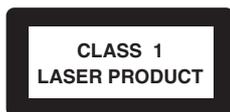


Service
Service
Service



Service Instruction



Contents

1	Technical Specifications and Connection Facilities
2	Test Disc & Repair Hints
3	Firmware Upgrading & Diagnostic Software
4	Service Flow chart
5	Directions For Use

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The 2006 range DVD Recorder products are repaired centrally. Defective sets must be identified, labelled and stored for pick-up. This document gives full instructions for a functional check. Technical information to repair faulty sets is therefore not provided in this document.

To test in-coming sets the following must be performed:

1. Verify / Reproduce the customer's problem
2. Verify that set has latest Firmware (see chapter 3) and upgrade if it is not the latest version.
3. Full functional check

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1. Technical Specifications and Connection Facilities

1.1 Read / Write Speed

Type of Disc (Function)	Disc Rotation Speed
Read Speed CD	7X CAV
Read Speed DVD	4X CAV
Write Speed DVD+R/RW	2.4X ZCAV
Write Speed DVD-R/RW	2X

1.2 General:

Mains voltage	: 198V – 276V
Mains frequency	: 47Hz – 63Hz
Power consumption (record)	: <75W
Standby Power Consumption	: <4W
Eco stand-by	: <3W

1.3 RF Tuner (Analogue)

1.3.1.1 System:

PAL B/G, PAL D/K, SECAM L/L', PAL I

1.3.1.2 RF – Loop Through:

Frequency range	: 45MHz – 860MHz
Gain: (ANT IN - ANT OUT)	: -6dB to 0dB

1.3.1.3 Receiver:

PLL tuning with AFC for optimum reception	
Frequency range	: 45.25MHz – 857MHz
Sensitivity at 40dB S/N (video unweighted)	: ≤ 60dBµV at 75Ω

1.3.1.5 Video Performance:

Channel 25 / 503,25 MHz,	
Test pattern: PAL BG PHILIPS standard test pattern,	
RF Level 74dBV	
Measured on SCART 1	
Frequency response	: 0.1MHz – 4MHz ± 3dB
Group delay (0.1 MHz - 4.4 MHz)	: 0 nsec ± 150 nsec

1.3.1.6 Audio Performance:

Audio Performance Analogue - HiFi:

Frequency response at SCART 1 (L+R) output	: 100Hz – 12kHz / 0 ± 3dB
--	---------------------------

S/N according to DIN 45405,7,1967 and PHILIPS standard test pattern video signal	: ≥ 50dB
Harmonic distortion (1 kHz, ± 25 kHz deviation)	: ≤ 1.5%

Audio Performance NICAM:

Frequency response at SCART 1 (L+R) output	: 40Hz – 15kHz / 0 ± 3dB
--	--------------------------

S/N according to DIN 45405,7,1967 and PHILIPS standard test pattern video signal	: ≥ 60dB
Harmonic distortion (1kHz)	: ≤ 0.5%

1.3.1.7 RF Tuning

Automatic Search Tuning

Scanning time without antenna	: 3min. typical
Stop level (vision carrier)	: ≥ 37dBµV
Maximum tuning error (drift) during operation	: ±100kHz

Tuning Principle:

Automatic B, G, I, DK and L/L' detection.
Manual selection in "STORE" mode

1.3.2 RF TUNER (Digital Terrestrial)

1.3.2.1 DVB – T – Tuner

Frequency range	: 448-861MHz
Gain(Ant IN – Ant OUT)	: -1dB to 3dB
Auto Search scanning time (without Antenna input signal)	: 40 sec typical

1.3.2.2 DVB – T – Video Performance

DVB-T-RF antenna signal IN :Video Performance measured at Rear Cinch Audio Out:

- S/N(Unweighted,5MHz-BW limitation SC trap ON): ≥ 55dB
- Frequency response 0.1 to 4.8MHz : +1/-3dB
- Y/Chroma delay : ≤ 55ns
- 2-T-K-factor : ≤ 2%

1.3.2.3 DVB-T-Audio Performance

DVB-T-RF antenna signal IN;Audio performance measured at Rear Cinch Audio Out:

- S/N(A-weighted, 22kHz-BW limited) : ≥ 88dB
- Frequency response 20Hz to 20kHz : ± 1dB
- THD + Noise (at 1kHz) : ≥ 85dB
- THD + noise (ratio) for 16Hz to 20kHz : ≥ 100dB
- Channel Separation(at 1kHz) : ≥ 100dB

1.4 Analogue Inputs / Outputs

1.4.1 SCART 1(Connected to TV)

Pin Signals:

1	- Audio-out R	1.8V RMS
2	- Audio-out R	
3	- Audio-out L	1.8V RMS
4	- Audio GND	
5	- Blue / Chroma GND	
6	- Audio- in L	
7	- Blue-out	0.7Vpp ± 0.1V into 75 Ω
8	- Function switch	< 2V = TV < 4.5V / < 7V = asp. Ratio 16:9 DVD > 9.5V / < 12V = asp. Ratio 4:3 DVD
9	- Green GND	
10	- P50 control	not use
11	- Green out	0.7Vpp ± 0.1V into 75Ω
12	- NC	
13	- Red / Chroma GND	
14	- Fast switch GND	
15	- Red-out / Chroma-out	0.7Vpp ± 0.1V into 75Ω
16	- Fast switch RGB / CVBS or Y out	< 0.4V into 75Ω = CVBS >1V / < 3V into 75Ω = RGB
17	- Y/CVBS GND OUT	
18	- CVBS GND IN	
19	- CVBS-out	1Vpp ± 0.1V into 75Ω
20	- CVBS-in	
21	- Shield	

1.4.2 SCART 2(Connected to AUX)

Pin Signals:

1	- Audio-out R	1.8V RMS
2	- Audio-in R	
3	- Audio-out L	1.8V RMS
4	- Audio GND	
5	- Blue / Chroma GND	
6	- Audio-in L	
7	- Blue-in	
8	- Function switch	
9	- Green GND	
10	- NC	
11	- Green-in	
12	- NC	
13	- Red / Chroma GND	
14	- Fast switch GND	
15	- Red-in / Chroma-in	
16	- Fast switch RGB / CVBS or Y in	
17	- CVBS GND	
18	- Y/CVBS GND	
19	- CVBS out sync	1Vpp ± 0.1V into 75Ω
20	- CVBS-in / Y-in	
21	- Shield	

1.4.3 Audio/Video Front Input Connectors

Audio - Cinch

Input voltage	: 2.2Vrms
Input impedance	: > 10kΩ

Video - Cinch

Input voltage	: 1Vpp ± 3dB
Input impedance	: 75Ω

Video - YC (Hosiden)

According to IEC 933-5

Superimposed DC-level on pin 4 (load > 100kΩ)

< 2.4V is detected as 4:3 aspect ratio

> 3.5V is detected as 16:9 aspect ratio

Input voltage Y	: 1Vpp ± 3dB
Input impedance Y	: 75Ω
Input voltage C	: burst 300 mVpp ± 3dB
Input impedance C	: 75Ω

1.4.4 Audio/Video Output rear Connectors

Audio - Cinch

Output voltage	: 2.2Vrms max.
Output impedance	: > 10kΩ

Video - Cinch

Output voltage	: 1Vpp ± 3dB
Output impedance	: 75Ω

Video - YC (Hosiden)

According to IEC 933-5

Superimposed DC-level on pin 4 (load > 100kΩ)

< 2.4V is detected as 4:3 aspect ratio

> 3.5V is detected as 16:9 aspect ratio

Output voltage Y	: 1Vpp ± 10/-15%
Input impedance	: 75Ω
Output voltage C	: 300 mVpp ± 1/-4dB
Input impedance	: 75Ω

1.5 Video Performance

All outputs loaded with 75Ω

SNR measurements over full bandwidth without weighting.

1.6 Digital Inputs / Outputs

1.6.1 Digital Output

Digital Audio – Coaxial / Optical

LCM	: according IEC 60958
MPEG 1, MPEG 2, AC3	: according IEC 61937
DTS	: according IEC 61937 + addendum

1.6.2 HDMI Output

Type A connector (19 pins)

1.6.3 Digital Video Input (IEEE 1394)

Implementation Standard according:

IEEE Std 1394-1995

IEC61883 - Part 1

IEC61883 - Part 2 SD-DVCR (02-01-1997)

Specification of consumer use digital VCR's using 6.3mm magnetic tape – dec.1994

Mechanical connection according to Annex of IEC 61883-1

1.6.4 G-Link (for IR-remote transmitting device)

Output voltage : 5 ± 0.5V (high level)
 : 0.4 ± 0.3V (low level)
 Output impedance : 150Ω

1.6.5 SCART (RGB)

SNR : ≥ -65dB on all output
 Bandwidth : 4.8MHz ± 2dB

1.7 Audio Performance CD

1.7.1 Cinch Output Rear

Output voltage 2 channel mode : 2Vrms ± 2dB
 Channel unbalance (1kHz) : < 0.22dB
 Crosstalk 1kHz : > 100dB
 Crosstalk 16Hz-20kHz : > 87dB
 Frequency response 20Hz-20kHz : ± 0.5dB max
 Signal to noise ratio : > 85dB
 Dynamic range 1kHz : > 83dB
 Distortion and noise 1kHz : > 83dB
 Distortion and noise 16Hz-20kHz : > 75dB
 Intermodulation distortion : > 70dB
 Mute : > 95dB

1.7.2 Scart Audio

Output voltage 2 channel mode : 1.6Vrms ± 2dB
 Channel unbalance (1kHz) : < 1dB
 Crosstalk 1kHz : > 85dB
 Crosstalk 16Hz-20kHz : > 70dB
 Frequency response 20Hz-20kHz : ± 0.5dB max
 Signal to noise ratio : > 80dB
 Dynamic range 1kHz : > 75dB
 Distortion and noise 1kHz : > 75dB
 Distortion and noise 16Hz-20kHz : > 50dB
 Intermodulation distortion : > 70dB
 Mute : > 80dB

1.8 Digital Output

1.8.1 Coaxial

CDDA / LPCM (incl MPEG1) : according IEC958, IEC60958-1,-3
 MPEG2, AC3 audio : according IEC1937, IEC61937
 DTS : according IEC1937, IEC 61937 amendment 1

1.9 Dimensions and Weight

Height of feet : 5.5mm
 Apparatus tray closed : WxDxH: 435 x 350 x 89mm
 Apparatus tray open : WxDxH: 435 x 487 x 89mm
 Weight without packaging : app.5.0kg ± 0.5kg
 Weight with packaging : app.8kg

1.10 Laser Output Power & Wavelength

1.10.1 DVD

Output power during reading : 0.8mW
 Output power during writing : 20mW
 Wavelength : 650nm

1.10.2 CD

Output power : 0.3mW
 Wavelength : 780nm

1.11 Playability

		DVDR7250H	DVDR7260H
Video Playback			
1.	Disc Media: CD-R/CD-RW, DVD+R DL, DVD+R/+RW, DVD-R/-RW, DVD-Video, Video CD/SVCD	x	x
2.	Compression Format: MPEG1, MPEG2	x	x
Audio Playback			
1.	Disc Media: Audio CD, CD-R/RW	x	x
2.	Compression Format: Dolby Digital, MP3, MPEG2 Multi-channel, PCM	x	x
Still Picture Playback			
1.	Disc Media: CD-R/RW	x	
2.	Picture Compression Format: JPEG	x	

2. Test Disc & Repair Hints

2.1 Test Disc

- | | | |
|----|----------------|--------------------------|
| 1) | 7104 099 96611 | CD-RW printed Audio Disc |
| 2) | 9965 000 25728 | DVD Player Test Pack |
| 3) | - | Blank DVD+RW |
| 4) | - | Blank DVD-RW |

2.2 Open the DVD Tray manually

Note: This procedure needs to be performed on condition that:

- a customer's Disc is jammed in the DVD Tray
 - the DVD Tray cannot be open via the normal open/close button on the set.
- 1) Place the set on the table with the bottom faced upwards as shown below.
 - 2) Insert a screw driver into the slot and open the DVD Tray by sliding the screw driver in the direction shown.

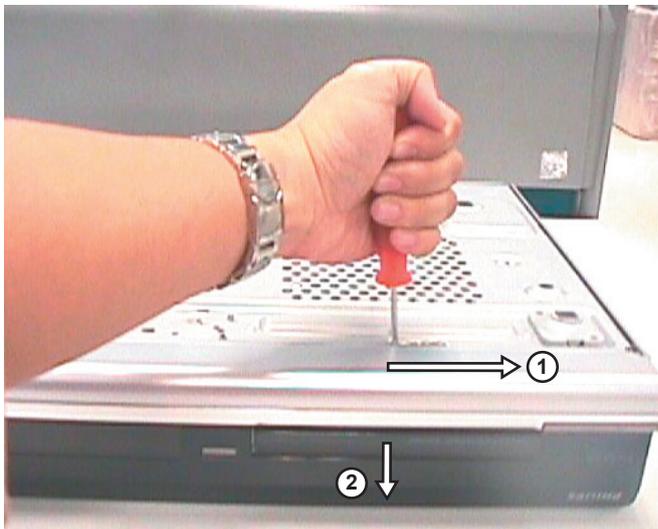


Figure 2-1

3. Firmware Upgrading & Diagnostic Software

3.1 Firmware Upgrading

A. Preparation to upgrade firmware:

1. Unzip the zip-archive file
2. Start the CD Burning software and create a new CD project (data disc) with the following settings:
 - File system : Joliet
 - Format : MODE 2: CDROM XA
 - Recording mode : SINGLE SESSION (TRACK-AT-ONCE), FINALIZED CD

Note: Long file name is necessary for the preparation of the upgrade disc

3. Place the content of the zip-archive into the root directory of the new CD project.
4. Burn the data onto a blank CDR or CD-RW

B. Procedure to apply the firmware upgrade:

1. Hold the <Record> + <Open/Close> buttons down and Power up the set.
2. The tray opens and set will display:

FORCE DL ->.... INSERT DISC

3. Insert the prepared Upgrade CDROM and close the tray.
4. The set will display:

INIT DSC -> SYS VER -> READ FILES DOWNLOAD BE

The whole process takes less than 15 minutes

Note: Do not press any buttons or interrupt the mains supply during the upgrading process, otherwise the set may become defective.

5. When the upgrade is completed the tray will open automatically and the set will display:

REMOVE DISC

6. Close the tray and the set will display:

DONE

7. The set will go into Standby mode.

C. How to read out the firmware version to confirm set has been upgraded:

1. Power up the set.
2. Press <System> button on the Remote control and select {Setup} option
3. Press <Right> button to select {System}
4. The set will prompt you about clearing the Time Shift Buffer
5. Select {Yes} and press <OK> button
6. Press <Down> button several times to select {Version info}
7. Press <OK> button
8. The TV connected to the set will display:

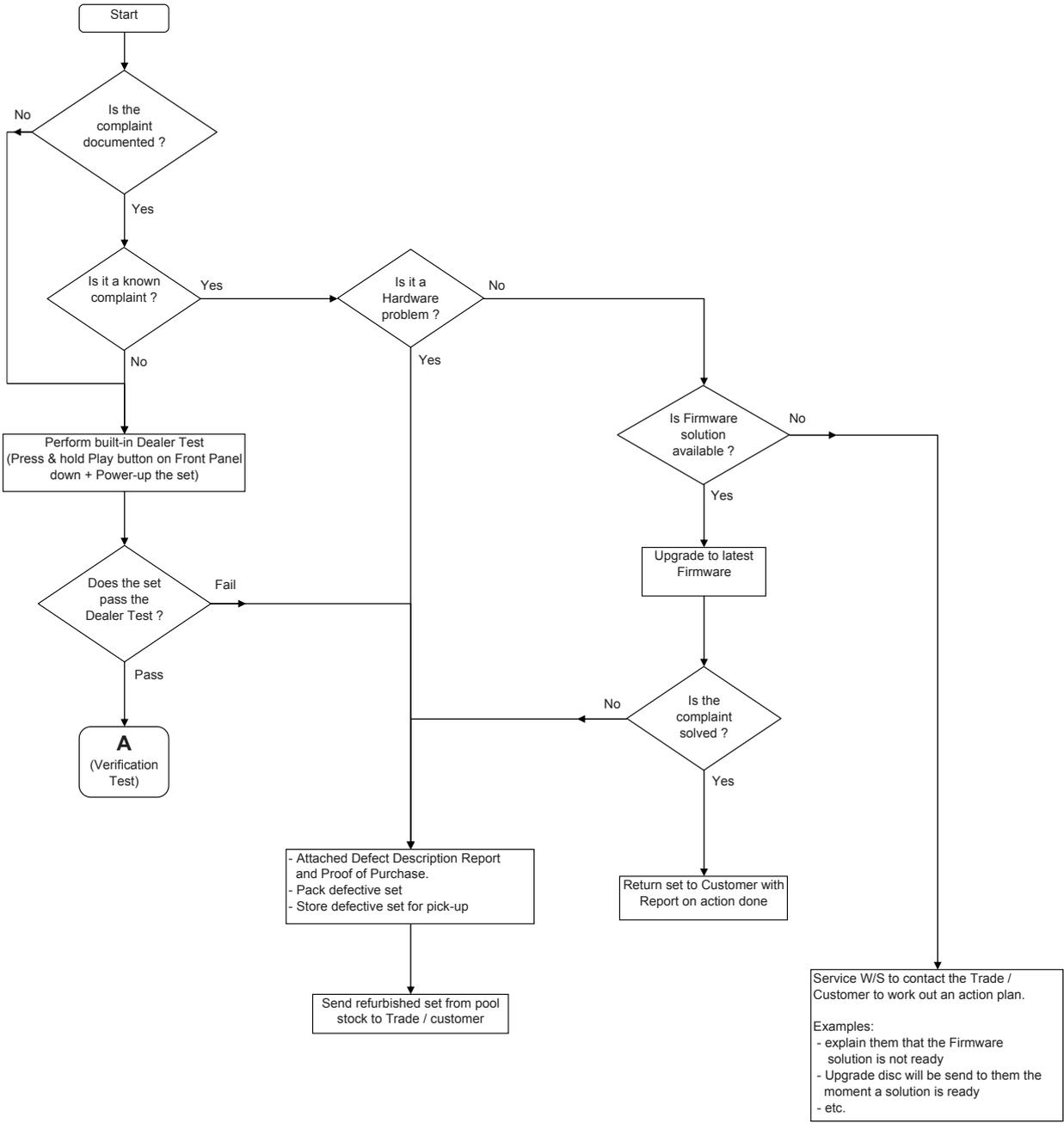
(C) PHILIPS 2006 VERSION INFORMATION:

DIF05_8/7028 AN SV11226
 BE 43.3.7.9 ASP 1,18,1,10FP
 DTTM HW:01020102 DTTM
 SW:00040206
 SIT7250H-FF5F-S28_F604
 20060203-1650 pro sxcplusint
 EPG:3.06 DPMS:P_DPM

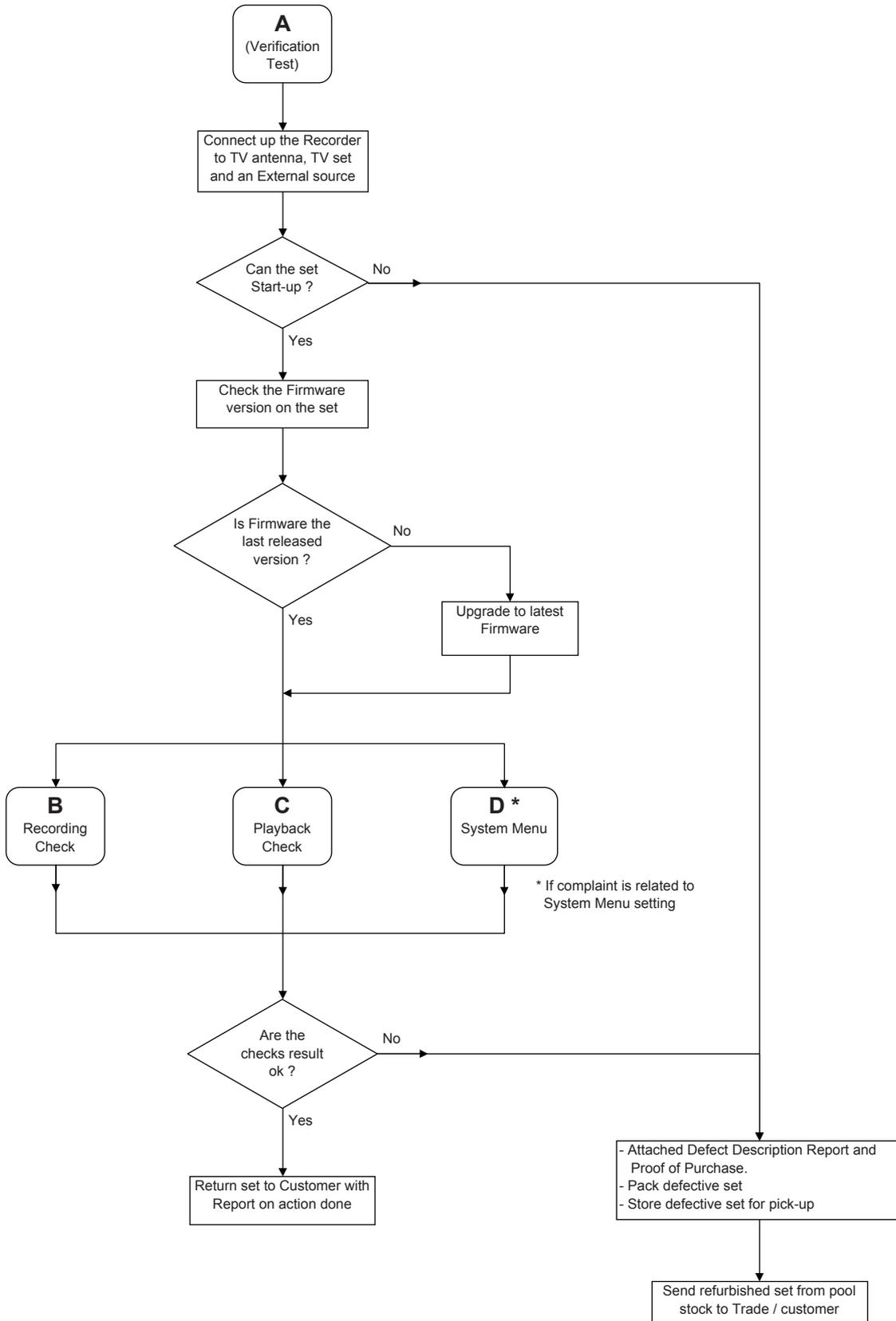
9. Press <System> button to exit

4. Service Flow Chart

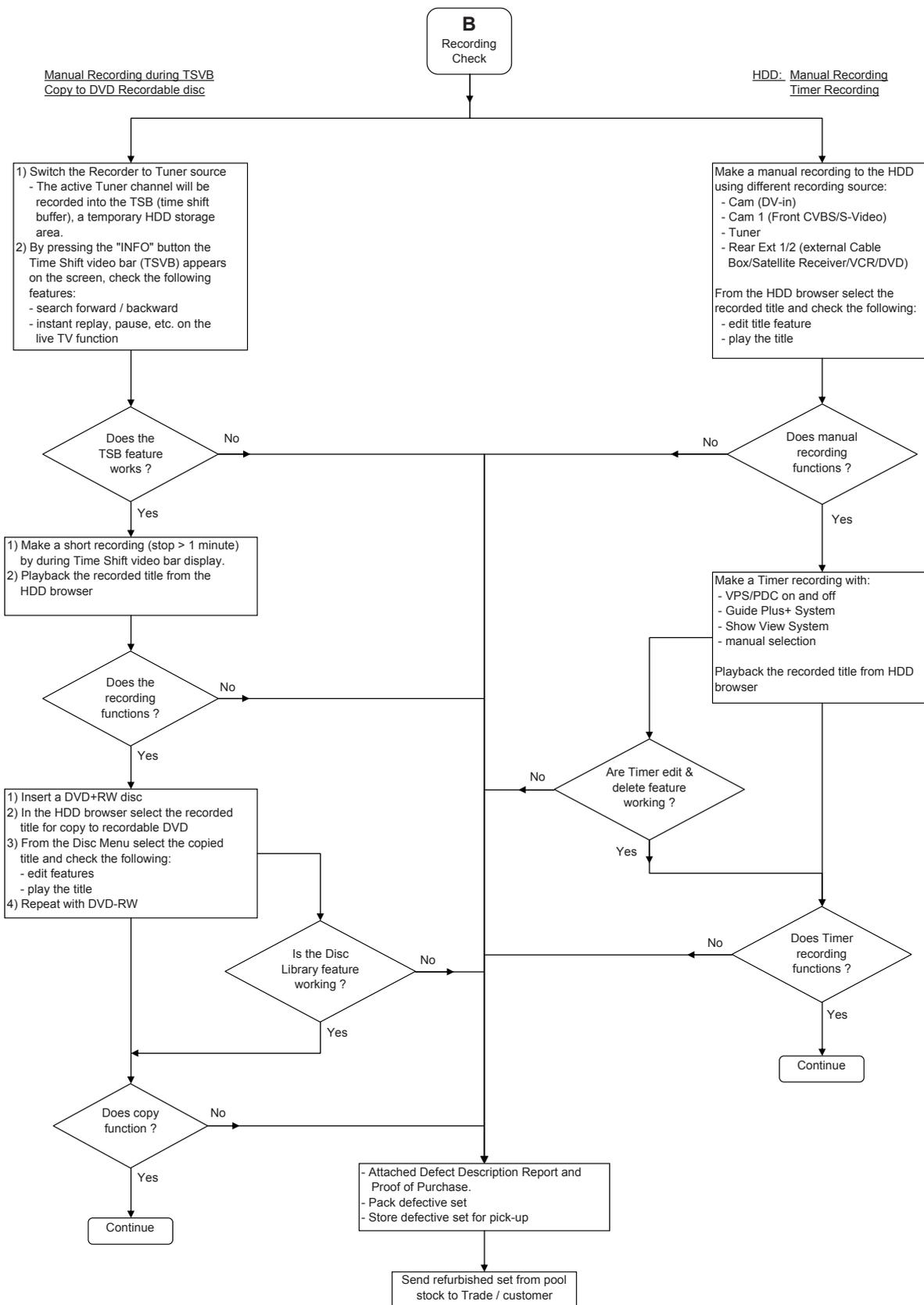
4.1 Start Process



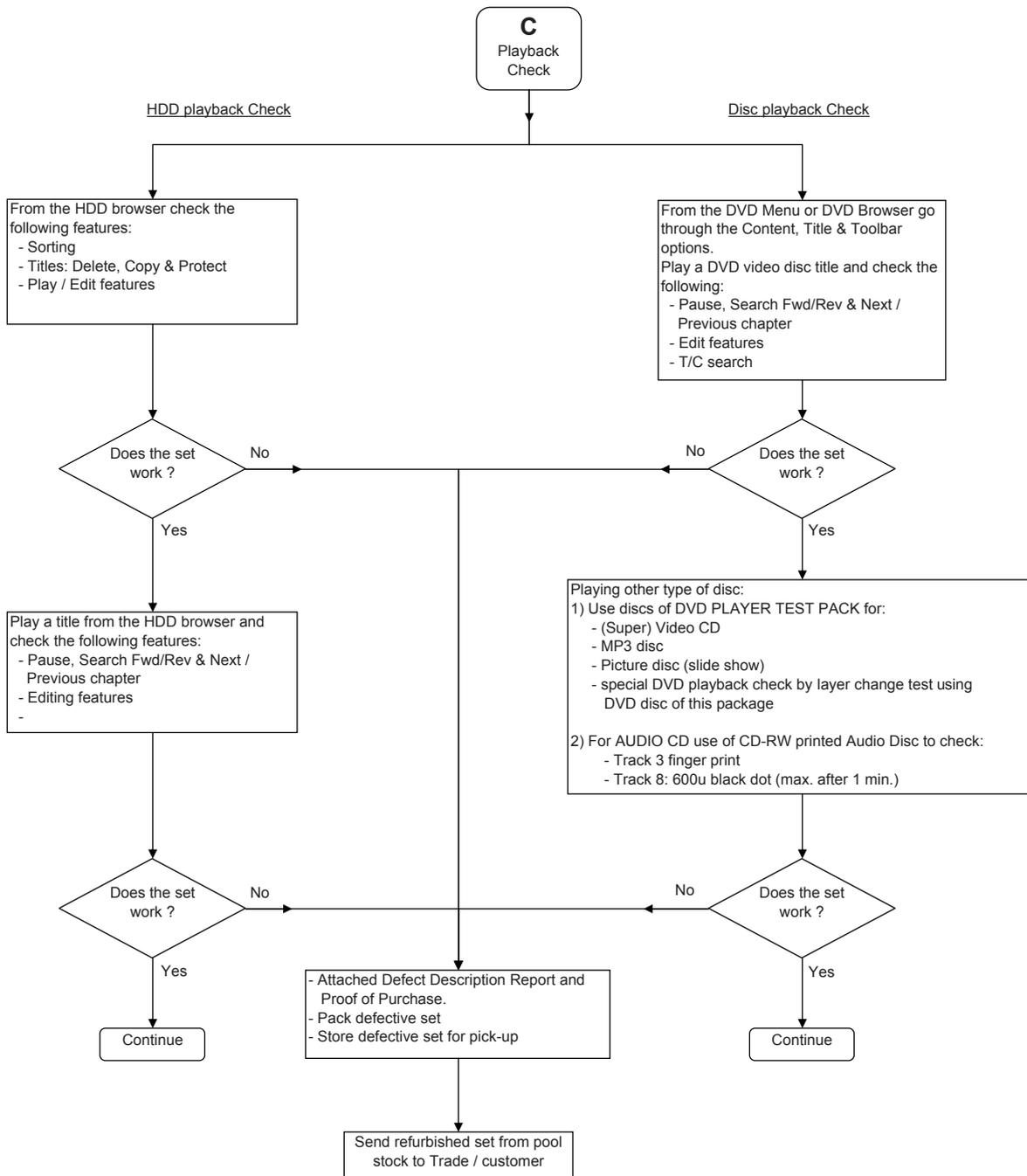
4.2 Verification Process



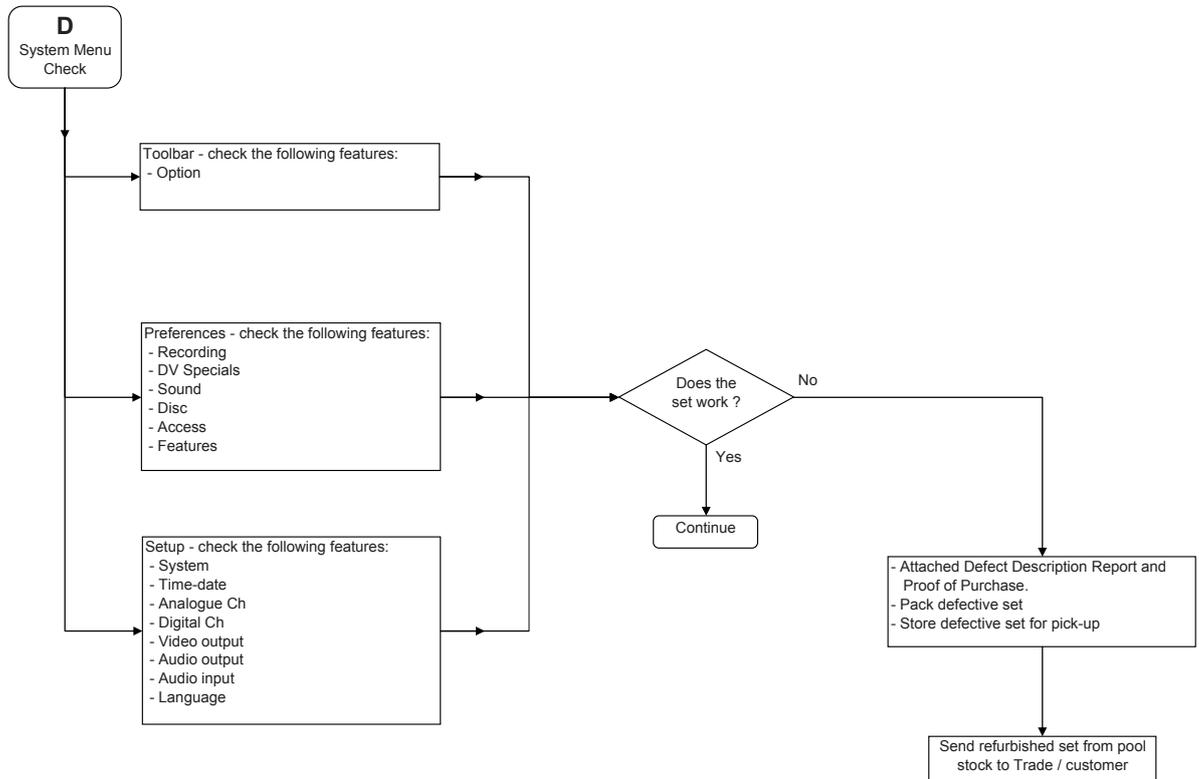
4.3 Recording Process



4.4 Playback Process



4.5 System Menu



5. Directions For Use

The following except of the Quick Use Guide serves as an introduction to the set.
The Complete Direction for the Use can be downloaded in different languages from the internet site of Philips Customer care Center:
www.p4c.philips.com

HDD & DVD Player / Recorder

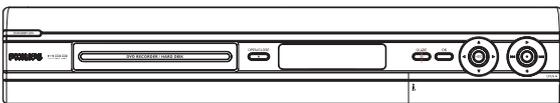
DVDR7250H

Quick Start Guide

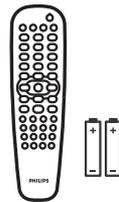


- 1** Connect
- 2** Set up
- 3** Enjoy

What's in the box?



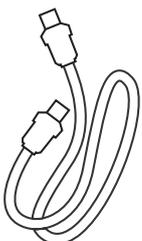
HDD & DVD Player / Recorder



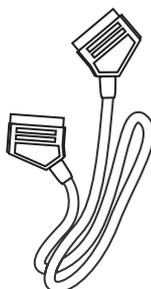
Remote Control and 2 batteries



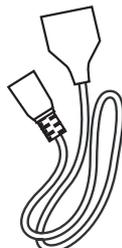
Tuner interlink cable



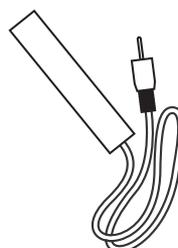
RF coaxial cable



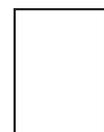
Scart cable



Power cable



G-LINK cable & transmitter



User Manual



1 Connect

Start with the 'Basic connection'.

If you have a VCR, follow the instructions for 'Connection with VCR or similar device'.

If you have a set-top box, follow the instructions for 'Connection with set-top box'.

Basic Connection

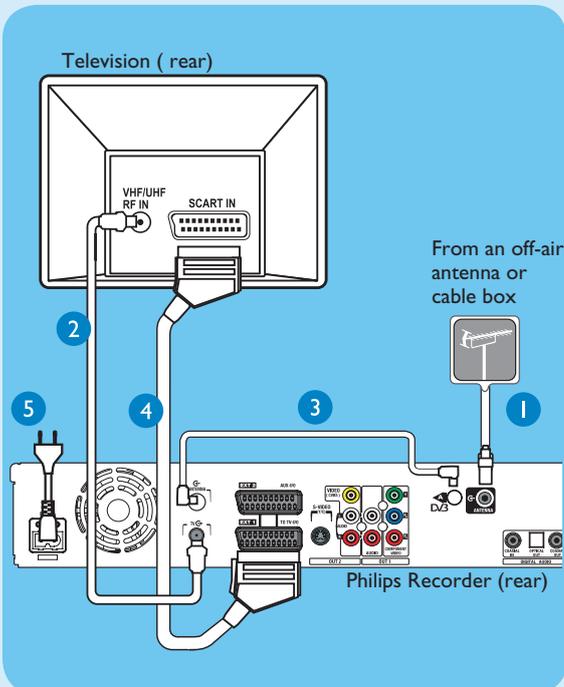
A Before Connecting

Unplug the antenna cable that is currently connected to your TV.

If you have only a single off-air antenna, follow 'B1' connection.

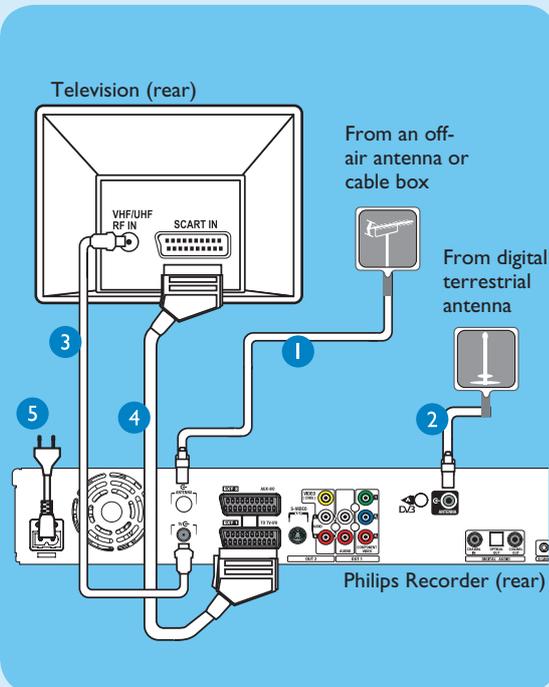
If you have both the off-air antenna and digital terrestrial antenna, follow 'B2' connection.

B1 Connecting



- 1 Disconnect the antenna cable from your TV and connect it to the **ANTENNA** socket on this recorder.
- 2 Use the supplied RF coaxial cable to connect the **TV** socket on this recorder to the Antenna In socket on the TV.
- 3 Use the supplied Tuner interlink cable to connect the two 'A'-sockets on this recorder.
- 4 Use the supplied scart cable to connect the EXT1 TO TV-I/O scart socket on this recorder to the SCART IN socket on your TV.
- 5 Plug in the power cable from the recorder to an AC power outlet

B2 Connecting (with digital terrestrial antenna)



- 1 Disconnect the antenna cable from your TV and connect it to the **ANTENNA** socket on this recorder.
- 2 Connect the indoor DVB-T antenna cable to the **ANTENNA** socket on this recorder.
- 3 Use the supplied RF coaxial cable to connect the **TV** socket on this recorder to the Antenna In socket on the TV.
- 4 Use the supplied scart cable to connect the EXT1 TO TV-I/O scart socket on this recorder to the SCART IN socket on your TV.
- 5 Plug in the power cable from the recorder to an AC power outlet

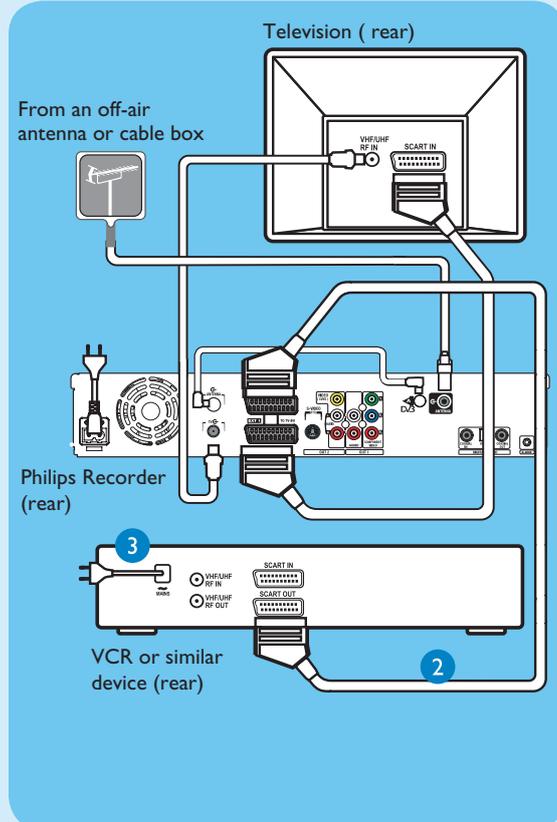
Note See the accompanying user manual for other possible connections (e.g. S-Video, Component Video)

Connection with VCR or similar device

A Before Connecting

Your new Philips Recorder replaces the VCR for your recording needs. First, unplug all the connections from your VCR.

B Connecting



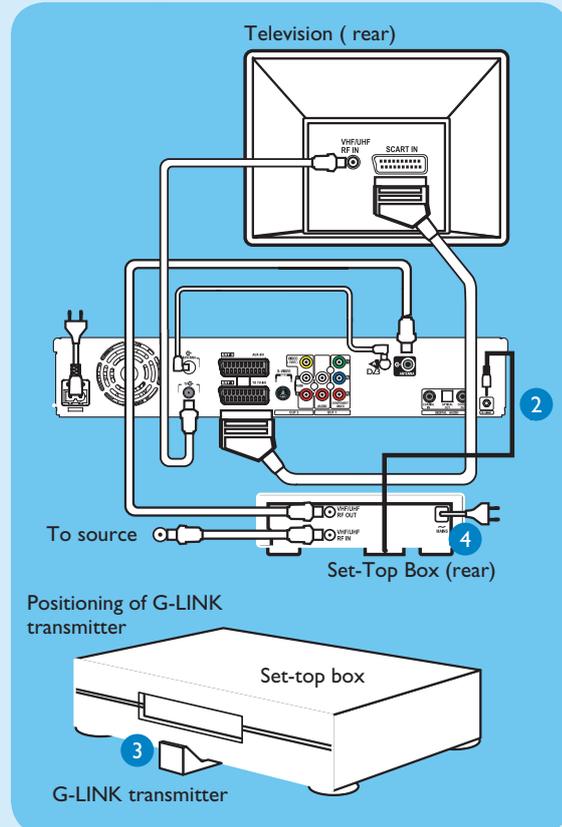
- 1 Follow step 1 to 5 of 'Basic connection' to connect this recorder before you proceed to step 2 below. Above illustration shows the connection without the digital terrestrial antenna.
- 2 Use another scart cable (not supplied) to connect the EXT2 AUX-I/O scart socket on this recorder to the SCART OUT socket on your VCR.
- 3 Connect the power cable from the VCR to an AC power outlet.

Note In this setup, the VCR cannot record TV programmes.

Connection with set-top box

Your new Philips Recorder provides a G-LINK transmitter which allows you to control the tuner of the set-top box (satellite receiver, cable TV box) through the GUIDE Plus+ system. You can record the TV programmes that are received through the set-top box.

Connecting



- 1 Follow step 1 to 5 of 'Basic connection' to connect this recorder before you proceed to step 2 below. Above illustration shows the connection without the digital terrestrial antenna.
- 2 Connect the supplied G-LINK cable to the G-LINK socket on this recorder.
- 3 Place the G-LINK transmitter in front of your set-top box in such a way that it can acquire the signal broadcasted by the transmitter.
- 4 Connect the power cable from the set-top box to an AC power cable.

2 Set up

A Finding the viewing channel

- 1 Press **STANDBY-ON** on the recorder. The recorder will display 'IS THE TV ON?'.
- 2 Turn on the TV. You should see the { EASY SETUP } menu.



Note If your VCR is connected to this recorder, ensure it is turned off or in standby before proceeding.

- 3 In case you don't see the recorder's setting menu, press the Channel Down button on the TV's remote control repeatedly (or AV, SELECT, button) until you see the menu. This is the correct viewing channel for the recorder.

B Start basic setup

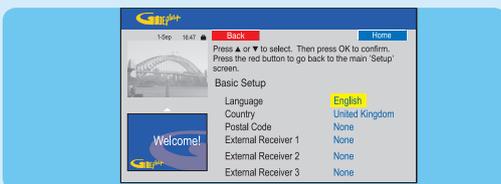
Use the recorder's remote control and follow the on-screen instructions to complete the installation.

- 1 Select the desired menu language, your country and the TV shape.

Note Select { Done } in the menu and press to go to the next screen.

- 2 Activate automatic channel search for analogue and digital tuner/radio.
- 3 Check the date and time and press .
- 4 To continue with the GUIDE Plus+ installation, select { Continue } and press . Otherwise, select { Do not install now } and press . Wait until the recorder has finished initialising the system, then press again.

C Install the GUIDE Plus+ system



- 1 Follow the on-screen instructions to select your language, country and enter the postal code of your area.

Note If no or wrong postal code is entered, it will cause no GUIDE Plus+ (EPG) service information.

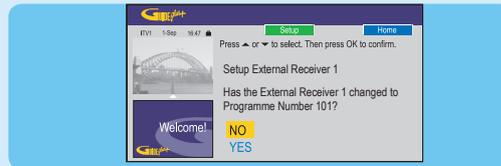
D Install the set-top box

If you do not have a set-top box, skip 'D' and go to 'E'.

- 1 Press to select 'External Receiver 1' and press .
- 2 Press again to continue.
- 3 Select the type of reception, service provider and brand name of the connected set-top box.

Note Press to go to the next screen. Select { None } if none of the entries are applicable.

- 4 Select the recorder socket through which your set-top box is connected (e.g. 'EXT2' for EXT2 AUX-I/O socket) and press .
- 5 Turn on your set-top box and select channel number **02** on the set-top box.
- 6 Read the instructions on the TV and press .



- 7 If the set-top box has switched to the same programme number as displayed on the TV, select { Yes } in the menu and press .

Note If not, select { No } and press to try a different code.

- 8 Your set-top box is now installed. Press the **green** button to exit.

Note To switch the GUIDE Plus+ system's host channel manually, go to { Host Channel Setup }.

E Load the TV listing data

- 1 Press **GUIDE** to exit GUIDE Plus+ system. Leave the recorder in 'standby' mode and turn 'on' the set-top box overnight to collect the TV listing data, this may take up to 24 hours.

Note If you tune to your Host Channel before going to 'standby' mode, this recorder will start downloading the TV listings data immediately.

- 2 Check the { Editor } screen the next day to ensure the source and programme numbers are matching for all channels.

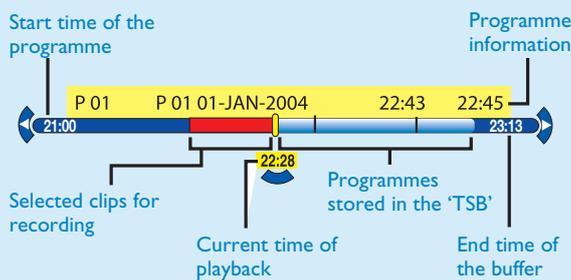
3

Enjoy

About the Time Shift Buffer (TSB)

Once you turn on the recorder, the selected TV programme will be stored in a temporary hard disk storage called the 'TSB' (Time Shift Buffer). The 'TSB' can store up to 6 hours of programmes temporarily.

Press **INFO**  once to display the Time Shift video bar.



The contents in the time shift video bar will be cleared when you press **STANDBY ON** .

Note A confirmation message on clearing the Time Shift Video bar will be appeared if you press the **CAM** button on the remote control or access the { Setup } or { Record mode } option in the setup menu.

Watch TV – Pause live TV

Your Philips Recorder allows you to control the TV programme. You can **PAUSE** it as if you were in control of the live broadcast.

- 1 Turn on your recorder and press **TUNER** to switch between analogue and digital tuner, then press **CHANNEL** \pm to select a TV programme.
- 2 Press **PAUSE**  to suspend it.
- 3 Press **PLAY**  to continue.
- 4 Press **TUNER** to return to the live broadcast.

Help text information bar

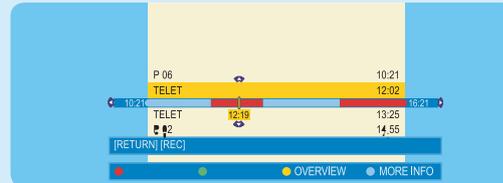
[PLAY] [BACK] [BROWSER]

The help text bar located at the bottom of the screen is providing the information on:

- remote control keys that can be used at the current state.
- brief information of the selected item.

Record to hard disk

A Contents in the temporary HDD storage



- 1 Press **INFO**  to view what is temporarily stored in the hard disk storage.
- 2 Press **▲ up** or **▼ down** to choose the title you want to record.
- 3 Press **JUMP**  to search for the scene where you want to start recording, then press the **red**  button.

Note Pressing the **red**  button again will cancel the recording.

- 4 Press **STOP**  to end the recording.

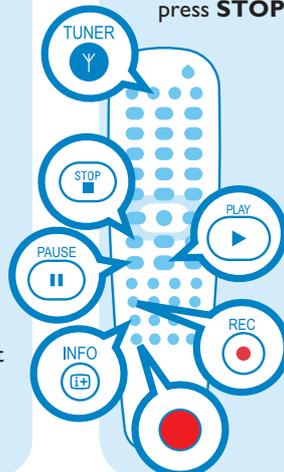
Note The title will be marked in red and the recording will only take effect when you turn off the recorder.

B Current TV programme

- 1 Press **REC**  to start recording. It can record up to 6 hours.

Note To set the recording time, press  repeatedly to extend the recording time in 30-minute increments, up to 6 hours. If GUIDE Plus+ system is available, 'Record 1 program' is displayed and the current programme will be recorded.

- 2 To stop the recording before the scheduled time, press **STOP** .



Start playback

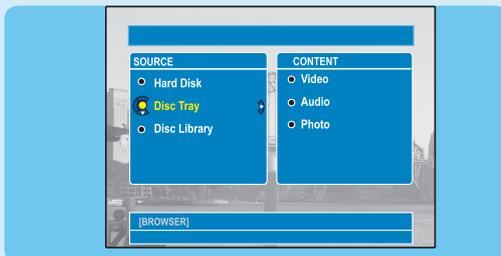
A From the hard disk



- 1 Press **HDD-BROWSER** , then press **▶ right** until you see the { TITLES } and { INFO } menus.
- 2 Press **▲ up** or **▼ down** to select a title.
- 3 Press **PLAY**  to start playback.

B From a disc

- 1 Hold down **STOP**  until the disc tray opens. Load a disc and close the disc tray.



- 2 Press **HDD-BROWSER** , to go to the content menu. Select { Disc Tray } and press **▶ right** until you see the { TITLES }, { TRACKS } or { PHOTO ROLLS } menu, depending on the disc type.
- 3 Press **▲ up** or **▼ down** to select a title.
- 4 Press **PLAY**  to start playback.

Using the GUIDE Plus+ system

Make sure that the analogue tuner installation and TV listing data download is completed.



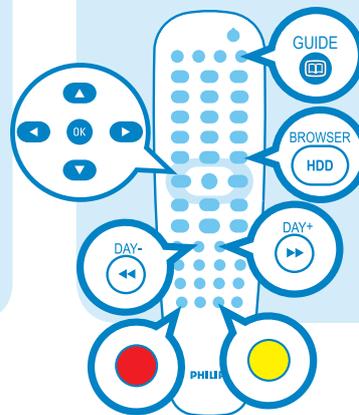
Record TV programmes

- 1 Press **GUIDE** .
- 2 Press **▼ down** to select a TV channel.

Note Press the **yellow**  button to see an overview of all the available channels and choose from there.
- 3 Press **◀ left** or **▶ right** to select a TV programme.

Note Press **DAY-**  or **DAY+**  to go directly to a day before or the next day TV listings.
- 4 Press the **red**  button to set the highlighted programme for recording.

Note You can store up to 25 programmes for recording.



Need help?

GUIDE Plus+ system

Go to www.europe.guideplus.com

User Manual

See the user manual that came with your Philips Recorder

Online

Go to www.philips.com/support



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