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Professional Installation Manual

xxHFL4014/12





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Date: October 2019 Author: Gerrit Weiden



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1.0	Oct2019	Gerrit Weiden	First version Installation manual xxHFL4014
2.0	Jan2020	Gerrit Weiden	RC: MultiRC settings



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1. General information

In this document, you can find information on how to install the Philips Professional TV's from the xxHFL4014 range. This document is intended for the System Integrator or the responsible technician of the hotel. You will find descriptions on what functions these new platforms support and how to use them.

In this chapter, you can find back some general information that is useful to know before reading the rest of the document.

1.1 Notice

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1.2 Help and support

Visit the Philips support website at http://www.philips.com/support/ for:

- Leaflets and product documentation
- Download a printable PDF version of the user manual
- Contact details of the helpdesk
- Download the latest available software

Visit the Philips <u>support ticketing system</u> at <u>https://support.cmnd.pro</u> for:

- Allowing you to enter any after sales question for which you need support
- Easily follow up on any tickets submitted
- A knowledge base that will enable you to find answers to questions we receive on regular basis (FAQs)
- An NDA section for specific questions that require an NDA to be in place with your company to get the detailed feedback

Visit the CMND website to download and find all info about CMND https://cmnd.io/



1.3 Definitions, Acronyms and Abbreviations

[]: The values between brackets are referring to a TV menu item or a button on screen

"": The values between quotation marks are referring to a remote button

CDB: CustomDashBoard

DVB-T: Digital Video Broadcasting - TerrestrialDVB-C: Digital Video Broadcasting - CableHTTP: Hyper Text Transfer Protocol

IIC: Instant Initial Cloning

IR: Infrared

JAPIT: 'JSON API for TV' is the API specification to control the Philips TV

JEDI: Java Enterprise Display Interface

LCN: Logical Channel Number

MB: MegaByte MHz: Megahertz

OSD: On Screen Display
PTA: Philips TV Application

RC: Remote Control SI: System Integrator

STBY: Standby
SW: Software
TV: Television

WIXP: Web Internet eXPress

1.4 How to navigate, open menu's and make selections

- Navigating in the menu can be done with the "up", "down", "left" and "right" arrow buttons
 on the remote control
- Opening a menu can be done with the "OK" button
- The "OK" button can also be used to activate buttons that can be seen on the screen like [Done], [Cancel], [Close], [Yes], [No], ...
- In many places in the menu, you need to press the "OK" button after you selected an item to confirm your selection. Only navigating to this menu item and go back to the menu will not store your selection
- Changing the value of a slider can be done using the "up" and "down" arrow, your selection will be remembered without pressing the "OK" button



2. Requirements before starting the installation of a TV

Before starting the installation, make sure that you have everything you need at hand. You need a USB device and a remote control.

2.1 Remote control

2.1.1 Master remote control 22AV8573 or 22AV9573A or 22AV9574A







22AV8573 22AV95

22AV9574A

2.1.2 Guest remote control 22AV1904A (IR)





2.1.3 Accessory remote controls

22AV1604B Healthcare RC



22AV1601B



22AV1604A is not the same RC as 22AV1604B while it looks identical. 22AV1601A is not the same RC as 22AV1601B while it looks identically.

2.1.4 Setup of the remote controls

2.1.4.1 How to setup the Master RC 22AV9574A

All codes are following RC6 standard

Note:

The RC has 4 modes:

RC5 Guest mode

RC5 Setup mode

RC6 Guest Mode

RC6 Setup Mode (default of RC)

The remote control will select RC5 Guest mode after press ing the respective button

The remote control will select RC5 Setup mode after press ing the respective button

The remote control will select RC6 Guest mode after press ing the respective button

The remote control will select RC6 Setup mode after press ing the respective button

For RC5 Guest and RC5 Ssetup mode, there are 2 submodes:

RC5 Vestel mode

RC5 Philips mode

If the user selected RC5 Guest or RC5 Setup mode, the Vestel mode will be selected by default

The user can change RC5 submode by pressing: '1' + 'A' at the same time for more than 4 seconds: RC5 Vestel mode selected

The user can change RC5 sub mode by pressing: '1' + 'B' at the same time for more than 4 seconds: RC5 Philips mode selected

The selected RC5 submode will be stored untill batteries are changed.

The key combination '1' + 'A' and '1' + 'B' have no effect if the RC is in RC6 guest or RC6 Setup mode.



2.1.4.2 How to set the multi RC for the guest RC 22AV1904A

You can use the guest RC for multi RC. More details can be found in the 'Professional settings' chapter. You can program this RC by pressing 2 buttons at the same time for 5 seconds.

Below you can find a table how to match the TV settings and the settings as they can be used in the guest RC:

Blue (default) "Home" and "Blue" Yellow "Home" and "Yellow" "Home" and "Red" Red "Home" and "Green" Green "Home" and "1" "Home" and "2" 1

2 "Home" and "3" "Home" and "4"

Mode: Buttons combination:

- 4 "Home" and "5"
- "Home" and "6" "Home" and "7"
- "Home" and "8" 7
- "Home" and "9"
- 9 "**Home**" and "**0**"

Note: When the battery is low, the RC will send out a special battery low command after each key press with a notification on the display.

Note: The Multi RC setting is not permanently stored. After battery exchange the Multi RC setting for the RC need to be programmed.

2.1.4.3 How to setup the Healthcare RC

The RC can be used in both RC5 and RC6 mode, meaning that it can be used for all TV's. By default the RC is in RC6 mode (for 301x/501x/701x TV's). You can change the RC to RC5 mode (for 28x9 TV's).

- You can change the RC to RC5 mode by pressing 5 seconds "Home" and "Volume up" at the same time.
- You can change it back to RC6 mode by pressing 5 seconds "Mute" and "Channel up" at the same time.

You can also use this RC for multi RC. More details can be found in the 'Professional settings' chapter. You can program this RC in the same way as the guest RC.

2.1.4.4 How to setup the Easy RC

The RC can be used in both RC5 and RC6 mode, meaning that it can be used for all TV's. By default the RC is in RC6 mode (for 301x/501x/701x TV's). You can change the RC to RC5 mode (for 28x9 TV's).

You can change the RC to RC5 mode by pressing 5 seconds "Home" and "Volume up" at the same time.



 You can change it back to RC6 mode by pressing 5 seconds "Mute" and "Channel up" at the same time.

You can also use this RC for multi RC. More details can be found in the 'Professional settings' chapter. You can program this RC by pressing 2 buttons at the same time for 5 seconds.

Below you can find a table how to match the TV settings and the settings as they can be used in the guest RC for **RC6**:

Mode: Buttons combination:

Blue (default) "Home" and "Volume down"
Yellow "Home" and "Channel down"

Red "Back" and "Volume down"

Green "Back" and "Channel down"

- 0 "Home" and "Clock"
- 1 "Home" and "Subtitle"
- 2 "Home" and "Arrow up"
- 3 "Home" and "TV"
- 4 "Home" and "Arrow left"
- 5 "Home" and "OK"
- 6 "Home" and "Arrow right"
- 7 "Home" and "Back"
- 8 "Home" and "Arrow down"
- 9 "Home" and "Mute"

Below you can find a table how to match the TV settings and the settings as they can be used in the guest RC for **RC5**:

Mode: Buttons combination:

Yellow "Home" and "Volume down"

Red "Back" and "Volume down"

Green "Back" and "Channel down"



Also, note that for the easy RC the multi RC setting is stored permanently, so it will remember the setting even if the batteries are removed from the RC.

2.2 Professional Settings menu

To access the [Professional Settings] menu you have 2 possibilities:

• Using the master remote control (green), press the "RC 6 setup" key and then press the "Setup-icon" button:

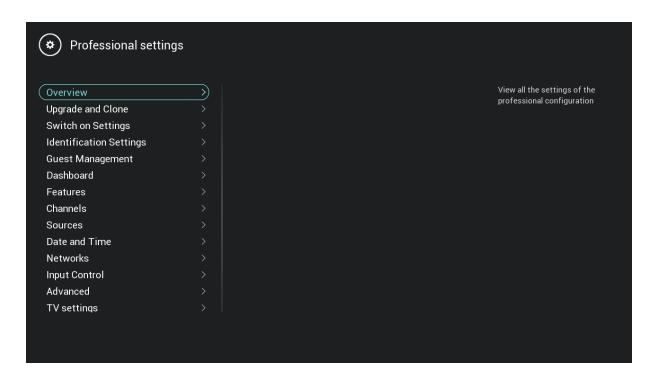


 Using the guest remote control, press the following keys sequentially: "3 1 9 7 5 3 mute" or "mute left right up down ok"



<u>Note:</u> The sequence: **"3 1 9 7 5 3 mute"** will not show the [**Professional Settings**] if [**High Security**] option is enabled, it will only work using the 'master RC'





2.3 Software upgrade

For the best guest experience, it is highly recommended to use the latest software version available. Go to: http://www.philips.com/support/

- Select your country, enter the model number and download the latest software version available
- Unzip the software and follow the instructions how to upgrade the software on the TV
- The USB flash drive used for software upgrade must be formatted as FAT32 and preferably empty to avoid an accidental upload of a wrong setting or software
- Preparation:
 - Copy the software (Autorun.upg) on the root of the USB stick (FA32 formatted) and do not change the name
- Procedure:
 - o Start up the TV and wait until it is fully booted up, should take a max of 2min
 - Insert the USB stick
 - A wizard will automatically appear and start the upgrade to the new SW



- Wait until the process finishes and do not unplug the power cord
- o After around 2min the update will be done and the USB stick can be extracted
- It's required to first upgrade the TV and afterwards to perform the installation

The latest software version and cloning data can be stored on the same USB drive for a 2 in 1 action: software upgrade and cloning during the instant initial cloning. See chapter 'Instant Initial Cloning (IIC)' for more information.



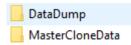
2.4 Clone folder structure

Below you can find the menu structure of a clone file.

Following is the folder name used in the root of the USB device containing the clone data:

• TPM187HE_CloneData/MasterCloneData/

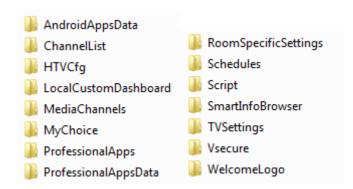
In the folder 'TPM187HE_CloneData', there can be multiple folders (so not only 'MasterCloneData'):



- The MasterCloneData is the main master clone file containing all clone data.
- The DataDump contains information for debugging in case of reported problems. It also contains the CSM.txt file containing all details about the TV.
- You can also have a folder called "xxxxxCloneData" where xxxxx is the 5 digits of the room number. If the room number matched the roomID set in TV, the TV will used this clone file to program the TV when cloning from USB to TV.

It is advised to use CMND or the TV menu to make changes to the MasterCloneData and not to do this manually.

Just for your information, the menu structure inside the MasterCloneData folder is as follows (some of the folders might not be seen depending on your settings):



If you want to clone some specific part in your TV you can do so by only putting the specific folder in the MasterCloneData folder before cloning it in the TV.

Note: The folder names are case sensitive

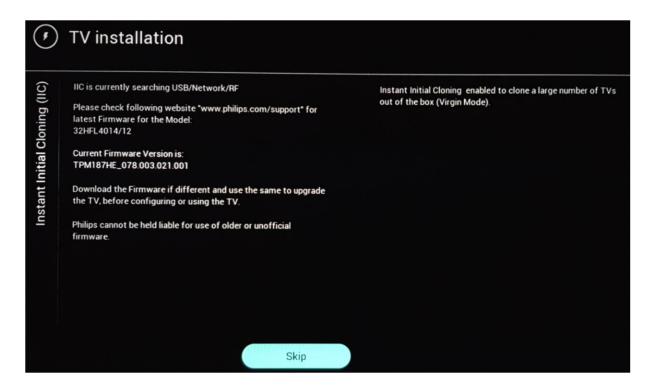


3. Find out the state of the TV

It is important to know if a TV is in Virgin mode (out of the box) or installed before. When installing a newly bought TV, it will be in virgin mode.

3.1 Virgin mode

If you can see below screen, you know that the TV is in 'out of the box' state and you can install the set by using procedure described in chapter 'Virgin installation wizard' of this manual.



3.2 Professional Mode ON/OFF

If your set is not in virgin mode, you can check if the professional settings are ON or OFF. This can be done by going to the professional menu and navigate to [Advanced] [Professional Mode] and turn this option back to [On] in case it would be [Off]. You will need to do a virgin installation after you have enabled Professional Mode by reinstalling the TV.

This TV is only to be used having professional mode set to [**On**], you are able to turn it [**Off**] in case your TV is out of warranty and you still want to use it as a consumer TV.

Note: no support will be given in case of [**Professional Mode**] = [**Off**].

3.3 CSM (Customer Service Menu)

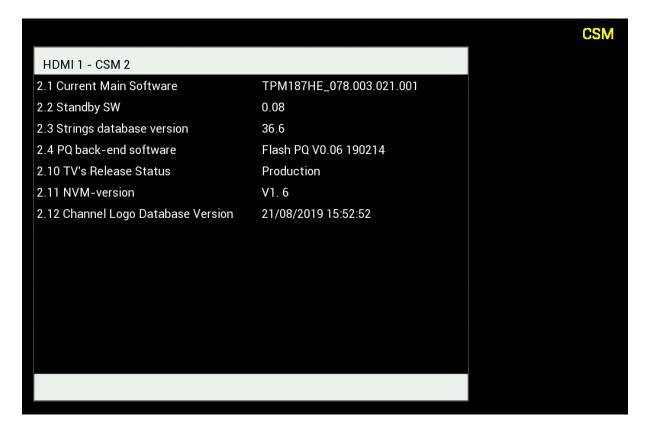
The CSM contains data about the TV software, serial number and other details. The menu can be accessed using a standard remote control or using the master remote control.

- Using the guest RC with digits: "1 2 3 6 5 4"
- Using the master RC "Recall/Info" or "Info/CSM" depending on the model



<u>Note:</u> When you enter the CSM menu using the key code a text file (CMS.txt) will be written to your USB memory device if it's connected to your TV in order to have a copy of the CSM data.

You can navigate between the 9 CMS pages using "Up/Down".





4. Reinstall TV

4.1 Reinstall the TV manually

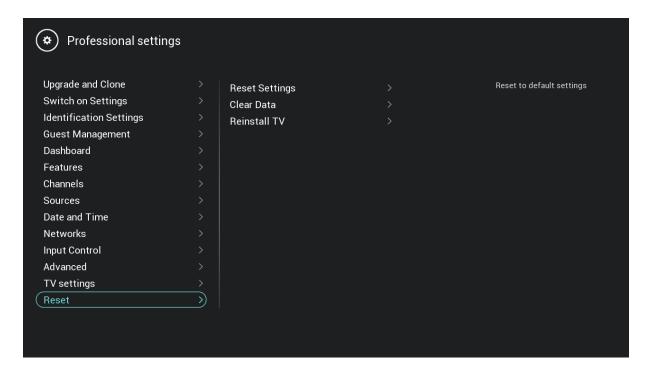
If you want to start an installation from scratch you can always reinstall the TV. All settings will be reset to the default values and channel list will be cleared.

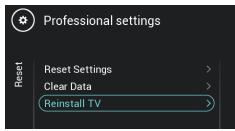


<u>Note:</u> Some settings like webservice url, roomID, manual date and time, professional mode, professional menu pin lock and logging url will not be reset, If you want these settings to be changed you will need to do this after the reinstallation has finished.

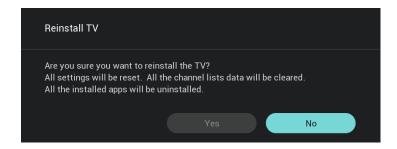
Open the [Professional Settings] menu.

Navigate to the [Reset] menu. Navigate to the [Reinstall TV] menu.





Press the "OK" button on the [Reinstall TV] menu, you should get below screen.





<u>Note:</u> Depending on your country and settings, a PIN code can be requested.

Select [**Yes**] and press the "**OK**" button to reinstall the TV. You will see that the TV will apply a reset and restart into IIC mode.

4.2 Reinstall via a script in the clone file

To automatically reinstall the TV, load a new clone file and load new SW you can use this script. In the 'MasterCloneData' folder you can add a folder called 'Script'. In this folder you have to put a script called 'Script.xml'.

This xml file has as content below:

```
<?xml version='1.0' encoding='UTF-8' ?>
<Script>
  <SchemaVersion MajorVerNo="1" MinorVerNo="0" />
  <Activity>
    <Action>ReinstallTV</Action>
    </Activity>
</Script>
```

If you have this file in the correct location and you Clone USB to TV then in the beginning of the cloning process the TV will give a notification 'Reinstall TV' and the TV will be reinstalled.

After the reinstallation the TV will be in IIC mode, if you have new SW on the USB device the TV will be upgraded, after this the new clone file will be loaded to the TV.



5. Virgin installation wizard

Out of the box a new TV will be in virgin mode. This means that you will have to go through the virgin installation wizard to apply the first settings of the TV.

You might need to wake up the TV from standby.

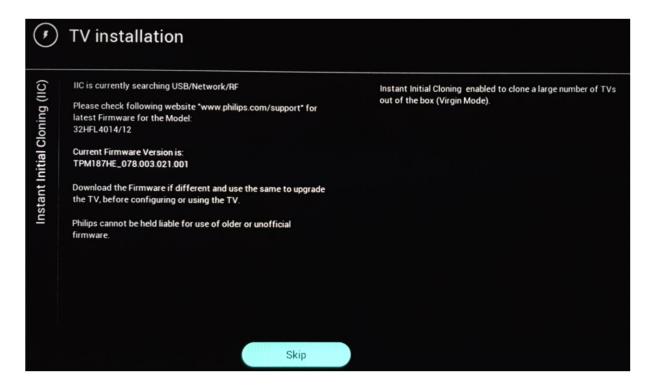
5.1 Instant Initial Cloning (IIC)

5.1.1 Virgin installation

When starting up the TV in virgin mode you will see the first screen indicating Instant Initial Cloning (IIC). The TV is now searching on USB, Network and RF for a new clone file containing all new settings for the TV and/or a new software update.

You can also see the model name and SW version of the TV.

If there is no need to load a clone file in this TV (for example if you want to make a new installation to create a master clone file) then you need to press "**OK**" to activate the skip button.



5.1.2 Instant initial cloning and software upgrade

If you want to upgrade the TV software and load a new clone file in the TV via USB you have to do following steps:

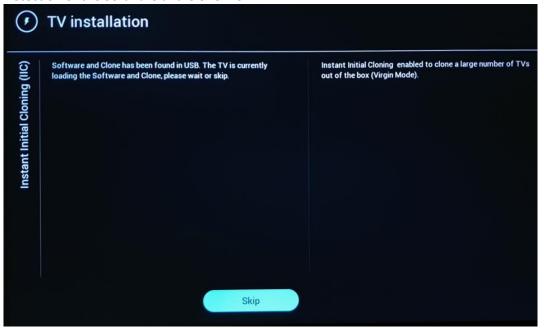
- Disconnect the TV from the mains power
- Insert a USB device with both the new SW (See chapter "Software upgrade") and the clone file you want to load in the TV

You must see following 2 files in the root of your USB device (remove all other files and folders) *Note: Both folder name and the upg file are case sensitive.*





- Connect the mains power to the TV
- Wake up the TV from STBY if required
- The TV will automatically detect the new SW version and the clone file and upgrade both
- During this process you will see following (no user interaction needed):
 - o Detection of the Software and Clone file



Upgrading the SW from USB to TV will start



 After the installation phase, the TV will reboot. The SW upgrade can take several minutes.





 After the software upgrade, the TV will reboot and will go again to the cloning screen where the clone file from the USB stick will be loaded in TV





<u>Note:</u> First, you will see "Downloading"; once downloaded you will see a message that you can remove the USB stick:

Firmware / Clone Data have been downloaded. USB device can be removed. Upgrading /

If you don't press "OK" once processing is done, the TV will go to standby after 30 minutes. You can press "OK" to close the overview screen, the installation is done and you can start using the TV.

If a clone file and/or software is sent out over IP or RF the same process will happen automatically.



5.2 Settings during virgin installation

When you skip the IIC screen, you will be able to set the room ID. Once set, you will have finished the virgin installation and the professional menu will open allowing you to start creating your master clone file.





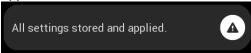
6. Professional Settings

6.1 General information

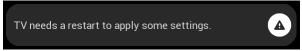
In this chapter, you can find information about all professional settings that can be changed. To start you have to open the [**Professional Settings**] menu. Using the guest remote control, press the following keys sequentially: **"3 1 9 7 5 3 mute"**

6.1.1 Store settings in the Professional Settings menu

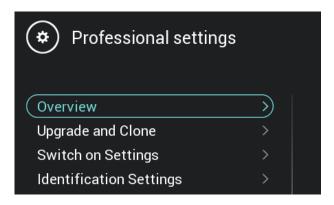
When you exit the professional menu, you will see a message that all your settings are stored and applied. There is no need to reboot the TV.



If a reboot is needed you will see below message. You need to perform a reboot to see the behavior after changing the settings.



6.2 Overview



- o Navigate to the [Overview] menu
- o Open this menu item



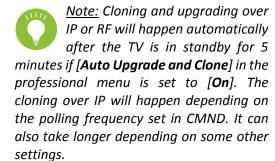
- You will get an overview screen with all the settings that are set in the TV, this overview can be used to see the settings without having to navigate to all menu's separately
- Using the "arrow up/down" buttons you can go to the other overview pages <u>Note:</u> No value can be changed in these screens
- o Pressing "back" will exit this screen again



6.3 Upgrade and Clone



- o Navigate to the [Upgrade and Clone] menu
- o You will see the screen on the left



- Select the [Current Firmware and Clone info] menu
- You can see the SW version and the dates when the last cloning actions were done
- Select [Next] and press "OK" to see the second page
- Select [Previous] and press "OK" to see the first page
- Select [Close] and press "OK" to go back to the previous page





- Select the [Firmware Upgrade from USB] menu and open it to go to the Software Update Wizard
- If you are using an "autorun.upg" in the root of your USB the TV will automatically program the SW if it's newer than the currently installed TV SW
- Using the Software Update Wizard, you will be able to load new SW in the TV. You will see the "autorun.upg" if it's on the USB, you will also see a list of SW versions that are available in the 'upgrades' folder in the root of the USB device connected to the TV if they are applicable for this product
- Select the SW you want to install and press "OK", you will see that the TV starts with the downloading from USB to TV
- Once the downloading is done, you will see that TV is restarting and installing the system update. This can take several minutes. Once installing is complete, the TV will reboot



- o Select the [Clone USB to TV] menu
- Using this you will be able to clone from the USB device to the TV by selecting the [MasterCloneData] and press "OK" to start the cloning
- On the top of the page you will see a waiting animation while cloning is ongoing, once finished it will change to Successful
- During the cloning process there will be a [Cancel] button available on the bottom of the page, press "OK" to cancel the cloning process
- Once cloning is complete, [Cancel] will change to [Close], press "OK" to return back to TV state
- If no USB stick is inserted you will see USB not found on top of the page





- o Select the [Clone TV to USB] menu
- press "OK" to start the cloning process
 <u>Note:</u> Default channel logos are part of the SW and will not be cloned out



- o Select the [Clone IP to TV] menu
- Using this you will be able to clone to the TV over IP, this happens automatically when a clone has been assigned to the TV in CMND. Via this menu you can manually force an upgrade to happen
- On the top of the page you will see a waiting animation while cloning is ongoing, once finished it will change to Done
- During the cloning process there will be a [Cancel] button available, press "OK" to cancel the cloning process
- Once cloning is complete, [Cancel] will change to [Close], press "OK" to return back to TV state
 <u>Note:</u> This menu is only accessible when [On] is selected in the [Networks] [Control TV Over IP] [WebServices]

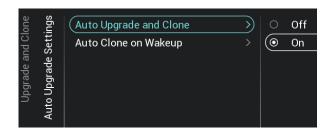


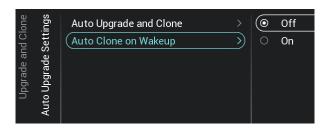
o Select the [Clone RF to TV] menu

[IPUpgradeService] menu

- Using this you will be able to clone to the TV over RF, this happens automatically when a clone is being played out on RF by CMND. Via this menu you can manually force an upgrade to happen
- On the top of the page you will see a waiting animation while cloning is ongoing, once finished it will change to Done
- During the cloning process there will be a [Cancel] button available, press "OK" to cancel the cloning process
- Once cloning is complete, [Cancel] will change to [Close], press "OK" to return back to TV state



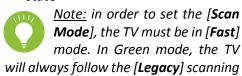




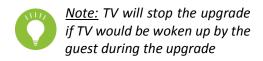




- Navigate to the [Auto Upgrade Settings] menu
- o You will see below items:
 - [Auto Upgrade and Clone]: RF upgrade and Clone upgrade will be enabled automatically at 4 AM if the TV is in standby and 5 minutes after the TV is put in STBY if [On] is selected, no upgrade will happen if [Off] is selected
 - o [Auto Clone on Wakeup]: Nothing will happen when [Off] but when [On] the TV shall search for a new clone when waking up from standby. You will see a message "Personalizing your experience" when starting up the TV Note: TVSettings, ChannelList, SmartInfoBrowser, MyChoise data will be cloned on wakeup. Depending on SW updates and feature updates this list might change overtime
- Navigate to the [RF Upgrade Settings]
 menu
- You will see below items:
 - o [Frequency]: The frequency for CMND playout can be modified in this menu Note: Default this should be set to 498 MHz. When an RF upgrade happens, the TV will first do a scan on the frequency set here. If nothing is found it will scan between 44 MHz and 887 MHz in steps of 8MHz. So if you do a playout on another frequency as set in the TV, the TV will do a fallback scan in order to find it
 - [Scan Mode]:Define when the TV shall scan the RF stream for updates
 - When [Legacy] is selected, then the RF scan for upgrades will happen 5 minutes after the TV is set to STBY, 1PM and at 4AM when the TV is not in use.
 - When [Continous] is selected, the TV will scan continuously when the TV is in standby and also when in on state







6.4 Switch on settings



- Navigate to the [Switch On Settings] menu, you will see the screen on the left
- In this menu you will be able to set all Switch on settings, these are the menu items that a guest can change, the values you set here are the settings applied when the guest wakes up the TV

6.4.1 Channel Settings



- Navigate to the [Channel Settings] [Switch On Channel Filter] menu
- You will see a list of channel filters, your selection will be the default selected channel filter when opening the channel list
- This list also contains the theme's
- The channel list you have selected will also be shown in the recommended screen in the dashboard

 Note: The list you see in the screenshot is

<u>Note:</u> The list you see in the screenshot is depending on the installed content



- Navigate to the [Channel Settings] [Switch On Channel] menu
- You will see a list of channels followed by the external sources
 - <u>Note:</u> The list you see in the screenshot is depending on the installed channels
- Select the channel or source you would like to set as Switch On Channel

6.4.2 Feature Settings



- Navigate to the [Feature Settings] [Switch On Feature] menu
- You will see below items:
 - [None]: The dashboard or apps will NOT be opened when starting up the TV
 - [Dashboard]: The dashboard will be opened when starting up the TV
 - [SmartInfo]: SmartInfo will be opened when starting up the TV



- [Apps]: An app will be opened when starting up the TV
- [MyChoice]: MyChoice PIN code screen will be shown when starting up the TV



Note: SmartInfo and MyChoice will only be visible in this list when they are

enabled in [**Features**] menu

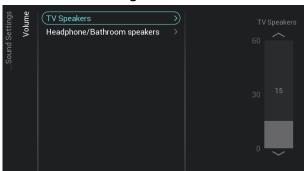


- Navigate to the [Feature Settings] [Apps] menu
- You will see "YouTube" App as switch on application



<u>Note:</u> This menu is only accessible when [**Apps**] is selected in the [**Switch On Feature**] menu.

6.4.3 Sound Settings



- Navigate to the [Sound Settings] [Volume] menu
- o You will see below items:
 - [TV Speakers]: Change the default volume setting for the TV speakers
 - [Headphone/Bathroom speakers]:
 Change the default volume setting for the headphone and bathroom speakers
- Open these menu items and change the default volume using the "arrow up/down" in the volume sliders



- Navigate to the [Sound Settings] [Sound Style] menu
- You will see following options in this menu: Personal, Original, Movie, Music, Game and News

Note: When selecting [Personal], you can change the setting under [TV Settings][Sound][Advanced][Surround Mode] to set change the settings for [Personal]

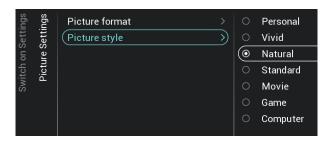
 Switching between the sound styles will change the sound style depending on your selection after pressing "OK"

6.4.4 Picture Settings



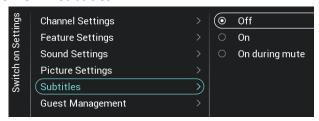
- Navigate to the [Picture Settings] [Picture Format] menu
- Change the default Picture Format to your preference and press "OK" to store the value





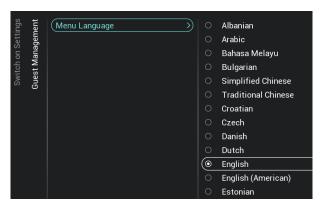
- Navigate to the [Picture Settings] [Picture Style] menu
- Change the default Picture Style to your preference, [Natural] gives the best picture settings

6.4.5 Subtitles



- Navigate to the [Subtitles] menu
- You will see below items:
 - [Off]: Change the default subtitles setting to Off
 - o [**On**]: Change the default subtitles setting to On
 - [On During Mute]: Change the default subtitles setting to On During Mute, this means that the subtitles will be shown if the TV is muted and if subtitles are available

6.4.6 Guest Management



Navigate to the [Guest Management][Menu language] menu

- You will see a list of languages. This is to select the default language for the menu <u>Note:</u> If you select a language where text is from right to left, also the menu will be shown on the right side
- You will see a list of countries. You need to select the country where most of the guests are coming from.

6.4.7 Content Rating



- Navigate to the [Content Rating] menu
- o You will see below item:
 - [Rating Level]: In the rating level you can set a minimum rating level to watch rated programs



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<u>Note:</u> The list of rating levels depends on your country

Note: [Rating Level] is only accessible when [Features] [Content Rating] [Enable] is set to [Yes]



6.5 Identification Settings

6.5.1 RoomID



- Navigate to the [Identification Settings]
 [RoomID] menu
- This is a (maximum) 5 digits number that can be used to distinguish between different floors/rooms/setups when using CMND

Intention is to fill in the room number in this field

6.5.2 Premises Name





- Navigate to the [Identification Settings]
 [Premises Name] menu
- You will see below item:
 - [Custom Name]: Define the custom name for the premises name
 Note: The Premises Name can be seen in the default dashboard

6.6 Guest Management



- Navigate to the [Guest Management]
 [Guest Country] menu
- You will see a list of countries. Select the home country where most of your guests are coming from.



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Note: Your selection will have an impact on the ordering of menu languages.



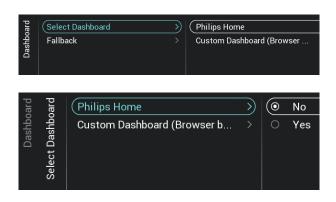


- Navigate to the [Guest Management] [Clear User Data] menu
- o This is to clear the user data, including all app data, passwords as well as user browsing history
- You will see below items:
 - o [Off]: Disable the clearing
 - [Standby and PowerOn]: Clearing will happen when set goes to Standby and when set is turned on

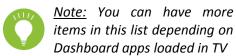
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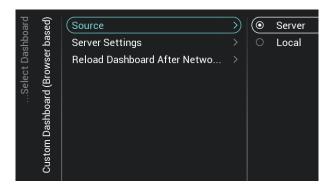
6.7 Dashboard



- Navigate to the [Dashboard] menu
- You will see the screen on the left
- o Navigate to the [Dashboard] [Select Dashboard] menu
- o You will see below items:
 - o [Philips Home]: You need to press "OK" to access and change the Philips **Default Dashboard configuration**
 - Note: How to do this is explained in the chapter "Philips Home Dashboard configuration"
 - o [Custom Dashboard (Browser based)]: This menu is to configure the custom browser based dashboard

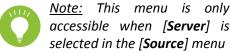


Note: All details are explained in the CDB documentation that can be obtained after signing an NDA.



- o Navigate to the [Dashboard] [Select Dashboard [Custom Dashboard (Browser based)] menu
- You will see below items:
 - o [Source]: You can select [Server] or [Local] as source for the custom dashboard
 - o [Server Settings]: You will see a menu [Server URL] where you can enter the Server URL





- [Reload Dashboard After Network Restore]: If the network connection was lost and it is restored the custom dashboard will be reloaded if [Yes] or will not reloaded when [No] is selected
- Navigate to the [Dashboard] [Fallback] menu
- Fallback will happen to a locally stored version of the Dashboard when no connection can be made to the server when set to [On], when [Off] the Default Dashboard will be launched when no connection can be made



6.8 Features



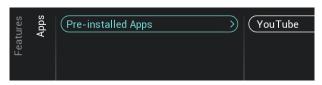
- o Navigate to the [Features] menu
- o You will see the screen on the left

6.8.1 Apps



Note: Some of these menu items might still change after a SW upgrade

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- o Navigate to the [Pre-installed Apps] menu
 - You can select the pre-installed App [YouTube].
 [YouTube]: When [On] the YouTube App will be shown on Philips Dahboard, this will not happen when it's set to [Off]

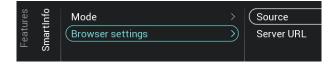


6.8.2 SmartInfo

See also more details in the chapter "Guest Menu - SmartInfo"



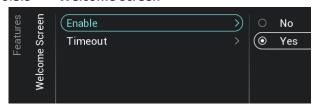
- Navigate to the [SmartInfo] [Mode] menu
 Note: [SmartInfo] is only accessible when [Dashboard] [Select Dashboard] is set to [Philips Home]
- o You will see below items:
 - o [Off]: Disable Smart Info feature
 - [Browser]: Use the SmartInfo browser, usually this is created in CMND



- Navigate to the [SmartInfo] [Browser settings] menu
 - Note: [Brower settings] is only accessible when [Mode] is set to [Browser]
- o You will see below items:
 - [Source]: You can set the source of the browser to [USB], [Server] or [Local]
 - [Server URL]: You can set the server address where the browser is hosted
 - Note: Normally you load the SmartInfo into the clone file and load it locally in the TV, therefore you need to set [Source] to [Local]
 - Note: If set to [USB], the TV will read from the folder TPM187HE_CloneData/MasterCloneData/SmartInfoBrowser/



6.8.3 Welcome Screen



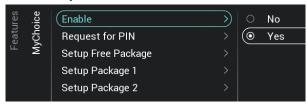
- o Navigate to the [Welcome Screen] menu
- You will see below items:
 - [Enable]: You can enable the welcome screen using [Yes] or disable using [No]
 - [Timeout]: You will be able to set the timeout of the Welcome Screen (in seconds)



<u>Note:</u> restrictions for WelcomeLogo PrimeSuite:

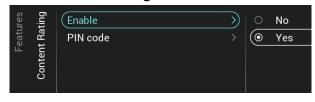
- max. resolution: 1920 x 1080
- max. file size: 16MB (keep the file size as small as possible to improve the startup performance)
- file format: .jpg
- file name: Welcomelogo.jpg

6.8.4 MyChoice



- o Navigate to the [MyChoice] menu
- o You will see below items:
 - [Enable]: You can enable MyChoice using [On] or disable using [Off]
 - [Request for PIN]: You can disable that the PIN code is requested every time the set is switched on until the validity is expired via [No] or enable it via [Yes]
 - [Setup Free Package]: You will be able to manage MyChoice, see chapter 'Manage MyChoice' for more details Note: [Request for PIN] and [Setup Package 1] / [Setup Package 2] are only accessible when [Enable] is set to [On]

6.8.5 Content Rating



- o Navigate to the [Content Rating] menu
- You will see below items:
 - [Enable]: You can enable the content rating via [Yes] or disable via [No]
 - [PIN Code]: You can set the pin code that is needed to show the content when you are on a rated channel

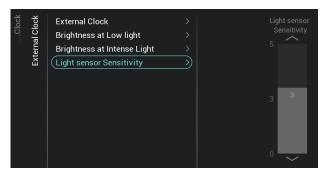


<u>Note:</u> By default the PIN code is set to 8888



6.8.6 Clock





- Navigate to the [Clock] menu. Here you can make changes for the (external) clock.
 In order to have a functional external clock the [Advanced][Power][Standby Mode] needs to be set to [Fast]
- You will see below items:
 - [Display Clock on Radio Channel]:
 When you are on a radio channel you will see a radio background when [No] is selected, when [Yes] is selected you will see a clock instead of the radio background
 - o [External Clock]:
 - [External Clock]: You disable the external clock via [Off] or enable it via [On]
 - [Brightness at Low light]: Via a slider you can set the clock brightness at low light environment
 - [Brightness at Intense Light]: Via a slider you can set the clock brightness at intense light environment
 - [Light sensor Sensitivity]: Via a slider you can change the light sensor sensitivity



[**O**n]

Note: Above menus are only accessible when [External Clock] is set to

6.8.7 Scheduler



- o Navigate to the [Scheduler] menu
- o You will see below items:
 - [Enable]: You can enable the scheduler using [Yes] or disable using [No]
 - [Manage]: You will be able to manage the Scheduler, see chapter 'Manage Scheduler' for more details



6.9 Channels

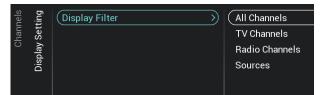


- o Navigate to the [Channels] menu
- You will see the screen on the left



- o Navigate to the [Enable Channels] menu
- You will see below items:
 - [RF/IP Channels]: Show IP/RF channels in the channel list when [On], or not when [Off]
 - [Media Channels]: Show media channels in the channel list when [On], or not when [Off]

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- All Channels

 TV Channels

 Radio Channels

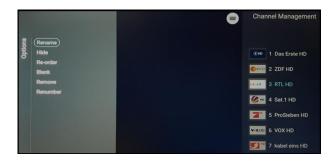
 Sources

 O No

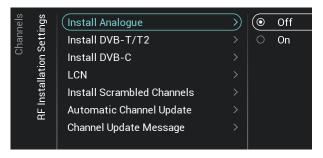
 Yes

 O Yes
- o Navigate to the [**Display Settings**] menu
- o You will see below items:
 - [Display Filter]: You see a list of possible filters. Per filter you can enable using [Yes] or disable using [No] if you want to show the filter in the filter list

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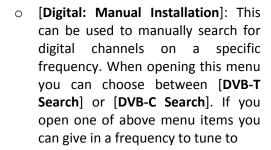
- o Navigate to the [Manage] menu
- When opening this menu you will be able to manage the channels, you can use the "options" key to manage the channels
- See chapter 'Manage Channels' for more details

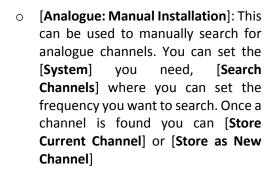


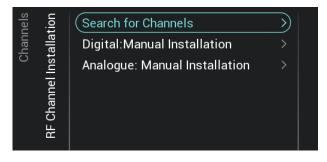
- Navigate to the [RF Installation Settings] menu
- o You will see below items:
 - [Install Analog]: You can put the search of analog channels [Off] or [On]
 - [Install DVB-T/T2]: You can put the search of DVB-T/T2 channels [Off] or [On]
 - [Install DVB-C]: You can put the search of DVB-C/C2 channels [Off] or [On]



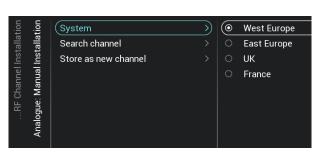
- [LCN]: You can put channel sorting based on Logical Channel Number [Off] or [On]
- [Install Scrambled Channels]: You can disable installation of scrambled channel via [No] or enable it via [Yes]
- [Automatic Channel Update]: You can put automatic channel update [Off] or [On]
- [Channel Update Message]: You can get a message when channels are updated, you can put this option [Off] or [On]
- Navigate to the [RF Channel Installation] menu
- o You will see below items:
 - [Search for Channels]: See chapter 'Channel installation wizard' for more details about installing the channels















- Navigate to the [Channel Settings] menu
- o You will see below items:
 - **[EPG]**:
 - [Enable]: You can enable EPG via [Yes] or disable via [No]
 - The EPG data comes from the broadcaster
 - o [Enable Subtitles]: You can enable the subtitles via [Yes] or disable via [No]
 - o [Enable Teletext]: You can enable teletext via [Yes] or disable via [No]
 - [Enable MHEG]: You can enable MHEG
 via [Yes] or disable via [No]
 - [Enable HbbTV]: You can enable HbbTV
 via [Yes] or disable via [No]
 - [Enable CI/CI+]: TV shall disable the CI/CI+ conditional access support, all UI elements relating to the CI/CI+ shall be removed if [No] is selected, if [Yes] is selected, then all CI/CI+ functionality shall be available
 - [Enable Channel Logos]: Channel logos will be shown if [Yes] or will not be shown if [No]
 - [Display Scrambled Channel Banner]:
 If a channel is scrambled, you will get an OSD with this information if [Yes] or OSD will not be shown if [No]
 - [IGMP Version for Multicast IP Channels]: Set your IGMP version for multicast to [Auto], [1], [2] or [3]

6.10 Sources





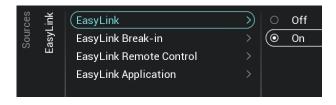
- Navigate to the [Sources] menu
- o Navigate to the [Enable Sources] menu
- You will see a list of externals (including USB media browser). You can enable or disable sources to be available in the menu
- Navigate to the [USB break-in] menu
- You can enable USB break-in using [On] or disable using [Off]



<u>Note:</u> [**USB break-in**] is only accessible if [**Enable Sources**][**USB Media Brower**] is checked







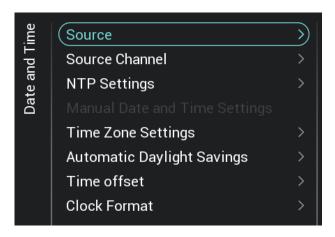
- o Navigate to the [USB Auto Play] menu
- o You will see below items:
 - [Off]: From the moment an USB device is connected to the TV, no files will be played automatically
 - [On]: From the moment an USB device is connected to the TV, all playable files in the root from your USB device will automatically be played in a loop
- o Navigate to the [Easylink] menu
- You will see below items:
 - [Easylink]: Disable all HDMI CEC functionality via [Off] or enable via [On]
 - [EasyLink Break-in]: TV shall disable auto tuning/switching to the connected HDMI CEC enabled source via [Off] or enable via [On] when device is plugged or switched on
 - [EasyLink Remote Control]: The keys from your TV RC will not be forwarded via CEC when [Off] or will be forwarded when [On]
 - [Easylink Application]: When [On], then TV shall forward the "Menu" key to the source if the device is HDMI CEC enabled and supports RC pass thru



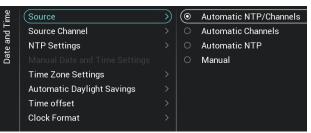
Note: Above menus are only available when [EasyLink] is set to [On]



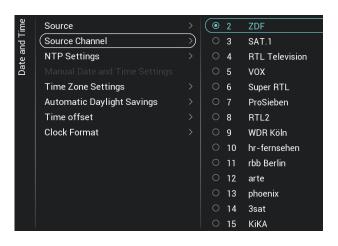
6.11 Date and Time



- Navigate to the [Date and Time] menu
- o You will see the screen on the left



- o Navigate to the [Source] menu
- You will see below items:
 - [Automatic NTP/Channels]: When selected, the clock extraction is performed from a NTP Server or Live Channels (RF & IP). The NTP has higher priority than Channels
 - [Automatic Channels]: Date and time is received via channels data (can be both RF or IP depending on the installed channels)
 - [Automatic NTP]: Date and time is received via the network
 - o [Manual]: Date and time is set manually but will not be remembered after a power cycle. This option can be used in combination with JAPIT or SerialXpress to set the clock on startup via commands

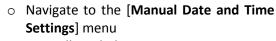


- o Navigate to the [Source Channel] menu
- You will see a list of installed channels, one item will be highlighted, this is the current selected channel where the TV will obtain the clock from





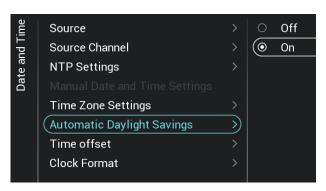
- o Navigate to the [NTP Settings] menu
- o You will see below items:
 - [NTP Source]: When selecting [Default] the TV will automatically look for the clock via the network, when [Custom NTP Server] is selected you will be able to set a custom NTP sever URL
 - [Custom NTP Server URL]: Set the link for a custom NTP Server URL



- You will see below items:
 - o [Date]: You can set the date manually
 - [Time]: You can set the time manually
 Note: Above menus are only accessible
 when [Source] is set to [Manual]

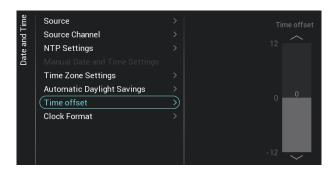


- (Time Zone Country Austria Time Zone Settin Australia Belgium Bosnia and Herzegovina Bulgaria Croatia Cyprus Czech Republic Denmark O Estonia Finland France Germany Greece
- Navigate to the [Time Zone Setting] menu <u>Note:</u> This menu in not accessible when [Source] is set to [Manual]
- You will see below items:
 - [Time Zone Country]: You can select the country where you are
 - [Time Zone Region]: You can change the region if multiple regions are available for your selected [Time Zone Country]

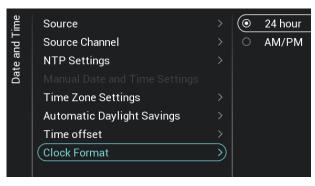


- Navigate to the [Automatic Daylight Savings] menu
 - <u>Note:</u> This menu in not accessible when [**Source**] is set to [**Manual**]
- You will see below items:
 - [Off]: Daylight saving time is disabled, no time correction will be applied while switching between winter and summer time
 - o [On]: Daylight saving time is enabled





- Navigate to the [Time offset] menu
 <u>Note:</u> This menu in not accessible when
 [Source] is set to [Manual]
- You will see a list to make a time offset per 30 minutes



- Navigate to the [Clock Format] menu
- o You will see below items:
 - [24 hour]: You can set the clock format to 24 hours format
 - [AM/PM]: You can set the clock format to AM/PM format

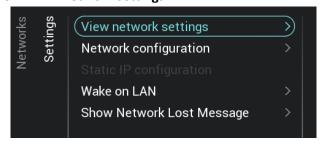
6.12 Networks

6.12.1 Network wizard



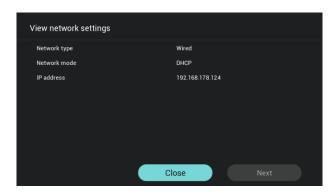
- Navigate to the [Networks] [Connect to Network] menu
- You will get the network wizard to connect to the network
 See chapter 'Network installation wizard' for more details about connecting to the network

6.12.2 Network settings



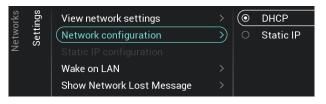
- Navigate to the [Networks] [Settings] menu
- o You will see the screen on the left



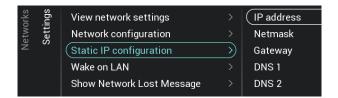




- You will get the network settings on your TV
- You can navigate to the next page to see more details



- Navigate to the [Network Configuration] menu
- o You will see below items:
 - o [DHCP]: Use DHCP to connect your TV
 - [Static IP]: Use Static IP to connect your



- Navigate to the [Static IP Configuration]
- You will see below items:
 - o [IP Address]: Set your IP Address
 - [Netmask]: Set your Netmask
 - [Gateway]: Set your Gateway
 - [DNS 1]: Set your DNS 1
 - o [DNS 2]: Set your DNS 2

<u>Note:</u> Above menus are only accessible when in [**Network Configuration**] you have selected [**Static IP**]



- o Navigate to the [Wake on LAN] menu
- o You will see below items:
 - o [Off]: Wake up via LAN is disabled
 - [On]: Wake up via LAN enables an external Server to wake up the TV from complete Standby (green) using the wired network connection.

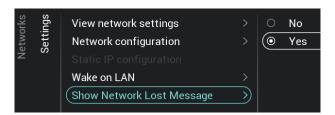
Once you wake up TV using WoL, the TV will go from green mode to fast mode





The yellow RJ48 Serial Xpress connector on the back side of TV is not the network connector



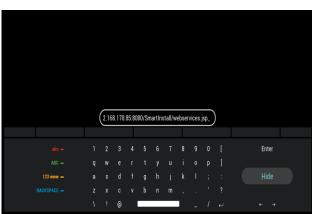


- Navigate to the [Show Network Lost Message] menu
- o You will see below items:
 - [No]: Disable to show a message when the network connection is lost
 - [Yes]: Enable to show a message when the network connection is lost

6.12.3 Network Control TV Over IP



- Navigate to the [Networks] [Control TV Over IP] menu
- You will see the screen on the left



- Navigate to the [Networks] [Control TV Over IP] [Webservices] menu
- Web Services is a mechanism to exchange information from the TV to the server. The TV will send below services to the server on a periodically
- You will see below items:
 - [Server URL]: This is the URL where the Web Services server can be found. This server will host the pages By default this URL is: http://SmartInstall.org:8080/webservices
 - .jsp

 To get your TV's detected in CMND you need to change

'SmartInstall.org' to the IP address of your CMND server. For example:

http://1.2.3.4:8080/webservices.jsp

- [TVDiscoveryService]: TV Discovery Service is the Web Service through which a Web Server will detect the presence of TVs in the IP Network using the TV Serial Number and Production code (and other data). You can put this option [Off] or [On]
- [ProfessionalSettingsService]:
 - Professional Settings Services allows changing or requesting the current Professional Settings Parameters. You can put this option [Off] or [On]
- [IPUpgradeService]: This will allow cloning and software update of the TV over IP via CMND, this can be put [Off] or [On]
- [SystemStatusService]: This will allow providing the Status of the TV and other



System that is interacting with the TV such as RemoteControl. You can request the RCType, RCBatteryStatus and the MultiRC setting, this can be put [Off] or [On]



- Navigate to the [Networks] [Control TV Over IP] [WebListeningServices] menu
- Web Listening Services is a mechanism to exchange information from the server to the TV. This enables a small server to run inside the TV that listens to services sent from the server.
- You will see below items:
 - [PowerService]: PowerService feature shall enable to remotely Request for the current status of the TV or change the Power Status of the TV, this can be put [Off] or [On]
 - [TVDiscoveryService]: TV Discovery Service is the Web Service through which a Web Server will detect the presence of TVs in the IP Network using the TV Serial Number and Production code (and other data). You can put this option [Off] or [On]
 - [IPUpgradeService]: This will allow cloning and software update of the TV over IP via CMND, this can be put [Off] or [On]

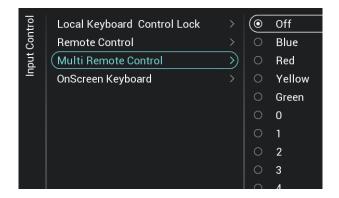


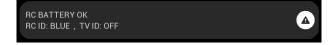
6.13 Input Control











- Navigate to the [Input control] [Local Keyboard Control Lock] menu
- o You will see below items:
 - o [Off]: All local keyboard buttons are enabled
 - [On]: All local keyboard buttons are disabled except for the power button
 - [All]: All local keyboard buttons are disabled including the power button



<u>Note:</u> Local keyboard buttons are the buttons on the backside of the TV

- Navigate to the [Input control] [Remote Control] menu
- o You will see below items:
 - [Lock]: The TV will not respond to any RC codes sent to TV by putting Lock to [On], normally this should always be [Off]



<u>Note:</u> Using the master RC you would still be able to enter in the professional menu and navigate in it

- [Watch TV RC Key Mapping]: You can map the "Watch TV" button on the RC to different sources (Channels, HDMI sources, USB Media Browser, DirectShare Media Browser)
- Navigate to the [Input control] [Multi Remote Control] menu
- This function allows that up to 14 televisions can be installed in a room whereas each TV will react to its own RC
- You will see a list of options ('Off', the 4 color keys and all digits)
- The TV will only react on the RC that is programmed linked to your selection
 - Note: The TV will still respond to the master RC
- Once the TV is set to some value other than [Off], also the RC should be programmed to the same selection to still work with the TV
- o How to program the RC:
 - Press and hold both the menu and the color button or digit button on the RC for about five seconds (You should not point the RC to the receiver on the TV)
 - To see the status of the remote control, while pointing at the TV, press and hold the "Mute" button for about five seconds until you get a notification on screen



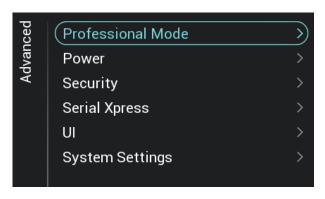
o You will see the battery status of the RC, the setting programmed in the RC (default = blue) and the setting in TV

Note: See also more details in chapter 'Remote control'



- Navigate to the [OnScreen Keyboard] menu
 - [Off]: OnScreen keyboard disabled
 - [On]: OnScreen keyboard enabled
 - Note: The OnScreen Keyboard enabled/disabled to be used for browser (URL) input eg.: making use of SmartInfo with URL input possibility

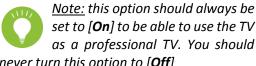
6.14 Advanced



- Navigate to the [Advanced] menu
- o You will see the screen on the left



- Navigate to the [Professional Mode] menu
- o You will see below items:
 - o [Off]: To put the professional mode Off, this means your TV is in consumer
 - [On]: To put the professional mode On, this means your TV is configured as a Hospitality TV



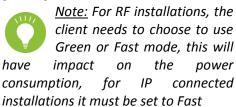
never turn this option to [Off]



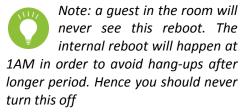
- o Navigate to the [Power] menu
- o You will see below items:
 - [Power On]: After a power reboot of the TV the TV will restart in [Standby] or in [On] mode, depending on the selection



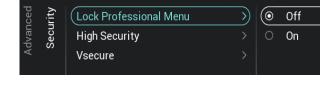
 [Standby Mode]: The TV will quickly turn on (higher power consumption in stand-by) when [Fast] is selected, TV will consume less power (but will have a slower startup time) when selecting [Green]



[Reboot Everyday]: You can select to reboot the TV once a day if set to [On] and your [Standby Mode] is set to [Fast], you should not put it to [Off] unless you build in your own reboot using custom dashboard.



- [Auto Standby]: If any value bigger than [0] is set, the TV will go to STBY by itself after 10 minutes if no video signal is there. If there is video signal, the TV will go to STBY if no user interaction is there for the time set using the slider between [30] and [240] minutes. You can also put this [0] to disable the TV to go to STBY.
- [LED Power indicator]: If [On], the power LED will be red while the TV is in standby. When [Off], there will be no power LED indication.
- Navigate to the [Security] menu
- o You will see below items:
 - [Lock Professional Menu]: When [On] you can set a 5 digits PIN code to lock the professional menu, when entering the professional menu using the key sequence you will need to enter the 5 digits, when [Off], this is disabled
 - [High Security]: When [On], the professional setup menu can only be accessed by the Master RC and not using the key sequence via a Guest RC, when [Off] you can use both

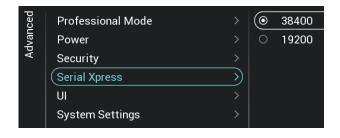




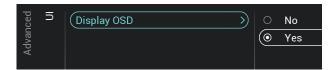
o _[VSecure]: VSecure encrypts the content between the headend and the TV in order to protect your copy protected content (DRM). If you are interested to use it, please contact the local Philips country sales manager.

Note: You can download the certificate of the TV needed for generating the encrypted VSecure keys via [Load Keys to USB] or via JAPIT or via SerialXpress.

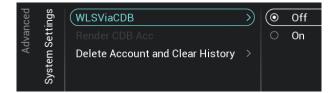
to USB] or via JAPIT or via SerialXpress.
To load the VSecure key in the TV it should have following naming: 'vseckeys.txt'



- o Navigate to the [Serial Xpress] menu
- o You will see below items:
 - [38400]: You can change the baud rate setting of the TV to 38400
 - [19200]: You can change the baud rate setting of the TV to 19200
 Note: It's recommended to use 38400 as default setting

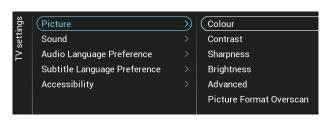


- o Navigate to the [UI] [Display OSD] menu
- You will see below items:
 - [No]: No OSD will be shown, you will not be able to enter any menu
 - [Yes]: All OSD and menus can be seen and accessed



- o Navigate to the [System Settings] menu
- o You will see below items:
 - [WLSViaCDB]: Using [On], you can enable WebListeningServices via CDB or disable using [Off]
 - [Render CDB Acc]: This menu is deprecated and will be removed trough SW upgrade
 - [Delete Account and Clear History]:
 This menu is to logout and clear your history

6.15 TV Settings



- Navigate to the [Advanced] menu
- o You will see the screen on the left



6.15.1 Picture



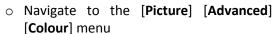
o Navigate to the [Picture] menu



Note: These settings will be applied when using the [Switch on Settings][Picture

Settings][Picture Style][Personal]

- You will see below items:
 - [Colour]: You can adjust the level of colour from black & white to the highest colour saturation using the slider
 - [Contrast]: You can adjust the level of contrast from the lowest to the highest colour distinction using the slider
 - [Sharpness]: You can adjust the level of sharpness of the picture from normal to exceptional sharpness by using the slider
 - [Brightness]: You can adjust the brightness of the picture by using the slider
 - o [Advanced]: See below in more detail
 - [Picture Format Overscan]: You can enable the picture overscan using [On] or disable using [Off]



- o You will see below items:
 - [Colour Enhancement]: Adjust the level of enhancement for colour intensity and details in bright colours between [Off], [Minimum], [Medium] or [Maximum]
 - [Colour Temperature]: Select a preset colour temperature [Normal], [Warm], [Cool] or select [Custom] to set a colour temperature setting
 - [Custom Colour Temperature]: You will see several sliders to adapt the colour settings
 Note: This is an expert user setting and should normally not be changed. It is only selectable when [Colour

Temperature] is set to [**Custom**]





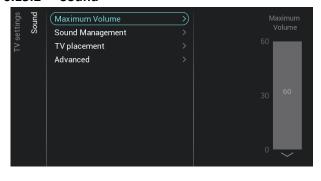


- Navigate to the [Picture] [Advanced] [Contrast] menu
- o You will see below items:
 - [Contrast Mode]: Select how the TV automatically reduces the contrast via [Off], [Standard], [Optimized for picture] or [Optimized for energy savings]
 - [Dynamic Contrast]: Set the level at which the TV automatically enhances the details in the dark, middle and light areas of the picture via [Off], [Minimum], [Medium] or [Maximum]
 - [Video Contrast]: Adjust the level of the contrast of the picture signal via the slider
 - [Gamma]: Set a non-linear setting for picture luminance and contrast via the slider



- Navigate to the [Picture] [Advanced][Picture clean] menu
- You will see below items:
 - [Noise Reduction]: Noise reduction filters out and reduces the image noise, you can put this [Off], [Minimum], [Medium] or [Maximum]
 - [MPEG Artefact Reduction]: MPEG artefact reduction smoothens the digital transitions in the picture, you can put this [Off], [Minimum], [Medium] or [Maximum]

6.15.2 Sound



- Navigate to the [Sound] [Maximum Volume] menu
- Set the maximum volume by changing the slider value, this will be the maximum volume that a guest can set on the TV



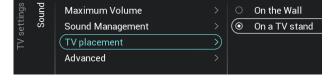
- Navigate to the [Sound] [Sound Management] menu
- You will see below items:
 - [TV Speakers]: You can set the TV to play sound on TV using [On] or on the connected audio system using



[Easylink Autostart] or you can disable the speakers using [Off]

<u>Note:</u> The audio system (supporting ARC) must be connected via HDMI

- [Headphone/Bathroom speakers]: No audio will be played via the Headphone/Bathroom speakers when [Off], it will be heard when [On] and a device is connected
- [Headphone/Bathroom Spk Fixed Vol]: When [On], the volume level of the Headphone/Bathroom speaker will be fixed to the Switch on Setting
- [Headphone Detection]: When the Headphone Detection is set to [On] and the headphone is connected then TV speakers shall be muted automatically. When [Off], the guest has to manually mute the TV speakers
- Navigate to the [Sound] [TV Placement] menu
- You will see [On the Wall] and [On a stand]. Depending on your selection you will optimize the sound acoustics of the TV for the placement of your TV
- Navigate to the [Sound] [Advanced] menu
- o You will see below items:
 - [Surround Mode]: Select the sound effect for the internal TV, you can choose [Stereo] or [DTS TruSurround]
 - [Auto volume]: Select [AVL] or [Night mode] if you want to enable to level out sudden volume differences or [Off] if you want to disable
 - [Clear Sound]: Select if you want to enable Clear Sound to improve the sound for speech [On] or [Off] if you want to disable
 - [Audio Out Format]: Set the audio out signal of the TV to fit with the sound capabilities of the connected Home Theatre System to [Stereo (uncompressed)], [Multichannel], [Multichannel (bypass)] or [Dolby Digital Plus]
 - [Audio Out Leveling]: Select the level out of the volume of the Home Theatre
 System and the TV when switching



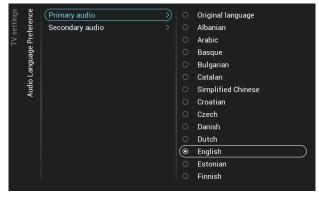




over from one to the other to [More], [Medium] or [Less]

 [Audio Out Delay]: Switch the delay if a sound delay is set on the Home Theatre System to [On] or [Off]

6.15.3 Audio Language Preference



- Navigate to the [Audio Language Preference] menu
- o You will see below items:
 - [Primary Audio]: Select the highest preference for audio language in broadcast
 - [Secondary Audio]: Select the next preference for audio language in broadcast

<u>Note:</u> For all the above items, make your selection and press "**OK**" to confirm you selection

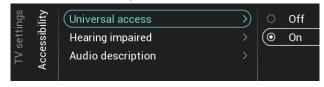
6.15.4 Subtitle Language Preference



- Navigate to the [Subtitle Language Preference] menu
- o You will see below items:
 - [Primary Subtitles]: Select the highest preference for subtitle language in broadcast
 - [Secondary Subtitles]: Select the next preference for subtitle language in broadcast
 - [Primary Text]: Select the highest preference for text language in broadcast
 - [Secondary Text]: Select the next preference for text language in broadcast

<u>Note:</u> For all the above items, make your selection and press "**OK**" to confirm you selection

6.15.5 Accessibility



- Navigate to the [Accessibility] menu
- You will see below items:
 - [Universal Access]: You can enable using [On] the universal access to activate special functions for hearing and visually impaired people or disable using [Off]





- [Hearing Impaired]: You can enable hearing impaired for adapted audio and subtitles if available using [On] or disable using [Off]
- O [Audio Description]:
 - [Audio Description]: Using [On] you can enable the accompanying audio commentary if available or disable using [Off]
 - [Speakers / Headphones]: Select [Speakers] if the sound should be available from speakers only, select [Headphones] if the sound should be available from headphone only. Select [Speakers + headphones] if the sound should be available on both.
 - [Mixed Volume]: Set the mix of normal audio and commentary audio by changing the slider value
 - [Audio Effects]: Switch [On] for extra audio effects in the commentary audio, there can be more information on when to fade/pan the Main Audio, while the audio description is being rendered along with main audio. This can also be turned [Off]
 - [Speech]: Select [Descriptive] to hear the audio commentary or select [Subtitles] to read the spoken words

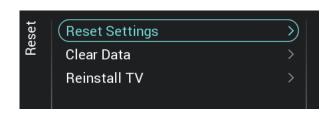


<u>Note:</u> Above menus are only available if

[Accessibility][Audio

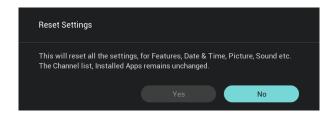
Description] menu is set to [**On**]

6.16 Reset

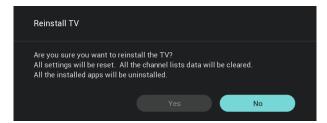


- o Navigate to the [Reset] menu
- o You will see the screen on the left









- Navigate to the [Reset Settings] menu
- When you press "OK" you will reset all settings to the factory settings except for some set specific settings like RoomID, professional mode, WebServices URL, channel list, professional menu pin lock and logging url. Installed android apps remain unchanged
- Navigate to the [Clear Data] menu
- When you press "OK" you will clear all data like the channel list, installed android apps, local smartinfo pages, local custom dashboard. The settings will not be reset
- Navigate to the [Reinstall TV] menu
- When you press "OK" you will Reinstall the TV, your TV will reboot and start in virgin mode (like the TV comes out of the box), all the settings will be reset to the factory settings except for RoomID, professional mode, WebServices URL, channel list, professional menu pin lock and logging url, all user data will be cleared



<u>Note:</u> You will see an erasing message for a while, all your settings will be reset and you will

have to load a new clone file to the TV or perform a virgin installation. This action can take several minutes.



6.17 Manage MyChoice

To manage MyChoice you have to go to the [**Professional Settings**] [**Features**] [**MyChoice**] menu. When you open this menu you will see the possibility to configure MyChoice. More information can be found on http://www.my-choice.tv/.



[Enable] allows you to configure the feature. Turned on [Yes] or not [No].

[Request for PIN] enables some control on the frequency that a guest will need to enter the PIN into to the TV.

If [Request for PIN] is set to [Yes] then the TV will request to enter the PIN code every time that the TV starts up from standby.

6.17.1 How does it work

In this manual we will cover only the configuration of MyChoice on the TV, all details about the account and credits are covered in a different manual. Please contact your Philips country sales manager to setup an account and buy the credits.

During the installation of the TV-sets, please collect the following information for each TV: Room number, TV model and serial number. These are required on MyChoice website when rooms are configured. Make sure that all values are correct because the MyChoice website is generating pin codes based on this information. You can gather all these details during the installation or by entering the CSM menu (you can get the needed info in a text file on USB, see chapter 'CSM (Customer Service Menu)') and afterwards enter them in the administration part of the MyChoice website.



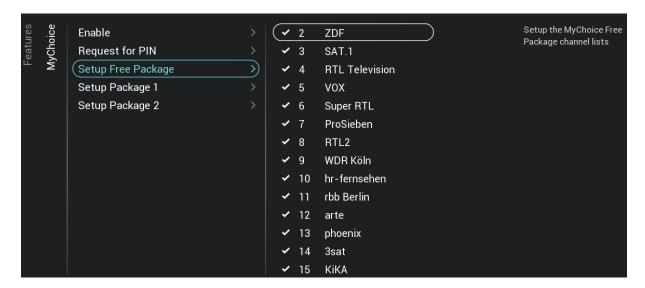
The most important step for MyChoice is the clock. If the clock is not defined or the TV doesn't have a valid clock, MyChoice will display the following message: 'MyChoice is not available at the moment'.



6.17.2 How to configure MyChoice

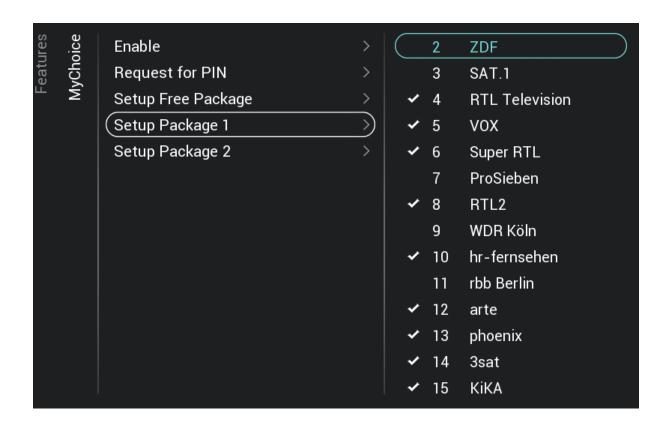
There are 3 packages available: 'Setup Free Package, 'Setup Package 1', and 'Setup Package 2'. By default all channels, externals and features are in the 'Setup Free Package' package.

Select in [Professional Settings] [Features] [MyChoice] the package [Setup Free Package]. Select the channels to be in the free package.



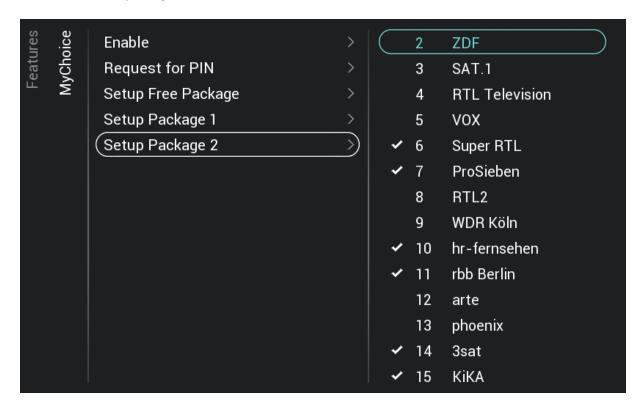
Select in [Professional Settings] [Features] [MyChoice] the package [Setup Package 1]. Select the channels to be in package 1.

By selecting a channel in the list of [Setup Package 1] the same channel will be "unselected" in the list of [Setup Free Package].

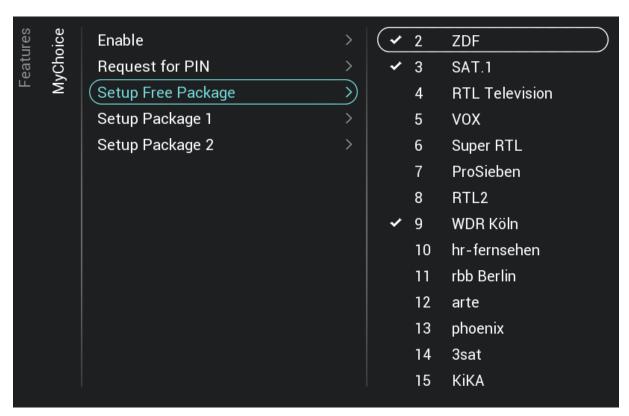




Select in [Professional Settings] [Features] [MyChoice] the package [Setup Package 2]. Select the channels to be in package 2.



By selecting a channel in the list of [Setup Package 2] the same channel will be "unselected" in the list of [Setup Free Package].





	Customers who have	Customers who have	Customers who have
	no PIN	PIN for Package 1	PIN for Package 2
Setup Free Package	Yes	Yes	Yes
Setup Package 1	No	Yes	No
Setup Package 2	No	No	Yes

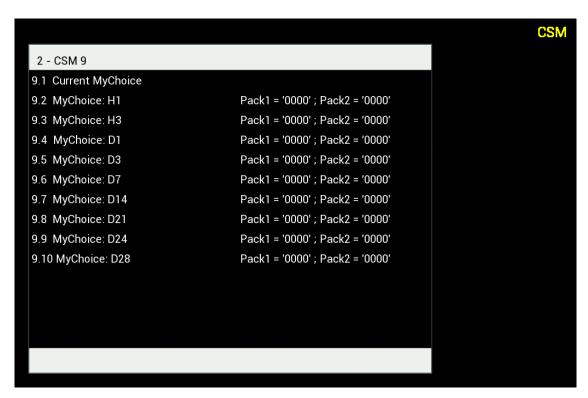
6.17.3 Platform specific

For this platform some additional durations were added. It will now be possible to unlock the MyChoice packages for a duration of 1 or 3 hours in addition to the existing 1, 3, 7, 14, 21, 24 and 28 days.

Compared to the previous platform the MyChoice packages are not mutually exclusive, meaning that it will be possible to activate both package 1 and package 2 at the same time. Please keep this in mind when creating the MyChoice packages as it requires a different mindset during the creation.

6.17.4 MyChoice RC commands

There are a couple of key combinations that can be used in relation to MyChoice. First of all if you are using MyChoice and you want to debug or get more information about current packages, how many keys are used per package and so on. You can open CSM menu and scroll down to the MyChoice CSM page 9.



If you have a location that has frequent room changes for instance like a hospital. It's possible to disable all currently active MyChoice subscriptions with the following key code "7 8 9 0 1 2 3".

This key combo will close all active packages. Pressing the key combo will also result in the current used PIN code to become invalid. To reactivate the same package on MyChoice a new PIN code will be required.



Note: In order to enter the keycodes a professional RC might be needed

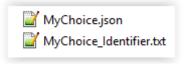


6.17.5 MyChoice remote activation

In an effort to automate the MyChoice activation process, we integrated a couple of new ways to enable MyChoice packages remotely on a TV.

The MyChoice PIN code has become part of the clone file which makes it possible to remotely activate any TV's MyChoice packages by flashing a new clone item.

In the MyChoice folder, you can find back two files. The identifier to check if the .json is newer than the one in the TV and the MyChoice.json. This file contains the commands the TV will interpret to either activate or deactivate MyChoice packages.



The XML is built up like the following in case you want to activate a package.

```
"Svc": "OfflineServices".
"SvcVer": "4.0",
"Cookie": 293,
"CmdType": "Change",
"Fun": "MyChoice",
"CommandDetails": {
 "OfflineServiceParameters": {
  "TVUniqueID": "xyz1235abxc",
  "RoomID": "45645"
 "MyChoiceParameters": {
  "Action": "StartMyChoice",
 "MyChoicePIN": "345323",
  "StartDate": "25/08/2019",
  "StartTime": "15:00",
  "StopDate": "26/08/2019",
  "StopTime": "15:00"
}
```

- → This represents TV's serial number
- → This represents TV's RoomID

To stop the MyChoice being available the XML will be built up similar to the following.

```
"Svc": "OfflineServices",
"SvcVer": "4.0",
"Cookie": 294,
"CmdType": "Change",
"Fun": "MYChoice",
"CommandDetails": {
  "OfflineServiceParameters": {
   "TVUniqueID": "xyz1235abxc",
   "RoomID": "45645"
   },
   "MyChoiceParameters": {
   "Action": "StopMyChoice"
   }
}
```



Besides the possibility to remote activate MyChoice using the clone and CMND. It will also be possible to activate MyChoice through JAPIT application. All details are explained in the CDB documentation that can be obtained after signing an NDA.

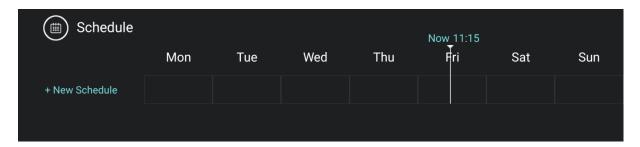


6.18 Manage Scheduler

Note: Some of the pictures below might be slightly different to the screens you will see on your TV related to SW versions. Functionality and different option stay the same as described in this chapter!

Navigate to the [**Professional Menu**] [**Features**] [**Scheduler**] menu, this function allows to set up 10 different schedules on same or different sources when the feature is enabled.

Navigate to the [Professional Menu] [Features] [Scheduler] [Manage] and open the menu

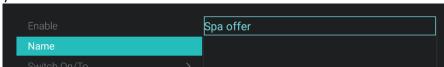


You can add a new schedule by selecting [New Schedule 1]



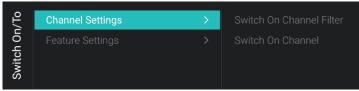
You will see below items:

- o [Enable]: You can disable the new Scheduler via [No] or enable it via [Yes]
- [Name]: You need to give a name to the new Scheduler. Once you changed the name to what you want the scheduler will be stored



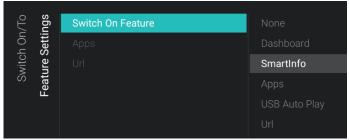
- o [Switch On/To]: You can select different switch On or To settings:
 - [Channel Settings]: Switch On/To related to channels:
 - [Switch On Channel Filter]: You can select between:
 - [All Channels]
 - [TV Channels]
 - [Radio Channels]
 - ... (list depends on your installation)
 - [Switch On Channel]: You can select specific Switch On channel



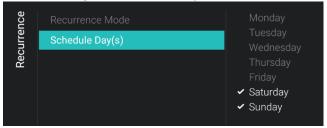


- [Feature Settings]: Switch On/To related to features:
 - [Switch On Feature]: You can select between:
 - [None]: no [Switch On Feature] will be activated
 - [Dashboard]: will activate the dashboard
 - [SmartInfo]: will activated the SmartInfo page or SmartInfo app
 - [Apps]: will activate an App
 - [USB Auto Play]: will automatically play all media files on the USB player
 - [Url]: will activate an URL and will activate the [Url] field to be able to select a specific URL
 - [Apps]: make your App selection out of the list of all installed Apps Note: [Apps] will only be selectable when [Switch On Feature] is set to [Apps]
 - [Url]: type in the URL to what website you want to open

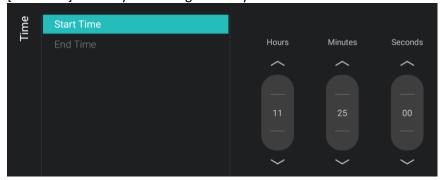
Note: [Url] will only be selectable when [Switch On Feature] is set to [Url]



- o [Recurrence]: You can define the recurrence settings
 - o [Recurrence Mode]:
 - [Once]: will only playback the defined scheduler one time per defined time and day
 - [Weekly]: will playback the defined scheduler every week at a number of days (additional day selection can be made with "Schedule Days")
 - [Schedule Day(s)]: select the days the schedule should be active based on your definition

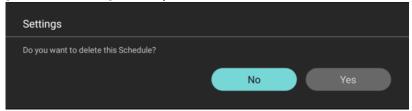


- o [Time]: define the start / end time of the schedule
 - o [Start Time]: define your starting time of your schedule
 - o [End Time]: define your ending time of your schedule





- o [Priority/Order]: shows the priority based on the list of defined schedules
- o [Delete Schedule]: allows you to delete the individual schedule from the scheduling list



o To get out of the wizard, press the "back" key on the RC

You will see an overview of the schedules you have created.



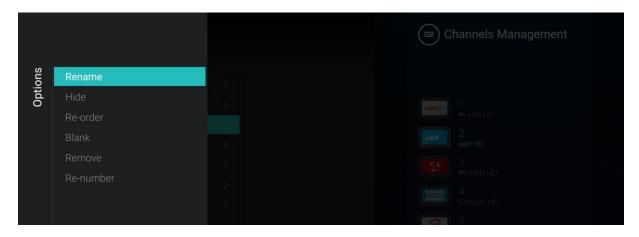
6.19 Manage Channels

Note: Some of the pictures below might be slightly different to the screens you will see on your TV related to SW versions. Functionality and different option stay the same as described in this chapter!

You can manage your channels, this means you can rename, reorder, hide/show, blank/non-blank the channels. This can also be done using CMND.

To manage your channels you have to go to the [**Professional Settings**] [**Channels**] [**Manage**] menu. When you open this menu you will get an overview of the installed channels.

Press "Options" on your remote to rename, hide/show, reorder or blank/non-blank channels.

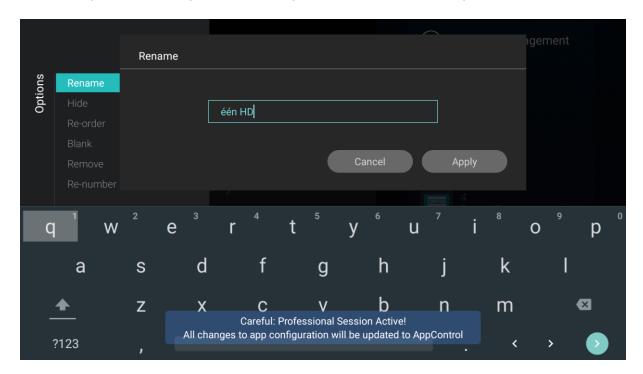


<u>Note:</u> If you are missing a channel logo, you can add the channel logo manually though CMND, you cannot do this through this menu.

6.19.1 Rename channels

Go to the manage channel list, select the channel you want to rename. Press "**Options**", select [**Rename channel**] to rename the channel.

Note: This option is not always available, it depends on the broadcaster requirements





6.19.2 Hide/Show channels

By using the hide/show channels, you will hide or show a channel in the channel list. Go to the manage channel list, select the channel you want to hide or unhide. Press "**Options**", select [**Hide**] (when channel is currently visible) or [**Show**] (when channel is currently hidden) to hide or show the channel. When you hide a channel, you will see an icon next to the channel name to indicate it's hidden.





6.19.3 Reorder channels

Go to the manage channel list and press "Options", select [Re-order].

- Navigate to the channel you want to reorder
- Press "OK" to select the channel, you will see an indication of the selected channel
- Navigate to the preferred location where you want to store the channel
- Press "OK" to move the channel to your selected location
- Navigate to the other channels you want to reorder and repeat above steps
- Press "Back" to exit the reordering



6.19.4 Blank/ Non-Blank channels

By using the blank/nonblank channels you will blank the video and audio from a channel but the channel will still be shown in the channel list. Go to the manage channel list, select the channel you want to blank or unblank. Press "Options", select [Blank] (when channel is currently unblanked) or [Non-Blank] (when channel is currently blanked) to blank or unblank the channel.

When you blank a channel you will see an icon next to the channel name to indicate it's blanked.

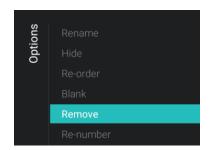


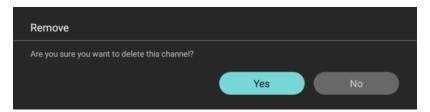




6.19.5 Remove channels

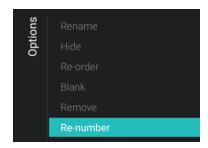
You can select a channel you want to remove and press "**Options**", select [**Remove**]. You will get a confirmation screen where you can select [**Yes**] to remove the channel from the list.



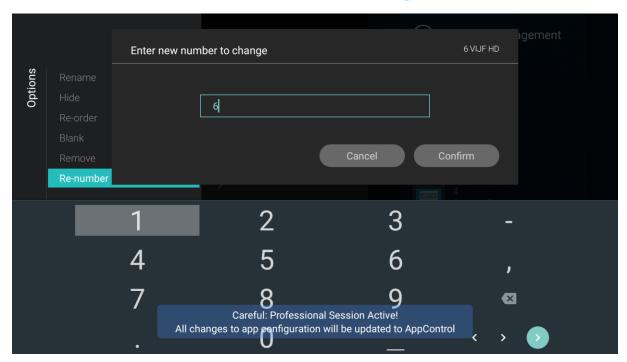


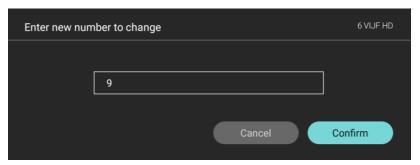
6.19.6 Re-number channels

Even if you cannot see the channel number in your TV, you can change the channel number. You will actually reorder the channels by changing the number. You need to select the channel you want to renumber and press "Options", select [Re-number] and you will see below screens to re-number the selected channel.









6.20 Channel installation wizard

6.20.1 Install RF channels

To install channels you have to go to the [Professional Settings] [Channels] [RF Channel Installation] menu. In this menu you can go to [Search for Channels] or do a [Digital: Manual Installation] or do an [Analogue: Manual Installation].

Using the [Search for Channels] you will be able to do a full channel installation. You will get below screens after starting the installation.

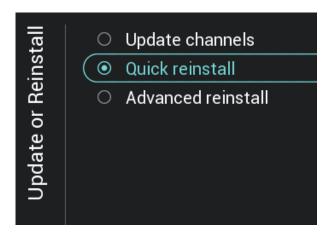
<u>Note:</u> Some screens will be shown depending on your settings or selections made, some screens will not be shown. Also the content of the screens is depending on your selections

Note: Both SPTS and MPTS (Single and Multiple Program Transport Stream) are supported

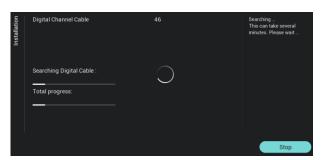


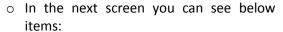
 You can [Start now] to start the installation or [Cancel] to exit back to TV last status



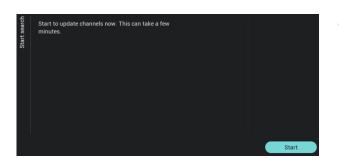








- [Update Channels]: This is to only update the digital channels
- [Quick reinstall]: This is to install all channels with default settings
- [Advanced reinstall]: This is to do a full re-installation which takes you through each step including changing the installed country
 - <u>Note:</u> Both reinstall options will replace the current channel list
- When selecting [Update Digital Channels] you will need to press [Start] to start the update, next you will see that the TV is searching for updates. Once done it will give you an overview of how many digital channels have been added or removed. You can press [Done] to close and go back to TV last status





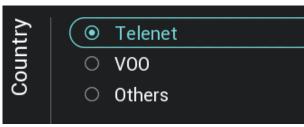
• When selection [Quick reinstall] you will see that the TV starts searching to find channels based on your default settings. First it will search for digital channel, after for analogue channels (if enabled in the settings). Once done it will give you an overview of how many digital channels have been added or removed. You can press [Done] to close and go back to TV last status





 [Advanced reinstall] is what you need to go through the complete wizard. This is also the default wizard you should get the first time.

First you will need to make a country selection

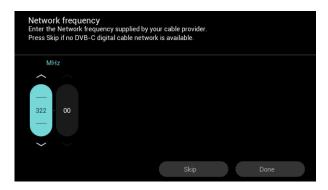


 In the next screen you need to select the Cable operator

Note: This list is country dependent



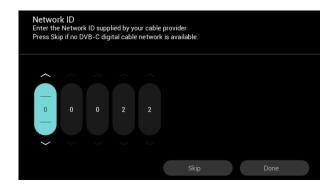
O In the next screen you can [Start] or change the installation [Settings], these settings are also available in the professional menu. If you have changed the setting you can return back using the color keys as indicated on the screen <u>Note:</u> By default [Quick Scan] is used, you need to change the setting if you want to do a full scan



 Next, you need to set the Network Frequency and the Network ID. If you [Skip] the installation will just start the channel installation

<u>Note:</u> The default values (if these screens are shown) are depending on the selected operator









- Once all settings are done the TV will start searching channels
- Once done you will see the result of the search being the amount of channels found
- Using [Done] the wizard you will exit the menu and TV will tune to the first installed channel

6.20.2 Install IP channels

IP channels cannot be searched for. You need to have a list of IP streams you want to install. See chapter "IP TV installation" to know how to install IP Channels.

6.20.3 Install media channels

Media channels are local files uploaded in TV that can be installed as a media channel. See chapter "Examples" on how to install media channels.

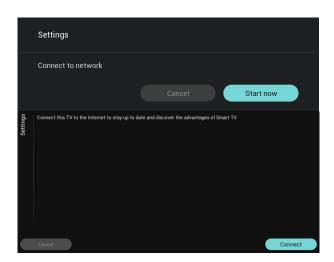
It is not possible to add a video stream over the internet as a channel. This has to be done using a webpage or a video player app.

6.21 Network installation wizard

To connect to a network you have to go to the [Professional Settings] [Networks] [Connect to Network] menu.

<u>Note:</u> Some screens will be shown depending on your settings or selections made, some screens will not be shown





- You can [Start now] to start to connect to the network or [Cancel] to exit back to TV last status.
- You can [Connect] to make the connection or [Cancel] to exit back to TV last status



- While 'Connect' is selected you will go to the next screen where you will see a message that the router is contentiously scanned until a network connection is found
- Once a network is connected you will see a screen that the TV is successfully connected
 - Note: In case the connection fails you need to check the network cable and your network settings in the network itself.





The yellow RJ48 Serial Xpress connector on the back side of TV is not the network connector



6.22 SmartInfo

SmartInfo can be set as Switch On Feature. This means that the TV will start up on the SmartInfo you have created and loaded in TV. SmartInfo can also be opened using the info button on the RC or via recommended in the guest menu.

6.22.1 SmartInfo Browser

When [Professional Settings][Features][SmartInfo][Mode] is set to [Browser] the TV will run an HTML5 capable browser to render your created SmartInfo Pages.

These pages can be used to display information about the installed location. For example you can display the restaurant's menu, give the guest an overview of the installed channels on the TV, explain the hotels' services and so on.

The easiest way to create SmartInfo pages is through CMND. It can also be done with any HTML5 compliant design tool.

You can adapt the tiles using CMND or manually by editing the SmartInfoBrowserMetaData.xml file from the SmartInfo files and the related files.

To use the SmartInfo Pages, the content needs to be stored in the clone file in the following location: ...\MasterCloneData\SmartInfoBrowser\

The SmartInfo Pages can be hosted on 3 different locations:

• USB:

The first option is to store your SmartInfo Pages on an USB drive connected to the TV. This scenario is more likely to be used in a central location like the reception where they need to change content on a regular basis.

Due to possible theft of the USB drives when connected in guest rooms we wouldn't recommend this option for a complete installation.

• Local:

Second option is to store the content locally on the TV's flash memory. This is the preferred option and this can easily be changed using CMND.

<u>Note:</u> always check the maximum file size to keep some free space in the TV's memory after configuring the complete TV

• Server:

The third option would be to use a server setup. This will allow you to host one page for all the TV'S on the premise.

This option is can be of interest for the following installations:

- \circ In case you want to add functionality based on using the JAPIT API
- Ease of maintenance, it just requires to change the server page to deploy a new version of the page towards all the devices

One thing to keep in mind in this scenario is the network. Make sure it can cope with the traffic. In case there is a loss of network for any reason whatsoever then the TV will not be able to display the SmartInfo page anymore.



7. IP TV installation

7.1 Setup

It's strongly advised to use fast mode in combination with IPTV because the boot time otherwise will be too slow.

There are some limitations for the multicast stream that can be tuned:

- TS stream needs to be compatible with DVB standard
- Maximum bit rate 18Mbps
- Encapsulation of 7TS packets per IP frame. Preferably, each UDP packet must contain exactly 7 data chunks otherwise the packet is not parsed and it will get lost
- Multicast addresses need to be within following range: from 224.0.0.0 to 239.255.255.255
- Duplex mode on the switches can be set to full duplex but automatic is recommended, as older products do not support full-duplex mode. When the duplex mode is set to automatic, the mode is determined after negotiation between the TV and switch

7.2 Settings for installing IPTV

To set up an IPTV installation you need to go through the virgin installation as described in the chapter 'Virgin installation wizard'.

After this you need to apply following settings as described in the chapter 'Professional settings':

- [Dashboard] [Select Dashboard] → [Philips Home]
 Philips Home is comparable with the default dashboard from previous products.
- [Date and Time] [Source] → [Automatic NTP/Channels]
- [Advanced] [Professional Mode] → [On] (never turn this [OFF])
- [Advanced] [Power] [Standby Mode] → [Fast]
 Setting up this option on Green will reduce the energy consumption in standby, but will increase the startup time dramatically
- [Channel][Channel Settings][IGMP Version for Multicast Channels]
 By default, IGMP version 2 will be used. When the switches are configured to a different IGMP version, it is recommended to set the correct version in this menu, as this will improve the zap time.
- [Networks] [Control TV Over IP] [WebServices]

Note: Below settings are to be able to control the TV's using CMND

- o [Server URL]: Set the URL correct to get the TV's detected in CMND
- o [TVDiscoveryService] → [On]
 - This is the web service through which a web server will detect the presence of TVs in the IP network using the TV serial number or production code (and other data). This is achieved by the TV polling the web service server periodically. For the server to identify the TV uniquely, the TV details or parameters are being passed to the server
- o [ProfessionalSettingsService] → [On]
 - This allows changing or requesting the current professional settings parameters. It is similar to WIxP's professional settings control, except that mechanism used here is web services, instead of WIxP
- o [IPUpgradeService] → [On]
 - This will allow cloning and software update of the TV over IP via CMND <u>Note:</u> There is no longer need to change your setting for upgrade over IP or RF. Both will be checked automatically.
- [SystemStatusService] → [On]



7.3 Installing IP Channels

Open the ChannelList.xml file as described in the chapter 'ChannelList.xml in the clone file'.

For each IP channel in your network, an xml element needs to be inserted within the <ChannelMap></ChannelMap> brackets with the following format: (The green elements are the ones that need editing)

```
<Channel>
  <Multicast url="[cast mode]://[ipaddress]:[port]/0/0/0/VBR"></Multicast>
  <Setup presetnumber="[number]" name="[channel name]" blank="0" skip="0" FreePKG="0" PayPKG1="0" PayPKG2="0" logo=""
TTV1="0" TTV2="0" TTV3="0" TTV4="0" TTV5="0" TTV6="0" TTV7="0" TTV8="0" TTV9="0" TTV10="0"></Setup>
</Channel>
```

The fields to be filled in are:

- [cast mode]: used mode to receive the stream, the possible modes are: "multicast", "unicast".
- [ipaddress]: A standard IPv4 address
- [port]: The port number in decimal form

 For example: url="multicast://239.232.209.122:50000/0/0/VBR"
- [number]: The channel number in decimal form, make sure you don't have duplicate channel numbers

For example: presetnumber="1"

[channel name]: The channel name as a string in text form
 For example: name="Fen"

As an end result you have for example:

```
<Channel>
<Multicast url="multicast://239.232.209.112:50000/0/0/VBR"></Multicast>
<Setup presetnumber="1" name="Een" blank="0" skip="0" FreePKG="0" PayPKG1="0" PayPKG2="0" logo="file://default/3727.png"
TTV1="0" TTV2="0" TTV3="0" TTV4="0" TTV5="0" TTV6="0" TTV7="0" TTV8="0" TTV9="0" TTV10="0"></Setup>></Setup></Channel>
```

After you have made your channel list, you have to clone USB to TV again. *Note:* This can also be done using CMND channel editor.

In case you are missing channel logo's you can do an RF channel installation without having a cable connected. You will be able to set the country in order to maybe have more logo's available. I you are still missing logo's after this you can manually add them as explained in the chapter "Examples".

7.4 IP over RF cable using DOCSIS

The DOCSIS Cable Modem is the perfect choice for delivering high-speed Internet access to the TV without any major renovation. By reusing the existing RF Cable infrastructure to distribute IP network signals to the TV, the installation is quick, straight-forward and does not force you to shut down a part of your operations for a longer period. In combination with our Professional TV series, you instantly upgrade the room to the highest level of digital interaction.

For more details you can contact your Philips country sales manager and ask for more details about this DOCSIS 22AV1970A/12 model.



8. Make TV visible in CMND

This chapter describes the TV settings to connect to a CMND server over IP or RF. For the CMND settings please refer to the CMND manual on http://www.cmnd.io. You at least need CMND 7.

8.1 Connect the TV via IP

8.1.1 Change the TV settings

The TV can connect to the CMND server via IP by setting the correct Server URL. This URL can be set on the TV by going to the Professional Settings and navigating to [Networks] [Control TV over IP] [Server URL].

By default, the Server URL will be "http://SmartInstall.org:8080/webservices.jsp". To connect the TV to CMND this URL must be changed by replacing "SmartInstall.org" with the IP address of the CMND server. For example when the IP address of the CMND server is "192.168.1.50", the resulting Server URL will be "http://192.168.1.50:8080/webservices.jsp".

Once this Server URL is correct and below recommended settings are used, the TV will appear in CMND. Recommended Professional Settings:

- [Upgrade and Clone][Auto Upgrade Settings][Auto Upgrade and Clone] = [On]
- [Advanced][Professional Mode] = [On] (never turn this [OFF])
- [Advanced][Power][Standby Mode] = [Fast]
- [Networks] [Control TV Over IP]
 - O [WebServices] [TVDiscoveryService] = [On]
 - O [WebServices] [ProfessionalSettingsService] = [On]
 - [WebServices] [IPUpgradeService] = [On]
 - O [WebServices] [PMSService] = [On]
 - O [WebServices] [SystemStatusService] = [On]
 - O [WebListeningService] [PowerService] = [On]
 - O [WebListeningService] [TVDiscoveryService] = [On]
 - O [WebListeningService] [IPUpgradeService] = [On]
 - O [WebListeningService] [PMSService] = [On]

8.1.2 Use a DNS server

It is not mandatory to change the Server URL as mentioned above. As the default Server URL is "http://SmartInstall.org:8080/webservices.jsp" it is possible to redirect the TV to "http://192.168.1.50:8080/webservices.jsp" by resolving the "SmartInstall.org" domain to the CMND IP address via a local DNS server, when one is available.

8.1.3 URL fallback mechanism

The URL fallback mechanism is a new mechanism to find the CMND server, which is triggered when the TV is unable to receive a valid CMND response when it is using the URL of [Server URL]. When triggered, the TV will try to find the CMND server by using the first 10 and last 10 IP addresses of the TV range.

For example when the TV has the following IP configuration:

• IPv4 address: 192.168.103.115

• Subnet mask: 255.255.255.0

Default gateway: 192.168.103.1

• The resulting fallback URLs will be:



First 10	Last 10
http://192.168.103.1:8080/webservices.jsp	http://192.168.103.245:8080/webservices.jsp
http://192.168.103.2:8080/webservices.jsp	http://192.168.103.246:8080/webservices.jsp
http://192.168.103.3:8080/webservices.jsp	http://192.168.103.247:8080/webservices.jsp
http://192.168.103.4:8080/webservices.jsp	http://192.168.103.248:8080/webservices.jsp
http://192.168.103.5:8080/webservices.jsp	http://192.168.103.249:8080/webservices.jsp
http://192.168.103.6:8080/webservices.jsp	http://192.168.103.250:8080/webservices.jsp
http://192.168.103.7:8080/webservices.jsp	http://192.168.103.251:8080/webservices.jsp
http://192.168.103.8:8080/webservices.jsp	http://192.168.103.252:8080/webservices.jsp
http://192.168.103.9:8080/webservices.jsp	http://192.168.103.253:8080/webservices.jsp
http://192.168.103.10:8080/webservices.jsp	http://192.168.103.254:8080/webservices.jsp

<u>Note:</u> when the CMND server is found via the URL fallback mechanism, the [**Server URL**] is not modified, this can only be done via the Professional Settings menu or via clone update.

8.2 Connect the TV via RF

Via RF, the TV does not report to the CMND server similar to IP because of the one-way communication from CMND to TV. However, there is one important setting on the TV, namely the frequency on which TV will start the update scan (this needs to match with CMND server). This frequency can be set in the [Professional Settings] [Upgrade and Clone] [RF Upgrade Settings] [Frequency] and by default, it is 498MHz.

Recommended Professional Settings:

- [Upgrade and Clone] [Auto Upgrade Settings] [Auto Upgrade and Clone] = [On]
- [Advanced] [Professional Mode] = [On] (never turn this [OFF])

With above settings, the TV will check on the frequency set in the RF upgrade settings (498MHz). When a CMND stream is detected, the TV will download the data and when a CMND stream is not detected, the TV will do a frequency sweep to find the CMND stream.

Check the [Professional Settings] [Upgrade and Clone] [RF Upgrade Settings] [ScanMode] for more details when exactly the scanning is happening.



9. Custom Dashboard

A custom dashboard or CDB is a method to replace the default UI of the TV with a custom UI. With a custom dashboard, it is possible to create a look and feel that matches the theme of the hotel/hospital/... or to add extra features like video on demand. The custom dashboard can be a webpage or an Android app.

9.1 Browser based custom dashboard

Only a browser based custom dashboard can be loaded on this TV, it is a webpage that is hosted on a server or stored locally on the TV. To develop such a webpage, the same skill set is required as with any other website development. The TV can be controlled from the webpage, to tune to a channel for example, via JSON commands. These JSON commands are described in the JAPIT documentation. All details are explained in the CDB documentation that can be obtained after signing an NDA. For more information, please contact us through the ticketing system.



10. Examples

10.1 Custom channel logos

10.1.1 How to extract the channel logos

You can extract the channel logos from the TV in following way:

- Insert an empty USB stick into the TV and enter the Professional Settings
- In the Professional Settings, navigate to [Upgrade and Clone][Clone TV to USB] and start the clone out
- When the clone out has finished, close the dialog and extract the USB stick
- Open the clone folder on the USB stick and go to the ChannelList folder: \TPM187HE_CloneData\MasterCloneData\ChannelList\

The ChannelList folder will contain the following folders and files:

■ ChannelLogos	Contains the channel logos
ChannelList.xml	Contains all the details of each channel and must be modified when adding a custom channel logo or theme icon
ChannelList_Identifier.txt	Single line of text to identify the channel list

10.1.2 How to add custom channel logos

Channel logo requirement:

Resolution: 320x180File type: PNG or JPG

You can add a custom channel logo in TV in the following way:

- Extract the clone from the TV to a USB stick
- When the clone out has finished, close the dialog, extract the USB stick
- Copy the custom channel logo PNG into the clone. In this example the "Philips.png" file was copied to
 - "\TPM187HE_CloneData\MasterCloneData\ChannelList\ChannelLogos\custom\Philips.png"
- Open the ChannelList.xml in a text editor (like Notepad++) and modify the ChannelList.xml to link the preset to the custom channel logo, by changing the logo attribute and make sure the correct path is used. See below example, preset 1 contains a default channel logo and preset 2 contains a custom channel logo, notice the different paths

Preset	Channel name	Logo path	Logo
1	één HD	logo="file://default/3727.png"	één
2	Philips	logo="file://custom/Philips.png"	PHILIPS

Below screenshot is a typical example how the ChannelList.xml will look like.



- Make sure all changes are saved and Clone in the new clone file in the TV
- When the clone in has finished, close the dialog, extract the USB stick and view the new channel logos.

10.1.3 Improper scaled channel logo in the Channels overview

The Home screen and Channels overview use the same channel logo file but for the Channels overview, the logo is downscaled to 136x104. This automatic down scaling can lead to improper logos in the Channels overview, which can be avoid by adding a custom downscaled channel logo.

To do this the channel logo file must be in both the parent and "highRes" folder of the "ChannelLogos" folder. See below example:

- The "Philips.png" file is not available in the "highRes" folder of the custom channel logos folder and thus the TV will down scale the "Philips.png" file found in the parent folder for the Channels overview.
- If the png file is available in both the parent and "highRes" folders and thus the TV will use the "highRes" png file for the Home screen and the parent png file for the Channels overview
- ChannelList
 ChannelLogos
 custom: referred as the parent folder for custom channel logos
 highRes
 Philips.png: logo, which will be used in the Home screen and
 Channels overview
 Themelcons
 custom
 default

10.2 ChannelList.xml in the clone file

After you have set your settings correctly you can clone TV to USB to change the channel list. The channellist can be edited via CMND or you can do this using an xml editor tool.

The folder name used in the root of the USB device containing the clone data: TPM187HE_CloneData/MasterCloneData/

Go to the ChannelList.xml file: .../MasterCloneData/ChannelList/ChannelList.xml to edit the channel list manually.

In below example, the file after a virgin installation:



```
</Channel>
  <Channel>
  <Source type="HDMI2" />
  <Setup presetnumber="2" name="HDMI 2" blank="0" skip="0" FreePKG="1" PayPKG1="0" PayPKG2="0" logo="" TTV1="0" TTV2="0"</p>
TTV3="0" TTV4="0" TTV5="0" TTV6="0" TTV7="0" TTV8="0" TTV9="0" TTV10="0" />
</ChannelMap>
 <ApplicationMap>
  <Application>
  <App Type="Native" AppName="MediaBrowser" />
  <Setup name="USB Devices" FreePKG="1" PayPKG1="0" PayPKG2="0" />
  <Application>
  <App Type="Native" AppName="YouTube" />
  <Setup name="YouTube" FreePKG="1" PayPKG1="0" PayPKG2="0" />
 </ApplicationMap>
<ThemeTV />
</TvContents>
```

10.2.1 Add an RF channel in the ChannelList.xml

Open the ChannelList.xml file as described in the chapter 'ChannelList.xml in the clone file'. For each RF channel you want to add you need to add an xml element within the <Channel></Channel> bracket.

Some examples:

```
<Channel>
   <Broadcast medium="analog" frequency="203250" system="west" serviceID="41795" ONID="65535" TSID="17056"</p>
modulation="auto" symbolrate="0" bandwidth="Auto" servicetype="TV" />
   <Setup presetnumber="10" name="EEN" blank="0" skip="0" FreePKG="1" PayPKG1="0" PayPKG2="0" TTV1="0" TTV2="0" TTV3="0"</p>
TTV4="0" TTV5="0" TTV6="0" TTV7="0" TTV8="0" TTV9="0" TTV10="0" />
  </Channel>
  <Channel>
   <Broadcast medium="dvbc" frequency="825937" system="west" serviceID="1" ONID="1" TSID="6" modulation="auto"</pre>
symbolrate="6876000" bandwidth="Auto" servicetype="TV" />
   <Setup presetnumber="11" name="één HD" blank="0" skip="0" FreePKG="1" PayPKG1="0" PayPKG2="0" TTV1="0" TTV1="0" TTV2="0"
TTV3="0" TTV4="0" TTV5="0" TTV6="0" TTV7="0" TTV8="0" TTV9="0" TTV10="0" />
  </Channel>
  <Channel>
   <Broadcast medium="dvbc" frequency="801937" system="west" serviceID="927" ONID="1" TSID="3" modulation="auto"</p>
symbolrate="6877000" bandwidth="Auto" servicetype="Radio" />
   <Setup presetnumber="12" name="Rock Alternative" blank="0" skip="0" FreePKG="1" PayPKG1="0" PayPKG2="0" TTV1="0"</pre>
TTV2="0" TTV3="0" TTV4="0" TTV5="0" TTV6="0" TTV7="0" TTV8="0" TTV9="0" TTV10="0" />
  </Channel>
   <Broadcast medium="dvbt" frequency="490000" system="west" serviceID="1537" ONID="8442" TSID="6" modulation="auto"</p>
symbolrate="0" bandwidth="8MHz" servicetype="TV"></Broadcast>
   <Setup presetnumber="13" name="TF1" blank="0" skip="0" FreePKG="1" PayPKG1="0" PayPKG2="0" TTV1="0" TTV2="0" TTV3="0"</pre>
TTV4="0" TTV5="0" TTV6="0" TTV7="0" TTV8="0" TTV9="0" TTV10="0"></Setup>
  </Channel>
```

10.2.2 Add a media channel in the ChannelList.xml

Open the ChannelList.xml file as described in the chapter 'ChannelList.xml in the clone file'. For each media channel you want to add your need to add an xml element within the <Channel></Channel> bracket.

Make sure you place the media files you want to use in the correct folder of your clone file: TPM187HE_CloneData/MasterCloneData/MediaChannels/

You can check if the codec of the file is supported via the USB media browser. If you are able to play the files you want to use as media channel then you should be able to use them as media channel.

Some examples:

<Channel>



10.2.3 Add an IP channel in the ChannelList.xml

Open the ChannelList.xml file as described in the chapter 'ChannelList.xml in the clone file'. For each IP channel you want to add your need to add an xml element within the <Channel></Channel> bracket.

```
<Channel>
<Multicast url="multicast://239.232.209.112:50000/0/0/VBR"></Multicast>
<Setup presetnumber="1" name="Een" blank="0" skip="0" FreePKG="0" PayPKG1="0" PayPKG2="0" logo="file://default/3727.png"
TTV1="0" TTV2="0" TTV3="0" TTV4="0" TTV5="0" TTV5="0" TTV7="0" TTV8="0" TTV9="0" TTV10="0"></Setup>
</Channel>
```

10.3 RoomSpecificSettings in the clone file

RoomSpecificSettings are used to automatically set the RoomID and Multi RC setting based on TV serialnumber. This file needs to be created, but after that the same clone can be used on the same location.

The folder name used in the root of the USB device containing the clone data:

TPM187HE_CloneData/MasterCloneData/
Go to the room specific via .../MasterCloneData/RoomSpecificSettings/RoomSpecificSettings.xml

In below example, you see 3 TV's in the list, all with a different settings linked to the serial number. Note that you see 2 times the same room number but with a different MultiRemoteControl code.

```
<?xml version='1.0' encoding='UTF-8' ?>
<RoomSpecificSettings>
<SchemaVersion MajorVerNo="1" MinorVerNo="0" />
  <SerialNumber>FZ1A1925000001</SerialNumber>
 <item>
  <Name>Identification Settings.RoomID</Name>
  <Value>00100</Value>
  </item>
 <item>
  <Name>Input Control.Multi Remote Control</Name>
  <Value>off</Value>
 </item>
 </TV>
 <TV>
 <SerialNumber>FZ1A1925000002</SerialNumber>
  <Name>Identification Settings.RoomID</Name>
  <Value>00101</Value>
 </item>
  <Name>Input Control.Multi Remote Control</Name>
  <Value>0</Value>
 </item>
 </TV>
 <TV>
```





10.4 LocalCustomDashboard in the clone file

After you have set your settings correctly you can clone TV to USB to add your local custom dashboard.

The folder name used in the root of the USB device containing the clone data: TPM187HE_CloneData/MasterCloneData/

Go to the local custom dashboard via .../MasterCloneData/LocalCustomDashboard/

In the [Professional Settings], when [Dashboard][Select Dashboard] is set to [Custom Dashboard (Browser Based)] you can set [Source] to [Local]. In this case the TV shall load the custom dashboard from the flash memory if available.

By default the TV shall not have any pages in the flash when coming out of factory.

If in the [Professional Settings], [Dashboard][Fallback] is set to [Off], then the TV shall fall back to the default dashboard if there is no network connection to the server.

If it is set to [On], the LocalCDB will be loaded when Server cannot be reached.

If in the [Professional Settings], [Dashboard][Select Dashboard][Custom Dashboard (Browser Based)][Source] is set to [Server] and the TV is unable to connect to the configured server then it shall fall back to the custom dashboard stored locally, [Dashboard][Fallback] is set to [On] along with valid fallback files.

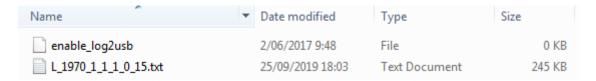
You need to make sure that the files in the /LocalCustomDashboard/ folder are HTML5 compliant along with the JAPIT WIXP plugin.

10.5 Capture logs from TV on USB

Sometimes if you would have a problem, it can be requested by the technical team to share a clone file and logs of the issue you have reported.

To make logs you need to do following steps:

- Create a new text file on a FAT32 formatted USB stick
- Rename the "New Text Document.txt" file to "enable_log2usb" (without any ending, even not .txt)
- Connect the USB to TV
- Reproduce the problem you have
- Send 456789 i+ (notification should be seen that it's save to disconnect the USB), in case you
 do not have a RC with digits you put the TV to STBY and power off the TV
- After reproduction is done, disconnect the USB stick again from TV and zip the "text file" added to the USB stick and share it with the technical team







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