



FUNCTIONS

- | | |
|-----------------------------|--|
| 1. PTY: | Programme Type Code
Includes programmes such as news, music, sport, etc., dependent on the radio station. |
| 2. TA: | Traffic Announcement Identification. Identification data on traffic announcements that can be broadcast. |
| 3. AF/REG: | To switch on the RDS mode and/or the regional programme mode |
| 4. EJECT: | CD eject |
| 5. CD tray: | To load the CD |
| 6. MODE: | Switch-over radio/CD/MP3/number key 7 |
| 7. RELEASE: | Removal of operating panel |
| 8. DISPLAY | |
| 9. POWER: | On/Off switch |
| 10. SEL (MULTIJOG): | Settings of volume, bass, trebles, balance and fader |
| 11. ^ : | Increase volume |
| 12. v : | Reduce volume |
| 13. BND/LOU: | Selection frequency range/loudness |
| 14. Station keys 1-6 | |
| 15. DSP/0: | To scan settings of programme, time, frequency and PTY/number key 0. |
| 16. -<< : | Tune/station search
backwards/number key 8 |
| 17. +>>: | Tune/station search
forwards/number key 9 |
| 18. AMS/MP3: | Automatic station memory / switch-over
frequency display/station name |
| 19. P. EQ: | Equalizer |
| 20. PAU: | Pause button (for CD/MP3) |
| 21. SCN: | Scan button (plays the CD track/MP3 for approx. 10 sec.) |
| 22. RPT: | Repeats a track (CD/MP3) |
| 23. SHF: | Random Playback (CD/MP3) |
| 24. - | |
| 25. - | |
| 26. Red LED | (Theft protection LED) |
| 27. RESET: | Reset to the works settings |



SAFETY PRECAUTION

- Place the unit into the corresponding slot or choose a place where it can be installed without impeding the driver in his usual driving job.
- Shortly connect the cables before finally installing the unit. Make sure that they are correctly connected and that the system works properly.
- If any changes at the car are necessary, contact your car dealer / service shop.
- Install the unit in a way that nobody will be injured when the car is suddenly stopped.
- If the unit is installed at an angle of more than 30° from horizontal it may no longer give an optimum performance.



- Avoid installing the unit in the vicinity of high temperatures (e.g. caused by direct sunlight or hot air from the heating system), dust, dirt or excessive vibrations.

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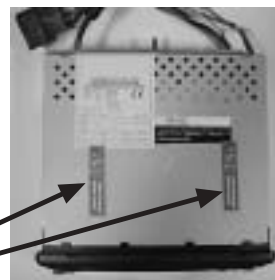
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BEFORE SWITCHING ON

Remove in any case both transport securing screws at the upper radio housing before starting with the installation (marked by red flags)!



transport securing device

INSTALLATION

This car radio is simple to install in every standard ISO radio slot.
If your car has no standard ISO radio slot please contact your car dealer.

Installation of the radio in the ISO slot of your car.

Remove the installation frame from the radio.

Push the installation frame into the radio slot in the dashboard of your car.

Bend the lugs in the installation frame using a screw driver to firmly fix the frame in the vehicle.

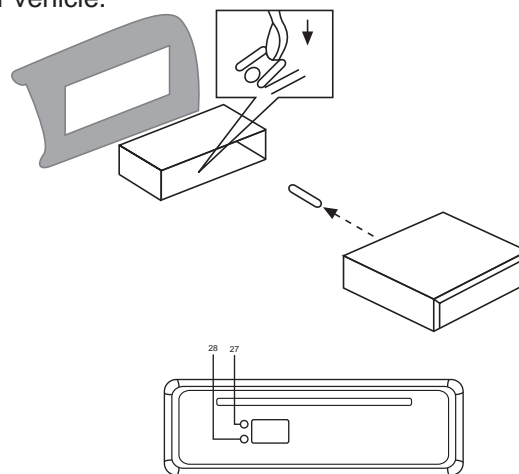
Check that the frame is firmly seated.

Connect the ISO socket block to the ISO plugs of your vehicle.

Connect the aerial cable of the vehicle with the aerial plug of the car radio.

Carefully push the radio into the installation frame.

Make sure that you do not pinch the cables! Push the RESET button (27) with a ball-point pen. Attach the operating panel.



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ATTENTION!

Please use the ISO connections of the car radio for the connection. Depending on the car model, the matching ISO adapter plugs (counter-pieces in the car) are commercially available.

If the adapter connections are removed from or cut off the cable, then your **warranty claim** is no longer valid!

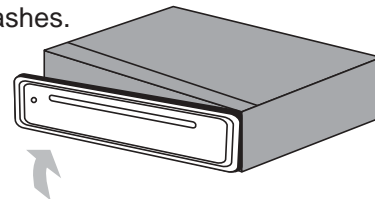
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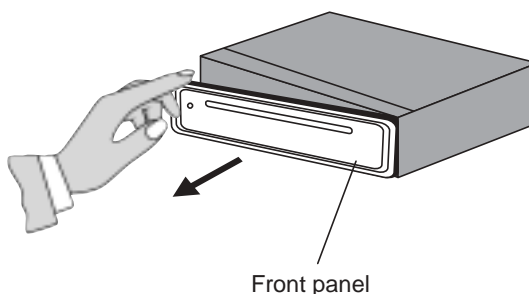
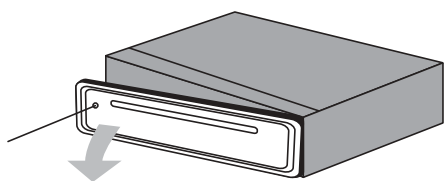
DETACHING AND ATTACHING THE OPERATING PANEL

Press the RELEASE button (7) and remove the operating panel. Always keep the operating panel in the transport bag supplied with the unit.

When the operating panel has been removed, a red LED (26) flashes.



To install the operating panel place it with the right side first into the frame. Then firmly press the left side until it snaps into place. Check that the operating panel is seated correctly and firmly. If the operating panel is not installed properly the display shows wrong information and/or some keys show malfunctions.



ISO Adapter plug

Caution!

Use the ISO adapter plug of the car radio to ensure a safe electrical connection.

Important notes!

Ensure that the pink backup cable is attached to the permanent plus pole (for the station memory). After all connections have been made, press the RESET button (27).

Aerial relay cable

The yellow cable is supplied for a relay-controlled aerial.

The relay will automatically extend the aerial when the unit is switched on and retracts it when it is switched off.

Caution:

Do not connect the yellow cable to the motor cable, this may damage the unit.

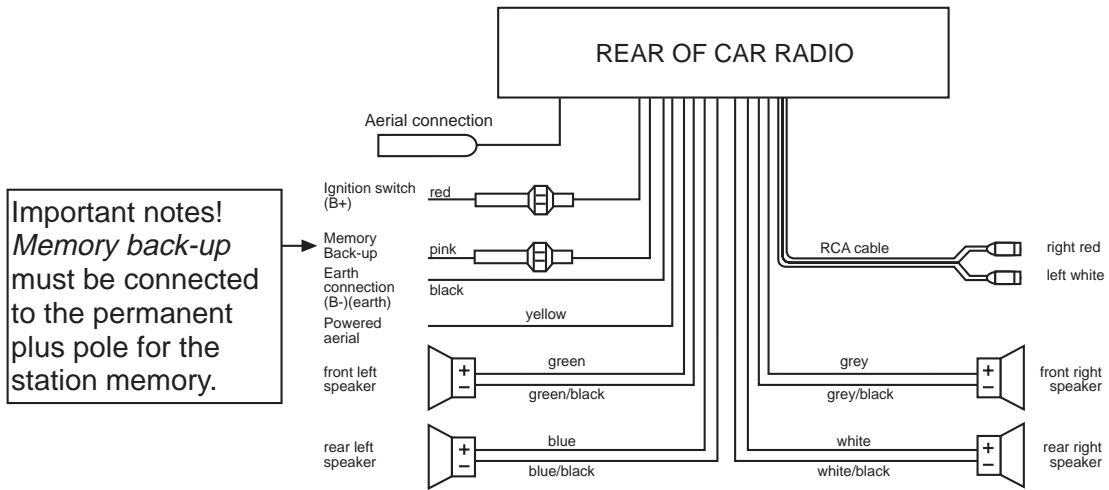
Stereo Cinch output

External units (e.g. amplifier) can be connected to these terminals (red and white cinch output).



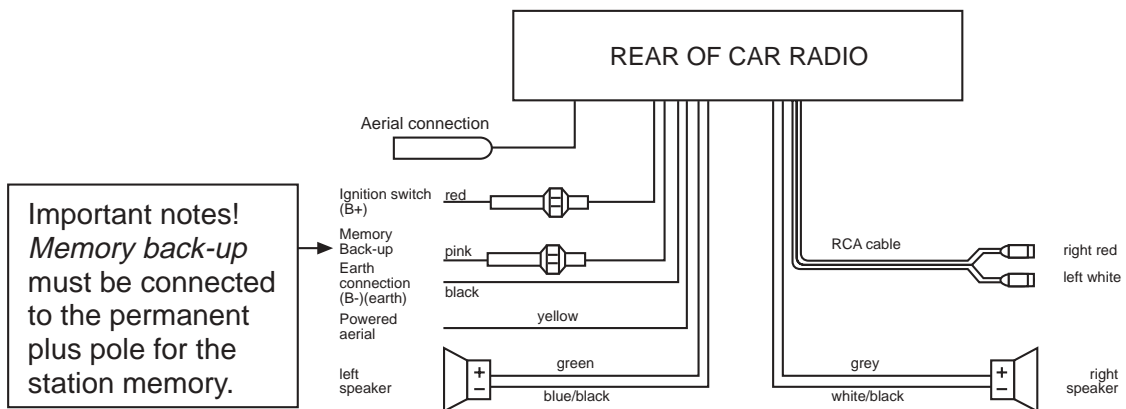
CABLE CONNECTIONS

for a four-speaker (quadro) system



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for a two-speaker (dual) system



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BASIC OPERATION

- **Switching on / off**

Press the PWR button (9) to switch on/off the unit.

- **Volume**

Adjust the volume by pressing buttons ^ (11) and v (12).

Control the volume only to a level that you are still able to hear the acoustic signals of approaching ambulances / fire service / police cars!

- **Bass**

Press SEL button (10) once to set the bass. Press the buttons ^ (11) or v (12) to increase or lower the bass.

- **Trebles**

Press SEL button (10) twice to set the trebles. Press the buttons ^ (11) or v (12) to increase or lower the trebles.

- **Balance**

Press SEL button (10) three times to set the balance. Press the buttons ^ (11) or v (12) to set the balance of the right and left speakers.

- **Fader**

Press SEL button (10) four times to set the fader. Press the buttons ^ (11) or v (12) to set the fader of the front and rear speakers.

- **Loudness**

Keep the BND/LOU button pressed until you hear a signal sound. The display shows LOUD ON or LOUD OFF. This increases the deep frequencies at low volume to a psychoacoustically correct listening level.

- **Display**

Press the DSP/0 button (15) to scan the following information:

Programme name

Frequency

Time (is set automatically with RDS reception)

PTY settings

(These RDS functions are broadcast by the radio stations in differing quality and contents. You find more information in the chapter RADIO under RDS).

- **Mode**

You can switch between radio and CD by pressing the MOD button (6).

- **Equalizer**

FLAT CLASSICS POP M ROCK M DSP OFF

- **Reset**

To reset your car radio to the works settings, press the RESET button (28) using a ball-point pen. You find this button behind the operating panel!

Press the RESET button

– before using the unit for the first time after connecting all the cables,

– if all the function buttons are not working correctly,

– if an error message appears in the display.



RADIO

- **Selecting the frequency range**

Press the LOU/BND button (13) to change between VHF (F1, F2, F3), medium wave (MW) and long wave (LW). You can memorise six radio stations in each band.

- **Selecting a station**

Give the Tune buttons |<< (16) or >>| (17) a short press, and the unit will automatically search for the next station. If you press one of the TUNE button for two seconds, it switches to a manual search for stations. The display shows MANUAL.

Now you can select and save the station by pressing the TUNE button. After a short waiting period, the unit switches back into the automatic station-search mode.

- **Preset stations**

In each wave band up to six stations can be memorised and recalled using the station buttons 1-6 (14).

- **Pre-setting stations**

1. Press the BND/LOU button (13) to select the frequency range.
2. Press the TUNE button |<< (16) or |>> (17) to select a station.
3. Keep one of the station buttons 1-6 (14) pressed for approx. 3 seconds. A signal sound confirms the storage of the station.

- **Recall preset station**

1. Press the BND/LOU button (13) to select the frequency range.
2. Press the station button (14) to recall the preset station.

- **Automatic memory system (AMS)**

Keep the AMS/MP3 button (18) pressed until you hear a signal sound. The display shows SEARCH. The station search stops for approx. 5 sec. at each found station. The number flashing in the display shows the number of the station key where the corresponding station is to be stored. The tuner automatically scans past stations with a weak reception.

- **Scan of preset stations**

Automatic scanning of the preset stations in the wave band.

1. Press the BND/LOU button (13) to select the frequency range.
2. Give the the AMS/MP3 button (18) a short press. Now all stations are played for some seconds. When the desired station is reached, give the AMS/MP3 button (18) a short press.

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- **Regional Programme Mode**

Some stations broadcast different regional programmes. To select only the alternative frequencies of the desired regional programme keep the AF/REG button (3) pressed for some time until a signal sound will be audible to switch the mode on or off. The display shows REG ON/REG OFF.

- **PTY (Programme Type)**

To activate the menu, press the PTY button (1).

You can now choose the type of programme your station is to broadcast from the following categories:

	MUSIC	LANGUAGE
1	POP M, ROCK M	NEWS, AFFAIRS, INFO
2	EASY M, LIGHT M	SPORT, EDUCATE, DRAMA
3	CLASSICS, OTHER M	CULTURE, SCIENCE, VARIED
4	JAZZ, COUNTRY	WEATHER, FINANCE, CHILDREN
5	NATION M, OLDIES	SOCIAL, RELIGION, PHONE IN
6	FOLK M	Travel, Leisure, Document

(The information given depends on the radio station)

- **TA Traffic announcements**

Press the TA button (2) for a short time to switch the TA mode on or off.

When the TA mode is switched on and traffic announcements are broadcast, and the unit has been switched to CD or AUX, the unit is automatically switched to radio reception. The unit temporarily switches to the EON network station, if EON finds a traffic announcement on a different programme. If the volume has been reduced to below the threshold, it will be increased. The TA function during the traffic announcements is interrupted by pressing the TA button (2). This does not switch off the TA mode. If the TA button (2) is pressed for longer, the EON TA LOCAL / EON TA DISTANCE mode is selected.

With this mode it is possible to allocate information to EON TA when you listen for instance to a station without traffic announcements. If there is a traffic announcement on another station frequency the unit automatically switches to this station for this period of time. As soon as the announcement is finished the unit switches back to the previous station.

- **EON TA local mode**

When the EON TA LOCAL mode has been selected, the EON TA LO flashes for a few seconds in the display. The mode for the local region has been selected.

- **EON DX mode**

If the EON DX mode was selected EON TA DX flashes in the display for a few seconds. The mode for distant regions has been selected.



- **RDS (Radio Data System)**

RDS is a service of the radio stations. Besides the usual music and text pieces, additional information is broadcast in form of encoded digital signals which can be evaluated by the car radio.

Press the AF/REG button (3) to switch the RDS mode on and off. When the RDS mode is active, the symbol AF appears in the display. When a station is received, the name of the programme and other information is shown on the display (8).

This information given depends on the radio station.

Different RDS services are offered:

PI: Program Identification Code

The radio can identify the received station using the PI code.

PS: Program Service Name

With the feature Program Service the station name can be displayed.

AF: Alternative Frequencies

The radio automatically selects the alternative frequency of the same programme with the best reception.

TP/TA: Traffic Program/Traffic Announcement

EON: Enhanced Other Networks Information

If there is any traffic announcement it is switched over to a station with traffic announcements within the station chain when you listen to a non-traffic announcement station.

PTY: Program Type Code

Using Program Type the radio can look for stations with programme contents which can be preselected, e.g. sport, news, rock, pop,.....

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CD-PLAYER

- **Inserting and removing of CDs**

Insert the CD in the slit (5). CD playback starts.

The display shows S--CDP (i.e. "search track"). To remove the CD, press the EJECT button (4). Playback stops and the CD is ejected. The unit switches to radio mode.

- **Skip tracks**

Press the TUNE button |<< (16) or button >>| (17) to skip to the next track.

The number of the track is shown in the display (8).

- **CD pause**

During playback, press the PAU button (20) and the CD playback is paused. When the PAU button (20) is pressed again, the CD restarts.

- **Fast forward and fast backward**

Press the TUNE button |<< (16) or button >>| (17) during playback for longer to start fast forward / backward .

- **Playback of all tracks**

Press the SCN button (21) and the first 10 seconds of every track are played. Press the SCN button (21) again to restart normal playback.

- **Repeating a track**

Press the RPT button (22) to continuously repeat the track. Press the RPT button (22) again to deactivate this function.

- **Random Playback**

Press the SHF button (23) to shuffle between all tracks on the CD in a random order.

Note:

- Driving on bumpy roads could cause the CD to skip. A short play time improves the performance. Skipping does not cause damage to the CD.
- Moisture and high humidity can cause malfunctions of the CD player. Switch on the car heating, and allow moisture to evaporate before operating.
- Do not subject the CD player to any extremely high or low temperatures.
- Do not drive with an ejected CD in the slit.



MP3 PLAYBACK

The playback starts automatically when a MP3 CD-ROM is inserted. You find the individual key functions in the chapter CD Player.

You can directly select the track or interpreter. Please take into account that most of the MP3 functions are dependent on the type of creation of the MP3 CD.

- **Search for tracks (numbers)**

Press the AMS/MP3 button (18) once. The display shows MP3T

Enter the number of the desired track by pressing the keys given in the table.

Press the BND/LOU button (13) to confirm the input or wait for approx. 5 sec. until the unit automatically skips to the selected track.

- **Search for interpreters**

Press the AMS/MP3 button (18) twice. The display shows a flashing

Enter the name of the desired interpreter by pressing the keys given in the table.

Observe that the SEL button (10) must be pressed after the input of every character before the next one can be entered (character shift).

Press the BND/LOU button (13) to confirm the input.

Now, the unit searches for the corresponding track.

Press the BND/LOU button once again if the unit has found the desired interpreter. The track is played now.

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Note:

The search function depends on the created MP3 CD.



- Table keys of allocations

AMS/MP3 (18)	Select settings
BND/LOU (13)	Confirm
1 (14)	A, B, C, 1
2 (14)	D, E, F, 2
3 (14)	G, H, I, 3
4 (14)	J, K, L, 4
5 (14)	M, N, O, 5 / 10 track down
6 (14)	P, Q, R, 6 / 10 track up
MODE (6)	S, T, U, 7
 << (16)	V, W, X, 8
>> (17)	Y, Z, space, 9
SEL (10)	Character shift to the right
DISP/0 (15)	0, -, +,
▲ (11) ▼ (12)	Scroll function A-Z / 0-9

Note:

If you create MP3 CD-ROM please make sure that the tracks are stored individually or in directories. Never mix tracks or directories since it could lead to problems during the playback. All standard codings are suitable for playback.

ID 3-TAG FUNCTION

You can store additional information when creating a MP3 CD. This can be information on the interpreter, track, album name or year of publication of the piece of music or a short comment. We recommend an ID3-tag editor to enter this information.

This information is shown in the display after the scanning during the playback.

So it is possible to display, besides the track number, the name of the track or interpreter during the playback of MP3 CDs (dependent on the stored information on the MP3 CD).

To scan it press the DSP/0 button (15). The ID3-tag entry of the current playback is shown after each keypress:

TRACK - INTERPRETER - ALBUM NAME - YEAR OF PUBLICATION - COMMENT



TROUBLESHOOTING

Problem	Cause	Solution
The unit cannot be switched on.	The ignition is not switched on.	Switch on the ignition by turning the key.
	The fuse is defect.	Change the fuse.
The CD cannot be loaded or ejected.	There is already a CD in the unit.	Remove the CD from the player, then insert a new CD.
	The CD has been inserted upside-down.	Always insert the CD with the writing facing upwards.
	The CD is very dirty or defect.	Clean the CD or try to play another one.
	Temperature in the car is too high.	Allow to cool until the ambient temperature is back to normal.
	Condensation.	Switch off the unit for a few hours and then try again.
No sound	Volume set to minimum.	Turn up the volume to the desired level.
	The cables are not correctly connected.	Check the cable connections.
Function buttons do not work.	The built-in microcomputer cannot function due to noise.	Press RESET button.
	The operating panel is not seated correctly.	Check that the operating panel is seated correctly and firmly.
CD skips.	The installation angle of the unit is greater than 30°.	Adjust the installation angle to less than 30°.
	The CD is very dirty or defect.	Clean the CD or try to play another one.
	Defective self-burned CDs	Check the CD in another unit
Radio not functioning. Automatic station selector not functioning.	The aerial cable is not correctly connected.	Firmly plug in the aerial cable.
	The broadcast signals are too weak.	Select the transmitter manually.
Station memory not functioning.	The pink cable is not connected to the permanent plus pole.	Check the cable connections.

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SPECIFICATIONS

General

Operating voltage:	DC 12V, negative earth connection
Housing dimensions:	178 x 155 x 50mm (WxDxH)
Power:	Peak music power output 4 x 25W R.M.S.
Fuse:	0.5 Ampere (red), 15 Ampere (pink)

MP3/CD-Player

MPEG Rate	64-320 K
Frequency range	20Hz~20kHz
MP3 Playback	ISO 9660 & Joliet format of MP3

Radio

	For 3 frequency bands
Frequency range IF Sensitivity (Signal-to-noise ratio = 30 dB) Stereo separation	FM 87.5 to 108 MHz 10.7 MHz 3 μ V > 30dBu
Frequency range IF (Signal-to-noise ratio = 30 dB) Stereo separation 32 dBu	MW 522 to 1620 MHz 45 kHz
Frequency range IF Sensitivity (Signal-to-noise ratio = 30 dB)	LW 144 to 288 MHz 450 kHz 35 dBu

CD-Player

Use only CDs labelled as follows:



Laser class 1



Subject to technical modifications.