

tangent

DAB-50

Operation Manual  
DAB/FM Tuner



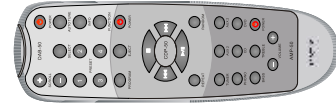
Accessories

- 1 1 x DAB-50
- 2 1 x Remote control
- 3 2 x Batteries (Optional)
- 4 1 x DAB/FM Antenna (Optional)
- 5 1 x Operation Manual

1



2



3



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5



This operation manual supplies all the information that you need to have about your Tangent DAB-50. Please read this operation manual carefully before you start using the unit!

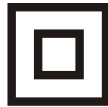
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A triangle with a lightning symbol draws the user's attention to "dangerous voltage" without insulation in the cabinet which may be high enough to entail a risk of electric shock.



A triangle with an exclamation mark draws the user's attention to important instructions for use and maintenance in the accompanying manual, which should be studied.



A symbol for CLASS II (double insulation)

**WARNING:** TO MINIMISE THE RISK OF FIRE OR ELECTRICAL SHOCK, DO NOT EXPOSE THE UNIT TO RAIN OR MOISTURE. DO NOT OPEN THE CABINET AS IT CONTAINS DANGEROUS VOLTAGE. ONLY QUALIFIED TECHNICIANS ARE ALLOWED TO CARRY OUT REPAIR AND SERVICE.

**CAUTION:** If the plug of the power cord needs to be replaced, it is important that the replacement is identical to the plug to be replaced, or that the new plug has been recommended by the manufacturer

**TO AVOID ELECTRICAL SHOCK, IT IS IMPORTANT TO INSERT THE PLUG CORRECTLY INTO THE SOCKET.**

**WARNING: IT IS IMPORTANT THAT YOU READ AND OBSERVE BOTH THE INSTRUCTIONS IN THIS MANUAL AND THE INSTRUCTIONS ON THE UNIT. KEEP THIS MANUAL FOR FUTURE REFERENCE.**

This unit was designed and manufactured with a view to providing maximum safety for the user. Incorrect use of the unit may cause electrical shock or fire. The protection devices built into this unit will protect the user if the procedures below are observed in connection with installation, use and repair. This unit is fully electronic and contains no parts that can be repaired by the user.

**DO NOT REMOVE THE CABINET. RISK OF DANGEROUS VOLTAGE. ONLY QUALIFIED TECHNICIANS ARE ALLOWED TO REPAIR THE UNIT.**

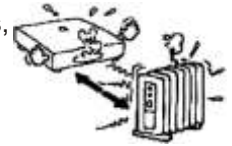
### Read the manual

Upon unpacking the unit, please read the manual carefully and observe all the instructions given.



### Heat

Do not place the unit near sources of heat such as radiators, heat registers, ovens or other units that produce heat.



### Power supply

Only the power supply indicated on the rating plate must be used for this unit. If you are not sure which power supply you have, please contact the distributor or the local electricity supplier.



### Water and moisture

The unit must not be placed close to water, such as bathtub, wash basin, kitchen sink or laundry tub, in a damp cellar or close to a swimming pool, etc.



### Cleaning

Unplug the unit before cleaning. Do not use liquid detergents and aerosol cleaning agents. Use a dry cloth.



### Earthing or polarisation

If the plug cannot be inserted properly into the socket, or if the plug does not fit, the unit must not be used in your country.



### Power cords

Wiring must be organised to prevent people from stepping on the cables and to avoid pinching by objects placed on or beside them. Take special care around sockets and plug boxes and where the power cords leave the unit.



### Ventilation

The cabinet is provided with slots and openings to ensure ventilation and reliable operation and to protect the unit against overheating. Do not block or cover these openings. The openings must never be blocked, for instance by placing the unit on a bed, a sofa, a carpet or similar surface.

### Overloading

Make sure that wall sockets, extension cords and plug boxes are not overloaded as this may lead to fire or electrical shock.



## Lightning

Unplug the unit for additional protection during thunder or when the unit is not used for prolonged periods. This will prevent damage to the unit from lightning and power surges.



## Penetration of objects and liquid

Never push any foreign objects through the openings into the unit, as they may touch dangerous voltage points or short-circuit parts and thus cause fire or electric shock. Do not spill liquid on the unit.



## Accessories

Do not place the unit on unstable surfaces such as a trolley, stand, tripod, shelf or table. The unit may fall and injure children or adults or be seriously damaged. Use only trolley, stand, tripod, shelf or table that is very stable or provided with the unit. The unit must be installed in accordance with the manufacturer's instructions and by means of installation equipment recommended by the manufacturer.

If the unit is placed on a trolley, the trolley must be moved very carefully. Sudden stops, unnecessary force and uneven surfaces may cause the trolley to turn over.



## Loads

Do not place heavy loads on the unit and do not step on it. The load may fall and cause serious injury to persons or damage to the unit.



## Damage

Unplug the unit and contact qualified technicians in the following cases:

- A) If the power cord or the plug is damaged.
- B) If liquid has been spilled on the unit or objects have fallen into the unit.
- C) If the unit has been exposed to rain or water.
- D) If the unit does not work properly after adhering to the instructions in the operation manual. Only the settings described in the operation manual must be made as incorrect setting may result in damage and often will make it difficult for a qualified technician to make the unit work properly again.
- E) If the unit has been dropped or damaged in any other way.
- F) When the operation of the unit changes drastically, the unit requires service.

## Service

Do not attempt to carry out any service work yourself. By opening or removing the cabinet, you will be exposed to dangerous voltage or other hazards. Any service work should be carried out by qualified technicians.



## Spare parts

If spare parts are required, make sure that the service technician uses spare parts specified by the manufacturer or spare parts with the same characteristics as the original. Unauthorised spare parts may cause fire, electrical shock, etc.

## Safety check

After service or repairs on the unit, ask the service technician to carry out a safety check to ensure that the unit is ready for use.



### Handling instructions

- The top and back panel of the unit may become warm after prolonged use. This is not due to a defect.
- Turn off the power when the unit is not used.

### Protect the power cord

Follow the instructions below to prevent abnormal operation, electrical shock, fire or personal injury:

- Hold the plug firmly when inserting it into the socket.
- Avoid heat-producing devices.
- Do not place objects on the power cord.
- Do not carry out service work on or change the power cord.

### Positioning

Do not place the unit in any of the fol. places:

- In sunlight, close to heat-producing devices or in an enclosed rack.
- In places with high temperatures (40C or more) or high relative humidity (90% or more).
- In dirty places as some internal parts may be damaged.

### Do not put your fingers or any other objects into the unit

- Touching the internal parts is dangerous and may cause injury or damage. Do not open the cabinet.
- Do not place any foreign matter in the unit.

### Interference

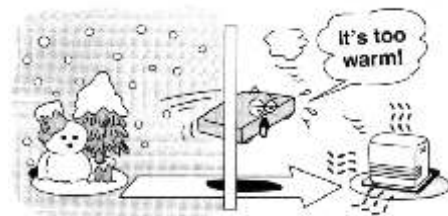
Placing the unit near a television set, radio or video player may cause poor picture and sound quality. In that case, move the unit further away from the television set, radio or video player.

### Condensation

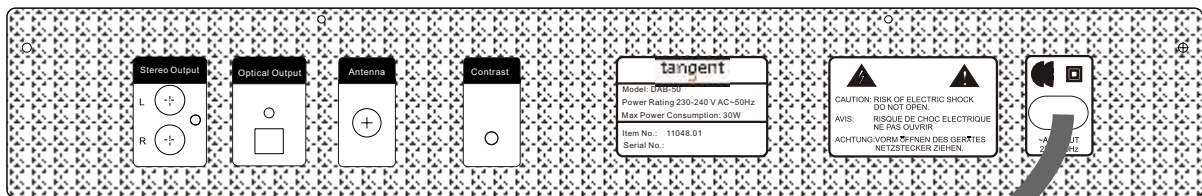
Condensation may occur in the following cases:

- When the unit is moved directly from a cold to a warm place.
- When the unit is used in a room where the radiator has just been switched on or a place where the cold air from the air-conditioning system is directed at the unit.
- If the unit is used in the summer in a warm and humid room just after it has been moved from an air-conditioned room.
- If there is steam or a high level of humidity in the room.

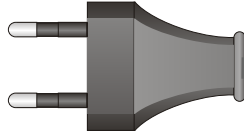
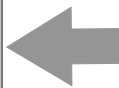
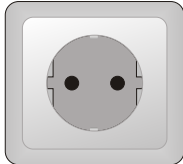
In case of condensation, the unit will not work properly. Turn off the unit. Unplug the unit and leave it for 2-3 hours. The unit will then have adapted to the environment and any condensation will have disappeared.



## Connection to the mains



230-240V AC~50Hz



Do not turn on the power before all connections have been made correctly. Check that all connections have been made correctly before turning on the power. Check that the mains voltage is 230-240V AC50Hz before turning on the power.

## Connection to the mains

Check that all other connections have been made correctly before inserting the mains plug into the wall socket.

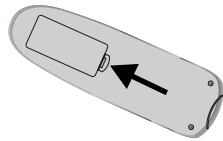
Then insert the plug into a suitable socket.

If the unit is to be used abroad, you may need an adapter.

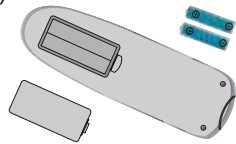


## Installation of batteries

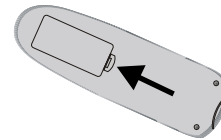
- 1 Remove the cover as illustrated.



- 2 Position two batteries of the type AAA/R03/UM4 in the battery compartment. Make sure that the orientation of the batteries is correct (see drawing at bottom).



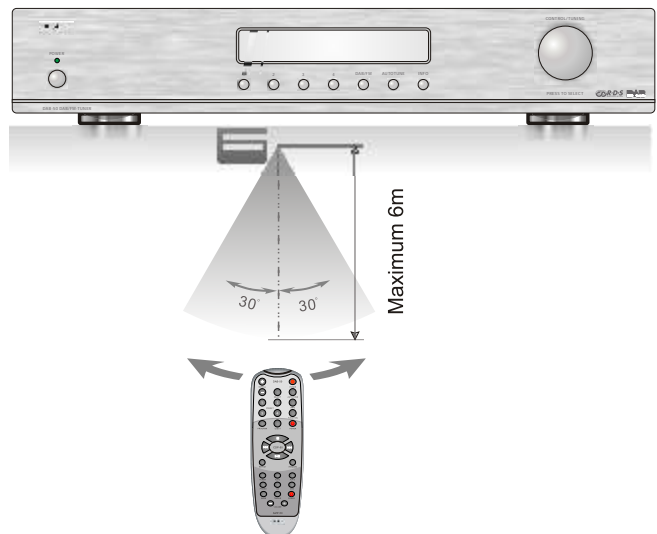
- 3 Replace the cover.



- Do not mix new and old batteries and do not use different types of batteries.
- If the remote control is not used for prolonged periods, remove the batteries from the remote control to avoid corrosion.

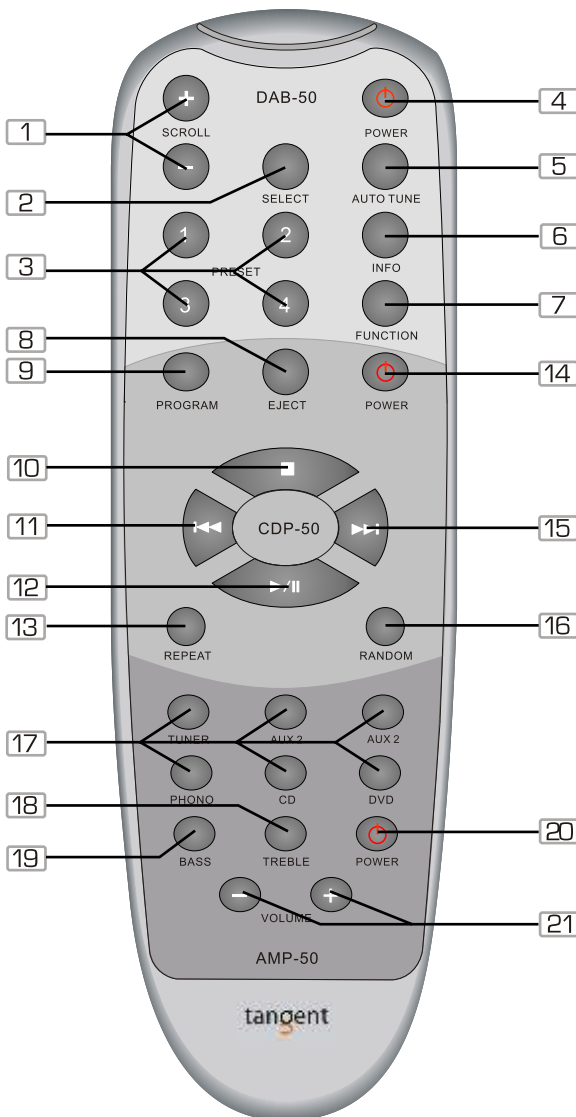
## Using the remote control

Direct the remote control at the sensor on the front panel of the unit. When the remote control signal is received, the unit reacts accordingly. The remote control works within a range of 6 metres.



- Sometimes the remote control does not work well in strong light. You may have to move the unit if it is a problem.
- Malfunction may occur if other remote controls are used near the unit.
- Do not place any objects on the remote control, as the batteries may become flat if a key is depressed constantly.
- Make sure that there are no obstacles between remote control and unit.
- Do not position the unit behind tinted glass as it may reduce the maximum range of the remote control.

## Remote control functions



### DAB-50 FUNCTIONS:

- 1 **Scroll +/-:** Switches between DAB and FM stations.
- 2 **Select:** Switches between MONO and AUTO on the FM band, and selects the DAB station displayed.
- 3 **1-4 :** Selects stored stations. If depressed for more than 2 seconds, a station is stored under the number concerned.
- 4 **Power:** Sets the DAB-50 in standby mode.
- 5 **Autotune:** Press once to automatic tune in to DAB stations. Depress button for 2 seconds to initiate an international search. At FM, the autotune function will search for a station at a higher frequency.
- 6 **Info:** Displays RDS and DAB information.
- 7 **Function:** Switches between DAB and FM.

### CDP-50 FUNCTIONS:

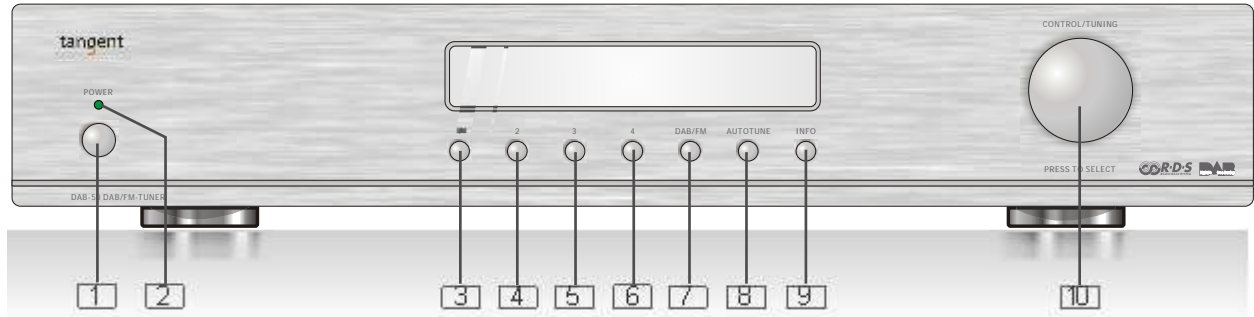
- 8 **Eject:** Opens the CD tray.
- 9 **Program:** Allows playback of the music tracks on a CD in a certain order.
- 10 **Stop:** Stops playback.
- 11 **Previous:** Selects the previous track. Depress button to rewind.
- 12 **Play/Pause:** Starts and pauses playback.
- 13 **Repeat:** Repeats a single track or all tracks on a CD.
- 14 **Power:** Sets the CDP-50 in standby mode.
- 15 **Next:** Selects the next track. Depress button for fast forward.
- 16 **Random:** All tracks are played in random order.

### AMP-50 FUNCTIONS

- 17 **Input buttons:** Selects input of amplifier.
- 18 **Treble:** Adjusts treble level by means of VOL + and -.
- 19 **Bass:** Adjusts bass level by means of VOL + and -.
- 20 **Power:** Sets the AMP-50 in standby mode.
- 21 **Volume +/-:** Adjusts the master volume.

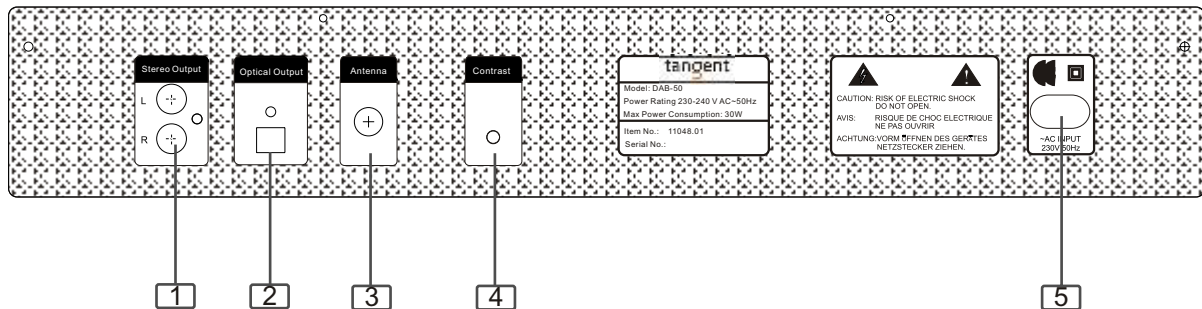
Some of the functions of the unit can only be performed by means of the remote control. Some functions are connected with the selected signal input source. Some buttons on the remote control may therefore not be available if the corresponding signal input source has not been selected.

## Front panel



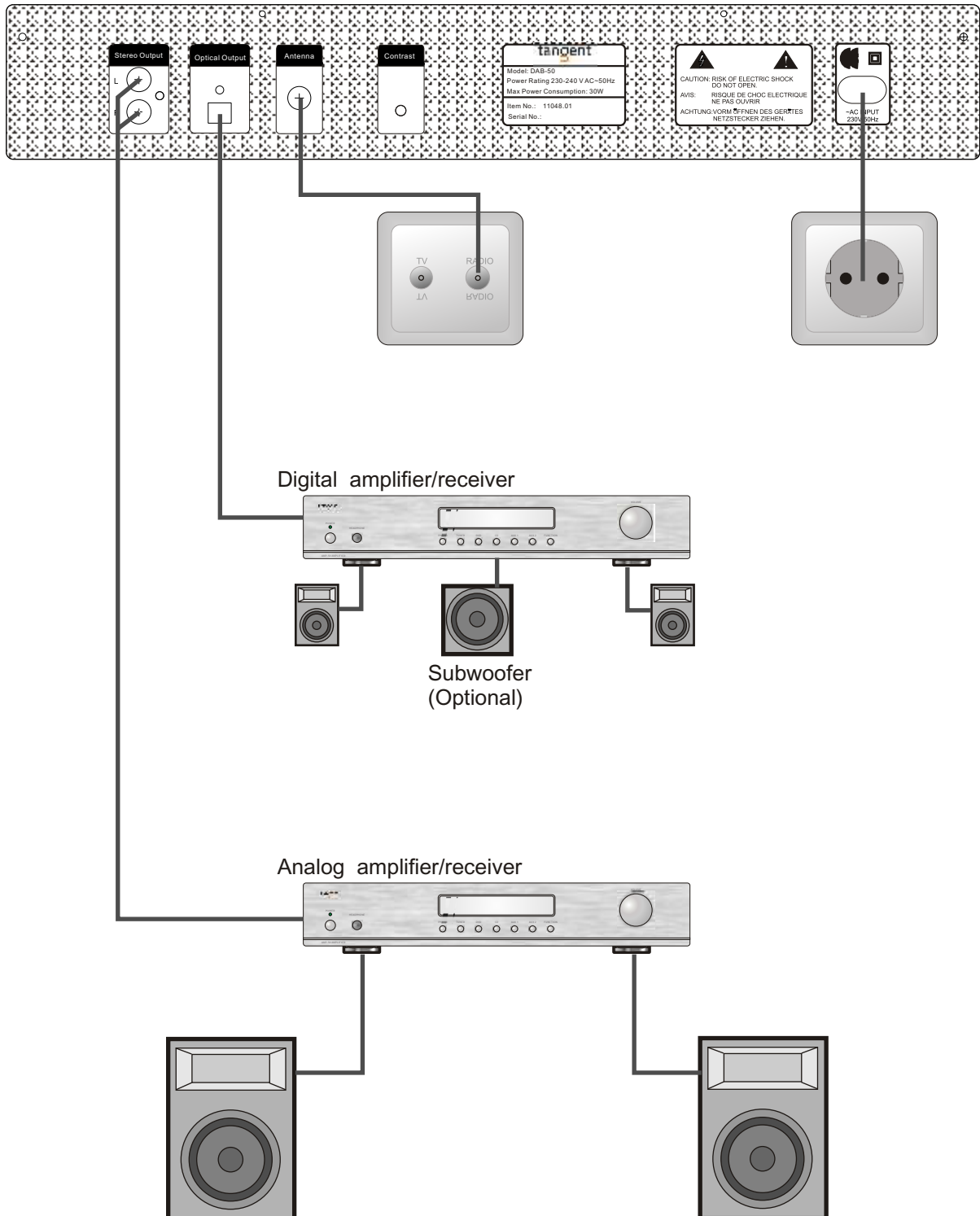
- 1 **Mains switch:** Used to interrupt the mains voltage.
- 2 **LED indicator:** Lights green when the unit is turned on. Lights red when the unit is in standby mode or in operation.
- 3 **Preset no. 1:** Selects the station saved under no. 1. If the button is depressed for more than two seconds, a station is saved under the current number.
- 4 **Preset no. 2:** Selects the station saved under no. 2. If the button is depressed for more than two seconds, a station is saved under the current number.
- 5 **Preset no. 3:** Selects the station saved under no. 3. If the button is depressed for more than two seconds, a station is saved under the current number.
- 6 **Preset no. 4:** Selects the station saved under no. 4. If the button is depressed for more than two seconds, a station is saved under the current number.
- 7 **DAB/FM:** Switches between DAB and FM.
- 8 **Autotune:** Press once to automatic tune in to DAB stations. Depress the button for two seconds to initiate an international search. At FM, the autotune function will search for a station at a higher frequency.
- 9 **Info:** Switches between RDS and DAB information (program information, time and date, signal strength, etc.).
- 10 **Adjusting button:** Used to switch between the tuned in DAB stations. Manual tuner in FM mode.

## Connections



- 1 **Stereo Output:** Analogue stereo output. For connection to stereo amplifier or receiver with analogue input.
- 2 **Optical Output:** Optical SPDIF output. For connection to stereo amplifier or receiver with digital input.
- 3 **Antenna:** For connection of the supplied antenna or for the communal antenna system.
- 4 **Contrast:** For adjustment of display contrast.
- 5 **AC input:** For connection of mains voltage. Make sure that the plug has been correctly inserted, and that the voltage corresponds to the text printed on the back panel of the cabinet.

Audio connection layout



This page only contains suggestions for connection of your Eltax DAB-50. Note that the accessories in the pictures on this page are not included in the supply.

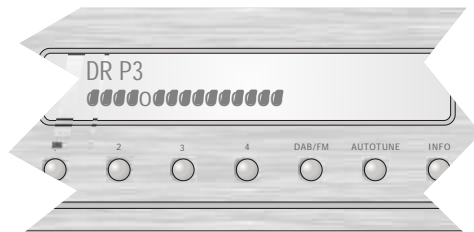
## Adjusting the antenna

As it applies to all other radios, the sound quality depends on the signal strength of the antenna inputs.

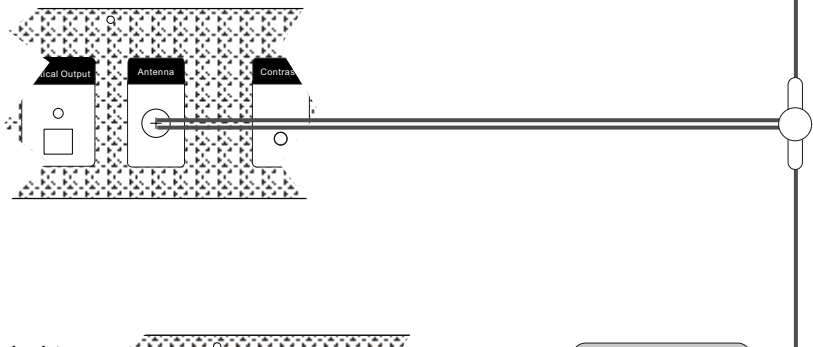
The position of the radio in relation to the transmitter thus directly influences the quality of the signal received. For an optimal result it is therefore very important that you make sure that the radio receives the best possible antenna signal.

It is possible to insert a bar in the display which will indicate the strength of the antenna signal. If you wish to have such a bar displayed, you must press the INFO button when you have tuned in to a station on the FM band.

The signal strength is displayed through the length of the bar. The longer the bar, the stronger the signal. The fifth square of the bar has not been filled in like the remaining ones. It indicates the minimum signal strength required if an acceptable result is to be achieved.

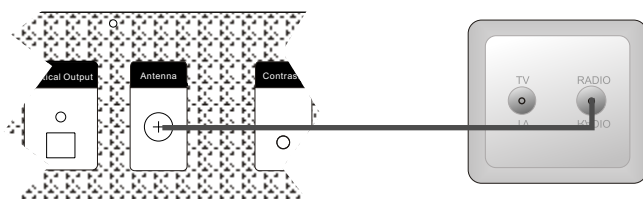


The supplied antenna must be adjusted for the best possible result by means of the signal bar described above.



A good tip is to let the antenna ends point in the vertical direction and fix them on a wall.

For an optimal result it is recommended to install a DAB antenna on the roof or on the loft.



## On, Off and standby

- 1 Turn on the unit by pressing the mains switch.
- 2 Press the standby button on the remote control to switch to standby mode. The display will turn off and all functions will be reduced to a minimum to make sure that the unit uses minimal power. When in standby mode the unit only reacts to the standby button of the remote control.
- 3 If you wish to turn off the unit to avoid any power consumption, you must press the mains switch.

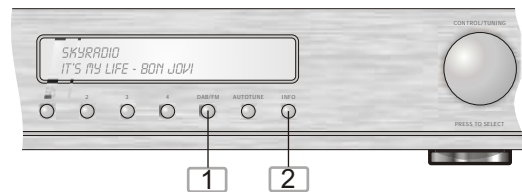


Protect the environment and turn off the unit after use.



## Info and function

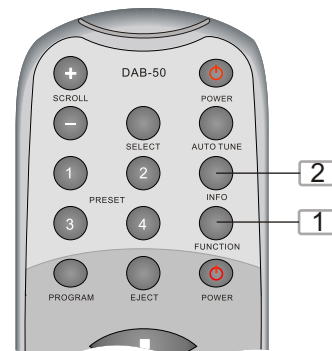
- 1 As this tuner can receive both normal FM radio and DAB (Digital Audio Broadcasting), it features a function that can switch between the two reception types. To switch between DAB and FM, you must either press the DAB/FM button on the front panel or the FUNCTION button on the remote control.



- 2 This tuner features RDS on the FM receiver. DAB also offers some information possibilities that resemble RDS as we know it from FM. To activate this information from both DAB and FM, you must press the INFO button either on the front panel or on the remote control. The display will show information about for instance time and date, name of station, name of artist, title, etc.

**Note:**

If the INFO button is pressed after channels have been saved, the strength of the antenna signal will also be displayed.



## DAB tuning

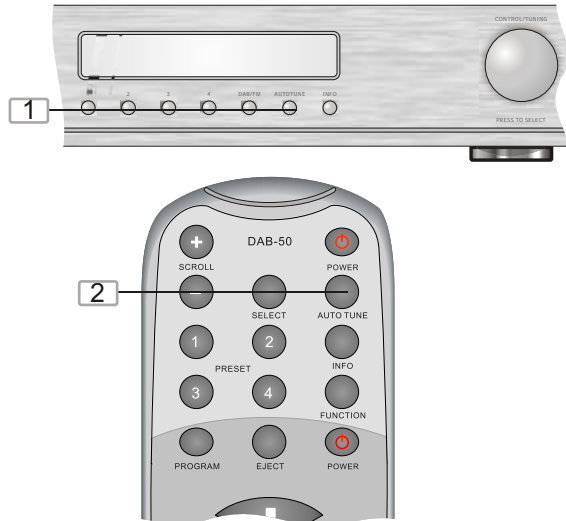
When the unit is turned on for the first time, all settings will be default settings. The settings can be changed according to your preference. When the unit is turned off the next time, these settings will naturally be saved as the new default settings. This also applies if you unplug the unit.

When the unit has been turned on, channels must be saved. This is done by means of the autotune function.

- 1 To use the autotune function through the front panel controls, press the AUTOTUNE button for two seconds. An international search will be initiated.
- 2 You can also press the AUTOTUNE button on the remote control for two seconds.

**Note:**

If the button is only pressed once, the unit will once again search for the channels already found.



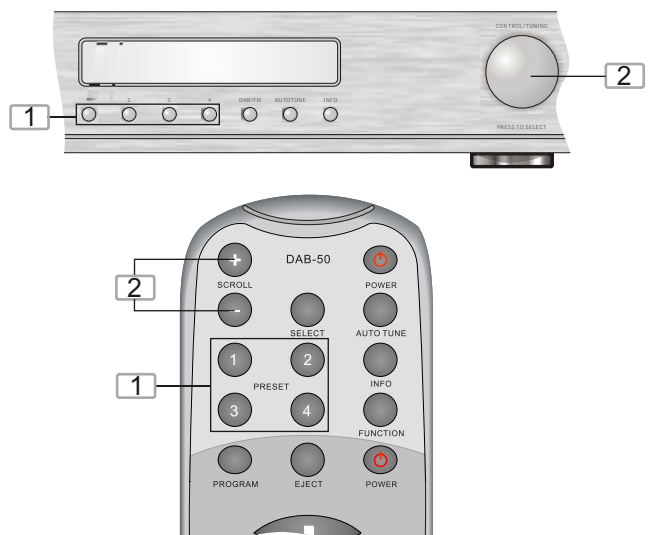
The message SEARCHING will be shown at the bottom of the display, and you will see a bar at the top of the display that grows longer indicating how far the tuning process has come. As it finds channels, you will see a figure at the top line to the right of the display that shows how many channels have been found.



If no channels are found, you must check if the antenna has been correctly connected. You can do this by tuning in on a channel through manual tuning on the FM band, and then press the INFO button to display the signal bar and check the signal strength (see the section on FM tuning)

## Saving and selecting channels

- 1 If you want to save a channel under one of the four presets, you must press down the button with the number concerned for two seconds. When the channel has been saved and you wish to listen to that channel, press the button with the number that you have saved the channel under. The procedure is the same for both FM and DAB.
- 2 Channels that have not been saved can be selected either by means of the SCROLL buttons on the remote control or the CONTROL/TUNING button on the front panel. Note that if the channel is selected by means of the CONTROL/TUNING button, you must confirm your choice by pressing the adjusting button. This function can be deactivated by pressing the button for two seconds.





## FM tuning

The DAB-50 offers both manual and automatic tuning on the FM band.

This makes it possible to save just one specific channel. It also makes it possible to adjust the supplied antenna for the best possible signal.

### Automatic tuning

- 1 To use the autotune function through the front panel controls, you must press the AUTOTUNE button. The unit will search for a frequency with a proper signal.
- 2 You can also activate the autotune function through the remote control.

The display will now use a higher frequency. At the top of the display you can see that the frequency increases. When the tuner has found a channel, the tuning process will automatically stop. The sound from the channel found will be heard and any RDS information will be displayed.

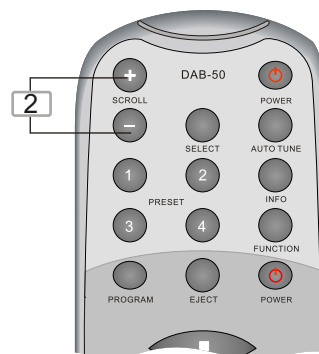
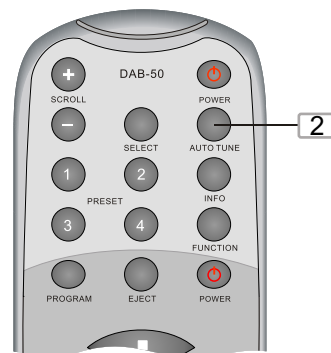
If no channels are found, you must check if the antenna has been correctly connected. You can do this by tuning in on a channel through manual tuning on the FM band, and then press the INFO button to display the signal bar and check the signal strength (see the section on manual FM tuning).

### Manual tuning

- 1 To activate the manual tuning function through the front panel controls, simply turn the CONTROL/TUNING button. If you turn it clockwise, the unit will tune in to a station at a higher frequency and if you turn the button anti-clockwise, the unit will tune in to a station at a lower frequency. It is also possible to activate the manual tuning function through the remote control. Use the SCROLL + and SCROLL - buttons that works in the same manner as the CONTROL/TUNING button on the front panel.

**Note:**

If there are channels from the FM band that have not been saved, you must tune in to them again either manually or automatically if you wish to listen to them again.



## Troubleshooting

PROBLEM	CAUSE/REMEDY
No power when the unit is turned on.	<ul style="list-style-type: none"> <li>- Switch on the electric current at the socket.</li> <li>- Check that the plug has been correctly inserted into the socket.</li> <li>- The internal fuse has blown and must be replaced by a qualified service technician.</li> <li>- The power cord has been damaged and must be replaced.</li> </ul>
No sound.	<ul style="list-style-type: none"> <li>- The unit has not been turned on.</li> <li>- Incorrect connection to the amplifier.</li> <li>- No loudspeakers have been connected to the amplifier.</li> <li>- The DAB-50 has not found any stations on DAB.</li> </ul>
The display does not show DAB/RDS information.	<ul style="list-style-type: none"> <li>- The DAB-50 has not found any stations on DAB/FM.</li> <li>- The selected station does not broadcast any information.</li> <li>- The antenna signal is too poor. See the section on adjusting the antenna.</li> </ul>
I cannot hear the station selected	<ul style="list-style-type: none"> <li>- You have not pressed the CONTROL/TUNING button after selection. The station that you listen to will be described in the top line of the display. When you "scroll" through the channels by means of the CONTROL/TUNING button, you must always remember to press the CONTROL/TUNING button once to confirm your choice.</li> </ul>
I can hear "tick/blob" sounds at some of the stations.	<ul style="list-style-type: none"> <li>- Like all other digital media DAB is reproduced in a very high sound quality. But if the antenna signal is too weak, you will not hear any whistling but instead you will hear blackouts or "tick/blob" sounds. You must therefore check if the antenna signal is strong enough. See the section on adjusting the antenna.</li> </ul>

**Technical data**

<b>RF section:</b>		
Tuner bands	DAB FM	174-240MHz (Band III) 87.5-108.0MHz
Sensitivity		-96dBm type
<b>Display:</b>		2 lines of 16 characters LED backlight
<b>Presets</b>		4
<b>Audio outputs</b>		Stereo, 2.5Vpp 48kHz sample rate 16 bit sample resolution
<b>Optical SPDIF output</b>		IEC60958 Compliant 48kHz sample rate 24 bit sample resolution
<b>Voltage and power consumption</b>		See back panel
<b>Dimensions (WxDxH)</b>		430 x 290 x 75mm
<b>Weight</b>		4.5 kg

We reserve the right to change the technical data and the design of the product without notice as a result of further development.

tangent

[www.tangent-audio.com](http://www.tangent-audio.com)