DVD Recorder DVDR3380

DVDR3380/05/31/51/58

Service
Service
Service

Service Instruction

CLASS 1
LASER PRODUCT

DVD + ReWritable

DIGITAL VIDEO

DIGITAL AUDIO

Contents **Page**

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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Version 1.0

PHILIPS

1. Technical Specifications and Connection Facilities

1.1 General:

Mains voltage	:	220V – 240V
Mains frequency	:	50 Hz
Power consumption (record)	:	27 W
Standby Power Consumption	:	< 3 W

1.2 RF Tuner

Test equipment: Fluke 54200 TV Signal generator
Test streams: PAL BG Philips Standard test pattern

1.2.1 System

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

1.2.2 RF - Loop Through:

Frequency range	:	43 MHz – 860 MHz
Gain: (ANT IN - ANT OUT) w/o Amplifier	:	-4dB ± 2dB
Gain: (ANT IN - ANT OUT) with Amplifier	:	2dB ± 3dB

1.2.3 Receiver:

PLL tuning with AFC for optimum reception

Frequency range	:	45.25 MHz – 857 MHz
Sensitivity at 40dB S/N (video unweighted)	:	≤ 40dBµV at 75 Ω (high end) ≤ 60dBµV at 75 Ω (low end)

1.2.4 Video Performance:

Channel 25 / 503,25 MHz,
Test pattern: PAL BG PHILIPS standard test pattern,
RF Level 74dBV, Measured on SCART 1

Frequency response	:	0.1 MHz – 4 MHz ± 3dB
Group delay (0.1 MHz - 4.4 MHz)	:	0 nsec ± 150 nsec

1.2.5 Audio Performance:

Audio Performance Analogue - HiFi:

Frequency response at SCART 1 (L+R) output	:	100 Hz – 12 kHz / 0 ± 3dB
S/N Ratio (20Hz – 20kHz) unweighted	:	≥ 40dB
Harmonic distortion (1 kHz, ± 25 kHz deviation)	:	≤ 1.5%

Audio Performance NICAM:

Frequency response at SCART 1 (L+R) output	:	40 Hz – 15 kHz / 0 ± 3dB
S/N Ratio (20Hz – 20kHz) unweighted	:	≥ 65dB
Harmonic distortion (1kHz, ± 25 kHz deviation)	:	≤ 0.5%

1.2.6 Tuning

Automatic Search Tuning

Scanning time without RF signal	:	3min. typical
Stop level (vision carrier)	:	≥ 37dB/µV
Maximum tuning error of a recalled program	:	62.5 kHz
Maximum tuning error (drift) during operation	:	± 100 kHz

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

1.3 Analog Inputs / Outputs

1.3.1 SCART 1 (Connected to TV)

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-out	0.7Vpp ± 0.1V into 75Ω
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 300mVpp ± 3dB
16	Fast switch RGB / CVBS or Y out	< 0.4V into 75Ω = CVBS >1V / < 3V into 75Ω = RGB
17	Y/CVBS-out GND	
18	CVBS-in GND	
19	CVBS-out / Y-out	1Vpp ± 0.1V into 75Ω
20	CVBS-in	
21	Shield	

1.3.2 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	P50 control	
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-out GND	
18	Y / CVBS-in GND	
19	CVBS-out	1Vpp ± 0.1V into 75Ω
20	CVBS-in / Y-in	
21	Shield	

1.3.3 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	:	300mVpp ± 3dB
Input impedance C	:	75Ω

1.3.4 Out 1

Component Video Cinch Y/Pb/Pr

according EIO-770-I-A, EIA-770-2

Audio - Cinch

Output voltage	:	2Vrms max.
Output impedance	:	> 10kΩ

1.3.5 Out 2

Audio - Cinch

Output voltage	:	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 ± 3dB
Input impedance	:	75Ω
Output voltage C	:	300mVpp ± 3dB
Input impedance	:	75Ω

1.4 Digital Inputs / Outputs

1.4.1 Digital Output

Digital Audio – Coaxial / Optical

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

1.4.2 Digital Video Input (IEEE 1394)

Implementation Standard according:

IEEE Std 1394-1995
IEC61883 - Part1
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

1.5 Video Performance

All outputs loaded with 75Ω
SNR measurements over full bandwidth without weighting.

1.5.1 SCART (RGB)

SNR	:	≥ 55dB on all output
Bandwidth	:	4.8MHz -3dB

1.6 Audio Performance

1.6.1 Cinch Output Rear

Output voltage 2 channel mode	:	2Vrms ± 1dB
Channel unbalance (1kHz)	:	< 0.22dB
Crosstalk 1kHz	:	> 110dB
Crosstalk 16Hz-20kHz	:	> 100dB
Frequency response 20Hz-20kHz	:	± 0.2dB
Signal to noise ratio (unweighted)	:	< -95dB
Dynamic range 1kHz	:	< -90dB
Distortion and noise 1kHz	:	< 85dB
Distortion and noise 16Hz-20kHz	:	< 85dB
Intermodulation distortion	:	< -94dB
Mute	:	< -100dB

1.6.2 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
Signal to noise ratio (unweighted)	:	> 80dB
Dynamic range 1kHz	:	> 75dB
Distortion and noise 1kHz	:	> 75dB
Distortion and noise 16Hz-20kHz	:	> 50dB
Intermodulation distortion	:	> 70dB
Mute	:	> 80dB

1.7 Dimensions and Weight

Height of feet	:	5.5mm
Apparatus	:	WxDxH:435x322x43mm
Weight without packaging	:	3kg
Weight with packaging	:	4kg

1.8 Laser Output Power & Wavelength

1.8.1 DVD

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

1.8.2 CD

Output power : 0.3mW
Wavelength : 780nm

1.9 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

1.10 Playability

		DVDR3380
Video Playback		
1.	Disc Media: CD-R/-RW, MP3-CD, VCD/SVCD, DVD-Video, DVD+R/+RW, DVD-R/-RW, DVD+RL DL	x
2.	Compression Format: MPEG1, MPEG2 DivX 3.11, DivX 4.x, DivX 5.x, DivX 6.0	x
Audio Playback		
1.	Disc Media: CD, CD-R/-RW, MP3-CD	x
2.	Compression Format: Dolby Digital, MP3, MPEG2 Multi-channel, AAC, WMA	x
3.	MP3 bit rates: 32-256 kbps and VBR	x
Still Picture Playback		
1.	Disc Media: Picture CD	x
2.	Picture Compression Format: JPG	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.

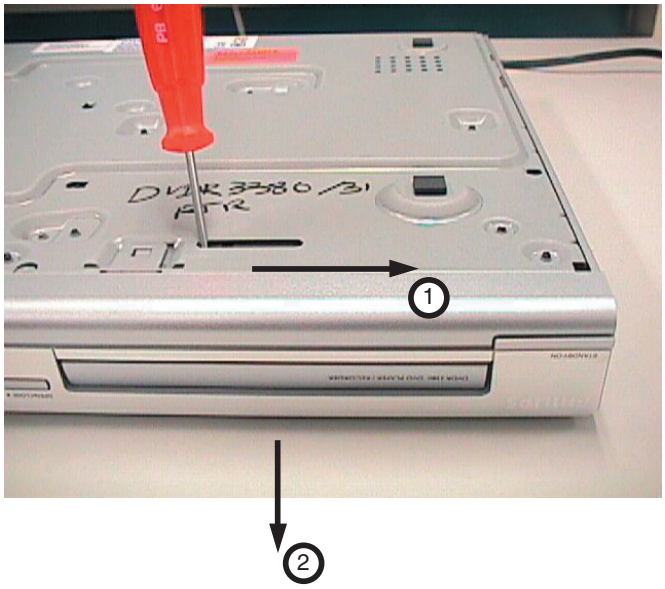


Figure 2-1

3. Firmware Upgrading

3.1 Firmware Upgrading

Important Instructions

• The Drive Upgrade and Loader Upgrade procedures has to be recorded into 2 separate disc.

A. Preparation to upgrade firmware:

1. Unzip the zip-archive file
2. Copy the files into different folder for burning into separate CD-R/CDRW.
3. 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

4. Place the file into the root directory of the new CD project.
5. Burn the data onto CDRs or CD-RWs

B. Procedure to apply the Drive upgrade:

1. Open the tray and load the Upgrade CDROM with **Drive Upgrade file**.
2. The tray closes and set will display:

   "DRV UPG"

3. The OSD will display

   "Loader Software Upgrade Disc detected.Select OK to start upgrading or CANCEL to exit."

4. Click on the OK button.
5. The set will display:

   "DRIVE UPGRADING"

   With the OSD display

   "Upgrading Software. Please Wait. Do not switch off the power."

   The whole process takes less than 5 minutes
   Note: Do not press any buttons or interrupt the mains supply during the upgrading process, otherwise the set may becomes defective.

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

   "Loader Upgrade process has completed successfully .Press <OK> to reboot system."

7. The tray open and the set will display:

   "DRV OK"

8. Press <OK> and the set goes to standby .

B. Procedure to apply the software upgrade:

1. Open the tray and load the Upgrade CDROM with **Software upgrade file**.
2. The tray closes and set will display:

   “Upgrading SW”

3. The OSD will display

   “Software Upgrade Disc detected.Select OK to start upgrading or CANCEL to exit .”

4. Click on the OK button.
5. The set will display:

   “Upgrading SW”

   and the OSD will display

   “Upgrading Software. Please Wait. Do not switch off the power.”

   The whole process takes less than 5 minutes
   Note: Do not press any buttons or interrupt the mains supply during the upgrading process, otherwise the set may becomes defective.

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

   “System is successfully upgraded.Remove disc from tray and reset system.”

7. The tray open and the set will display:

   “SW DONE”

   and the tray will open automatically for user to remove CD-ROM.
8. Press <OK> and the set goes to standby .

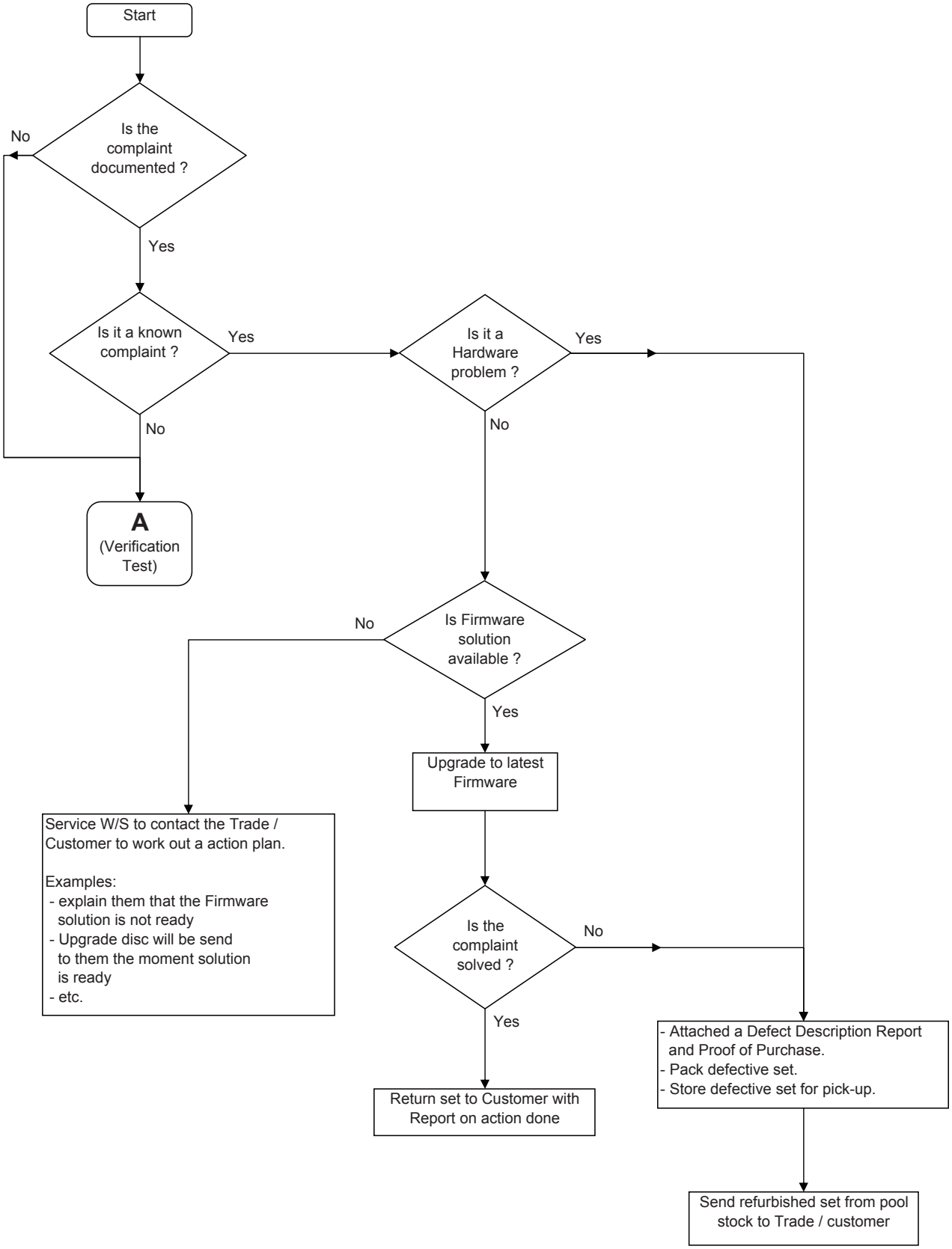
C. How to read out the firmware version to confirm set has been upgraded:

1. Power up the set.
2. Ensure no disc inside the loader,if no ,open the tray to remove the disc and close the tray.
3. Press <0> <0> <0> <9> in succession
4. Press <OK> button
5. The TV connected to the set will display:

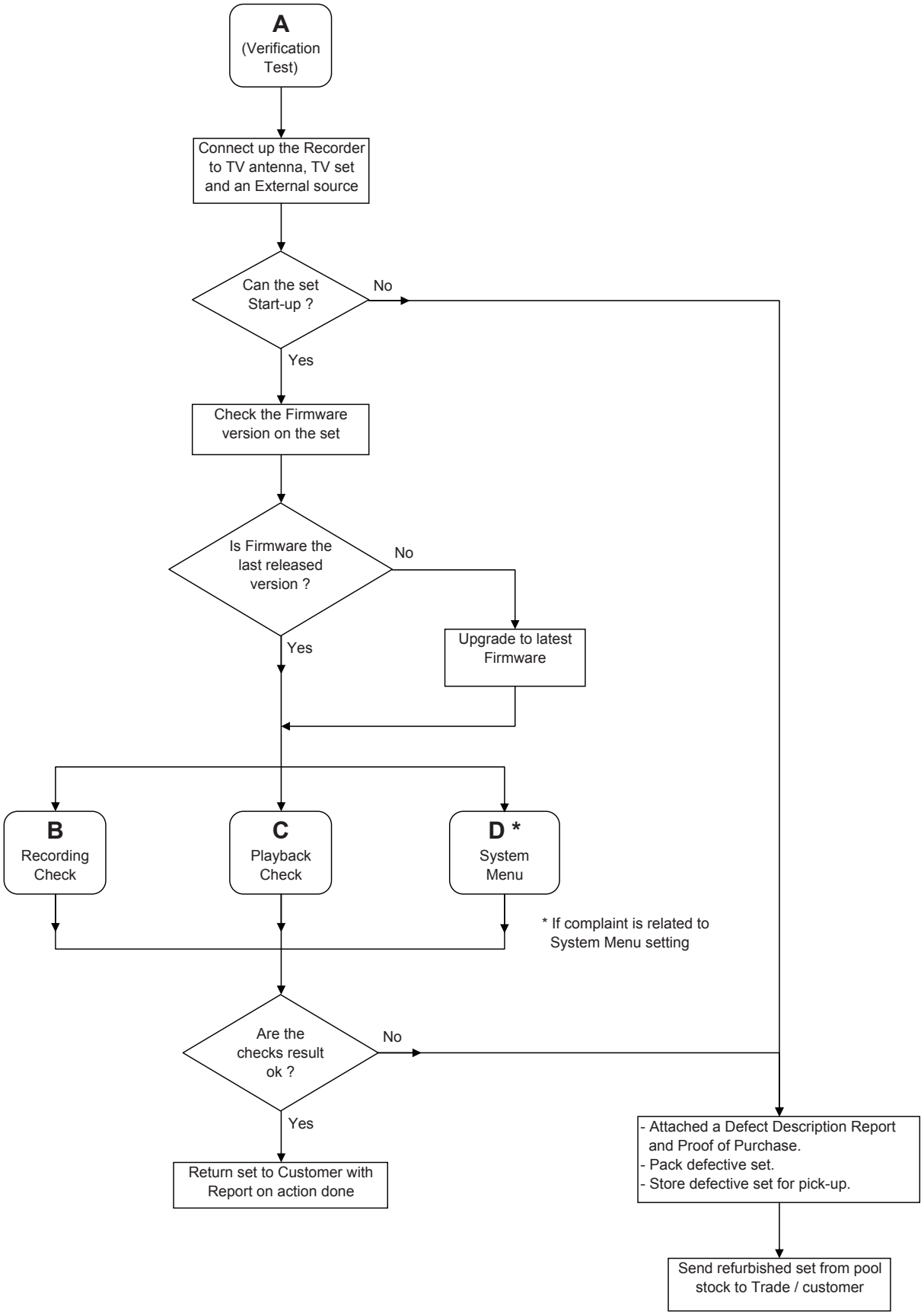
   “DVDR3380_EU_V03_07,Region:2, Drive 45.04.05.04
   Build 0091 Mar 7 2006,12:17:31 Stroke:31 ”

4. Service Flow Chart

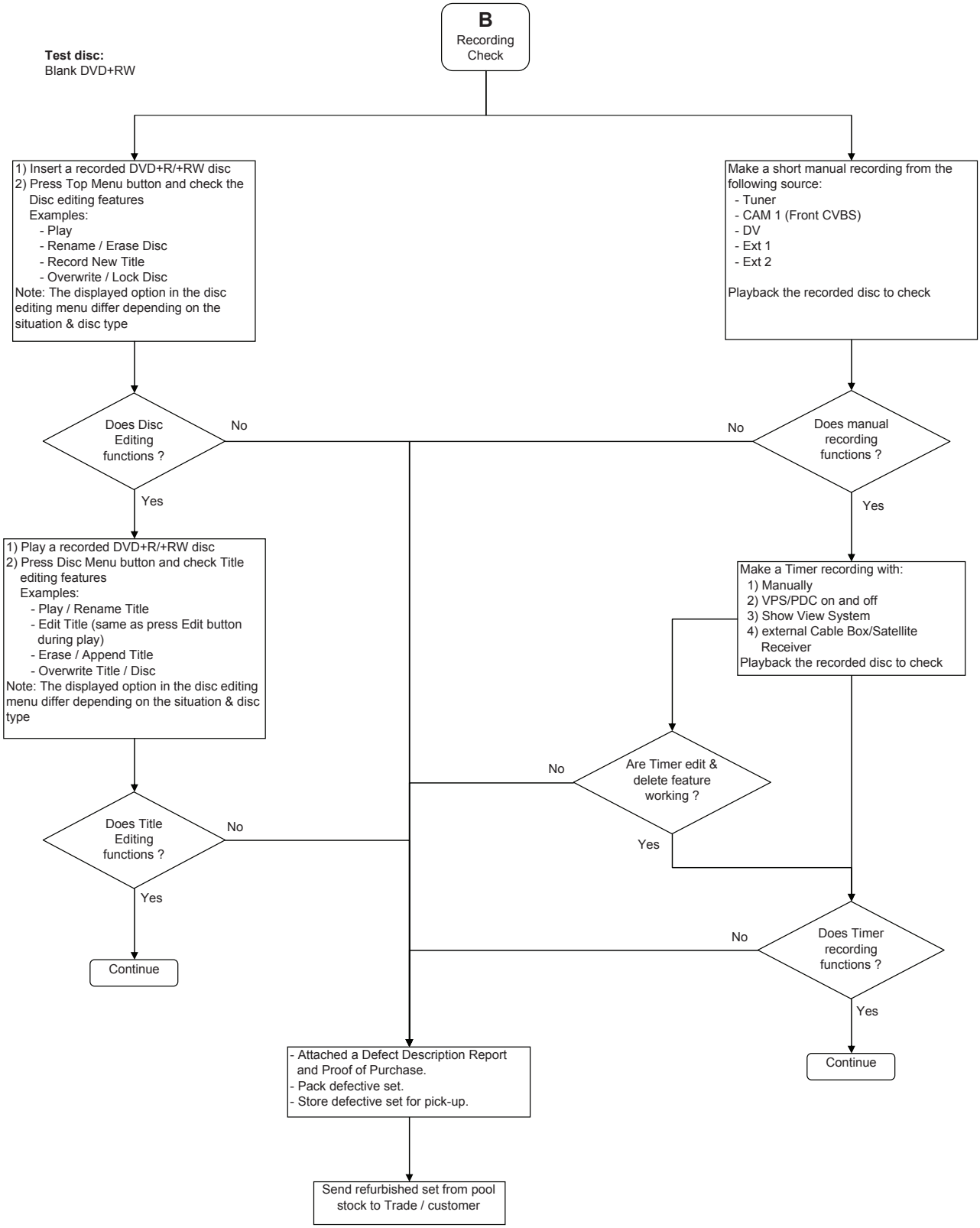
4.1 Start Process



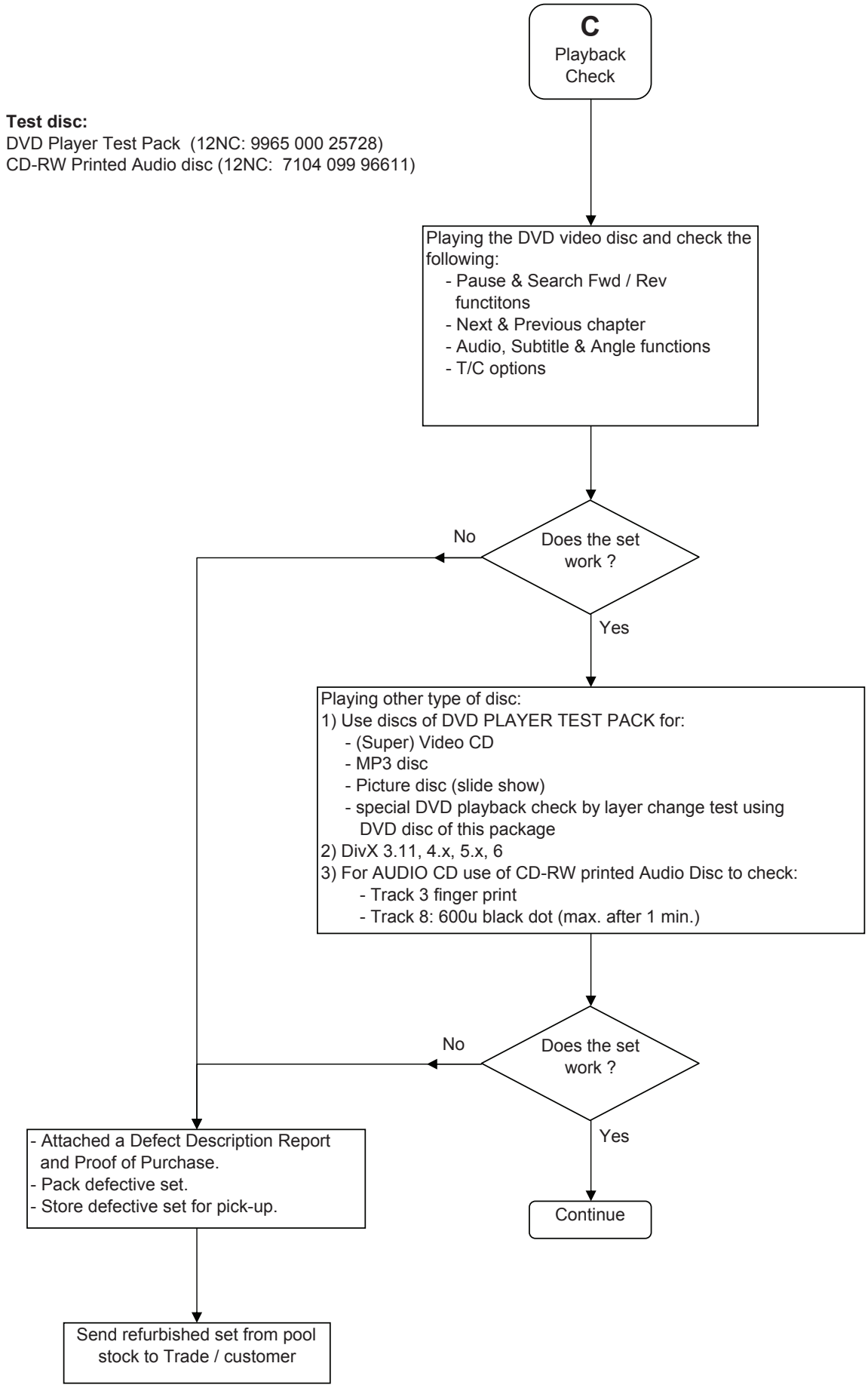
4.2 Verification Process



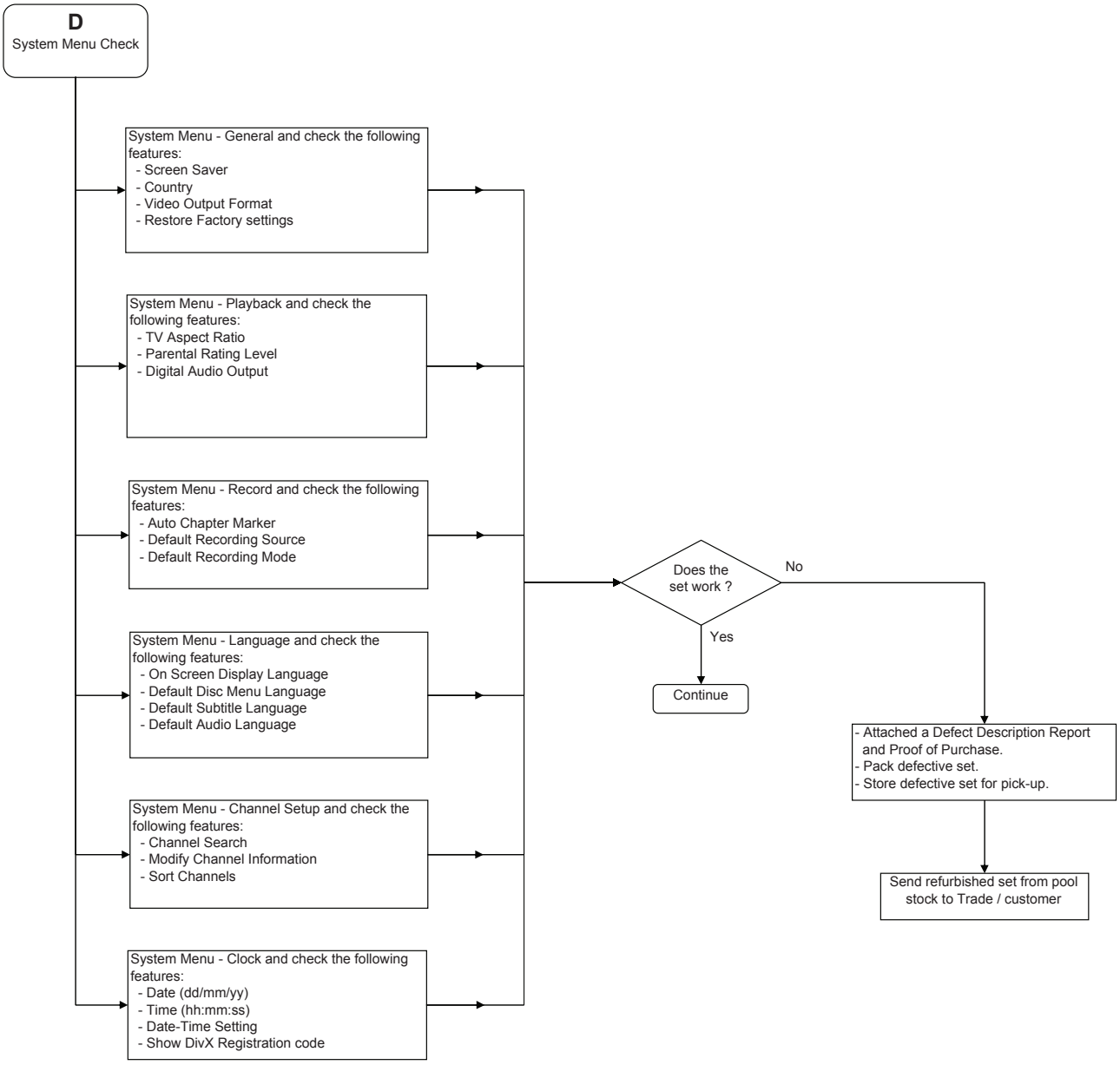
4.3 Recording Process



4.4 Playback Process



4.5 System Menu Process

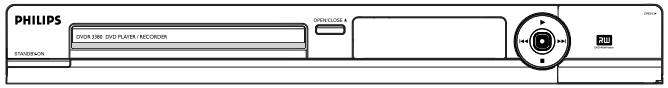


DVD Player/ Recorder DVDR3380

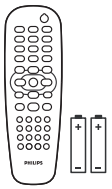
Quick Start Guide

1 Connect
2 Set up
3 Enjoy

What's in the box?



DVD Player/ Recorder



Remote Control and 2 batteries

RF Coaxial Cable

SCART Cable

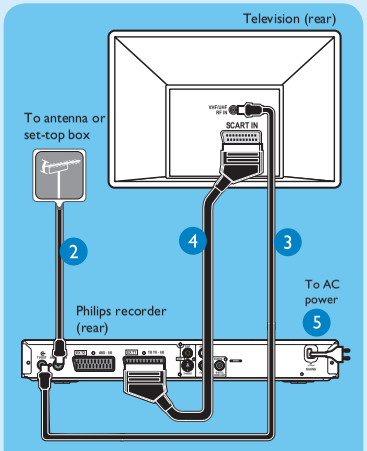
User Manual

PHILIPS

1 Connect

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

Basic Connection



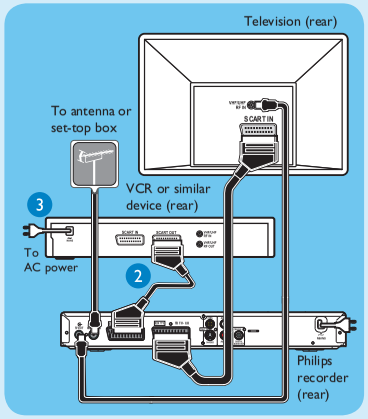
1. Before connecting, unplug the antenna cable that is currently connected to your TV.
2. Connect the antenna cable to the **ANTENNA-IN** jack on the recorder.
3. Use the supplied RF coaxial cable to connect the **TV-OUT** jack on this recorder to the Antenna In jack on the TV.
4. Use the SCART cable to connect the **EXT1 TO TV-I/O** socket on this recorder to the corresponding SCART input socket on the TV.
5. Connect the power cable from the recorder to an AC power outlet.

Connection with a 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 the steps under 'Basic Connections' before you proceed to step 2 below.
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 the VCR.
3. Connect the power cable from your VCR to an AC power outlet.

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

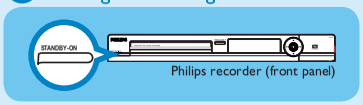
For additional connection diagrams, see the accompanying User Manual.

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

2 Set up

A Finding the viewing channel

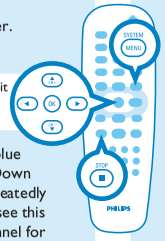


Philips recorder (front panel)

1. Press **STANDBY-ON** on the recorder.
2. Switch on the TV set.

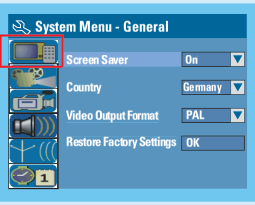
Note If connected to your VCR, make sure it is switched off or in standby mode before proceeding.

3. In case you do not see the recorder's blue wallpaper, press "0" and the Channel Down button on the TV's remote control repeatedly (or AV, SELECT, button) until you see this screen. This is the correct viewing channel for the recorder.



B Initial Installation

1. Press **SYSTEM MENU** on the remote control.



Note Use **up** or **down** keys to toggle through the options. Select an item by pressing **right**. To confirm a setting, press **OK**.

2. Select the country of your residence.
   - Highlight and press **right**. Select { **Country** } and press **right** to access the options. Press **OK** to confirm your selection.
3. Select the OSD language.
   - Highlight and press **right**. Select { **On-Screen Display Language** } and press **right** to access the options. Press **OK** to confirm your selection.
4. Setup and install TV channels.
   - Highlight and press **right**. Select { **Channel Search** } and press **OK** on the remote control to start automatic TV channel search.
5. Setting the date and time.
   - Highlight and press **right**. Select { **Date (dd/mm/yy)** } or { **Time (hh/mm/ss)** } and press **OK**. Use the **numeric keypad 0 (0) -9 (9)** to input the date/time, then press **OK** to confirm.

Note The settings will be updated according to the broadcast channel information of preset Programme Number 1.

6. Press **SYSTEM MENU** to exit.

3 Enjoy

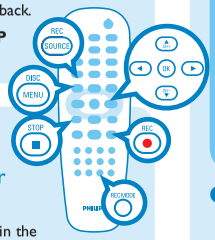
Start playback

1. Press **OPEN/CLOSE** on the front of the recorder, load in a disc and close the disc tray.
2. Press **DISC MENU** and use **up** or **down** keys to select a title.
3. Press **PLAY** to start playback.
4. To stop playback, press **STOP**.

Start Recording

Recording from the TV or an external device

1. Insert a recordable DVD disc in the tray.
2. Press **REC SOURCE** repeatedly to select the source to record from. (eg, TUNER, CAM1, DV, EXT1 or EXT2).
   - **To record a TV programme**, use **up** or **down** keys to scroll through the channels, or press **0 (0) -9 (9)** to select the channel that you want to record.



Recording from the TV or an external device (continued)

3. Press **REC MODE** repeatedly to select the recording mode.

Record Quality	Hours of Recording that can be stored
	4.7 GB DVD±R/±RW disc
High Quality HQ	1
Standard Play SP	2
Extended Play EP	4
Super Long Play SLP	6

Types of discs for recording

DVD+RW DVD+R
DVD-RW DVD-R

5. Press **REC** to start recording, press **REC** again to automatically record 30 minutes.
6. To end recording, press **STOP**. 'UPDATE' will be displayed on the recorder.
7. To playback the recording, press **DISC MENU**, select the title and press **PLAY**.

Need help?

User Manual
See the user manual that came with your Philips recorder.

Online
Go to www.philips.com/support.

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