

Quantum

Quantum

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Q10
Quick Guide

Index

Warning	Page 3
Precautions and safety	" 4
Remote control	" 5
First Use	" 6
Daily Use	" 8
Audio/Video switch	" 10
Receiver Menu	" 11
Settings	" 12
Tv List	" 14
Diagnostics	" 15
Installation	" 16
Installation and Connections	" 19
Technical features	" 20
Warning	" 21
Warranty	" 22

EQUIPMENT

Each package contains:

- ① RECEIVER
- ② REMOTE CONTROL
- ③ REMOTE INFRARED SENSOR
- ④ POWER CAR CABLE
- ⑤ QUICK GUIDE

Warranty

Warranty

Dear customer, thank you for choosing our product, which has been designed and manufactured to the highest quality standards.

- The product is covered by a warranty, for a period of 24 months, which is testified from a delivery document indicating the date of purchase of the product and the dealer's name.
- The customer is entitled to the rights provided for by Legislative Decree n° 24/2002
- The warranty covers the replacement or the repair operation of all the parts found to have manufacturing defects.
- The warranty does not cover:
 - > failures caused by carelessness or transport.
 - > failures caused by installation not in accordance with the instructions
 - > failures caused by improper, incorrect or not in accordance with the instructions, use of the device
- The manufacturer cannot be held responsible for accidental damages to persons, pets, or things, as a consequence of non-conformity with all the precautions furnished with the instructions manual.
 - > In the event you require service, during the warranty period, you should fill in and show the present certificate, together with a valid receipt issued by the dealer, showing the date of purchase of the product.




WARRANTY VOUCHER		DEALER'S STAMP AND SIGN
Model	
Serial number	
Defect found	
Date __/__/__	
	Customer signature
To return correctly filled in together with the purchase receipt		



Warning

CAUTION

 This symbol means important instructions. Failure to heed them can result in serious injury or death

DO NOT OPERATE ANY FUNCTION THAT TAKES YOUR ATTENTION AWAY FROM SAFELY DRIVING YOUR VEHICLE

Any function that requires your prolonged attention should only be performed after coming to a complete stop. Always stop your vehicle in a safe location before performing these functions. Failure to do so may result in an accident.

USE THIS PRODUCT FOR MOBILE 12/24 Vcc APPLICATIONS AND NEGATIVE GROUND

Any misuse that diverts from the designed application may result in fire, electric shock or other injury.

DO NOT DISASSEMBLE OR ALTER THE UNIT

Doing so may result in accidents or injuries.

USE THE CORRECT AMPERE RATING WHEN REPLACING FUSES

Failure to do so may result in fire or electric shock

HALT USE IF A PROBLEM APPEARS

Failure to do so may cause personal injury or damage to the product.

DO NOT USE OLD BATTERIES

When inserting batteries in the remote control, be sure to observe proper polarity as instructed. Rupture or chemical leakage from the battery may cause malfunctioning, breakage or injury.

IMPORTANT:

Quantum S.p.A. declines all responsibility for any errors or omissions in this guide and reserves the right to make changes without prior notice. The information given in this guide were correct at the time of going to print.



PRECAUTIONS

TEMPERATURE

Be sure the temperature inside the vehicle is between +45°C and 0°C before turning your unit on.

FUSE REPLACEMENT

The replacement of the fuses must be of the same amperage. If one fuse blows more than once, carefully check all electrical connections to prevent short circuits. Also have your vehicle's voltage regulator checked.

MAINTENANCE

If you have problems, do not attempt to repair the unit yourself. Require assistance at the nearest retailer or service station.

INSTALL LOCATION

Install in dry, safe locations, away from dangers and humidity.

INSTALLATION PRECAUTIONS

Use only in cars with a 12/24 Vcc negative ground.

Before connecting the device remove the negative terminal from the battery to prevent short circuits.

Do not use bolts or nuts related to any safety system (airbag, etc.), To make ground connection.

CAUTION



WATCHING TV WHILE DRIVING MAY RESULT IN SERIOUS ACCIDENTS, INJURIES OR DEATH!

SAFETY

VIDEO OUTPUT

In order to ensure vehicle safety, the driver's side screen must be connected to the front video output connector. This will ensure the driver won't be able to watch TV while the vehicle is moving. If the handbrake wire is properly connected, the driver will be able to watch TV once the handbrake is pulled. The rear passenger screens, connected to the rear video output connectors, do not fall under this restriction.



Q10 complies with:

E24: according to ECE R10-03 Regulation

DiGiTVi: specifications D-Book ver.1.0 - June 2004 and following updates where applicable

CAUTION:

Your receiver is supplied with an operating system and resident programs.

While using the receiver, various softwares could be downloaded.

You should not make improper use of any of these softwares wholly or partly.

Improper use means: duplication, distribution, tampering. In other words, that the only allowed usage is the one described in this user manual.

Technical features

Mobile DVB-T signal reception

Autotracking/Autosearch

Favourite Channels List

2 video output for two separated monitor

1 audio stereo output

1 video input

1 audio stereo input

Audio/video digital quality

Easy and fast plug-and-play installation

DVB-T

ISO/IEC 13818-1 MPEG-2 Transport Stream
 ETS 300 744 DVB-T Full Compliance
 VHF (Band III) / UHF 21-69
 DVB-T COFDM 2k/8k supported
 7,8 mhZ bandwidth support

Video Decoding and OSD

ISO/IEC 13818-2 MPEG-2 Video MP@ML Compliance
 ISO/IEC 11172-2 MPEG-1 Video Compliance
 Resolution: 720x576 for PAL
 16:9/4:3, 3:2 Letterbox and Pan/Scan
 65K Colour OSD

Audio Decoding

ISO/IEC 13818-3 MPEG-2 Audio Compliance
 ISO/IEC 11172-3 MPEG-1 Audio Compliance
 Stereo / MTS

Connections

IR Remote Connector
 Antenna-In : Fakra type 2x
 Audio stereo Output (RCA L/R) 1x
 Composite Video Output (RCA) 2x
 Stereo Audio Input (RCA L/R) 1x
 Composite Video Input (RCA) 1x

Safety and Reliability

Operation temperature : -5 C ~ +55 C
 Storage temperature : -45 C ~ +85 C

Consumptions

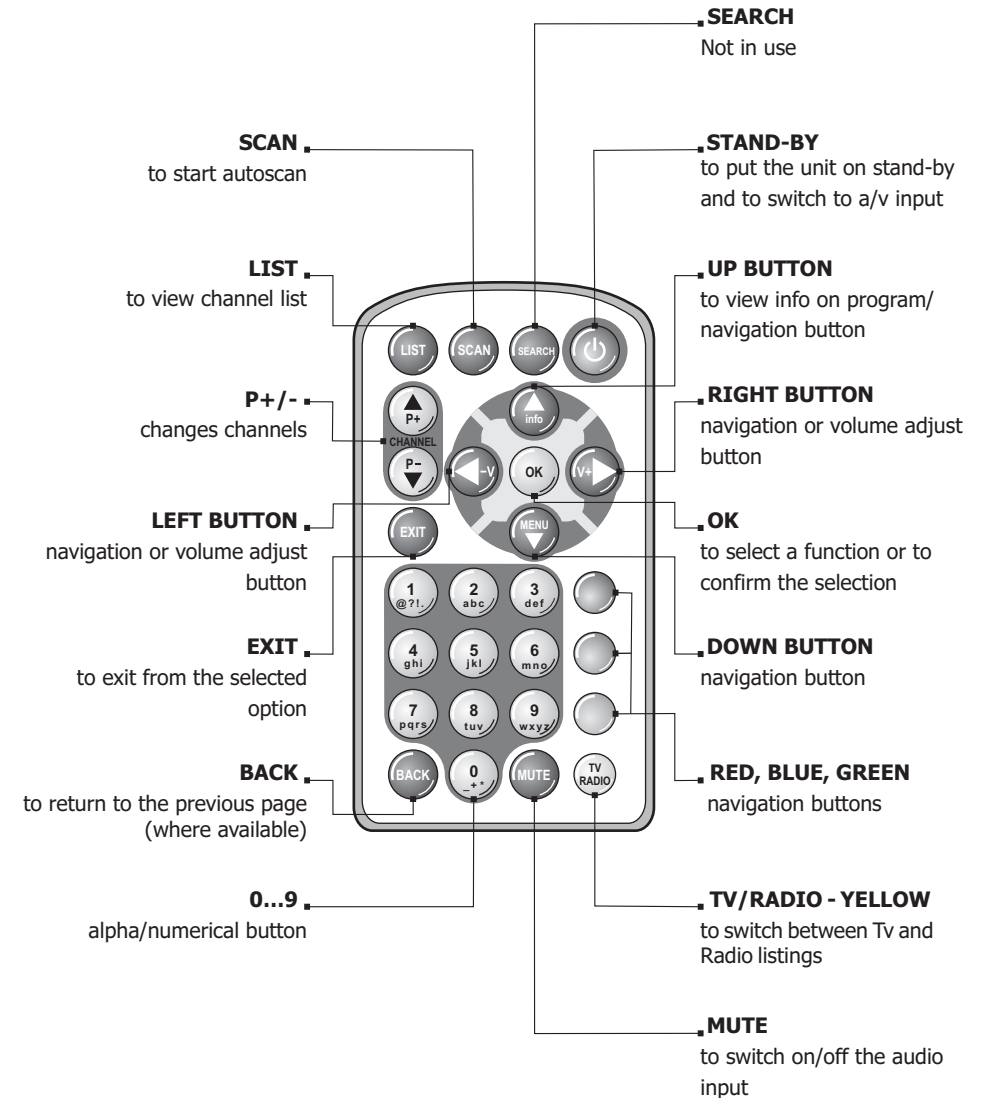
0.4 A in full operation powering two antennas
 0.35 A in stand by
 500 microA when off (car key off)

Mechanical Specification

Dimensions (WxDxH): 125mm x 72mm x 35mm



Remote Control





Be sure that every connection has been correctly set following installation instructions at pages 16-17-18-19

❖ Getting started

Q10 receiver is an automotive grade set top box able to receive free to air DVB-T Television.

Turn the unit on

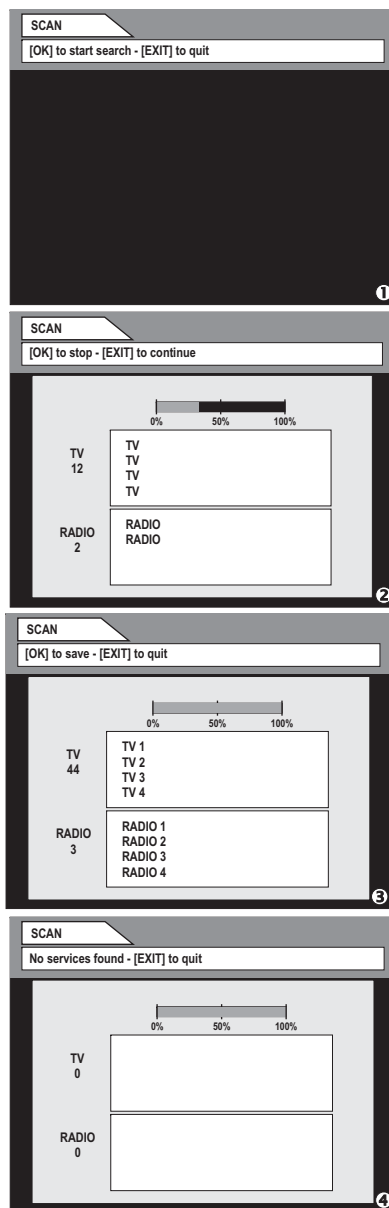
- Please wait until frame ① will be shown on the screen .
- > press [OK] button to start the automatic channel search.

To stop the search press the EXIT button. Frame ② will be shown on the screen. Press [OK] to confirm stop search or the [EXIT] button to resume it.

At the end of the scan phase, frame ③ will be shown on the screen.

- > Press [OK] button to save the channels on the TV LIST. The first channel on the updated TV LIST will be shown on the screen.

If at the end of the scan phase frame ④ is shown on the screen, check the connections and the overall installation of the receiver, then press in sequence [EXIT], [SCAN] and [OK] buttons to restart the scan phase.



TV ANTENNAS

Specifications



❖ TECHNICAL FEATURES

+ 5V DC PHANTOM POWERED DVB-T ANTENNAS

Operation frequencies:	174 - 230 (band III) 470 - 866 (bands IV - V)
Gain:	18 dB Max
Cable type:	coaxial 75 ohm
Cable lenght:	5 m
Connector:	type FAKRA
Power:	+5 Vcc
Consumption:	25mA min - 35 mA max
Temperature range :	- 40° <> +85° C
Protection class:	IP40
Size (L x B x H):	28 x 2,5 x 1,5 cm



TV ANTENNAS

Recommendations

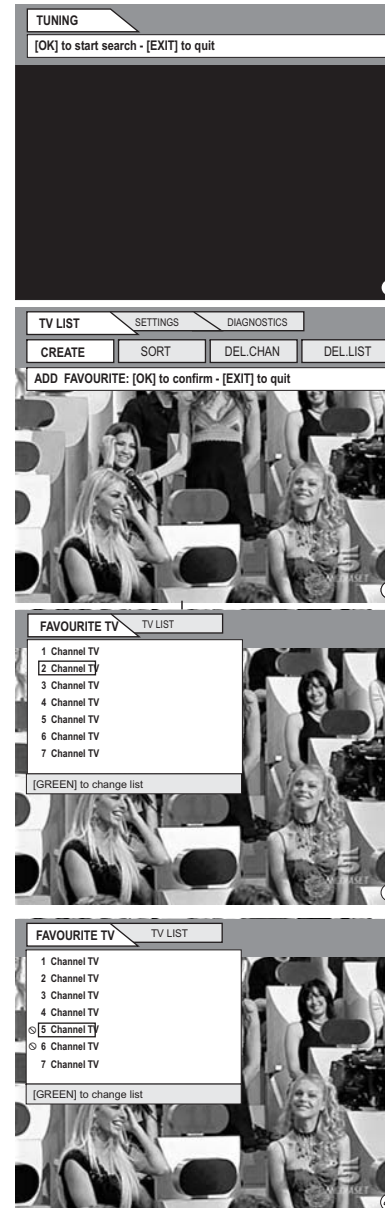
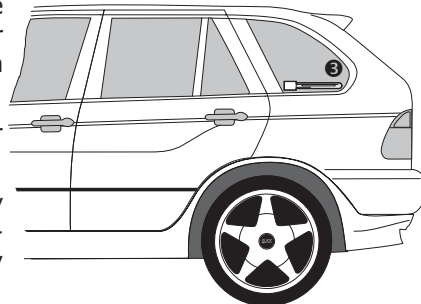
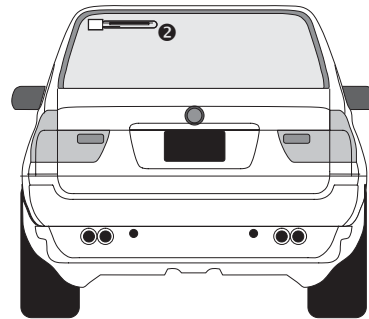
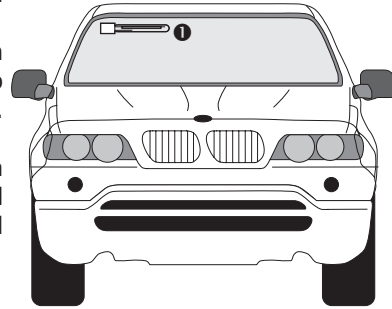
Use only active antennas amplified with adequate gain directly powered by the receiver antenna connectors and suitable to the reception of the Digital Terrestrial signal (DVB-T).

Quantum Antennas, linked together with Q10 receiver, have been manufactured in order to optimize the system's functioning.

WARNING: ONLY use Quantum antenna provided. Use of different antenna or external power may result in product damage and might affect the warranty terms.

❖ INSTALLATION GUIDELINES

- Be sure to position the antennas as far away and opposing from each other as possible. For example, place the first antenna on the right side of the wind screen of the vehicle ① and the second one on the left side of the rear window ② or on the left rear vent wing ③.
- Antennas must be installed as far away from the metal parts (vehicle's roof or vertical borders of the wind screen/rear vent wing) as possible.
- Placing the antenna in the bonnet or the boot (depending on the vehicle) can influence the signal reception. It's recommend to experiment firstly where to place the antennas; whether on the higher or the lower part of the window. The higher part usually guarantees more protection from noises caused by motorcycles and scooters.
- Handle with care the coaxial cable setting in order to avoid damages due to vibration or crushing.
- Be sure that the connections have been correctly set and check the screwing of the connectors. Signal reception's problems are often caused by incorrect assembly.



❖ Autotracking and Autosearch

These innovative automatic functions enable the receiver to still be in tune with the selected channel while on the move.

Typical DTT Networks are Multi Frequency Network (MFN); each TV channel may be transmitted at different frequencies depending on the specific geographical area.

Once a specific TV channel has been selected, the Autotracking and Autosearch functions will tune, track and in some cases automatically search for a channel where there is a frequency change or signal loss without the need of manually starting a new search.

To have the Autotracking and Autosearch functions performing in the best possible way, it is recommended to carefully follow the instructions below:

1. **Start an autoscans** - tune into the available channels in that specific area by pressing [SCAN] ①
2. **Create a FAVOURITE TV LIST (from menu)** - define and organize the list of your favourite channels ②
3. **Select the FAVOURITE TV LIST as default** ③

If the Autosearch function does not permit tuning into all favourite channels, start the operations described at the point 1 and 2 again but in another location.

WARNING: channels marked in red are temporarily not available due to the lack of network coverage ④.



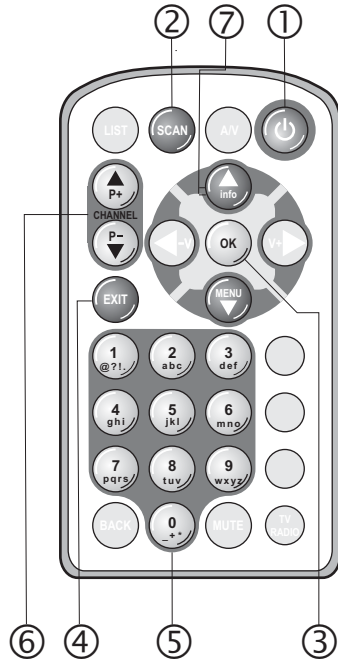
❖ How to switch the receiver on

Depending on the specific car installation, the receiver will be switched on as soon as the car key turns on the battery. In case an external a/v source was previously activated, please use the [⏻] button on the remote control ① to exit stand-by mode.

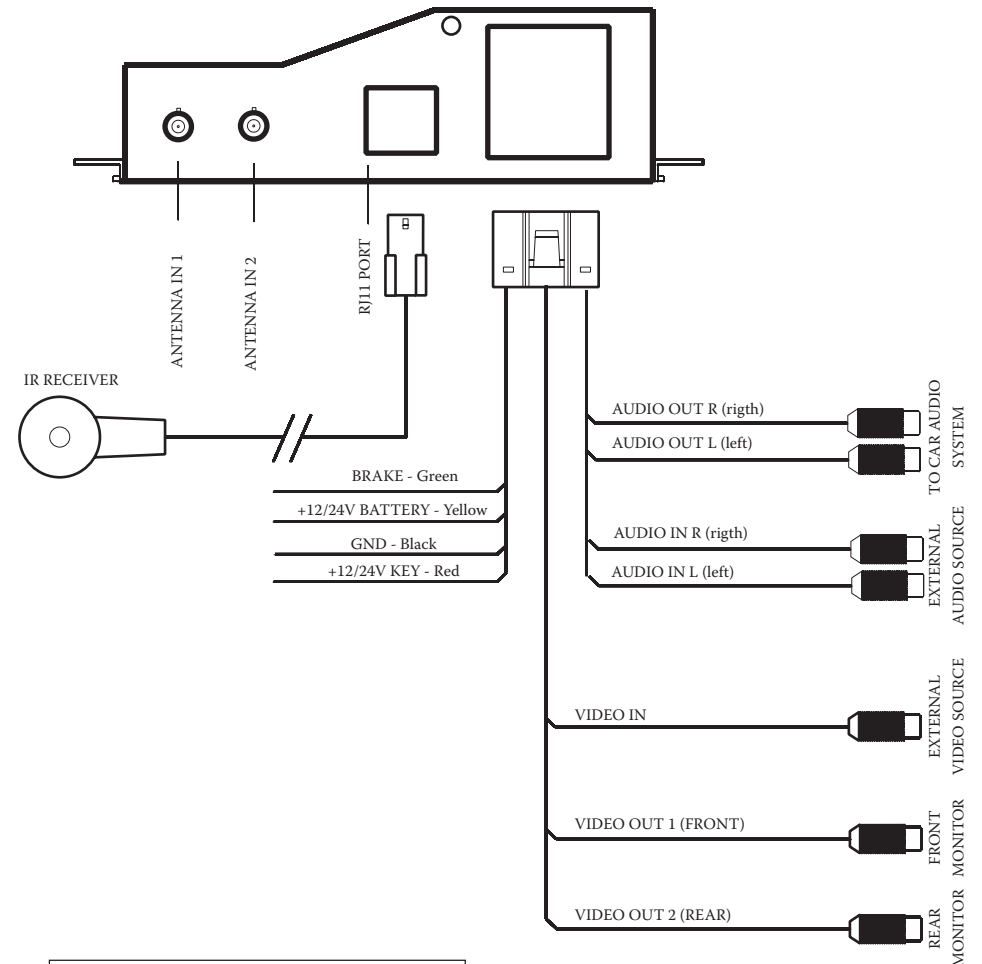
❖ How to select a channel

A TV or Radio channel can be selected in three different modes:

- **DIRECT:** select the desired channel by using the numerical buttons ⑥
- **USING ARROWS:** select the desired channel by using the up/down buttons [▲] ④ and [▼] ⑤ and press [OK] ③ to confirm the selection.
INFORMATION BAR will be previewed on the screen ⑧ before the channel tuning.
- **USING PROGRAM BUTTONS:** press [P+] [P-] ⑦ to browse directly through channels without using the [OK] ③ button.




FRONT PANEL



WARNING:
+5V PHANTOM POWER IS PRESENT
TO ALL "ANTENNA IN" CONNECTORS



WARNING:

 Before installing the device read carefully the following instructions

HAVE THE INSTALLATION DONE BY A QUALIFIED PERSONNEL

The installation and wiring of this unit require special technical skills and experiences. To ensure safety always have the installation done by experts

USE SPECIFIED ACCESSORY PARTS

Be sure to use only the specified accessory parts. Use of other than designed accessory parts may damage this unit or cause an incorrect functioning of the appliance

ARRANGE THE WIRING CORRECTLY

Route the electrical and audio/video cables and wiring away from moving parts or sharp/pointed edges. This will prevent crimping and damage to the wiring. If wiring passes through a metal hole, use a rubber grommet to prevent the wires' insulation from being cut by the metal edge of the hole

DO NOT INSTALL IN LOCATIONS WITH HIGH MOISTURE OR DUST

Avoid installing the unit in locations with high incidence of moisture or dust. Moisture or dust that penetrates into this unit may result in product failure

MAKE THE CORRECT CONNECTIONS

Failure to make the proper connections may result in product damage

USE ONLY IN CARS WITH A 12 / 24 Vcc NEGATIVE GROUND

Failure to do so may result in fire, electric shock or other injuries

BEFORE WIRING DISCONNECT THE CABLE FROM THE NEGATIVE (-) BATTERY TERMINALS

Failure to do so may result in electric shock or injuries due to electrical shock

DO NOT CUT INTO ELECTRICAL CABLES

Never cut away cable insulation to supply power to other equipment. Doing so will exceed the current carrying capacity of the wire and result in fire or electric shock

DO NOT USE BOLTS OR NUTS IN THE BRAKE OR STEERING SYSTEM TO MAKE GROUND CONNECTIONS

Bolts or nuts used for the brake or steering systems (or any other safety-related system), or tanks should NEVER be used for installations or ground connections

DO NOT INSTALL IN LOCATIONS WHICH MIGHT HINDER VEHICLE OPERATION, SUCH AS THE STEERING WHEEL OR GEARSHIFT

Doing so may obstruct forward vision or hamper movement etc., and result in serious accident



❖ How to select a channel in a TV/Radio List

- Press [LIST]① to show the TV List
 - > Press [GREEN]② to switch between the general TV LIST and the FAVOURITE TV LIST if previously preset [see MENU]
- Press [TV/RADIO]③ (yellow) to show the RADIO LIST
 - > Press the same button to switch between the Radio List or the previously selected TV LIST
- Select the desired channel

WARNING: channels marked in red are temporarily not available due to lack of network coverage ④

❖ How to adjust the volume level

The volume level can be adjusted by using the [VOL+] [VOL-] buttons

❖ Mute

- Press [MUTE]⑤ to switch on/off the audio output

❖ How to view program info

- Press [info]⑥ to view the short information about the selected program
- Press [BLUE]⑦ to get detailed informations

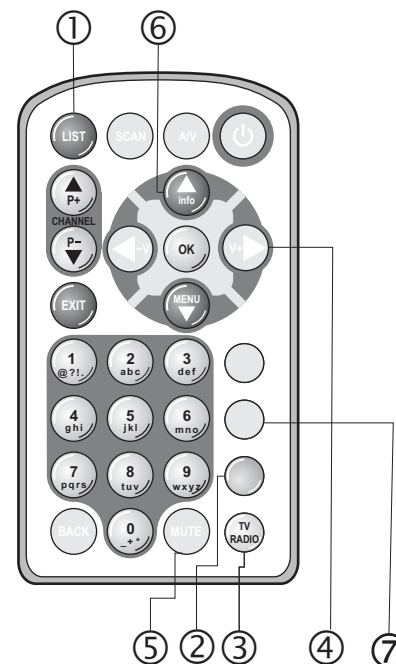
❖ How to select the audio language

To select the desired language in case of multilanguage programs follow the instructions:

- Press [info]⑥ + [GREEN]② and select the desired language by using the up/down[▲][▼]⑥ buttons

❖ How to select the audio language

- Press [info]⑥ + [GREEN]② and select desired subtitle language by using the up/down[▲][▼]⑥ buttons



Audio/Video switch



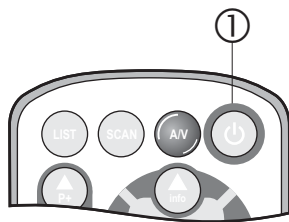
❖ Audio/video Inputs

The receiver enables the user to connect an external audio/video source (e.g. Videogame console, DVD player, etc..) to an audio/video input (as shown on page 17) using the remote control

• How to select audio/video input:

Using the Power button of the remote control ① the user may switch from a digital TV signal to an external source signal and viceversa.

WARNING: FRONT monitor should be enabled only once the handbrake control is activated.



Menu - DIAGNOSTICS



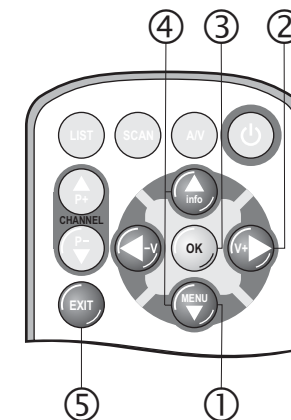
❖ DIAGNOSTICS

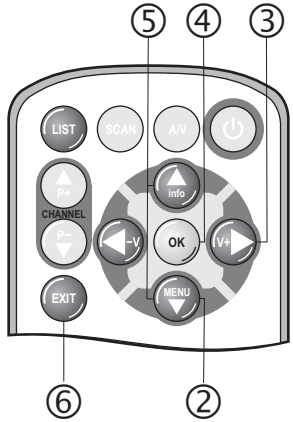
Receiver provides the following diagnostics information:

- SIGNAL QUALITY
- RECEIVER INFO

• How to view the DIAGNOSTICS:

- Press [MENU]
- Select DIAGNOSTICS by using the right and left [◀] [▶] ② buttons
- Press [OK] ③ to confirm the selection or [EXIT] ⑤ to cancel it.





❖ How to manage the Favourite Tv List

It is possible to create a personal favourite TV List. TV LIST and RADIO LIST include all the tuned channels which cannot be personalised.

1. How to create the Favourite Tv List:

- Press [MENU]②
- Select TV LIST and press [OK]④ to confirm
- Select CREATE and press [OK]④ to confirm
- Browse the list sequentially by using the up and down buttons [▲][▼]⑤, or in groups of six channels by using right and left buttons [◀][▶]③ and select the channel
- Press [OK]④ to confirm the selection. A tick signal ✓ will be shown next to the selected channel⑦
- If you want to cancel the selection press [OK]④ again and the tick mark ✓ will be deleted

2. How to delete a channel from the Favourite Tv List:

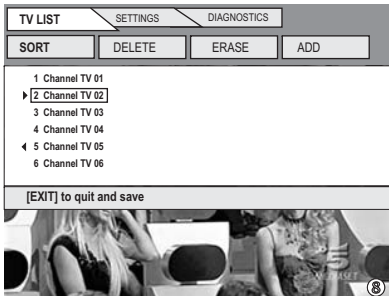
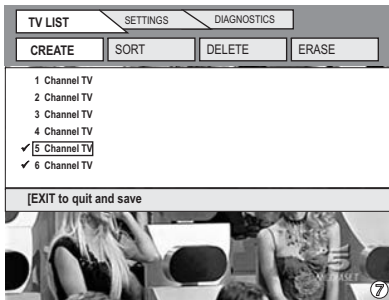
Follow the same procedure as shown in point 1 above and replace CREATE with DELETE.

3. How to sort the Favourite Tv List:

- Press [MENU]②
- Select TV LIST and press [OK]④ to confirm
- Select SORT and press [OK]④ to confirm
- Browse the list sequentially by using the up and down buttons [▲][▼]⑤ or in groups of six channels by using the right and left buttons [◀][▶]③ and select the channel you want to move
- Browse the list in the same way and click on the position where you want to move the selected channel. A tick mark ◀ will be shown next to the selected channel
- Press [OK]④ to confirm the new position of the channel ⑧

4. How to delete the Favourite Tv List:

Follow the same procedure as shown in point 1 above and replace CREATE with ERASE



❖ MENU

In the main MENU② the system's info and user's preferences can be seen and set.

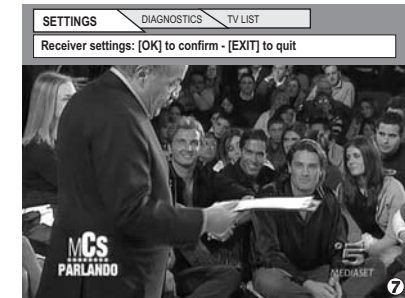
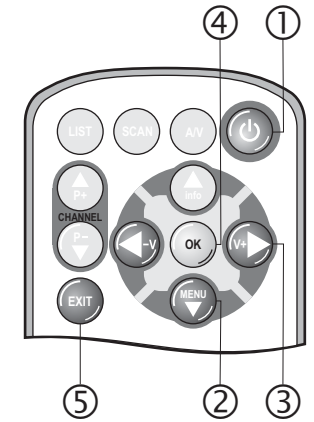
The following options are available:

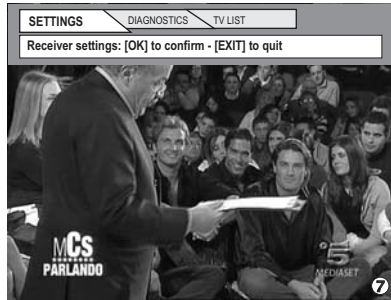
Sub-menus:

- SETTINGS
- TV LIST
- DIAGNOSTICS

❖ How to show the Menu

- Press [MENU]② on the remote control





❖ SETTINGS

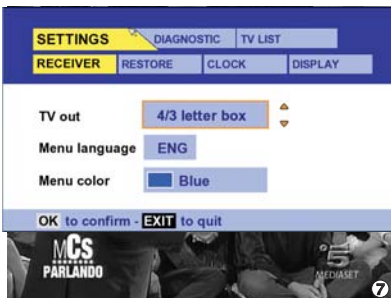
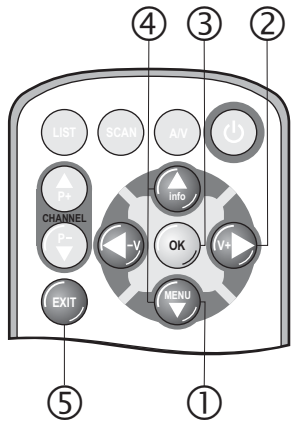
This sub-menu shows the data related to:

- RECEIVER
- RESTORE
- CLOCK

WARNING: In order to avoid malfunctioning of the device, BE AWARE of accidentally changing the parameters. Default settings are normally correct for standard installation. They can be restored through the RESTORE function

◆ How to navigate the Settings Menu

- Press [MENU]② to view the main menu on the screen
- Select SETTINGS by using the right and left [◀] [▶]③ buttons.
- Press OK to enter this sub-menu and then press it again till you get the required item
- Select the desired function firstly by using the right and left buttons [◀] [▶]③ and then the up and down [▲] [▼]④ buttons
- Press [OK]⑤ to confirm the selection and to move to the next function or [EXIT]⑥ to cancel the selection



◆ RECEIVER⑥

- **TV OUT**
Set tv out mode according your screen type⑦:
 - > 4:3 pan&scan
 - > 4:3 letter box
 - > 16:9
- **MENU LANGUAGE**
To select the menu language
- **MENU COLOR**
To set color of menu



◆ RESTORE⑦

This function enables the user to reset the input data among these data categories:

- **RECEIVER DATA**
To reset settings, system and installation parameters
- **CHANNELS LIST**
To delete all the channels lists

It is possible to restore data completely by selecting both items.



◆ CLOCK⑧

The receiver's clock will be automatically updated through the TV signal. If desired, one could change the time zone set at GMT+1 by default.

