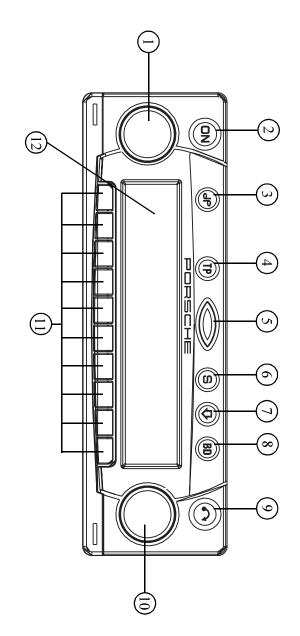
#### Contents

Select operating mode Select waveband Switch on radio menu mode Setting procedures for transmitter selection FM, AM transmitter search Scan search Direct frequency entry Program type display/search (PTY) FM 1/FM 2 transmitter - request/store	Adjust mono / stereo  Radio Operation	Linear adjustment	Fader  I outness on /off	Adjust treble Adjust balance	Activate tone menu Adjust bass	Adjust volume Mute function	General Operation Switch on / off	Code number entry Remove portable panel	Anti-theft Device	Bottom Arrangements	Contents
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Compact Disc (CD) instructions CDs - insert / eject Track skip - forwards / reverse Scan search Fast forward / rewind Relative time, number of tracks, total playing time Random play Direct track selection Temperature protection circuit	CD Operation	Scan - search Cleaning the cascette mechanism	Dolby NR Skip blank	Hast forward / rewind Music search - forwards / backwards	Radio operation during forward / rewind	Cassettes - insert / eject	Time request  Tape Operation	Traffic program transmitter - display / select Announcement standby - switch on/off Telephone mute function	Traffic Program (TP)	AM / FM autostore	AM transmitter - request/store
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- Volume control
  On / off switch ( )
  Tone button ( )
  Road traffic announcement button ( )
- LED
- Operating mode switching button (S Source)
  Function button (D)
  Waveband switching button (B Band)
- 9 Tape/CD eject button ( )
  10 Right rotary control
  11 Multifunction buttons
  12 Display

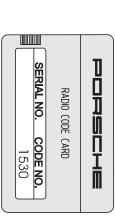
### Anti-theft Device

### Code number entry

If the car radio is disconnected from the power supply, it is theft-protected upon reconnection. After switching on at the button, the prompt **CODE**, followed by 4 stars is displayed.

The four-digit code must then be entered using the multifunction buttons "1-0".

**Example:** Code number 1530 (the code number can be found on the enclosed CODE CARD).



Enter code number using the multifunction buttons.

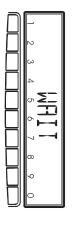
The first star is extinguished after entry of the first digit. The second star is extinguished after entry of the second digit, etc. The unit switches on automatically after entry of the 4th digit if this and all other digits have been correctly entered.

1 COJE \*\*\*

**Note:** It is essential that the CODE CARD be kept in a safe place outside the vehicle. Thus, illegal use is not possible. The accompanying sticker should be attached to the inside of the vehicle windshield/window.

### Anti-theft Device

If an incorrect code number is entered, the prompt **CODE** with the four stars is displayed again. After entering incorrect code three times **WAIT** is displayed and the unit is disabled for approx. 60 minutes. Three further incorrect entries block the unit again for 60 minutes.



**Note:** The waiting time applies only to ignition and unit switched on.

## Remove portable panel

As an effective anti-theft device, the portable panel (A) can be removed from the unit.

For this purpose, press and hold button. The display folds forwards. The portable component can then be pulled out.

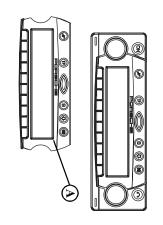
The volume is limited to a maximum value after the display has been folded down. After 20 seconds an audible signal indicates that the control component is folded down. The unit is switched to mute. The unit switches off after a further 10 seconds.

**Note:** For safety reasons, it is not permissible to leave the portable panel open when driving

If a new portable panel or that from another unit is utilized, the code number must be entered as previously described in order to activate the unit.

**Note:** Please insert the portable panel in the accompanying protective cover after removal.

Do not touch the metal contacts on the portable panel or on the radio.



#### Switch on / off

Press button.

Further on / off switching possibilities: Via ignition. In order to switch on via the ignition, the unit must previously have been switched off via the ignition. After switching off the ignition, the unit can be prevented from switching off by pressing the witching off seconds.

**Hinweis:** The unit can also be switched on with the ignition switched off via the witched off via the button, but will switch off automatically after 1 hour.

#### Adjust volume

Turn volume control to right / left. The volume is increased or decreased. The current volume level is shown on the display.

#### Mute function

The unit can be switched to mute in each operating mode by pressing the volume control. **MUTE** appears on the display.

The mute function is cancelled by pressing the volume control, changing the operating mode, changing the waveband or inserting a tape/CD.

## FM VIL +311



#### Activate tone menu

Press **Press** button. The tone menu is activated. The following functions can be called up: **BASS** (Bass), **TREB** (Treble), **BAL** (Balance), **FAD** (Fader), **LOUD** (Loudness) and **STEREO** (Reception optimization).

Bass and treble settings for the AM/FM wavebands, for road traffic announcements and tape/CD operation are stored separately (values from -7 to +7). The settings for fader, balance and loudness (no loudness with AM) are stored together for all operating modes (values from -7 to +7).



### General Operation

#### Adjust bass

value are displayed. Set the desired bass via both buttons. Press 🌓 button and then multifunction button "-" or "+". BASS and the set

Center setting: Press both buttons simultaneously.

#### Adjust treble

Press **(f)** button and then multifunction button "-" or "+". **TREB** and the set value are displayed. Set the desired treble via both buttons.

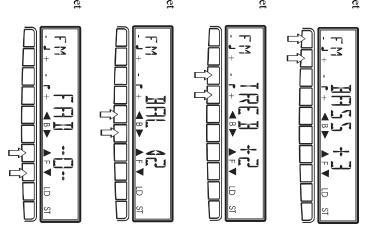
Center setting: Press both buttons simultaneously.

value are displayed. Set the desired balance via both buttons.

Center setting: Press both buttons simultaneously.

value are displayed. Set the desired fade level via both buttons. Press  $\P$  button and then multifunction button " $\blacktriangle$ " or " $\blacktriangledown$ ". FAD and the set

Center setting: Press both buttons simultaneously.



### General Operation

#### Loudness on /off

Press button and then multifunction button "LD". LOUD ON or LOUD OFF are displayed. The loudness can be switched on or off alternately by pressing the multifunction button.

#### Linear adjustment

Activate tone menu. Then again press and hold **(1)** button for more than 2 seconds. The tone values for the set signal source (e.g. radio/FM) are set to an average value **FM LINEAR**.

T |**X** 

AF▼ LD

5

Press and hold **(f)** button for more than 4 seconds. All tone values for the signal sources radio and tape / CD are set to an average value **ALL LINEAR**.

### Adjust mono / stereo

Two different reception optimization settings can be set in order to suppress reception-dependent interference and reflections.

Repeatedly press multifunction button "ST" in tone menu until the desired optimization is set.

**STEREO:** Setting for normal operation, i.e., the unit switches from stereo to mono and back depending upon reception location (provides the optimum setting for almost all reception areas).

**MONO:** Setting for reception conditions in which reflections constantly occur, i.e., the unit is set constantly to mono.

desired

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ptimum

| J + - I + AB AF V D SI

The setting is effective immediately after pressing the multifunction button "ST" and is also retained on switching off.

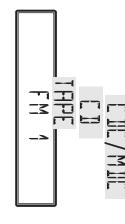
### Radio Operation

## Select operating mode

Press S button. The operating modes Radio, CD or TAPE or CD/MD changer (for connected CD/MD changer) can be selected.

The last selected operating mode is selected after the button is pressed for the first time. If the other operating modes are to be selected, press the sutton quickly and repeatedly until the desired operating mode is selected.

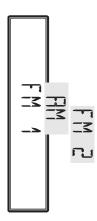
Note: If you switch often between FM and CD, first select FM and then through quick pressing CD. Subsequently, press the sutton after a pause of more than 2 seconds, switching only takes place between FM and CD.



#### Select waveband

Press button repeatedly until desired waveband FM 1, FM 2 or AM is selected.

When changing the waveband, the last selected transmitter is selected.



## Switch on radio menu mode

Press button. The radio menu mode is switched on and displayed. The unit switches back to the normal display if no buttons are pressed within the next 8 seconds.

### Radio Operation

# Setting procedures for transmitter selection

The desired transmitter can be selected via transmitter search, scan search, manual tuning, autostore, direct frequency entry and station buttons.

## FM, AM transmitter search

Turn the right rotary control to the left/right in desired waveband. The radio searches in descending/ascending order.

#### Scan search

In the desired waveband (FM or AM) press the right rotary control, SC is displayed. An automatic transmitter search is started. The first search is performed on an insensitive plane, all further searches on a sensitive plane. Receivable transmitters can be heard for 8 seconds. Press the right rotary control if the received program should be retained.



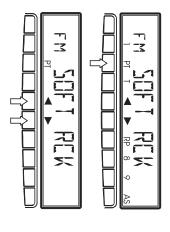
## Direct frequency entry

Select radio menu mode and then, within 8 seconds, enter the frequency using the multifunction buttons.

## Program type display/search (PTY)

Select radio menu mode and then and press multifunction button "PT". The selected transmitter program type is displayed for 10 seconds (e.g. SOFT RCK = soft rock). If the selected transmitter has no PTY characteristic (see also page 29) NO PTY appears.

In order to activate search, select radio menu mode and then and press multifunction button "**PT**". Pre-select the desired PTY code using the multifunction button "**PT**". Turn the right rotary control within the next 10 seconds. **PTY-SEEK** is displayed. The previous program is selected if no transmitter with the selected PTY code is receivable. The unit switches to station button plane if there is no further actuation within 10 seconds.



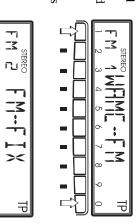
# FM 1/FM 2 transmitter - request/store

**Store**: 10 frequencies or programs can be stored on each of wavebands FM 1 and FM 2.

Press multifunction button for 2 - 4 seconds in order to store the desired transmitter or program.

**Request**: Press multifunction button "1 - 0". The stored transmitter is requested.

The frequency is displayed if the transmitter cannot be identified.

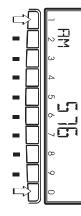


### Radio Operation

## AM transmitter - request/store

**Request:** Press multifunction button "1 - 0". The stored transmitter is requested.

**Store:** 10 transmitters can be stored under station buttons. Search for the desired transmitter and press the multifunction button until the station button number is displayed.

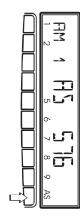


### AM / FM autostore

Select desired waveband. Select radio menu mode. Then press multifunction button "AS" repeatedly until AS-SEEK is displayed. The 10 transmitters with the best reception are stored under the station buttons in order of quality. The autostore plane is identified on the display by AS.

Select radio menu mode in order to quit the autostore storage plane. Then press multifunction button "AS". The radio switches back to the station

button plane



#### Manual tuning

Select radio menu mode and then turn the right rotary control.

Tuning steps of 200 kHz (FM) or 10 kHz (AM) are performed.

Pressing the right rotary control switches to fine tuning (1kHz steps) for AM.

The function is quit if there is no further actuation within 10 seconds.

### Traffic Program (TP)

The traffic program system offers the advantage that current traffic news can be received and heard despite the fact that Tape or CD are selected. For this purpose, it is essential that a traffic program transmitter is selected in the FM waveband and that the traffic program is activated.

# Traffic program transmitter - display / select

If a traffic program transmitter is selected, the abbreviation **T** appears. Press the **P** button and a station search will begin to locate the next station broadcasting the **TP** identifier.

The transmitter can also be selected by transmitter search or by direct frequency entry.

## FM-1WHME-FM I

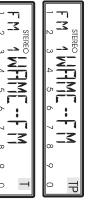
# Announcement standby - switch on/off

If the selected traffic program transmitter should interrupt the tape/CD operation for traffic announcements, the P button must be pressed until the abbreviation **TP** is displayed.

If traffic announcements are not desired, the  $\P$  button must be pressed until the abbreviation T appears.

During the traffic announcement, the desired increase in volume can be set via the volume button. An announcement which is currently being heard can be terminated by pressing the putton. The unit then immediately switches back to the previously selected operating mode. However, the next traffic announcement is connected through again.

Note:



### Radio Operation

## Telephone mute function

The telephone characteristics can be set in the user menu (see also page 27) if a telephone system is installed in the vehicle and the mute function lead for the car telephone is connected to the car radio.

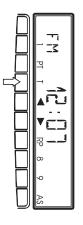
For the setting MUTE, the radio is switched to mute if a call is received.

For the setting **AUDIO**, the telephone sound is connected through the radio unit if a call is received.

However, this is only possible if, in addition to the telephone, a handsfree unit with loudspeaker output is installed and connected to the radio. In both cases, **PHONE** is displayed.

#### Time request

Select radio menu mode in FM waveband. Then press multifunction button "T". The current time in hours and minutes is displayed. This display is only possible if the time signal is received via RBDS. If no time signal has been received, —:— is displayed.



## Cassettes - insert / eject

Press button briefly; the display folds downwards and the cassette slot becomes visible. Push in cassette with tape-side to the right until it engages and press lightly. The cassette is pulled in automatically. Then fold the display up again.

The unit switches automatically to cassette operation. **TAPE** and **TRACK 1** are displayed.

If there is already a cassette in the cassette slot, press **S** button repeatedly until **TAPE** appears on the display.

In order to eject a cassette, press ab button briefly; the display folds downwards and the cassette is ejected and can be removed. Then fold the display up again.

**Note:** The cassette is not ejected when the unit is switched off but remains in the cassette slot.

#### Track switching

The track is changed automatically at the end of the tape.

The tape track can be switched at any desired position by pressing briefly one of the multifunction buttons for track switching. The track currently playing is shown on the display.

# Radio operation during forward / rewind

During forward / rewind, the radio (FM) can be switched through by turning the volume control. Operation of the radio functions is, however, not possible.

#### Tape Operaiton

### Fast forward / rewind

During cassette operation, fast forward / rewind can be activated using the multifunction buttons.

In order to cancel the function, press or turn the right rotary control, or press the track switching buttons or the fast forward / rewind buttons.

# Music search - forwards / backwards

In order to activate the forward music search, turn the right rotary control to the right until the desired number of tracks to be skipped (max. 9) is set.

In order to activate the backward music search, turn the right rotary control to the left until the desired number of tracks to be skipped (max. 9) is set.

The beginning of a track can only be found if there is a pause of at least 4 seconds between tracks. In order to cancel the function, press or turn the right rotary control, or press the track switching buttons or the fast forward / rewind buttons.

#### Dolby NR

For the playing of cassettes which have been recorded using Dolby NR, press the multifunction button repeatedly until the desired noise reduction mode (Dolby B or Dolby C) amount on the display

(Dolby B or Dolby C) appears on the display. For the playing of non-Dolby cassettes, press the button repeatedly until the Dolby NR display is extinguished.

#### Skip blank

If skip blank is active, automatic forward is activated at blank tape sections which are longer than 10 to 15 seconds.

In order to activate the function, press the multifunction button "SB" until SB is shown on the display.

#### Scan - search

Press the right rotary control to start the scan search.

SC appears on the display. Each track is played for approx. 10 seconds.

In order to cancel the function, press the track switching buttons or the fast forward / rewind buttons.

## Cleaning the cassette mechanism

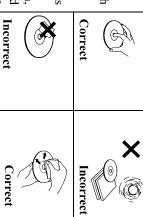
After a time, the reproduction quality of cassettes is reduced due to unavoidable dirt and dust deposits on the sound head. The drive components in the cassette mechanism also become soiled. For this reason the cassette mechanism should be cleaned from time to time. The prompt **CLEAN** appears on the display after each 30 hours' running time.

Use a cleaning cassette suitable for reverse operation for this purpose. The cleaning cassette should be removed again after 30 seconds.

## Compact Disc (CD) instructions

Sound interruptions may occur if the CD is soiled. In order to ensure optimum tone quality, please note the following:

- Always touch the CD at the edges only. Keep the CD clean and never touch the surface.
- Never stick anything on the CD.
- Protect the CDs against direct sunlight and from heat sources such as heaters, etc.
- Before playing, clean the CD with a commercially available cleaning cloth, wiping from the center outwards. Solvents such as petrol, thinners and other commercially available cleaners and antistatic sprays must not be used.



#### CDs - insert / eject

Press button briefly; the display folds downwards and the CD slot becomes visible. Insert the disc into the CD slot with the printed side upwards. The unit pulls in the CD automatically and begins to play the disc from the first track. Then fold the display up again.

After playing the last track, the unit automatically begins to play the first track of the CD again.

If there is already a CD in the CD slot, press S button repeatedly until CD appears on the display.

In order to eject a CD, press button briefly; the display folds downwards and the CD is ejected. Then remove the CD. Then fold the display up again.

Note:

in the CD slot.

The CD is not ejected when the unit is switched off but remains



#### CD Operation

## Track skip - forwards / reverse

Turn right rotary control to right / left.

If the track has been playing for longer

If the track has been playing for longer than 10 seconds when the return function is triggered, a return to the beginning of the track takes place.

Through further turning of the right rotary control, several tracks can be skipped over in forward or reverse directions. Skip returns to the first track when the last track has been reached. Analogously, it jumps from the first to the last track.



#### Scan search

Press and hold the right rotary control, until the prompt SC appears on the display. All following CD tracks are played for 8 seconds each. Press the rotary control again to terminate the scan search.

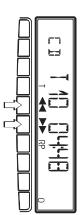


## Fast forward / rewind

Fast forward (audible) is activated by pressing the multifunction button "▶▶" and fast rewind (audible) is activated by pressing the multifunction button "La claim that the faction button that the faction button "I have been activated by pressing the multifunction button "I have been activated by pressing the multifunction button "I have been activated by pressing the multifunction button "I have been activated by pressing the multifunction button" and fast pressing the multifunction button "I have been activated by pressing the multifunction button "I have been activated by pressing the multifunction button "I have been activated by pressing the multifunction button "I have been activated by pressing the multifunction button "I have been activated by pressing the multifunction button "I have been activated by pressing the multifunction button "I have been activated by pressing the multifunction button "I have been activated by pressing the multifunction button "I have been activated by pressing the multifunction button "I have been activated by pressing the multifunction button "I have been activated by pressing the multifunction button "I have been activated by pressing the multifunction button "I have been activated by pressing the multifunction button" and "I have been activated by pressing the multifunction button "I have been activated by pressing the multifunction button" and "I have been activated by pressing the multifunction button "I have been activated by pressing the multifunction button" and "I have been activated by pressing the multifunction button "I have been activated by pressing the multifunction button" and "I have been activated by pressing the multifunction button "I have been activated by pressing the multifunction button" and "I have been activated by pressing the multifunction button" and "I have been activated by pressing the multifunction between activated by pressing the multifunction between activated by pressing the multifunction between activated by pressing the multifunction by

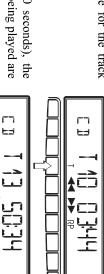
" $\blacktriangleleft$ ". The relative time is displayed during this function.

Fast forward / rewind is terminated by releasing the multifunction button. The relative time is displayed for a further 8 seconds.



# Relative time, number of tracks, total playing time

By pressing the multifunction button "T", the relative time for the track currently being played is displayed for approx. 10 seconds.

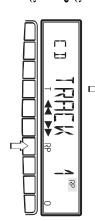


By again pressing the multifunction button "T" (within 10 seconds), the number of tracks and total playing time of the CD currently being played are displayed for approx. 10 seconds.

#### Random play

The random play is activated by pressing the multifunction button "**RP**". The tracks of the current CD are then played in random order. The abbreviation **RP** appears on the display.

The random play function is terminated by repeated pressing of the multifunction button "**RP**".



### **Direct track selection**

The unit is switched to select mode by pressing the multifunction button "0".

The digits 1 - 0 and **TRACK** \_\_ are displayed.

A track can be selected directly by using the multifunction buttons "1-0". The unit switches back to CD menu mode if no buttons are actuated for approx. 8 seconds



#### CD Operation

## Temperature protection circuit

A temperature protection circuit is utilized in this unit in order to protect the laser diode against over heating.

When this protection circuit is activated, **CD TEMP.** appears for 8 seconds. The unit switches back to the last selected signal source (FM / AM or CD/MD changer)

The single CD operation can be requested again after a short cooling phase. However, if the temperature is still too high, the unit again switches back to the previously selected signal source.



## CD/MD Change Operation

# Operational readiness of CD/MD changer

If a CD/MD changer is connected to the car radio, this is ready for operation as soon as it has been loaded with the filled CD magazine or with MDs. Close the sliding cover after loading. Further operation is performed via the car radio control panel.

## CD magazine - load / unload

In order to remove the CD magazine, open the sliding cover on the changer and press the eject button. The magazine is ejected and can be removed. When inserting CDs in the magazine, please note imprint on magazine.

**Note:** Incorrectly inserted CDs will not be played.

**Note:** In order to ensure the fastest possible CD change, the magazine should be fully loaded from compartment 1.

## CD/MD Change Operation

#### Playing CD/MDs

Press button repeatedly until the CD/MD changer operation is switched on. The last CD/MD which was being played, is played from the position in which it was left before switching off.

The desired CD/MD can be selected via the multifunction buttons "1 - 6". During the selection time CD X LOADING or MD X LOADING is displayed. Subsequently, the magazine compartment number and the number of the current track for the selected CD/MD are displayed.

If no CD/MD is present in the selected magazine compartment (e.g. compartment 2), **NO CD 2** or **NO MD 2** appears briefly on the display. After playing the last track of a CD/MD, the next CD/MD in the magazine is automatically selected and played.

For further operation see under CD Operation Page 19):

- "Compact Disc (CD) instructions" See Page 19
- "Track skip forwards / reverse" See Page 20
- "Scan search" See Page 20
- "Fast forward / rewind" See Page 20\*
- "Relative time, number of tracks and total playing time" See Page 21\*
- "Random play" See Page 21\*
- "Direct track selection" See Page 21\*

**Note:** For the points marked with \*, the button must be pressed before selection in order to access the submenu.

## User menu - request / quit

After requesting the user menu, the following basic settings can be entered according to your personal preference.

USER - user memory

SEEK - search mode

**GAL** - speed dependent volume control

**DRIVER** - LHD / RHD setting

**PHONE** - telephone characteristics

**COUNTRY** - country setting

**D** - quit user menu

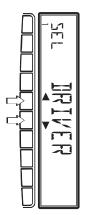
The user menu is requested by pressing the button for longer than 8 seconds. **SEL USER** appears on the display. Further actuation must take place within 4 seconds, otherwise the user menu is quit automatically.

In order to quit the user menu, set **END** using the right rotary control. The user menu is quit after 4 seconds.

#### **DRIVER** setting

If a telephone system with handsfree unit is installed the telephone conversation is conducted via one loudspeaker side. The relevant loudspeaker side (LHD/RHD) is selected using the DRIVER setting.

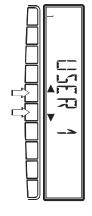
For selection, request user menu. Then set **DRIVER** using the right rotary control. Using the multifunction buttons " $\blacktriangleleft$ " or " $\blacktriangleright$ " select between **DRV L** (LHD) and **DRV R** (RHD). The setting is stored automatically.



#### User Menu

#### User memory

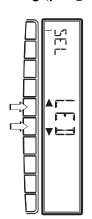
Request user menu, then set **USER** using the right rotary control. Using the multifunction buttons " $\blacktriangleleft$ " or " $\blacktriangleright$ " a choice of three different users is available. Both tone settings and the last selected station as the unit was switched off are stored in each user memory.



#### **LED** setting

The flashing of the LED (flashes when unit is switched off) can be switched on or off using this function.

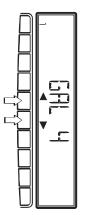
Request user menu, then set **LED** using the right rotary control. Pressing the multifunction buttons "◄" or "▶" enables a choice between LED ON and LED OFF.



#### **GAL** setting

The GAL is a car radio control circuit which automatically adjusts the car radio volume according to vehicle speed. This results in compensation of the driving noise produced at higher speeds.

Request user menu, then set **GAL** using the right rotary control. Pressing the multifunction buttons " $\blacktriangleleft$ " or " $\blacktriangleright$ " enables a choice between **GAL OFF** and **GAL** 7. The setting is stored automatically.



#### Explanation of terms:

**NL OFF** - no volume adjustment

GAL 1 - volume adjustment initiated at low speed

**GAL** 7 - volume adjustment initiated at high speed

With the GAL setting, the start of volume adjustment can be specified according to vehicle speed.

# **Telephone mute characteristics (PHONE)**

If a telephone system with handsfree unit is installed in the vehicle, the telephone conversation can be conducted via the car radio system. Thus, installation of the normally required additional loudspeaker is not necessary. However, the signal cables (AF - telephone input and earth - telephone input must be connected to the car radio (see page 30).

In order to activate, request user menu then set **PHONE** using the right rotary control. Then, the multifunction buttons "◄" or "▶" can be used to select between



**PH ON** - telephone conversation via car radio.

are selected. The setting is effective immediately after actuating the multifunction button.

## **Country setting (COUNTRY)**

Various countries can be set using this function, i.e. the search steps or the received waveband are changed according to the selected setting.

Request user menu, then set **COUNTRY** using the right rotary control. Choose one of the settings listed below using the multifunction buttons "▲" or "▶".

Possible settings are:

The setting is stored automatically.

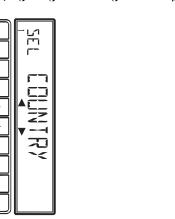
USA for the USA

S-AMERIC for South America

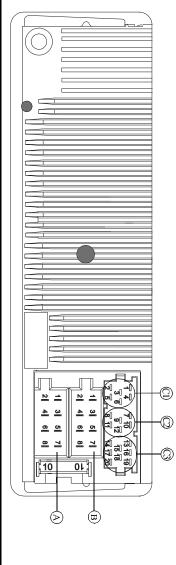
**AUSTRALI** for Australia

IA for Asia

The band limits and search steps are listed on page 30. For the ASIA setting the SW (short wave) wave band is additionally activated.



## **Connection Instructions**



Loudspeaker rear right + Loudspeaker rear right - Loudspeaker front right - Loudspeaker front right - Loudspeaker front left + Loudspeaker front left - Loudspeaker rear left +	Socket B	not assigned  2 not assigned 3 Telephone mute / clearing function 4 Permanent positive (terminal 30) 5 Control output for automatic aerial / amplifier 6 Illumination (terminal 58d) 7 Switched positive (terminal 15) 8 Earth (terminal 31)	Socket A
Socket C3  12 AF telephone input 13 Earth - telephone input 14-20 Special connection for Porsche CD changer / MD changer	7-11 Special connection for Porsche CD changer / MD changer	1 LineOut rear left 2 LineOut rear right 3 AF earth 4 LineOut front links 5 LineOut front right 6 not assigned  Socket C2	Socket C1

## Gemeral Instructions

#### RBDS system

This car radio is capable of receiving RBDS signals (RBDS = Radio - Broadcasting - Data - System) in the FM range. RBDS is a technique which enables the transmission of inaudible additional information in the FM broadcasting range. This means that the transmitter broadcasts information which can be evaluated by the car radio.

### PTY (Program Type)

Specific types of programme, such as e.g. sport, pop music, classical music etc., can be selected using the PTY function.

The PTY is broadcast by the RBDS transmitter, provided that the transmitter is equipped with this function. The selected transmitter programme type can be displayed or a search of a specific PTY transmitter can be performed.

Examples of programme types are:

**COUNTRY** Country TALK **SPORTS** NO PTY WEATHER Weather forecast **OLDIES TOP 40** SOFT RCK Soft rock **ADLT HIT** Adult hits CLS ROCK Classic rock ROCK **INFORM** NEWS Oldies Top 40 Rock sports reports No programme type Talk Information programs News service **NOSTALGA**Nostalgia R&B CLASSICL Classical PTY 24-28 not specified PERSNLTY Personality REL TALK Religious talk **REL MUSC** Religious music LANGUAGELanguage SOFT R&B Soft R&B PUBLIC Public R&B Jazz

#### Technical Data

Wavebands FM 87.9 MHz - 107.9 MHz (USA); FM 87.5 MHz - 107.9 MHz (S-AMERIC, AUSTRALI)

FM 87.5 MHz - 108 MHz (ASIA)

AM 530 kHz - 1700 kHz (USA, S-AMERIC); AM 531 kHz - 1602 kHz (AUSTRALI, ASIA)

for ASIA additionally SW with 5900 kHz - 6250 kHz

Search steps FM: 200 kHz (USA, S-AMERIC); 100 kHz (S-AMERIC); 50 kHz (ASIA)

AM: 10 kHz (USA, S-AMERIC); 9 kHz (S-AMERIC, ASIA)

SW: 5 kHz (ASIA)

Frequency range : 50 Hz - 14 kHz for cassette operation

20 Hz - 20 kHz for CD/MD operation

30 Hz - 15 kHz for FM

50 Hz - 2.5 kHz for AM

Output power : 4 x 18 Watt

**Line cross-section** : min. 0.75 mm<sup>2</sup>

Loudspeaker impedance: min.  $4 \Omega$ 

**Line out** :  $4 \times \text{analogue line out } (Va \text{ max } 3Veff \text{ at } 10 \text{ k}\Omega)$ 

GAL For speed dependent volume control, the adjustment is performed in 19 steps of 1.25 dB.

**Aerial** : Impedance  $50 \Omega$ 

AF telephone input : Max. input voltage 8 V

**Telephone mute** : Low active level < 2 Volt

Supply voltage : 12 Volt

**CD/MD connection** : The Porsche CD changer CDC 3, or the Sony MD changers MDX 60 and

MDX 61 can be connected.

Playable CDs : Only CDs which conform to DIN EN 60908 may be used.

The use of 8 cm CDs with adapter is not recommended.