

Panasonic Self Help Guides

Blu-ray HD Recorders



DMR-BS850 / DMR-BS750 (Blu-ray and DVD Recorder)

DMR-XS350 (DVD Recorder)



DOC: UK/CCC/SH/BLURAY/ V2.1

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Why Blu-ray?



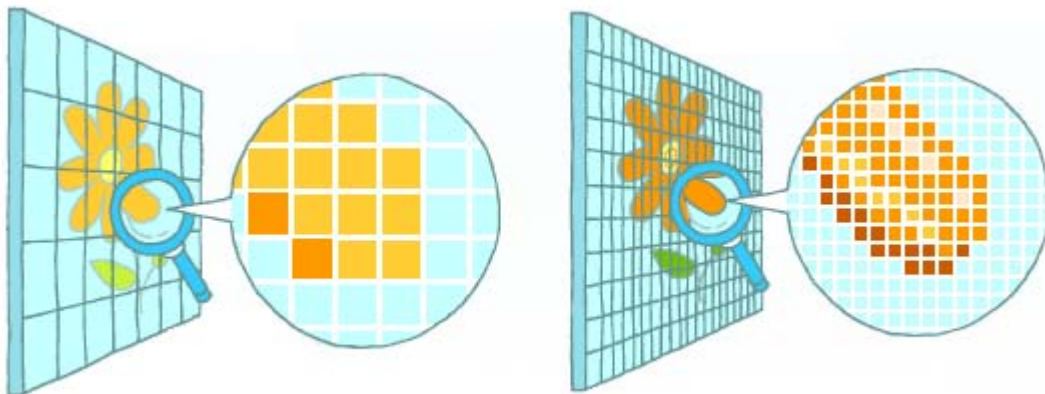
High Definition Video

Standard definition (SD) is a resolution of 576 x 480. This refers to the number of pixels – or dots of colour – on the screen (576 columns x 480 rows).

High definition is a resolution of 1920 x 1080 (1920 columns x 1080 rows).

The higher the resolution means that the picture contains more detail and is therefore clearer than the same image in standard definition.

The higher the resolution of an image, the more storage space that image needs on a disc. This is why Blu-ray is ideal for high definition (see below).



Fewer pixels
Less definition
Jagged edges

More pixels
More definition
Smoother edges
Clearer Picture

Do I need a full-HD television to view high definition?

To get the full benefit of high definition, a full-HD television is needed.

If you have an HD-ready television, even though you won't see full high definition images, you will still benefit from high definition. The original image is of high definition resolution so the television must downscale the picture to fit the screen. But because the image is HD quality, the picture that you see from Blu-ray will be clearer and sharper than a picture from DVD.

Why Blu-ray? - continued



High Quality Surround Sound

The BD-Video disc optionally supports next-generation surround sound formats like Dolby Digital Plus. Connecting the Blu-ray recorder to an AV center using an HDMI cable (ver. 1.1 and newer) makes it possible to reproduce high-quality 7.1-channel surround sound, delivering a surround sound experience that rivals the quality of the master audio source.



High Storage Capacity

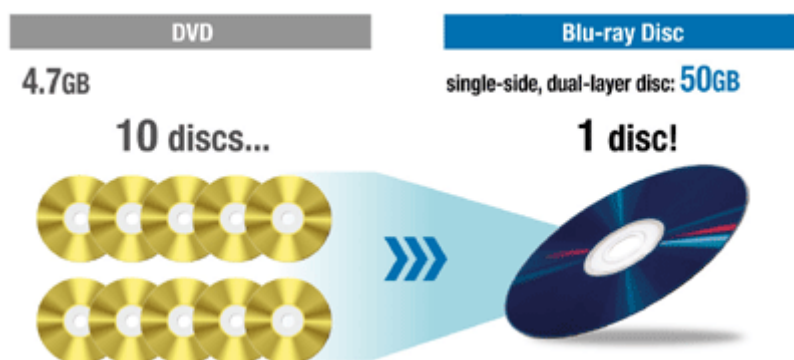
The Blu-ray Disc (BD) is an optical disc format that was created to meet the needs of high-definition video by storing a huge amount of data.

The Blu-ray Disc has the same dimensions as CD and DVD, but it features an amazing data storage capacity.

While a DVD stores up to 4.7 GB (gigabytes) of data on one side, the Blu-ray Disc can hold as much as 25 GB on a single side, giving it more than five times the storage capacity.

Because each recording layer of a single-side, dual-layer Blu-ray Disc is capable of storing 25 GB of data, the total capacity is an astonishing 50 GB per disc. In other words, one Blu-ray Disc can store as much data as ten DVDs.

For more information on Blu-ray technology, please visit <http://panasonic.net/blu-ray/technology/>.



Why Blu-ray? - continued



Interactive Functions with BD-J

Some BD-Video discs are equipped with an extended function based on Java™ technology, called BD-J, to provide various interactive features. For example, this can be used to program various operations, such as displaying a pop-up menu while playing a BD-Video disc, and activating a keyword search. With unlimited application possibilities, BD-J offers interactive enjoyment that is simply not possible with conventional AV software.



BD-Live

BD-Live* lets users access the Internet to download data such as images and subtitles, and join in quizzes and multi-player interactive games that are linked to bonus materials on BD-Live-enabled Blu-ray Disc™. BD-Live also supports BONUSVIEW.

* BD-ROM Profile 2 (BD-Live features include BONUSVIEW functions.) Requires broadband Internet service for a fee.



Why should I buy an HD recorder?

freesat Built in

Having two freesat tuners built in, the HD recorders can receive and record over 140 digital TV channels, with no monthly bills. freesat also offers the UK's first free high definition service. freesat is available in most locations in the UK, even those that cannot receive Freeview. For the latest information on freesat please visit: www.freesat.co.uk
These products do not have Freeview tuners.



Full HD Recording and Playback

Full HD broadcasts can be received, recorded on and played back from the hard disc. It is even possible to archive and share your high definition recordings on Blu-ray discs (BD850 and BD750). The recordings can also be copied to DVD (in standard definition) on all 3 models.



Dolby Digital Surround Sound

The HD recorders will record in Dolby Digital 5.1 sound onto the hard disk drive (HDD). The Blu-ray models will also output up to 7.1 channel surround sound from a Blu-ray disc playback (output via HDMI).



Two Tuners (with Timer Recording)

All three models have twin freesat HD tuners with EPG for easy timer programme setting. Two tuners enable the recording of two separate programmes at the same time, independently of the TV's tuners. Its even possible to replay a recording previously recorded on the HDD or replay a BD/DVD while recording two programmes. This is one of the most versatile playback and recording devices on the market!



Multi-Format Drives

The BD models are equipped with a BD recording drive that can record on and replay the most common formats of BD and DVD Disc, including RAM discs. The XS350 records and replays all types of DVD disc, including RAM discs.



SD Card Slot (with HD AVCHD Playback)

Play and copy JPG (still pictures from a Panasonic camera) MPEG2 (standard definition video from a Panasonic camcorder) and AVCHD (HD video video from a Panasonic camcorder) from an SD card inserted into the SD Card Slot. Video footage can also be edited on the HDD and burned to disc.



Viera Cast

View Picasa™ web albums and YouTube™ videos via the freesat recorder without the need for a PC (page 31).



What are the differences between the recorders?



- All recorders have dual freesat tuners.
- All recorders can record in high definition to the HDD.
- Recordings are always made to the HDD first.

Blu-ray / DVD recorders



The DMR-BS850 can archive recordings to Blu-ray in high definition, or to DVD in standard definition. It has a 500 GB HDD.



The DMR-BS750 can archive recordings to Blu-ray in high definition, or to DVD in standard definition. It has a 250 GB HDD.

DVD recorder



The DMR-XS350 can archive recordings to DVD in standard definition. It has a 250 GB HDD.

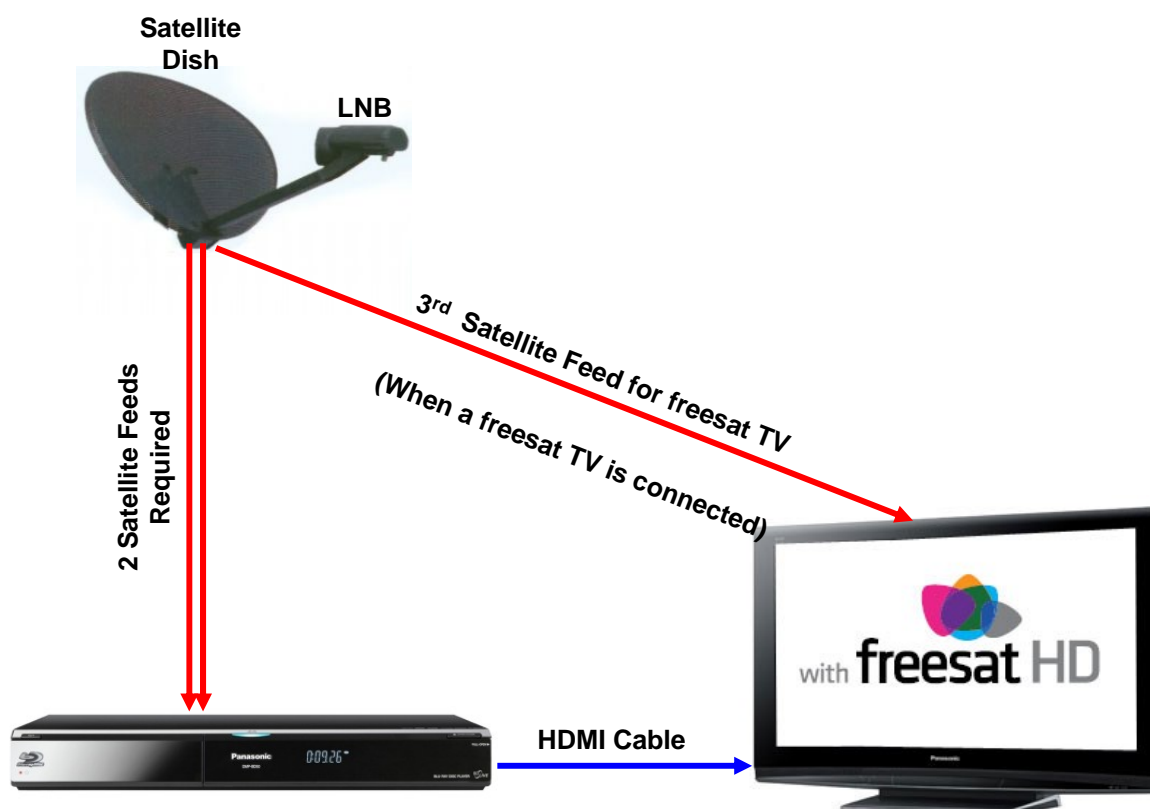
Why should I buy an HD recorder instead of a PVR (Sky+ HD, Virgin+ HD, freesat+ HD?)

	HD Recorder	PVR
Maximum output resolution via HDMI	1080p @ 50 Hz 1080p @ 24 Hz *output depends on source	1080i @ 50 Hz
Ability to record two channels at once?	Yes	Yes
Subscription Fees?	SUBSCRIPTION FREE	Subscription required for Sky+ HD or Virgin + HD
Hard disk drive Capacity?	500 GB (DMR-BS850) 250 GB (DMR-BS750 / DMR-XS350)	160 GB 320 GB *Size depends on service / box
One remote control for recorder and TV?	Yes, via VIERA LINK (page 12) When connected to a Panasonic Viera Television from 2007 or later, you can use your TV remote to access menus on the recorder. With most other televisions, use the recorder remote to control the channel, volume, power and AV input of the TV.	Limited control of the TV with a PVR remote.
Ability to play DVD or Blu-ray?	Yes DMR-BS850/750 Blu-ray and DVD DMR-XS350 DVD	No
Ability to archive recorded programmes to disc?	Yes DMR-BS850/750 to Blu-ray disc in high definition* or to DVD in standard definition DMR-XS350 to DVD in standard definition *Dependant on Copy Protection on the broadcast	No
Ability to view pictures from a digital camera?	Yes Connect your Panasonic camera via USB or insert the SD card to view pictures or copy them to the HDD. Photographs from other cameras may not copy from USB or SD card. Once on the HDD, pictures can be archived onto disc.	No
Ability to view videos from a camcorder?	Yes Connect your Panasonic camcorder via USB, DV, or insert the SD card to view videos or copy them to the HDD. Videos from other camcorders may not copy from USB, DV, or SD card; in this case, connect the camcorder with video/s-video leads. Once on the HDD, videos can be archived onto disc.	No
Ability to copy music (CD or MP3) to the HDD?	Yes Audio CD can be copied onto the HDD. MP3 can be copied from CD-R or from USB to the HDD.	No
Internet Access	BD-Live can be accessed on Blu-ray discs containing BD-Live. With VIERA CAST you can access YouTube™ and Picasa™ (**accurate as of July 2009) (page 31) *Broadband internet connection required*	No

How do I install my new recorder, and how do I connect it to my television?

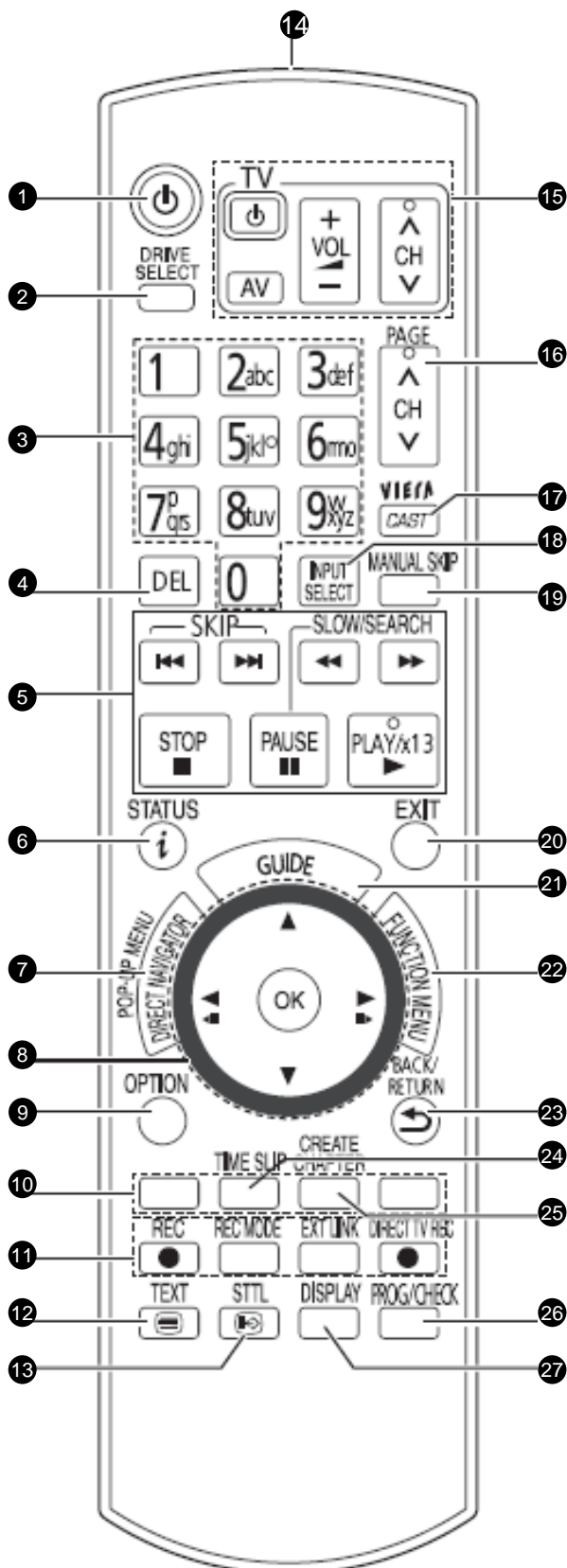
The freesat Recorders require two satellite feeds from a satellite dish. If no dish is available, one must be installed. Installation can be arranged at the point of purchase and should always be offered by the retailer.

In some cases a dish will already be available. This can often be used so long as the LNB (the device in the centre of the dish that collects the signals) has enough outputs, and is correctly aligned. A dish installer can check this and adjust as necessary.



Although it is possible to connect the recorder to a television with a SCART cable, playback will be of lower quality than HDMI, and will only be standard definition. HD channels can be played back, but they will not be played back as high definition.

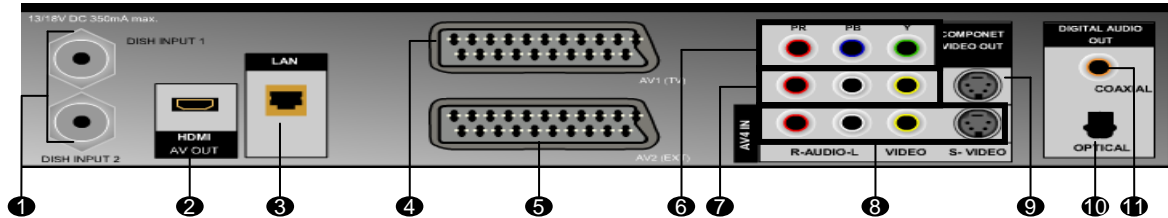
What are the buttons on the remote control?



1. STANDBY: turn the recorder on/off
2. DRIVE SELECT: select BD/HDD/SD drive (page 22)
3. Numbers: select channels or title numbers
4. DELETE
5. Recording and Play operations
6. Status
7. DIRECT NAVIGATOR / Top Menu
8. Selection Arrows / OK
9. OPTION Menu
10. Colour buttons:
RED – GREEN – YELLOW – BLUE
11. Recording:
REC: start recording
REC MODE: change recording mode (DR/HG/HX/XP/SP/etc.)
EXT LINK: activate external link
DIRECT TV RECORD
12. TELETEXT
13. SUBTITLES on/off
14. Remote Control Sensor
15. Buttons for controlling a TV
16. Channel Select (page 23)
17. Start VIERA CAST (page 31)
18. INPUT SELECT: select AV1, AV2, freesat, etc. (page 23)
19. Skip approx. 1 minute forward (during playback)
20. EXIT the menu screen
21. GUIDE: Show the TV Guide
22. Access the FUNCTION MENU
23. RETURN to previous screen (in menus)
24. TIME SLIP: to specify an amount of time to skip ahead (during playback)
25. CREATE CHAPTERS (during playback)
26. PROG/CHECK: Show timer recording list
27. DISPLAY: Show menu for playback options

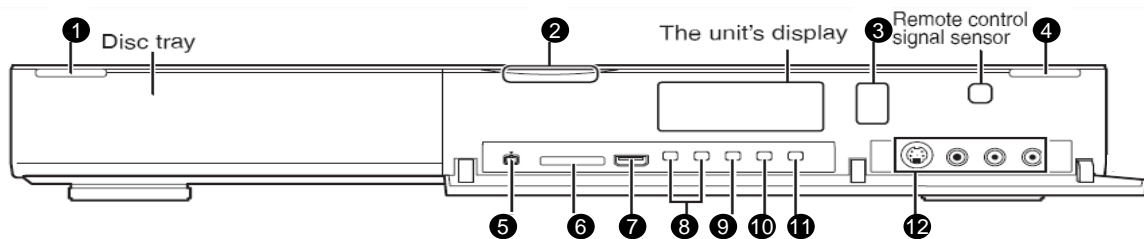
What are the connections and controls on the recorder?

Connections



- | | |
|--|---|
| 1. Satellite input terminals | 7. AUDIO/VIDEO (composite) output terminals |
| 2. HDMI AV output terminal | 8. AV4 (s-video/composite) input terminals |
| 3. LAN terminal | 9. S-VIDEO output terminal |
| 4. AV1 (TV) SCART input/output terminal | 10. OPTICAL digital audio output |
| 5. AV2 (EXT) SCART input/output terminal | 11. COAXIAL digital audio output |
| 6. COMPONENT VIDEO output terminals | |

Controls



- | | |
|-------------------------------------|---|
| 1. STANDBY (on/off) switch | 7. USB port |
| 2. Blue LED (DMR-BS850/750 only) | 8. Channel select buttons |
| 3. Recording indicator (REC1, REC2) | 9. REC button to start recording |
| 4. OPEN/CLOSE disc tray | 10. STOP button |
| 5. DV IN terminal | 11. PLAY button |
| 6. SD card slot | 12. AV3 (s-video/composite) input terminals |

How many hours can I record onto the HDD or a disc?

The maximum recording time possible will vary depending on the recording quality mode set.

There are 5 possible modes with HD recordings: DR, HG, HX, HE, and HL.

There are 5 possible modes with SD recordings: DR, XP, SP, LP, and EP.

DR recording mode, or “Data Record”, records the programme data stream, including any subtitles, etc. The data can be recalled on playback so subtitles can be switched on and off at will during the playback (when subtitles were transmitted with the programme).

Approximate Recording Times

Recording Mode	HDD		Disc					
	DMR-BS850 (500GB)	DMR-BS750 DMR-XS350 (250GB)	BD-RE BD-R (25 GB)	BD-RE DL BD-R DL (50 GB)	DVD-RAM single-sided (4.7 GB)	DVD-RAM double-sided*2 (9.4 GB)	DVD-R RW +R +RW (4.7GB)	DVD-R DL +R DL (8.5 GB)
DR*1 (HD Quality: 14 Mb/s)	77 hours	37 hours 30 min.	3 hours 30 min.	7 hours 30 min.	--	--	--	--
DR*1 (SD Quality: 5 Mb/s)	215 hours	105 hours	10 hours 15 min.	21 hours	--	--	--	--
HG (12 Mb/s)	80 hours	40 hours	4 hours	8 hours	--	--	--	--
HX (8 Mb/s)	120 hours	60 hours	6 hours	8 hours	--	--	--	--
HE (5 Mb/s)	180 hours	90 hours	9 hours	18 hours	--	--	--	--
HL (4 Mb/s)	240 hours	120 hours	12 hours	24 hours	--	--	--	--
XP	110 hours	55 hours	5 hours 15 min.	10 hours 30 min.	1 hour	2 hours	1 hour	1 hour 45 min.
SP	220 hours	110 hours	10 hours 30 min.	21 hours	2 hours	4 hours	2 hours	3 hours 35 min.
LP	442 hours	221 hours	21 hours	42 hours	4 hours	8 hours	4 hours	7 hours 10 min.
EP*3	885 hours (664 hours*4)	441 hours (331 hours*4)	42 hours (31 hours 30 min.*4)	84 hours (63 hours*4)	8 hours (6 hours*4)	16 hours (12 hours*4)	8 hours (6 hours*4)	14 hours 20 min. (10 hours 45 min.*4)

*1 Recording time of DR mode depends on bit rate of the broadcast.

*2 It is not possible to record or play continuously from one side of a double-sided disc to the other

*3 When recording to the HDD in “EP” mode, you cannot perform high-speed copy to +R, +R DL, or +RW discs.

*4 When “Recording time in EP mode” is set to 6 hours” in the Setup menu. The sound quality is better when using “6 hours” than when using “8 hours”.

Which Blu-ray Discs can I use?

Panasonic makes their own range of Blu-ray discs:



[LM-BEU25AE Blu-ray Disc](#)

25GB 2x Speed Re-Writable Blu-ray Disc™ Suitable for high definition Video Recording



[LM-BEU25AE2 Blu-ray Disc](#)

25GB 2x Speed Re-Writable Blu-ray Disc™ Suitable for high definition Video Recording, **2 Pack**



[LM-BEU25AE3 Blu-ray Disc](#)

25GB 2x Speed Re-Writable Blu-ray Disc™ Suitable for high definition Video Recording, **3 Pack**



[LM-BEU50AE Blu-ray Disc](#)

50GB 2x Speed Re-Writable Blu-ray Disc™ Suitable for high definition Video Recording



[LM-BRU25AE Blu-ray Disc](#)

25GB 2x Speed Write-Once Blu-ray Disc™ Suitable for high definition Video Recording



[LM-BRU25LAE3 Blu-ray Disc](#)

25GB 4x Speed Write-Once Blu-ray Disc™ Suitable for high definition Video Recording, **3 Pack**



[LM-BRU50AE Blu-ray Disc](#)

50GB 2x Speed Write-Once Blu-ray Disc™ Suitable for high definition Video Recording



[LM-BRU50AE2 Blu-ray Disc](#)

50GB 2x Speed Write-Once Blu-ray Disc™ Suitable for high definition Video Recording, **2 Pack**



[LM-BRU50LAE Blu-ray Disc](#)

50GB 4x Speed Write-Once Blu-ray Disc™ Suitable for high definition Video Recording

While other brands of discs may be used, Panasonic cannot guarantee quality or compatibility.

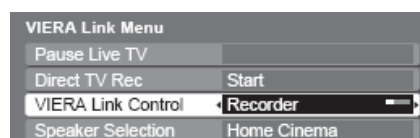
What is VIERA Link?

VIERA Link is a convenient function that offers linked operations of this unit and a Panasonic TV (VIERA 2007 or later). You can use this function by connecting the equipment with the HDMI cable.

VIERA Link offers you:

One Remote to Control TV and Recorder

Press the VIERA Link button on the TV remote control to display the VIERA Link Menu. Select "VIERA Link Control: Recorder", then press OK to display the menu from the recorder. Then continue to use the TV remote control to navigate the menus of the recorder.



Pause Live TV

When watching freesat through your VIERA television, press the VIERA Link button on the TV remote control to display the VIERA Link Menu. Select "Pause Live TV" and press "OK". The recorder will power on (if not already on), and start recording the programme to the HDD. When you stop "Pause Live TV", the programme is deleted from the HDD.

To use "Pause Live TV" from a Freeview VIERA television, you must also connect a SCART cable.

Power On Link

If the TV is in standby and certain buttons are pressed on the recorder remote, the TV will automatically turn on and display the picture from the recorder.

Power Off Link

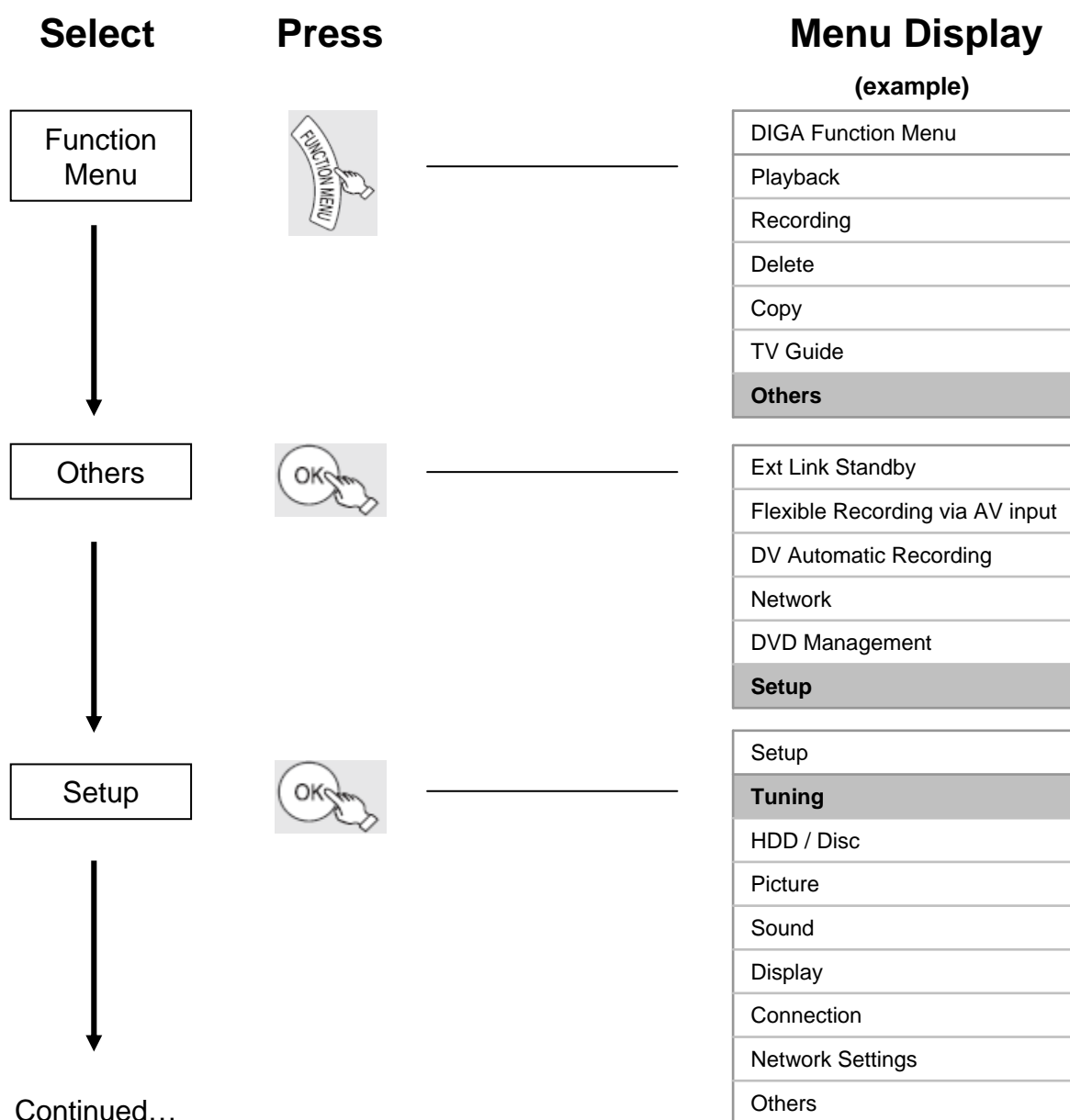
When you turn the TV to standby, the recorder is also automatically turned to standby. The unit is automatically turned to standby even if the Function Menu screen, the status message or the on-screen display is displayed, during playback, or when the unit is set to a timer recording.

Even if the TV is turned to standby, the recorder will not be turned to standby at the same time when recording, copying, finalising, etc.

How do I retune the freesat channels?

Retune freesat

On rare occasion, you may need to retune the freesat channels if they are lost. If channels are lost it is usually due to a drop in signal from the satellite dish. This could be because of a loss of signal from the satellite itself, weather conditions interfering with the signal, or improper alignment of the satellite dish.



Other Satellite - continued

Select

Press

Menu Display

(example)

Tuning



Tuning
freesat Favourites Edit
freesat channel List
freesat Auto Setup
Other Satellite Channel List
Other Satellite Tuning Menu
Signal Condition
Child Lock
Preferred Multi Audio
Preferred Subtitles



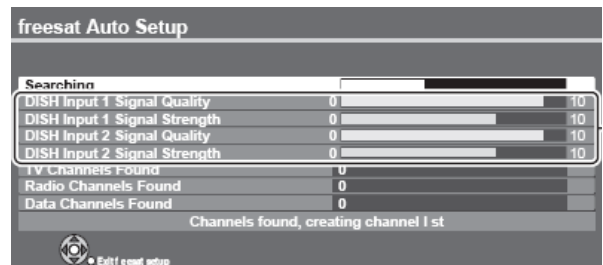
freesat Auto Setup



All freesat tuning data will be erased



Yes



When the scan is done, you will be prompted to enter your postcode. This is to ensure you get the channels for your region.



Continued...

Remember to put the "space" in your postcode by choosing the box between the "Z" and the "0".

Other Satellite - continued

Select

Press the "Green" button to confirm your postcode.

Press



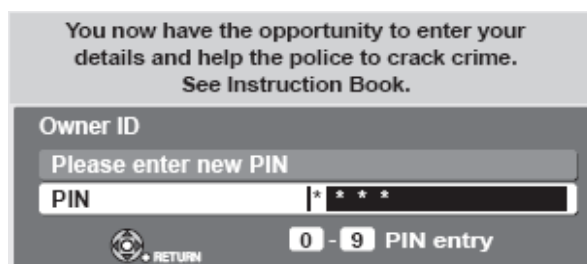
Menu Display

(example)

Sorting freesat channel list. Please wait...



If you have not yet entered a PIN number for your Owner ID, you will be prompted to do so. Follow the on-screen instructions in this instance.



To skip the Owner ID, press the EXIT button.

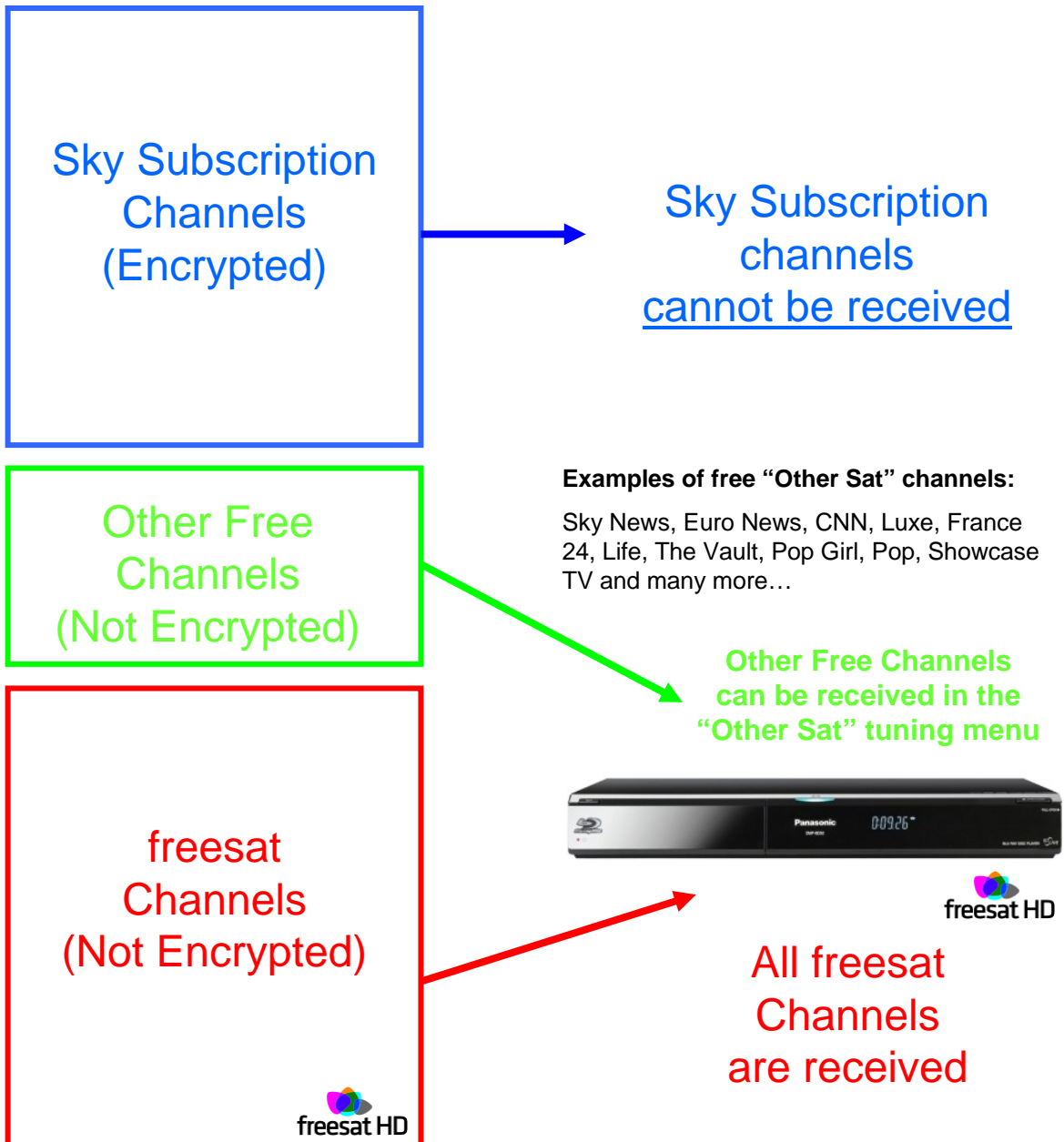


Retune is now finished. The recorder will show FS 101 on the display to indicate it is tuned in to freesat channel 101.

Can I tune into free satellite channels that are not part of the freesat broadcast?

freesat and Sky both broadcast on the Astra 2 satellite. freesat receives its programme information from the Eurobird satellite. The satellite dish must be aligned to Astra 2 and Eurobird to receive freesat. Other free channels that are broadcast on Astra 2 may be received by the Panasonic freesat recorders. These channels must be tuned in using the "Other Satellite" tuning menu (page 13). Once tuned in, "Other Sat" channels are accessed using the "Input Select" Button.

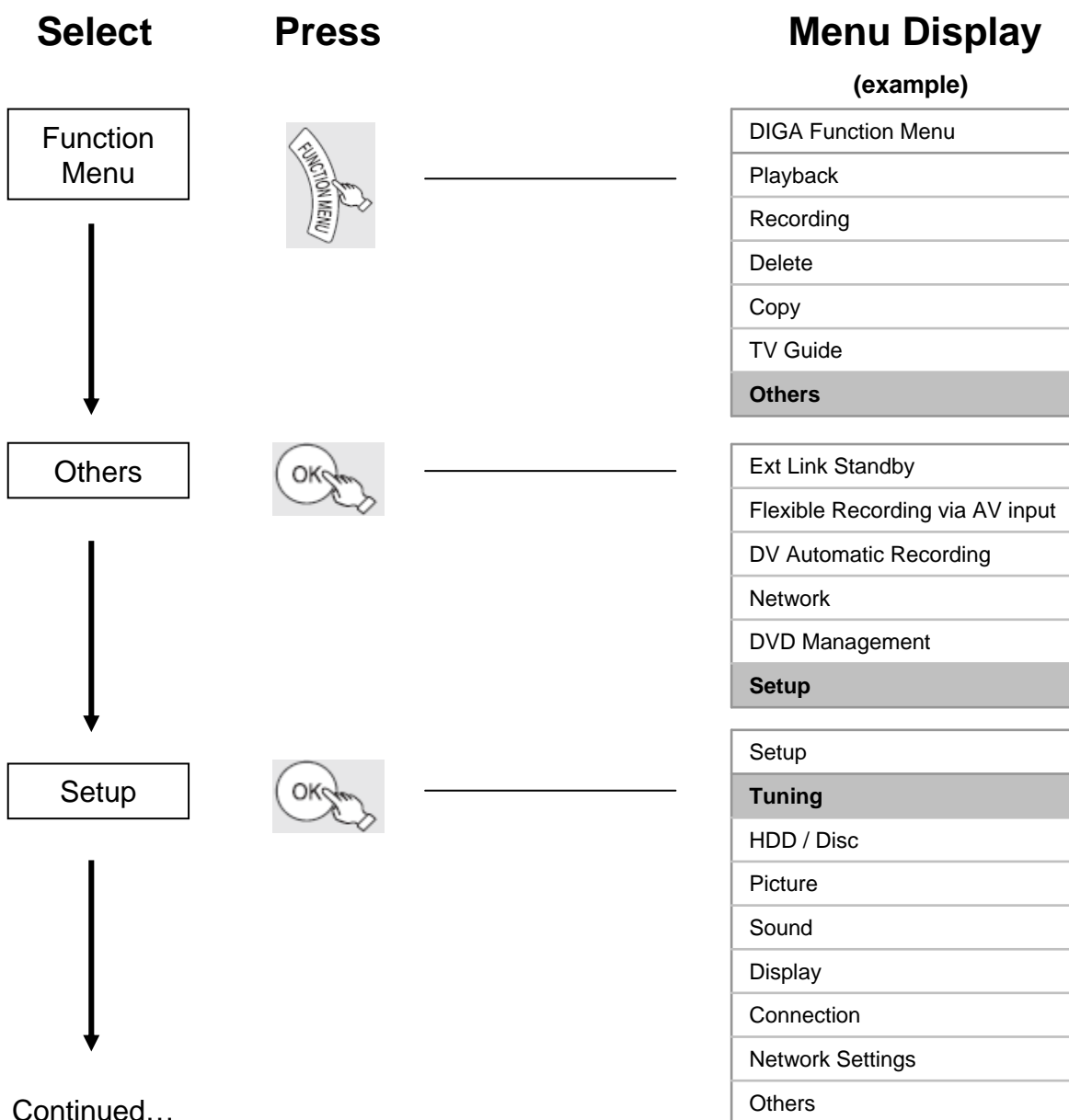
Astra 2 Broadcasts



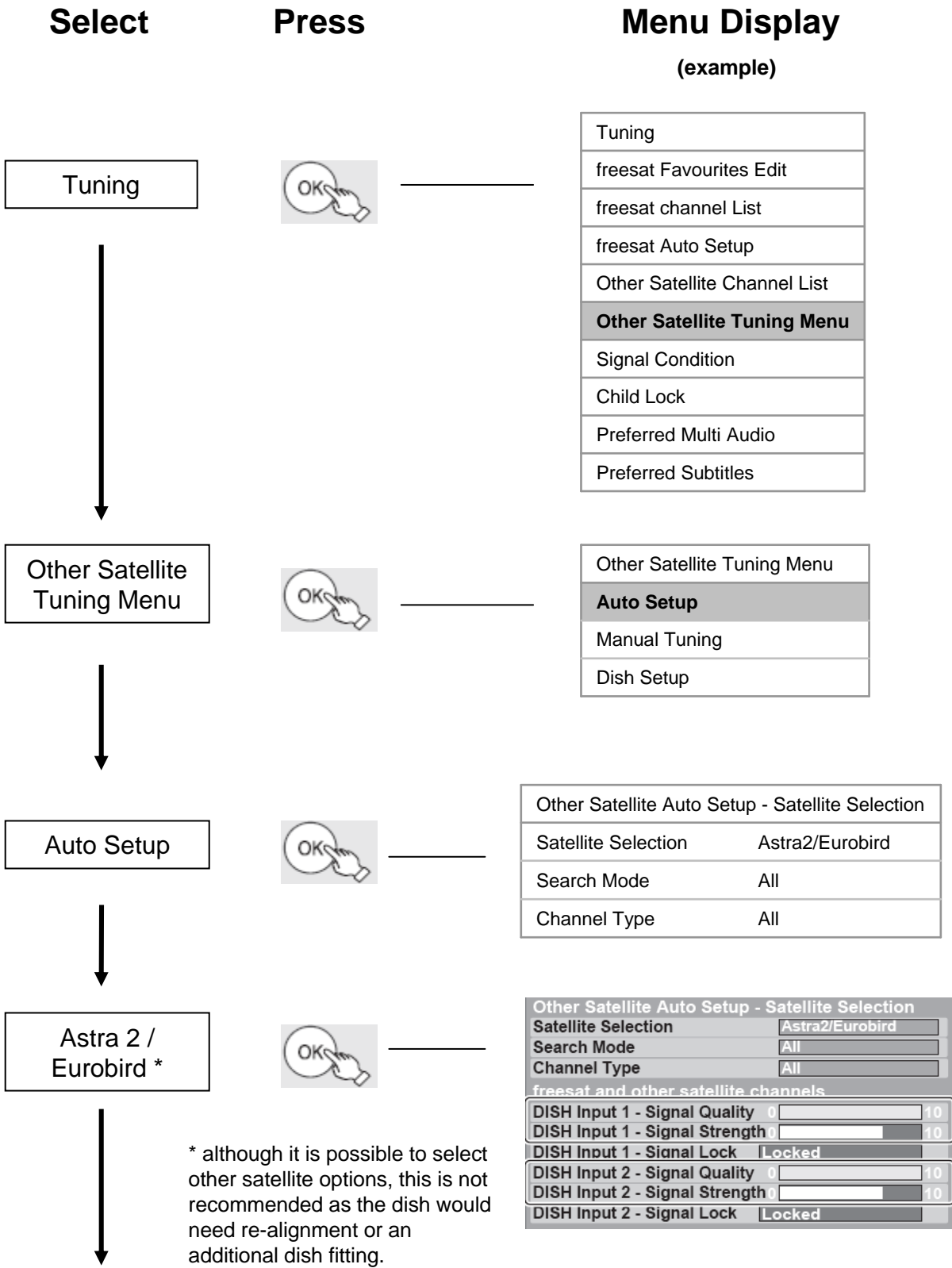
How do I tune into satellite channels that are not on freesat?

Other Satellite

The twin freesat tuners built in to the BS850/750 and XS350 are capable of receiving “Other Sat” broadcasts from the Astra 2 satellite. It is necessary to set up the tuner before the “Other Satellite” channels can be received. A convenient automatic setup has been included in the “other satellite tuning menu”.



Other Satellite - continued



* although it is possible to select other satellite options, this is not recommended as the dish would need re-alignment or an additional dish fitting.

Continued...

Other Satellite - continued

Select

Press

Menu Display

(example)

After a few moments the tuners will lock on to the satellite feeds and you will be prompted to press "OK" to continue.



All other satellite tuning data will be erased.



When the warning screen appears press "OK" to continue.



Other Satellite Auto Setup - Satellite Scan

Satellite Scan 0 100%

Please wait... This may take up to 45 minutes to complete.

Free TV Channels found	0
Free Radio Channels found	0
Data Channels found	0
Pay TV Channels found	0



It will take around 45 minutes to find all of the "Other Satellite" broadcasts that are available.



Other Satellite Auto Setup Select Channels to Remove 1/19

Name	Type	Keep
BBC R5L	Radio	<input checked="" type="checkbox"/>
ETV2	Free TV	<input checked="" type="checkbox"/>
BBC 1 Wales	Free TV	<input checked="" type="checkbox"/>
BBC 2 Wales	Free TV	<input checked="" type="checkbox"/>
BBC 1 Scotland	Free TV	<input checked="" type="checkbox"/>
BBC 2 Scotland	Free TV	<input checked="" type="checkbox"/>



Highlight unwanted stations one at a time and press "OK".

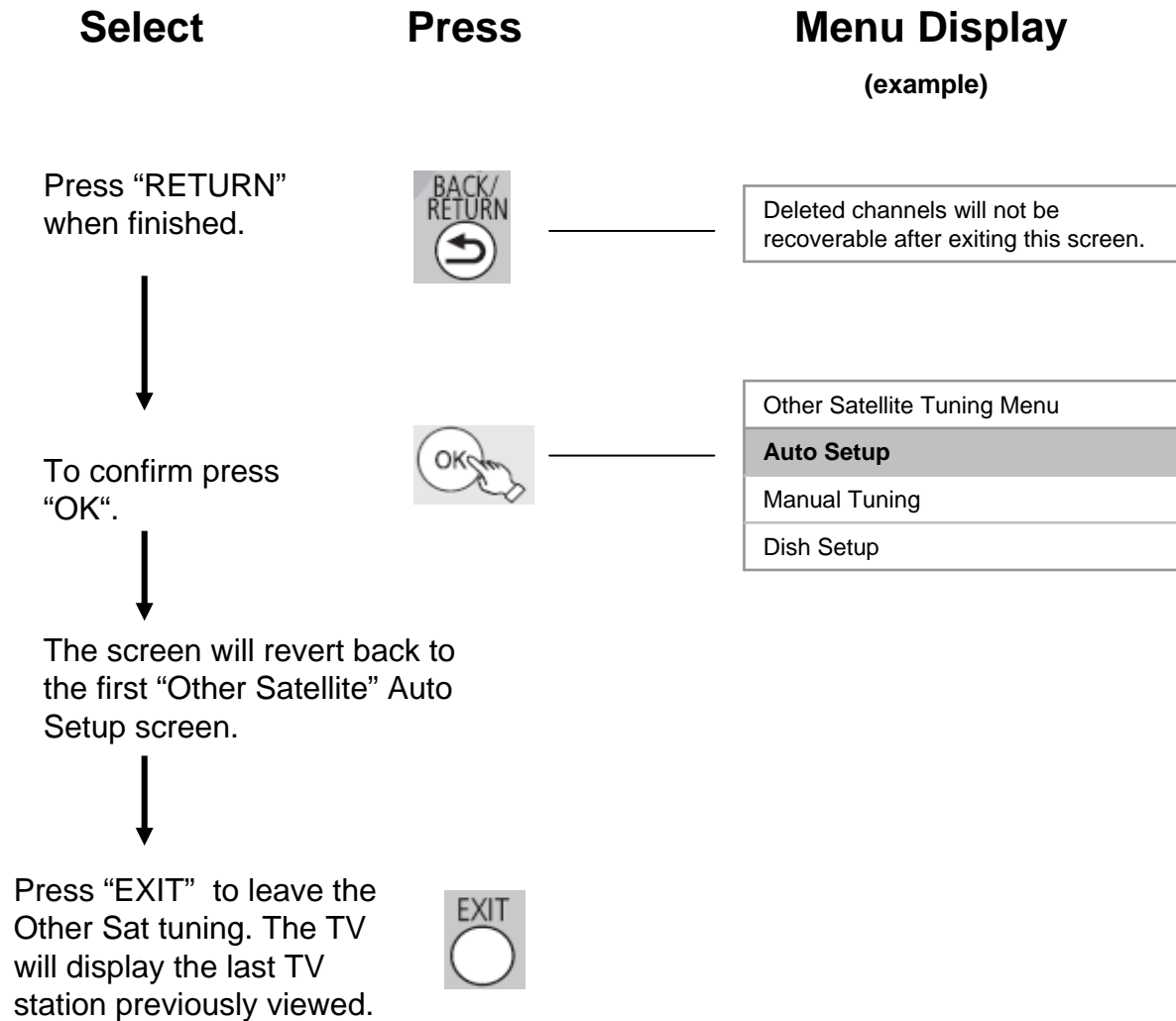


The tick on the right will disappear.



Continued...

Other Satellite - continued



Important Notes

Other Satellite Auto Setup - Satellite Selection	
Satellite Selection	Astra2/Eurobird
Search Mode	Free Channels
Channel Type	All

When setting the "Satellite Selection" ensure this is set to Astra2/Eurobird. Otherwise channels will not be found without changing the dish alignment.

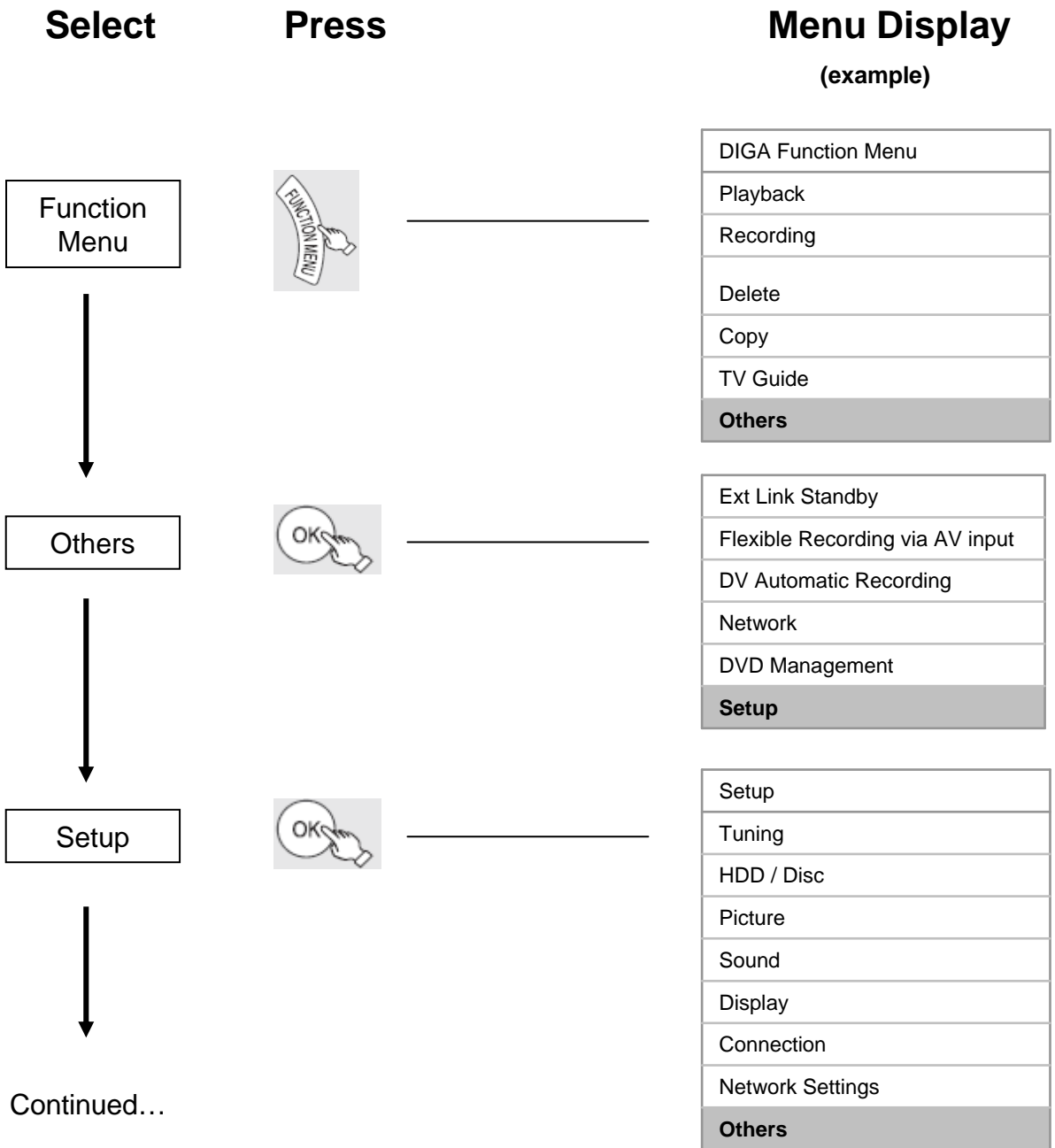
When setting the "Search Mode" ensure this is set to Free Channels. Otherwise encrypted channels will also be found. These recorders can not decrypt encrypted channels.

When setting the "Channel Type" you have the option to search for TV Channels, Radio Channels or both. If both are required, leave this setting set to "All".

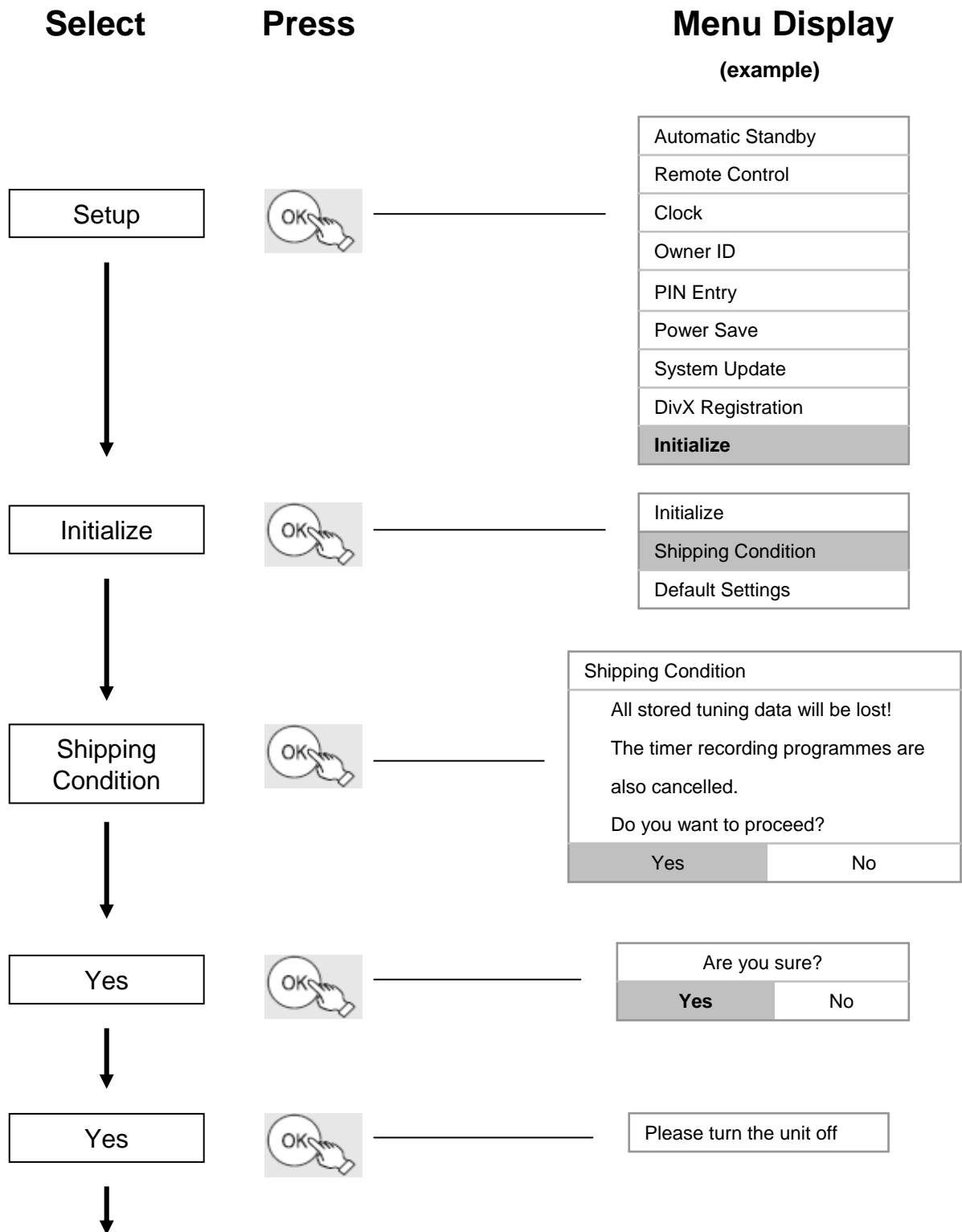
How do I return the recorder to factory default settings?

Shipping Condition

Shipping Condition returns all settings back to the factory default (except the Owner ID) and will also reset all of the tuning data. After Shipping Condition is selected, the unit must be powered down using the power button on the main unit. When it is powered up again, the unit begins Auto Setup as it would have when it was originally purchased.



Shipping Condition - continued



Switch off the unit when prompted to do so and wait for about 10 seconds before switching the unit back on.

When the units is switched on after Shipping Condition, it will begin Auto Setup, as it did the first time that it was used.

How do I convert a programme from DR mode so I can copy it onto a disc?

DR File Conversion

HD Recordings are originally recorded to the HDD in DR Mode. DR mode records the programme data stream which offers the best possible quality (HD or SD) and also offers other facilities such as subtitles on demand. Keeping recordings in DR mode uses a lot of disc space. Converting DR recordings to other recording modes reduces the file size and allows the file to be saved onto Blu-ray disc for playback on other Blu-ray players.

It can take as long to convert a programme from DR mode as it would take to watch the programme, but it is possible to programme the recorder to do the conversion when it is in standby (for example, overnight).

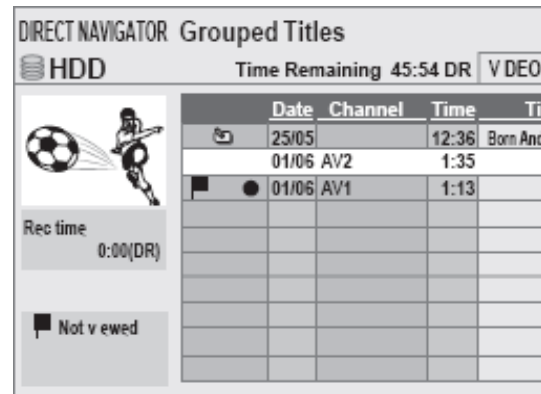
Select

Press

Menu Display

(example)

Navigator



Select the recording to be converted (more can be selected later).



The selected recording will be highlighted in yellow.

- Play
- Delete
- Properties
- Edit**
- Chapter View
- Create Group
- Release Grouping
- All Titles
- PICTURE / MUSIC



Edit



- Enter Title Name
- Set up Protection
- Cancel Protection
- Partial Delete
- Divide Title
- Change Thumbnail
- DR File Conversion**



Continued...

DR File Conversion - continued

Select

Press

Menu Display

(example)

DR File Conversion



DR File Conversion	
Recording Mode	HX -- Normal Quality
Subtitles	Off
Audio Description	Off
Timing	During Standby



Select the recording mode by using the left-right arrow buttons.



DR File Conversion	
The original title will be deleted after this conversion due to copy protection status of this title.	
Do you want to continue?	
Yes	No

It is also possible to select Subtitles and Audio Description (when available on the original recording). Set Timing to "During Standby".



Yes



DR File Conversion	
DR File Conversion has been set.	
DR file will be converted during standby.	



Press "OK" to go back to the navigator screen



The recording just set for conversion will appear as pending conversion when you highlight it. The conversion will begin after the unit has been left in standby mode for a couple of minutes. It is possible to set more than one recording to be converted in standby mode. Follow the same procedure for each title to convert.

How do I select the drive that I want to use?

Drive Select

In order to use the hard disk drive (HDD), the BD/DVD Drive or the SD Slot, it is necessary to select the drive required. This is set with the “DRIVE SELECT” button.

Select

Press

Menu Display

(example)

Drive Select



Drive Select
Please select the Drive to use.
HDD
BD
SD



Use the navigation ▲▼ buttons to select the desired drive then press “OK”.



Drive Select
Please select the Drive to use.
HDD
BD
SD

OR

The drive can also be set by repeatedly pressing the “DRIVE SELECT” button to scroll through the 3 options. Once the desired drive is highlighted, press “OK”.

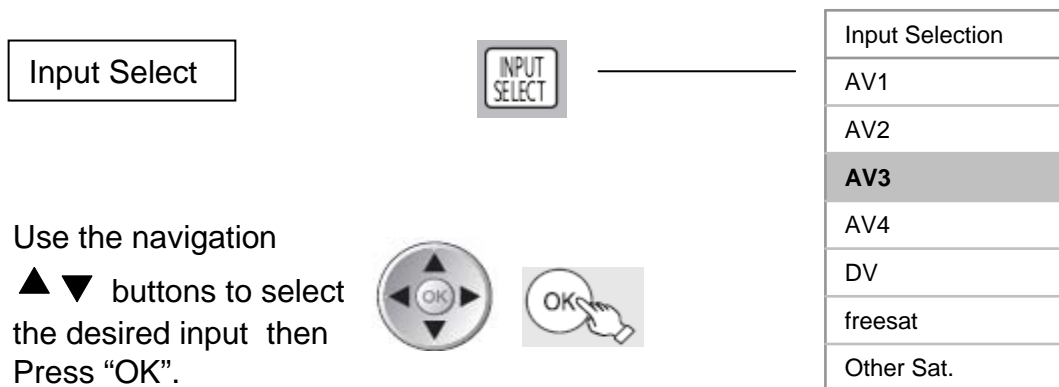


Drive Select
Please select the Drive to use.
HDD
BD
SD

How do I select the tuner or input that I want to watch?

Input Select

The input select button is used to toggle between inputs (**AV1 AV2, AV3, DV**) and the **freesat** and “**Other Satellite**” tuners. Channel up/down toggles between channels, or , when recording two programmes simultaneously, it can toggle between the two recordings.



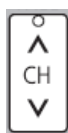
Use the navigation

▲ ▼ buttons to select the desired input then Press “OK”.

OR

Press “Input Select” repeatedly to scroll through the inputs or tuners.

Press “Channel Up / Down ” to toggle between channels.



Important note when recording two programmes simultaneously:

When you want to stop a recording, you must have the recorder on the channel of the recording that you want to stop.

When recording one programme from freesat and the other programme from “Other Sat”, you must use the **Input select** button to toggle between the recordings.

If both recordings are made from the same tuner type (both from freesat or both from “Other Sat”), the use the Channel Up/Down buttons on the remote control to toggle between the two recordings.

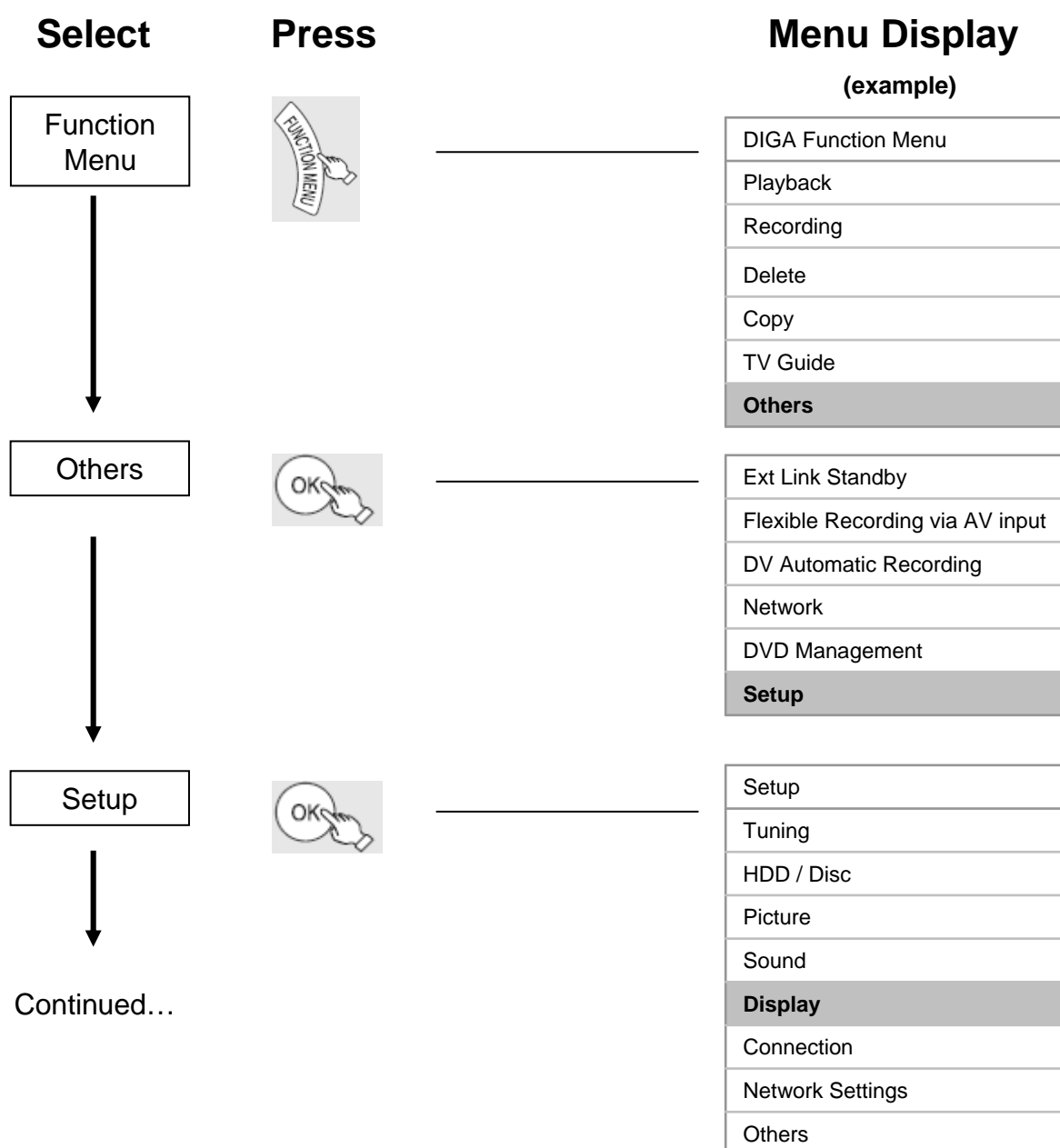
How do I turn the blue LED on the front of the recorder on/off? (DMR-BS850 / DMR-BS750 only)

Blue LED

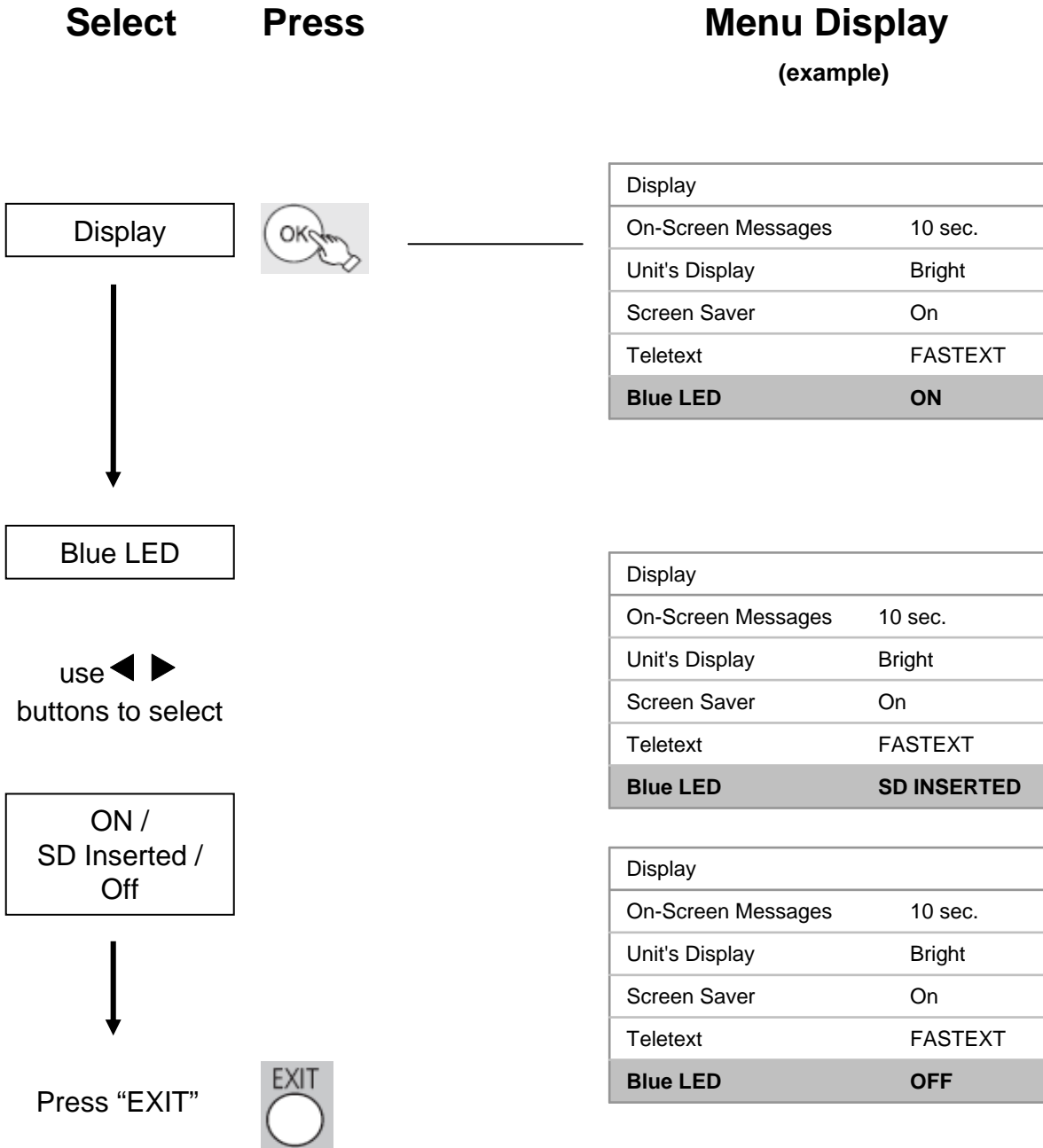
The Blu-ray HD freesat recorders have a blue LED mounted in the centre of the front panel of the main unit. There are 3 options for how the blue LED will operate:

1. Always on when the power is on.
2. On only when an SD card is inserted.
3. Always off.

This can be set as below:



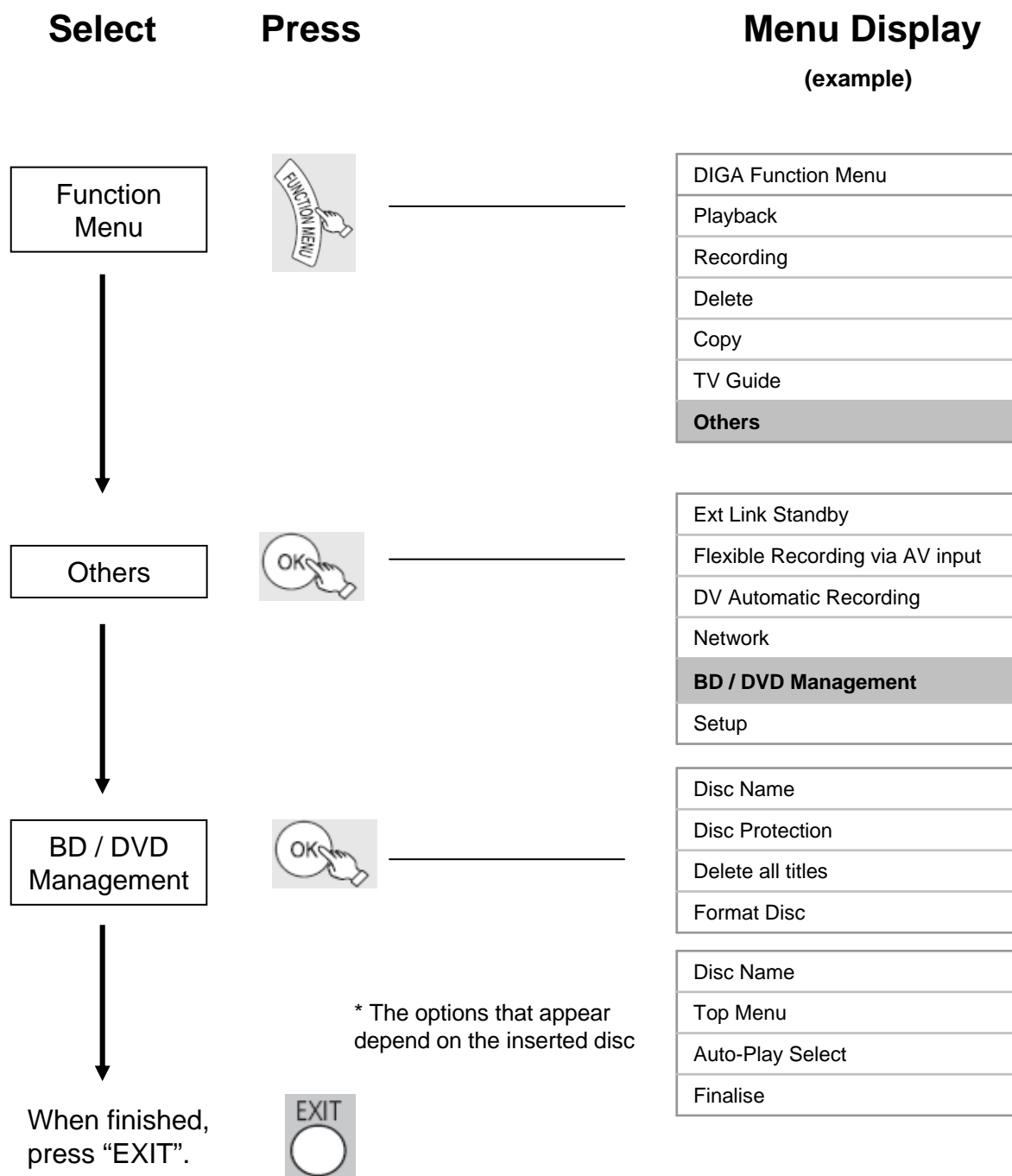
Blue LED - continued



How do I format, finalise or protect a disc?

BD / DVD Management

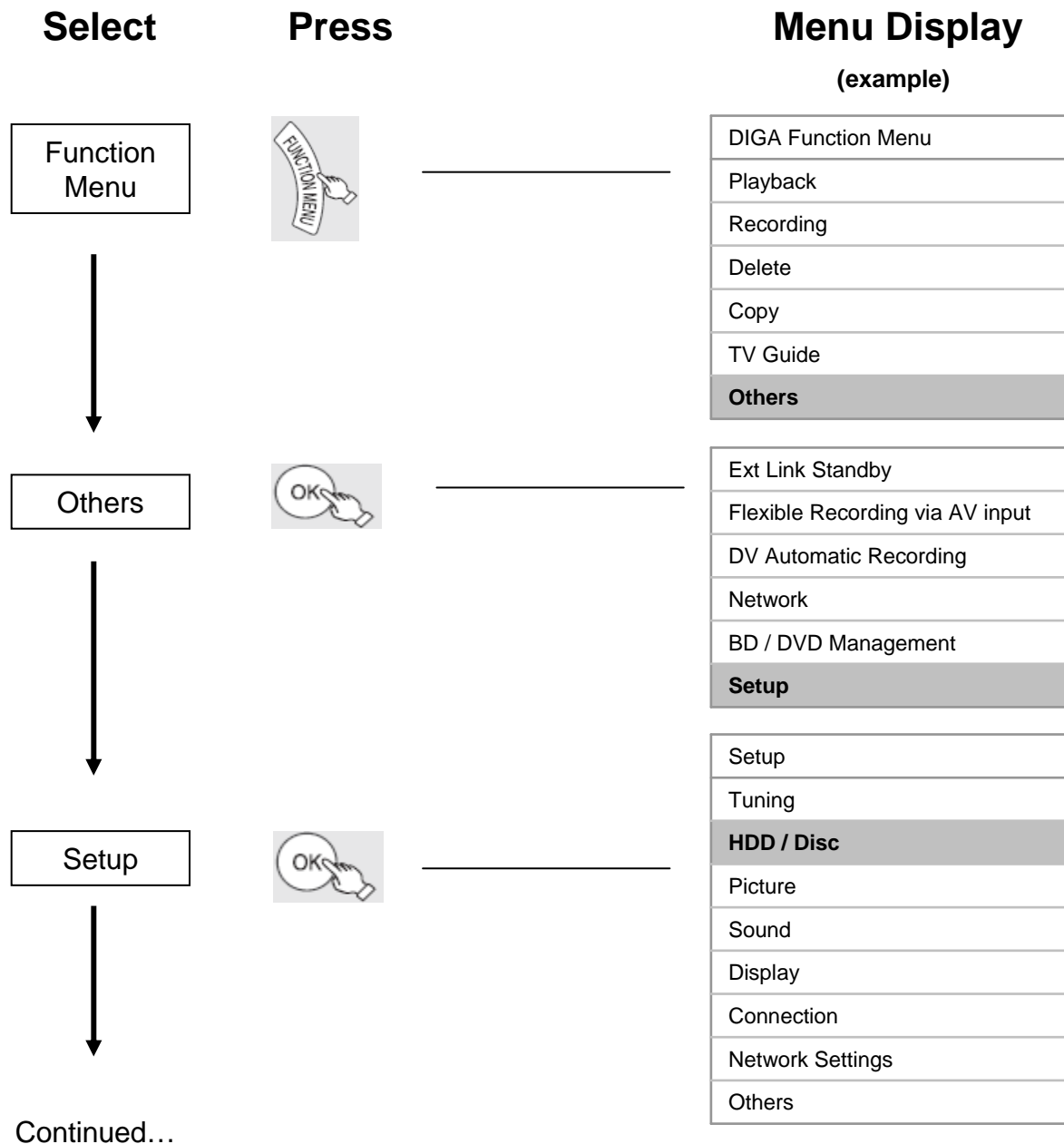
The Disc Management menu is used to finalise, format, or protect discs, as well as to create Top Menus or delete titles on a disc. On the HD recorders, the BD / DVD drive does not have to be active. A disc must be in the recorder in order to access BD / DVD Management.



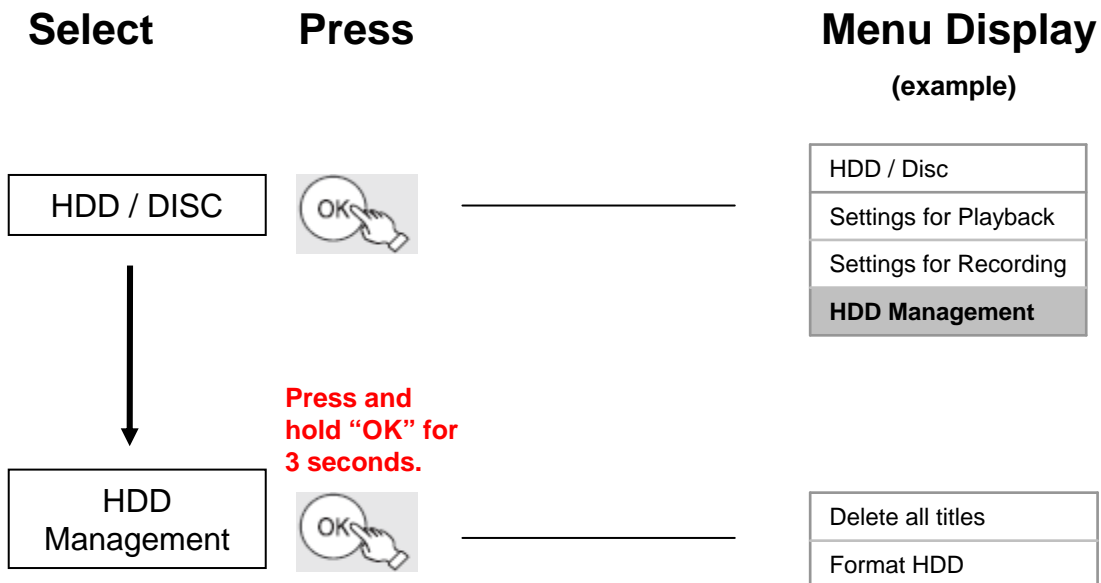
How do I delete all videos from the hard drive?

HDD Management

The hard disk drive (HDD) Management menu is also available no matter which drive is currently active. The main difference in accessing the HDD Management menu is that you must press and hold the "OK" button for 3 seconds.



HDD Management - continued



"Delete all titles" will delete all videos from the HDD. This includes recorded programmes as well as videos (MPEG-2 and AVCHD) copied from a camcorder, and all recordings from external sources. Deleting all titles will not delete pictures or music from the HDD.

Formatting the HDD will delete everything from the HDD. This includes not only videos, but also all pictures and music.

How do I connect to the Internet so I can access Viera Cast and BD-Live?

Internet Connection

Basic Connection

An Ethernet cable is used to connect the LAN socket on the rear of the HD recorder to an unused Ethernet (LAN) port on a home broadband router. Ethernet cables can be purchased from most PC retailers. This is the cheapest and simplest method of connection.

Preparation:

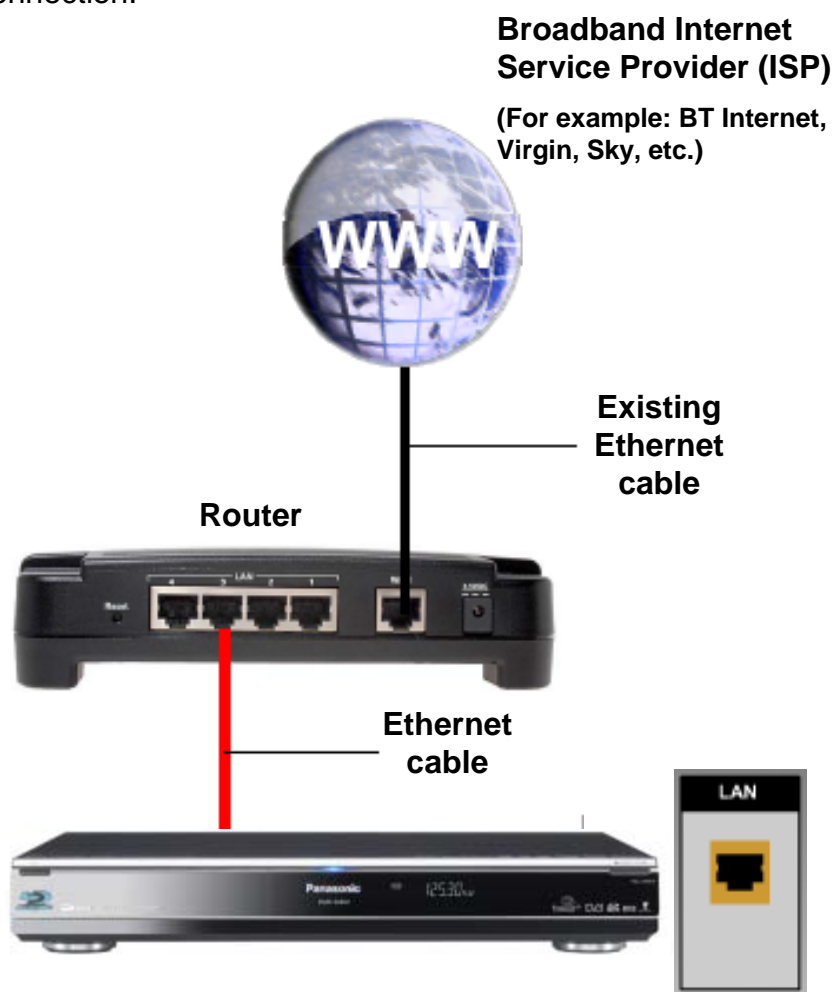
You will need a working broadband connection with a router.

Step 1:

Connect one end of the Ethernet cable to a spare Ethernet socket on the broadband router. These are often marked "LAN" on the router.

Step 2:

Connect the other end of the Ethernet cable to the LAN socket on the rear of the HD recorder.



Once connected, there are no settings to change on the recorder. If there are any problems, refer to the troubleshooting guide as it may be necessary to make some changes to the broadband router settings.

Internet Connection - continued

Connecting using a Home Plug

It is possible to use Home Plug or other similar networking devices to connect the HD recorder to the Internet. This can be particularly useful when the recorder is in a different room to the broadband router. The pair of home plugs simply acts as an Ethernet cable.

Preparation:

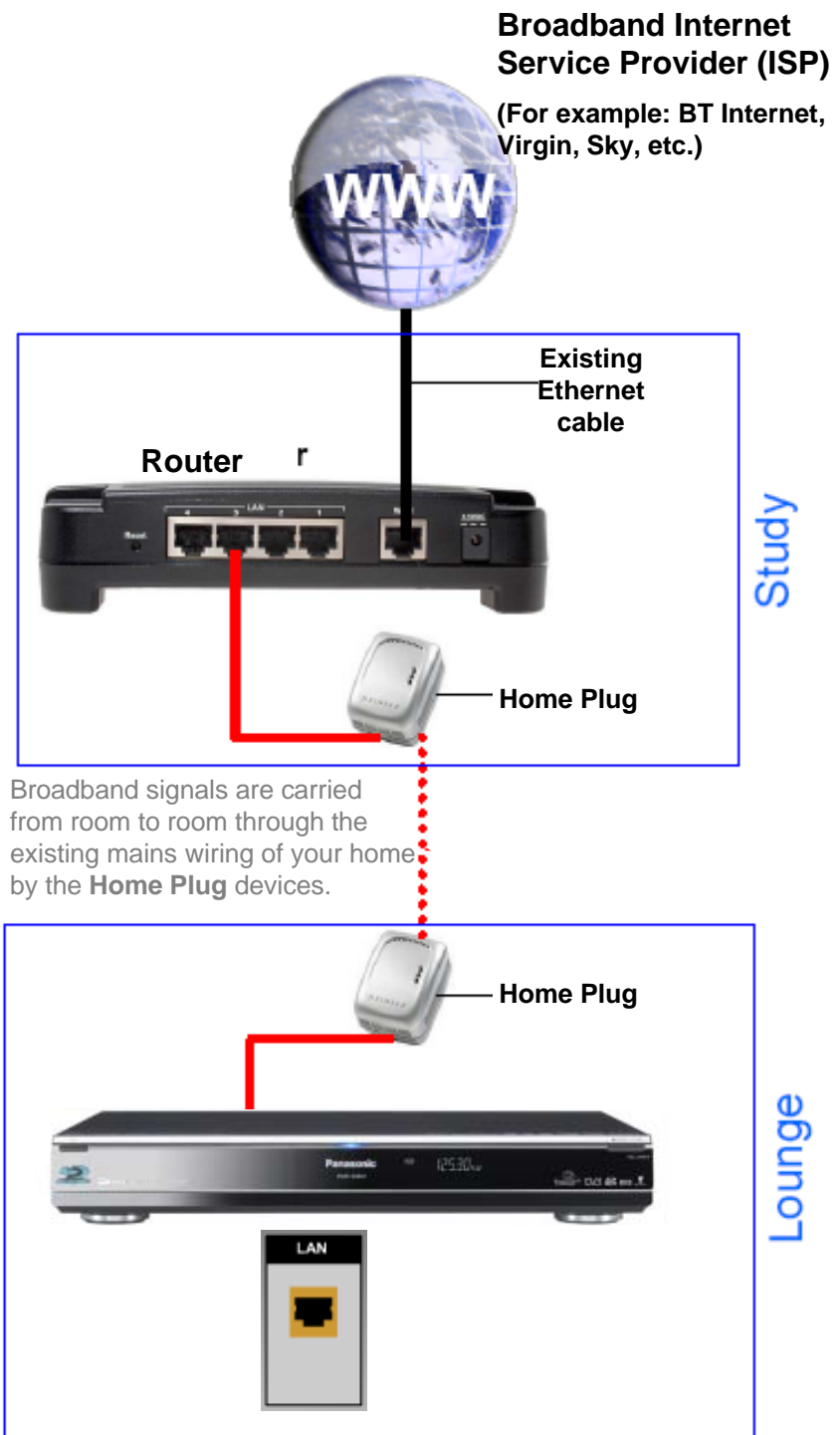
You will need a working broadband connection with a router. You will also need a pair of Home Plug devices

Step 1:

Connect one end of an Ethernet cable to a spare Ethernet socket on the broadband router. Connect the other end to the Home Plug device and plug it in to a mains socket.

Step 2:

Connect the other end of the Ethernet cable to second Home Plug and plug it into the mains socket. Connect the other end of the Ethernet cable into the LAN socket on the rear of the recorder.

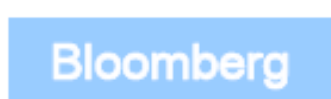


What is Viera Cast?

Viera Cast

Panasonic has introduced Viera Cast into 2009 TV and Blu-ray product ranges. On the HD recorder products, Viera Cast currently provides access to weather, Bloomberg stocks, YouTube™ and Picasa™ through your recorder without the need for a computer. The recorder connects to the Panasonic European server via a home broadband connection. Viera Cast programmes can then be accessed by simply pressing the “VIERA CAST” button on your remote control.

For information on using Viera Cast, please refer to the Viera Cast Self-Help Guide.



Track stocks and shares
in real time with
Bloomberg



Get the latest regional
weather forecasts.

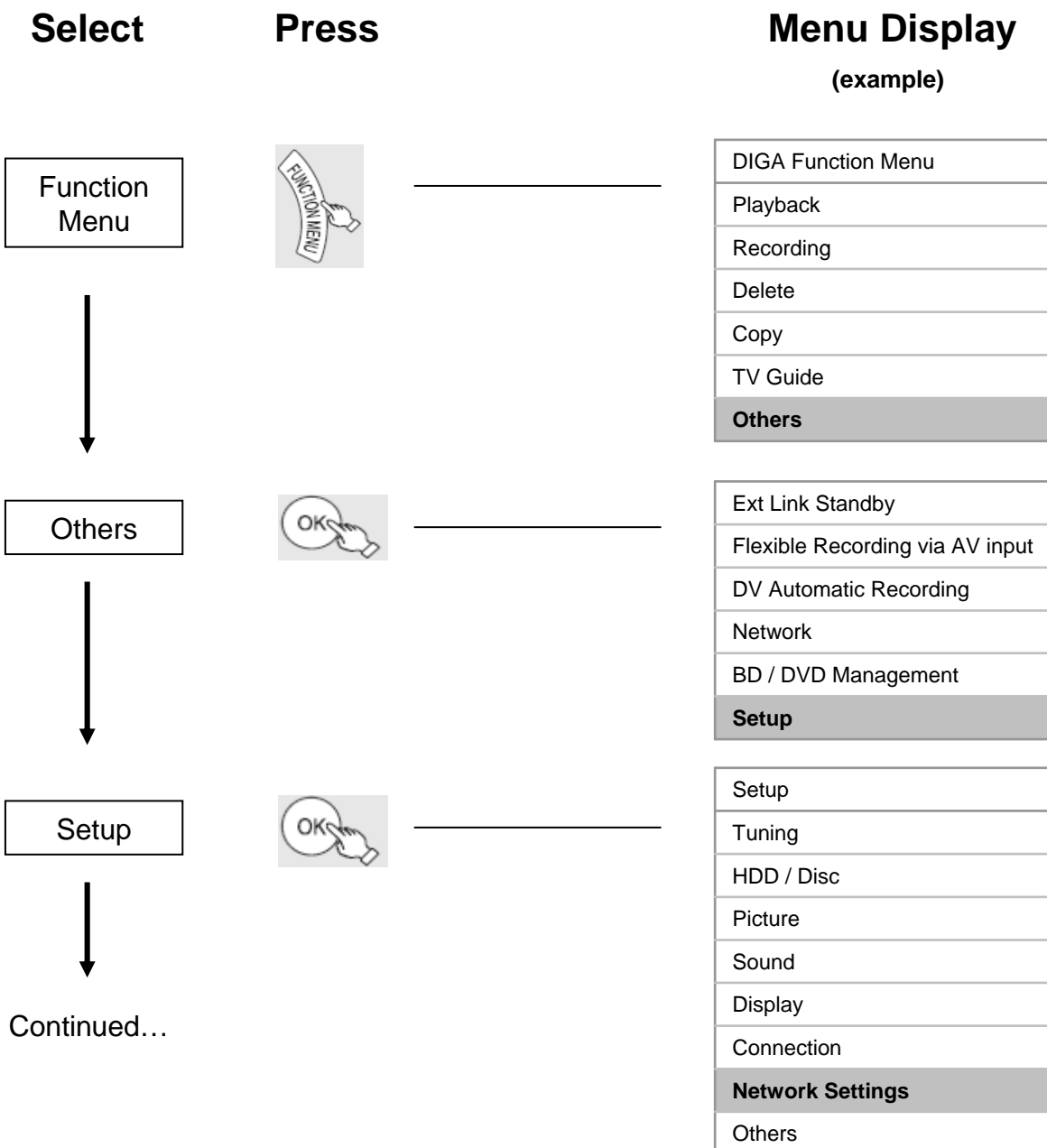


Broadcast & Features	Picasa™	YouTube™
Broadcast Content	Lets you view on-line Picasa™ photo albums and play them as a slide show.	Lets you view on-line video clips and play them in a window or full screen.
Shortcuts	Up to 3 user shortcuts can be stored.	Up to 3 user shortcuts can be stored.
Free text search	Yes.	Yes.
Access to User Accounts	Yes. Account set up on a PC can be accessed.	Yes. Account set up on a PC can be accessed.

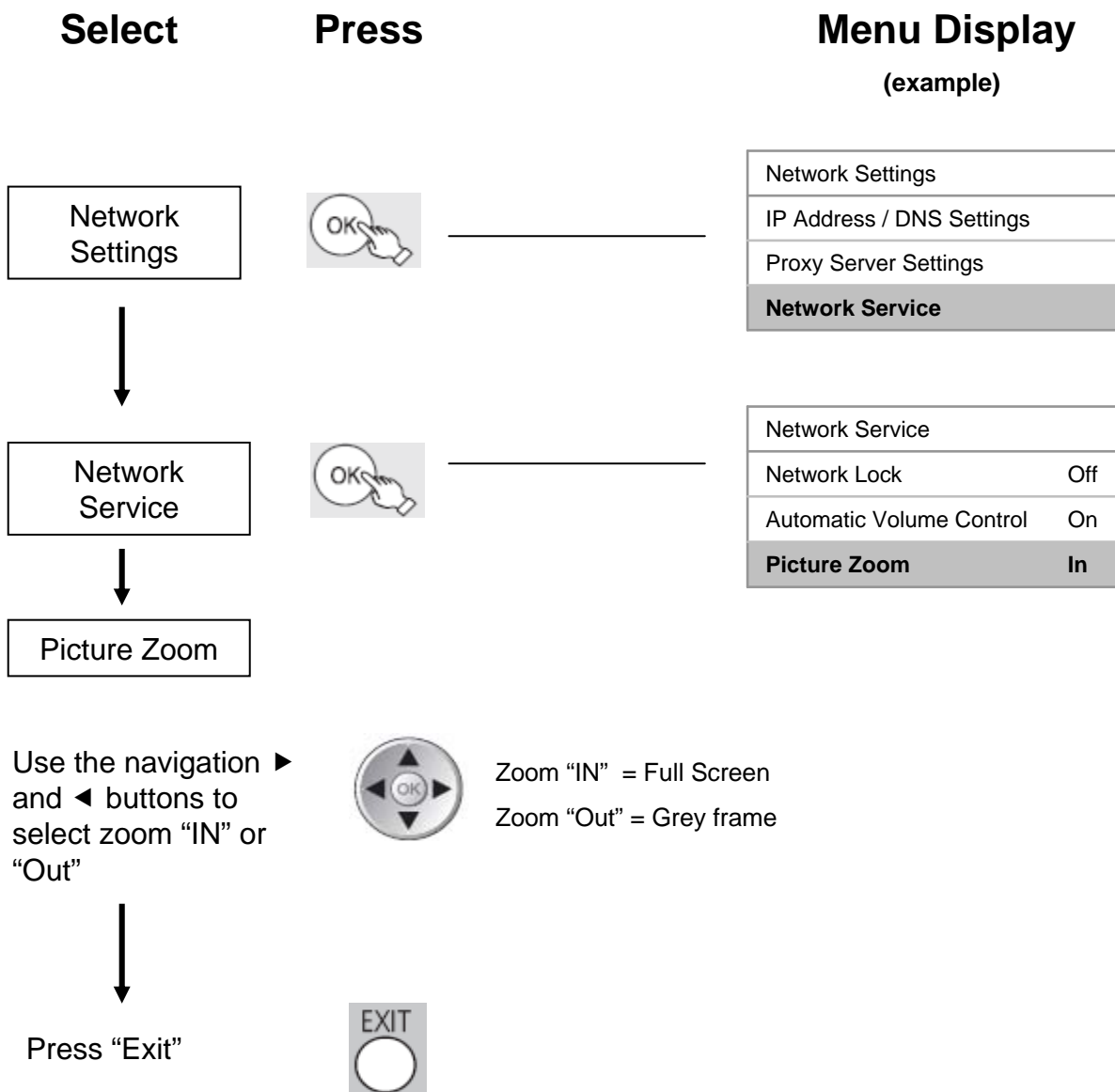
How do I zoom in and out on Viera Cast?

Viera Cast Zoom

There is a zoom facility that will allow Viera Cast to fill the whole screen or appear within a grey frame. This can be changed within the Network Setting menu under Network Service. Setting the Zoom to “IN” will make Viera Cast fill the whole screen. Setting it to “OUT” will make the Viera Cast screen appear within a grey frame.



Viera Cast Zoom - continued

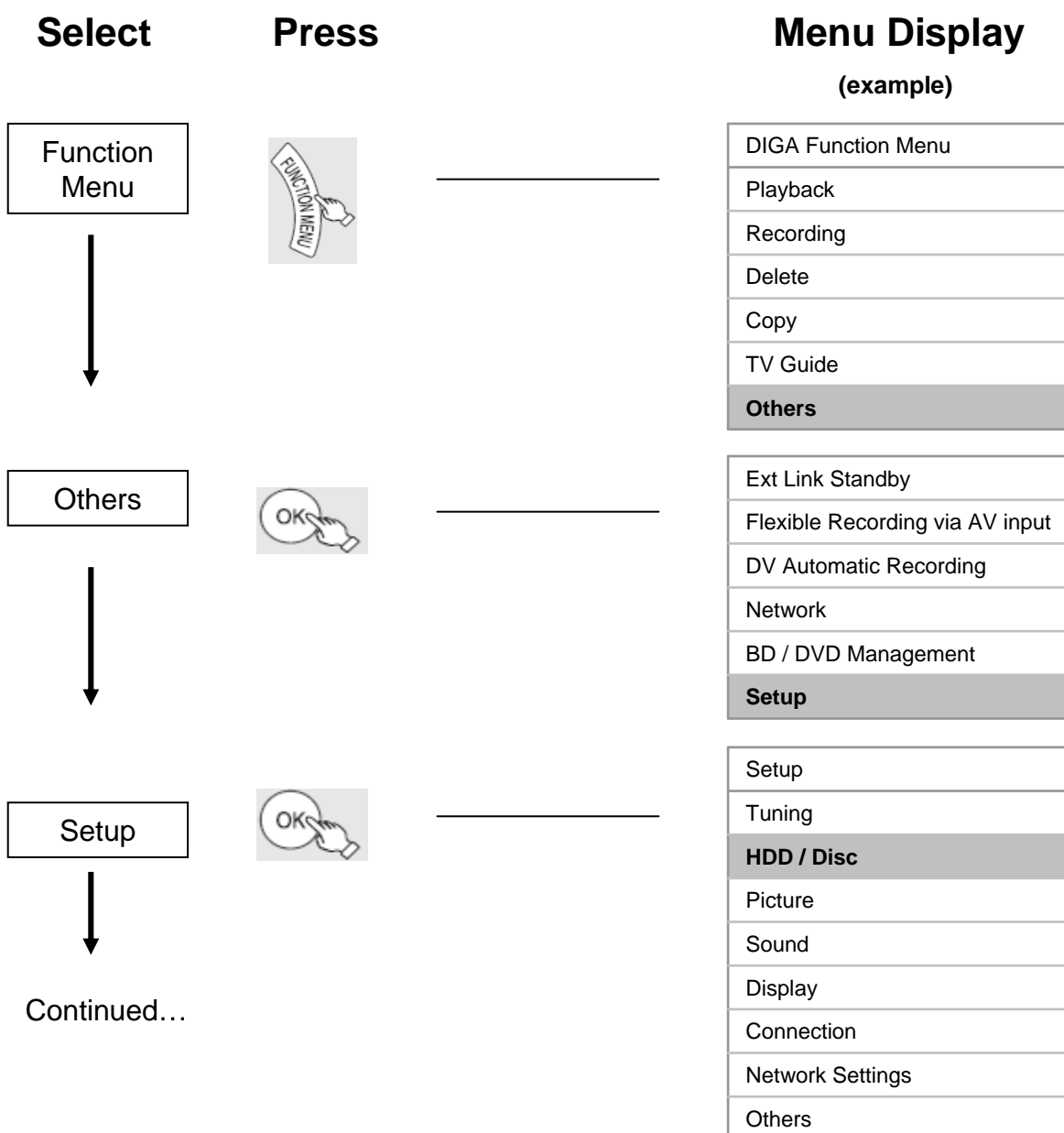


How do I activate / deactivate password protection on programmes recorded during the Watershed?

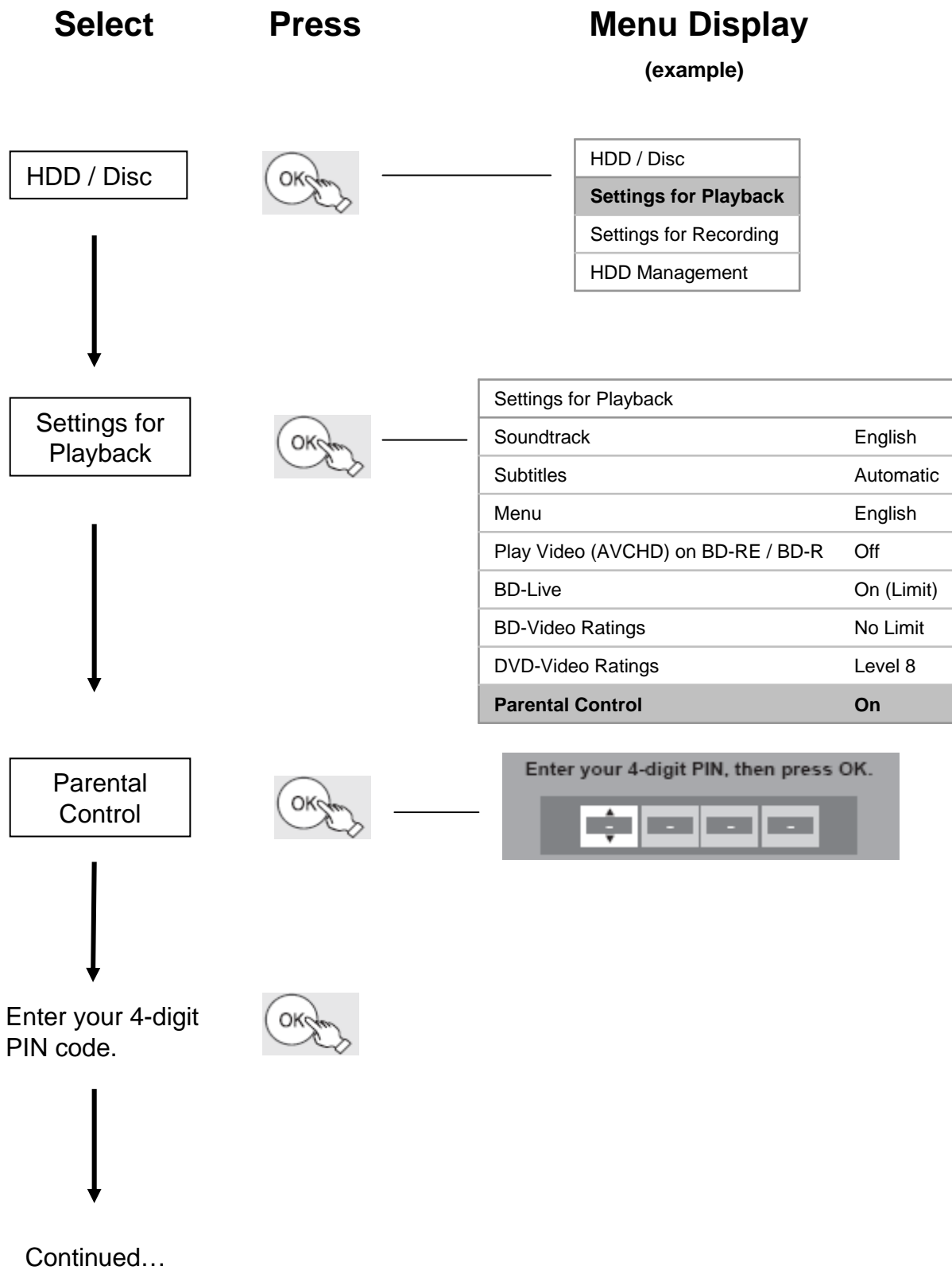
Parental Control

Parental control (when active) prevents programmes recorded after 9.00 PM and before 5.30 AM from being played without first inputting a 4-digit PIN number. The programmes recorded during the Watershed may have adult material unsuitable for younger children.

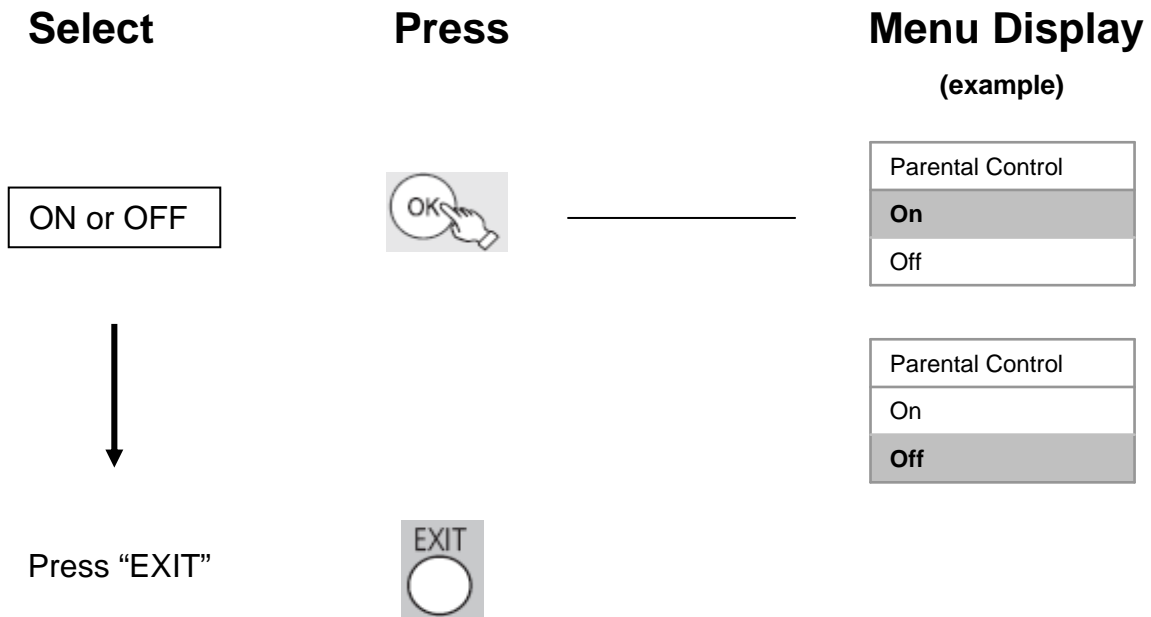
Programmes containing parental control flags will be indicated in the Direct Navigator with .



Parental Control, Continued...



Parental Control, Continued...



When Parental control is set to "On" you will be prompted for the PIN code every time you play a recording that was made during the Watershed hours.

If the PIN Code is forgotten the unit must be reset using a shipping condition. Setting the unit back to default settings will NOT reset the Parental Control PIN code.

How do I archive my recordings from the HDD onto a disc in high speed?

Copying Titles – High Speed

[Not all titles can be copied at high speed to disc.](#)

High speed copying is not possible when copying a high definition programme to a DVD. Please select a recording mode other than high speed (XP, SP, LP or EP), or use DR Conversion to convert the programme to standard definition first.

Select

Set the drive to HDD using "DRIVE SELECT".

Function Menu



Copy



Copy Direction



Verify that the Copy Direction is HDD -> BD / DVD.



Continued...

Press



Menu Display

(example)

DIGA Function Menu
Playback
Recording
Delete
Copy
TV Guide
Others

Cancel All		
Copy Direction	Source	HDD
HDD -> BD / DVD	Destination	BD / DVD
Copy Mode		
VIDEO High-Speed		
Create List		
0		
Other Settings		
Start Copying		

Copying Titles in High Speed - continued

Select

Menu Display

(example)

Copy Mode

Verify that the Copy Mode is VIDEO High-Speed.

Create List

Use ► button to step to the right side of the screen

Continued...

Cancel All		
Copy Direction	Format	VIDEO
HDD -> BD / DVD	Recording Mode	High Speed
Copy Mode		
VIDEO High-Speed		
Create List		
0		
Other Settings		
Start Copying		

Cancel All		
Copy Direction	Destination Capacity	4000 MB
HDD -> BD / DVD	Size	0 MB
Copy Mode	No.	Size
VIDEO High-Speed	Title	
	New item (Total = 0)	
Create List		
0		
Other Settings		
Start Copying		

Cancel All		
Copy Direction	Destination Capacity	4000 MB
HDD -> BD / DVD	Size	0 MB
Copy Mode	No.	Size
VIDEO High-Speed	Title	
	New item (Total = 0)	
Create List		
0		
Other Settings		
Start Copying		

Copying Titles in High Speed - continued

Select

New Item



Select the programme (s) that you want to copy. Use the pause button to select more than one programme. Then press "OK".



If the programmes have copy restrictions a warning message will appear. Press "OK"



Continued...

Press



Menu Display

(example)

No	Date	Day	Channel	Time	Title Name
001	25/05	SAT		12:36	Born And Bred: A Wra h ul
002	25/05	SAT		12:37	Play School: Food Friday
003	01/06	SUN	AV2	1 35	
004	01/06	SUN	AV1	1:13	

Copyright restricts this title to being copied only once in High Speed, HG, HX, HE, and HL mode.
There are no restrictions with copying in XP, SP, LP, EP, and FR mode.

Cancel All			
Copy Direction	Destination Capacity	4000 MB	
HDD -> BD / DVD	Size	3000 MB	
Copy Mode	No.	Size	Title
VIDEO High-Speed	01	01:00	BBC HD
Create List	02	00:30	ITV
2	New item (Total = 2)		
Other Settings			
Start Copying			

Copying Titles in High Speed - continued

Select

Press

Menu Display

(example)

Use ◀ button to return to the left hand side of the screen.



Other Settings

Cancel All		
Copy Direction	Subtitles	Off
HDD -> BD / DVD	Finalise	Off
Copy Mode	Audio Description	Off
VIDEO High-Speed		
Create List		
0		
Other Settings		
Start Copying		

Verify if you want to finalise the disc after the copy.

If you want to finalise the disc after copying, use

▶ to select Finalise.



Press "OK"



Continued...

Cancel All		
Copy Direction	Subtitles	Off
HDD -> BD / DVD	Finalise	Off
Copy Mode	Audio Description	Off
VIDEO High-Speed		
Create List		
0		
Other Settings		
Start Copying		

Cancel All		
Copy Direction	On	
HDD -> BD / DVD	Off	
Copy Mode		
VIDEO High-Speed		
Create List		
0		
Other Settings		
Start Copying		

Copying Titles in High Speed - continued

Select

Press

Menu Display

(example)

ON



Cancel All		
Copy Direction	Subtitles	Off
HDD -> BD / DVD	Finalise	On
Copy Mode	Audio Description	Off
VIDEO High-Speed		
Create List		
0		
Other Settings		
Start Copying		

Use ◀ button to return to the left hand side of the screen.

Start Copying



Cancel All		
Copy Direction		
HDD -> BD / DVD		
Copy Mode		
VIDEO High-Speed	Press OK to start copying.	
Create List		
0		
Other Settings		
Start Copying		

Press OK to start copying.



This will take approximately 8 min.	
Start Copying?	
Yes	No
Press and hold RETURN for 3 sec to cancel copying.	

Continued...

Copying Titles in High Speed - continued

Select

Press

Menu Display

(example)

Yes



Copying in High Speed mode
Press and hold RETURN for 3 sec to stop copying
Completes in 0:05
Percent Complete 2%
To view, record or play back another title, press OK

Copying begins.
Copy progress will be shown on screen until completed.



Press "OK" if you are finished copying.

Press "RETURN" if you want to return to the Copy Menu.

Copying completed.
Press OK to exit copying.
Press RETURN to continue copying.

The copy will now be completed.

If you selected "Finalise Off", when you eject the disc you will be prompted to finalise the disc. This is necessary to play the disc in other players. Press the "REC" button when prompted to finalise the disc, or press "OPEN/CLOSE" to eject the disc without finalisation.

Notes:

DVD+RW cannot be finalised; you must create a Top Menu instead. DVD+RW with a Top Menu may not play in all players.

DVD-RAM Discs and BD-RE discs cannot be finalised and may not play in all players.

How long will it take to high-speed copy from the HDD to a disc?

Time needed to copy 1 hour programme in High Speed to Blu-Ray disc (DMR-BS850 / DMR-BS750 only)

Mode	Speed	Time (Approx.)
DR	15x	4 min
HE	30x	2 min
HL	40x	1.5 min
HG	15x	4 min
HX	20x	3 min

Time needed to copy 1 hour programme in High Speed to DVD

Mode	Speed	Time (Approx.)
XP	10x	6 min
SP	24x	2.5 min
LP	44x	1.5 min
EP ₁	62x	1 min
EP ₂	75x	1 min

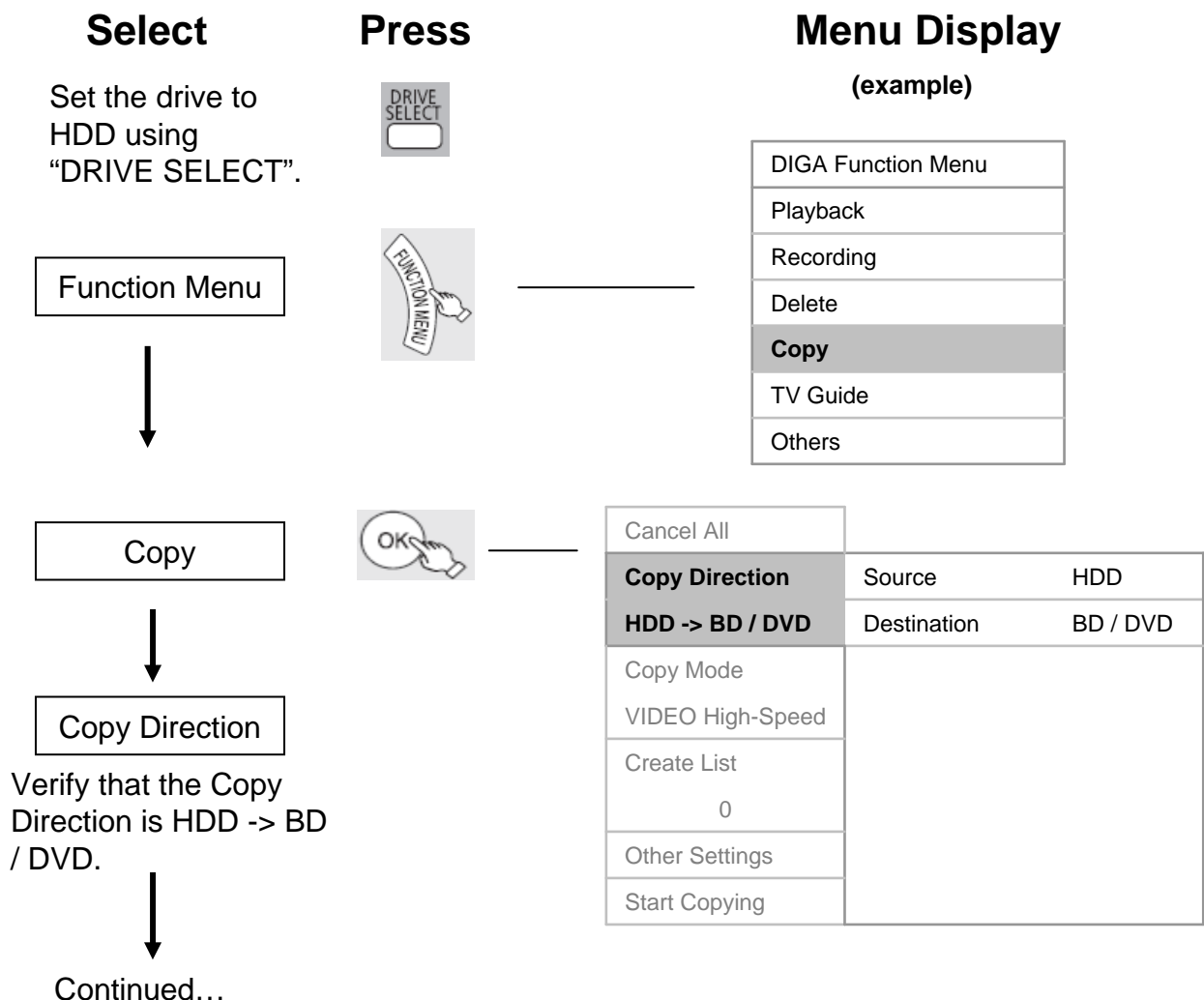
How do I archive my recordings from the HDD onto a disc in real time?

Copying Titles – Real Time

If a programme cannot be copied in high speed mode, then it must be copied in real time. This means that it will take as long to copy the programme as it would to watch the programme. So it will take 2 hours to copy a 2-hour programme, 3 hours to copy a 3-hour programme, etc.

There are many reasons why a programme might not copy in high speed. The two most common reasons for this are:

- The programme must be converted from one recording mode to another (for example, from SP mode to EP mode).
- There are multiple aspect ratios in the programme. This most commonly occurs when the programme is broadcast in 4:3 mode and the adverts are broadcast in 16:9 mode. When editing the adverts out of the programme, be sure to delete any parts of the programme that are in 16:9 mode.



Copying Titles in Real Time - continued

Select

Copy Mode



Verify the mode you want the recording to be made in.

If this is not correct, press ► to go to the right side of the screen.



Highlight "Recording Mode" and press OK.



Continued...

Menu Display

(example)

Cancel All		
Copy Direction	Format	VIDEO
HDD -> BD / DVD	Recording Mode	HG
Copy Mode		
VIDEO HG		
Create List		
0		
Other Settings		
Start Copying		

Cancel All		
Copy Direction	Format	VIDEO
HDD -> BD / DVD	Recording Mode	HG
Copy Mode		
VIDEO HG		
Create List		
0		
Other Settings		
Start Copying		

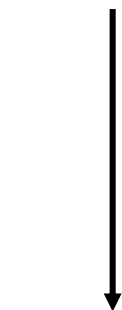
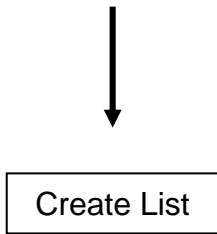
Cancel All		
Copy Direction	Original Picture Quality	High Speed
HDD -> BD / DVD	High Definition	Normal Speed (HG)
Copy Mode		
VIDEO HG		
Create List		
0		
Other Settings	Standard Definition	Normal Speed (XP)
		Normal Speed (SP)
		Normal Speed (LP)
		Normal Speed (EP)
Start Copying		Normal Speed (FR)

Copying Titles in Real Time - continued

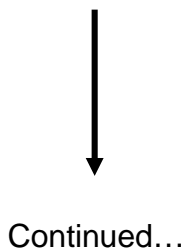
Select

Highlight the desired Recording Mode and press OK. Original Quality and High Definition modes can only be selected for copy onto Blu-Ray disc.

Press ◀ to go back to the left side of the screen.



Use ▶ button to step to the right side of the screen



Menu Display

(example)

Cancel All		
Copy Direction	Format	VIDEO
HDD -> BD / DVD	Recording Mode	SP
Copy Mode		
VIDEO SP		
Create List		
0		
Other Settings		
Start Copying		

Cancel All			
Copy Direction	Destination Capacity	4000 MB	
HDD -> BD / DVD	Size	0 MB	
Copy Mode	No.	Size	Title
VIDEO High-Speed	New item (Total = 0)		
Create List			
0			
Other Settings			
Start Copying			

Cancel All			
Copy Direction	Destination Capacity	4000 MB	
HDD -> BD / DVD	Size	0 MB	
Copy Mode	No.	Size	Title
VIDEO High-Speed	New item (Total = 0)		
Create List			
0			
Other Settings			
Start Copying			

Copying Titles in Real Time - continued

Select

New Item



Select the programme (s) that you want to copy. Use the pause button to select more than one programme. Then press "OK".



If the programmes have copy restrictions a warning message will appear. Press "OK"



Continued...

Press



Menu Display

(example)

No	Date	Day	Channel	Time	Title Name
001	25/05	SAT		12:36	Born And Bred: A Wra h ul
002	25/05	SAT		12:37	Play School: Food Friday
003	01/06	SUN	AV2	1 35	
004	01/06	SUN	AV1	1:13	

Copyright restricts this title to being copied only once in High Speed, HG, HX, HE, and HL mode.
There are no restrictions with copying in XP, SP, LP, EP, and FR mode.

Cancel All			
Copy Direction	Destination Capacity	4000 MB	
HDD -> BD / DVD	Size	3000 MB	
Copy Mode	No.	Size	Title
VIDEO High-Speed	01	01:00	BBC HD
Create List	02	00:30	ITV
2	New item (Total = 2)		
Other Settings			
Start Copying			

Copying Titles in Real Time - continued

Select

Press

Menu Display

(example)

Use ◀ button to return to the left hand side of the screen.



Other Settings

Cancel All		
Copy Direction	Subtitles	Off
HDD -> BD / DVD	Finalise	Off
Copy Mode	Audio Description	Off
VIDEO High-Speed		
Create List		
0		
Other Settings		
Start Copying		

Verify if you want to copy Subtitles or Audio Description (if they have been broadcast), and if you want to finalise the disc after the copy.

If you want to copy Subtitles or Audio Description, these options should be set to “Automatic”. If they are set to “Off”, they will not copy.

If you want to finalise the disc after copying, “Finalise” should be “On”.



If you wish to change these settings, use ▶ button to step to the right side of the screen



Continued...

Cancel All		
Copy Direction	Subtitles	Off
HDD -> BD / DVD	Finalise	Off
Copy Mode	Audio Description	Off
VIDEO High-Speed		
Create List		
0		
Other Settings		
Start Copying		

Copying Titles in Real Time - continued

Select

Menu Display

(example)

Highlight the option you want to change and press OK



Cancel All	
Copy Direction	On
HDD -> BD / DVD	Off
Copy Mode	
VIDEO High-Speed	
Create List	
0	
Other Settings	
Start Copying	



Highlight the desired setting and press OK.



Cancel All		
Copy Direction	Subtitles	Off
HDD -> BD / DVD	Finalise	On
Copy Mode	Audio Description	Off
VIDEO High-Speed		
Create List		
0		
Other Settings		
Start Copying		



When Subtitles and/or Audio Description are copied (only when on the original broadcast), they can not be turned on/off on the copy.

Not all discs can be finalised. If the disc you are using can not be finalised, you will not be able to select "Finalise". Discs that are not finalised may not play on another player. Discs can be finalised at a later date by using the BD / DVD Management menu.



Continued...

Copying Titles in Real Time - continued

Select

Press

Menu Display

(example)

Use ◀ button to return to the left hand side of the screen.

Cancel All		
Copy Direction	Subtitles	Off
HDD -> BD / DVD	Finalise	On
Copy Mode	Audio Description	Off
VIDEO High-Speed		
Create List		
0		
Other Settings		
Start Copying		



Start Copying

Cancel All		
Copy Direction		
HDD -> BD / DVD		
Copy Mode		
VIDEO High-Speed	Press OK to start copying.	
Create List		
0		
Other Settings		
Start Copying		



Press OK to start copying.



This will take approximately 2 hours.	
Start Copying?	
Yes	No
Press and hold RETURN for 3 sec to cancel copying.	



Continued...

Copying Titles in Real Time - continued

Select

Press

Menu Display

(example)

Yes



Copying in High Speed mode
Press and hold RETURN for 3 sec to stop copying
Completes in 2:00
Percent Complete 2%
To view, record or play back another title, press OK

Copying begins.
Copy progress will be shown on screen until completed.



Press "OK" if you are finished copying.
Press "RETURN" if you want to return to the Copy Menu.

Copying completed.
Press OK to exit copying.
Press RETURN to continue copying.

The copy will now be completed.

If you selected "Finalise Off", when you eject the disc you will be prompted to finalise the disc. This is necessary to play the disc in other players. Press the "REC" button when prompted to finalise the disc, or press "OPEN/CLOSE" to eject the disc without finalisation.

Notes:

DVD+RW cannot be finalised; you must create a Top Menu instead. DVD+RW with a Top Menu may not play in all players.


DVD-RAM Discs and BD-RE discs cannot be finalised and may not play in all players.


What is Copy Protection?

Copy protection exists to prevent the copying of copyrighted media.

All high definition broadcasts contain copy protection. The recorders recognize the copy protection “flag” on the broadcast and limit the number of times that a recorded programme can be copied to disc in high definition. Broadcasts are only limited in the number of times you can copy the programme to disc in high definition; there are currently no limits to how many times you can copy the programme to disc after it has been converted to standard definition.

The following symbols are used in the Direct Navigator on the recorders:

 The title (programme) can be copied once to disc in high definition.

 The title (programme) can not be copied to disc in high definition.

Disc Characteristics

Characteristics	DVD -R	DVD +R	DVD-RW	DVD +RW	DVD RAM	BD-R	BD-RE	Hard disc	Comments
Recording Format	V Mode (When Finalised)	V Mode (When Finalised)	V Mode (When Finalised)	V Mode (When Finalised)	VR Mode	BD-DR and BDMV *	BD-DR and BDMV *	VR Mode	* Panasonic BD Recorders can record in DR Mode (the data stream sent by the broadcasters) and in BDMV (BluRay Motion Video) the standard BluRay recording format.
Writing Capabilities	Write Once and Finalise	Write Once and Finalise	Around 1000 times	Around 1000 times	Around 100,000 Times	Write Once and Finalise	Around 1000 times	Not applicable to HDD	The number of times that a disc can be written / rewritten is based on average quoted by the factory in ideal conditions and is not guaranteed
Single Layer Capacity	4.7GB	4.7GB	4.7GB	4.7GB	4.7GB	25GB	25GB	250GB / 500 GB	DVD-R and DVD +R are available in Dual Layer. When writing dual layer discs each layer must be written and finalised separately. The time remaining is shown one layer at a time.
Dual Layer Capacity	8.5 GB	N/A	N/A	N/A	N/A	50GB	50GB	N/A	N/A
Double Sided Capacity	N/A	N/A	N/A	N/A	9.4 GB	N/A	N/A	N/A	N/A
Format Before Use	NO	NO	YES	YES	YES (If Prompted)	NO	YES (If Prompted)	N/A	Panasonic RAM discs are usually Preformatted
The disc type can be finalised and played on standard Player. (Most Recent Players).	YES	YES	YES	YES	NO RAM discs cannot be finalised and can only be played on units specifically compatible with RAM discs	YES - Plays on BluRay Player Only	NO - Cannot Be Finalised but may play on latest Panasonic BD Players	NO The Hard disc cannot be removed from the unit. The program must be copied (Dubbed) onto another type of disc.	
Finalisation Method	Auto Finalise or Finalise from DVD Management Menu	Auto Finalise or Finalise from DVD Management Menu	Auto Finalise or Finalise from DVD Management Menu	Auto Finalise or Create TOP Menu from the DVD Management menu	Finalisation is NOT possible. discs can only be read by DVD players/recorders compatible with DVD-RAM	BD-R Discs can be finalised from the BD Management Menu to prevent accident editing.	BD-RE Discs are NOT finalised but they will play in most Panasonic Players	N/A	
Limitations of adding new recordings	Recordings can be added up to the capacity of the disc until the disc is finalised **. Then no further writing is possible. Please Read Comments	Recordings can be added up to the capacity of the disc until the disc is finalised **. Then no further writing is possible. Please Read Comments	Recordings can be added up to the capacity of the disc until finalised. It is not possible to add new recordings. The disc can be re-used by formatting and starting again	Recordings can be added up to the capacity of the disc. Even after the Top Menu is created it is still possible to add recordings. A new TOP Menu must then be created to make playback on a DVD player possible	Recordings can be added up to the capacity of the disc without limitations. Recordings can be deleted and the space re-used but the disc should be formatted periodically to prevent the loss of recording capacity.	Recordings can be added up to the capacity of the disc without limitations. Recordings can be deleted and the space re-used but the disc should be formatted periodically to prevent the loss of recording capacity.	Recordings can be added up to the capacity of the disc without limitations. Recordings can be deleted and the space re-used but the disc should be formatted periodically to prevent the loss of recording capacity.	Recordings can be added up to the capacity of the disc without limitations. Recordings can be deleted and the space re-used and the space re-used	** If a DVD -R or a DVD +R is left in the recorder, the Table of contents is checked and written to every time the unit is switched on or when the disc is inserted. This limits the number of times the disc can be accessed before it must be finalised. This can be as few as 25 times.

Troubleshooting Guide

Problem	Possible Cause	Remedy
I can not set a timer recording or manually record to the BD/DVD Drive.	All recording are made to the hard disc drive (HDD). This is necessary for the unit to comply with the copyright protection specification for high definition recorders.	Once the recording has been made on the HDD, it can be copied onto BD/DVD drive. There are restrictions to how many times some HD recordings can be copied. The number of copies possible can be checked by looking at the number on the copy flag for the desired recording in the Direct Navigator (page 49).
I can not copy an HD recording from the HDD to the BD Drive.	The recording may not allow copies to be made depending on the copy flag sent by the broadcaster at the time of transmission.	There are restrictions to how many times the HD recoding can be copied. The number of copies possible can be checked by looking at the number on the copy flag for the desired recording in the navigator window. It is still possible to make a standard definition copy onto DVD.
When I have two recordings taking place at the same time, how can I stop the first recording while leaving the second recording running?	With two tuners it is possible to have two recordings running at once. If you press the "Stop" button it will stop the recording on the current channel.	To toggle between the recordings, use the channel up/down buttons. The recording which is actively being controlled will be displayed on the screen. Pressing the "STOP" button will prompt you to confirm the recording that you intend to stop. If this is incorrect select "No" and toggle to the second recording, before pressing the "STOP" button again (page 23).
I can not receive "Other Satellite" broadcasts.	Before "Other Satellite" channels can be selected, the channels must be set up using "Other Satellite Auto Setup".	Please see the detailed instructions "Setting up Other Sat Reception" (page 13). It will take about 45 minutes to scan for all "Other Satellite" broadcasts available. Once set up, use the "Input Select" button to select "Other Sat".
I do not receive a programme guide when viewing "Other Satellite" channels.	There is no EPG data broadcast with the programmes. Only the channel names will appear when the "GUIDE" button is pressed	Programme details and times may be available via specialist satellite magazines or on the internet.

Troubleshooting Guide - continued

Problem	Possible Cause	Remedy
How do I make timer recordings from "Other Satellite" channels?	Although there is no EPG available, it is still possible to make timer recordings.	First use the Input Select button to select "Other Sat" then use the "PROG/CHECK" button to set the timer recording. It will be necessary to set the channel number, start time and stop time manually using the up and down buttons.
Timer recordings set to record for ITV in HD are recorded in standard definition instead of high definition.	The recording start/stop times may have been adjusted from the times published in the EPG. This will cause the Red Button Service flags to be missed and the unit will not switch to high definition recording.	Use the times exactly as published in the Guide and do not adjust the start and stop times when recording HD programmes from ITV.
Can I use the unit as a Blu-ray player without the satellite cables connected?	No, the satellite feeds are necessary.	The unit needs to run Auto Setup to begin using it. Auto Setup requires the satellite feeds to be connected.
Can I receive channels from other European satellites?	It is possible to receive "Other Sat" broadcasts from Astra 2, Astra 1 and from Hotbird. These options are available in the "Other Sat" tuning menu; however the dish will have to be re-aligned to receive transmissions from Astra 1 or Hotbird. This will prevent the reception of the freesat channels.	A specialist installer may be able to install another dish for use with Astra 1 or Hotbird, leaving the freesat dish correctly aligned for freesat reception. A motorised dish may also be available through such specialist satellite installers. Panasonic do not supply any dish equipment or hardware for this purpose.
I can not connect to the network.	The Ethernet connection may be unplugged. The router may be switched off.	Check that the Ethernet cable is plugged into the LAN socket on the rear of the unit and to the broadband router Check that the router is on and that a PC can access the internet.
Some or all of the Viera Cast broadcasts are unavailable.	The server may be down or unavailable for maintenance.	Try again in an hour or two as the server may be temporarily unavailable for a period of time. If you have a Blu-ray disc containing BD-Live, try connecting to BD-Live to test your internet connection.

Troubleshooting Guide - continued

Problem	Possible Cause	Remedy
I can not access BD-Live.	There may be a problem with the server	Try again in an hour or two as the server may be temporarily unavailable for a period of time. Try another BD-Live disc or access Viera Cast to test your internet connection.
The HD recorder cannot automatically acquire an IP address.	<p>The router may not be set to automatically issue an IP address.</p> <p>The router may not be set to automatically issue an IP address.</p>	<p>Check the router settings and ensure that the DHCP option is enabled/switched on.</p> <p>Use manual IP settings if the network administrator prefers to manually allocate IP addresses. The IP address issued will have to be manually entered in the network settings menu.</p>
The HD recorder is connected to the broadband router, but the network connection test fails.	<p>The wrong type of Ethernet cable may be used.</p> <p>The router may be using MAC filtering (security setting).</p>	<p>Use a standard LAN straight through cable to connect to the internet via a router or a hub. Cross-over Ethernet cable is only used in connecting directly to the Ethernet socket of a PC.</p> <p>Note the MAC address, found in the Network Settings menu, and add it to the MAC filtering table. Please consult the router instructions for help with this.</p>