gcomhlíonfadh gléasadh balla na teilifíse caighdeán sábháilteachta atá bunaithe ar mheáchan na teilihís. Léigh na réamhchúraim sábháilteachta freisin sula suífidh tú an teilihís.

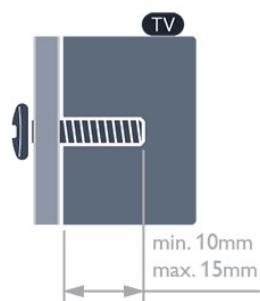
Ní ghlaicann TP Vision Europe B.V. le haon fhreagracht as gléasadh míchuí ná aon ghléasadh a mbeidh tionóisc nó gortú mar thoradh air.

### Gléasadh balla

Tá do theilihís ullamh freisin do bhrac ghléasadh balla atá oiriúnach le VESA (díoltar as féin é).

Bain úsáid as an gcód VESA seo a leanas nuair atá an gléasadh balla á cheannach agat . . .

Úsáid scriúnna a bhfuil fad acu atá léirithe sa léaráid chun an brac a ghléasadh go daingean.



- 32Pxx4109 - VESA MIS-F 400x200, M6

- 39Pxx4109 - VESA MIS-F 400x200, M6

- 40Pxx4109 - VESA MIS-F 400x200, M6
- 42Pxx4109 - VESA MIS-F 400x200, M6
- 47Pxx4109 - VESA MIS-F 400x200, M6
- 50Pxx4109 - VESA MIS-F 400x400, M6

#### Rabhadh

Teastaíonn scileanna sainiúla chun an teilifís a ghléasadh ar an mballa agus ní ceart d'aon duine ach pearsanra atá cáilithe tabhairt faoi. Ba cheart go gcomhlíonfadhl gléasadh balla na teilifíse caighdeán sábháilteachta atá bunaithe ar mheáchan na teilifís. Léigh na réamhchúraim sábháilteachta freisin sula suifidh tú an teilifís.

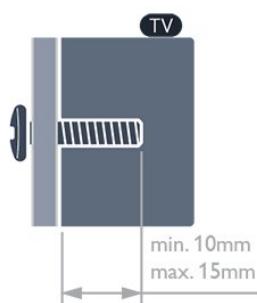
Ní ghlacann TP Vision Europe B.V. le haon fhreagracht as gléasadh míchuí ná aon ghléasadh a mbeidh tionóisc nó gortú mar thoradh air.

#### Gléasadh balla

Tá do theilifís ullamh freisin do bhrac ghléasadh balla atá oiriúnach le VESA (díoltar as féin é).

Bain úsáid as an gcód VESA seo a leanas nuair atá an gléasadh balla á cheannach agat . . .

Úsáid scriúnna a bhfuil fad acu atá léirithe sa léaráid chun an brac a ghléasadh go daingean.



- 42Pxx5199 - VESA MIS-F 200x200, M6
- 47Pxx5199 - VESA MIS-F 400x400, M6
- 55Pxx5199 - VESA MIS-F 400x400, M6

#### Rabhadh

Teastaíonn scileanna sainiúla chun an teilifís a ghléasadh ar an mballa agus ní ceart d'aon duine ach pearsanra atá cáilithe tabhairt faoi. Ba cheart go gcomhlíonfadhl gléasadh balla na teilifíse caighdeán sábháilteachta atá bunaithe ar mheáchan na teilifís. Léigh na réamhchúraim sábháilteachta freisin sula suifidh tú an teilifís.

Ní ghlacann TP Vision Europe B.V. le haon fhreagracht as gléasadh míchuí ná aon ghléasadh a mbeidh tionóisc nó gortú mar thoradh air.

2.3

#### Leideanna maidir le láithriú

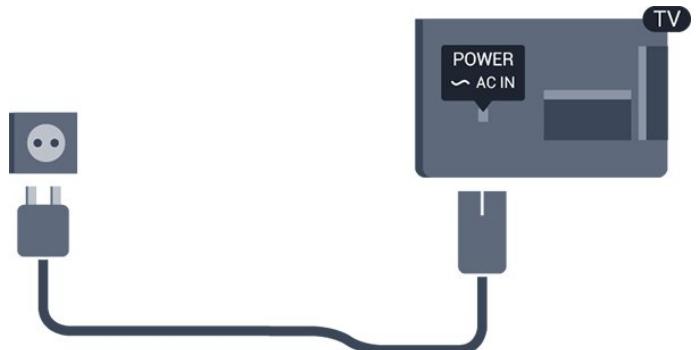
- Cuir an teilifís in áit nach bhfuil solas ag lonrú go díreach ar an scáileán.
- Socraigh an teilifís suas le 15 cm ón mballa.
- Is é an t-achar is fearr le bheith ag féachaint ar an teilifís uaidh ná trí oiread méid fhiartrasna an scáileáin. Nuair atá tú i do shuí, ba cheart go mbeadh do shúile ar an leibhéal céanna le lár an scáileáin.



2.4

#### Cábla cumhachta

- Cuir isteach an cábla cumhachta sa nascóir **POWER** ar chúl na teilifíse.
- Bí cinnte go bhfuil an cábla cumhachta curtha isteach go daingean sa nascóir.
- Bí cinnte gur féidir leat rochtain a fháil i gcónaí ar an bpluga cumhachta sa soicéad balla.
- Nuair a díphlugálann tú an cábla cumhachta, tarraing an pluga i gcónaí, ná tarraing an cábla go deo.



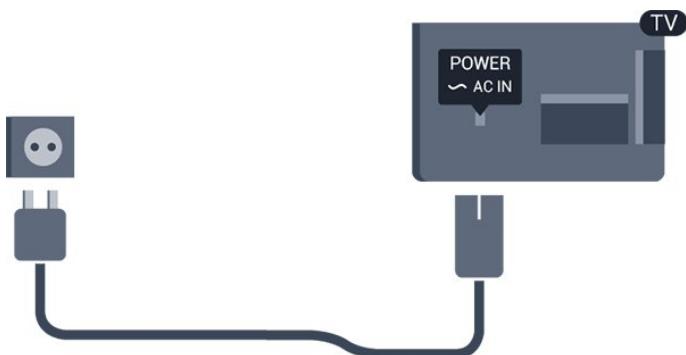
D'ainneoin go bhfuil tomhantas cumhachta an-íseal ag an teilifís seo nuair atá sé ar fuireachas, bain amach an cábla cumhachta chun fuinneamh a shábháil mura mbeidh an teilifís in úsáid ar feadh tréimhse fada.

---

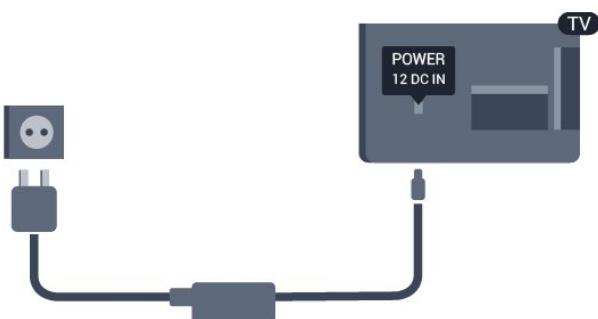
2.5

## Cábla cumhachta

- Cuir isteach an cábla cumhachta sa nascóir **POWER** ar chúl na teilihise.
- Bí cinnte go bhfuil an cábla cumhachta curtha isteach go daingean sa nascóir.
- Bí cinnte gur féidir leat rochtain a fháil i gcónaí ar an bpluga cumhachta sa soicéad balla.
- Nuair a díphlugálann tú an cábla cumhachta, tarraing an pluga i gcónaí, ná tarraing an cábla go deo.



Do 22PFx4209



\* á húsáid ach an cábla Todóige a chuirtear ar fáil don teilihiseán.

D'ainneoin go bhfuil tomhaltas cumhachta an-íseal ag an teilihís seo nuair atá sé ar fuireachas, bain amach an cábla cumhachta chun fuinneamh a shábháil mura mbeidh an teilihís in úsáid ar feadh tréimhse fada.

---

2.6

## Cábla na haeróige

Cuir isteach pluga na haeróige go daingean sa soicéad **ANTENNA** ar chúl na teilihise.

Is féidir leat d'aeróg féin a nascadh nó nasc a dhéanamh le comhartha aeróige ó chóras dálte aeróige. Úsáid nascóir aeróige IEC Coax 75 Ohm RF.

Úsáid an nasc aeróige seo do chomharthaí ionchuir DVB-T agus DVB-C.

# Naisc

3.1

## Leideanna maidir le naisc

### Treoir maidir le nascacht

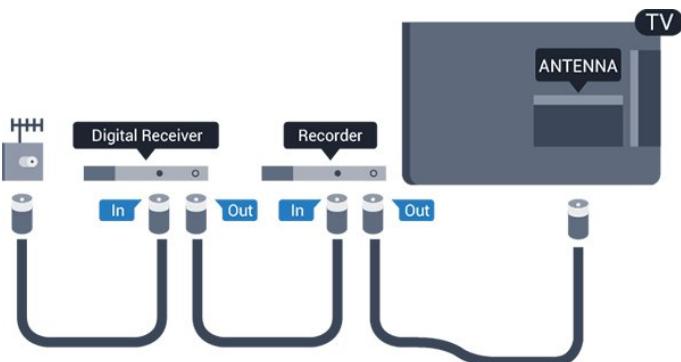
Nasc gléas leis an teilifís i gcónaí leis an nasc is airde caighdeán atá ar fáil. Anuas air sin, úsáid cáblaí ar chaighdeán maith chun a chinntíú go mbeidh aistriú maith pictiúr agus fuameanna ann..

Má tá cabhair ag teastáil uait chun roinnt gléasanna a nascadh leis an teilifís, is féidir leat cuairt a thabhairt ar threoir nascachta Philips TV. Tugann an treoir eolas maidir leis an gcaoi nascadh agus maidir leis na cáblaí atá le húsáid.

Téigh go dtí [www.connectivityguide.philips.com](http://www.connectivityguide.philips.com)

### Aeróg

Má tá Bosca bair (glacadóir digiteach) nó Taifeadán agat, nasc cáblaí na haeróige chun comhartha na haeróige a rith tríd an mBosca bair agus/nó an Taifeadán i dtosach sula n-iontrálfaidh sé an teilifís. Ar an gcaoi sin, is féidir leis an aeróg agus an Bosca bairr cainéis bhreise fhéideartha a sheoladh go dtí an Taifeadán le haghaidh a dtaifeadta.



### HDMI

#### HDMI CEC

Bíonn an caighdeán pictiúir agus fuame is fearr ann le nasc HDMI. Bíonn na comharthaí fise agus fuame araon le chéile in aon chábha HDMI amháin. Úsáid cábla HDMI le haghaidh comharthaí teilifíse Ardghléine (HD) nó Full HD (FHD). Úsáid cábla HDMI Ardluais chun an t-aistriú comhartha is fearr a fháil agus ná húsáid cábla HDMI níos faide ná 5 m.



#### EasyLink HDMI CEC

Má tá do ghléasanna nasctha le HDMI agus má tá EasyLink acu, is féidir leat iad a oibriú leis an gcanrialtán teilifíse. Ní mór EasyLink HDMI CEC a chasadh air ar an teilifís agus ar an ngléas nasctha.

#### DVI go HDMI

Úsáid cuibheoir DVI go HDMI mura bhfuil ag do ghléas ach nasc DVI. Úsáid ceann de na naisc HDMI agus cuir cábla Fuaime Clé/Deas (mion-seac 3.5 mm) isteach san Audio In le haghaidh fuame, ar chúl na teilifíse.

#### Cosaint ar chóipeáil

Tacaíonn cáblaí DVI agus HDMI le HDCP (Cosaint Ábhar Digiteach Ard-Leitheadbhabha). Is comhartha chosaint ar chóipeáil HDCP a chuireann cosc ar chóipeáil ábhar ó dhiosca DVD nó Diosca Blu-ray. Tagraítear dó fresin mar DRM (Bainistíocht Ceart Digiteach).

#### HDMI ARC

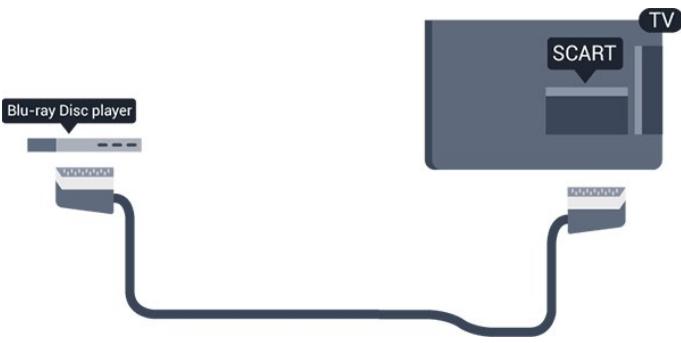
Tá HDMI ARC (Cainéal Fillte Fuaime) ag an nasc HDMI 1 ar an teilifís. Má tá nasc HDMI ARC ag an ngléas freisin, ar gnáth gur Córas Amharclainne Baile (HTS) é, nasc le haon cheann de na naisc HDMI 1 ar an teilifís seo é. Ní chaithfidh an cábla fuaime breise a sheolann fuaim na teilifíse go dtí an HTS a bheith agat nuair atá nasc HDMI ARC ann. Tá an dá comhartha sa nasc HDMI ARC.

Sa chás gur fearr leat ARC a chasadh as ar na naisc HDMI, brúigh agus roghnaigh **Suiteáil** agus brúigh **OK**. Roghnaigh **Socruithe teilifíse > Fuaim > Ardsocruithe > HDMI 1 - ARC**.

#### SCART

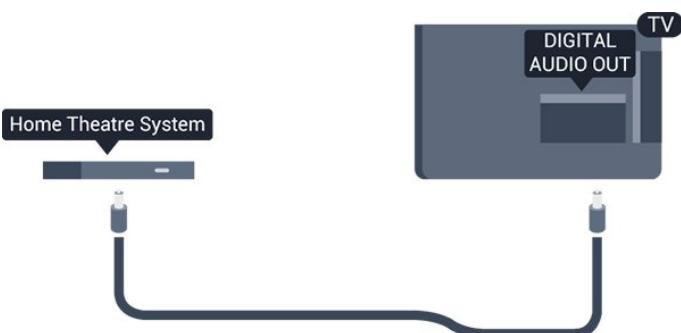
Nasc ar chaighdeán maith é SCART. Is féidir an nasc SCART a úsáid le haghaidh comharthaí fise CVBS agus RGB ach ní féidir é a úsáid le haghaidh comharthaí teilifíse Ardghléine (HD). Bíonn idir comharthaí fise agus fuame i gceist leis an nasc SCART.

Úsáid an cábla cuibheora SCART chun do ghléas a nascadh.



## Fuaim Amach - Optúil

Nasc ar ardchaighdeán é Fuaim Amach - Optúil. Tá an nasc optúil seo in ann 5.1 cainéal fuaimé a iompar. Mura bhfuil nasc HDMI ARC ag do ghléas, ar gnáth gur Córás Amharclainne Baile (HTS) é, is féidir leat an nasc seo a úsáid leis an nasc Optúil - Fuaim Amach ar an HTS. Seolann an nasc Optúil - Fuaim Amach an fhuaim ón teilihís go dtí an HTS.



Is féidir leat cineál an chomhartha fuaimé amach a shocrú chun dul in oiriúint do chumais fuaimé do Chóras Amharclainne Baile.

Mura mbeidh an fhuaim ag meaitseáil an fhís ar an scáileán, is féidir leat an sioncronú fuaimé go físe a choigearcú.

### 3.2

## EasyLink HDMI CEC

### EasyLink

Is féidir leat gléas nasctha a oibriú le cianrialtán na teilihísé le EasyLink. Úsáideann EasyLink HDMI CEC (Consumer Electronics Control) chun cumarsáid a dhéanamh leis na gléasanna nasctha. Ní mór do ghléasanna tacú le HDMI CEC agus a bheith nasctha le nasc HDMI.



### Suiteáil EasyLink

Tagann an teilihís le gach socrú EasyLink casta air. Bí cinnte go bhfuil na socruithe HDMI CEC suiteáilte i gceart ar na gléasanna EasyLink atá nasctha. Tá an seans ann nach n-oibreoidh EasyLink le gléasanna ó bhrandaí eile.

### HDMI CEC ar bhrandaí eile

Tá ainmneacha éagsúla ag feidhmiúlacht HDMI CEC ar bhrandaí éagsúla. Seo roinnt samplaí: Anynet, Aquos Link, Bravia Theatre Sync, Kuro Link, Simplink agus Viera Link. Níl gach branda comhoiriúnach go hiomlán le EasyLink.

Is lena n-úinéirí faoi seach ainmneacha branda HDMI CEC .

### Gléasanna a oibriú

Chun gléas atá nasctha le HDMI a oibriú agus é a shuiteáil le EasyLink, roghnaigh an gléas - nó a ghníomhaíocht - sa liosta nasc teilihísé. Brúigh SOURCES, roghnaigh gléas atá nasctha le nasc HDMI agus brúigh OK.



Chomh luath is a bheidh an gléas roghnaithe, is féidir le cianrialtán na teilihísé an gléas a rialú. Mar sin féin, ní chuirtear ar aghaidh chuig an ngléas na heochracha agus OPTIONS agus roinnt méaracha teilihísé eile.

Mura bhfuil an eochair atá uait ar chianrialtán na teilihísé, is féidir leat an eochair a roghnú sa roghchlár Roghanna.

Brúigh OPTIONS agus roghnaigh Rialuithe ar an mbarra roghchláir. Roghnaigh an eochair gléis atá uait ar an scáileán agus brúigh OK.

Tá an seans ann nach mbeidh roinnt méaracha gléis an-sainiúil ar fáil sa roghchlár Rialtán.

Nóta: Ní fhreagróidh ach gléasanna a thacaíonn leis an bhfeidhm cianrialtán Easylink do chianrialtán na teilihísé.

### Socruithe EasyLink

Tagann an teilihís le gach socrú EasyLink casta air. Is féidir leat aon socrú EasyLink a chasadadh as go hiomlán . . .

### EasyLink

Chun EasyLink a chasadadh as go hiomlán . . .

1. Brúigh agus roghnaigh Suiteáil agus brúigh OK.

## 2. Roghnaigh Socruithe teilifíse > Socruithe ginearálta > Easylink.

3. Roghnaigh EasyLink.

4. Roghnaigh As agus brúigh OK.

5. Brúigh ↪, arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

### Cianrialtán EasyLink

Má theastaíonn uait go mbeidh cumarsáid idir gléasanna ach ní tú ag iarraidh iad a oibriú le cianrialtán na teilifíse, is féidir leat cianrialtán EasyLink a chasadh as leis fén.

Is féidir leat ilgħléasanna atá oiriúnach le HDMI-CEC a rialú le cianrialtán do theilifíse.

I roghchlár socruithe EasyLink, roghnaigh **Cianrialtán EasyLink** agus roghnaigh **As**.

### Seinn aon-iarracht

Nuair a sheinneann tú gléas atá oiriúnach le HDMI-CEC, athraíonn an teilifís ó fuireachas go dtí an fhoinse cheart.

### Fuireachas aon-iarracht

Nuair a bhrúnn tú ⚡ ar chianrialtán na teilifíse, athraíonn an teilifís agus gach gléas atá oiriúnach le HDMI-CEC go dtí mód fuireachais.

### Rialú fuaimne córais

Má nascann tú gléas atá oiriúnach le HDMI-CEC a bhfuil callairí san áireamh leis tríd an nascóir HDMI ARC, is féidir leat an rogha a dhéanamh fuaim na teilifíse a chloisteáil ó na callairí sin seachas callairí na teilifíse.

## 3.3

# Comhéadan Coiteann - CAM

### CI+

Tá an teilifís seo réidh do Rochtain Choinnóllach CI+.

Is féidir leat féachaint ar scothchláir HD, cosúil le scannáin agus cláir spóirt atá curtha ar fáil ag craoltóirí teilifíse digití i do réigiún le CI+. Scrobhann craoltóir teilifíse na cláir seo agus d'iscrobhann modúl CI+ réamhíochta iad.

Cuireann craoltóir teilifíse digití an modúl CI+ seo (Modúl Rochtana Chinnóllaf - CAM) ar fáil nuair a liostálann tú lena scothchláir. Bíonn leibhéal an-ard cosaint cóipe ag na cláir sin.

Déan teagmháil le craoltóir teilifíse digití le haghaidh tuilleadh eolais maidir le téarmaí agus coinníollacha.

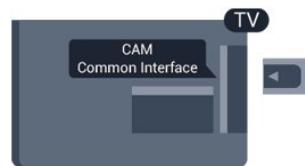


## CAM

### Cuir isteach modúl CAM

Cas as an teilifís sula gcuirfidh tú CAM isteach.

Beidh an modh ceart chun an CAM a chur isteach le feiceáil ar an gCAM. Má chuireann tú isteach mícheart é, d'fhéadfá damáiste a dhéanamh don CAM agus don teilifís.



Úsáid sliotán an Chomhéadain Choitianta ar an teilifís chun an cárta CAM a chur isteach.

Agus tú ag féachaint ar aghaidh an chárta, cuir isteach an CAM go réidh chomh fada is atá tú in ann.

Fág an cárta sa sliotán go buan.

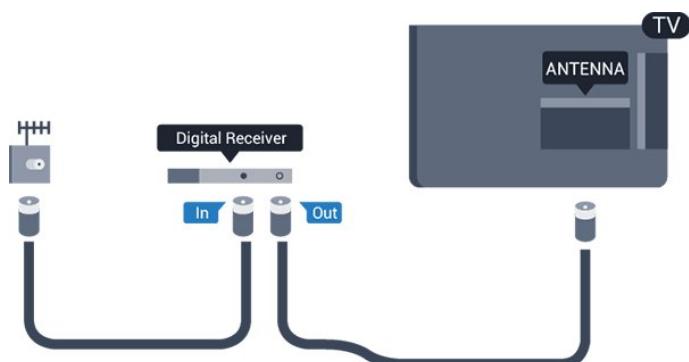
D'fhéadfadh roinnt nóiméad a bheith i gceist sula ngníomhófar an CAM. Dígníomhófar an tseirbhís craolta ar an teilifís má bhaintear an CAM amach.

Má tá CAM curtha isteach agus má tá na táillí liostála íoctha (tá bealaí nasctha in ann a bheith éagsúil), is féidir leat féachaint ar an gcaroladh teilifíse. Is do do theilifíse fén go heisiach an CAM atá curtha isteach.

## 3.4

# Bosca bairr - STB

Úsáid 2 cábla aeróige chun an aeróg a nascadh leis an mBosca bairr (ar glacadóir digiteach é) agus an teilifís.



Cuir isteach cábla HDMI in aice leis na násc aeróige chun an Bosca bairr a nascadh leis an teilifís.

Mar rogha air sin, is féidir leat cábla SCART a úsáid mura bhfuil aon nasc HDMI ag an mBosca bairr.

Múch go huathoibríoch

Cas as an t-uaineadóir uathoibríoch seo mura n-úsáideann tú ach cianrialtán an bhosca bhair amháin. Mura ndéanfaidh tú é seo, casfaidh an teilifís as go huathoibríoch tar éis tréimhse 4 huaire gan aon eochair a bheith brúite ar chianrialtán na teilifíse.

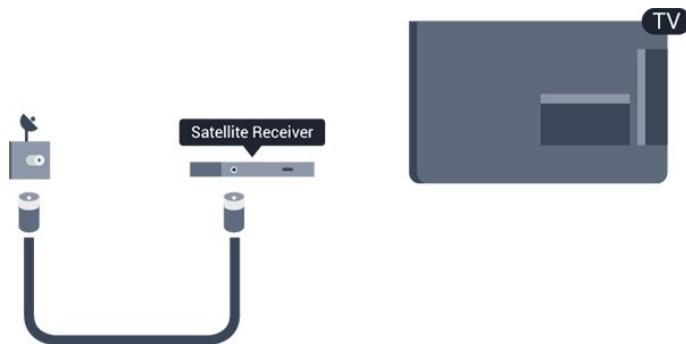
Chun an t-uaineadóir Casadh as a chasadh as, brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**.  
Roghnaigh **Socruithe teilihise > Socruithe ginearálta > Cas as uathoibríoch** agus athraigh an barra sleamhnán go **As**.

3.5

## Glacadóir satailíte

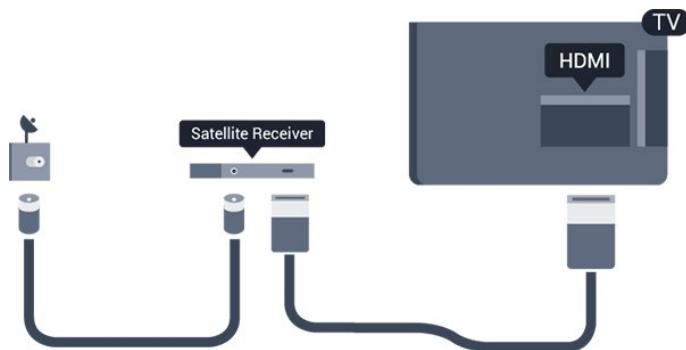
- Do theilihiseanna a bhfuil tiúnóir satailíte ionsuite acu.

Nasc cábla na méise aeróige leis an nglacadóir Satailíte.



Cuir isteach cábla HDMI in aice leis an nasc aeróige chun an gléas a nascadh leis an teilihise.

Mar rogha air sin, is féidir leat cábla SCART a úsáid mura bhfuil aon nasc HDMI ag an ngléas.



### Múch go huathoibríoch

Cas as an t-uaineadóir uathoibríoch seo mura n-úsáideann tú ach cianrialtán an bhosca bhairr amháin. Mura ndéanfaidh tú é seo, casfaidh an teilihise as go huathoibríoch tar éis tréimhse 4 huaire gan aon eochair a bheith brúite ar chianrialtán na teilihise.

Chun an t-uaineadóir Casadh as a chasadh as, brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**.

Roghnaigh **Socruithe teilihise > Socruithe ginearálta > Cas as uathoibríoch** agus athraigh an barra sleamhnán go **As**.

3.6

## Córas Amharclainne Baile - HTS

### Nasc HTS

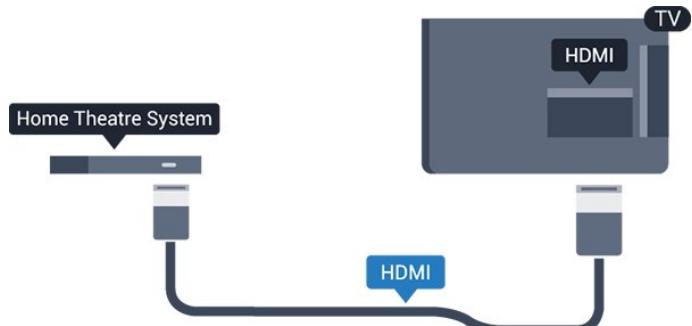
Úsáid an cábla HDMI chun Córas Amharclainne Baile (HTS) a nascadh leis an teilihise. Is féidir leat Philips Soundbar a nascadh nó HTS a bhfuil seinnteoir diosca ionsuite aige.

Mar rogha air sin, is féidir leat cábla SCART a úsáid mura bhfuil aon nasc HDMI ag an ngléas.

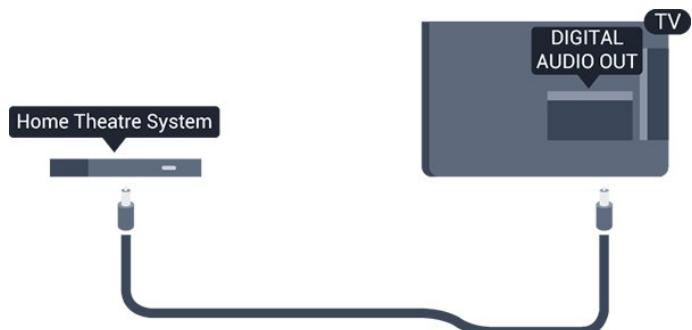
### HDMI ARC

Má tá nasc HDMI ARC ag do Chórás Amharclainne Baile, is féidir leat aon nasc HDMI ar an teilihise a úsáid chun nascadh. Ní gá an cábla fuaime breise a nascadh nuair atá HDMI ARC ann. Tá an dá chomhartha sa nasc HDMI ARC.

Tá gach nasc HDMI ar an teilihise in ann an comhartha Cainéal Fillte Fuaime (ARC) a thairiscint. Ach nuair atá an Córás Amharclainne Baile nasctha agat, ní féidir leis an teilihise ach an comhartha ARC a sheoladh chuig an nasc HDMI seo.



Mura bhfuil aon nasc HDMI ARC ag an gCórás Amharclainne Baile, úsáid cábla fuaime optúil (Toslink) chun fuaim na teilihise a sheoladh go dtí an Córás Amharclainne Baile.



### Sioncronú fuaime go físe (sionc)

Mura meaitseállann an fhuaim an fhís ar an scáileán, is féidir leat moill a shocrú ar an gcuid is mó de Chórás Amharclainne Baile a bhfuil seinnteoir diosca acu chun an fhuaim a mheatseáil leis an fhís.

## Socraithe d'Fhuaim Amach

### Moill ar Fhuaim Amach

Nuair atá Córás Amharclainne Baile (HTS) nasctha leis an teilihís, ba cheart go mbeadh an pictiúr ar an teilihís agus an fhuaim ón HTS sioncronaithe.

#### Sioncronú uathoibríoch fuaime go físe

Bíonn an sioncronú fuaime go físe sioncronaithe go huathoibríoch leis na Chórais Amharclainne Baile is nua ó Philips, agus bíonn sé i gcónai ceart.

#### Moill sionc Fuaim

I gcás roinnt Córás Amharclainne Baile, tá an seans ann go mbeidh ort an mhoill sionc Fuaim a mhionathrú chun an fhuaim a shioncronú leis an bhfís. Ardaigh an luach moille ar an gCórás Amharclainne Baile go dtí go meaitseáinn an pictiúr agus an fhuaim. D'fhéadfadh luach moille de 180ms a bheith ag teastáil. Léigh treoir úsáideora an Chórais Amharclainne Baile. Beidh ort an mhoill ar Fhuaim amach ar an teilihís a chasadh as nuair atá luach moille socraithe ar an gCórás Amharclainne Baile.

Chun an mhoill ar Fhuaim amach a chasadh as . . .

1.  agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruthe teilihís > Fuaim > Ardsocruthe > Moill ar Fhuaim Amach**.
3. Roghnaigh **As** agus brúigh **OK**.
4. Brúigh , arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

### Seach-chur Fuaim Amach

Murar féidir leat moill a shocrú ar an gCórás Amharclainne Baile, is féidir leat an teilihís a shocrú chun an fhuaim a shioncronú. Is féidir leat seach-chur a shocrú a dhéanann cíteamh don mhéid ama atá ag teastáil ón gCórás Amharclainne Baile chun fuaim phictiúr na teilihís a phróiseáil. Is féidir leat an luach a shocrú i gcéimeanna 1ms. Is 12ms an socrú is airde. Ba cheart an socrú Moill ar Fhuaim Amach a chasadh air.

Chun an fhuaim ar an teilihís a shioncronú. . .

1. Brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruthe teilihís > Fuaim > Ardsocruthe > Seach-chur Fuaim Amach**.
3. Úsáid an barra sleamhnáin chun an seach-chur fuaim a shocrú agus brúigh **OK**.
4. Brúigh , arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

### formáid Fuaim Amach

Má tá Córás Amharclainne Baile agat a bhfuil an cumas aige fuaime ilchainéil a phróiseáil, leithéidí Dolby Digital, DTS® nó a macasamhail, athraigh an socrú don fhormáid Fuaim Amach go

Ilchainéal. Ligeann an socrú Ilchainéal don teilihís an comhartha fuaime ilchainéil comhbhrúite a sheoladh ó chainéal teilihís nó seinnteoir nasctha go dtí an Córás Amharclainne Baile. Má tá Córás Amharclainne Baile agat nach bhfuil próiseáil fuaime ilchainéil aige, roghnaigh Steiréó.

Chun an fhormáid Fuaim Amach a shocrú. . .

1. Brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruthe teilihís > Fuaim > Ardsocruthe > Formáid Fuaim Amach**.
3. Roghnaigh **Ilchainéal** nó **Steiréó**.
4. Brúigh , arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

### Leibhéalach Fuaim Amach

Úsáid an socrú leibhéalach Fuaim Amach chun airde fuaime (treise) na teilihís agus an Chórais Amharclainne Baile a leibhéalach nuair a athraíonn tú ó cheann amháin go ceann eile. Is féidir le difríochtaí i bpróiseáil fuaime a bheith in n-údar do dhifríochtaí in airde fuaime.

Chun an difríocht san airde fuaime a leibhéalach . . .

1. Brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruthe teilihís > Fuaim > Ardsocruthe > Leibhéalach Fuaim Amach**.
3. Má tá difríocht mhór san airde fuaime, roghnaigh **Níos Mó**. Má tá difríocht bheag san airde fuaime, roghnaigh **Níos Lú**.
- Brúigh , arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

Baineann leibhéalach Fuaim Amach le comharthaí fuaime Fuaim Amach - Optúil agus HDMI ARC araon.

### Fadhbanna le fuaim HTS

#### Fuaim le torann ard

Má fhéachann tú ar fhíséán ó mhéaróg chuimhne USB atá plugáilte isteach nó ó ríomhaire nasctha, d'fhéadfadh an fhuaim ó do Chóras Amharclainne Baile a bheith díchumtha.

1. Brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruthe teilihís > Fuaim > Ardsocruthe > Formáid Fuaim Amach**.

#### Níl aon fhuaim ann

Mura bhfuil tú in ann an fhuaim ó do theilihís a chloisteáil ar do Chóras Amharclainne Baile, déan seiceáil do na rudaí seo a leanas . . .

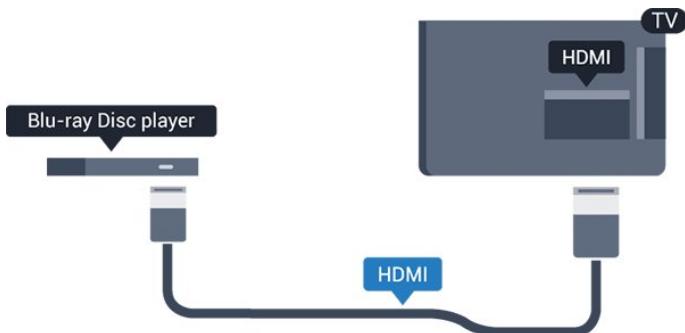
- Seiceáil ar nasc tú an cábla HDMI le nasc **HDMI ARC** ar an gCórás Amharclainne Baile. Is naisc HDMI ARC gach nasc HDMI ar an teilihís.

- Seiceáil an bhfuil an socrú **HDMI ARC** ar an teilihís casta Air. Téigh go dtí  > **Suiteáil** > **Socruthe teilihís > Fuaim > Ardsocruthe > HDMI1 -ARC**.

3.7

## Seinnteoir Blu-ray

Úsáid cábla **HDMI ardluais** chun an seinnteoir Diosca Blu-ray a nascadh leis an teilihís.



Má tá EasyLink HDMI CEC ag an seinnteoir Diosca Blu-ray, is féidir leat an seinnteoir a oibriú le cianrialtán na teilihíse.

3.8

## Seinnteoir DVD

Úsáid an HDMI cábla chun an seinnteoir DVD a nascadh leis an teilihís.

Mar rogha air sin, is féidir leat cábla SCART a úsáid mura bhfuil aon nasc HDMI ag an ngléas.



Má tá an seinnteoir DVD nasctha le HDMI agus má tá EasyLink CEC aige, is féidir leat an seinnteoir a oibriú le cianrialtán na teilihíse.

3.9

## Consól cluichí

## HDMI

Nasc an consól cluiche leis an teilihís le cábla HDMI ardluais chun an caighdeán is fearr a fháil

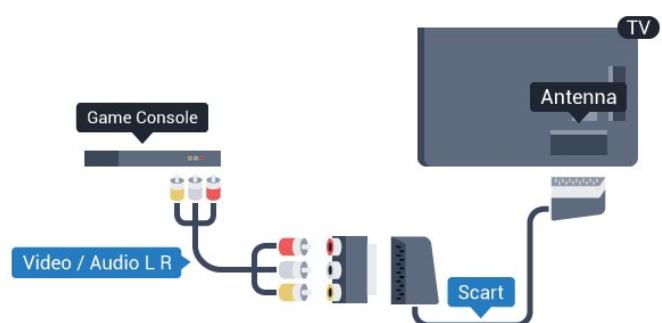


## Clé/Deas / Scart Fuamh-Físe

Nasc an consól cluiche le cábla ilchodach (CVBS) agus le cábla fuamh Deas/Clé leis an teilihís.

Mura bhfuil ach aschur Físeán (CVBS) agus Fuamh Clé/Deas ag do chonsól cluiche, úsáid cuibheoir Clé/Deas go Scart Fuamh Físeán chun nascadh leis an nasc SCART.

Tabhair faoi deara: ní chuirtear an Cuibheoir CVBS go Scart ar fáil leis an teilihís.



3.10

## Diosca Crua USB

### Na rudaí a bheidh ag teastáil uit

Má nascann tú Diosca Crua USB, is féidir leat craoladh teilihíse a chur ar sos nó a thaifeadadh. Ní mór don chraoladh teilihíse a bheith ina chraoladh digiteach (craoladh DVB nó a mhacasmhail).

#### Craoladh a chur ar sos

Chun craoladh a chur ar sos, teastaíonn Diosca Crua uit atá comhoiriúnach le USB 2.0 agus a bhfuil ar a laghad 32GB spás air.

## Craoladh a thaifeadadh

Chun craoladh a chur ar sos agus a thaifeadadh, teastaíonn ar a laghad 250GB spáis ar dhiosca.



### Eolaire teilifíse

Sula ndéanfaidh tú an cinneadh Diosca Crua USB a cheannach chun taifeadtaí a dhéanamh, seiceáil an féidir cainéil teilifíse digití a thaifeadadh i do thír.

Brúigh  **TV GUIDE** ar an gctianrialtán. Má tá cnaipe Taifead ar leathanach treorach na teilifíse, is féidir leat taifeadadh.

## Suiteáil

Sular féidir leat craoladh a chur ar sos nó a thaifeadadh, ní mór duit Diosca Crua USB a nascadh agus a fhormáidiú.

1. Nasc an Diosca Crua USB le ceann de na naisc **USB** ar an teilifís. Ná nasc gléas USB eile leis na poirt USB eile nuair atá tú i mbun formáidithe.



2. Cas air an Diosca Crua USB agus an teilifís.

3. Nuair atá an teilifís tiúnálte le Cainéil teilifíse digití, brúigh  (Cuir ar Sos). Má dhéanann tú iarracht é a chur ar sos, tosóidh an formáidiú.

Lean na treoracha ar an scáileán.

Nuair a bheidh an Diosca Crua USB formáidithe, fág naschta go buan é.

### Rabhadh:

Tá an Diosca Crua USB formáidithe go heisiach don teilifís seo agus ní féidir leat na taifeadtaí stóráilte a úsáid ar theilifíss ná ar ríomhaire eile. Ná cóipeáil agus ná hathraigh comhaid taifeadtaí ar an Diosca Crua USB le haon fheidhmchlár ríomhaireachta. Truailleoidh sé sin do thaifeadtaí. Nuair a fhormáidíonn tú Diosca Crua USB eile, caillfear an méid a bhí ar an gceann roimhe sin. Beidh athfhormáidiú ag teastáil ó Dhiosca Crua USB atá suiteáilte ar do theilifís le haghaidh a úsáide le ríomhaire.

3.11

## Méarchlár nó luch USB

### Méarchlár USB

Nasc méarchlár USB (den chineál USB-HID) chun téacs a chur isteach ar do theilifíss.

Is féidir leat méarchlár agus luch a nascadh leis an teilifís. Úsáid ceann de na naisc **USB** chun nascadh.



### Suiteáil an méarchlár

Cas air an teilifís agus nasc an méarchlár USB le ceann de na naisc **USB** ar an teilifís chun an méarchlár USB a shuiteáil. Nuair a bhraitheann an teilifís an méarchlár den chéad uair, is féidir leat leagan amach do mhéarchláir a roghnú agus do roghna a thástáil. Má roghnaíonn tú leagan amach méarchláir Coireallach nó Gréigise ar dtús, is féidir leat leagan amach méarchláir Laidineach a roghnú mar cheann tanaisteach.

Chun socrú an leagan amach méarchláir a athrú nuair atá leagan amach roghnaithe...

1.  agus roghnaigh **Suiteáil** agus brúigh OK.
2. Roghnaigh **Socruithe teilifíse > Socruithe ginearálta > Socruithe méarchlár USB** agus brúigh **OK**.

### Méaracha chun cainéil a athainmniú

- Eochair lonrála = OK
- Cúlspás = scrios an caracthar roimh an gcursóir
- Méaracha saighde = bogadh laistigh de réimse téacs
- Chun athrú idir leaganacha amach méarchláir sa chás go bhfuil leagan amach tanaisteach socraithe, brúigh na heochracha **Ctrl + Shift** ag an am céanna.

### Méaracha d'Fheidhmchlár Smart TV agus do leathanaigh Idirlín

- Táb agus lomlaoid Táb = Ar Aghaidh agus Siar
- Baile = scrollaigh go dtí barr an leathanaigh
- Deireadh = scrollaigh go dtí bun an leathanaigh
- Leathanach Suas = téigh leathanach amháin suas
- Leathanach Síos = téigh leathanach amháin síos
- + = zúmáil isteach céim amháin
- - = zúmáil amach céim amháin
- \* = cuir in oiriúint don leithead

## Luch USB

### Nasc luch USB

Is féidir leat Luch USB (den chineál USB-HID) a nascadh chun leathanaigh a nascleanúint ar an Idirlín.

Is féidir leat naisc a roghnú agus a chliceáil níos éasca ar leathanach Idirlín.



### Nasc an luch

Cas air an teilihís agus nasc an luch USB le ceann de na naisc **USB** ar teilihís. Is féidir leat an luch USB a nascadh freisin le mearchláir USB nasctha.

#### Cliceanna lucha

- Cléchliceáil = **OK**
- Deaschliceáil = **Siar ↲**

Is féidir leat an roth scrolla a úsáid chun leathanaigh a scrolláil suas agus síos.

### Luas luiche

Is féidir leat luas na luiche, luas na luiche ag bogadh ar an scáileán a athrú.

Chun an luas a athrú. . .

1. Brúigh **Home** agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruthé teilifíse** agus brúigh **OK**.
3. Roghnaigh **Socruthé ginearálta > Socruthé pointeora/luiche** agus brúigh **OK**.
4. Brúigh na saigheada **▲** (suas) nó **▼** (síos) chun an luas a ardú nó a ísliú.
5. Brúigh **OK** chun an socrú a stóráil agus chun dúnadh.
6. Brúigh **⬅**, arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

3.12

## Méaróg USB

Is féidir leat féachaint ar ghrianghraif nó do cheol agus físeán a sheinnt ó mhéaróg USB nasctha.

Cuir isteach méaróg chuimhne USB i gceann de na naisc **USB** ar an teilihís nuair atá an teilihís casta air.



Aimsíonn an teilihís an méaróg USB agus osclaíonn sé liosta a thaispeánann a bhfuil air.

Mura dtaispeántar liosta na n-ábhar go huathoibríoch, brúigh **SOURCE**, roghnaigh **USB** agus brúigh **OK**.

Chun éirí as a bheith ag féachaint ar ábhar ón méaróg chuimhne USB, brúigh **TV EXIT** nó roghnaigh gníomhaíocht eile.

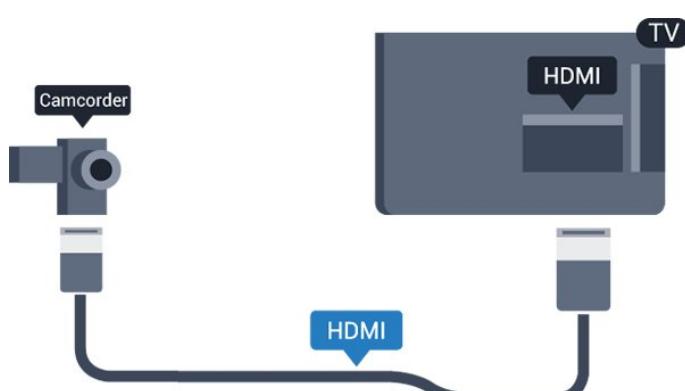
Chun an mhéaróg USB a dínascadh, is féidir leat an mhéaróg USB a tharraingt amach am ar bith.

3.13

## Camthaifeadán

### HDMI

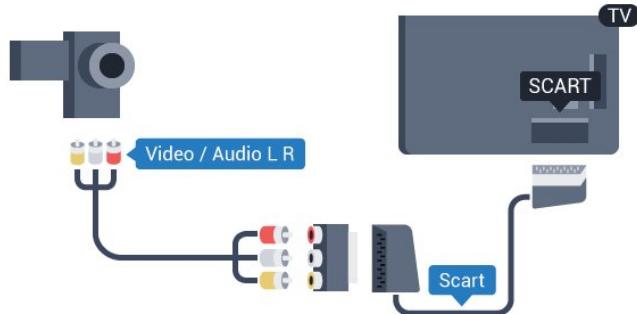
Chun an caighdeán is fearr a fháil, úsáid cábla HDMI chun an camthaifeadán a nascadh leis an teilihís.



## Clé/Deas / Scart Fuáime-Físe

Is féidir leat nasc HDMI, YPbPr nó SCART a úsáid chun do chamthaifeadán a nascadh. Mura bhfuil ach aschur Fís (CVBS) agus Fuaim Clé/Deas ag do chamthaifeadán, úsáid cuibheoir Físe Fuáime Clé/Deas go SCART chun nascadh leis an nasc SCART.

Tabhair faoi deara: ní chuirtear an Cuibheoir CVBS go Scart ar fáil leis an teilihí.



3.14

## Ríomhaire

### Nasc

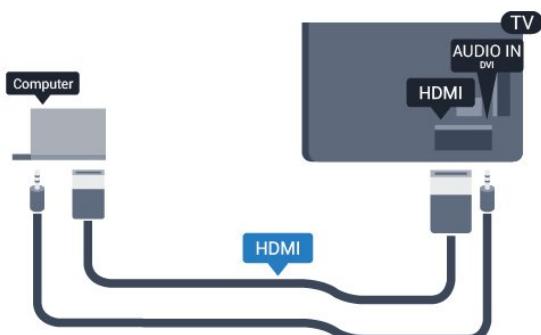
Is féidir leat do ríomhaire a nascadh leis an teilihí agus an teilihí a úsáid mar mhonatóir ríomhaire.

#### Le HDMI

Úsáid cábla HDMI chun an ríomhaire a nascadh leis an teilihí.

#### DVI go HDMI

Mar rogha air sin, is féidir leat cuibheoir DVI go HDMI a úsáid chun an ríomhaire a nascadh le HDMI agus cábla fuáime Clé/Deas (mion-seac 3.5mm) le AUDIO IN - L/R ar chúl na teilihí.



## Socruthe

### An socrú is fearr don mhonatóir

Má chuirtear do ríomhaire isteach sa roghchlár Foinse (liosta nasc) mar ghlás den chineál Ríomhaire, socraítear an teilihí don socrú is fearr Ríomhaire go huathoibríoch.

Má úsáideann tú do ríomhaire chun féachaint ar scannán nó cluichí a imirt, b'fhéidir go mbeidh uait socrú na teilihíse a athrú ar ais go dtí an socrú is fearr chun féachaint ar chláir teilihíse nó cluichíochta.

Chun an teilihí a athrú go dtí an socrú is fearr de láimh...

1.  agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruthe teilihíse > Pictíúr > Ardsocruthe > Cluiche nó ríomhaire** agus brúigh **OK**.
3. Roghnaigh **Cluiche** (do chluichíocht) nó roghnaigh **Ríomhaire** (chun féachaint ar scannán) agus **OK**.
4. Brúigh , arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

Ná déan dearmad an socrú Cluiche nó ríomhaire a chur ar ais go **Ríomhaire** nuair a éiríonn tú as imirt an chluiche.

3.15

## Cluasán

Is féidir leat cluasán a nascadh leis an nasc ar an teilihí. Mion-seac 3.5mm an nasc. Is féidir leat airde fuáime na gcluasán a athrú leo féin.

Chun an airde fuáime a athrú...

1.  agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruthe teilihíse > Fuaim > Airde fuáime cluasán** agus brúigh **OK**.
3. Brúigh (suas) nó (síos) chun an airde fuáime a athrú.
4. Brúigh , arís agus arís eile, más gá, chun an roghchlár a dhúnadh.



# Cas air

4.1

## Air nó Fuireachas

Bí cinnte gur phlugáil tú isteach an príomhsheolán cumhactha ar chúl na teilihise sula gcasfaidh tú air an teilihís.

Má tá an solas táscaire dearg casta as, brúigh an cnaipe cumhactha ar thaobh na teilihise chun an teilihís a chur ar fuireachas - lasfaidh an táscaire dearg.



Nuair atá an teilihís ar fuireachas, brúigh  ar an grianrialtán chun an teilihís a chasadadh air.



### Athraigh go dtí fuireachas

Chun an teilihís a athrú go dtí fuireachas, brúigh  ar an grianrialtán.

### Cas as

Brúigh an cnaipe cumhactha ar thaobh na teilihise chun an teilihís a chasadadh as. Tá an solas táscaire dearg casta as. Tá an teilihís nasctha leis an gcumhacht príomhlíonra i gcónaí ach ní ídionn sé mórán fuinnimh.

Bain amach an pluga cumhactha chun an teilihís a chasadadh as ar fad.

Nuair a dínaoscann tú an pluga cumhactha, tarraing an pluga cumhactha i gcónaí, ná tarraing an seolán. Bí cinnte go bhfuil rochtain ionlán agat ar an bpluga cumhactha, ar an seolán cumhactha agus ar an soicéad asraoin i gcónaí.

# Cianrialtán

5.1

## Forbhreathnú ar na heochracha

### Barr



#### 1. ⚡ Fuireachas / Air

Chun an teilihí a chasadadh Air nó ar ais go Fuireachas.

#### Eochracha 2. athsheanma

- Brúigh ▶, chun athsheimh.
- Cuir ar sos II, chun athsheinnt a chur ar sos
- Brúigh ■, chun athsheinnt a stopadh
- Brúigh ◀◀, chun athochras.
- Brúigh ▶▶, chun mearchasadh
- Brúigh ●, chun taifeadadhanois

#### 3. 📅 TV GUIDE

Chun an t-eolaire teilihí a oscailt nó a dhúnadh.

#### 4. ⚙️ SETUP

Chun an roghchlár Socruithe a oscailt.

#### 5. 📄 FORMÁIDIGH

Chun an roghchlár Formáid pictiúir a oscailt nó a dhúnadh.

### Lár



#### 1. ➡️ SOURCES

Chun an roghchlár Foinsí a oscailt nó a dhúnadh - liosta na ngléasanna nasctha.

#### 2. Eochracha dathanna

Leanann feidhm na gcnaipí na treoracha ar an scáileán.

#### 3. ⓘ INFO

Chun eolas cláir a oscailt nó a dhúnadh.

#### 4. ⏪ BACK

Chun athrú ar ais go dtí an cainéal a roghnaigh tú roimhe sin.  
Chun roghchlár a dhúnadh gan socrú a athrú.

#### 5. 🏠 HOME

Chun an roghchlár Baile a oscailt nó a dhúnadh.

#### 6. 📺 EXIT

Chun athrú ar ais d'fhéachaint ar an teilihí.

#### 7. ⚙️ OPTIONS

Chun an roghchlár Roghanna a oscailt nó a dhúnadh.

#### 8. Eochair OK

Chun rogha nó socrú a dhearbhú.

#### 9. Eochracha saighde/ nascleanúna

Chun dul suas, síos, ar chlé nó ar dheas.

#### 10. 🔍 LIST

Chun liosta na gcainéal a oscailt nó a dhúnadh.

### Bun



#### 1. 🔍 Airde Fuaimé

Chun airde na fuaimé a athrú.

#### 2. Eochracha uimhreacha agus eochaircheap téacs

Chun cainéal teilihí a roghnú go díreach nó chun téacs a chur isteach.

#### 3. SUBTITLE

Chun foitheilid a chasadadh air, as nó Uathoibríoch.

#### 4. 📖 Cainéal

Chun athrú go dtí an chéad chainéal eile nó an cainéal roimhe sin, chun an chéad leathanach eile nó an leathanach roimhe sin in Téacs a oscailt nó chun an chéad chaibidil eile nó an chaibidil roimhe sin ar dhiosca a thosú.

#### 5. 🔊 Balbhaigh

Chun an fhuaim a chasadadh as, nó chun í a chasadadh air arís.

#### 6. TEXT

Chun Téacs/Teilihéacs a oscailt nó a dhúnadh.

---

5.2

## Braiteoir IR

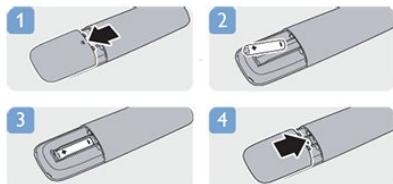
Tá an teilifís in ann glacadh freisin le horduithe ó chianrialtán a úsáideann IR (infridhearg) chun orduithe a sheoladh. Má úsáideann tú a leithéid de chianrialtán, bí cinnte i gcónaí go bpointeálann tú an cianrialtán i dtreo braiteoir infridhearg an chianrialtáin ar aghaidh na teilifíse.

---

5.3

## Ceallraí

1. Sreamhnaigh doras na gceallraí sa treo a léiríonn an tsaghead.
2. Athsholáthar na seancheallraí le 2 cheallra den chineál **AAA-LR03-1.5V**. Bí cinnte go luifidh na deirí + agus - de na ceallraí isteach i gceart.
3. Cuir doras na gceallraí ar ais.
4. Sreamhnaigh siar é go dtí go gliceáilann sé.



Bain amach na ceallraí mura mbeidh siad in úsáid agat ar feadh tréimhse fada.

Faigh réidh le do sheancheallraí de réir na dtreoracha a thugtar maidir le deireadh úsáide.

---

5.4

## Glanadh

Tá bratú scrabhadh-fhriotaíoch ar do chianrialtán.

Chun an cianrialtán a glanadh, úsáid ceirt bhog thais. Ná húsáid substaintí cosúil le halcól, ceimicigh ná glantóirí thíos an cianrialtán.

# Cainéil teilifíse

6.1

## Ag breathnú ar chainéil teilifíse

### Cainéil a athrú

Chun féachaint ar chainéil teilifíse, brúigh . Tiúinfidh an teilifís go dtí an cainéil teilifíse ar fhéach tú go deireanach air.

Mar rogha air sin, brúigh chun an roghchlár Baile a oscailt agus roghnaigh **Teilifís** agus brúigh **OK**.



Chun cainéil a athrú, brúigh + or -. Má tá uimhir an chainéil ar eolas agat, clóschríobh an uimhir leis na heochracha uimhreacha.

**Brúigh OK** tar éis duit an uimhir a chur isteach chun an cainéil a athrú.

Chun athrú ar ais go dtí an cainéil a bhí tiúinált cheana féin, brúigh .

### Chun athrú go cainéil ó liosta cainéil

Agus tú ag féachaint ar chainéil teilifíse, brúigh LIST chun na liostaí cainéil a oscailt.



D'fhéadfadh roinnt leathanach cainéil a bheith sa liosta cainéil. Chun féachaint ar an gcéad leathanach eile nó ar an leathanach roimhe sin, brúigh + nó -.

Chun na liostaí cainéil a dhúnadh gan an cainéil a athrú, brúigh arís.

### Cainéil raidió

Má tá craoladh digiteach ar fáil, suiteáltar stáisiún raidió dhigiteacha i rith na suiteála. Athraigh go cainéil raidió díreach mar a athraíonn tú go cainéil teilifíse.

## Liosta cainéil

### Féach ar an liosta cainéil ina iomlán

1. Agus tú ag féachaint ar chainéil teilifíse, brúigh LIST chun an liosta cainéil a oscailt.
2. Brúigh OPTIONS chun an roghchlár Roghanna oscailt.
3. Roghnaigh **Liosta**, ansin roghnaigh **Gach Ceann, Ceanáin, Raidió**, agus **Cainéil nua**.

### Cainéil ceanán

Is féidir leat liosta cainéil ceanán a chruthú nach bhfuil ann ach na cainéil a bhfuil tú ag iarráidh féachaint orthu. Nuair atá an liosta cainéil Ceanán roghnaithe agat, ní fheicfidh tú ach na cainéil ceanán nuair a ghluaiseann tú trí na cainéil.

### Cruthaigh do liosta cainéil ceanán

1. Agus tú ag féachaint ar chainéil teilifíse, brúigh LIST chun an liosta cainéil a oscailt.
2. Roghnaigh an cainéil atá le marcáil mar cheanán agus brúigh OPTIONS.
3. Roghnaigh **Cuir le ceanán** agus brúigh **OK**. Marcálfar an cainéil atá roghnaithe le .
4. Brúigh chun críochnú. Cuirtear na cainéil le liosta na gCeanán.
5. Chun cainéil a bhaint as liosta na gCeanán, roghnaigh an cainéil le , ansin brúigh OPTIONS, roghnaigh **Bain Ceanán as** agus brúigh **OK**.

### Athordáigh

Is féidir leat cainéil a athordú — a suíomh a athrú — i liosta na gCeanán.

1. I liosta na gCeanán, roghnaigh an cainéil a bhfuil uait a shuíomh a bhogadh.
2. Brúigh OPTIONS.
3. Roghnaigh **Athordáigh** agus brúigh **OK**.
4. Roghnaigh an cainéil a bhfuil uait é a athordú agus brúigh **OK**.
5. Brúigh na **cnaipí Nascleanúna** chun an cainéil atá piochta agat go dtí suíomh eile agus brúigh **OK**.
6. Brúigh OPTIONS nuair atá tú réidh.
7. Roghnaigh **Fág athordagh** agus brúigh **OK**.

Is féidir leat cainéil eile a roghnú agus an rud céanna a dhéanamh.

### Cuir ceanán leis an liosta nó bain as iad i liostaí cainéil eile

Is féidir leat cainéil agus stáisiún raidió a mharcáil mar cheanán ó na liostaí cainéil **Gach Ceann, Raidió** agus **Nua**. Sna liostaí seo, roghnaigh cainéil a bhfuil uait é a chur leis an liosta ceanán agus brúigh OPTIONS. Roghnaigh **Cuir le ceanán** agus brúigh **OK**.

Marcálfar an cainéil roghnaithe le .

Chun cainéil a bhaint ó liosta na gCeanán, roghnaigh **Bain ceanán as** agus brúigh **OK**.

## Cainéil a athainmniú

Is féidir leat cainéil a athainmniú i liosta na gcainéil.

1. Roghnaigh an cainéal a bhfuil uait é a athainmniú i gceann de na liostai cainéal.
2. Brúigh  **OPTIONS**.
3. Roghnaigh **Athainmnigh** agus brúigh **OK**.

## Cainéal a ghlasáil

Chun cosc a chur ar leanaí ó bheith ag féachaint ar chainéal nó ar chlár, is féidir leat cainéil a ghlasáil nó cláir a bhfuil rátáil aoise orthu a ghlasáil.

## Cainéal a ghlasáil

Is féidir leat cainéil a ghlasáil chun cosc a chur ar leanaí féachaint air. Ní mór duit an Cód glais leanaí a chur isteach chun féachaint ar chainéal atá glasálte. Ní féidir cláir a ghlasáil ó ghléasanna naschta.

Chun cainéil a ghlasáil . . .

1. Agus tú ag féachaint ar chainéal teilihise, brúigh  **LIST** chun an **Liosta cainéal** a oscailt.
2. In aon cheann de na liostaí, roghnaigh an cainéal a bhfuil uait é a ghlasáil.
3. Brúigh  **OPTIONS** agus roghnaigh **Glasáil cainéal**. I liosta cainéal, marcáltar cainéal glasálte le glas .

Chun cainéil a díghlasáil, roghnaigh an cainéal atá glasálte sa liosta cainéal, brúigh  **OPTIONS**, agus roghnaigh **Díghlasáil cainéal**. Beidh ort an Cód glais leanaí a chur isteach.

## Rátáil tuismitheoirí

Is féidir leat rátáil aoise a úsaíd chun leanaí a stopadh ó bheith ag féachaint ar chlár nach bhfuil feiliúnach dá n-aos.

Tá rátáil aoise déanta ag roinnt craoltóirí ar a gcuideán. Nuair atá rátáil aoise cláir cothrom le nó níos airde ná an aos atá socraithe agat mar rátáil aoise do do leanbh, glasálfar an clár. Chun féachaint ar chlár atá glasálte, ní mór duit an Cód glais leanaí a chur isteach. Tá an rátáil aoise tuismitheoirí socraithe do gach cainéal.

Chun rátáil aoise a shocrú . . .

1. Brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruithe cainéis > Glas leanaí > Rátáil tuismitheora** agus brúigh **OK**.
3. Cuir isteach Cód glais leanaí le 4 digit agus dearbhaigh. Is féidir leat rátáil aoise a shocrú anois.
4. Socraigh an aos agus brúigh **OK**.
5. Brúigh , arís agus arís eile, más gá, chun an roghchlár a dhúnadh.
6. Chun rátáil aoise tuismitheora a chasadh as, roghnaigh **Gan aon aos** mar shocrú aoise.

Iarrfaidh an teilihise ort an Cód a sholáthar chun an clár a dhíghlasáil. I gcás roinnt craoltóirí / oibreoirí, ní chuireann an teilihise glas ach ar chlár a bhfuil rátáil níos airde orthu.

## Chun an Cód glais a shocrú nó a athrú

Chun an Cód glais a shocrú nó chun an Cód reatha a athrú . . .

1. Brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruithe cainéal > Glas leanaí > Athraigh Cód** agus brúigh **OK**.
3. Má tá an Cód socraithe cheana féin, cuir isteach an Cód glais leanaí atá ann faoi láthair agus ansin cuir isteach an Cód nua faoi dhó.

Tá an Cód nua socraithe.

## An bhfuil do chóid dearmadtha agat?

Chun an Cód glais leanaí a shárú má tá sé dearmadtha agat agus ceann nua a chur isteach, cuir isteach **8888**.

## Formáid pictiúir

Má tá barraí dubha le feiceáil ag barr agus ag bun an phictiúir nó ar gach taobh de, is féidir leat an fhormáid pictiúir a choigeartú go formáid pictiúir a lónann an scáileán.

Chun an fhormáid pictiúir a athrú . . .

1. Agus tú ag féachaint ar chainéal teilihise, brúigh  chun an roghchlár **Formáid pictiúir** a oscailt.
2. Roghnaigh formáid ón liosta agus brúigh **OK**.

Tá an fhormáid seo a leanas in ann a bheith ar fáil ag brath ar an bpictiúir ar an scáileán . . .

### - Uathoibríoch

Athraigh an fhormáid pictiúir de réir na foinse ionchuir.

### - Ollzúmáil

Baineann sé na barraí dubha as ar thaobhanna craolataí 4:3. Déantar coigeartú ar an bpictiúir chun an scáileán a lónadh.

### - Fairsingiú scannán 16:9

Scála formáid 4:3 go 16:9. Ní mholtar do HD nó do PC é.

### - Scáileán leathan

Síneann sé an pictiúir go formáid 16:9.

### - Neamhscálaíthe

Mód sainiúil d'ionchur HD nó ríomhaire. Taispeáint picteilín ar phictiúir. D'fhéadfadh barraí dubha a bheith le feiceáil i gcás pictiúir ó ríomhaire.

### - 4:3

Taispeáin an leagan amach caighdeánach 4:3.

## Téacs / Teilihéacs

### Leathanaigh téacs

Chun Téacs (Teilihéacs) a oscailt agus tú ag féachaint ar chainéil teilihise, brúigh **TEXT**.

Chun téacs a dhúnadh, brúigh **TEXT** arís.



## Roghnaigh leathanach téacs

Chun leathanach a roghnú...

1. Cuir isteach uimhir an leathanacha leis na heochracha uimhreacha.
2. Úsáid na heochracha saighde chun nascleanúint.
3. Brúigh eochair datha chun ábhar atá dathchódaithe a roghnú ag bun an scáileáin.

## Foleathanaigh téacs

Tá roinnt foleathanach in ann a bheith ag leathanach téacs. Taispeántar uimhreacha na bhfoleathanach ar bharra in aice le huimhir an phríomhleathanacha. Chun foleathanach a roghnú, brúigh ▲ nó ▶.

## Leathanáigh téacs T.O.P.

Tairgeann roinnt craoltóirí Téacs T.O.P. Chun leathanáigh Téacs T.O.P. a oscailt laistigh de Théacs, brúigh **≡ OPTIONS** agus roghnaigh **Forbhreathnú ar T.O.P.**

## Leathanáigh ceanán

Déanann an teilifís liosta den 10 leathanach Téacs deireanacha a d'oscail tú. Is féidir leat iad a athoscailt sa cholún Leathanáigh Téacs Ceanán:

1. In Téacs, roghnaigh an réalta ar bharr an scáileáin ar thaobh na láimhe clé chun colún na leathanach ceanán a thaispeáint.
2. Brúigh ▼ (síos) nó ▲ (suas) chun uimhir leathanáigh a roghnú agus brúigh **OK** chun an leathanach a oscailt.

Is féidir leat an liosta a ghlacadh leis an rogha **Glan leathanáigh ceanán**.

## Téacs a chuardach

Is féidir leat focal a roghnú agus Téacs a scanadh le haghaidh gach ásc den fhocal sin.

1. Oscail leathanach Téacs agus brúigh **OK**.
2. Roghnaigh focal nó uimhir leis na méaracha saighde.
3. Brúigh **OK** arís chun dul díreach go dtí an chéad ásc eile den fhocal nód den uimhir sin.
4. Brúigh **OK** arís chun dul go dtí an chéad ásc eile.
5. Chun an cuardach a stopadh, brúigh ▲ (suas) go dtí nach bhfuil aon rud roghnaithe.

## Téacs ó ghléas nasctha

Tá roinnt gléasanna a fhraigheann cainéil teilifise in ann Téacs a thairgeadh freisin.

Chun Téacs a oscailt ó ghléas nasctha ...

1. Brúigh **Home**, roghnaigh an gléas agus brúigh **OK**.
2. Agus tú ag féachaint ar chainéal ar an ngléas,

brúigh **≡ OPTIONS**, roghnaigh **Taispeán eochracha an ghléis** agus roghnaigh an eochair **OK** agus brúigh **OK**.

3. Brúigh **OK** chun na heochracha gléis a chur i bhfolach.
4. Chun Téacs a dhúnadh, brúigh **OK** arís.

## Téacs (Ríocht Aontaithe amháin)

Tairgeann roinnt craoltóirí teilifise digití Téacs Digiteach nó teilifís idirghníomhach ar a gcainéil dhigiteacha teilifise. Áirítear leis seo gnáth-Théacs a úsáidtear leis na heochracha uimhreacha, dathanna agus nascleanúna chun roghanna a dhéanamh agus chun bogadh.

Chun Téacs Digiteach a dhúnadh, brúigh **OK**.

## Roghanna téacs

In Téacs, brúigh **≡ OPTIONS** chun na rudaí seo a leanas a roghnú ...

### - Reoigh leathanach / Díreoirigh leathanach

Chun rothlú uathoibríoch fo-leathanach a stopadh.

### - Déscáileán / Scáileán iomlán

Chun an cainéal teilifise agus Téacs a thaispeáint in aice a chéile.

### - Forbhreathnú T.O.P.

Chun Téacs T.O.P. a oscailt.

### - Méadaigh / Gnáthamharc

Chun an leathanach Téacs a mhéadú le go mbeidh sé éasca é a léamh.

### - Nochtaigh

Chun eolas atá i bhfolach ar an leathanach a thaispeáint.

### - Timthriall fo-leathanáigh

Chun fo-leathanáigh a thimthriall nuair atá siad ar fáil.

### - Teanga

Chun an grúpa caractar a mbaineann Téacs úsáid astu chun taispeáint i gceart a athrú.

### - Téacs 2.5

Chun Téacs 2.5 a ghníomhachtú le haghaidh tuilleadh dathanna agus grafaicí níos fearr.

## Téacs a shuiteáil

### Teanga théacs

Bíonn roinnt teangacha Téacs ar fáil ag roinnt craoltóirí teilifise digití.

Chun an phríomhtheanga agus an teanga thánaisteach Téacs a shocru ...

1. Brúigh **Home** agus roghnaigh **Suiteáil** agus brúigh **OK**.

2. Roghnaigh **Socruthe cainéal > Teangacha**.

3. Roghnaigh **Teilihéacs Priomhúil** nó **Teilihéacs Tánaisteach**.

4. Roghnaigh na teangacha Téacs is fearr leat.

5. Brúigh **OK**, arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

## Téacs 2.5

Má tá sé ar fáil, tairgeann Text 2.5 níos mó dathanna agus grafaicí níos fearr. Gníomhachtaítear Text 2.5 mar shocrú caighdeánach monarchan.

Chun Téacs 2.5 a chasadadh as . . .

1. Brúigh **TEXT**.
2. Agus tú ag féachaint ar theilithéacs, brúigh **≡ OPTIONS**.
3. Roghnaigh **Téacs 2.5 > As**.
4. Brúigh **⬅** arís agus arís eile más gá, chun an roghchlár a dhúnadh.

---

## Fotheidil agus teangacha

---

### Fotheidil

#### Cas fotheidil air

Chun an roghchlár Fotheideal a chasadadh air, brúigh **SUBTITLE**. Is féidir leat fotheidil a athrú go **Fotheidil As, Fotheidil air, nó Uathoibríoch**.

Chun fotheidil a thaispeáint nuair nach bhfuil an clár atá á chraoladh i do theanga — an teanga a shocraigh tú don teilifís, roghnaigh **Uathoibríoch**. Taispeánann an socrú seo fotheidil freisin nuair a chasann tú as an fhuaim le **🔊**.

I gcás cainéal analógach, ní mór fotheidil a chur ar fáil in **Téacs**.



#### Fotheidil do chainéis dhigiteacha

Ní gá fotheidil a shocrú do chainéis dhigiteacha sa roghchlár Téacs.

Is féidir le cainéis dhigiteacha roinnt teangacha fotheideal a thairiscint do chlár. Is féidir leat príomhtheanga fotheideal agus teanga thánaisteach a shocrú d'fhotheidil. Má tá fotheidil ar fáil i gceann de na teangacha sin, taispeánfaidh an teilifís iad.

Mura bhfuil aon cheann de na teangacha fotheideal is fearr leat ar fáil, is féidir leat teanga fotheideal eile atá ar fáil a roghnú.

Chun an príomhtheanga fotheideal agus an teanga thánaisteach fotheideal a shocrú . . .

1. Brúigh **🏡** agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruithe cainéal** agus roghnaigh **Teangacha**.
3. Roghnaigh **Teanga fotheideal phríomhúil** nó **Teanga fotheideal thánaisteach** agus brúigh **OK**.
4. Roghnaigh teanga agus brúigh **OK**.
5. Brúigh **⬅**, arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

Chun teanga fotheideal a roghnú nuair nach bhfuil aon cheann de na teangacha is fearr leat ar fáil . . .

1. Brúigh **≡ OPTIONS**.

2. Roghnaigh **Teanga fotheideal** agus roghnaigh an teanga atá uait ar bhonn sealadach agus brúigh **OK**.

### Fotheidil do chainéis analógach

I gcás cainéal analógach, ní mór duit fotheidil a chur ar fáil do gach cainéal de láimh.

1. Athraigh go dtí cainéal agus brúigh **TEXT** chun Téacs a oscailt.
2. Cuir isteach uimhir an leathanaigh a bhfuil na fotheidil orthu, **888** go hiondúil.
3. Brúigh **TEXT** arís chun Téacs a dhúnadh.

Má roghnaíonn tú Air i roghchlár na bhFotheideal nuair atá tú ag féachaint ar chainéal analógach, taispeánfar fotheidil má tá siad ar fáil.

Chun fáil amach an cainéal analógach nó digiteach atá ann, athraigh go dtí an cainéal agus oscail **Stádas** sa roghchlár **Roghanna**.

---

### Teangacha fuaimé

Is féidir le cainéis dhigiteacha teilifise fuaim a chraoladh i gcás roinnt teangacha labhartha do chlár. Is féidir leat an phríomhtheanga fuaimé agus an teanga thánaisteach fuaimé is fearr leat a shocrú. Má tá fuaim ar fáil i gceann de na teangacha sin, athróidh an teilifís go dtí an fhuaim sin.

Mura bhfuil aon cheann de na teangacha fuaimé is fearr leat ar fáil, is féidir leat teanga fuaimé eile atá ar fáil a roghnú.

Chun an phríomhtheanga fuaimé agus an teanga thánaisteach fuaimé a shocrú . . .

1. Brúigh **🏡** agus roghnaigh **Suiteáil** agus brúigh **OK**.

2. Roghnaigh **Socruithe cainéal** agus roghnaigh **Teangacha**.

3. Roghnaigh **Príomhtheanga fuaimé** nó **Teanga thánaisteach fuaimé** agus brúigh **OK**.

4. Roghnaigh teanga agus brúigh **OK**.

5. Brúigh **⬅**, arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

Chun teanga fuaimé a roghnú nuair nach bhfuil aon cheann de na teangacha fuaimé is fearr leat ar fáil . . .

1. Brúigh **≡ OPTIONS**.

2. Roghnaigh **Teanga fuaimé** agus roghnaigh an teanga fuaimé atá uait ar bhonn sealadach agus brúigh **OK**.

### Teangacha fuaimé dóibh siúd a bhfuil lagú éisteachta nó amhairc orthu

Craolann roinnt cainéal teilifise digití fuaim speisialta agus fotheidil atá curtha in oiriúint dóibh siúd a bhfuil lagú éisteachta nó amhairc orthu.

---

### Teanga roghchlár

Chun teanga roghchlár agus teachtaireachtaí na teilifise a athrú . . .

1. Brúigh agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruthe teilifíse > Socruthe ginearálta > Teanga roghchláir** agus brúigh **OK**.
3. Roghnaigh an teanga atá uait agus brúigh **OK**.
4. Brúigh arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

6.2

## Suiteáil cainéil

### Cainéil a nuashonrú

#### Nuashonrú uathoibríoch

Má fhraigheann tú cainéil dhigiteacha, is féidir leat an teilihí a shocrú chun an liosta a nuashonrú leis na cainéil nua. Mar rogha air sin, is féidir leat nuashonrú cainéal a thosú tú féin.

#### Nuashonrú cainéal uathoibríoch

Déanann an teilihí nuashonrú ar na cainéil uair amháin sa lá ag a 6 r.n. agus stóráilann sé cainéil nua. Stóráltear cainéil nua sa liosta Gach Cainéal ach sa liosta Cainéil Nua freisin. Baintear as cainéil atá folamh.

Má aimsítear cainéil nua nó má dhéantar nuashonrú ar chainéil nó má bhaintear as iad, taispeánfar teachtaireacht nuair a chasfar air an teilihí. Ní mór don teilihí a bheith ar fuireachas chun cainéil a nuashonrú go huathoibríoch.

Chun an teachtaireacht ag an túis a chasadh as . . .

1. Brúigh agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruthe cainéil** agus brúigh **OK**.
3. Roghnaigh **Suiteáil cainéal > Teachtaireacht nuashonraithe cainéal > As**.

Chun an nuashonrú cainéal uathoibríoch a chasadh as

1. Brúigh agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruthe cainéil** agus brúigh **OK**.
3. Roghnaigh **Suiteáil cainéal > Teachtaireacht nuashonraithe cainéal > As**.

#### Cuir túis le nuashonrú

Chun nuashonrú a thosú tú féin . . .

1. Brúigh agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Cuardaigh cainéil** agus brúigh **OK**.
3. Roghnaigh **Nuashonraigh cainéil** agus lean na treoracha ar an scáileán. D'fhéadfadh an nuashonrú roinnt nóiméad a thógáil.

Déantar an Nuashonrú cainéal uathoibríoch i roinnt tíortha nuair atáthar ag féachaint ar an teilihí nó uair ar bith nuair atá an teilihí ar fuireachas.

#### Cainéil nua

Bíonn sé éasca na cainéil nua a cuireadh leis an liosta le nuashonrú cainéal uathoibríoch a aimsiú sa liosta cainéal **Nua**.

Stóráltear na cainéil chéanna freisin sa liosta cainéal nua **Gach cainéil** nó **Raidió**.

Coinnítear cainéil nua sa liosta cainéal **Nua** ar an gcoinníoll nach marcálann tú mar cheanán iad nó nach dtiúnnann tú iad.

## Athshuiteáil cainéal

Is féidir leat cuardach a dhéanamh do chainéil agus iad a athshuiteáil agus gach Socrú teilihí eile a fhágáil díreach mar a bhí. Mar rogha air sin, is féidir leat suiteáil iomlán nua teilihí a dhéanamh.

Má tá cód glais leanaí socraithe, beidh ort an cód seo a chur isteach sular féidir leat cainéil a athshuiteáil.

#### Athshuiteáil cainéal

Chun na cainéil a athshuiteáil leo féin . . .

1. Brúigh agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Déan cuardach do chainéil > Athshuiteáil cainéal** agus brúigh **OK**.
3. Roghnaigh an thír ina bhfuil an teilihí á suiteáil.
4. Roghnaigh **Aeróg (DVB-T)** nó **Cábla (DVB-C)**. D'fhéadfadh an cuardach cainéal roinnt nóiméad a thógáil. Lean na treoracha ar an scáileán.

#### Suiteáil iomlán

Chun suiteáil iomlán teilihí a dhéanamh arís . . .

1. Brúigh agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruthe teilihí > Socruthe ginearálta > Athshuiteáil teilihí** agus brúigh **OK**. D'fhéadfadh an tsuiteáil roinnt nóiméad a thógáil. Lean na treoracha ar an scáileán.

#### Socruthe monarchan

Socraíonn Socruthe monarchan an teilihí ar ais go dtí na socruthe teilihí bunaidh do phictiúr agus fuaim. Chun athrú ar ais go dtí na Socruthe monarchan bunaidh . . .

1. Brúigh agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruthe teilihí > Socruthe ginearálta > Socruthe monarchan** agus brúigh **OK**.
3. Brúigh **OK** chun dearbhú.
4. Brúigh arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

## Cóipeáil liosta cainéal

#### Réamheolas

Is do dhíoltóirí agus do shainúsáideoirí amháin atá Cóipeáil liosta cainéal beartaithe. Níl Cóipeáil liosta cainéal ar fáil i roinnt tíortha ach amháin do chóipeáil cainéal satallte.

Is féidir leat na cainéil atá suiteáilte ar theilihí amháin a chóipeáil go dtí teilihí Philips eile den déanamh céanna le **Cóipeáil liosta cainéal**. Seachnaíonn tú cuardach cainéal fada trí liosta cainéal atá

réamhshainithe a uaslódáil le Cóipeál liosta cainéal. Úsáid mearóg chuimhne USB a bhfuil ar a laghad 1 GB uirthi.

## Coinníollacha

- Is ón raon bliana céanna an dá teilihís.
- Tá an cineál crua-earraí céanna ag an dá teilihís. Féach ar an gcineál crua-earraí ar chlár chineál na teilihise ar chúl na teilihise. Go hiondúil, is Q . . . LA a bhíonn ann
- Tá leaganacha bogearraí ag an dá theilihís atá comhoiriúnach.

## Leagan reatha

Is féidir leat leagan reatha bhogearraí na teilihise a sheiceáil le **Eolas faoi bhogearraí reatha**  > **Setup** > **Socruthe bogearraí**.

---

## Cóipeál liosta cainéal

Chun liosta cainéal a chóipeáil . . .

1. Cas air an teilihís a bhfuil a cainéal suiteáilte aici. Plugáil isteach gléas cuimhne USB.
2. Brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**.
3. Roghnaigh **Socruthe teilihís** > **Socruthe ginearálta** > **Cóipeál liosta cainéal** > **Cóipeál go dtí USB** agus brúigh **OK**.  
Chun an liosta cainéal a chóipeáil ón teilihís seo, d'fhéadfadh sé tarlú go n-iarrfaí ort an Cód glais leanáí na chuir tú isteach i rith na suiteála a chur isteach.
4. Nuair atá an chóipeáil déanta, bain amach pluga an ghléis cuimhne USB.

Is féidir leat an liosta cainéal atá cóipeáilte a uaslódáil anois go dtí teilihís Philips eile.

---

## Uaslódáil liosta cainéal

### Liosta cainéal atá cóipeáilte a uaslódáil

Ag brath ar do theilihís a bheith suiteáilte cheana féin nó gan a bheith suiteáilte, ní mór duit bealach éagsúil a úsáid chun liosta cainéal a uaslódáil.

### Go dtí teilihís nach bhfuil suiteáilte fós

1. Cuir isteach an pluga cumhactha chun an tsuiteáil a thosú agus roghnaigh teanga agus thír. Is féidir leat gabháil thar Déan guardach do chainéil. Críochnaigh an tsuiteáil.
2. Cuir isteach an gléas cuimhne USB a bhfuil liosta cainéal na teilihise eile air.
3. Chun an uaslódáil liosta cainéal a thosú, brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**.
4. Roghnaigh **Socruthe teilihís** > **Socruthe ginearálta** > **Cóipeál liosta cainéal** > **Cóipeál go dtí teilihís** agus brúigh **OK**. D'fhéadfadh sé tarlú go n-iarrfaí ort Cód glais leanáí na teilihise seo a chur isteach.
5. Cuirfidh an teilihís ar an eolas tú má chóipeáiltear an liosta cainéal go dtí an teilihís go rathúil. Bain amach an gléas cuimhne USB.

## Go dtí teilihís atá suiteáilte cheana féin

1. Fíoraigh socrú thíre na teilihise. (Chun an socrú seo a fhíorú, brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**. Roghnaigh **Déan guardach do chainéil** > **Athsuiteáil cainéal** agus brúigh **OK**. Brúigh  agus ina dhiaidh sin **Cealaigh** chun Déan guardach do chainéil a fhágáil.)  
Má tá an thír ceart, téigh ar aghaidh go dtí céim 2.  
Mura bhfuil an thír ceart, ní mór duit athshuiteáil a thosú. Chun an athshuiteáil a thosú, brúigh , brúigh **Suiteáil** agus **OK**.  
Roghnaigh **Socruthe teilihís** > **Socruthe ginearálta** > **Athshuiteáil teilihís** > **OK**. Roghnaigh an thír cheart agus gabh thar Déan guardach do chainéil. Críochnaigh an tsuiteáil. Nuair atá tú réidh, téigh ar aghaidh go céim 2.
2. Cuir isteach an gléas cuimhne USB a bhfuil liosta cainéal na teilihise eile air.
3. Chun an uaslódáil liosta cainéal a thosú, brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**.
4. Roghnaigh **Socruthe teilihís** > **Socruthe ginearálta** > **Cóipeál liosta cainéal** > **Cóipeál go dtí teilihís** agus brúigh **OK**. D'fhéadfadh sé tarlú go n-iarrfaí ort Cód glais leanáí na teilihise seo a chur isteach.
5. Cuirfidh an teilihís ar an eolas tú má chóipeáiltear an liosta cainéal go dtí an teilihís go rathúil. Bain amach an gléas cuimhne USB.

---

## DVB-T nó DVB-C

### Glacacht DVB-T nó DVB-C

Má tá glacacht DVB-T agus DVB-C ar fáil i do thír agus má tá an teilihís seo in ann glacadh le DVB-T agus DVB-C do do thír, tá ceann amháin acu nó an ceann eile roghnaithe agat i rith suiteáil na gcainéal.

Má tá uait an socrú DVB a athrú chun suiteáil nua cainéal a thosú . . .

1. Brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruthe cainéal** agus brúigh **OK**.
3. Roghnaigh **Suiteáil cainéal** > **Nasc aeróige** > **Aeróg (DVB-T)** nó **Cábá (DVB-C)** agus brúigh **OK**.
4. Roghnaigh an socrú DVB atá uait.
5. Brúigh , arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

### Suiteáil cainéal DVB-C

Tá gach socrú DVB-C athraithe go uathoibríoch ar mhaithe le héascafocht.

Más rud é gur thug do sholáthróir DVB-C luachanna sonracha DVB-C duit, ID an líonra nó minicíocht an líonra, cuir na luachanna sin isteach nuair a iarrann an teilihís ort i rith suiteála. D'fhéadfadh sé a bheith riachtanach an scanadh a choigearú (scanadh iomlán nó tapaidh) nó cuir isteach ráta siombailí sonrach sa roghchlár **Socruthe** i rith na suiteála. Chun **ráta Siombailí** a shocrú, athraigh an ráta Siombailí go **De Láimh** ar dtús.

## Coinbhleacht maidir le huimhreacha cainéal

D'fhéadfadh an uimhir cainéis chéanna a bheith ag cainéis teilifise éagsúla (craoltóir) i roinnt tíortha. Taispeánann an teilifís an liosta uimhreacha cainéal a bhfuil coinbhleachtaí ann i rith na suiteála. Ní mór duit an cainéal teilifise a bhfuil uait é a shuiteáil ar uimhir cainéis a bhfuil roinnt cainéis teilifise air a roghnú.

## DVB-T + DVB-C

Más féidir leat ionchur aeróige DVB-T a úsáid ach ionchur DVB-C a úsáid freisin, is féidir leat do theilifís a réiteach do DVB-T agus DVB-C araon. Suiteáil córas amháin i ndiaidh an chórais eile leis na socruite riachtanacha.

Nuair a bheidh an dá chóras suiteáilte, ní mór duit comhartha ionchur na haeróige ar an nasc **Aeróige** ar chúl na na teilifise a athrú agus an teilifís a shocrú sa chóras cuí chun féachaint ar na cainéis atá suiteáilte ar an teilifís.

Chun an socrú DVB-T nó DVB-C a roghnú, féach thusa.

## Socruite DVB

### Rochtain a fháil ar shocruite DVB

1. Brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Cuardaigh cainéal** agus brúigh **OK**.
3. Roghnaigh **Athshuiteáil gach cainéal**.
4. Roghnaigh an thír ina bhfuil an teilifís seo á suiteáil.
5. Roghnaigh **Cábla (DVB-C)**.
6. Roghnaigh **Tosaigh ag guardach cainéal**, nó roghnaigh **Socruite do shocruite DVB-C**.
7. Brúigh , arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

## Modh ráta siombail

Murar thug do sholáthróir **cábla** luach sonrach **ráta siombaile** duit chun na cainéis teilifise a shuiteáil, fág an socrú don **mhód ráta Siombaile** ar Uathoibríoch.

Má fuair tú luach ráta sonrach siombaile, roghnaigh **De Láimh**. Mar sin féin, d'fhéadfadh an luach a fuair tú a bheith i liosta réamhshainithe na rátaí siombaile cheana féin. Roghnaigh **Rátaí siombaile réamhshainithe** chun fáil amach an bhfuil do luach ar fáil go huathoibríoch.

## Ráta siombail

Nuair atá an socrú **De Láimh** i bhfeidhm don **mhód ráta Siombaile**, is féidir leat an luach ráta siombaile a fuair tú ó do sholáthróir cábla a chur isteach anseo. Úsáid na heochracha uimhreach chun an luach a chur isteach.

## Minicíocht líonra

Nuair atá **Scan minicíocha** athraithe go **Mearscannadh** nó **Ardsocruithe**, is féidir leat an luach minicíocha líonra a fuair tú ó do sholáthróir cábla a chur isteach anseo. Úsáid na heochracha uimhreach chun an luach a chur isteach.

## Scanadh minicíocha

Roghnaithe an modh chun guardach a dhéanamh do chainéis. Is féidir leat an modh níos tapúla **Mearscannadh** a roghnú agus na socruite réamhshainithe atá á n-úsáid ag an gcuid is mó de na soláthróirí cábla i do thír a úsáid.

Má fhágann sé sin nach mbeidh aon chainéal suiteáilte nó má tá roinnt cainéis ar iaraidh, is féidir leat an modh **Scanadh iomlán** a úsáid. Bíonn níos mó ama ag teastáil ón modh sin chun cainéis a chuardach agus a shuiteáil.

## ID Líonra

Nuair atá **Scan minicíocha** athraithe go **Mearscannadh**, is féidir leat an luach minicíocha líonra a fuair tú ó do sholáthróir cábla a chur isteach anseo. Úsáid na heochracha uimhreach chun an luach a chur isteach.

## Cainéis dhigiteacha

Má tá a fhios agat nach bhfuil do sholáthróir cábla ag tairiscint cainéis digiteach, is féidir leat gabháil thar an gguardach do chainéis dhigiteacha. Roghnaigh **As**

## Cainéal analóige

Má tá a fhios agat nach bhfuil do sholáthróir cábla ag tairiscint cainéal analógach, ní fiú duit guardach a dhéanamh do chainéis analógach. Roghnaigh **As**.

## Saor / Scrofa

Má tá suibscríbhinn agus CAM - Modúl Rochtana Conníollá agat le haghaidh seirbhísí teilifise nach mór íoc astu, roghnaigh **Saor + scrofa**. Mura bhfuil suibscríbhinn agat chun cainéis nó seirbhísí teilifise nach mór íoc astu a fháil, is féidir leat **Cainéis in aisce amháin** a roghnú.

## Suiteáil láimhe

Is féidir cainéis teilifise analógacha a shuiteáil de láimh, cainéal i ndiaidh cainéis.

Chun cainéis analógacha a shuiteáil de láimh . . .

1. Brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**.

2. Roghnaigh **Socruthe cainéil** > **Suiteáil cainéal** > **Analógach** :  
**suiteáil de láimh** agus brúigh **OK**.

- **Córas**

Chun an córas teilifíse a shocrú suas, roghnaigh **Córas** agus  
brúigh **OK**.

Roghnaigh do thír nó an chuid sin den domhan a bhfuil tú anois  
ann.

- **Déan cuardach do chainéal**

Chun cainéal a aimsiú, roghnaigh **Aimsigh cainéal** agus brúigh  
**OK**. Roghnaigh **Cuardaigh** agus brúigh **OK**. Is féidir leat freisin  
minicíocht a chur isteach tú féin. Má tá an ghlacacht lag, brúigh  
**Cuardaigh** arís. Má tá uait an cainéal a stóráil, roghnaigh **Déanta**  
agus brúigh **OK**.

- **Míntiúnáil**

Chun cainéal a mhíntiúnáil, roghnaigh **Míntiúnáil** agus brúigh **OK**.  
Is féidir leat an cainéal a mhíntiúnáil le ▲ nó ▼.

Má tá uait an cainéal a aimsíodh a stóráil, roghnaigh **Déanta** agus  
brúigh **OK**.

- **Stóráil**

Is féidir leat an cainéal a stóráil ar uimhir an chainéil reatha nó  
mar uimhir cainéil nua.

Roghnaigh **Stóráil cainéal reatha** nó **Stóráil mar chainéal nua**.

Is féidir leat na céimeanna seo a leanúint arís agus arís eile go dtí  
go bhfuil gach cainéal teilifíse analógach aimsithe agat.

# Eolaire teilifíse

7.1

## An t-eolaire teilifíse a úsáid

### Na rudaí a bheidh ag teastáil uait

Is féidir leat liosta de na cláir reatha agus iad siúd atá sceidealta ar do chainéil a fheiceáil leis an eolaire teilifíse. Taispeánfar cainéis analógacha agus dhigiteacha nó cainéis dhigiteacha amháin, ag brath ar cé as atá eolas (sonrai) an eolaire teilifíse ag teacht. Ní bhíonn eolas eolaire teilifíse ag gach cainéal.

Is féidir leis an teilihís eolas eolaire teilifíse a bhailliu do na cainéis atá suiteáilte ar an teilihís (m.sh na cainéis a fhéachann tú orthu le Féach ar Theilihís). Ní féidir leis an teilihís eolas eolaire teilifíse a bhailliu do chainéil a fhéachtar orthu le glacadóir digiteach.

### Oscail an Eolaire Teilifíse

Chun an t-eolaire teilifíse a oscailt, brúigh  TV GUIDE

Brúigh  TV GUIDE arís chun dúnad.

Déanann an teilihís scanadh ar gach cainéal teilifíse le haghaidh eolas cláir an chéad uair a oscálaíonn tú an t-eolaire teilifíse. D'fhéadfadh sé seo roinnt nóniméad a thógáil. Stóráiltear sonraí an eolaire teilifíse sa teilihís.

### Tiúin do chlár

#### Athraigh go clár

Is féidir leat athrú go clár reatha ón eolaire teilifíse. Chun clár a roghnú, úsáid na méaracha saighde chun ainm an chláir a roghnú. Gluais i dtreo na láimhe deise chun féachaint ar chláir atá sceidealaithe níos deireanaí an lá sin. Chun athrú go dtí an clár (cainéal), roghnaigh an clár agus brúigh OK.

#### Féach ar shonraí cláir

Chun sonraí an chláir atá roghnaithe a fháil, brúigh  INFO.

### Athraigh an lá

Tá an t-eolaire teilifíse in ann cláir atá sceidealaithe do na laethanta atá romhainn a thaispeáint (uasmhéid de 8 lá).

Má thagann eolas an eolaire teilifíse ón gcraoltóir, is féidir leat  + a bhrú chun sceideal ceann de na laethanta amach anseo a fheiceáil. Brúigh  - chun filleadh ar an lá roimhe sin. Mar rogha air sin, is féidir leat  OPTIONS a bhrú agus

#### Athraigh lá a roghnú.

Roghnáigh Lá Roimhe sin, Inniu nó An chéad lá eile agus brúigh OK, chun lá an sceidil a roghnú.

### Cuardaigh de réir seánra

Má tá an t-eolas ar fáil, is féidir leat clár sceidealaithe a aimsiú de réir seánra cosúil le scannán, spóirt, srl.

Chun cuardach a dhéanamh do chláir de réir seánra, brúigh  OPTIONS agus roghnaigh Cuardaigh de réir seánra. Roghnáigh seánra agus brúigh OK. Taispeánfar liosta leis na cláir a aimsíodh.

7.2

### Taifeadtaí

Is féidir leat clár teilifíse a thaifead ón eolaire teilifíse, nó taifead a sceidealú. Chun na taifeadtaí a stóráil, nasc Diosca Crua USB leis an teilihís.

7.3

### Ag fáil sonraí ón eolaire teilifíse

Faigheann an t-eolaire teilifíse eolas (sonrai) ó chraoltóirí nó ón idirlíon. D'fhéadfadh eolas eolaire teilifíse gan a bheith ar fáil i roinnt réigiún agus i gcás roinnt cainéal. Is féidir leis an teilihís eolas eolaire teilifíse a bhailliu do na cainéis atá suiteáilte ar an teilihís (m.sh na cainéis a fhéachann tú orthu le Féach ar theilihís). Ní féidir leis an teilihís eolas eolaire teilifíse a bhailliu do chainéil a bhféachtar orthu ó ghlagadóir digiteach nó ó dhíchódóir.

Is é an réamhshocrú atá ar an teilihís maidir le heolas ná Ón gcraoltóir.

#### Eolas an eolaire teilifíse a shocrú

Chun eolas an eolaire teilifíse a shocrú . . .

1. Brúigh  agus roghnaigh Eolaire teilifíse.
2. Brúigh an eochair .
3. Roghnáigh Ón gcraoltóir.
4. Brúigh , arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

# Foinsí

8.1

## Liosta foinsí

Sa liosta nascanna - an roghchlár Foinse - is féidir leat na gléasanna atá nasctha leis an teilifís a aimsiú. Is féidir leat athrú go gléas ón roghchlár Foinse seo.

### An roghchlár Foinsí

Chun an roghchlár Foinsí a oscailt, brúigh SOURCES. Chun athrú go dtí gléas nasctha, roghnaigh an gléas leis na saigheada (clé) nó (deas) agus brúigh OK. Chun an roghchlár Foinse a dhúnadh gan athrú go dtí gléas, brúigh SOURCES arís.



8.2

## Ó fhuireachas

Nuair atá an teilifís ar fuireachas, is féidir leat gléas nasctha a chasadadh air le cianrialtán do theilifíse.

### Seinn

Chun an seinnteoir diosca agus an teilifís araon a chasadadh air ó fhuireachas agus tosú ag seinnt an diosca nó an chláir láithreach, brúigh (seinn) ar chianrialtán na teilifíse.

Ba cheart go mbeadh an gléas nasctha le cábla HDMI agus ba cheart go mbeadh HDMI CEC casta air ar an teilifís agus ar an ngléas araon.

### Córas Amharclainne Baile

Is féidir leat do Chóras Amharclainne Baile a chasadadh air chun éisteacht le diosca fuaimé nó le cainéal raidió agus an teilifís a fhágáil ar fuireachas.

Chun an Córas Amharclainne Baile a chasadadh air leis féin agus an teilifís a fhágáil ar fuireachas, brúigh SOURCES ar chianrialtán na teilifíse.



8.3

## EasyLink

Is féidir leat gléas nasctha a oibriú le cianrialtán na teilifíse le EasyLink. Úsáideann EasyLink HDMI CEC chun cumarsáid a dhéanamh leis na gléasanna nasctha. Ní mór do ghléasanna tacú le HDMI CEC agus a bheith nasctha le nasc HDMI.

# Uaineadóirí agus clog

9.1

## Uaineadóir codlata

Is féidir leat an teilihís a shocrú chun athrú go dtí an staid fuireachais go huathoibríoch tar éis tréimhse ama shainiuil leis an amadóir codlata.

Chun an t-uaineadóir codlata a shocrú . . .

1. Brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**.

2. Roghnaigh **Socruithe teilihís > Socruithe ginearálta >**

**Uaineadóir codlata.**

Is féidir leat an t-am a shocrú ar feadh sus le 180 nóiméad in eatraimh de 5 nóiméad leis an mbarra sleamhnáin. Má shocraítéar go 0 nóiméad é, castar an t-uaineadóir codlata as. Is féidir leat i gcónaí do theilihís a chasadadh as níos luithe nó an t-am a athshocrú i rith an chomhairimh síos.

3. Brúigh , arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

díghníomhachtú.

Chun an **Uath-Chasadh** as a dhíghníomhachtú . . .

1. Brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**.

2. Roghnaigh **Socruithe teilihís > Socruithe ginearálta > Uath-Chasadh** as agus athraigh an barra sleamhnáin go **0 (As)**.

3. Brúigh , arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

9.2

## Clog

Chun an t-am a fháil, brúigh  **TV GUIDE** chun an t-am a fháil san eolaire teilihís.

I roinnt tíortha, ní sheolann craoltaí digiteacha eolas UTC - Am Uilíoch Lárnach. D'fhéadfaí neamháird a dhéanamh d'Am Coigilte Sholas an Lae agus d'fhéadfadh an teilihís am mícheart a thaispeáint.

Chun clog na teilihís a cheartú . . .

1. Brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**.

2. Roghnaigh **Socruithe teilihís > Socruithe ginearálta >**

**Clog > Mód uath-chloig** agus roghnaigh **Ag brath ar an téar**.

3. Roghnaigh **Am coigilte sholas an lae** agus roghnaigh an socrú cuí.

9.3

## Múch go huathoibríoch

Mura mbrúfaidh tú aon eochair ar an grianrialtán i rith thréimhse 4 huaire, ní mura bhfaigheann an teilihís aon chomhartha ionchuir ná ordúithe ón grianrialtán ar feadh 10 nóiméad, casann an teilihís as go huathoibríoch chun fuinneamh a shábháil.

Má úsáideann tú an teilihís mar mhonatóir nó má úsáideann tú glacadóir digiteach chun féachaint ar an teilihís (Bosca bairr - STB) agus mura n-úsáideann tú grianrialtán na teilihís, ba cheart duit an socrú chun an gléas a chasadadh as go huathoibríoch a

# Do ghrianghraif, físeán agus ceol

10.1

## Ó nasc USB

### Na rudaí a bheidh ag teastáil uait

Is féidir leat féachaint ar do ghrianghaif nó do cheol agus físeán a sheinnt ó mhéaróg chuimhne USB nó diosca crua USB nasctha.

#### Ó ghléas USB

Agus an teilifís casta air agat, plugáil isteach diosca cuimhne USB nó Diosca Crua USB i gceann de na náisc USB. Braitheann an teilifís an gléas agus tugann sé liosta de do chomhaid.

Mura mbeidh an liosta le feiceáil go huathoibríoch, brúigh  roghnaigh **SOURCES** roghnaigh **Brabhsáil USB** agus brúigh **OK**.



### Barra roghchláir

Nuair atá gléas USB nasctha agat, sórtálann an teilifís na comhaid de réir cineáil. Téigh go dtí an barra roghchláir agus roghnaigh an cineál comhaid atá á chuartú agat.

Má bhrabhsálann tú comhaid ó ríomhaire, ní féidir leat ach na comhaid agus na fillteáin a bhrabhsáil mar atá siad eagraithe ar an ríomhaire.

#### Barra roghchláir

Téigh go dtí an barra roghchláir agus roghnaigh an cineál comhaid a bhfuil tú ag iarraidh féachaint air nó a sheinnt. Roghnaigh **Pictiúr**, **Ceol** nó **Scannán**. Mar rogha air sin, is féidir leat an t-amhrac **Fillteáin** a oscailt agus d'fhillteáin a bhrabhsáil chun comhad a chuardach.

## Féach ar ghrianghraif

Sa bhrabhsálaí USB, roghnaigh **Pictiúr** agus brúigh **OK**.

#### Roghanna

Brúigh  **OPTIONS**.

- Cuir tú le taispeántas sleamhnán, cuir deireadh le taispeántas sleamhnán

Cuir tú le nó cuir deireadh le taispeántas sleamhnán.

- Trasdulta taispeántais sleamhnán

Socraigh an trasdul ó phictiúr amháin go dtí an chéad phictiúr eile.

- Minicíocht an taispeántais sleamhnán

Roghnaigh an t-am a mbeidh gach grianghraf ar taispeáint.

- Seinn arís, Seinn uair amháin

Féach ar na pictiúir arís agus arís eile, nó díreach uair amháin.

- Athsheinn go randamach air, Athsheinn go randamach as

Féach ar na pictiúir in ord seicheamhach, nó go randamach.

- Rothlaigh íomhá

Rothlaigh grianghraf.

- Taispeán eolas

Taispeán ainm an phictiúir, a dháta, a mhéid agus an chéad phictiúir eile sa taispeántas sleamhnán.

Chun **Brabhsáil USB** a dhúnadh, brúigh  agus roghnaigh gníomhaíocht eile.

## Seinn ceol

Sa mbrabhsálaí USB, roghnaigh **Ceol** agus brúigh **OK**.

#### Roghanna

Brúigh  **OPTIONS**.

- Cuir deireadh le athsheinnt

Cuir deireadh le seinnt ceoil.

- Seinn arís, Seinn uair amháin

Seinn amhráin arís agus arís eile nó díreach uair amháin.

- Athsheinn go randamach air, Athsheinn go randamach as

Seinn amhráin in ord seicheamhach, nó go randamach.

- Taispeán eolas

Taispeán ainm an chomhaid.

Chun **Brabhsáil USB** a dhúnadh, brúigh  agus roghnaigh gníomhaíocht eile.

---

## Físeán a sheinnt

Sa bhrabhsálaí USB, roghnaigh **Scannán** agus brúigh **OK**.

### Roghanna

Brúigh  **OPTIONS**.

#### - **Fotheidil**

Taispeán na fotheidil más ann dóibh.

#### - **Teanga fuaimé**

Seinn an teanga fuaimé más ann dó.

#### - **Seinn arís, Seinn uair amháin**

Seinn físeán arís agus arís eile nó díreach uair amháin.

#### - **Athsheinn go randamach air, Athsheinn go randamach as**

Seinn físeán in ord seicheamhach, nó go randamach.

#### - **Taispeán eolas**

Taispeán ainm an chomhaid.

Chun **Brabhsáil USB** a dhúnadh, brúigh  agus roghnaigh gníomhaíocht eile.

# Cuir teilifís ar sos

11.1

## Cuir teilifís ar sos

Is féidir leat craoladh teilifíse a chur ar sos agus tosú ag breathnú air arís ina dhiaidh sin. Ní féidir ach cainéil dhigiteacha teilifíse a chur ar sos. Ní mór duit Diosca Crua USB a nascadh chun an craoladh a mhaolánú. Is féidir leat an craoladh a chur ar sos ar feadh 90 nóiméad ar a mhéid.

### Craoladh a chur ar sos nó a atosú

Chun craoladh a chur ar sos, brúigh **II** (Cuir ar sos). Beidh barra dul chun cinn le feiceáil ar an scáileán ar feadh roinnt soicind. Chun an barra dul chun cinn a thaispeáint ar an scáileán arís, brúigh **II** (Cuir ar sos) arís. Brúigh **►** (Seinn) chun tosú ag breathnú arís. Tugann an deilbhín ar an scáileán le fios go bhfuil tú ag breathnú ar chraoladh atá curtha ar sos.

Ar ais ag an gcraoladh teilifíse féin

Brúigh **■** (Stop) chun filleadh ar an gcraoladh teilifíse féin.

Chomh luath is a a athraíonn tú go cainéal digiteach, tosaíonn an Diosca Crua USB ag maoilánú an chraolta. Nuair a athraíonn tú go cainéal digiteach eile, déantar maoilánú ar chraoladh an chainéil nua agus glantar craoladh an tseanchainéil. Nuair a athraíonn tú go gléas nasctha (seiminteoir Diosca Blu-ray nó glacadóir digiteach), cuireann an Diosca Crua USB deireadh leis an stóráil agus glantar an craoladh. Chomh maith leis sin, nuair a athraíonn tú an teilifís go fuireachas, glantar an craoladh atá stóráilte.

Nuair atá clár á thaifeadadh ar Dhiosca Crua USB, ní féidir leat craoladh a chur ar sos.

### Athsheinm ar an toirt

Nuair atá tú ag féachaint ar chraoladh ó chainéal teilifíse digití, is féidir leat an craoladh a athscheinnt ar an toirt go héasca. Chun an 10 soicind deireanacha de chraoladh a athscheinnt, brúigh **II** (Cuir ar sos) agus brúigh **◀** (Clé). Is féidir leat **◀** a bhrú arís agus arís eile go dtí go sroichfidh tú túis an mhaolán chraolta nó an t-uas-achar ama.

### Barra dul chun cinn

Nuair atá an barra dul chun cinn le feiceáil ar an scáileán, brúigh **◀◀** (Atochrais) nó brúigh **►►** (Ar Aghaidh) chun an áit a bhfuil tú ag iarraidh tosú ag féachaint ar an gcraoladh atá curtha ar sos a roghnú. Brúigh na heochracha seo arís agus arís eile chun a luas a athrú.

# Taifeadadh

12.1

## Na rudaí a bheidh ag teastáil uait

Chun clár teilifise a thaifead, teastaíonn . . .

- Tiomántán Diosca Crua USB naschta ar an teilifís seo
- cainéil teilifise dhigiteacha suiteáilte ar an teilifís seo (na cainéil a bhféachann tú orthu le Féach ar theilifís)
- chun eolas cainéil a fháil le haghaidh an eolaire teilifise ionsuite

12.2

## Clár a thaifead

### Taifeadanois

Chun an clár a bhfuil tú ag féachaint air a thaifeadadh, brúigh ● (Taifeadadh) ar an gcianníaltán.

Má fhaigheann tú eolas don eolaire teilifise ón gcraoltóir, tosóidh an taifeadadh láithreach. Is féidir leat am deiridh an taifeadta a athrú sa liosta taifeadtaí.

Chun taifeadadh a stopadh, brúigh ■ (Stop).

### Taifead a sceidealú

Is féidir leat taifeadadh clár atá le craoladh inniu nó i gceann cúpla lá (suas le 8 lá) a sceidealú.

1. Chun taifeadadh a sceidealú, brúigh ☰ Eolaire teilifise. Ar leathanach an eolaire teilifise, roghnaigh an cainéal agus an clár a bhfuil uait é a thaifeadadh.

Is féidir leat uimhir an chainéil a chur isteach chun dul díreach go dtí an cainéal sa liosta.

Brúigh ► (Deas) nó ◀ (Clé) chun scrolláil trí chláir cainéil. Chun an dáta ar an liosta a athrú, brúigh ☱ OPTIONS agus roghnaigh Athraigh lá. Sa liosta, roghnaigh an lá atá uait agus brúigh OK.

2. Nuair a bhíonn an clár roghnaithe agat, brúigh — Taifead nó brúigh OPTIONS agus roghnaigh Taifead. Cuireann an teilifís isteach maolán ama áirithe ag deireadh an chláir. Is féidir leat maolán breise a chur isteach má theastaíonn sé.

Má bheartaíonn tú clár a thaifeadadh nuair nach bhfuil tú i láthair, ná déan dearmad an teilifís a fhágáil ar fuireachas agus an Diosca

Crua USB casta air.

### Liosta taifeadtaí

Chun féachaint ar liosta na dtaifeadtaí agus na dtaifeadtaí atá sceidilithe, brúigh 🏠, roghnaigh Taifeadtaí agus brúigh OK.

Sa liosta seo, is féidir leat taifeadadh a roghnú le féachaint air, clár thaifeadta a bhaint, críoch-am taifeadta leanúnaí a athrú nó an méid spáis atá saor ar dhiosca a sheiceáil.

### Bain taifeadadh sceidealta den Eolaire Teilifise nó den liosta taifeadtaí

- Brúigh 🔍 Liosta chun an liosta a oscailt, ansin brúigh —.
- In Eolaire Teilifise, roghnaigh taifeadadh sceidealta, ansin brúigh — Cealaigh taifeadadh.

### Sonrai

- Nuair atá clár á thaifeadadh agat, is féidir leat féachaint ar chlár a taifeadadh roimhe sin.
- Nuair atá taifeadadh ar bun, ní féidir leat an cainéal teilifise a athrú.
- Nuair atá taifeadadh ar bun, ní féidir leat an craoladh teilifise a chur ar sos.
- Teastaíonn socrú cloig iontaofa ó chraoltóirí chun Taifead a dhéanamh. Má athshocraíonn tú clog na teilifise de láimh, d'fhéadfadh taifeadtaí teipeadh.

12.3

## Féach ar thaifeadadh

Chun féachaint ar thaifeadadh . . .

1. Brúigh 🏠, select 📺 Taifeadtaí agus brúigh OK.
2. - Sa liosta, roghnaigh an taifead agus brúigh ► (Seinn) chun an t-athsheinm a thosú. Is féidir leat na heochracha ► (Ar aghaidh), ◀ (Atochras), II (Cuir ar sos) nó ■ (Stop) a úsáid ar an gcianníaltán.

### Taifeadadh teipthe

Nuair a chuireann an craoltóir cosc le taifeadadh sceidealaithe nó nuair a bhristear isteach ar chraoladh, marcáiltear taifeadadh mar Teipthe.

# Socruthe

13.1

## Pictiúr

### Stíl pictiúir

Chun an pictiúr a choigearút go héasca, is féidir leat socrú réamhshainithe a roghnú le **Stíl pictiúir**.

1. Agus tú ag breathnú ar chainéal teilifíse, brúigh OPTIONS chun an roghchlár **Roghanna** a oscailt.
2. Roghnaigh **Pictiúr agus fuaim** ar an roghchlár agus roghnaigh **Stíl pictiúir**.
3. Roghnaigh stíl agus brúigh **OK**.

Is iad na Stíleanna pictiúir atá ar fáil...

**Pearsanta** - Na roghanna atá déanta agat i Mear-socruthe pictiúir

- **Beogad** - Oiriúnach le hamharc air i solas an lae
- **Nádúrtha** - Socruthe nádúrtha pictiúir
- **Scannán** - Oiriúnach do scannáin
- Coigilt fuinnimh** - Socruthe a choiglíonn fuinneamh
- **Caighdeánach** - Socruthe caighdeánacha monarch
- **Fóta** - Oiriúnach chun amharc ar ghrianghraif

### Stíl Pictiúir a athrú

Is féidir leat Stíl Pictiúir a athrú...

1. Roghnaigh an stíl agus brúigh **OK**.
2. Brúigh agus roghnaigh **Suiteáil** agus brúigh **OK**.
3. Roghnaigh **Socruthe teilifíse**, téigh go dtí an socrú agus athraigh é.
4. Brúigh , arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

Chun dul ar ais go dtí na luachanna Stíl pictiúir bunaidh...

1. Brúigh agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruthe teilifíse Pictiúr > Stíl pictiúir** > agus roghnaigh an stíl a bhfuil tú ag iarraidh é a athshocrú.
3. Roghnaight **Aischur stíl** agus brúigh **OK**. Tá an stíl athshocraithe.

### Beoga

Má athraítear an Stíl Pictiúir ar ais go **Gléineach** gach uair a chasann tú air an teilifís, socrófar suíomh na teilifíse go **Siopa**. Socrú é seo a bhaineann le tionsncaimh shiopa.

Chun an teilifís a shocrú d'úsáid Baile ...

1. Brúigh agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruthe teilifíse > Socruthe ginearálta > Suíomh** agus brúigh **OK**.
3. Roghnaigh **Baile** agus brúigh **OK**.
4. Brúigh , arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

## Socruthe pictiúr

### Codarsnacht cún solais

Le **Codarsnacht cún solais**, is féidir leat gile an chúlsolais taispeána a choigearút.

Chun an leibhéal a athrú...

1. Brúigh agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruthe teilifíse > Pictiúr > Codarsnacht**.
3. Brúigh (deas) agus athraigh an luach le (suas) nó (síos).
4. Brúigh , arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

### Dath

Is féidir leat saíthíu datha an phictiúir a athrú le **Dath**.

Chun an dath a athrú...

1. Brúigh agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruthe teilifíse > Pictiúr > Dath**.
3. Brúigh (deas) agus athraigh an luach le (suas) nó (síos).
4. Brúigh , arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

### Géire

Is féidir leat an leibhéal géire i mionsonraí an phictiúir a athrú le **Géire**.

Chun an ghéire a athrú...

1. Brúigh agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruthe teilifíse > Pictiúr > Géire**.
3. Brúigh (deas) agus athraigh an luach le (suas) nó (síos).
4. Brúigh , arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

### Laghdú torainn

Le **Laghdú torainn**, is féidir leat méid an laghdaithe torainn sa phictiúir a roghnú.

Chun an laghdú torainn a shocrú...

1. Brúigh agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **socruthe teilifíse > Pictiúr > Laghdú torainn**.
3. Brúigh (ar dheis) agus roghnaigh **As, Íosmhéid, Meánach** nó **Uasmhéid**.
4. Brúigh , arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

## Laghdú déantán MPEG

Is féidir leat na trasulta digiteacha sa phictiúr a shlíomadh le **Laghdú déantán MPEG**. Is mar bhloic bheaga nó mar chiumhaiseanna eangacha in fómhánnna is minice a fheictear déantán MPEG.

Chun an déantán MPEG a laghdú . . .

1. Brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **socruthe teilifíse > Pictiúr > Laghdú déantán MPEG**.
3. Brúigh  (deas) agus roghnaigh **Air** nó **As**.
4. Brúigh , arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

## Digital Crystal Clear

Le **Digital Crystal Clear**, is féidir leat gach picteilín a mhionchoigeartú chun go mbeidh sé díreach cosúil leis na picteilíni timpeall air agus chun fómhá ardtaifeach ghléigheal a tháirgeadh.

1. Brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **socruthe teilifíse > Pictiúr > Digital Crystal Clear**.
3. Brúigh  (ar dheis) agus roghnaigh na socruthe.
4. Brúigh , arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

Is iad seo na socruthe difriúla....

- **Ardgheire** - Cumasaigh géire den scoth, go háirithe ar línte agus ar imlíné sa phictiúr.
- **Codarsnacht dhiminciúil** - Cuir feabhas dinimiciúil ar na sonraí sna codanna dorcha, meánacha agus geala den phictiúr.
- **Cúlsolas dinimiciúil** - Roghnaigh leibhéal cúsolas chun an t-ídiú cumhactha dinimiciúil agus an chodarsnacht pictiúir a bharrfheabhsú.
- **Feabhsú datha** - Feabhsaigh go dinimiciúil beogacht agus sonraí na ndathanna.

## Ardsocruithe pictiúr

### Gáma

Le **Gamma**, is féidir leat an socrú neamhlíneach do lonras agus do chodarsnacht an phictiúir a choigeartú.

Chun an leibhéal a athrú . . .

1. Brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruthe teilifíse > Pictiúr > Ardsocruithe > Imir**.
3. Brúigh  (deas) agus athraigh an luach le  (suas) nó  (síos).
4. Brúigh , arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

## Imir

Le **Imir**, is féidir leat an chothromáfocht datha a athrú.

Chun socrú réamhshocraithe a roghnú . . .

1. Brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruthe teilifíse > Pictiúr > Ardsocruithe > Imir**.
3. Brúigh  (deas) agus roghnaigh **Normálta, Teolaí** nó **Fionnuar**. Roghnaigh **Saincheaptha** má tá uait teocht datha a shocrú tú féin.
4. Brúigh , arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

## Imir shaincheaptha

Le **Imir shaincheaptha**, is féidir leat teocht datha a shocrú tú féin. Chun Imir shaincheaptha a shocrú, roghnaigh **Saincheaptha** ar dtús sa socrú **Imir** chun an roghchlár Imir shaincheaptha a chur ar fáil. Is do shainúsáideoirí amháin atá Imir shaincheaptha beartaithe.

Chun teocht datha shaincheaptha a shocrú . . .

1. Brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruthe teilifíse > Pictiúr > Ardsocruithe > Imir shaincheaptha**.
3. Brúigh  (deas).
4. Roghnaigh socrú leis na heochracha saighde. (Pointe bán é WP agus leibhéal duibhe é BL.)
5. Brúigh **OK** chun socrú a dhearbhú. Is féidir leat ceann de na socruthe réamhshocraithe a roghnú leis an roghchlár seo freisin.
6. Brúigh , arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

## Codarsnacht físe

Le **Codarsnacht físeáin**, is féidir leat raon na codarsnachta físeáin a laghdú.

Chun an leibhéal a athrú . . .

1. Brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruthe teilifíse > Pictiúr > Ardsocruithe > Codarsnacht físe**.
3. Brúigh  (deas) agus athraigh an luach le  (suas) nó .
4. Brúigh , arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

## Gile

Is féidir leat leibhéal gile an chomhartha pictiúir a shocrú le **Gile**. Socrú é Gile atá thíre ar shainúsáideoirí. Molaimid dóibh siúd nach sainúsáideoirí iad an gile a choigeartú leis an socrú **Codarsnacht cíl solais**.

Chun an leibhéal a athrú . . .

1. Brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruthe teilifíse > Pictiúr > Ardsocruithe > Gile**.

3. Brúigh ► (deas) agus athraigh an luach le ▲ (suas) nó ▼ (síos).
4. Brúigh ↪, arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

13.2

## Cluiche nó ríomhaire

Is féidir leat an teilihís a athrú go dtí an socrú pictiúir is fearr do chluichíocht nó don teilihís a úsáid mar mhonatóir ríomhaireachta. Tá socrú éagsúil ann do **Chluiche** nó do **Ríomhaire**. Má tá cineál ceart socraithe ag gléas sa roghchlár Source - consól Cluiche nó Ríomhaire - athraíonn an teilihís go huathoibríoch go dtí an socrú is fearr nuair a athraíonn tú go dtí an gléas. Má athraíonn tú an socrú de láimh, ná déan dearmad é a chasadach as nuair a athraíonn tú d'fhéachaint teilihís nó do ghléas nasctha eile.

Chun an socrú a athrú de láimh. . .

1. Brúigh ♠ agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socraithe teilihís** > **Pictiúr** > **Ardsocraithe** > **Cluiche nó ríomhaire**.
3. Roghnaigh **Cluiche, Ríomhaire** nó **Teilihís**. Filleann an socrú **Teilihís** ar na socruithe pictiúr le haghaidh féachaint teilihís.
4. Brúigh ↪, arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

13.3

## Formáid agus ciumhaiseanna

### Formáid pictiúir

Má tá barraí dubha le feiceáil ag barr agus ag bun an phictiúir nó ar gach taobh de, is féidir leat an fhormáid pictiúir a choigeartú go formáid pictiúir a líonann an scáileán.

Chun an fhormáid pictiúir a athrú . . .

1. Agus tú ag féachaint ar chainéal teilihís, brúigh 📹 chun an roghchlár **Formáid pictiúir** a oscailt.
2. Roghnaigh formáid ón liosta agus brúigh **OK**.

### Imill scáileáin

Is féidir leat an pictiúir a dhéanamh beagán níos mó chun ciumhaiseanna díchumtha a cheilt le **Ciumhaiseanna scáileáin**.

Chun na ciumhaiseanna a athrú . . .

1. Brúigh ♠ agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruithe teilihís** > **Pictiúr** > **Formáid agus ciumhaiseanna** > **Ciumhaiseanna scáileáin**.
3. Brúigh ► (deas) agus athraigh an luach le ▲ (suas) nó ▼ (síos).
4. Brúigh ↪, arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

13.4

## Fuaim

### Stíl fuaimé

Is féidir leat socrú réamhshainithe a roghnú le **Stíl fuaimé** chun an fhuaim a athrú go héasca.

1. Agus tú ag breathnú ar chainéal teilihís, brúigh ☰ **OPTIONS** chun an roghchlár **Roghanna** a oscailt.
2. Roghnaigh **Pictiúr** agus fuaim ar an mbarra roghchláir agus roghnaigh **Stíl fuaimé**.
3. Roghnaigh **Stíl fuaimé** agus brúigh **OK**.

Is iad na stíleanna Fuaimé éagsúla . . .

- **Pearsanta** - Na roghanna pearsanta atá déanta agat in Pearsantaigh pictiúr agus fuaim
- **Bunaíd** - Caighdeán monarchan
- **Scannán** - Oiriúnach do scannáin
- **Nuacht** - Oiriúnach do chaint
- **Ceol** - Oiriúnach do cheol
- **Cluiche** - Oiriúnach do chluichíocht

### Stíl fuaimé a athrú

Is féidir leat Stíl fuaimé a athrú . . .

1. Roghnaigh an stíl agus brúigh **OK**.
2. Brúigh ♠ agus roghnaigh **Suiteáil** agus brúigh **OK**.
3. Roghnaigh **Socruithe teilihís**, téigh go dtí an socrú agus athraigh é.
4. Brúigh ↪ chun an roghchlár a dhúnadh chun do shocrú a shábháil.

Chun filleadh ar na luachanna bunaíd Stíl Fuaimé . . .

1. Brúigh ♠ agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruithe teilihís** > **Fuaim** > **Cuir stíl ar ais**.

### Socruithe fuaimé

#### Dord

Is féidir leat leibhéal ton íseal san fhuaim a athrú le **Dord**.

Chun an leibhéal a athrú . . .

1. Brúigh ♠ agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruithe teilihís** > **Fuaim** > **Dord**.
3. Brúigh ► (deas) agus athraigh an luach le ▲ (suas) nó ▼ (síos).
4. Brúigh ↪, arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

## Faoi thrí

Is féidir leat an leibhéal ton ard san fhuaim a athrú le **Faoi Thrí**.

Chun an leibhéal a athrú . . .

1. Brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruthe teilifíse > Fuaim > Tribil**.
3. Brúigh ► (deas) agus athraigh an luach le ▲ (suas) nó ▼ (síos).
4. Brúigh ↪, arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

## Modh imfhuaimé

Is féidir leat éifeacht fuaime challairí na teilifíse a shocrú le **Mód imfhuaimé**.

Chun an mhodh imfhuaimé a shocrú . . .

1. Brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruthe teilifíse > Fuaim > Mód imfhuaimé**.
3. Brúigh ► (deas) agus roghnaigh **Stéireó, Imfhuaim iontach**.
4. Brúigh ↪, arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

## Airde fuaime na gcluasán

Is féidir leat socrú ar leith a dhéanamh d'airde fuaime cluasán naschta le **hAirde fuaime na gcluasán**.

Chun an airde fuaime a athrú . . .

1. Brúigh  **OPTIONS** agus roghnaigh **Pictiúr agus fuaim** ar an mbarra roghchláir.
2. Brúigh ► (deas) agus roghnaigh **Airde fuaime na gcluasán** agus brúigh **OK**.
3. Brúigh ▲ (suas) nó ▼ (síos) chun an airde fuaime a athrú.
4. Brúigh ↪, arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

## Ardsocruthe fuaime

### Uathleibhéalaídh airde fuaime

Is féidir leat an teilifíse a shocrú chun difríochtaí tobanna san airde fuaime a leibhéalaídh le **hUathleibhéalaídh airde fuaime**. Bíonn sé sin ag teastáil go hiondúil ag túis na bhfógraí nó nuair atá tú ag athrú cainéalaí.

Chun é a chasadadh air nó as . . .

1. Brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruthe teilifíse > Fuaim > Ardsocruthe > Uathleibhéalaídh airde fuaime**.
3. Brúigh ► (deas) agus roghnaigh **Air** nó **As**.
4. Brúigh ↪, arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

## Callairí teilifíse

Is féidir leat fuaim na teilifíse a sheoladh chuig gléas fuaime naschta - Córás Amharclainne Baile nó córas fuaime. Roghnaíonn tú an áit a bhfuil uait fuaim na teilifíse a chloisteáil agus an chaoi í a rialú le **Callairí teilifíse**.

- Má roghnaíonn tú **As**, casann tú as callairí na teilifíse go buan.
- Má roghnaíonn tú **Air**, beidh callairí na teilifíse air i gcónaí.

Is féidir leat ceann de na socruthe EasyLink a úsáid nuair atá gléas fuaime naschta le HDMI CEC.

- Má roghnaíonn tú **EasyLink**, seolann an teilifíse fuaim na teilifíse go dtí an gléas fuaime. Casfaidh an teilifíse as callairí na teilifíse nuair atá an gléas ag seinnt na fuaime.
- Má roghnaíonn tú **uath-thús EasyLink**, casfaidh an teilifíse an gléas fuaime air, seolfaidh sé fuaim na teilifíse chuig an ngléas agus casfaidh sé as callairí na teilifíse.

Nuair atá **EasyLink** nó **uath-thús EasyLink** roghnaithe, is féidir leat athrú go callairí teilifíse nó gléis i gcónaí sa roghchlár Pictiúir agus Fuaim.

Chun na callairí teilifíse a shocrú . . .

1.  agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. 2 - Roghnaigh **Fuaim > Ardsocruthe > Callairí teilifíse**.
3. Brúigh ► (deas) agus roghnaigh **As, Air, EasyLink** nó **uath-thús EasyLink**.
4. Brúigh ↪, arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

Chun callairí a athrú go díreach . . .

1. Agus tú ag féachaint ar an teilifíse, brúigh  **OPTIONS** agus roghnaigh **Pictiúr agus fuaim**.
2. Roghnaigh **Callairí** agus roghnaigh **Teilifís** nó **Aimplitheoir** (gléas fuaime).
3. Brúigh ↪, arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

## Clear sound

Feabhsaíonn tú an fhuaim do chaint le **Fuaim soiléir**. Feileann sé go breá do chláir nuachta. Is féidir leat an feabhas cainte a chasadadh air nó as.

Chun é a chasadadh air nó as . . .

1. Brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruthe teilifíse > Fuaim > Ardsocruthe > Fuaim soiléir**.
3. Brúigh ► (deas) agus roghnaigh **Air** nó **As**.
4. Brúigh ↪, arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

## HDMI1-ARC

Mura bhfuil Cainéal Fillte Fuaim (ARC) ag teastáil uait ar aon cheann de na naisc HDMI, is féidir leat an comhartha ARC a chasadadh as.

## formáid Fuaim Amach

Is féidir leat comhartha fuaim amach na teilifíse a shocrú chun dul in oiriúint do na cumais próiseála fuaim atá ag do Chóras Amharclainne Baile le **formáid Fuaim Amach**.

## Leibhéaladh Fuaim Amach

Is féidir airde fuaim an Chórás Amharclainne Baile a leibhéaladh le hairde fuaim na teilifíse nuair a athraíonn tú ó cheann amháin go dtí an ceann eile le **leibhéaladh Fuaim Amach**.

## Moill ar Fhuaim Amach

Má shocraíonn tú moill sionc Fuaim ar do Chórás Amharclainne Baile chun an fhuaim a shioncronú leis an bpictiúr, ní mór duit **Moill ar Fhuaim amach** ar an teilifís a chasadadh as.

## Seach-chur Fuaim Amach

Murar féidir leat moill a shocrú ar an gCórás Amharclainne Baile, is féidir leat moill a shocrú ar an teilifís le **seach-chur Fuaim Amach**.

## Callairí

### Córás Amharclainne Baile

Is féidir fuaim na teilifíse a sheoladh chuig gléas fuaim nasctha - Córás Amharclainne Baile nó córas fuaim.

Is féidir leat an áit a bhfuil tú ag iarráidh fuaim na teilifíse a chloisteáil a roghnú, agus an chaoi a bhfuil uait é a rialú.  
- Má roghnaíonn tú **As**, casann tú as callairí na teilifíse go buan.  
- Má roghnaíonn tú **Callairí teilifíse**, beidh callairí teilifíse air i gcónaí.

Is féidir leat ceann de na socruithe EasyLink a úsáid nuair atá gléas fuaim nasctha le HDMI CEC.

- Má roghnaíonn tú **EasyLink**, seolann an teilifís fuaim na teilifíse go dtí an gléas fuaim. Casfaidh an teilifís as callairí na teilifíse nuair atá an gléas ag seinnt na fuaim.  
- Má roghnaíonn tú **uath-thús EasyLink**, casfaidh an teilifís an gléas fuaim air, seolfaidh sé fuaim na teilifíse chuig an ngléas agus casfaidh sé as callairí na teilifíse.

Nuir atá EasyLink nó uath-thús EasyLink roghnaithe agat, is féidir leat athrú go callairí teilifíse i gcónaí más gá.

Chun na callairí teilifíse a shocrú . . .

1.  agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruithe teilifíse > Fuaim > Aschur fuaim**.
3. Brúigh **▶ (deas)** agus roghnaigh **As, Callairí teilifíse, EasyLink** nó **uath-thús EasyLink**.
4. Brúigh **◀**, arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

Chun athrú go callairí go díreach . . .

1. Agus tú ag féachaint ar an teilifís, brúigh **⚙**.
2. Roghnaigh **Callairí** agus roghnaigh **Teilifís nó Aimplitheoir** (córás fuaim).
3. Brúigh **◀**, arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

## Lonnú na teilifíse

Mar chuid den chéad suiteáil, socraitear an socrú seo do **Ar sheastán teilifíse** nó **Gléasta ar an mball**. Má tá suíomh na teilifíse athraithe ó shin agat, athraigh an socrú sin dá réir le haghaidh an atáirgeadh fuaim is fearr.

1. Brúigh **⏏** agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Socruithe teilifíse > Socruithe ginearálta > Lonnú teilifíse** agus brúigh **OK**.
3. Roghnaigh **Ar sheastán teilifíse** nó **Gléasta ar an mballa** agus brúigh **OK**.
4. Brúigh **◀**, arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

# Sonraíochtaí

14.1

## Comhshaol

### Coigilt fuinnimh

Cuachann **Éicea-socruithe** na socruite a chabhraíonn an comhshaol.

Agus tú ag féachaint ar chainéil teilihise, brúigh  chun **Éicea-socruithe** a oscailt.

Marcáltar socruite gníomhacha le  . Is féidir gach socrú a mharcáil nó a dímharcáil leis an eochair **OK**.

Brúigh  arís chun **Éicea-socruithe** a dhúnadh.

### Coigilt fuinnimh

Socraíonn Stíl pictiúir an pictiúr, don socrú is fearr ó thaobh fuinneamh a choigilt.

### Scáileán casta as

Mura n-éistíonn tú ach le ceol, is féidir leat scáileán na teilihise a chasadh as chun fuinneamh a choigilt.

Roghnaigh **Scáileán as** agus brúigh **OK**. Chun an scáileán a chasadh air arís, brúigh aon eochair ar an gciarrialtán.

### Múch go huathoibríoch

Mura mbrúfaidh tú eochair ar an gciarrialtán i rith tréimhse 4 uaire, nó mura bhfaigheann an teilihís aon chomhartha ar feadh 10 nóiméad, casann an teilihís as go huathoibríoch chun fuinneamh a choigilt.

Má úsáideann tú an teilihís mar mhonatóir nó má úsáideann tú glacadóir digiteach chun féachaint ar theilihís (Bosca bairr - STB) agus mura n-úsáideann tú cianrialtán na teilihise, dígníomhachtaígh an casadh as uathoibríoch.

Chomh maith leis na héicea-socruithe seo, tá gnéithe eile ag do theilihís chun tomhantas cumhachta a íslíú ar mhaithe leis an gcomhshaol.

### Cas as gléasanna neamhghníomhacha

Cas as gléasanna nasctha atá comhoiriúnach le EasyLink HDMI-CEC (Consumer Electronic Control) nach bhfuil gníomhach.

### Bainistíocht cumhachta

Cintíonn ardbainistíocht cumhachta na teilihise seo an úsáid fuinnimh is éifeachtai. Is féidir leat an tionchar atá ag do shocruithe pearsanta teilihise, leibhéal gile na bpictiúr atá ar an scáileán faoi láthair, agus na riochtáí solais comhthimpeallaigh ar thomhantas cumhachta coibhneasta.

Chun an tomhantas cumhachta coibhneasta a sheiceáil ...

1. Brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**.
2. Roghnaigh **Féach ar fhíseáin thaispeána > Físeán taispeána ar Rialú gníomhach agus brúigh **OK**.**
3. Roghnaigh socrú chun na luachanna comhfhereagracha a

sheiceáil.

### Lipéad fuinnimh na hEorpa

Cuireann **Lipéad Fuinnimh na hEorpa** ar an eolas tú maidir le haicme éifeachtach fuinnimh an tárge seo. Dá ghlaisce aicme éifeachtach fuinnimh an tárge, is ea is lú fuinnimh a thomhlaíonn sé.

Is féidir leat aicme éifeachtach fuinnimh, meántomholtas cumhachta an tárge seo nuair atá sé i mbun úsáide agus meántomholtas cumhachta ar feadh 1 bliain a fháil ar an lipéad. Is féidir leat freisin luachanna tomholtais cumhachta don tárge seo a fháil ar shuíomh gréasáin Philips i do thír féin ag [www.philips.com/TV](http://www.philips.com/TV)

### Deireadh úsáide

#### Do sheantáirge agus do cheallraí a dhiúscairt

Dearadh agus monaraíodh do tháirge le hábhair agus compháirteanna ar ardchaighdeán ar féidir iad a athchúrsáil agus a athúsáid.



Nuair atá an tsiombail seo d'araid rothaí a bhfuil cros air ar tháirge, ciallaíonn sé go bhfuil an tárge clúdaithe ag Treoir Eorpach 2002/96/CE.



Cuir tú féin ar an eolas le do thoil faoin gcóras bailiúcháin áitiúil ar leith do tháirgí leictreacha agus leictreonacha.

Cloígh leis na rialacha áitiúla atá i bhfeidhm le do thoil agus ná diúscair do sheantáirge le do ghnáthdhamháil tí. Nuair a dhiúscraíonn tú do sheantáirge i gceart, cabhraíonn sé iarmhairtí a d'fhéadfadh a bheith díobhálach don chomhshaol agus do shláinte an duine a chosc.

Tá ceallraí i do tháirge atá san áireamh i dTreoir an Chomphobail Eorpaigh 2006/66/EC, nach féidir iad a dhiúscairt le gnáthdhamháil tí.



Cuir tú féin ar an eolas le do thoil faoi rialacha áitiúla maidir le bailiú ar leith ceallraí mar go gcabhróidh diúscairt chuí iarmhairtí díobhálacha don chomhshaol agus do shláinte an duine a chosc.

## Glacacht do PxHxxx9/PxTxxx9

- Ionchur aeróige : 75 ohm comhaiseach (IEC75)
- Bandaí tiúnóra : Hipearbanda; S-Channel; UHF; VHF
- DVB : DVB-T (trastíre, aeróg) COFDM 2K/8K, DVB-T2 : do chineálacha teilifíse amháin '... T/12', DVB-C (cábla) QAM
- Athsheimh físeán analógaigh: NTSC; SECAM; PAL
- Athsheimh físeán digitigh: MPEG2 SD/HD (ISO/IEC 13818-2); MPEG4 SD/HD (ISO/IEC 14496-10)
- Athsheimh fuaimé digitír (ISO/IEC 13818-3)

## Taispeáint

### Cineál

Méid fhiarthrasna an scáileán :

- 20Pxx4109 : 51 cm / 20 orlach
- 22Pxx4109 : 56 cm / 22 orlach
- 23Pxx4009 : 58 cm / 23 orlach
- 24Pxx4109 : 61 cm / 24 orlach
- 28Pxx4109 : 71 cm / 28 orlach
- 32Pxx41x9 : 81 cm / 32 orlach
- 39Pxx41x9 : 96 cm / 39 orlach
- 40Pxx41x9 : 102 cm / 40 orlach
- 42Pxx41x9 : 107 cm / 42 orlach
- 47Pxx41x9 : 120 cm / 47 orlach
- 50Pxx41x9 : 127 cm / 50 orlach
- 32Pxx4009 : 81 cm / 32 orlach
- 40Pxx4009 : 102 cm / 40 orlach
- 50Pxx4009 : 127 cm / 50 orlach
- 22Pxx4209 : 56 cm / 22 orlach
- 24Pxx5219 : 61 cm / 24 orlach
- 32Pxx43x9 : 81 cm / 32 orlach
- 40Pxx43x9 : 102 cm / 40 orlach
- 50Pxx43x9 : 127 cm / 50 orlach
- 32Pxx5109 : 81 cm / 32 orlach
- 40Pxx5109 : 102 cm / 40 orlach
- 48Pxx5109 : 122 cm / 48 orlach
- 55Pxx5109 : 140 cm / 55 orlach
- 42Pxx5199 : 107 cm / 42 orlach
- 47Pxx5199 : 119 cm / 47 orlach
- 55Pxx5199 : 140 cm / 55 orlach
- 42Pxx5209 : 107 cm / 42 orlach
- 47Pxx5209 : 119 cm / 47 orlach
- 55Pxx5209 : 140 cm / 55 orlach

Taifeach taispeána:

- PFxxxx9 : 1920x1080p
- PHxxxx9 : 1366x768p

### Cineál

Méid fhiarthrasna an scáileán :

- 20Pxx4109 : 51 cm / 20 orlach
- 22Pxx4109 : 56 cm / 22 orlach
- 24Pxx4109 : 61 cm / 24 orlach
- 28Pxx4109 : 71 cm / 28 orlach
- 32Pxx41x9 : 81 cm / 32 orlach
- 39Pxx41x9 : 96 cm / 39 orlach
- 40Pxx41x9 : 102 cm / 40 orlach
- 42Pxx41x9 : 107 cm / 42 orlach
- 47Pxx41x9 : 120 cm / 47 orlach
- 50Pxx41x9 : 127 cm / 50 orlach

Taifeach taispeána:

- PFxxxx9 : 1920x1080p
- PHxxxx9 : 1366x768p

### Taifigh taispeána

Formáidí ríomhairí - HDMI (Taifeach - ráta athnuachana)

- 640 × 480 - 60 Hz
- 800 × 600 - 60 Hz
- 1024 × 768 - 60 Hz
- 1280 × 720 - 60 Hz
- 1280 × 768 - 60 Hz
- 1280 × 1024 - 60 Hz
- 1360 × 768 - 60 Hz
- 1600 × 900 - 60 Hz\*
- 1680 × 1050 - 60 Hz\*
- 1920 × 1080 - 60 Hz\*

Formáidí ríomhairí - VGA (Taifeach - ráta athnuachana)

- 640 × 480 - 60 Hz
- 800 × 600 - 60 Hz
- 1024 × 768 - 60 Hz
- 1280 × 1024 - 60 Hz
- 1360 × 768 - 60 Hz
- 1600 × 900 - 60 Hz\*
- 1600 × 1200 - 60 Hz\*
- 1920 × 1080 - 60 Hz\*

Formáidí físe (Taifeach - ráta athnuachana)

- 480i - 60 Hz
- 480p - 60 Hz
- 576i - 50 Hz
- 576p - 50 Hz
- 720p - 50 Hz, 60 Hz
- 1080i - 50 Hz, 60 Hz
- 1080p - 24Hz, 25Hz, 30Hz, 50Hz, 60 Hz

\* Do theilifíseanna áirithe amháin.

14.4

## Cumhacht

Tá sonraíochtaí an táirge faoi réir athraithe gan fógra. Chun tuilleadh sonrái maidir le sonraíochtaí an táirge seo a fháil, féach ar [www.philips.com/support](http://www.philips.com/support)

### Cumhacht

- Príomhchumhacht : AC 220-240V +/-10%
- Teocht chomhthimpeallach : 5°C go 35°C
- Tomhallas cumhachta ar fuireachas : níos lú ná 0.3W
- Gnéithe choigilt cumhachta : Éicea-mód, Balbhaigh pictiúr (do raidió), Múch uaineadóir go huathoibríoch, Roghchlár Éicea-socruithe.

Is é an rátáil cumhachta atá ar chlár cineáil an táirge tomhallas cumhachta don táirge seo i rith gnáthúsáid thí (IEC 62087 Ed.2). Úsáidtear an rátáil cumhachta is airde, scríofa ídir lúibíní, chun críche sábhálteachta leictrí (IEC 60065 Ed. 7.2).

14.5

## Toisí agus meáchain \_ 41x9/4209

### 20Pxx4109

- gan seastán teilifíse:  
Leithead 460.9 mm - Airde 299 mm - Doimhneacht 53.3 mm - Meáchan ±2.62 kg
- le seastán teilifíse:  
Leithead 460.9 mm - Airde 343.5 mm - Doimhneacht 145 mm - Meáchan ±2.83 kg

### 22Pxx4109/22Pxx4209

- gan seastán teilifíse:  
Leithead 509.7 mm - Airde 322.7 mm - Doimhneacht 55.5 mm - Meáchan ±3.03 kg
- le seastán teilifíse:  
Leithead 509.7 mm - Airde 367.2 mm - Doimhneacht 145 mm - Meáchan ±3.24 kg

### 24Pxx4109

- gan seastán teilifíse:  
Leithead 550.4 mm - Airde 345.7 mm - Doimhneacht 55.5 mm - Meáchan ±3.3 kg
- le seastán teilifíse:  
Leithead 550.4 mm - Airde 386.8 mm - Doimhneacht 145 mm - Meáchan ±3.51 kg

### 28Pxx4109

- gan seastán teilifíse:  
Leithead 635.1 mm - Airde 396.7 mm - Doimhneacht 80.8 mm -

Meáchan ±4.33 kg

- le seastán teilifíse:  
Leithead 635.1 mm - Airde 438 mm - Doimhneacht 190 mm - Meáchan ±4.89 kg

### 32Pxx41x9

- gan seastán teilifíse:  
Leithead 725.7 mm - Airde 432.1 mm - Doimhneacht 94 mm - Meáchan ±5.06 kg
- le seastán teilifíse:  
Leithead 725.7 mm - Airde 487.8 mm - Doimhneacht 190 mm - Meáchan ±5.66 kg

### 39Pxx41x9

- gan seastán teilifíse:  
Leithead 878.3 mm - Airde 517.4 mm - Doimhneacht 94 mm - Meáchan ±6.88 kg
- le seastán teilifíse:  
Leithead 878.3 mm - Airde 571.4 mm - Doimhneacht 250 mm - Meáchan ±8.9 kg

### 40Pxx41x9

- gan seastán teilifíse:  
Leithead 919 mm - Airde 538.5 mm - Doimhneacht 94 mm - Meáchan ±7.68 kg
- le seastán teilifíse:  
Leithead 919 mm - Airde 594.1 mm - Doimhneacht 250 mm - Meáchan ±9.14 kg

### 42Pxx41x9

- gan seastán teilifíse:  
Leithead 958 mm - Airde 563 mm - Doimhneacht 94 mm - Meáchan ±7.8 kg
- le seastán teilifíse:  
Leithead 958 mm - Airde 617 mm - Doimhneacht 250 mm - Meáchan ±9.9 kg

### 47Pxx41x9

- gan seastán teilifíse:  
Leithead 1099 mm - Airde 626 mm - Doimhneacht 94 mm - Meáchan ±9.4 kg
- le seastán teilifíse:  
Leithead 1099 mm - Airde 681 mm - Doimhneacht 270 mm - Meáchan ±11.8 kg

### 50Pxx41x9

- gan seastán teilifíse:  
Leithead 1125 mm - Airde 656 mm - Doimhneacht 94 mm - Meáchan ±10.7 kg
- le seastán teilifíse:  
Leithead 1125 mm - Airde 709 mm - Doimhneacht 270 mm - Meáchan ±13.1 kg

## Toisí agus meáchain\_41x9/4209

### 20Pxx4109

- gan seastán teilifíse:

Leithead 460.9 mm - Airde 299 mm - Doimhneacht 53.3 mm - Meáchan  $\pm 2.62$  kg

- le seastán teilifíse:

Leithead 460.9 mm - Airde 343.5 mm - Doimhneacht 145 mm - Meáchan  $\pm 2.83$  kg

### 22Pxx4109/22Pxx4209

- gan seastán teilifíse:

Leithead 509.7 mm - Airde 322.7 mm - Doimhneacht 55.5 mm - Meáchan  $\pm 3.03$  kg

- le seastán teilifíse:

Leithead 509.7 mm - Airde 367.2 mm - Doimhneacht 145 mm - Meáchan  $\pm 3.24$  kg

### 24Pxx4109

- gan seastán teilifíse:

Leithead 550.4 mm - Airde 345.7 mm - Doimhneacht 55.5 mm - Meáchan  $\pm 3.3$  kg

- le seastán teilifíse:

Leithead 550.4 mm - Airde 386.8 mm - Doimhneacht 145 mm - Meáchan  $\pm 3.51$  kg

### 28Pxx4109

- gan seastán teilifíse:

Leithead 635.1 mm - Airde 396.7 mm - Doimhneacht 80.8 mm - Meáchan  $\pm 4.33$  kg

- le seastán teilifíse:

Leithead 635.1 mm - Airde 438 mm - Doimhneacht 190 mm - Meáchan  $\pm 4.89$  kg

### 32Pxx41x9

- gan seastán teilifíse:

Leithead 725.7 mm - Airde 432.1 mm - Doimhneacht 94 mm - Meáchan  $\pm 5.06$  kg

- le seastán teilifíse:

Leithead 725.7 mm - Airde 487.8 mm - Doimhneacht 190 mm - Meáchan  $\pm 5.66$  kg

### 39Pxx41x9

- gan seastán teilifíse:

Leithead 878.3 mm - Airde 517.4 mm - Doimhneacht 94 mm - Meáchan  $\pm 6.88$  kg

- le seastán teilifíse:

Leithead 878.3 mm - Airde 571.4 mm - Doimhneacht 250 mm - Meáchan  $\pm 8.9$  kg

### 40Pxx41x9

- gan seastán teilifíse:

Leithead 919 mm - Airde 538.5 mm - Doimhneacht 94 mm - Meáchan  $\pm 7.68$  kg

- le seastán teilifíse:

Leithead 919 mm - Airde 594.1 mm - Doimhneacht 250 mm - Meáchan  $\pm 9.14$  kg

### 42Pxx41x9

- gan seastán teilifíse:

Leithead 958 mm - Airde 563 mm - Doimhneacht 94 mm - Meáchan  $\pm 7.8$  kg

- le seastán teilifíse:

Leithead 958 mm - Airde 617 mm - Doimhneacht 250 mm - Meáchan  $\pm 9.9$  kg

### 47Pxx41x9

- gan seastán teilifíse:

Leithead 1099 mm - Airde 626 mm - Doimhneacht 94 mm - Meáchan  $\pm 9.4$  kg

- le seastán teilifíse:

Leithead 1099 mm - Airde 681 mm - Doimhneacht 270 mm - Meáchan  $\pm 11.8$  kg

### 50Pxx41x9

- gan seastán teilifíse:

Leithead 1125 mm - Airde 656 mm - Doimhneacht 94 mm - Meáchan  $\pm 10.7$  kg

- le seastán teilifíse:

Leithead 1125 mm - Airde 709 mm - Doimhneacht 270 mm - Meáchan  $\pm 13.1$  kg

## Toisí agus meáchain\_4009

### 23Pxx4009

- gan seastán teilifíse:

Leithead 545.1 mm - Airde 344 mm - Doimhneacht 55.5 mm - Meáchan  $\pm 3.05$  kg

- le seastán teilifíse:

Leithead 545.1 mm - Airde 385.6 mm - Doimhneacht 145 mm - Meáchan  $\pm 3.26$  kg

### 32Pxx4009

- gan seastán teilifíse:

Leithead 726.5 mm - Airde 435.6 mm - Doimhneacht 87.8 mm - Meáchan  $\pm 4.83$  kg

- le seastán teilifíse:

Leithead 726.5 mm - Airde 462.3 mm - Doimhneacht 333.8 mm

- Meáchan  $\pm 4.98$  kg

#### 40Pxx4009

- gan seastán teilifíse:

Leithead 903.5 mm - Airde 523.1 mm - Doimhneacht 88.1 mm -  
Meáchan  $\pm 7.4$  kg

- le seastán teilifíse:

Leithead 903.5 mm - Airde 550.4 mm - Doimhneacht 255.8 mm  
- Meáchan  $\pm 7.8$  kg

#### 50Pxx4009

- gan seastán teilifíse:

Leithead 1123.6 mm - Airde 658 mm - Doimhneacht 88 mm -  
Meáchan  $\pm 12.4$  kg

- le seastán teilifíse:

Leithead 1123.6 mm - Airde 684.4 mm - Doimhneacht 256 mm  
- Meáchan  $\pm 13$  kg

---

14.9

## Toisí agus meáchain\_5109

#### 32Pxx5109

- gan seastán teilifíse:

Leithead 725.7 mm - Airde 429.2 mm - Doimhneacht 55.4 mm -  
Meáchan  $\pm 4.97$  kg

- le seastán teilifíse:

Leithead 725.7 mm - Airde 479.7 mm - Doimhneacht 190 mm -  
Meáchan  $\pm 5.57$  kg

#### 40Pxx5109

- gan seastán teilifíse:

Leithead 918.2 mm - Airde 536.5 mm - Doimhneacht 56.3 mm -  
Meáchan  $\pm 7.82$  kg

- le seastán teilifíse:

Leithead 918.2 mm - Airde 592.1 mm - Doimhneacht 249.8 mm  
- Meáchan  $\pm 9.9$  kg

#### 48Pxx5109

- gan seastán teilifíse:

Leithead 1082 mm - Airde 625 mm - Doimhneacht 57 mm -  
Meáchan  $\pm 10.8$  kg

- le seastán teilifíse:

Leithead 1082 mm - Airde 680 mm - Doimhneacht 250 mm -  
Meáchan  $\pm 13.3$  kg

#### 55Pxx5109

- gan seastán teilifíse:

Leithead 1243.2 mm - Airde 720.6 mm - Doimhneacht 78 mm -  
Meáchan  $\pm 16.8$  kg

- le seastán teilifíse:

Leithead 1243.2 mm - Airde 770.5 mm - Doimhneacht 270 mm  
- Meáchan  $\pm 19.4$  kg

---

14.8

## Toisí agus meáchain\_43x9

#### 32Pxx43x9

- gan seastán teilifíse:

Leithead 726.5 mm - Airde 424.3 mm - Doimhneacht 63.6 mm -  
Meáchan  $\pm 5$  kg

- le seastán teilifíse:

Leithead 726.5 mm - Airde 485.3 mm - Doimhneacht 186.2 mm  
- Meáchan  $\pm 5.6$  kg

#### 40Pxx43x9

- gan seastán teilifíse:

Leithead 903.5 mm - Airde 523.1 mm - Doimhneacht 88.1 mm -  
Meáchan  $\pm 7.73$  kg

- le seastán teilifíse:

Leithead 903.5 mm - Airde 570.8 mm - Doimhneacht 243.1 mm  
- Meáchan  $\pm 9.9$  kg

#### 50Pxx43x9

- gan seastán teilifíse:

Leithead 1123.6 mm - Airde 658 mm - Doimhneacht 88 mm -  
Meáchan  $\pm 12.4$  kg

- le seastán teilifíse:

Leithead 1123.6 mm - Airde 706 mm - Doimhneacht 252.8 mm  
- Meáchan  $\pm 14.8$  kg

---

14.10

## Dimensions and weights\_5199/5209

#### 42Pxx5199/42Pxx5209

- gan seastán teilifíse:

Leithead 952.2 mm - Airde 557.1 mm - Doimhneacht 69.6 mm -  
Meáchan  $\pm 10.4$  kg

- le seastán teilifíse:

Leithead 952.2 mm - Airde 616.9 mm - Doimhneacht 213.1 mm  
- Meáchan  $\pm 11.7$  kg

#### 47Pxx5109/47Pxx5209

- gan seastán teilifíse:

Leithead 1063.9 mm - Airde 619.9 mm - Doimhneacht 69.6 mm  
- Meáchan ±13.4 kg

- le seastán teilifíse:

Leithead 1063.9 mm - Airde 679.7 mm - Doimhneacht 254.4 mm - Meáchan ±14.8 kg

## 55Pxx5109/55Pxx5209

- gan seastán teilifíse:

Leithead 1233.8 mm - Airde 715.5 mm - Doimhneacht 76.4 mm - Meáchan ±18.8 kg

- le seastán teilifíse:

Leithead 1233.8 mm - Airde 782 mm - Doimhneacht 300 mm - Meáchan ±20.5 kg

---

14.11

## Toisí agus meáchain\_5219

### 24Pxx5219

- gan seastán teilifíse:

Leithead 552.3 mm - Airde 331.5 mm - Doimhneacht 54.8 mm - Meáchan ±3.4 kg

- le seastán teilifíse:

Leithead 552.3 mm - Airde 338.8 mm - Doimhneacht 121.5 mm - Meáchan ±3.66 kg

---

14.12

## Nascacht\_20"-28"\_4009/4109/4209/5219

### Do PxKxxx9

#### Cúl na teilifíse

- HDMI 1 ARC: Cainéal Fillte Fuaim HDMI
- SERV. U: Port seirbhíse
- TV ANTENNA: 75 ohm comhaiseach (IEC)
- SCART (RGB/CVBS): cuibheoir SCART
- AUDIO IN (DVI): Mion-seac 3.5mm stéireó
- DIGITAL AUDIO OUT: SPDIF
- Cluasáin: Steiréó mion-seac 3.5mm
- VGA: ionchur PC

#### Taobh na teilifíse

- CI: Comhéadan Coiteann
- USB
- Sataillt

### Do PxHxxx9/PxTxxx9

#### Cúl na teilifíse

- HDMI 1 ARC: Cainéal Fillte Fuaim HDMI
- SERV. U: Port seirbhíse
- TV ANTENNA: 75 ohm comhaiseach (IEC)
- SCART (RGB/CVBS): cuibheoir SCART
- AUDIO IN (DVI): Mion-seac 3.5mm stéireó
- DIGITAL AUDIO OUT: SPDIF
- Cluasáin: Steiréó mion-seac 3.5mm
- VGA: ionchur PC

#### Taobh na teilifíse

- CI: Comhéadan Coiteann
- USB

---

14.13

## Nascacht\_32"-39"\_41x9

### Do PxKxxx9

#### Cúl na teilifíse

- HDMI 2
- SERV. U: Port seirbhíse
- TV ANTENNA: 75 ohm comhaiseach (IEC)
- SCART (RGB/CVBS): cuibheoir SCART

#### Taobh na teilifíse

- DIGITAL AUDIO OUT: SPDIF
- HDMI 1 ARC: Cainéal Fillte Fuaim HDMI
- CI: Comhéadan Coiteann
- USB
- Sataillt

### Do PxHxxx9/PxTxxx9

#### Cúl na teilifíse

- HDMI 2
- SERV. U: Port seirbhíse
- TV ANTENNA: 75 ohm comhaiseach (IEC)
- SCART (RGB/CVBS): cuibheoir SCART

#### Taobh na teilifíse

- DIGITAL AUDIO OUT: SPDIF
- HDMI 1 ARC: Cainéal Fillte Fuaim HDMI
- CI: Comhéadan Coiteann
- USB

---

14.14

## Nascacht\_40"-50"\_41x9

### Do PxKxxx9

#### Cúl na teilifíse

- HDMI 1 ARC: Cainéal Fillte Fuaim HDMI
- HDMI 2
- HDMI 3

- SERV. U: Port seirbhíse
- TV ANTENNA: 75 ohm comhaiseach (IEC)
- SCART (RGB/CVBS): cuibheoir SCART
- AUDIO IN (DVI): Mion-seac 3.5mm steiréó
- DIGITAL AUDIO OUT: SPDIF
- Clusáin: Steiréó 3.5mm mion-seac
- USB 2

#### Taobh na teilifíse

- CI: Comhéadan Coiteann
- USB 1
- Sataillt

## Do PxHxxx9/PxTxxx9

#### Cúl na teilifíse

- HDMI 1 ARC: Cainéal Fillte Fuaim HDMI
- HDMI 2
- HDMI 3 (Do chineálacha PFT41x9 amháin)
- SERV. U: Port seirbhíse
- TV ANTENNA: 75 ohm comhaiseach (IEC)
- SCART (RGB/CVBS): cuibheoir SCART
- AUDIO IN (DVI): Mion-seac 3.5mm steiréó
- DIGITAL AUDIO OUT: SPDIF
- Clusáin: Steiréó 3.5mm mion-seac
- USB 2 (Do chineálacha PFT41x9 amháin)

#### Taobh na teilifíse

- CI: Comhéadan Coiteann
- USB 1

14.15

## Nascacht\_32"-55"\_4009/43x9/510 9/5199/5209

## Do PxKxxx9

#### Cúl na teilifíse

- HDMI 1 ARC: Cainéal Fillte Fuaim HDMI
- HDMI 2
- SERV. U: Port seirbhíse
- TV ANTENNA: 75 ohm comhaiseach (IEC)
- SCART (RGB/CVBS): cuibheoir SCART
- AUDIO IN (DVI): Mion-seac 3.5mm steiréó
- DIGITAL AUDIO OUT: SPDIF
- Clusáin: Steiréó 3.5mm mion-seac

#### Taobh na teilifíse

- CI: Comhéadan Coiteann
- USB
- Sataillt

## Do PxHxxx9/PxTxxx9

#### Cúl na teilifíse

- HDMI 1 ARC: Cainéal Fillte Fuaim HDMI
- HDMI 2
- SERV. U: Port seirbhíse
- TV ANTENNA: 75 ohm comhaiseach (IEC)
- SCART (RGB/CVBS): cuibheoir SCART
- AUDIO IN (DVI): Mion-seac 3.5mm steiréó
- DIGITAL AUDIO OUT: SPDIF
- Clusáin: Steiréó 3.5mm mion-seac

#### Taobh na teilifíse

- CI: Comhéadan Coiteann
- USB

14.16

## Nascacht

## Do PxKxxx9

#### Cúl na teilifíse

- HDMI 1 ARC: Cainéal Fillte Fuaim HDMI
- HDMI 2
- HDMI 3
- SERV. U: Port seirbhíse
- TV ANTENNA: 75 ohm comhaiseach (IEC)
- SCART (RGB/CVBS): cuibheoir SCART
- AUDIO IN (DVI): Mion-seac 3.5mm steiréó
- DIGITAL AUDIO OUT: SPDIF
- Clusáin: Steiréó 3.5mm mion-seac
- USB 2

#### Taobh na teilifíse

- CI: Comhéadan Coiteann
- USB 1
- Sataillt

## Do PxHxxx9/PxTxxx9

#### Cúl na teilifíse

- HDMI 1 ARC: Cainéal Fillte Fuaim HDMI
- HDMI 2
- HDMI 3 (Do chineálacha PFT41x9 amháin)
- SERV. U: Port seirbhíse
- TV ANTENNA: 75 ohm comhaiseach (IEC)
- SCART (RGB/CVBS): cuibheoir SCART
- AUDIO IN (DVI): Mion-seac 3.5mm steiréó
- DIGITAL AUDIO OUT: SPDIF
- Clusáin: Steiréó 3.5mm mion-seac
- USB 2 (Do chineálacha PFT41x9 amháin)

#### Taobh na teilifíse

- CI: Comhéadan Coiteann
- USB 1

## Fuaim

- Cumhacht aschuir (RMS @ 10% THD): 23": 5W, 32"/40": 10W, 50": 20W

- Monofónach / Steiréó

Breisiú fuaime: lmfhuaim lontach, Fuaim Shoiléir

## Ilmheáin

Tabhair faoi deara: Ní mór d'ainmneacha comhad ilmheáin a bheith 128 caractar nó níos lú.

### Naisc ilmheáin a dtacaítear leo

- USB 2.0 (FAT / FAT 32 / NTFS): ná nasc ach gléasanna USB a ídfron 500 mA cumhachta nó níos lú.

### Comhaid íomhá a dtacaítear leo

- JPEG: \*.jpg, \*.jpeg
- PNG: \*.png.jpg

### Comhaid fuaime a dtacaítear leo

- MPEG1: \*.mp3

### Comhaid físe a dtacaítear leo

- \*.avi, \*.mp4, \*.mov, \*.mkv, \*.mpg, \*.mpeg

### Formáid fotheideal a dtacaítear léi

- SRT: tacaíocht ilteanga

### Formáid fuaime/físe tacaithe

File Extensions	Container	Video Decoder	Resolution	Audio Decoder
*.avi	AVI	X264 - H264/AVC encoder (D264), 1920x1080, 30 fps MPEG Layer-3, 192 kbit/s, 48,000 Hz, Stereo	1920 x 1080	MP3, MP2, AC3
		Xvid	1920 x 1080	MP3, MP2
		MPEG1	768 x 576	MP3, MP2, AC3
		MPEG2	1920 x 1080	MP3, MP2, AC3
		H.264	1920 x 1080	MP3, MP2, AC3
		MPEG-4	1920 x 1080	MP3, MP2, AC3
*.mp4 *.mov		H.264	1920 x 1080	MP3
		MPEG-4	1920 x 1080	MP3
*.mkv	MKV	H.264	1920 x 1080	MP3, AC3
		MPEG-4	1920 x 1080	MP3, MP2, AC3
*.mpg *.mpeg	PS (Program Stream)	MPEG1	768 x 576	MP2, AC3
		MPEG2	1920 x 1080	MP2, AC3

File Extensions	Container	Video Decoder	Resolution	Audio Decoder
Others	TS (Transport Stream)	MPEG2	1920 x 1080	MP2, AC3
		H.264	1920 x 1080	MP2, AC3

# Bogearáí

15.1

## Nuashonrú bogearraí

### Nuashonraigh ó USB

D'fhéadfadh sé a bheith riachtanach bogearraí na teilihise a nuashonrú. Teastaíonn ríomhaire uait agus gléas cuimhne USB chun na bogearraí a uaslódáil ar an teilihís. Úsáid gléas cuimhne USB a bhfuil 256MB de spás saor air. Bí cinnte go bhfuil cosaint ar scríobh casta as.

#### 1. Tosaigh an nuashonrú ar an teilihís

Chun an nuashonrú bogearraí a thosú . . .

Brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**.

Roghnaigh **Nuashonraigh bogearraí > USB** agus brúigh **OK**.

#### 2. Aithin an teilihís

Cuir an chuimhne USB isteach i gceann de na naisc USB ar an teilihís.

Roghnaigh **Tosaigh** agus brúigh **OK**. Scríobhtar comhaid aitheantaí ar an ngléas cuimhne USB.

#### 3. Íoslódáil bogearraí na teilihise

Cuir an chuimhne USB isteach i do ríomhaire.

Ar an ngléas cuimhne USB, aimsigh an comhad [update.htm](#) agus cliceáil faoi dhó air.

Cliceáil ar **Seol ID**.

Má tá bogearraí nua ar fáil, íoslódáil an comhad .zip.

I ndiaidh na híoslódála, dízipeáil agus cóipeáil an comhad [autorun.upg](#) go dtí an gléas cuimhne USB.

Ná cuir an comhad seo i bhfillteán.

#### 4. Nuashonraigh bogearraí na teilihise

Cuir an chuimhne USB isteach sa teilihís arís. Tosóidh an nuashonrú go huathoilbríoch.

Casann an teilihís í féin as ar feadh 10 soicind agus ansin casann sí air arís. Fan le do thoil.

**Ná . . .**

- úsáid an cianrialtán

- bain an gléas cuimhne USB amach ón teilihís

Má chliseann ar an gcumhacht i rith an nuashonraithe, ná bain as an gléas cuimhne USB ón teilihís go deo. Nuair a thiocfaidh an chumhacht ar ais, leanfaidh an nuashonrú ar aghaidh.

15.2

## Leagan bogearraí

Chun féachaint ar leagan reatha bogearraí na teilihise . . .

1. Brúigh  agus roghnaigh **Suiteáil** agus brúigh **OK**.

2. Roghnaigh **Socrúithe bogearraí** agus brúigh **OK**.

3. Roghnaigh **Eolas faoin mbogearraí reatha** agus féach ar **Leagan Eisiúna**.

4. Brúigh , arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

15.3

## Bogearraí foinse oscailte

Tá bogearraí foinse oscailte sa teilihís seo. Tairgeann TP Vision Europe B.V. leis seo cóip den chód foinse comhfheagrach iomlán do na pacáistí bogearraí foinse oscailte faoi chóipcheart a úsáidtear sa tairge seo a sheachadadh, ach iarratas a bheith déanta, sa chás go bhfuil a leithéid de thairiscint iarrtha ag na ceadúnais faoi seach.

Tá an tairiscint seo bailí ar feadh tréimhse suas le trí bliana i ndiaidh an tairgeadh a cheannach do dhuine ar bith a bhfuil an te-eolas seo acu.

Chun an cód foinse a fháil, scríobh i mBéarla le do thoil chuirig . . .

Intellectual Property Dept.

TP Vision Europe B.V.

Prins Bernhardplein 200

1097 JB Amsterdam

The Netherlands

15.4

## Open source license

Acknowledgements and License Texts for any open source software used in this product.

This is a document describing the distribution of the source code used in this product, which fall either under the GNU General Public License (the GPL), or the GNU Lesser General Public License (the LGPL), or any other open source license. Instructions to obtain source code for this software can be found in the documentation supplied with this product.

TP VISION MAKES NO WARRANTIES WHATSOEVER, EITHER EXPRESS OR IMPLIED, INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, REGARDING THIS SOFTWARE. TP Vision offers no support for this software. The preceding does not affect your warranties and statutory rights regarding any product(s) you purchased. It only applies to this source code made available to you.

**zlib (1.2.7)** A massively spiffy yet delicately unobtrusive compression library. Source: <http://www.zlib.net/> This piece of software is made available under the terms and conditions of the

zlib license, which can be found below.

libjpeg (6b) It is a widely used C library for reading and writing JPEG image files. Source: <http://libjpeg.sourceforge.net/> This piece of software is made available under the terms and conditions of the JPEG license, which can be found below.

libsqLite3 (3.7.14) SQLite is a C library that implements an SQL database engine. Programs that link with the SQLite library can have SQL database access without running a separate RDBMS process.

Source:

<http://linuxappfinder.com/package/libsqLite3-0> This piece of software is made available under the terms and conditions of the SQLite public domain license, which can be found below.

Openssl (1.0.0.d) A toolkit implementing SSL v2/v3 and TLS protocols with full-strength cryptography world-wide. Source: [www.openssl.org](http://www.openssl.org) This piece of software is made available under the terms and conditions of the Apache license, which can be found below.

libboost (1.51) Provides a repository for free peer-reviewed portable C++ source libraries. The emphasis is on libraries which work well with the C++ standard library. Source: [www.boost.org](http://www.boost.org) This piece of software is made available under the terms and conditions of the Boost license, which can be found below.

libdirectfb (1.4.11) DirectFB is a graphics library which was designed with embedded systems in mind. It offers maximum hardware accelerated performance at a minimum of resource usage and overhead. Source: <http://directfb.org> This piece of software is made available under the terms and conditions of the GNU Lesser General Public License, which can be found below.

libTomMath (0.42.0) A free open source portable number theoretic multiple-precision integer library written entirely in C. Source: <http://libtom.org/> This piece of software is made available under the terms and conditions of the WTFPL license, which can be found at this site: [www.wtfpl.net/txt/copying](http://www.wtfpl.net/txt/copying)

MTD utility (1.5.0) MTD subsystem (Memory Technology Devices) provides an abstraction layer for raw flash devices. It makes it possible to use the same API when working with different flash types and technologies, e.g. NAND, OneNAND, NOR, AG-AND, ECC'd NOR, etc. MTD subsystem does not deal with block devices like MMC, eMMC, SD, CompactFlash, etc. These devices are not raw flashes but they have a Flash Translation layer inside, which makes them look like block devices. These devices are the subject of the Linux block subsystem, not MTD.

Source:

<http://www.linux-mtd.infradead.org/source.html> This piece of software is made available under the terms and conditions of the GNU General Public License, which can be found below.

FFMpeg (0.6) Cross-platform solution to record, convert and stream audio and video. It includes libavcodec - the leading audio/video codec library. Source: [www.ffmpeg.org](http://www.ffmpeg.org) This piece of software is made available under the terms and conditions of the GNU Lesser General Public License version 2.1 or GNU General Public License version 2, which can be found below.

---

zlib LICENSE zlib.h -- interface of the 'zlib' general purpose compression library version 1.2.8, April 28th, 2013

Copyright (C) 1995-2013 Jean-loup Gailly and Mark Adler  
This software is provided 'as-is', without any express or implied warranty. In no event will the authors be held liable for any damages arising from the use of this software.

Permission is granted to anyone to use this software for any purpose, including commercial applications, and to alter it and redistribute it freely, subject to the following restrictions:

1. The origin of this software must not be misrepresented; you must not claim that you wrote the original software. If you use this software in a product, an acknowledgment in the product documentation would be appreciated but is not required.
2. Altered source versions must be plainly marked as such, and must not be misrepresented as being the original software.
3. This notice may not be removed or altered from any source distribution.

Jean-loup Gailly ([jloup@gzip.org](mailto:jloup@gzip.org)) Mark Adler ([madler@alumni.caltech.edu](mailto:madler@alumni.caltech.edu))

---

Boost Software License - Version 1.0 - August 17th, 2003

Permission is hereby granted, free of charge, to any person or organization obtaining a copy of the software and accompanying documentation covered by this license (the "Software") to use, reproduce, display, distribute, execute, and transmit the Software, and to prepare derivative works of the Software, and to permit third-parties to whom the Software is furnished to do so, all subject to the following:

The copyright notices in the Software and this entire statement, including the above license grant, this restriction and the following disclaimer, must be included in all copies of the Software, in whole or in part, and all derivative works of the Software, unless such copies or derivative works are solely in the form of machine-executable object code generated by a source language processor.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE AND NON-INFRINGEMENT. IN NO EVENT SHALL THE COPYRIGHT HOLDERS OR ANYONE DISTRIBUTING THE SOFTWARE BE LIABLE FOR ANY DAMAGES OR OTHER LIABILITY, WHETHER IN CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

---

Independent JPEG Group's free JPEG software This package contains C software to implement JPEG image encoding, decoding, and transcoding. JPEG is a standardized compression method for full-color and gray-scale images.

The distributed programs provide conversion between JPEG "JFIF" format and image files in PBMPLUS PPM/PGM, GIF, BMP, and Targa file formats. The core compression and decompression library can easily be reused in other programs, such as image viewers. The package is highly portable C code; we have tested it on many machines ranging from PCs to Crays. We are releasing this software for both noncommercial and commercial use.

Companies are welcome to use it as the basis for JPEG-related

products. We do not ask a royalty, although we do ask for an acknowledgement in product literature (see the README file in the distribution for details). We hope to make this software industrial-quality --- although, as with anything that's free, we offer no warranty and accept no liability. For more information, contact jpeg-info@jpegclub.org.

Contents of this directory jpegsrc.vN.tar.gz contains source code, documentation, and test files for release N in Unix format. jpegsrN.zip contains source code, documentation, and test files for release N in Windows format.

jpegaltui.vN.tar.gz contains source code for an alternate user interface for cjpeg/djpeg in Unix format.

jpegaltuiN.zip contains source code for an alternate user interface for cjpeg/djpeg in Windows format.

wallace.ps.gz is a PostScript file of Greg Wallace's introductory article about JPEG. This is an update of the article that appeared in the April 1991 Communications of the ACM.

jpeg.documents.gz tells where to obtain the JPEG standard and documents about JPEG-related file formats.

jfif.ps.gz is a PostScript file of the JFIF (JPEG File Interchange Format) format specification.

jfif.txt.gz is a plain text transcription of the JFIF specification; it's missing a figure, so use the PostScript version if you can.

TIFFTechNote2.txt.gz is a draft of the proposed revisions to TIFF 6.0's JPEG support.

pm.errata.gz is the errata list for the first printing of the textbook "JPEG Still Image Data Compression Standard" by Pennebaker and Mitchell.

jdosobj.zip contains pre-assembled object files for JMENDOSA.ASM. If you want to compile the IJG code for MS-DOS, but don't have an assembler, these files may be helpful.

---

Expat LICENSE Copyright (c) 1998, 1999, 2000 Thai Open Source Software Center Ltd

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

**THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.**

---

DirectFB LICENSE (c) Copyright 2001-2007 The DirectFB Organization (directfb.org) (c) Copyright 2000-2004

Convergence (integrated media) GmbH All rights reserved.  
Written by Denis Oliver Kropp <dok@directfb.org>, Andreas Hundt <andi@fischlustig.de>, Sven Neumann <neo@directfb.org>, Ville Syrjälä <syrjala@sci.fi> and Claudio Ciccani <klan@users.sf.net>.

This library is free software; you can redistribute it and/or modify it under the terms of the GNU Lesser General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version. The complete text of the license is found in the file COPYING.

---

GNU General Public LICENSE version 2 (GPLv2) Copyright (C) 1989, 1991 Free Software Foundation, Inc. 59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

Preamble The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users.

This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Library General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it. For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and

modification follow.

## TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program. You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions: a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change. b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.

c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as

part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.

In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following: a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,

b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or, c)

Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License.

Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.

6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.

6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.

7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License.

If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

9. The Free Software Foundation may publish revised and/or

new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns. Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

#### NO WARRANTY

11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

---

SQLite Copyright All of the deliverable code in SQLite has been dedicated to the public domain by the authors. All code authors, and representatives of the companies they work for, have signed affidavits dedicating their contributions to the public domain and originals of those signed affidavits are stored in a firesafe at the main offices of Hwaci. Anyone is free to copy, modify, publish, use, compile, sell, or distribute the original SQLite code, either in source code form or as a compiled binary, for any purpose, commercial or non-commercial, and by any means.

The previous paragraph applies to the deliverable code in SQLite - those parts of the SQLite library that you actually bundle and ship with a larger application. Portions of the documentation and some code used as part of the build process might fall under other licenses. The details here are unclear. We do not worry about the licensing of the documentation and build code so much because none of these things are part of the core deliverable SQLite library.

All of the deliverable code in SQLite has been written from scratch. No code has been taken from other projects or from the open internet. Every line of code can be traced back to its original author, and all of those authors have public domain dedications on file. So the SQLite code base is clean and is uncontaminated with licensed code from other projects.  
Obtaining An Explicit License To Use SQLite Even though SQLite is in the public domain and does not require a license, some users want to obtain a license anyway. Some reasons for obtaining a license include:

You are using SQLite in a jurisdiction that does not recognize the public domain. You are using SQLite in a jurisdiction that does not recognize the right of an author to dedicate their work to the public domain. • You want to hold a tangible legal document as evidence that you have the legal right to use and distribute SQLite. • Your legal department tells you that you have to purchase a license.

If you feel like you really have to purchase a license for SQLite, Hwaci, the company that employs the architect and principal developers of SQLite, will sell you one.

Contributed Code In order to keep SQLite completely free and unencumbered by copyright, all new contributors to the SQLite code base are asked to dedicate their contributions to the public domain. If you want to send a patch or enhancement for possible inclusion in the SQLite source tree, please accompany the patch with the following statement:

The author or authors of this code dedicate any and all copyright interest in this code to the public domain. We make this dedication for the benefit of the public at large and to the detriment of our heirs and successors. We intend this dedication to be an overt act of relinquishment in perpetuity of all present and future rights to this code under copyright law.

We are not able to accept patches or changes to SQLite that are not accompanied by a statement such as the above. In addition, if you make changes or enhancements as an employee, then a simple statement such as the above is insufficient. You must also send by surface mail a copyright release signed by a company officer. A signed original of the copyright release should be mailed to:

Hwaci 6200 Maple Cove Lane Charlotte, NC 28269 USA

---

GNU GENERAL PUBLIC LICENSE Version 2, June 1991  
Copyright (C) 1989, 1991 Free Software Foundation, Inc. 51  
Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA  
Everyone is permitted to copy and distribute verbatim copies of  
this license document, but changing it is not allowed.

#### Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share

and change free software--to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Lesser General Public License instead.) You can apply it to your programs, too. When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it. For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps: (1) copyright the software, and (2) offer you this license which gives you legal permission to copy, distribute and/or modify the software. Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

**TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION 0.** This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law: that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program. You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions: a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change. b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License. c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program.

In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following: a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or, b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of

physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or, c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for non-commercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.

6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.

7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who

receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

9. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns. Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation.

If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

#### NO WARRANTY

11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE

QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

---

#### GNU GENERAL PUBLIC LICENSE Version 3, 29 June 2007

Copyright © 2007 Free Software Foundation, Inc. <http://fsf.org/> Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

#### Preamble

The GNU General Public License is a free, copyleft license for software and other kinds of works.

The licenses for most software and other practical works are designed to take away your freedom to share and change the works. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change all versions of a program--to make sure it remains free software for all its users. We, the Free Software Foundation, use the GNU General Public License for most of our software; it applies also to any other work released this way by its authors. You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for them if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs, and that you know you can do these things.

To protect your rights, we need to prevent others from denying you these rights or asking you to surrender the rights. Therefore, you have certain responsibilities if you distribute copies of the software, or if you modify it: responsibilities to respect the freedom of others.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must pass on to the recipients the same freedoms that you received. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

Developers that use the GNU GPL protect your rights with two steps: (1) assert copyright on the software, and (2) offer you this License giving you legal permission to copy, distribute and/or modify it.

For example, if you distribute copies of such a program, whether

grat or for a fee, you must pass on to the recipients the same freedoms that you received. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

Developers that use the GNU GPL protect your rights with two steps: (1) assert copyright on the software, and (2) offer you this License giving you legal permission to copy, distribute and/or modify it.

Finally, every program is threatened constantly by software patents. States should not allow patents to restrict development and use of software on general-purpose computers, but in those that do, we wish to avoid the special danger that patents applied to a free program could make it effectively proprietary. To prevent this, the GPL assures that patents cannot be used to render the program non-free.

The precise terms and conditions for copying, distribution and modification follow.

## TERMS AND CONDITIONS

0. Definitions. "This License" refers to version 3 of the GNU General Public License. "Copyright" also means copyright-like laws that apply to other kinds of works, such as semiconductor masks. "The Program" refers to any copyrightable work licensed under this License. Each licensee is addressed as "you".

"Licensees" and "recipients" may be individuals or organizations. To "modify" a work means to copy from or adapt all or part of the work in a fashion requiring copyright permission, other than the making of an exact copy. The resulting work is called a "modified version" of the earlier work or a work "based on" the earlier work.

A "covered work" means either the unmodified Program or a work based on the Program.

To "propagate" a work means to do anything with it that, without permission, would make you directly or secondarily liable for infringement under applicable copyright law, except executing it on a computer or modifying a private copy.

Propagation includes copying, distribution (with or without modification), making available to the public, and in some countries other activities as well.

To "convey" a work means any kind of propagation that enables other parties to make or receive copies. Mere interaction with a user through a computer network, with no transfer of a copy, is not conveying.

An interactive user interface displays "Appropriate Legal Notices" to the extent that it includes a convenient and prominently visible feature that (1) displays an appropriate copyright notice, and (2) tells the user that there is no warranty for the work (except to the extent that warranties are provided), that licensees may convey the work under this License, and how to view a copy of this License. If the interface presents a list of user commands or options, such as a menu, a prominent item in the list meets this criterion.

### 1. Source Code.

The "source code" for a work means the preferred form of the work for making modifications to it. "Object code" means any non-source form of a work.

A "Standard Interface" means an interface that either is an official standard defined by a recognized standards body, or, in the case of interfaces specified for a particular programming

language, one that is widely used among developers working in that language.

The "System Libraries" of an executable work include anything, other than the work as a whole, that (a) is included in the normal form of packaging a Major Component, but which is not part of that Major Component, and (b) serves only to enable use of the work with that Major Component, or to implement a Standard Interface for which an implementation is available to the public in source code form. A "Major Component", in this context, means a major essential component (kernel, window system, and so on) of the specific operating system (if any) on which the executable work runs, or a compiler used to produce the work, or an object code interpreter used to run it.

The "Corresponding Source" for a work in object code form means all the source code needed to generate, install, and (for an executable work) run the object code and to modify the work, including scripts to control those activities. However, it does not include the work's System Libraries, or general-purpose tools or generally available free programs which are used unmodified in performing those activities but which are not part of the work. For example, Corresponding Source includes interface definition files associated with source files for the work, and the source code for shared libraries and dynamically linked subprograms that the work is specifically designed to require, such as by intimate data communication or control flow between those subprograms and other parts of the work.

The Corresponding Source need not include anything that users can regenerate automatically from other parts of the Corresponding Source.

The Corresponding Source for a work in source code form is that same work.

### 2. Basic Permissions.

All rights granted under this License are granted for the term of copyright on the Program, and are irrevocable provided the stated conditions are met. This License explicitly affirms your unlimited permission to run the unmodified Program. The output from running a covered work is covered by this License only if the output, given its content, constitutes a covered work. This License acknowledges your rights of fair use or other equivalent, as provided by copyright law.

You may make, run and propagate covered works that you do not convey, without conditions so long as your license otherwise remains in force. You may convey covered works to others for the sole purpose of having them make modifications exclusively for you, or provide you with facilities for running those works, provided that you comply with the terms of this License in conveying all material for which you do not control copyright. Those thus making or running the covered works for you must do so exclusively on your behalf, under your direction and control, on terms that prohibit them from making any copies of your copyrighted material outside their relationship with you. Conveying under any other circumstances is permitted solely under the conditions stated below. Sublicensing is not allowed; section 10 makes it unnecessary.

3. Protecting Users' Legal Rights From Anti-Circumvention Law. No covered work shall be deemed part of an effective technological measure under any applicable law fulfilling obligations under article 11 of the WIPO copyright treaty

adopted on 20 December 1996, or similar laws prohibiting or restricting circumvention of such measures. When you convey a covered work, you waive any legal power to forbid circumvention of technological measures to the extent such circumvention is effected by exercising rights under this License with respect to the covered work, and you disclaim any intention to limit operation or modification of the work as a means of enforcing, against the work's users, your or third parties' legal rights to forbid circumvention of technological measures.

#### 4. Conveying Verbatim Copies.

You may convey verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice; keep intact all notices stating that this License and any non-permissive terms added in accord with section 7 apply to the code; keep intact all notices of the absence of any warranty; and give all recipients a copy of this License along with the Program.

You may charge any price or no price for each copy that you convey, and you may offer support or warranty protection for a fee.

#### 5. Conveying Modified Source Versions.

You may convey a work based on the Program, or the modifications to produce it from the Program, in the form of source code under the terms of section 4, provided that you also meet all of these conditions:

- a) The work must carry prominent notices stating that you modified it, and giving a relevant date.
- b) The work must carry prominent notices stating that it is released under this License and any conditions added under section 7. This requirement modifies the requirement in section 4 to "keep intact all notices".

c) You must license the entire work, as a whole, under this License to anyone who comes into possession of a copy. This License will therefore apply, along with any applicable section 7 additional terms, to the whole of the work, and all its parts, regardless of how they are packaged. This License gives no permission to license the work in any other way, but it does not invalidate such permission if you have separately received it.

- d) If the work has interactive user interfaces, each must display Appropriate Legal Notices; however, if the Program has interactive interfaces that do not display Appropriate Legal Notices, your work need not make them do so.

A compilation of a covered work with other separate and independent works, which are not by their nature extensions of the covered work, and which are not combined with it such as to form a larger program, in or on a volume of a storage or distribution medium, is called an "aggregate" if the compilation and its resulting copyright are not used to limit the access or legal rights of the compilation's users beyond what the individual works permit. Inclusion of a covered work in an aggregate does not cause this License to apply to the other parts of the aggregate.

#### 6. Conveying Non-Source Forms.

You may convey a covered work in object code form under the terms of sections 4 and 5, provided that you also convey the machine-readable Corresponding Source under the terms of this License, in one of these ways:

- a) Convey the object code in, or

embodied in, a physical product (including a physical distribution medium), accompanied by the Corresponding Source fixed on a durable physical medium customarily used for software interchange.

- b) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by a written offer, valid for at least three years and valid for as long as you offer spare parts or customer support for that product model, to give anyone who possesses the object code either (1) a copy of the Corresponding Source for all the software in the product that is covered by this License, on a durable physical medium customarily used for software interchange, for a price no more than your reasonable cost of physically performing this conveying of source, or (2) access to copy the Corresponding Source from a network server at no charge.
- c) Convey individual copies of the object code with a copy of the written offer to provide the Corresponding Source. This alternative is allowed only occasionally and noncommercially, and only if you received the object code with such an offer, in accord with subsection 6b.

d) Convey the object code by offering access from a designated place (gratis or for a charge), and offer equivalent access to the Corresponding Source in the same way through the same place at no further charge. You need not require recipients to copy the Corresponding Source along with the object code. If the place to copy the object code is a network server, the Corresponding Source may be on a different server (operated by you or a third party) that supports equivalent copying facilities, provided you maintain clear directions next to the object code saying where to find the Corresponding Source. Regardless of what server hosts the Corresponding Source, you remain obligated to ensure that it is available for as long as needed to satisfy these requirements.

e) Convey the object code using peer-to-peer transmission, provided you inform other peers where the object code and Corresponding Source of the work are being offered to the general public at no charge under subsection 6d.

A separable portion of the object code, whose source code is excluded from the Corresponding Source as a System Library, need not be included in conveying the object code work.

A "User Product" is either (1) a "consumer product", which means any tangible personal property which is normally used for personal, family, or household purposes, or (2) anything designed or sold for incorporation into a dwelling. In determining whether a product is a consumer product, doubtful cases shall be resolved in favor of coverage. For a particular product received by a particular user, "normally used" refers to a typical or common use of that class of product, regardless of the status of the particular user or of the way in which the particular user actually uses, or expects or is expected to use, the product. A product is a consumer product regardless of whether the product has substantial commercial, industrial or non-consumer uses, unless such uses represent the only significant mode of use of the product.

"Installation Information" for a User Product means any methods, procedures, authorization keys, or other information required to install and execute modified versions of a covered work in that User Product from a modified version of its Corresponding Source. The information must suffice to ensure that the continued functioning of the modified object code is in

no case prevented or interfered with solely because modification has been made.

If you convey an object code work under this section in, or with, or specifically for use in, a User Product, and the conveying occurs as part of a transaction in which the right of possession and use of the User Product is transferred to the recipient in perpetuity or for a fixed term (regardless of how the transaction is characterized), the Corresponding Source conveyed under this section must be accompanied by the Installation Information. But this requirement does not apply if neither you nor any third party retains the ability to install modified object code on the User Product (for example, the work has been installed in ROM).

The requirement to provide Installation Information does not include a requirement to continue to provide support service, warranty, or updates for a work that has been modified or installed by the recipient, or for the User Product in which it has been modified or installed. Access to a network may be denied when the modification itself materially and adversely affects the operation of the network or violates the rules and protocols for communication across the network.

Corresponding Source conveyed, and Installation Information provided, in accord with this section must be in a format that is publicly documented (and with an implementation available to the public in source code form), and must require no special password or key for unpacking, reading or copying.

#### 7. Additional Terms.

“Additional permissions” are terms that supplement the terms of this License by making exceptions from one or more of its conditions. Additional permissions that are applicable to the entire Program shall be treated as though they were included in this License, to the extent that they are valid under applicable law. If additional permissions apply only to part of the Program, that part may be used separately under those permissions, but the entire Program remains governed by this License without regard to the additional permissions.

When you convey a copy of a covered work, you may at your option remove any additional permissions from that copy, or from any part of it. (Additional permissions may be written to require their own removal in certain cases when you modify the work.) You may place additional permissions on material, added by you to a covered work, for which you have or can give appropriate copyright permission.

Notwithstanding any other provision of this License, for material you add to a covered work, you may (if authorized by the copyright holders of that material) supplement the terms of this License with terms:

- a) Disclaiming warranty or limiting liability differently from the terms of sections 15 and 16 of this License; or
- b) Requiring preservation of specified reasonable legal notices or author attributions in that material or in the Appropriate Legal Notices displayed by works containing it; or
- c) Prohibiting misrepresentation of the origin of that material, or requiring that modified versions of such material be marked in reasonable ways as different from the original version; or
- d) Limiting the use for publicity purposes of names of licensors or authors of the material; or
- e) Declining to grant rights under trademark law for use of some trade names, trademarks, or service marks; or

- f) Requiring indemnification of licensors and authors of that material by anyone who conveys the material (or modified versions of it) with contractual assumptions of liability to the recipient, for any liability that these contractual assumptions directly impose on those licensors and authors.

All other non-permissive additional terms are considered “further restrictions” within the meaning of section 10. If the Program as you received it, or any part of it, contains a notice stating that it is governed by this License along with a term that is a further restriction, you may remove that term. If a license document contains a further restriction but permits relicensing or conveying under this License, you may add to a covered work material governed by the terms of that license document, provided that the further restriction does not survive such relicensing or conveying.

If you add terms to a covered work in accord with this section, you must place, in the relevant source files, a statement of the additional terms that apply to those files, or a notice indicating where to find the applicable terms.

Additional terms, permissive or non-permissive, may be stated in the form of a separately written license, or stated as exceptions; the above requirements apply either way.

#### 8. Termination.

You may not propagate or modify a covered work except as expressly provided under this License. Any attempt otherwise to propagate or modify it is void, and will automatically terminate your rights under this License (including any patent licenses granted under the third paragraph of section 11).

However, if you cease all violation of this License, then your license from a particular copyright holder is reinstated (a) provisionally, unless and until the copyright holder explicitly and finally terminates your license, and (b) permanently, if the copyright holder fails to notify you of the violation by some reasonable means prior to 60 days after the cessation.

Moreover, your license from a particular copyright holder is reinstated permanently if the copyright holder notifies you of the violation by some reasonable means, this is the first time you have received notice of violation of this License (for any work) from that copyright holder, and you cure the violation prior to 30 days after your receipt of the notice.

Termination of your rights under this section does not terminate the licenses of parties who have received copies or rights from you under this License. If your rights have been terminated and not permanently reinstated, you do not qualify to receive new licenses for the same material under section 10.

#### 9. Acceptance Not Required for Having Copies.

You are not required to accept this License in order to receive or run a copy of the Program. Ancillary propagation of a covered work occurring solely as a consequence of using peer-to-peer transmission to receive a copy likewise does not require acceptance. However, nothing other than this License grants you permission to propagate or modify any covered work. These actions infringe copyright if you do not accept this License.

Therefore, by modifying or propagating a covered work, you indicate your acceptance of this License to do so.

#### 10. Automatic Licensing of Downstream Recipients.

Each time you convey a covered work, the recipient automatically receives a license from the original licensors, to

run, modify and propagate that work, subject to this License. You are not responsible for enforcing compliance by third parties with this License.

An “entity transaction” is a transaction transferring control of an organization, or substantially all assets of one, or subdividing an organization, or merging organizations. If propagation of a covered work results from an entity transaction, each party to that transaction who receives a copy of the work also receives whatever licenses to the work the party’s predecessor in interest had or could give under the previous paragraph, plus a right to possession of the Corresponding Source of the work from the predecessor in interest, if the predecessor has it or can get it with reasonable efforts.

You may not impose any further restrictions on the exercise of the rights granted or affirmed under this License. For example, you may not impose a license fee, royalty, or other charge for exercise of rights granted under this License, and you may not initiate litigation (including a cross-claim or counterclaim in a lawsuit) alleging that any patent claim is infringed by making, using, selling, offering for sale, or importing the Program or any portion of it.

#### 11. Patents.

A “contributor” is a copyright holder who authorizes use under this License of the Program or a work on which the Program is based. The work thus licensed is called the contributor’s “contributor version”. A contributor’s “essential patent claims” are all patent claims owned or controlled by the contributor, whether already acquired or hereafter acquired, that would be infringed by some manner, permitted by this License, of making, using, or selling its contributor version, but do not include claims that would be infringed only as a consequence of further modification of the contributor version. For purposes of this definition, “control” includes the right to grant patent sublicenses in a manner consistent with the requirements of this License. Each contributor grants you a non-exclusive, worldwide, royalty-free patent license under the contributor’s essential patent claims, to make, use, sell, offer for sale, import and otherwise run, modify and propagate the contents of its contributor version.

In the following three paragraphs, a “patent license” is any express agreement or commitment, however denominated, not to enforce a patent (such as an express permission to practice a patent or covenant not to sue for patent infringement). To “grant” such a patent license to a party means to make such an agreement or commitment not to enforce a patent against the party.

If you convey a covered work, knowingly relying on a patent license, and the Corresponding Source of the work is not available for anyone to copy, free of charge and under the terms of this License, through a publicly available network server or other readily accessible means, then you must either (1) cause the Corresponding Source to be so available, or (2) arrange to deprive yourself of the benefit of the patent license for this particular work, or (3) arrange, in a manner consistent with the requirements of this License, to extend the patent license to downstream recipients. “Knowingly relying” means you have actual knowledge that, but for the patent license, your conveying the covered work in a country, or your recipient’s use of the

covered work in a country, would infringe one or more identifiable patents in that country that you have reason to believe are valid.

If, pursuant to or in connection with a single transaction or arrangement, you convey, or propagate by procuring conveyance of, a covered work, and grant a patent license to some of the parties receiving the covered work authorizing them to use, propagate, modify or convey a specific copy of the covered work, then the patent license you grant is automatically extended to all recipients of the covered work and works based on it.

A patent license is “discriminatory” if it does not include within the scope of its coverage, prohibits the exercise of, or is conditioned on the non-exercise of one or more of the rights that are specifically granted under this License. You may not convey a covered work if you are a party to an arrangement with a third party that is in the business of distributing software, under which you make payment to the third party based on the extent of your activity of conveying the work, and under which the third party grants, to any of the parties who would receive the covered work from you, a discriminatory patent license (a) in connection with copies of the covered work conveyed by you (or copies made from those copies), or (b) primarily for and in connection with specific products or compilations that contain the covered work, unless you entered into that arrangement, or that patent license was granted, prior to 28 March 2007.

Nothing in this License shall be construed as excluding or limiting any implied license or other defenses to infringement that may otherwise be available to you under applicable patent law.

#### 12. No Surrender of Others’ Freedom.

If conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot convey a covered work so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not convey it at all. For example, if you agree to terms that obligate you to collect a royalty for further conveying from those to whom you convey the Program, the only way you could satisfy both those terms and this License would be to refrain entirely from conveying the Program.

#### 13. Use with the GNU Affero General Public License.

Notwithstanding any other provision of this License, you have permission to link or combine any covered work with a work licensed under version 3 of the GNU Affero General Public License into a single combined work, and to convey the resulting work. The terms of this License will continue to apply to the part which is the covered work, but the special requirements of the GNU Affero General Public License, section 13, concerning interaction through a network will apply to the combination as such.

#### 14. Revised Versions of this License.

The Free Software Foundation may publish revised and/or new versions of the GNU General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns. Each version is given a distinguishing version number. If the Program specifies that a certain numbered version of the GNU

General Public License "or any later version" applies to it, you have the option of following the terms and conditions either of that numbered version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of the GNU General Public License, you may choose any version ever published by the Free Software Foundation.

If the Program specifies that a proxy can decide which future versions of the GNU General Public License can be used, that proxy's public statement of acceptance of a version permanently authorizes you to choose that version for the Program.

Later license versions may give you additional or different permissions. However, no additional obligations are imposed on any author or copyright holder as a result of your choosing to follow a later version.

#### 15. Disclaimer of Warranty.

THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

#### 16. Limitation of Liability.

IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MODIFIES AND/OR CONVEYS THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

#### 17. Interpretation of Sections 15 and 16.

If the disclaimer of warranty and limitation of liability provided above cannot be given local legal effect according to their terms, reviewing courts shall apply local law that most closely approximates an absolute waiver of all civil liability in connection with the Program, unless a warranty or assumption of liability accompanies a copy of the Program in return for a fee.

END OF TERMS AND CONDITIONS

---

GNU LESSER GENERAL PUBLIC LICENSE Version 2.1,  
February 1999  
Copyright (C) 1991, 1999 Free Software Foundation, Inc. 51  
Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA  
Everyone is permitted to copy and distribute verbatim copies of

this license document, but changing it is not allowed.

[This is the first released version of the Lesser GPL. It also counts as the successor of the GNU Library Public License, version 2, hence the version number 2.1.]

#### Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public Licenses are intended to guarantee your freedom to share and change free software--to make sure the software is free for all its users.

This license, the Lesser General Public License, applies to some specially designated software packages--typically libraries--of the Free Software Foundation and other authors who decide to use it. You can use it too, but we suggest you first think carefully about whether this license or the ordinary General Public License is the better strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things.

To protect your rights, we need to make restrictions that forbid distributors to deny you these rights or to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library or if you modify it. For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public

License. We use this license for certain libraries in order to permit linking those libraries into non-free programs. When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

## TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this License"). Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or

translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

- a) The modified work must itself be a software library.
- b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.
- c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.
- d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful. (For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is

to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices. Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy. This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License. However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library".

The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law.

If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.)

Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the

Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications.

You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License.

Also, you must do one of these things: a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.) b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with. c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution. d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place. e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy. For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable.

It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is

otherwise permitted, and provided that you do these two things:  
a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above. b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.

10. Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties with this License.

11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

12. If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

13. The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.

14. If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

## NO WARRANTY

15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE

## POSSIBILITY OF SUCH DAMAGES.

GNU LESSER GENERAL PUBLIC LICENSE Version 3, 29 June 2007 Copyright © 2007 Free Software Foundation, Inc.  
<http://fsf.org/>

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed. This version of the GNU Lesser General Public License incorporates the terms and conditions of version 3 of the GNU General Public License, supplemented by the additional permissions listed below.

### 0. Additional Definitions.

As used herein, "this License" refers to version 3 of the GNU Lesser General Public License, and the "GNU GPL" refers to version 3 of the GNU General Public License.

"The Library" refers to a covered work governed by this License, other than an Application or a Combined Work as defined below.

An "Application" is any work that makes use of an interface provided by the Library, but which is not otherwise based on the Library. Defining a subclass of a class defined by the Library is deemed a mode of using an interface provided by the Library. A "Combined Work" is a work produced by combining or linking an Application with the Library. The particular version of the Library with which the Combined Work was made is also called the "Linked Version".

The "Minimal Corresponding Source" for a Combined Work means the Corresponding Source for the Combined Work, excluding any source code for portions of the Combined Work that, considered in isolation, are based on the Application, and not on the Linked Version.

The "Corresponding Application Code" for a Combined Work means the object code and/or source code for the Application, including any data and utility programs needed for reproducing the Combined Work from the Application, but excluding the System Libraries of the Combined Work.

### 1. Exception to Section 3 of the GNU GPL.

You may convey a covered work under sections 3 and 4 of this License without being bound by section 3 of the GNU GPL.

### 2. Conveying Modified Versions.

If you modify a copy of the Library, and, in your modifications, a facility refers to a function or data to be supplied by an Application that uses the facility (other than as an argument passed when the facility is invoked), then you may convey a copy of the modified version: a) under this License, provided that you make a good faith effort to ensure that, in the event an Application does not supply the function or data, the facility still operates, and performs whatever part of its purpose remains meaningful, or b) under the GNU GPL, with none of the additional permissions of this License applicable to that copy.

3. Object Code Incorporating Material from Library Header Files. The object code form of an Application may incorporate material from a header file that is part of the Library. You may convey such object code under terms of your choice, provided that, if the incorporated material is not limited to numerical parameters, data structure layouts and accessors, or small macros, inline functions and templates (ten or fewer lines in length), you do both of the following: a) Give prominent notice

with each copy of the object code that the Library is used in it and that the Library and its use are covered by this License. b) Accompany the object code with a copy of the GNU GPL and this license document.

### 4. Combined Works.

You may convey a Combined Work under terms of your choice that, taken together, effectively do not restrict modification of the portions of the Library contained in the Combined Work and reverse engineering for debugging such modifications, if you also do each of the following: a) Give prominent notice with each copy of the Combined Work that the Library is used in it and that the Library and its use are covered by this License. b) Accompany the Combined Work with a copy of the GNU GPL and this license document. c) For a Combined Work that displays copyright notices during execution, include the copyright notice for the Library among these notices, as well as a reference directing the user to the copies of the GNU GPL and this license document. d) Do one of the following: 0) Convey the Minimal Corresponding Source under the terms of this License, and the Corresponding Application Code in a form suitable for, and under terms that permit, the user to recombine or relink the Application with a modified version of the Linked Version to produce a modified Combined Work, in the manner specified by section 6 of the GNU GPL for conveying Corresponding Source. 1) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (a) uses at run time a copy of the Library already present on the user's computer system, and (b) will operate properly with a modified version of the Library that is interface-compatible with the Linked Version. e) Provide Installation Information, but only if you would otherwise be required to provide such information under section 6 of the GNU GPL, and only to the extent that such information is necessary to install and execute a modified version of the Combined Work produced by recombining or relinking the Application with a modified version of the Linked Version. (If you use option 4d0, the Installation Information must accompany the Minimal Corresponding Source and Corresponding Application Code. If you use option 4d1, you must provide the Installation Information in the manner specified by section 6 of the GNU GPL for conveying Corresponding Source.)

### 5. Combined Libraries.

You may place library facilities that are a work based on the Library side by side in a single library together with other library facilities that are not Applications and are not covered by this License, and convey such a combined library under terms of your choice, if you do both of the following: a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities, conveyed under the terms of this License. b) Give prominent notice with the combined library that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

6. Revised Versions of the GNU Lesser General Public License. The Free Software Foundation may publish revised and/or new versions of the GNU Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or

concerns.

Each version is given a distinguishing version number. If the Library as you received it specifies that a certain numbered version of the GNU Lesser General Public License "or any later version" applies to it, you have the option of following the terms and conditions either of that published version or of any later version published by the Free Software Foundation. If the Library as you received it does not specify a version number of the GNU Lesser General Public License, you may choose any version of the GNU Lesser General Public License ever published by the Free Software Foundation.

If the Library as you received it specifies that a proxy can decide whether future versions of the GNU Lesser General Public License shall apply, that proxy's public statement of acceptance of any version is permanent authorization for you to choose that version for the Library.

---

Apache LICENSE Version 2.0, January 2004

<http://www.apache.org/licenses/> TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

## 1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document. "Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity. "You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License. "Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

2. Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to

You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

3. Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

4. Redistribution. You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that you meet the following conditions: (a) You must give any other recipients of the Work or Derivative Works a copy of this License; and (b) You must cause any modified files to carry prominent notices stating that You changed the files; and (c) You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and (d) If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms

and conditions of this License, without any additional terms or conditions.

Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, **WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND**, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE.

You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

---

# Fabhtcheartú agus tacaíocht

16.1

## Fabhtcheartú

### Cainéil

#### Níor aimsíodh aon chainéal digiteach i rith na suiteála

Féach ar na sonraíochtaí teicniúla chun a chinntíú go dtacaíonn do theilifís le DVB-T nó DVB-C i do thír.  
Cinntigh go bhfuil na cáblaí nasctha i gceart agus go bhfuil an lónra ceart roghnaithe.

#### Níl na cainéil a suiteáladh roimhe seo sa liosta cainéil

Cinntigh go bhfuil an liosta cainéil ceart roghnaithe.

### Ginearálta

#### Ní chasann an teilifís air

- Tarraing an cábla cumhactha amach as an asraon cumhactha. Fan ar feadh nóiméid agus ansin cuir isteach arís é.
- Cinntigh go bhfuil an cábla cumhactha nasctha go daingean.

#### Tá fuaim dhíoscánach ann nuair a chastar air nó as é

Nuair atá tú ag casadh an teilifís air, as nó ar Fhuireachas, cloiseann tú fuaim dhíoscánach ó phonnadh na teilifíse. Is mar gheall ar ghnáthleathadh agus cungú na teilifíse an fhuaim dhíoscánach sin, agus an teilifís ag fuarú agus ag téamh. Ní chuireann sé isteach ar fheidhmíocht.

#### Ní fhreagraíonn an teilifís don chianrialtán

Teastaíonn roinnt ama ón teilifís tosú. I rith an ama sin, ní fhreagraíonn an teilifís don chianrialtán ná do rialcuithe na teilifíse. Gnáthiompar é sin.

Má leanann an teilifís gan freagairt don chianrialtán, is féidir leat seiceáil an bhfuil an cianrialtán ag obair trí úsáid a bhaint as ceamara ar fhón soghluiste. Cuir an fón i mód ceamar agus pointeáil an cianrialtán i dtreo lionsa an cheamara. Má bhrúnn tú aon eochair ar an gcianrialtán agus má thugann tú faoi deara caochaíl infridhearg an LED tríd an gceamara, tá an cianrialtán ag obair. Ní mór an teilifís a sheiceáil.

Mura bhfuil an caochaíl le tabhairt faoi deara, d'fhéadfadh an cianrialtán a bheith briste nó d'fhéadfadh a gceallraí a bheith briste.

Ní féidir an modh seo chun an cianrialtán a sheiceáil a úsáid le cianrialtáin atá péireáilte leis an teilifís gan sreang.

#### Téann an teilifís ar ais go Fuireachas tar éis scáileán tosaithe Philips a thaispeáint

Nuair atá an teilifís i bhFuireachas, taispeántar scáileán tosaithe Philips, ansin filleann an teilifís ar mhód Fuireachais. Gnáthiompar é sin. Nuair a dínasctar an teilifís agus nuair a nasctar arís í leis an soláthar cumhactha, taispeántar an scáileán tosaithe an chéad uair eile a thosaítear í. Chun an teilifís a chasadh ó Fuireachas, brúigh ar an gcianrialtán nó ar an teilifís.

#### Coinníonn an solas fuireachais leis ag caochaíl

Bain an cábla cumhactha amach as an asraon cumhactha. Fan 5 nóiméad sula nascann tú an cábla cumhactha arís. Má tharlaíonn an caochaíl arís, déan teagmháil le Philips TV Consumer Care.

#### Teanga mhícheart roghchláir

Athraigh an teanga ar ais do do theanga féin.

1. Brúigh agus roghnaigh Suiteáil agus brúigh OK.
2. Roghnaigh Socruithe teilifíse > Socruithe ginearálta > Teanga roghchláir agus brúigh OK.
3. Roghnaigh an teanga atá uait agus brúigh OK.
4. Brúigh , arís agus arís eile, más gá, chun an roghchlár a dhúnadh.

### Pictiúr

#### Gan pictiúr / pictiúr díchumtha

- Cinntigh go bhfuil an aeróg nasctha leis an teilifís i gceart.
- Cinntigh go bhfuil an gléas ceart roghnaithe mar an fhoinsí taispeána.
- Cinntigh go bhfuil an gléas nó foinse sheachtrach nasctha i gceart.

#### Tá fuaim ann ach níl aon phictiúr

- Cinntigh go bhfuil na socruithe pictiúr socráithe i gceart.

#### Glacadh aeróige lag

- Cinntigh go bhfuil an aeróg nasctha leis an teilifís i gceart.
- Tá callairí arda, gléasanna fuaimé nach bhfuil talmhaithe, soilse neon, foirgnimh arda agus rudaí móra eile in ann tionchar a imirt ar chaighdeán an ghlactha. Más féidir, déan iarracht caighdeán an ghlactha a fheabhsú trí threo na haeróige a athrú nó gléasanna a bhogadh amach ón teilifís.
- Má tá an glacadh go dona díreach ar chainéal amháin, déan míntiúnadh ar an gcainéil sin.

#### Drochphictiúr ó ghléas

- Cinntigh go bhfuil an gléas nasctha i gceart.
- Cinntigh go bhfuil na socruithe pictiúr socráithe i gceart.

#### Athraíonn socruithe pictiúr tar éis scathaimh

Cinntigh go bhfuil Location socráithe do Home. Is féidir socruithe a athrú agus a shábháil sa mhód seo.

#### Tá meirge trúchtála ar taispeáint

Cinntigh go bhfuil Location socráithe do Home.

#### Ní oireann an pictiúr don scáileán

Athraigh go formáid pictiúr éagsúil. Brúigh .

### Coinníonn an fhormáid pictiúr air ag athrú ó chainéal go chainéal

Roghnaigh formáid pictiúr nach mbaineann 'Uath' leis.

### Tá suíomh an phictiúir mícheart

D'fhéadfadh sé tarlú nach n-oireann comharthaí pictiúr ó ghléasanna áirithe don scáileán i gceart. Seiceál aschur comhartha an ghléis nascha.

### Níl an pictiúr ríomhaire cobhsaí

Cinntigh go n-úsáideann do ríomhaire an taifeach agus ráta athnuacha a dtacaítear leo.

## Fuaim

### Gan aon fhuaim nó droch-chaighdeán fuaim

Mura mbraithear aon chomhartha fuaim, casanna an teilifís an aschur fuaim as go huathoibríoch — ní chialláonn sé sin mífeidhm.

- Cinntigh go bhfuil na socruite fuaim socratthe i gceart.
- Cinntigh go bhfuil gach cábla nascha i gceart.
- Cinntigh nach bhfuil an airde fuaim balbhaithe nó socratthe go níalas.
- Cinntigh go bhfuil ascur fuaim na teilifise nascha le hionchur fuaim an Chóras Amharclainne Baile.
- Ba cheart go mbeadh fuaim le cloisteáil ó challairí an HTS.
- D'fhéadfadh roinnt gléasanna iarraidh ort aschur fuaim HDMI a chumasú de láimh. Má tá fuaim HDMI cumasaithe cheana féin, ach fós ní chloiseann tú aon fhuaim, bain triail as an fhormáid fuaim digití a athrú go PCM (Modhnú Bíogchóid). Féach ar an gcáipéisíocht a tháinig le do ghléas le haghaidh treoracha.

## Naisc

### HDMI

- Tabhair faoi deara go bhféadfadh tacaíocht HDCP (Cosaint Ábhar Digiteach Ard-Bandaleithead) in ann moill a chur ar an méid ama a thógann sé do theilifís ábhar ó ghléas HDMI a thaispeáint.
- Mura n-aithníonn an teilifís an gléas HDMI agus mura bhfuil aon phictiúr ar taispeáint, athraigh an fhoinsí ó ghléas amháin go gléas eile agus ar ais arís.
- Má chuirtear isteach ar an bhfuaim go heatramhach, cinntigh go bhfuil na socruite aschuir ón ngleas HDMI ceart.
- Má tá cuibheoir HDMI-go-DVI nó cábla HDMI-go-DVI in úsáid agat, cinntigh go bhfuil cábla fuaim breise nascha le AUDIO IN (mion-seac amháin), más ann dó.

### Ní oibríonn EasyLink

- Cinntigh go bhfuil do ghléasanna HDMI comhoiriúnach le

HDMI-CEC. Ní oibríonn gnéithe EasyLink ach amháin le ghléasanna atá comhoiriúnach le HDMI-CEC.

### Níl an deilbhín don airde fuaim ar taispeáint

- Gnáth-iompar é sin nuair atá ghléas fuaim HDMI-CEC nascha.

### Ní thaispeántar grianghraif, físeáin agus ceol ó ghléas USB

- Cinntigh go bhfuil an gléas stórála USB socratthe chun a bheith comhoiriúnach le hAicme Ollstórála, mar atá curtha síos air i gcáipéisíocht an ghléis stórála.
- Cinntigh go bhfuil the gléas stórála USB comhoiriúnach leis an teilifís.
- Cinntigh go dtacaíonn an teilifís na formáidí comhaid fuaim agus pictiúir.

### Athscheinnt briste comhad USB

- D'fhéadfadh feidhmíocht aistrithe an ghléis stórála USB srian a chur ar an ráta aistrithe sonraí chuig an teilifís, a bhfuil athscheinnt briste mar thoradh uirthi.

## 16.2

## Cláraigh

Cláraigh do theilifís agus bain leas as raon tairbhí lena n-áirítear tacaíocht iomlán (fóslódálacha san áireamh), rochtain phribhléideach a fháil ar fhaisnéis maidir le táirgí nua, tairiscintí agus lascainí eisiacha agus an deis duaiseanna a bhuanach agus fiú páirt a ghlacadh i suirbhéanna speisialta faoi eisiúintí nua.

Tabhair cuairt ar [www.philips.com/welcome](http://www.philips.com/welcome)

## 16.3

## Cabhair

Tugann an teilifís seo cabhair ar an scáileán.

### Oscail Cabhair

1. Brúigh  chun an roghchlár Baile a oscailt.
2. Roghnaigh **Cabhair** agus brúigh **OK**.

## 16.4

## Cabhair ar líne

Is féidir leat dul i gcomhairle lenár dtacaíocht ar líne chun aon fhadhb a bhaineann le teilifís Philips a réiteach. Is féidir leat do theanga a roghnú agus uimhir do mhúnla táirge a chur isteach.

Tabhair cuairt ar [www.philips.com/support](http://www.philips.com/support).

Is féidir leat an uimhir teileafóin chun dul i dteagmháil linn i do thír féin a aimsiú ar an suíomh tacaíochta, chomh maith le

freagraí do cheisteanna coitianta (CCanna). I roinnt tíortha is féidir leat labhairt le duine dár gcomhghleacaithe agus do cheist a chur go díreach nó trí ríomhphost. Is féidir leat bogearraí nua teilifíse a íoslódáil nó an treoirleabhar chun é a léamh ar do ríomhaire.

---

16.5

## Cúram Custaiméirí / Athdheisiú

Is féidir leat glaoch ar an mbeolíne Chúram Custaiméirí i do thír chun tacaíocht nó athdheisiú a fháil. Aimsigh an uimhir teileafóin sa cháipéisíocht phriontáilte a tháinig leis an teilifís.

Nó tabhairt cuairt ar ár láithreán gréasáin

[www.philips.com/support](http://www.philips.com/support).

### Uimhir mhúnla na teilifíse agus sraithuimhir

D'fhéadfadh sé go n-iarrfaí ort uimhir mhúnla an táirge teilifíse agus an tsraithuimhir a thabhairt. Aimsigh na huimhreacha seo ar an lipéad pacáistithe nó ar an lipéad cineáil ar chúl nó ar bhun na teilifíse.

### ▲ Rabhadh

Ná triail an teilifís a athdheisiú tú féin. D'fhéadfá tú féin a ghortú go dona, damáiste nach féidir é a leigheas a dhéanamh do do theilifís nó do bharánta a chur ar ceal.

# Sábháilteacht agus cúram

17.1

## Sábháilteacht

### Tábhachtach

Léigh agus tuig gach treoir sábháilteachta sula n-úsáidfidh tú an teilihís. Má tharláonn díobháil mar nár leanadh treoracha, ní bheidh feidhm ag an mbaránta.

### Daingnigh an teilihís sa chaoi is nach dtitfidh sí

Úsáid an brac balla atá istigh leis an teilihís i gcónaí chun nach dtitfidh an teilihís. Gléas an brac agus daingnigh an teilihís ar an mbrac, fiú má chuireann tú an teilihís ar an urlár.

Is féidir leat na treoracha do ghléasadh balla a fháil sa Treoir Mearthosaithe a tháinig leis an teilihís. Sa chás go bhfuil an treoir seo cailte agat, is féidir leat an treoir a íoslódáil ó [www.philips.com](http://www.philips.com)

Úsáid uimhir chineál táirge na teilihíse chun cuardach a dhéanamh don Treoir Mearthosaithe atá le híoslódáil.

### Baol turrainge leictrí nó tine

- Ná nocht an teilihís don bháisteach nódúisce. Ná cuir soithí ina mbíonn leachtanna, cosúil le vásáí, in aice leis an teilihís.

Má dhoirtear leachtanna ar an teilihís, nód isteach inti, dínasc an teilihís ón asraon cumhachta láithreach.

Déan teagmháil le Cúram Custaiméir Philips TV chun an teilihís a sheiceáil sula n-úsáidfí í.

- Ná nocht an teilihís, an cianrialtán ná na ceallraí go deo do theas iomarcach. Ná cuir in aice le coinnle ar lasadh nód lasracha gan chosaint iad, ná in aice le foinsí teasa iad, lena n-áirtear teas díreach na gréine.

- Ná cuir aon rud isteach sna sliotáin aeraithe go deo, ná sna hoscailtí eile ar an teilihís.

- Ná cuir rudaí troma go deo ar an seolán cumhachta.

- Ná bíodh aon neart á imirt ar na plugáí cumhachta. Tá plugáí cumhachta scoilte in ann a bheith ina n-údar do stuáil nód do thine. Bí cinnte nach mbeidh aon straidhn ar an seolán cumhachta nuair a sclóineann tú scáileán na teilihíse.

- Chun an teilihís a dínascadh ó bpromhchumhacht, ní mór plugáí cumhachta na teilihíse a dínascadh. Nuair atá an chumhachta a dínascadh agat, tarraing an plugáí cumhachta i gcónaí, ná tarraing

an seolán go deo. Bí cinnte go bhfuil rochtain iomlán agat ar an bpluga cumhachta, an seolán cumhachta agus ar an soicéad asraoin i gcónaí.

### Baol gortuithe nó díobháil don teilihís

- Teastaíonn beirt chun teilihís atá níos troime ná 25 cileagram nó 55 punt a iompar.

- Má ghléasann tú an teilihís ar sheastán, ná húsáid ach an seastán a tháinig léi. Daingnigh an seastán leis an teilihís go maith. Lonnaigh an teilihís ar dhromchla réidh cothrom atá in ann glacadh le meáchan na teilihíse agus an seastán.

- Nuair atá sé gléasta ar an mballa, bí cinnte go bhfuil an gléasadh balla in ann meáchan na teilihíse a iompar go sábháilte. Ní ghlacann TP Vision le haon fhreagracht as gléasadh balla míchú a mbeidh tionóisc, gortú nódamáiste mar thoradh air.

- Is as gloine atá píosaí den táirge déanta. Láimhseáil go curamach é chun gortú nódamáiste a sheachaint.

### Baol damáiste don teilihís

Sula nascfaidh tú an teilihís leis an asraon cumhachta, cinntigh go bhfuil an voltas cumhachta ag meaitseáil an luach atá prioritálte ar chúl na teilihíse. Ná nasc an teilihís go deo leis an asraon cumhachta má tá voltas éagsúil ann.

### Baol gortuithe do pháistí

Lean na réamhchúramí seo chun nach mbeidh an teilihís ina údar gortuithe do pháistí má thiteann sé ón seastán:

- Ná cuir an teilihís go deo ar dhromchla atá clúdaithe le héadach nód le hábhar eile ar féidir é a tharraingt.

- Bí cinnte nach bhfuil aon chuid den teilihís ag gobadh amach thar imeall an dromchla gléasta.

- Ná cuir an teilihís go deo ar throscán ard, cosúil le leabhragán, gan an troscán agus an teilihís ar aon a bheith daingnithe don bhalla nód do thaca feiliúnach.

- Labhair le leanaí faoi na contúirtí a bhaineann le bheith ag dreapadóireacht ar throscán chun dul chomh fada leis an teilihís.

### An baol a bhaineann le ceallraí a shlogadh

D'fhéadfadh ceallraí atá cosúil le boinn airgid a bheith sa chianrialtán agus d'fhéadfadh leanaí óga iad a shlogadh go héasca. Ná bíodh leanaí in ann rochtain a fháil ar na ceallraí seo go deo.

## Baoil róthéite

Ná cuir an teilifís go deo in áit a bhfuil an spás cúng ann. Bíodh spás 20 ceintiméadar nó 4 orlach ar a laghad timpeall na teilifíse i gconaí le haghaidh aeraithe. Bí cinnte nach gclúdaíonn cuirtí nórudaí eile sliotán aeraithe na teilifíse.

Seachain fomhánna cónaitheacha a mhéid is mó is atá tú in ann. Íomhánna a fhanann ar an scáileán ar feadh tréimhsí fada iad íomhánna cónaitheacha. Áirítear le híomhánna cónaitheacha roghchláir ar an scáileán, barraí dubha, taispeáintí ama, srl. Má chaitheann tú íomhánna cónaitheacha a úsáid, laghdaigh codarsnacht agus gile an scáileán chun damáiste don scáileán a sheachaint.

## Stoirmeacha tintrí

Dínsac an teilifís ón asraon cumhactha agus ón aeróg roimh stoirmeacha tintrí.

Ná leag do lámh ar aon chuid den teilifís, an seolód cumhactha nó cábla na haeróige i rith stoirmeacha tintrí.

## Baoil damáiste éisteachta

Ná húsáid cluasáin ar feadh tréimhsí fada nuair a bhíonn an fhuaim an-ard agat.

## Teochtaí ísle

Má iompraítear an teilifís nuair atá an teocht níos lú ná 5°C nó 41°F, díphacáil an teilifís agus fan go dtí go mbeidh teocht an tseomra bainte amach ag an teilifís sula nascfaidh tú an teilifís leis an asraon cumhactha.

## Bogthaise

Tá sé in ann tarlú go hannamh, ag brath ar theocht agus ar bhogthaise, go mbeidh mion-comhdhlúthú ar an taobh istigh d'aghaidh ghloine na teilifíse (ar roinnt múnlai). Chun é seo a chosc, ná nocth an teilifís do sholas díreach na gréine, do theas ná do an-bhogthaise. Má bhíonn comhdhlúthú ann, imeoidh sé leis féin tar éis don teilifís a bheith air ar feadh roinnt uaireanta. Ní dhéanfaidh taise an bhogthaise aon dochar don teilifís agus ní bheidh sé ina údar mífhéidhme.

17.2

## Cúram scáileán

- Ná bíodh aon rud i dteagmáil leis an scáileán agus ná húsáid aon rud chun an scáileán a bhrú, a chuimilt nó a bhualadh.
- Bain amach pluga na teilifíse sula nglanann tú í.
- Glan an teilifís agus an fráma le ceirt bhog thais agus cuimil go séimh iad. Ná húsáid substaintí cosúil le halcól, ceimiceáin nó glantóirí thí ar an teilifís go deo.
- Glan braonta uisce chomh tapaidh agus is féidir chun difhoirmiúcháin agus téaltú dathanna a sheachaint.

# Téarmaí Úsáide, cóipchearta agus ceadúnaí

18.1

## Téarmaí Úsáide

2014 © TP Vision Europe B.V. Gach ceart ar cosnamh.

Is é TP Vision Europe B.V., a dtagrófar feasta dó mar TP Vision, nó ceann dá chuideachtaí cleamhnaithe déantúsóir an táirge seo a thug an táirge seo chuig an margadh. Is é TP Vision an barántóir i ndáil leis an teilihís ar tháinig an leabhrán seo in aon phacáiste léi. Is trádmharcanna cláraithe de chuid Koninklijke Philips N.V. Philips agus suaitheantas scéithe Philips.

D'fhéadfadh na sonraíochtaí a athrú gan choinne. Is le Koninklijke Philips N.V. nó a úinéirí faoi seach na trádmharcanna. Tá sé de cheart ag TP Vision tárgí a athrú am ar bith gan dualgas a bheith air tárgí atá ar fáil cheana féin a athrú dá réir.

Creidtear go bhfuil an t-ábhar scríofa a tháinig in aon phacáiste leis an teilihís agus an lámhleabhar atá stórálte i gcuimhne na teilihise nó a íoslódáiltear ó láithreán gréasán Philips leordhóthanach don úsáid a bhfuil an córas beartaithe lena haghaidh.

Creidtear go bhfuil an t-ábhar scríofa atá sa lámhleabhar seo leordhóthanach don úsáid a bhfuil an córas beartaithe lena haghaidh. Má úsáidtear an táirge nó na modúil nó nósanna imeachta faoi leith a ghabhann leis do chuíseanna seachas iad siúd atá sonraithe anseo, caithfear a mbailíocht agus a n-oiriúnacht a dheimhniú. Má bhaintear úsáid as an táirge, nó a mhodúil nó nósanna imeachta indibhidiúla, chun críche cuspóir ar bith ach amháin iad siúd atá sonraithe leis seo, ní mór dearbhú a fháil maidir lena mbailíocht agus a n-oiriúnacht. Barántaíonn TP Vision Europe B.V. nach sáraíonn an t-ábhar é féin aon phaitinn de chuid Stáit Aontaithe Mheiriceá. Níl aon bharánta eile intuigthe nó sainráite. Ní bheidh TP Vision Europe B.V. freagach as aon earráid in ábhar an doiciméid seo ná as aon fhadhb a éiríonn mar thoradh ar ábhar an doiciméid seo. Glacfar le hearraíd a tuairisceofar do Philips agus foilseofar ar láithreán gréasán tacaíochta Philips iad a luaithe agus is féidir. Téarmaí baránta Baol gortuithe, damáiste don teilihís nó neamhniú baránta! Ná déan iarracht go deo an teilihís seo a athdheisiú tú féin. Ná húsáid an teilihís agus a compháirteanna ach amháin mar atá beartaithe ag an déantúsóir. Tugann an comhartha rabhaidh atá prioritálte ar chúl na teilihise le fios go bhfuil baol turrainge leictrí ann. Ná bain as clúdach na teilihise go deo. Déan teagmháil le Cúram Custaiméirí Philips TV i gcónaí le haghaidh seirbhíse nó athdheisiúchán. Cuirfear an baránta ar neamhní má dhéantar aon oibríocht atá toirmiscthe go sainráite sa treoirleabhar seo, nó aon choigeartú ná níosimeachta cóimeála nach bhfuil molta ná údaraithe sa treoirleabhar seo. Tréithe

pictéilíni Tá lón ard pictéilíni daite ag an táirge LCD/LED seo. D'ainneoin go bhfuil pictéilíni éifeachtacha 99.999% níos airde aige, d'fhéadfadh poncanna dubha ní pointí geala solais (dearg, uaine ní gorm) a bheith le feiceáil ar an scáileán go leanúnach. Airí struchtúrtha den taispeáint é seo (laistigh de chaighdeán choiteanna an tionscail) agus ní mífheidhm é. Comhlíonadh CE Tá an táirge seo comhlíontach le bunriachtanais agus forálacha ábhartha eile de Threoracha 2006/95/CE (Voltas Íseal), 2004/108/EC (EMC) agus 2011/65/EU (ROHS). Comhlíonadh le EMF Déanann agus díolann TP Vision Europe B.V. go leor tárgí atá dírithe ar thomholtóirí, a bhfuil an cumas acu, amhail aon trealamh leictreonach, comhartha leictreamaighnéadacha a astú agus a fháil. Ceann de phríomhPhronsabail Ghnó Philips glacadh le gach beart atá riachtanach do shláinte agus sábháilteacht dár dtárgí, chun comhlíonadh le gach riachtanas dlíthíúil infheidhmithe agus fanacht laistigh go maith de na caighdeán do Réimse Leitreamaighnéadach (EMF) atá infheidhmithe ag an am ar táirgeadh na tárgí. Tá Philips tiomanta tárgí a forbairt, a tháirgeadh agus a thabhairt chun an margadh nach mbaineann aon droch-éifeacht sláinte leo. Dearbhaíonn TP Vision go bhfuil a dtárgí sábháilte le haghaidh a n-úsáide de réir na fianaise eolaíche atá ar fáil inniu, a fhad is a láimhsítear a thárgí i gceart agus don úsáid atá beartaithe dóibh. Glacann Philips le ról gníomhach i bhforbairt caighdeán idirmáisiúnta EMF agus sábháilteachta, rud a chuireann ar chumas Philips tuilleadh forbairt i gcaighdeánú a ionchasú le haghaidh a gcomhtháite ina chuid tárgí.

18.2

## Cóipchearta agus ceadúnaí

### HDMI



### HDMI®

Is trádmharcanna nó trádmharcanna cláraithe de HDMI Licensing LLC iad na téarmaí HDMI agus HDMI High-Definition Multimedia Interface, agus lógó HDMI Logo i Stáit Aontaithe Mheiriceá agus i dtíortha eile.

### Dolby



### Dolby®

Monaraíodh faoi cheadúnaí ó Dolby Laboratories. Is trádmharcanna iad Dolby agus an tsionbail D-dúbáilte de Dolby Laboratories.

---

## Bogearraí MHEG

Is le S&T CLIENT SYSTEMS LIMITED ("an tÚinéir") an cóipcheart i mbogearraí MHEG ("na Bogearraí") atá sa teilifís seo ("an táirge seo") agus cuirtear san áireamh é chun a chur ar do chumas gnéithe idirghníomhacha teilifíse a úsáid. Níl cead agat na Bogearraí a úsáid ach amháin in éineacht leis an táirge seo.

---

## Kensington



Trádmharcanna cláraithe i Stáit Aontaithe Mheiriceá de chuid ACCO World Corporation iad Kensington agus Micro Saver a bhfuil clárúchán eisithe agus iarratais ar feithreamh acu i dtíortha eile ar fud an domhain.

---

## Trádmharcanna eile

Maoin dá n-úinéirí faoi seach iad gach trádmharc cláraithe agus neamhchláraithe eile.

---

# Innéacs



# Contact information

**Argentina**  
0800 444 7749  
Buenos Aires 0810 444 7782

**België / Belgique**  
070 700 035 (0,15€/min.)

**Bosna i Hercegovina**  
033 941 251 (Lokalni poziv)

**Brazil**  
0800 701 0245  
Sao Paulo 2938 0245

**България**  
02 4916 273 (Национален номер)

**Česká republika**  
228880895 (Místní tarif)

**Danmark**  
3525 8314

**Deutschland**  
0180 501 04 69 (0,14€/Min.)

**Ελλάδα**  
2111983028 (Εθνική κλήση)

**España**  
902 88 10 83 (0,10€ + 0,08€/min.)

**Estonia**  
6683061 (Kohalikud kõned)

**France**  
01 57 32 40 50 (local)

**Hrvatska**  
01 777 66 01 (Lokalni poziv)

**Italia**  
0245 28 70 14 (chiamata nazionale)

**Ireland**  
0818 210 140 (national call)

**Northern Ireland**  
0844 338 04 88 (5p/min BT landline)

**Казахстан**  
8 10 800 2000 00 04 (free)

**Latvia**  
6616 3263 (Vietējais tarifs)

**Lithuania**  
8 5 214 0293 (Vietinaišas tarifais)

**Luxembourg / Luxemburg**  
2487 1100 (Nationale Ruf / appel national)

**Magyarország**  
06 1 700 8151 (Belföldi hívás)

**Nederland**  
0900 202 08 71 (0,10€/min.)

**Norge**  
22 97 19 14

**Österreich**  
0820 40 11 33 (0,145€/Min.)

**Polska**  
22 397 15 04 (Połączenie lokalne)

**Portugal**  
707 78 02 25 (0,12€/min. - Móvel  
0,30€/min.)

**Română**  
031 6300042 (Tarif local)

**Россия**  
8-800-22 00004 (бесплатно)

**Suisse / Schweiz / Svizzera**  
0848 000 291 (0,081 CHF/Min.)

**Србија**  
011 321 6840 (Lokalni poziv)

**Slovakia**  
2 332 154 93 (Vnútrostátny hovor)

**Slovenija**  
1 888 83 12 (Lokalni klic)

**Suomi**  
09 88 62 50 40

**Sverige**  
08 5792 9096 (lokalsamtal)

**ประเทศไทย (Thailand)**  
02 652 7650

**Türkiye**  
444 8 445

**United Kingdom**  
0844 338 04 88 (5p/min BT landline)

**Україна**  
0-800-500-480 (безкоштовно)

[www.philips.com/support](http://www.philips.com/support)

Non-contractual images / Images non contractuelles / Außervertragliche Bilder

Specifications are subject to change without notice.

Philips and the Philips' shield emblem are registered trademarks of Koninklijke Philips N.V.  
and are used under license from Koninklijke Philips Electronics N.V.

All registered and unregistered trademarks are property of their respective owners.

2014 © TP Vision Europe B.V. All rights reserved.

[www.philips.com](http://www.philips.com)

