
















# Digital-TV-Box DCB-101



## Quick reference

-  On/Off (standby).
-  Numeric keys to select programmes and to change menu values.
-  (P+) Step to the next programme position.
-  (P-) Step back to the prior programme position.
-  (GUIDE) Opens a menu guide for programmes and interactive services.
-  (INFO) Display on-screen information of what you are viewing just now.
-  (RADIO) Direct access to the radio menu. In radio mode the present time is displayed on the screen.
-  Access to the basic technical menus.
-  These 4 buttons are used for navigating in the menus.
-  Confirms choice in menus.
-  (QUIT) Exit menu/service.
-  (RETURN) Back to previous menu.
-  (MUTE) Audio On/Off.
-  (VOLUME) Increase or decrease audio volume.
-  Shift between the Box, TV and VCR.



■ DCB-101 is the key to the new digital technology with transmission of multimedia services via the cable-TV-network. It opens up to a whole new world of information in your home.

■ DCB-101 can apart from receiving ordinary TV-programmes and digital radio also be used as a modern information medium for the entire family. Bank errands, home shopping, games and Internet are all functions that you in the near future will be able to handle on the cable-TV-box.

■ DCB-101 develops constantly as your cable-TV-operator automatically upgrade your box with new software and functions. This happens automatically via the cable-TV-network.

**CABLE-TV**



**QUALITYYOU**

**SEE, FEEL AND HEAR**



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## Foreword

The DCB-101 is in general terms designed and operates as a computer, where basic functions for keys, remote control, menu system etc. are factory downloaded.

This manual describes the basic functions of the digital-box. As the software that is controlling the digital-box can be upgraded via the cable-TV-network, we reserve ourselves against the fact that functions described in this manual in time may change.

The manual is only scraping on the surface when describing all connection possibilities and multimedia services that the digital-box can handle. This because all services are changeable and completely dependent on what functions and services your cable-TV-operator chooses to provide.

The digital-box has a built in decoder and card reader. To view and use encrypted programmes and services a viewing card "smart card" is required. This card is subscribed from your cable-TV operator. Furthermore the digital-box have a software memory where your cable-TV-operator can download additional functions and services.

When connecting to the cable-TV-network, your service provider automatically download software containing their specific programmes and services. These functions are described in more detail in the manual provided by your cable-TV-operator. To get the most out of your cable-TV-box we recommend that you carefully read this manual before installation.

### SAFETY INSTRUCTIONS

Place your digital-box on a protected, dry and well-ventilated spot. Never put anything on top of the digital-box as this prevents the necessary ventilation. Like all electronic devices the digital-box contains sensitive, hazardous electronic components and should therefore be placed away from children's reach and placed so that it can't fall down.

Clean the exterior of your digital-box with a dry and soft cloth. Never let any form of liquid come in contact with the digital-box as this can damage sensitive components and destroy it. Never use abrasive pads, scouring-powder or solvents like alcohol or turpentine. This will damage the digital-box's finish.

### WARNING !!!

*Never remove the digital-box's cover - risk of an electric shock!*

### MAINS LEAD CONNECTION

The digital-box should be connected directly to the mains outlet socket. The use of an extended mains lead is not recommended. To turn the digital-box off completely, first put it in stand-by mode then disconnect the mains plug from the outlet socket.

### THE ENCLOSED PARTS

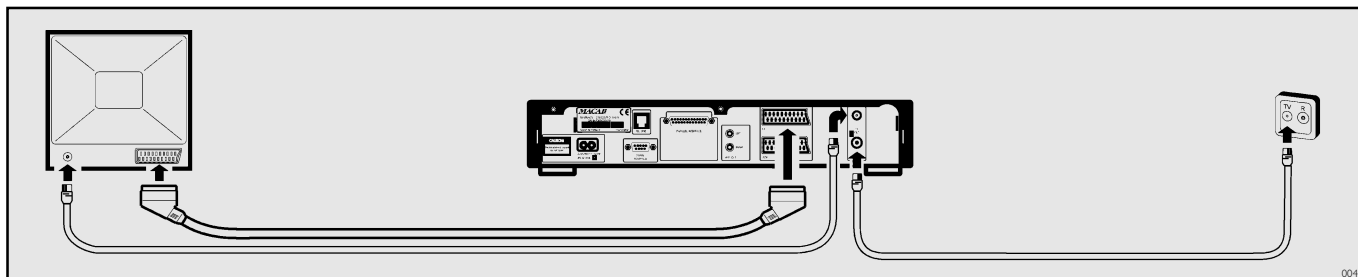
Following parts are enclosed:

- |                          |                                  |
|--------------------------|----------------------------------|
| ■ Digital-TV-box         | ■ Coaxial cable (UHF connection) |
| ■ Remote control handset | ■ Telephone cord                 |
| ■ Two LR3 batteries      | ■ Telephone plug                 |
| ■ Mains lead             | ■ External amplifier lead        |
| ■ SCART cable            | ■ User manual                    |

## Quick reference

### CONNECT UP *(More detailed information on page 10)*

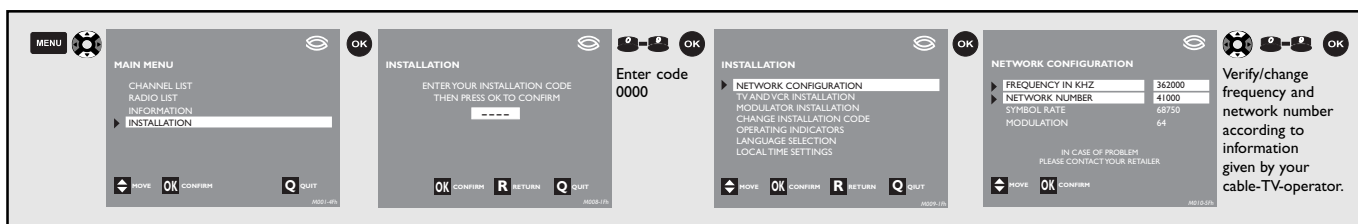
Connect the box to your TV with the scart cable. Then connect the antenna (UHF) lead between the antenna wall-outlet and the input of the box. Finally you connect the box to the mains.



### INSTALLATION *(More detailed information on page 13–20)*

Prior to installation the smart-card has to be placed in the left hand card reader with the arrow and the gold coloured contact pad faced upwards and inwards. Press the **MENU**-button. Select **INSTALLATION** **OK**. Enter the *installation code* 0000 **OK**. Select **NETWORK CONFIGURATION** **OK**. Along with your smart-card certain information is enclosed. This information is to be verified or changed.

- **FREQUENCY IN KHZ...** Press the **OK**-button to confirm your entry.
- **NETWORK NUMBER...** Press the **OK**-button to confirm your entry.



### DAILY USE *(How to view or listen to a program)*

Press the **MENU**-key.

Select **CHANNEL LIST** or **RADIO LIST** **OK**.

Select desired program **OK**.

Press the **OK**-key to confirm your choice.

Use the **INFO**-key for direct access to the radio channels.

Use the numeric keys **0-9** to directly select programmes.

**I**-key (INFO) display on-screen information of what you are viewing just now.

**R**-key (RETURN) Back to previous menu.

**Q**-key (QUIT) exit menu/service.

## Operating extended functions

### **G**-KEY (GUIDE)

Your cable-TV-operator transmits its own menu guide for programmes and interactive services. This one is more exclusive and contains a wide range of services and functions. Press the **G**-key (GUIDE). Use the navigation keys to select **OK** and press the **OK**-key to confirm. Depending on Which

functions and choices you have made, coloured symbols may occur on the screen. This means that there is more information to be seen. You select this by using the coloured keys **A B C D**. *Be patient when you are operating the menu guide. You may have to wait a while after you have confirmed your choice. The box operate as a computer and each time you make a choice and confirm it, the box needs some time to download the application in to its internal memory.*

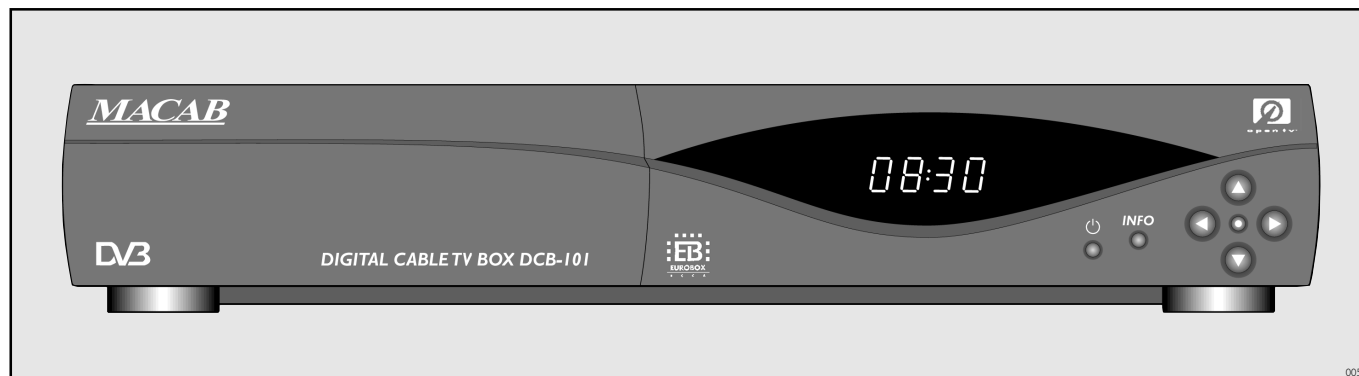
### **I**-KEY (INFO)

With the **I**-key you get a range of information on the screen while you are viewing a TV-programme. Here you get information of what you are viewing just now, other ongoing programmes, when they started and end, theme etc. With a simple operation you can also select other ongoing programmes.






*These functions may change and improve depending on what your programme supplier downloads in to the box.*

In the menu guide served by your cable-TV-operator, there will be a help page describing the different functions available.




## Front panel



### USING THE BUTTONS

-  On/Off (stand-by). With this button you alter between Off (standby)-mode and the programme number that you last viewed.
-  Display a banner on the screen with information of what you are viewing just now.
-  Press once to display the main menu and to confirm choices. Press twice to save and exit the menu.
-  Step through programmes. Step through menu lines.
-  Adjust volume. Select menu options.

### FRONT PANEL INDICATORS

-  Green. Blink when receiving signal from the remote control.
-  Red. Indicate that the box is in standby.
-  Yellow. No present function.

## Front panel display

As a supplement to the menu and on screen messages some information is also shown in the front panel display. See examples below:



Clock in standby mode  
(The clock is automatically set via the cable\*)



Programme number



Menu mode



VCR mode



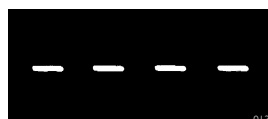
TV-mode



Audio off (mute)



Radio programme number



Initiate software download



Downloading



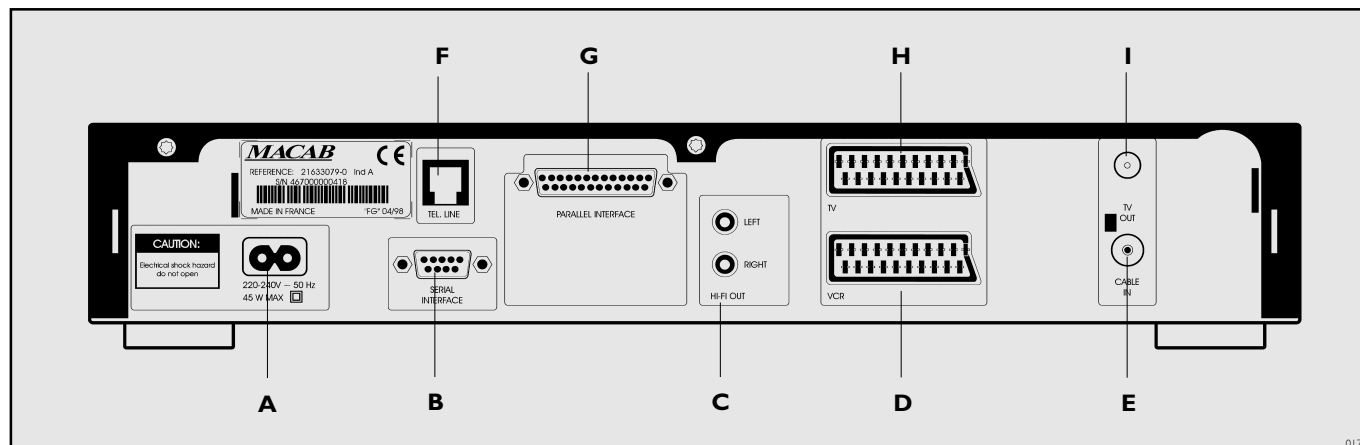
Error occurred during download



Initiate (starting up) the box

\* See page 19 how to manually adjust the clock.

# Rear panel



**A Mains input connector**

(Excessive Voltage as specified in standard EN41003)

**B Serial interface (for coming services)**

(SELV)

**C External amplifier connector (L+R)**

(SELV)

**D SCART connector for VCR**

(SELV)

**E Cable-TV-network connector**

(SELV)

**F Socket for modem connection to the telephone line**

(for coming services)

(TNV)

**G Parallel interface**

(for coming services)

(SELV)

**H SCART connector for TV**

(SELV)

**I TV coaxial connector (UHF connection)**

(SELV)

## Remote control handset

### INSTALLING BATTERIES





















Put the two LR3-type batteries in the compartment covered by a lid on the back of the handset. Observe how the batteries are to be positioned.



### USING THE REMOTE CONTROL

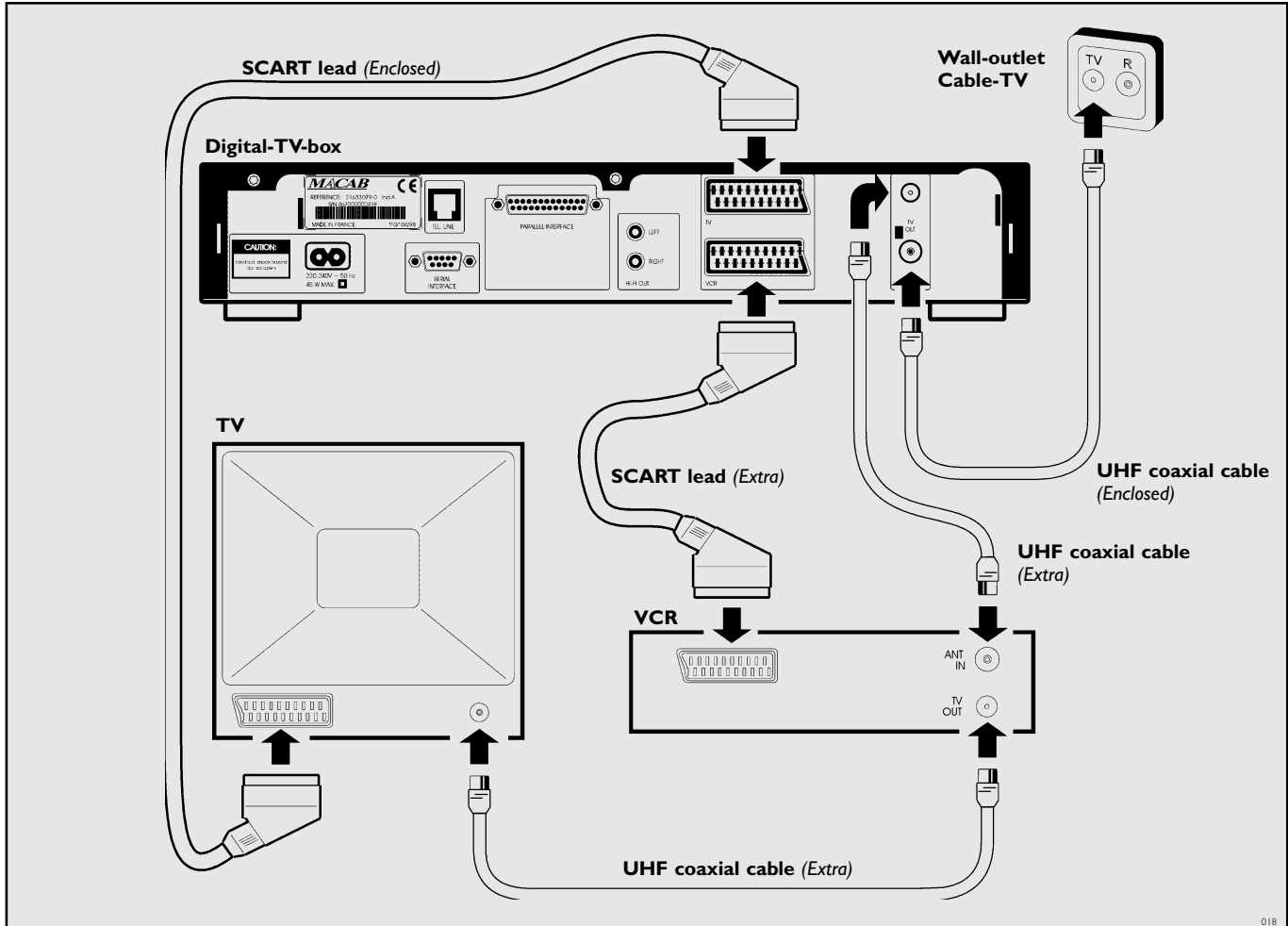
The remote control gives you access to all functions of the digital-TV-box. Make sure that the remote is aimed towards the digital-box when you operate it.

#### KEYS

-  On/Off (standby). With this key you alter between Off (standby)-mode and the programme number that you last viewed.
-  Give access to the basic technical menus with channel list, radio list, information and installation menus.
-  Shift between the Box, TV and VCR
-  (INFO) Display on-screen information of what you are viewing just now.
-  (GUIDE) Opens the channel list or the menu guide for programmes and interactive services that your cable-TV-operator provides.
-  (RETURN) Step back to previous menu.
-  (QUIT) Exit menu/service
-  Confirms choice in menus
-  (VOLUME) Increase audio volume +
-  (VOLUME) Decrease audio volume -
-  (P+) Step to next programme position
-  (P-) Step back to the prior programme position
-  (MUTE) Audio On/Off
-  These 4 keys are used for navigating the menus and to select between alternative menu settings.
-  Aimed for interactive services.
-  Aimed for interactive services.
-  Aimed for interactive services.
-  Aimed for interactive services.
-  Numeric keys to select programmes and to change menu values.
-  (RADIO) Direct access to the radio menu. In radio mode the present time is displayed on screen.

**OBSERVE:** The functions on certain keys may change depending on what services your cable-TV-operator download into the digital-box.

# Connect up



## CABLE-TV WALL-OUTLET

Connect between the wall-outlet and **CABLE IN** on the back panel of the digital-box using the enclosed UHF coaxial cable. Then connect the digital-box to your VCR with another UHF coaxial cable, connect between **TV OUT** on the digital-box and **ANT IN/RF IN** on your VCR. After that you connect the VCR to your TV with yet another UHF coaxial cable, this between **TV OUT/RF OUT** on the VCR and the aerial input on your TV.

## TV

If your digital-box is connected with UHF coaxial cables as described above, turn the digital-box on. Select an unused programme button on your TV and tune until the digital-box's menu is visible on the screen. Store the setting on the selected programme button. The digital-box is factory pre-set to UHF channel 22. The output UHF channel from your digital-box can if needed be changed between 22–69. See instruction on page 16.

## VCR

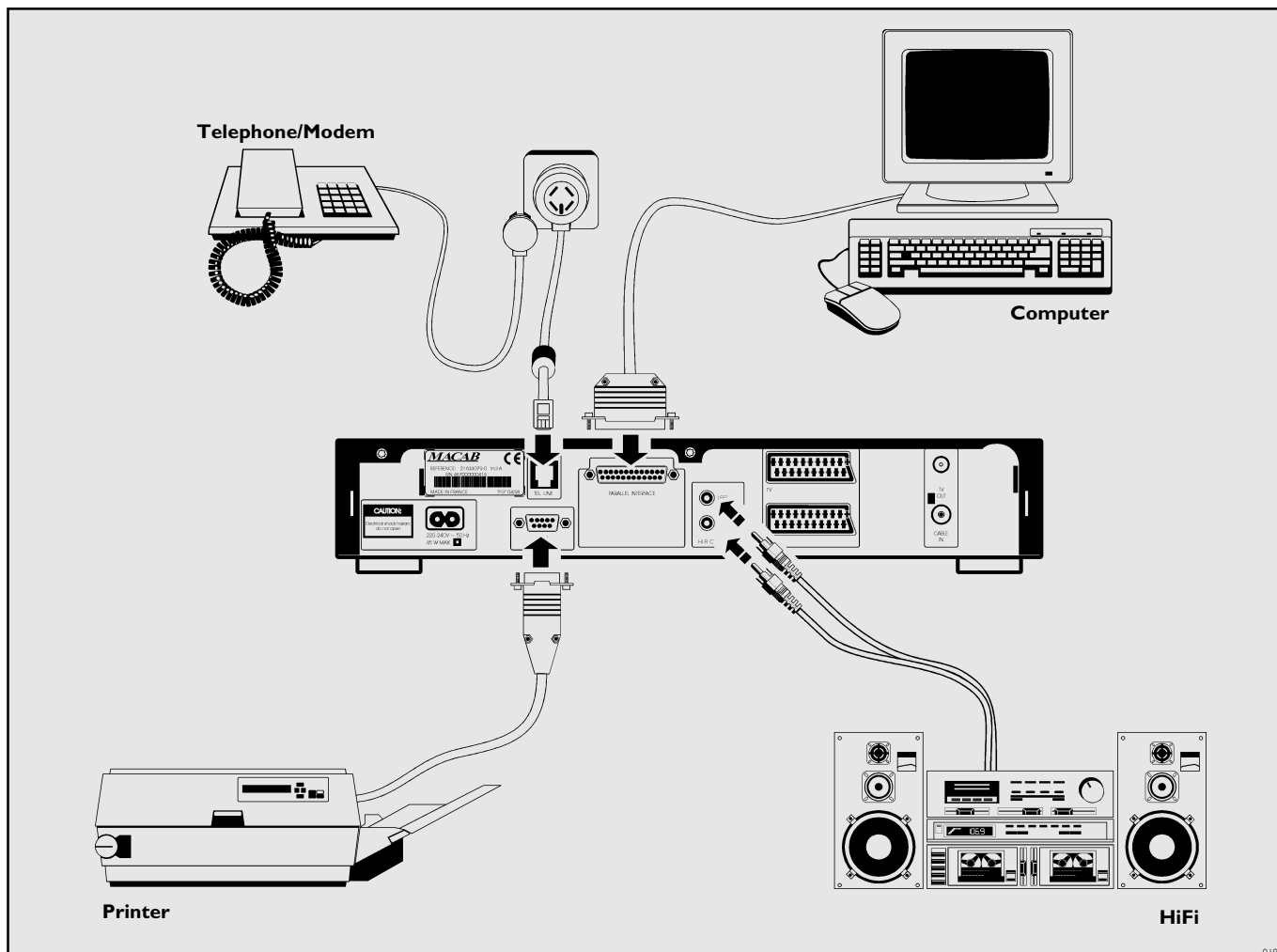
If your VCR is connected with UHF coaxial cables, install this in the same way as described in the TV chapter on this page. Avoid

tuning the digital-box and VCR to the same UHF channel. If the UHF channel happens to be the same or close on both the digital-box and VCR interference in the picture may be the result. If this is the case the UHF channel from your digital-box can be moved. See instruction on page 16.

*Observe: It is not advisable to mute, adjust volume or open any menus while recording a programme on your VCR. This because all on-screen messages and menus will be reflected on the recording.*

## SCART

If your TV and/or VCR have a SCART connector, we recommend that you connect it by a SCART lead to this connector. This will improve audio and picture quality and there is no need for UHF tuning. To avoid disturbing a video recording, the audio on the VCR scart is not affected by the volume and mute functions.



### EXTERNAL AMPLIFIER

Connecting the digital-box to an external amplifier or home cinema equipment will improve the sound considerably. A connection cable is enclosed. The volume can be adjusted directly from your remote control.

### MODEM

Socket to connect modem to the public telephone line.  
*(Aimed for future services)*

### PARALLEL PORT

For example to connect a personal computer.  
*(Aimed for future services)*

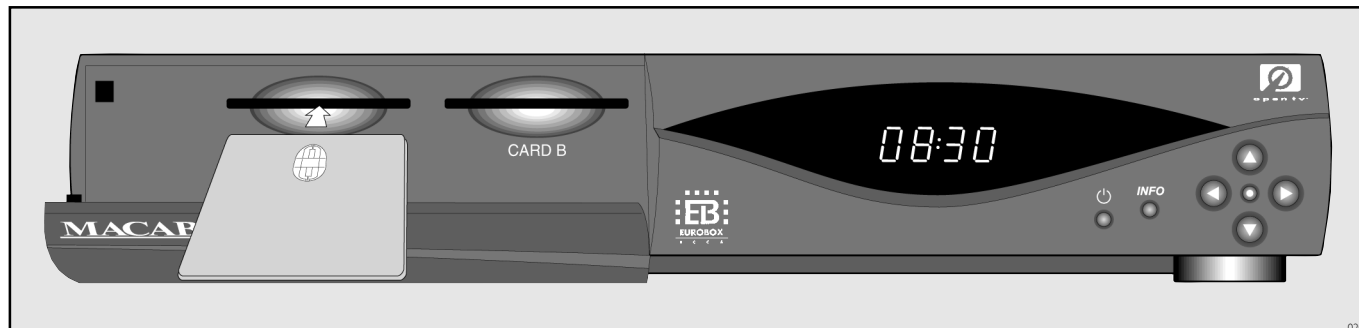
### SERIALPORT

To connect, for example an external printer.  
*(Aimed for future services)*

### OTHER EXTERNAL EQUIPMENT

Which sort of external equipment connectable to your digital-box is in large controlled and decided by your cable-TV-operator, who downloads the various functions and applications in to your digital-box. Contact your cable-TV-operator for information about what sort of equipment that can be connected.

## Viewing card



To install the digital-box and to be able to view encrypted programmes a valid viewing card “smart card” is required. Place the card in the designated card reader. Always leave your card in the card reader to avoid that it gets lost or damaged and so that it continuously can be updated.

To place the card: open the lid on the left-hand side of the front panel. Carefully push the card into the card reader slot. The arrow and the gold coloured contact pad are faced upwards and inwards when the viewing card is placed in the slot. The viewing card is placed in the left-hand slot (CARD A). The right hand slot (CARD B) is aimed for coming services such as cash money cards etc.

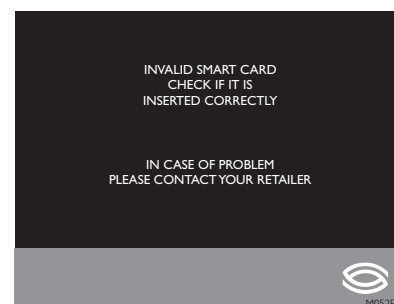
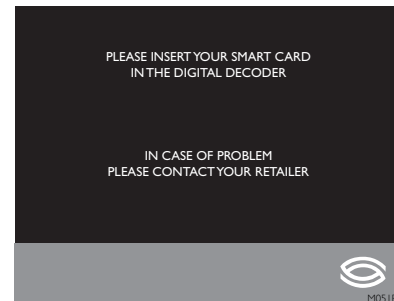
### ON SCREEN MESSAGES

When starting the digital-box from standby, initially a start up picture is displayed showing an hour-glass or similar. At the same time the message “init” is shown on the front panel display. This to indicate that the digital-box is busy connecting to the cable-TV network and downloading necessary data to its internal memory.

If anything goes wrong, one of the three messages on the right may come up.

#### WARNING

Never extract and insert your card unnecessarily.  
Do not bend the card.  
Do not clean the card with liquid of any kind.






## Installing the digital-TV-box

The first time you install your digital-TV-box or when you move to another region or move the box to another cable-TV-provider, a few settings under the menu “Installation – Network configuration” need to be changed. The two settings that are to be changed are Network number and Frequency. Information about these two settings is obtained from your cable-TV-operator.

**OBSERVE!** To be able to set up the box, a valid smart card needs to be placed in the left-hand card reader.




The digital box is ready to be used as soon as the installation procedure described on the following pages is completed.

### INSTALLATION

-  Press the **MENU**-key to display the basic menu.
-  Select **INSTALLATION** with the navigation keys up/down.
-  Press the **OK**-key to confirm your choice.

To protect the installation menus, these are locked and can only be opened with a so-called “secret code”. This code is factory pre-set to “0000”.

### INSTALLATION CODE

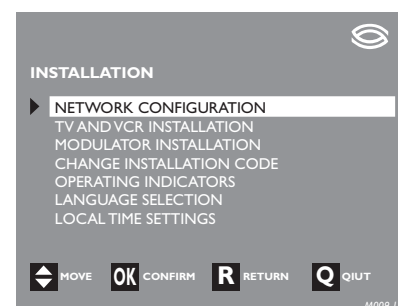
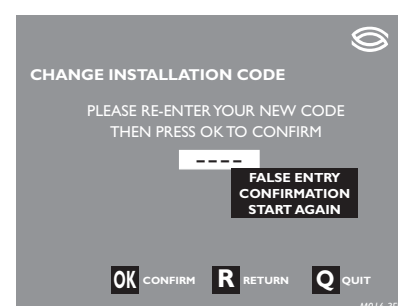
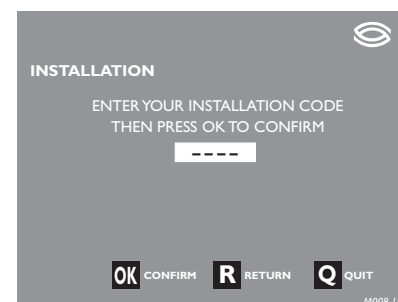
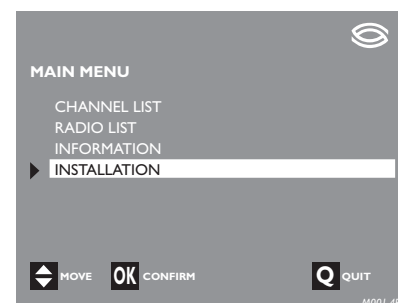
-  Enter your secret code, the factory-set default code is “0000”. The first segment flashes until a digit is entered and the second begins to flash etc. As soon as the digit is entered a star replaces the segment.
-  Using the left arrow button on the remote control, it is possible to return and modify a digit already entered before the complete code is confirmed by pressing the **OK**- key. In this case the digit becomes a flashing segment again, indicating that a new digit may be entered.
-  If the code entered is incorrect, the following error message is displayed on the screen. Then re-enter the code and press **OK** to confirm.

You may change the default code “0000”: see on page 17.

When the correct code is entered you gain access to the installation menu.

#### INFORMATION



If you have displayed a menu and not made any changes for a while, the brightness is automatically turned down to save the TV-screen from wear. Press any key to get the picture back to normal.





# Installing the digital-TV-box

*At the point of installation, the menu "Network configuration" is very important in order to get the digital-box to operate correctly. Certain specific data related to your cable-TV-provider needs to be entered according to description bellow.*



## NETWORK CONFIGURATION

-  Select **NETWORK CONFIGURATION** with the navigation-keys up/down.
-  Press the **OK**-key to confirm your choice.


## FREQUENCY

-  Select **FREQUENCY IN KHZ** with the navigation-keys up/down.
-  Use the numeric keys and enter the frequency number given to you by your cable-TV-operator.



## NETWORK NUMBER

-  Select **NETWORK NUMBER** with the navigation-keys up/down.
-  Use the numeric keys and enter the network number given to you by your cable-TV-operator.


## SYMBOL RATE

-  This value is factory pre-set. Make sure that your digital-box have the same setting as shown on the right-hand picture. If not, enter the correct value with the numeric keys.

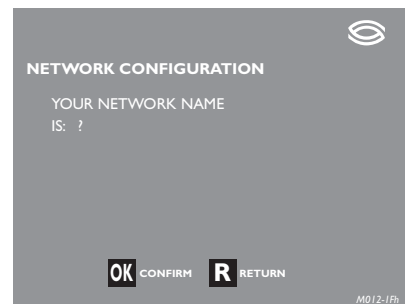
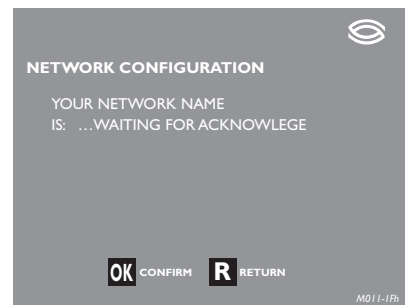
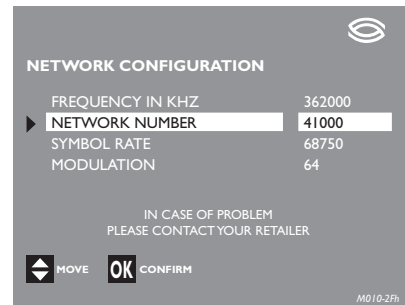
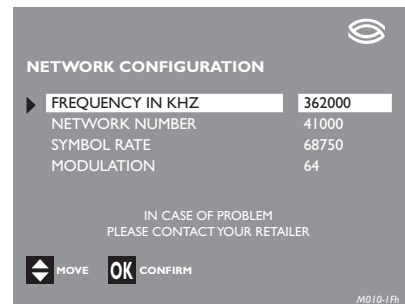
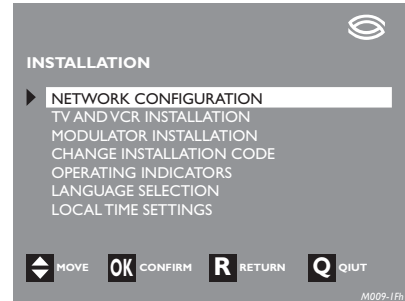
## MODULATION

-  This value is factory pre-set. Make sure that your digital-box have the same setting as shown on the right-hand picture. If not, enter the correct value with the numeric keys.
-  When all settings are made press **OK** to confirm.



After pressing OK the digital-box will start to search for the network information.

-  When the digital-box have found and established contact with your cable-TV-operator the name of the operator will be displayed on the screen. Press **OK** to confirm. The digital-box is now ready to be used.




If the digital-box does not find any network information, a question mark is displayed instead of the operator name. Go back and double-check the above settings. Make sure that the coaxial-cable (UHF) between the digital-box and the cable-TV wall outlet is properly connected.






## TV AND VCR INSTALLATION

-  Select **TV AND VCR INSTALLATIONS** with the navigation-keys up/down.
-  Press **OK** to enter this menu.

## TV SCREEN SIZE




-  Select **TV SCREEN SIZE** with the navigation-keys up/down.
  -  Select the alternative that correspond to the screen format of your TV.
  -  Press **OK** to confirm.
- 4:3 Normal TV-screen
  - 16:9 Wide screen

## TV SCART OUTPUT




-  Select **TV SCART OUTPUT**.
  -  Select the alternative that works best together with the equipment connected via scart-lead from the TV-SCART output on your digital-box.
  -  Press **OK** to confirm.
- RGB TV or other equipment that can handle RGB.
  - C-VIDEO -Extra VCR connected to the TV-scart output.  
-Older TV with scart connector but without RGB.  
-TV that can handle RGB but gives you problems when using Tele-text.

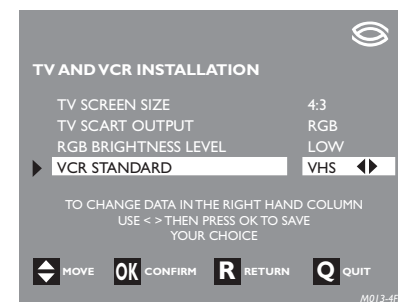
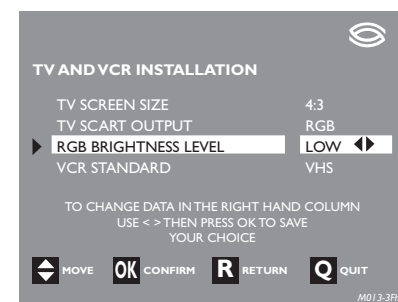
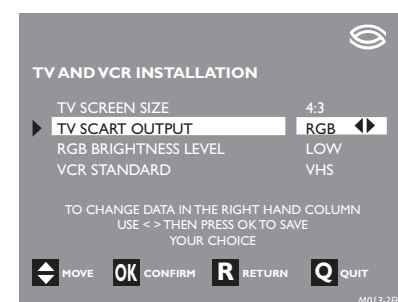
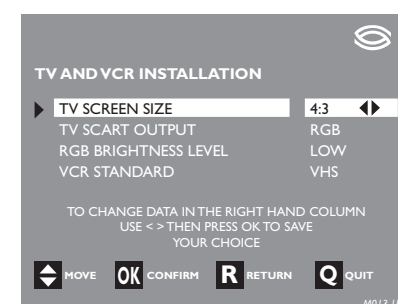
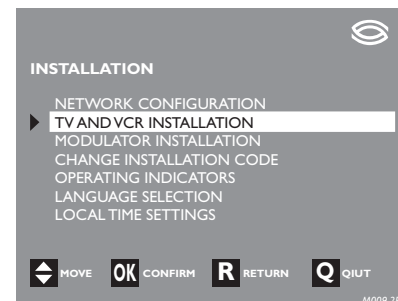
*Select RGB if you have a scart-lead connected to a TV or other equipment that can handle RGB.*

## RGB BRIGHTNESS LEVEL

-  Select **RGB BRIGHTNESS LEVEL**.
  -  Select the brightness that meets the eye.
  -  Press **OK** to confirm.
- LOW
  - HIGH

## VCR STANDARD

-  Select **VCR STANDARD**.
  -  Select the type of video recorder that you have.
  -  Press **OK** to confirm.
- VHS – Normal video recorder
  - SVHS – SuperVHS recorder



# Installing the digital-TV-box

## MODULATOR INSTALLATION

-  Select **MODULATOR INSTALLATION** using the navigation keys up/down.
-  Press **OK** to enter this menu.




## OUTPUT STANDARD MODE

-  Select **OUTPUT STANDARD MODE**.
-  Select which type of broadcasting standard your TV is built for.
-  Press **OK** to confirm.

*Output standard for Scandinavian TV-equipment is PAL B/G*

- PAL B/G
- SECAM-L

## CHANNEL OUTPUT SELECTION




-  Select **CHANNEL OUTPUT SELECTION**.
-  Select an appropriate output channel that does not interfere with the picture from your VCR or other TV-programmes.
-  Press **OK** to confirm.

*Factory pre-set to channel 22.*

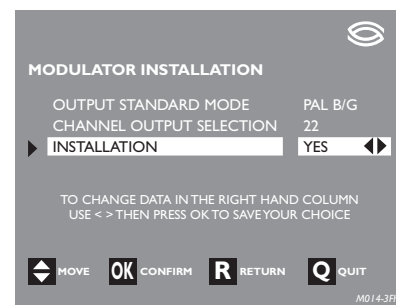
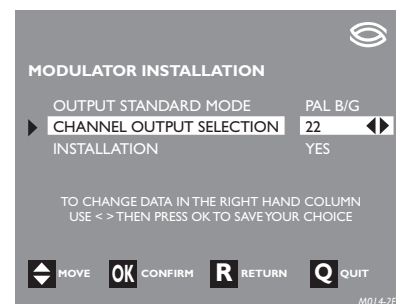
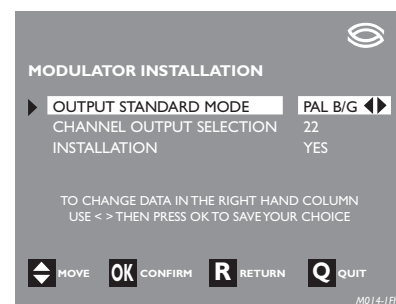
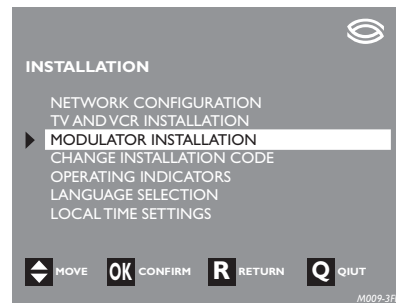
- Channel 22–69

**OBSERVE!**  
 If you change to another output channel, again you have to search on your TV and VCR to find the picture.  
*Read more on page 10, TV and VCR.*

## INSTALLATION

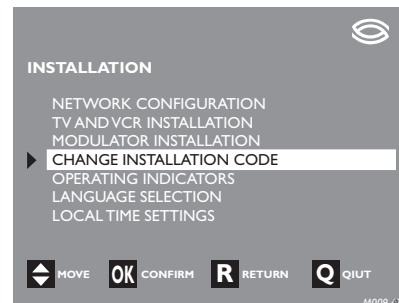
-  Select **INSTALLATION**.
-  Select if the modulator (channel output) is to be activated or not.
-  Press **OK** to confirm.

**OBSERVE!**  
 Never select "NO" if the digital-box is only connected with a coaxial (UHF) cable (not scart) to your TV. If you do, the picture disappears and you must use a TV with a scart connector to be able to view the picture and change back the setting.





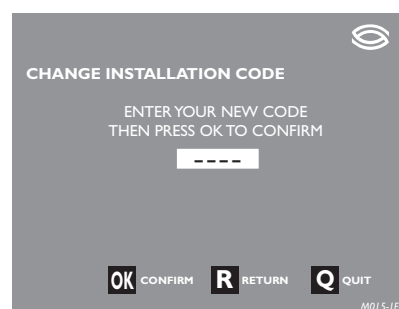
## CHANGE INSTALLATION CODE

-  Select **CHANGE INSTALLATION CODE** with the navigation keys up/down.
-  Press **OK** to enter this menu.





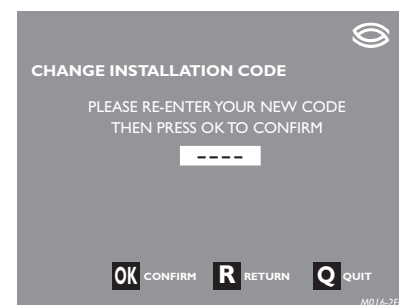
## ENTER NEW CODE

-  Use the numeric keys to enter your new 4-digit code.
-  Press **OK** to confirm.





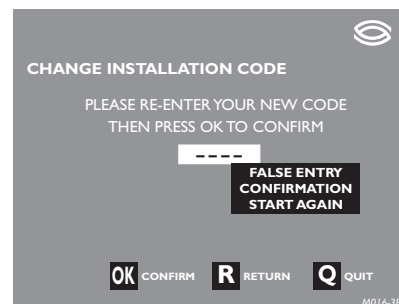
## CONFIRM NEW CODE

-  You are asked to enter the new code once more to confirm the new code.
-  Press **OK** to confirm.



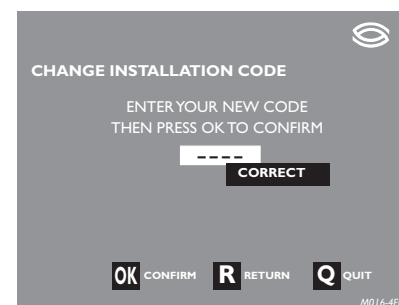
## FAILED CONFIRMATION

-  If you did not enter the same code the second time this message comes up. Repeat the procedure and confirm the new code once again.
-  Press **OK** to confirm.





### OBSERVE!

If you change to your own secret code it is important to remember this code. If you forget it you need to contact your cable-TV-operator.








# Installing the digital-TV-box

## OPERATING INDICATORS

-  Select **OPERATING INDICATORS** with the navigation-keys up/down.
-  Press **OK** to enter this menu.

*This menu is for service purposes and not aimed to the user.*

## LANGUAGE SELECTION

-  Select **LANGUAGE SELECTION** with the navigation-keys up/down.
-  Press **OK** to enter this menu.
-  Select **MENU LANGUAGE**.
-  Select desired menu language.
-  Press **OK** to confirm.

Do the same procedure to select **FAVOURITE AUDIO** and **SUB-TITLE LANGUAGE**.

### MENU LANGUAGE

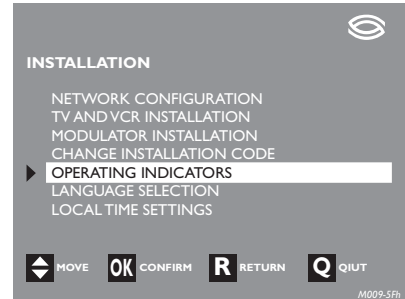
- Swedish
- English
- Danish
- Norwegian
- Finish

### AUDIO AND SUB-TITLES

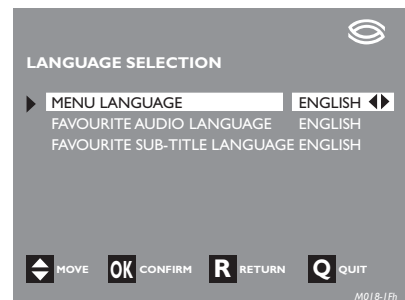
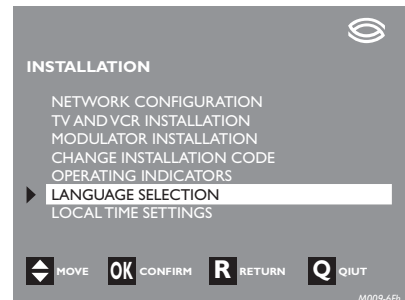
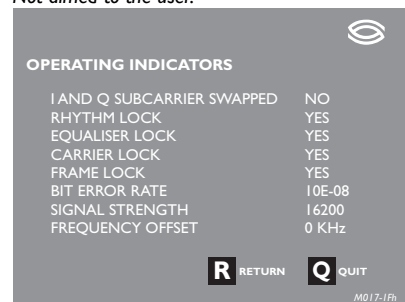
- |                                    |  |
|------------------------------------|--|
| <input type="checkbox"/> Swedish   | <input type="checkbox"/> French                    |
| <input type="checkbox"/> Danish    | <input type="checkbox"/> Italian                   |
| <input type="checkbox"/> Norwegian | <input type="checkbox"/> Spanish                   |
| <input type="checkbox"/> Finnish   | <input type="checkbox"/> Dutch                     |
| <input type="checkbox"/> English   | <input type="checkbox"/> None (only on sub-titles) |
| <input type="checkbox"/> German    |  |

### OBSERVE!

If the favourite language that you have chosen is not available, the digital-box will automatically present the default language transmitted on each specific programme.








*Not aimed to the user.*



## LOCAL TIME SETTINGS




A specific time descriptor for each country is normally transmitted by the cable-TV-operator. You set the country that you are in and the digital box will automatically register and display the correct local time.

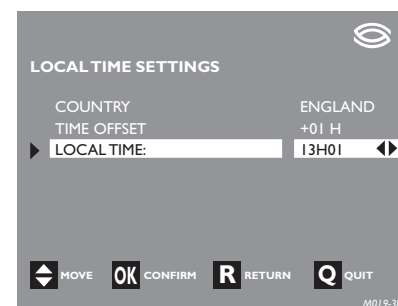
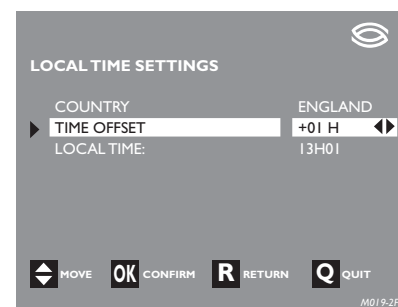
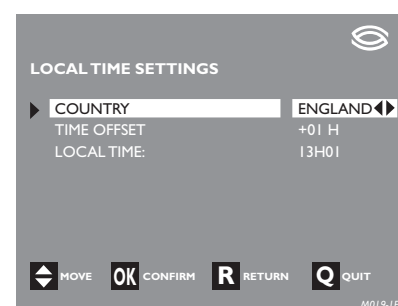
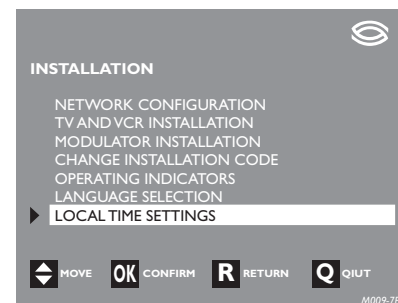
-  Select **LOCAL TIME SETTINGS** with the navigation-keys up/down.
-  Press **OK** to enter this menu.
-  Select **COUNTRY** using the navigation keys up/down.
-  Select the country you are in, using the navigation-keys left/right.
-  Press **OK** to confirm.

### AVAILABLE COUNTRIES

- |                                      |                                  |
|--------------------------------------|----------------------------------|
| <input type="checkbox"/> Sweden      | <input type="checkbox"/> Denmark |
| <input type="checkbox"/> Norway      | <input type="checkbox"/> Finland |
| <input type="checkbox"/> England     | <input type="checkbox"/> Germany |
| <input type="checkbox"/> France      | <input type="checkbox"/> Italy   |
| <input type="checkbox"/> Spain       | <input type="checkbox"/> Other   |
| <input type="checkbox"/> Netherlands |                                  |

*Your cable-TV-operator may for some reason not transmit any time descriptor for the selected country. In this case you have the option to adjust to the correct time yourself as follows:*

-  Select **TIME OFFSET** with the navigation-keys up/down.
-  Adjust the “LOCAL TIME” displayed, using the navigation-keys left/right. (+/-12 hours)
-  Press **OK** to confirm.



# Installing the digital-TV-box

*In order to improve the functions and services offered, your digital-box may be updated directly via the cable-TV-network. The digital-box may only be updated when it is switched on (not in stand-by). Do not turn off the digital-box during updating.*

*When new software is available for updating your box, this is normally presented to you when the digital-box is started from stand-by to on position. It is therefore recommended that you once in a while turn the box off (stand-by) and then on again to check if there is any update available.*

## UPDATE THE BOX

As soon as new functions and services become available, an on screen message will be displayed which offers you to complete the update.

**OK** You can accept by pressing **OK** or ....

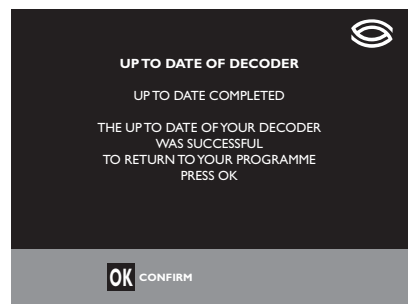
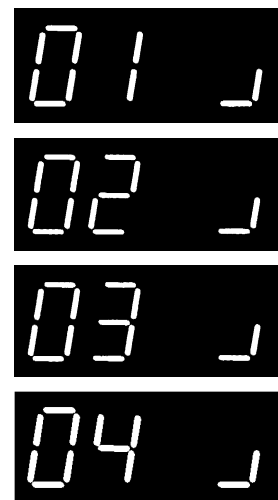
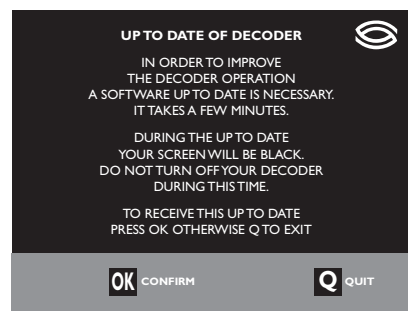
**Q** .... postpone the update by pressing **QUIT**. If you select to postpone, the update message will appear each time you start the box from stand-by.

**OBSERVE!**  
 There are no costs or obligations involved in doing an update.  
 This is a free service to improve the functionality of your digital-box.

Do not touch any keys or try to turn the digital-box off during the update. The screen will be black during the update but the front-panel display will keep you informed about the progress. If anything should go wrong during the process an error message will be displayed. See page 27–28.

A new screen message will inform you that the update was completed successfully.







**OK** Press **OK** to return to normal use.

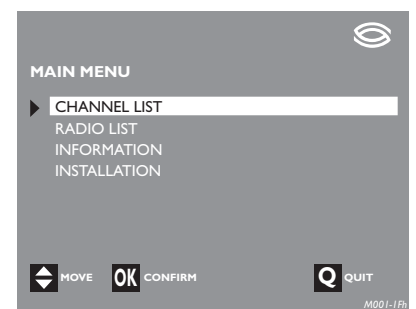


## Main menu




*In the main menu you can access the channel and radio list. These lists will give you an over view of all the programmes available, here you can also directly select the programme you wish to view or listen to. Further more you can get information about your subscription, information about your digital-box and move further in to the installation menus.*

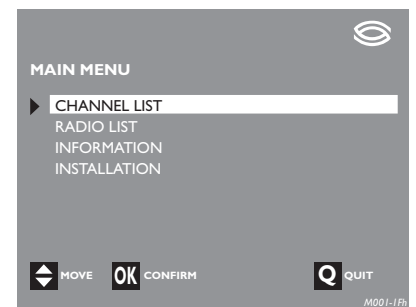
### MAIN MENU

-  Press the **MENU**-key to display the basic menu.
-  Use the navigation keys up/down to select a menu option.
-  Use the navigation keys left/right to change values in the menus.
-  Press **OK** to move on to the selected sub-menu. The **OK**-key is also used to confirm and save each setting you have made.
-  Press the **RETURN**-key to move back to the previous menu.
-  Press **QUIT** to leave the menu without saving the changes.



### CHANNEL LIST


-  Press the **MENU**-key to display the basic menu.
-  Select **CHANNEL LIST** with the navigation-keys up/down.
-  Press **OK** to confirm.




A list of available channels will be displayed on the screen.

-  Use the navigation-keys to select a programme and press **OK** to view.



Another option to select programmes is to press the **GUIDE**-key  where you enter the more extended and detailed menu guide with TV-programmes, interactive services etc. This guide is provided by your cable-TV-operator.

You can also press the **INFO**-key  to get information about ongoing programmes as well as programmes coming up, and with a quick manoeuvre step to another programme.



# Main menu

## RADIO LIST



Press the **MENU**-key to display the basic menu.



Select **RADIO LIST** with the navigation-keys up/down.




Press **OK** to confirm.

A list of available radio channels will be displayed on the screen.

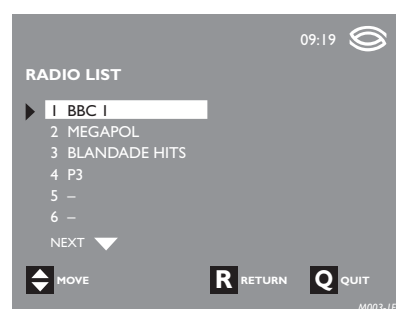
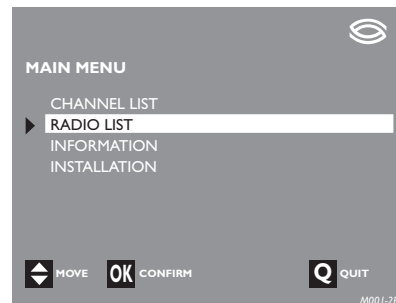


Use the navigation-keys to select a channel to listen to.


The easiest way to access the radio list is to press the **RADIO**-key  on the remote control.


### INFORMATION

In radio mode present time is displayed in the upper right corner.



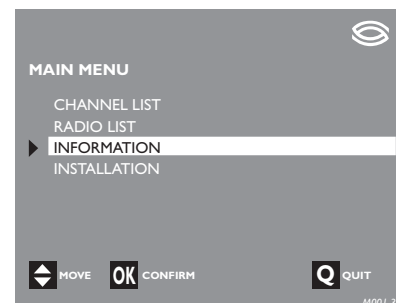
## INFORMATION

 Press the **MENU**-key to display the basic menu.

 Select **INFORMATION** with the navigation-keys up/down.

 Press **OK** to confirm.

*A menu where you can get information about your subscription and about your digital box in general is displayed on the screen.*




## SUBSCRIPTION INFORMATION

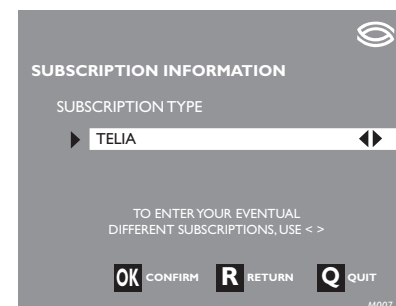
 Select **SUBSCRIPTION INFORMATION** with the navigation-keys up/down.

 Press **OK** to confirm.

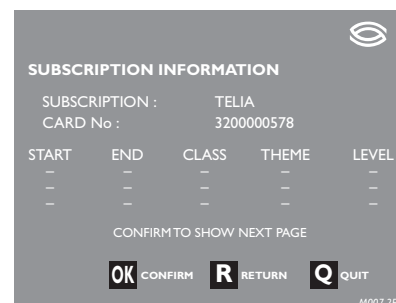
*A menu is displayed where you can select which subscription to get information about.*

 Select subscription with the navigation keys left/right.

 Press **OK** to confirm.



Information about your subscription, smartcard number, subscription period, theme etc. will be displayed on the screen.



# Main menu

## DIGITAL DECODER INFORMATION

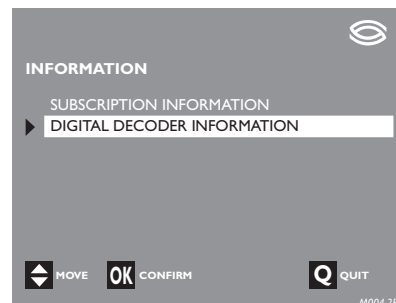


Select **DIGITAL DECODER INFORMATION** with the navigation-keys up/down.



Press **OK** to confirm.

*A menu with technical information about your digital-box is displayed on the screen.*



## INSTALLATION



Press the **MENU**-key to display the basic menu.

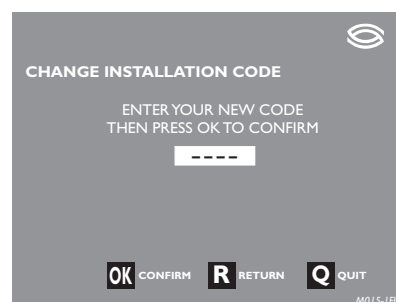
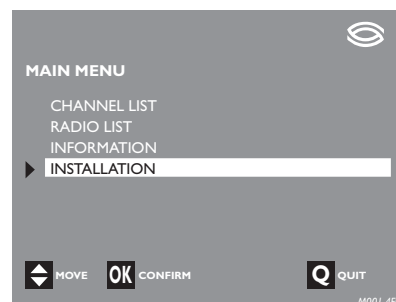


Select **INSTALLATION** with the navigation-keys up/down.



Press **OK** to confirm.

*A menu where you are asked to enter a secret code is displayed. See special section about installation on page 13.*

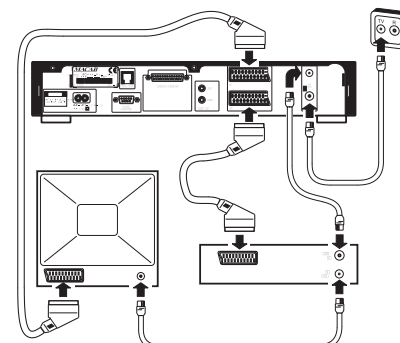


## VCR recording

Following is a description of how to record a programme from the digital-box. There are different sections describing a number of ways of how to record a programme and at the same time view this or another programme.

To be able to use all the recording alternatives, a complete installation of scart and coaxial (UHF)-leads is required. Even the switching facilities on your TV determine if all alternatives are possible.

**AU-mode** is the mode where you choose to view or record via the scart-lead. Something that enhances the picture and audio quality in comparison to the ordinary coaxial (UHF)-lead. In the information box to the right, it is described how different types of TV's and VCR's can name the AU-mode on the remote control and in the user manuals.



### INFORMATION BOX

The AU-mode can be named differently on various TV and VCR remote handsets. Following are the most common names:



**AU/0**

**AV (A1 and A2)**

**Line in (L1 and L2)**

**Key 0 on the remote**

To switch between digital-box, TV or VCR-mode you use the TV/VCR-key on the remote control.

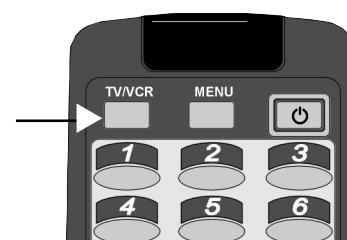
- **NORMAL**      The digital-box have priority and the programme selected on this is shown.
- **VCR**            The VCR has priority and the programme selected on the VCR is shown. If the VCR is put in PLAY-mode, the digital-box will automatically go into AU-mode and the movie will be shown.
- **TV**                The TV has priority and you can use the TV-remote to select among the basic channels tuned on your TV.

### NECESSARY SETTINGS

- **Basic channels**    (analogue channels) that must be tuned and saved at the respective channel button on your TV and VCR.
- **Output channel**    (factory pre-set to ch 22) from the digital-box must be tuned and stored on the TV and VCR.

#### OBSERVE!

When the digital-box is started and is connected with a scart-lead between TV and VCR, the digital-box takes priority and show the selected programme directly on the TV. If the VCR is put in PLAY-mode, this will take priority over the TV and show the videotape instead.



# VCR recording

## 1 RECORDING A DIGITAL PROGRAMME

- Start the digital-box and select a digital programme.
- Recording via scart-lead. Select **AU-mode** on your VCR to record the programme received on your digital-box. (*See information box*)
- Recording via coaxial (UHF) –cable. Select the channel number on your VCR where the digital-box **output channel** is saved.

## 2 RECORDING BASIC PROGRAMMES (analogue programmes)

- Start the digital-box and select a basic programme.
- Recording via scart-lead. Select **AU-mode** on your VCR to record the programme received on your digital-box. (*See information box*)
- Recording via coaxial (UHF) –cable. Select the channel number on your VCR where the digital-box **output channel** is saved.

### The digital-box in stand-by

Receive and record directly on the VCR. Select desired pre-programmed analogue channel on your VCR.

## 3 RECORDING A DIGITAL PROGRAMME AND AT THE SAME TIME VIEW A BASIC ANALOGUE PROGRAMME

- Start the digital-box and select a digital programme.  
(*Do not switch channel during the recording*)

### Recording with coaxial (UHF) -cable

- Select the channel number on your VCR where the digital-box **output channel** is saved and start the recording.
- Select the basic analogue channel you wish to view using your TV-remote.

### Recording with scart-lead

- Select **AU-mode** on your VCR to record the programme received on your digital-box. (*See information box*)
- Switch to TV-mode with the **TV/VCR-key** on your digital-box remote.
- Select the basic analogue channel you wish to view using your TV-remote.

## 4 RECORDING A BASIC ANALOGUE PROGRAMME AND AT THE SAME TIME VIEW A DIGITAL PROGRAMME

### Recording with coaxial (UHF) -cable

- Start the digital-box and select a digital programme.
- Select desired pre-programmed basic analogue channel on your VCR and start the recording.
- Select desired digital programme to view using your digital-box remote.

### Recording with scart-lead


- Start the digital-box and select a digital programme.
- The digital programme will automatically be shown on your TV-screen.
- Select desired pre-programmed basic analogue channel on your VCR. (*See section 2*)
- Start the recording.

### INFORMATION BOX

The AU-mode can be named differently on various TV and VCR remote handsets. Following are the most common names:

**AU/0****AV (A1 and A2)****Line in (L1 and L2)****Key 0 on the remote**

## Tracing a problem

All indications on the front panel are out.	Make sure that the mains lead is connected properly.
The digital-box is not responding to the remote control.	Aim the remote towards the front panel of the digital-box. Make sure that the batteries are turned the right way around.
The red indicator is constantly shining.	Start the digital-box from stand-by to on  .
The message "Invalid smartcard" is displayed on the screen.	Make sure that the smartcard is inserted. Make sure that the smartcard is placed with the gold coloured contact pad faced upwards and inwards. Make sure that the card is fully inserted.
The message "A problem in the signal reception" is displayed on the screen.	Make sure that the Installation – Network configuration is correct. See page 14. Make sure that the coaxial (UHF) cable is properly connected.
The message "Your network name is: ?" is displayed on the screen.	Make sure that the Installation – Network configuration is correct. See page 14. Make sure that the coaxial (UHF) cable is properly connected.
<ul style="list-style-type: none"><li>-The digital-box is stuck on one programme and will not respond when any of the keys are pressed.</li><li>-No audio or distorted audio.</li><li>-Impossible to enter the basic menu.</li><li>-Other peculiar phenomena's.</li></ul>	A temporary network or broadcasting problem may cause these types of phenomena's. Press the OK-button on the front panel. Alternatively unplug the mains connector for 10 seconds and then re-start the digital-box.

# Tracing a problem

ERROR	CAUSE	MEASURE
<b>Er00</b>	The software that was available for upgrading was of an older or of the same version as the one already in the digital-box.	Press the <b>OK</b> -button on the front panel, alternatively unplug the mains connector for 10 seconds.
<b>Er01, Er02</b>	The upgrade failed. Some information was missed out.	Press the <b>OK</b> -button on the front panel, alternatively unplug the mains connector for 10 seconds. If you have requested an upgrade, repeat the request.
<b>Er03</b>	The internal memory is not large enough to receive the upgrade.	Press the <b>OK</b> -button on the front panel, alternatively unplug the mains connector for 10 seconds. If you have requested an upgrade, repeat the request.
<b>Er04</b>	The signal was disturbed during the upgrade.	Press the <b>OK</b> -button on the front panel, alternatively unplug the mains connector for 10 seconds. If you have requested an upgrade, repeat the request.
<b>Er05</b>	Wrong type of data was received during upgrade.	Press the <b>OK</b> -button on the front panel, alternatively unplug the mains connector for 10 seconds. If you have requested an upgrade, repeat the request.
<b>Er06</b>	Not used.	
<b>Er07</b>	Access problem in back-up memory (EEPROM).	Press the <b>OK</b> -button on the front panel, alternatively unplug the mains connector for 10 seconds. If you have requested an upgrade, repeat the request. If the problem persists, contact your retailer.
<b>Er08</b>	Access problem in video memory.	Press the <b>OK</b> -button on the front panel, alternatively unplug the mains connector for 10 seconds. If you have requested an upgrade, repeat the request. If the problem persists, contact your retailer.
<b>Er09</b>	Can not find any data to do an upgrade.	Press the <b>OK</b> -button on the front panel, alternatively unplug the mains connector for 10 seconds. If you have requested an upgrade, repeat the request.
<b>Er10</b>	Poor or no cable-TV signal.	Inspect all connections. If the problem persists, contact your cable-TV-operator.
<b>Er11, Er12</b>	Not used.	
<b>Er13</b>	Unauthorised data signals received by the digital-box.	If the error message persists, contact your cable-TV-operator.
<b>Er14</b>	Faulty data signals received by the digital-box.	If the error message persists, contact your cable-TV-operator.
<b>Pb01</b>	A problem in the ROM memory is detected.	Contact your retailer. The digital-box is damaged.
<b>Pb02</b>	Memory size is too small.	Press the <b>OK</b> -button on the front panel, alternatively unplug the mains connector for 10 seconds. Try to upgrade again by turning the digital-box off and on again.
<b>Pb03</b>	A problem occurred during start up (initialisation problem).	Press the <b>OK</b> -button on the front panel, alternatively unplug the mains connector for 10 seconds. If the problem persists, contact your retailer.
<b>Pb04</b>	Internal communication failure.	Press the <b>OK</b> -button on the front panel, alternatively unplug the mains connector for 10 seconds. If the problem persists, contact your retailer.
<b>PbF9</b>	Hardware error identified during start-up.	Press the <b>OK</b> -button on the front panel. Alternatively unplug the mains connector for 10 seconds and then re-start the digital-box. If the problem persists, contact your retailer.



### RESET THE DIGITAL-BOX

If an error occurs that can not be cured according to description on this page, the final measure is to make a complete reset by unplugging the mains-lead and re insert it again after approximately 10 seconds.

## Technical specifications

### IN GENERAL

Front panel	Red LED for "stand-by" indication Green LED for indicating IR-reception 2 smart card readers 4-digit display 7 keys for basic functions IR sensor
-------------	--

Mains	220–240V AC 50Hz
Power consumption	30W max, 5W in standby
Dimensions	H=70mm, W=380mm, D=260mm
Weight	2,7 Kg
Remote control	ICX 303 694-4442
Standard functions	High resolution menus (OSD) Multi language menus Open TV operating system*

### CONNECTIONS

TV SCART	CVBS & RGB / audio stereo
VCR SCART	CVBS & Y/C / audio stereo
HiFi output	2 x RCA R/L channel
Serial interface	RS232
Parallel interface	IEEE 1284 high speed data
Telephone modem	Integrated modem V32bis Connection: Delta PRI MOD 6/4 connector. The modem is made to be connected to the telephone line with or without a telephone. The user can not directly command the modem. (TNV)

Mains	Class II / 220-230 VAC
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### RECEPTION

Frequency range digital	110–862MHz
Input level digital	44–70dB $\mu$ V
Frequency range analogue	47–862MHz
Input level analogue	57–77dB $\mu$ V
Input impedance	75 $\Omega$
UHF loop	In-out

### MODULATOR

Output level	71 $\pm$ 4dB $\mu$ V
Output channel	E 22 to 69
Pre-set	E 22
Setting	Menu controlled

### VIDEO

Video output level	1V p-p ( $\pm$ 3dB) in 75 $\Omega$
Video impedance	75 $\Omega$
Video frequency	25Hz–4,8MHz ( $\pm$ 2dB)
Video de-emphasise	PAL (CCIR 405-1)

### AUDIO

Frequency range	20Hz–20 kHz $\pm$ 1,5dB
Output level	0,5 V r.m.s. $\pm$ 1dB
Output impedance	600 $\Omega$
Distortion	<2%
S/N	$\geq$ 72dB, weigh
Crosstalk 2 channels	$\leq$ -50dB, 20Hz–15kHz
Analogue decoding in accordance to	ITU-R BT.470-3,B/G-system
Audio processing	Digital and analogue
Dolby Pro-Logic	Compatible – transparent
Phono connector	IEC48B
Volume control	Via remote handset
Mute	Via remote handset

### VIDEO DE-SCRAMBLING

In accordance to	CD ISO/IEC 13818-2 MPEG-2 Main Profile @ Main Level
Picture resolution	720 $\times$ 576, 704 $\times$ 576, 544 $\times$ 576 480 $\times$ 576, 352 $\times$ 576, 352 $\times$ 288
Screen format	4:3 and 16:9
16:9 by 4:3 conversion	PAN & SCAN

### AUDIO DE-SCRAMBLING

In accordance to	CD ISO/IEC 13818-3 MPEG-2 Layers I & II
Bitrate	128 kbit/s per mono channel
Number of audio tracks	Variable in accordance to MPEG-standard
Sampling frequency	32 kHz, 44 kHz, 48 kHz
Mode	Mono, stereo, joint stereo

### DE-MULTIPLEXING & DE-SCRAMBLING

In accordance to	CD ISO/IEC 13818-1 DVB scrambling
Viaccess system	Smart-card based

### CHANNEL DECODING

In accordance to	DVB
Demodulation	16, 32 and 64 QAM
Symbol rate	Variable 5-7 MBaud

### PROCESSOR & MEMORY

Host processor	Power PC™
Flash EEPROM	2 MByte
RAM	2,5 MByte

### OTHER

Operating temperature	10–40°C
Operating humidity	20–80% at 25°C
Storage temperature	-20 to +50°C
Storage humidity	10–90% at 25°C
Approval	PTS, CE (LVD, EMC)

The DCB-101 is built and corresponds to the following standards:



*Eurobox standard, specified by ECCA (European Cable Communications Association)*



*Operating system, Open TV is a registered trademark of THOMSON multimedia and its subsidiaries and is used under exclusive licence by THOMSON SUN Interactive, LLC.*



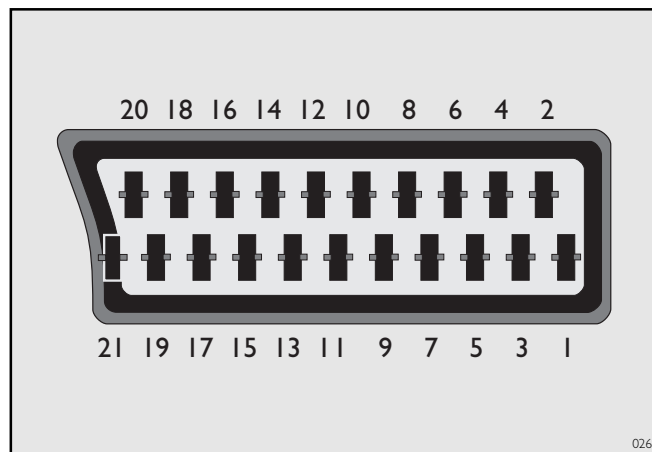
*DVB Standard for digital broadcasting. The DVB standard is specified by EBU. (DVB: Digital Video Broadcasting. EBU: European Broadcasting Union)*



*SAGEM SAGEM SA in France manufactures this product exclusively MACAB for MACAB AB.*

# The scart connector

PIN	VCR	TV
1	Right Audio Out	Right Audio Out
2	Right Audio In	Right Audio In
3	Left Audio Out	Left Audio Out
4	Audio Ground	Audio Ground
5	Ground	Blue Ground
6	Left Audio In	Left Audio In
7	Not connected	Blue Out
8	AV Status In (0/6/12V)	AV Status Out (0/6/12V)
9	Ground	Green Ground
10	Not connected	Not connected
11	Not connected	Green Out
12	Not connected	Not connected
13	Ground	Red Ground
14	Not connected	Not connected
15	S-VHS chroma	Red Out
16	Not connected	RGB Status Out
17	Video Ground	Video Ground
18	Ground	Ground
19	Video Out	Video Out
20	Video In	Not connected
21	Ground (Casing)	Ground (Casing)



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