

Operating instructions



Atlanta RD 105



Contents

Quick instructions	25	Reception of traffic program stations with RDS-EON	34	Program equalizer manually	39
Important notes	29	Traffic announcement priority on/off	34	Recall manual equalizer setting	39
What you really have to read	29	Warning beep	34	Recall preset equalizer settings	39
Traffic safety	29	Switching the warning beep off	34	Indication of equalizer settings	39
Installation/connection	29	Automatic seek tuning start	34	Clearing equalizer settings	39
Optical indication of theft protection	29	Adjusting the traffic message volume ...	34	To quit the equalizer mode	40
KeyCard	29	CD operation	35	DSA-Demo	40
Replacing a KeyCard	30	Inserting the disc	35	Deactivate DSA-Demo	40
Selecting the operating mode	30	Ejecting the disc	35	DNC	40
Radio operation with RDS	30	Selecting a track	35	DNC calibration	40
AF - Alternative Frequency	30	Storing tracks with TPM	35	Programming the DNC sensitivity	40
REG - Regional	31	CD reproduction with TPM	35	DSC programming	41
Selecting the waveband	31	Clearing the TPM memory	35	Survey of DSC default settings	43
Automatic seek tuning	31	Sampling tracks automatically with		Appendix	43
Manual seek tuning	31	CD SCAN	36	Technical data	43
Adjusting the seek tuning sensitivity	32	The Mix function	36		
Stereo - mono switch (FM)	32	Enter/display CD names	36		
Changing the memory bank (FM)	32	Clearing the TPM memory and CD			
Storing stations	32	names with DSC	37		
Storing the strongest stations		DSA	37		
automatically with Travelstore	32	Overview of Equalizer Functions	37		
Recalling stored stations	33	Self-calibrating equalizer	37		
Preset scanning	33	Manual equalizer	37		
Scanning stations with Radio Scan	33	Preset equalizer	37		
Scrolling through the broadcasting		HiFi calibration	37		
network (FM only)	33	Start HiFi calibration	38		
		Checking/modifying HiFi calibration ..	38		
		Recall HiFi calibration	39		

Quick instructions

① **Switching on:**

Press the **ON** button (the KeyCard has to be inserted), the set plays with the pre-adjusted volume.

Switching off:

Press **ON** for approximately 1 second. If the set was turned on by pressing **ON**, the KeyCard can be used for switching the system on and off. Please read the information of chapter "Key-Card".

The set may also be turned off via the vehicle's ignition (provided that it was connected correspondingly). After the ignition was switched off, a double beep tone reminds you that you should remove the KeyCard before leaving your vehicle.



To operate the set when the ignition is switched off (KeyCard is inserted), proceed as follows:

Press "ON" after the double beep tone. The set will be turned on.

To avoid that the battery goes flat, the system will be turned off automatically after a playback time of one hour.

② To change the **volume:**

Press **VOL+ / VOL-**.

Each time the set is switched on, it will play with the pre-adjusted volume (VOL FIX). You may also change the VOL FIX setting (see chapter "DSC programming").

③ **FMT**

Press this button to switch between the memory banks I, II, and T (Travelstore). As soon as this button is pressed, the system will automatically switch to FM.

Extra function:

Store the six most powerful stations automatically with **Travelstore:**

Press **FMT** until a beep is released seek tuning starts in the display.

④ **M•L**

To change between medium wave (MW) and long wave (LW) frequencies.

⑤ **-dB** - for instantly changing the volume. Press the **-dB** button to instantly mute the audio source. The display will then show MUTE. Return to normal volume by pressing either the **-dB** or the **VOL+VOL-** button.

To program the mute volume, proceed as follows:

- Adjust the desired volume.
- Press **-dB** for approximately 2 seconds (beep tone is released).

This volume is then stored as the mute volume.

6 Rocker switch

Radio operation



- ▲ Up
- ▼ Down
- ◀◀ Down in short intervals (when AF is off)
- ▶▶ Up in short intervals (when AF is off)

Changer operation



- ▲ / ▼ **Selecting a track**
 - ▲ upwards
 - ▼ downwards

If ▼ is pressed only once, the current title will be repeated.
- ▶▶ **Cue** - fast advance (audible).
Hold ▶▶ down as required.
- ◀◀ **Review** - fast reverse (audible).
Hold ◀◀ down as required.

Extra functions:

- AUD** see 20
- GEO** see 19
- DSA** see 12
- DSC - MODE** see 18

AF - MODE

Select function and program parameters.
“AF” in the display
Use the << >> buttons to scroll through the programs of a radio network, e.g. from NDR1 to NDR4 (North German broadcaster).

7 Display



d e f g h i j k l m



p



c

- a) NDR2 - Station name
- b) VIVALDI - CD name or
- c) 1 : 52 - Playtime
- d) FM - Waveband
- e) 6 - Preset button (1 - 6)
- f) I, II, T - Memory bank I, II or Travel-store
- g) CD-IN - CD is inserted
- h) ∞ - Stereo
- i) lo - Seek tuning sensitivity
- j) AF - Alternative frequency in RDS mode
- k) TA - Priority for traffic program stations
- l) TP - Reception of a traffic program station
- m) LD - Loudness → 20 AUD extra function
- n) MIX - CD titles played randomly
- o) TPM - Selects and stores CD titles
- p) T5 - Fifth CD title is played

8 KeyCard

In order to operate the set, the Key-Card has to be inserted.



For this purpose, introduce the **Key-Card** (contact area showing up) into the slot above the KeyCard tongue.

Read also the information given in the “KeyCard” chapter.

⑨ **PS/MIX**

Radio function:

Preset Scan

Press button briefly to sample the stations stored on the preset buttons.

SCAN

Press button for 2 seconds until a beep tone is released and SCAN starts in the display. All receivable FM stations will be sampled.

Terminate Preset Scan/SCAN:

Press the PS/MIX button once again.

CD function:

Press button briefly. **MIX** is activated, when “MIX” is displayed. The CD titles will then be played in random order.

Press button for 2 seconds to activate CD SCAN. A beep tone is released and SCAN is displayed. The CD titles will then be sampled.

Terminate CD SCAN:

Press **PS/MIX** once again.

⑩ **TPM**

(Track Program Memory)

To select and store the titles for CD reproduction. The system allows you to program up to 30 discs in advance.

Read through chapter “TPM programming”.

⑪ **lo-CLR**

Radio functions:

Press button briefly to change the seek tuning sensitivity.

Press button for more than 2 seconds to switch to mono reproduction.

CD function:

To delete CD titles from the TPM memory.

⑫ **DSA (Digital Signal Adaptation)**

To operate the equalizer and DNC functions (DNC = Digital Noise Covering)

Please read the detailed description under “DSA”, “Equalizer” and “DNC”.

⑬ **TA (priority for traffic announcements)**

When “TA” lights up in the display, the system will only play stations offering traffic information.

“TA” on/off: press the **TA** button.

⑭ **AF button (alternative frequency) during RDS operation**

When “AF” lights up in the display, the system will automatically seek a frequency offering better reception of the same RDS program.

“AF” on/off: press the AF button briefly. When pressing the AF button for about 2 seconds (BEEP), the display will show REG-ON or REG-OFF (vea REG - regional).

⑮ **⊕ • SRC**

SRC (Source)

When listening to a CD, you can use this button to shift between radio and CD operation.

⊕ (Eject)

To eject the disc, keep the button depressed for about 2 sec.



16 **1, 2, 3, 4, 5, 6 - preset buttons**

You can store 6 stations on each FM memory bank (I, II, and "T").

Another 6 stations can be stored on MW and LW each.

To store a station: Press button during radio operation and hold down until the radio resumes play (BEEP).

To recall a station: Select the waveband. With FM, select the desired memory bank and press the corresponding preset button.

17 **CD slot**

When inserting a disc with the label side facing up, it will be automatically transported to the playing position. The system will switch from radio to CD operation.

18 **DSC (Direct Software Control)**

Use the DSC function to adapt a number of programmable basic settings to your personal needs. For more information, read through chapter "DSC programming".

19 **GEO**

To adjust the balance (left/right) and fader (front/rear).

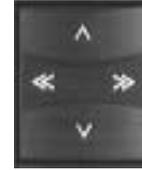


- ▲ Fader front
- ▼ Fader rear
- << Balance left
- >> Balance right

The last setting is stored automatically. Turn GEO off: Press button once again. If no GEO function is changed within 8 seconds, the display will return to the previous setting.

20 **AUD**

To adjust the treble and bass frequencies with the rocker switch.



- ▲ Treble +
- ▼ Treble -
- << Bass -
- >> Bass +

The last setting is stored automatically. Turn AUD off: Press button once again. If no AUD function is changed within 8 seconds, the display will return to the previous setting.

Extra function

Turn Loudness on/off: Press **AUD** for about 2 seconds (BEEP). Loudness is turned on, if "LD" is shown in the display.

For more information, see chapter "DSC programming".

Important notes

What you really have to read

Before you operate your new car radio, please read the following information carefully.

Traffic safety

As the driver of a motor vehicle, it is your responsibility to pay attention to the traffic situation at all times. Never use your car radio in a way that could distract you.

Please keep in mind that you travel a distance of 14 m per second at a speed of only 50 km/h.

Do not adjust your radio in difficult driving conditions that demand your full attention.

Always make sure that you are still able to hear any warning signals coming from outside of the vehicle, such as police or fire engine sirens, so that you can react accordingly.

Installation/connection

In order to ensure that the set functions properly it is necessary that the positive power supply line is connected to the ignition and to the permanent +12 V connector of the car radio.

If you would like to install your new car radio by yourself or add other audio components to the existing ones, then please read carefully

the enclosed instructions on installation and connection.

Do not connect the loudspeaker outputs to ground!

Use only the accessory and replacement parts approved by Blaupunkt.

Optical indication of theft protection

When the car is stationary, you can let the KeyCard tongue flash in order to indicate that the set is equipped with security coding. Use DSC to select one of two settings: LED ON or LED OFF.

For more information, please read through chapter "DSC programming - LED ON/OFF".

KeyCard

The car radio can only be operated using either KeyCard 1 or 2. Their codes are stored in the unit.

Turn on the set and introduce the KeyCard completely. The car radio is now ready for operation. When inserting a wrong KeyCard, the display will show "----".

After approximately 10 seconds, "CARD ERR" will appear in the display. In this case do not make any further adjustments until you have the corresponding KeyCard available.

Never try to pull out the KeyCard by force.

First, slightly press the card in. This releases the KeyCard; the display shows "LEARNING". Now you can pull out the card. Should the KeyCard be lost or damaged, then please contact one of our authorised service partners to get a new card.

The service centres are marked (☐) in the car radio service centre list. In case of doubt, please contact the central service centre in your country for more information on the KeyCard service centre closest to you.

Use either KeyCard (1 and 2) to individually store the following functions as desired: bass, treble, balance and fader settings, preset stations, loudness, TA (traffic announcement volume), SPEECH (tone control for speech programs), BEEP volume, SCANTI-ME, VOLFIX.

In addition to this, the settings activated before switching the radio off, such as the waveband, station, TA priority, loudness, AF, REG ON/OFF or seek tuning sensitivity will also remain stored.

When you insert your KeyCard, the basic settings you have programmed will automatically be activated.

Replacing a KeyCard

Any KeyCard can only be replaced by a new one with the same number (1 or 2). Should you wish to replace KeyCard 2, for example:

- Insert KeyCard 1 and switch the radio on.
- Slightly press the card and it will move into the removal position. "LEARNING" will then appear in the display.
- Remove KeyCard 1 and insert the new KeyCard 2 while the display is still showing LEARNING.

Now you can operate the set with the new KeyCard 2.

You can switch the radio on only after inserting either a KeyCard 1 or 2.

Selecting the operating mode

With the SRC (source) button you can select the following modes:

Radio or CD

To switch over to the other mode

- press the **SRC** button.

Radio operation with RDS

(Radio Data System)

The Radio Data System offers you more convenience when listening to FM.

More and more radio stations have begun to broadcast additional RDS information alongside their programs.

As soon as a radio program has been identified, the station name including a regional identifier, if applicable, will appear in the display, for example "NDR1 NDS" (local radio program of Lower Saxony, Germany).

With RDS, the preset buttons become program buttons. Now you know exactly which program you have tuned into and in future you can select this program directly.

But RDS even offers you more advantages:

AF - Alternative Frequency

The AF function makes sure that the radio will always tune into the optimum frequency for the RDS station you are listening to.

This function is activated if "AF" lights up in the display.

In order to switch AF on/off:

- Press the **AF** button briefly.

During seek tuning for the frequency offering the best reception of the selected program, the radio will be muted briefly.

When “SEARCH” appears in the display after the radio has been switched on or one of the stored frequencies is recalled, then the radio is automatically searching for an alternative frequency.

“SEARCH” goes out as soon as the system has found an alternative frequency or after the frequency band has been run through completely.

Should the reception quality of the selected program become too bad,

- tune into another program.

REG - Regional

Certain radio programs are split up at times into regional programs offering local information. If you are listening to one program and move to an area where another linked regional program becomes stronger, the unit will switch to that program. If you wish to continue listening to the first station:

- Press the **AF** button for about 2 sec.
The display will show “REG ON”.

If you leave the service area of the regional station tuned into, or if you would like to take advantage of the full RDS service, then switch to “REG OFF”.

- Press the **AF** button for about 2 sec. until “REG OFF” is displayed.

The display will show “REG ON” or “REG OFF” every time the radio is switched on.

Selecting the waveband

This car radio can be used in any of the three following wavebands:

FM 87.5 - 108 MHz

MW 531 - 1602 kHz, and

LW 153 - 279 kHz

- Select the desired waveband by pressing the **FMT** or **M•L** button.

To switch between MW and LW:

- press **M•L**.

Automatic seek tuning \wedge/\vee

- Press \wedge/\vee . The radio will automatically tune into the following station.

If you keep the upper or lower part of the rocker switch \wedge/\vee depressed, seek tuning speeds up in upwards or downwards direction.



- \wedge Up
- \vee Down
- \ll Down in short intervals (when AF is off)
- \gg Up in short intervals (when AF is off)

Manual seek tuning $\ll \gg$

Prerequisite: **AF** is switched off!

- Press \ll or \gg to change the frequency in small steps in upwards/ downwards direction.

If you hold down the right or left part of the rocker switch, then the car radio will move through the stations quickly.

Adjusting the seek tuning sensitivity

The set allows you to modify the seek tuning sensitivity.

If “**lo**” is indicated, the radio will only pick up strong stations (low sensitivity).

If “**lo**” is deactivated, the radio will also pick up less powerful stations (higher sensitivity).

The degree of sensitivity can be separately adjusted for both levels (see chapter “DSC programming”).

Stereo - mono switch (FM)

If reception is poor, you may get better sound quality if you switch to mono:

- Press **lo** for approximately 2 seconds.

The stereo symbol  will disappear for mono playback.

Each time the car radio is switched on, stereo playback is activated.

The unit will automatically switch to mono playback under poor reception conditions.

Changing the memory bank (FM)

You can shift between the memory banks I, II, and “T” to store and to recall preset stations. The selected memory bank is indicated in the display.

- Press **FMT** until the desired memory bank lights up in the display (press repeatedly if necessary).

Storing stations

Using the preset buttons **1, 2, 3, 4, 5, 6** you can store six stations on each FM memory bank (I, II, T).

In the MW/LW range you can store six stations each.

- Select the waveband with the **FMT** or **M•L** button.
- Select a station with the rocker switch (either automatically \wedge/\vee or manually $\ll \gg$).
- Press the desired preset button and hold it down. The radio will be muted and resumes play after approximately 2 seconds.

Now the station has been stored. The activated preset button is indicated in the display.

Note:

Should you tune into a station which has already been stored, the corresponding preset button and the memory bank will start flashing in the display for a short while, if you have selected another memory bank.

Storing the strongest stations automatically with Travelstore

You can use the Travelstore memory bank to automatically store the six strongest FM stations sorted on the preset buttons according to their signal strength. This feature is especially useful when travelling, because it will always give you the most powerful stations at a finger tip as you pass through the various reception areas.

- Press **FMT** for approximately 2 sec.

The radio will search for the six most powerful FM stations and store them on the “T” memory bank (Travelstore). When this process has been completed, the radio will tune in the strongest station.

FM stations can also be stored manually on the Travelstore memory bank (see “Storing stations”).

Recalling stored stations

You can recall any stored station by pressing the corresponding preset button.

- Press **FMT** or **M•L** to select the waveband. For FM, also choose the corresponding memory bank by pressing **FMT** until the desired bank is indicated in the display.
- Briefly press the corresponding preset button.

Preset scanning

You can have all of the stations stored in one waveband scanned by using the Preset Scan function. Choose the desired SCANTIME in the DSC menu.

- Briefly press **PS**.
All of the stations in that waveband will be scanned one after another.

Depending on which memory bank has been activated for FM, all of the stations in either I, II or the Travelstore level will be scanned. If a preset is not in use, it is skipped.

To stop the scan:

- Press the **PS** button once again.
The radio will continue to play the currently scanned station.

Scanning stations with Radio Scan

Beginning with the station currently tuned in, you can scan the following stations. Choose the desired SCANTIME in the DSC menu.

To activate the scan:

- Press **PS** for about 2 seconds.
Either the scanned frequency or the station name starts flashing in the display. During the actual scan process, "SCAN" is flashing.

To continue listening to a scanned station/switch the scan off:

- Briefly press **PS**.

If no station is selected during the scan, the scan function will be automatically switched off after the entire frequency band has been passed through. The radio will revert to the station the scan began from.

For more information, please also refer to chapter "DSC programming - SCANTIME".

Scrolling through the broadcasting network (FM only)

You can use the << >> button to tune into the stations of your reception area.

If several programs of one broadcasting network are receivable, you can scroll through these programs by pressing the button >> (up) or << (down), i.e. NDR 1, 2, 3, 4, N-JOY. However, this function only works when you have tuned to these stations at least one time before and if "AF" is on (lights up in the display). This can be achieved for example by activating the Travelstore function:

- Press **FMT** for 2 seconds to tune through the waveband.

If "AF" does not light,

- press **AF**.

The conditions for this type of station selection are now fulfilled.

Reception of traffic program stations with RDS-EON

RDS-EON enables the radio to receive traffic announcements from radio stations which belong to the network of the tuned in station. Condition: The selected station must be an RDS station and **TA** (traffic announcement) be activated.

Traffic programs can be identified by the “TP” (Traffic Program) indication shown in the display. If you wish to receive traffic programs with priority,

- press **TA**.

If TA is on, you will receive only those stations which broadcast traffic announcements on their own or which belong to a radio network that offers this service in one of its programs. Moreover,

in radio and CD mode

the traffic announcements are played at a preset volume (even when you have turned down the volume before). After the traffic announcement the radio tunes back to the program listened before.

Traffic announcement priority on/off

If the priority for traffic announcements is activated, “TA” will appear in the display. To switch the function on/off:

- Press the **TA** button.

If you press TA during a traffic announcement, this message will be interrupted and the radio returns to the mode selected before. The priority for traffic programs remains active.

Warning beep

If you leave the reception area of the traffic program station you are currently listening to, you will hear a warning beep after approximately 30 seconds.

This warning beep will also be released when pressing a preset without a traffic program.

Switching the warning beep off

a) Tune to another traffic program station:

- Press the rocker switch, or
- press a preset button with a station offering traffic information.

Alternative:

b) Switch off the priority for traffic announcements:

- Press **TA** .
In the display, the “TA” indication goes out.

Automatic seek tuning start (Modo CD)

Prerequisite:

If you leave the reception area of your traffic program while listening to a disc, the car radio will automatically tune into another traffic program station.

If no such traffic program station is found within approximately 30 seconds, tape or disc reproduction will be interrupted and the system will release a warning beep. To switch the beep off, proceed as described above.

Adjusting the traffic message volume

The volume of the warning beep and of the current traffic message was pre-adjusted at the factory. If you would like to alter the setting, proceed as described under “DSC programming - TA LEVEL”.

CD operation

Inserting the disc

- Switch on the set.
- Insert the CD (label side facing up) without applying force.

The disc is automatically pulled into the set to reach the playing position. CD reproduction starts.

Ejecting the disc

- Press the ▲ button for about 2 seconds. The CD is ejected.

To protect the CD mechanism, the automatic insertion and ejection of the disc must not be impaired in any way.

Selecting a track

As soon as the disc is inserted, the activated CD functions will be shown in the display. If the “TPM” indicator is off, all CD tracks will be played.

If “TPM” is on, only the tracks programmed with TPM will be played. For information on how to program the desired tracks, read through section “Storing tracks with TPM”. Use the ▲ or ▼ rocker switch to select the desired title.

- Press rocker switch ▲ to skip titles.
Press rocker switch ▼ to repeat titles.

If the ▼ rocker switch is only pressed once, the system will go back to the beginning of the currently played title and repeat it, provided that this track has at least been played for 5 seconds.

The rocker switch is designed as a sequence switch, i.e. several tracks can be skipped at a time by pressing it repeatedly. The display shows **T** (track) and the corresponding number of the currently selected track.

Storing tracks with TPM

- Insert the disc.
- Select a track using the ▲▼ rocker switch. The track number is shown in the display.
- Press **TPM** until a beep tone is released or until the set resumes play.

Now the title is stored.

Then select the next track with the ▲▼ rocker switch and store it with **TPM** as described above.

You can store tracks at any time during CD reproduction. For this, “TPM” must be switched off. Proceed in the same way for the track programming of the other discs.

CD reproduction with TPM

- Insert the disc.
- The TPM function has to be switched on (TPM on/off with the **TPM** button).

The tracks stored with TPM will be played in ascending order. All tracks which were not stored will be skipped.

Clearing the TPM memory

Using the **CLR** (clear) button you can either clear individual tracks, all tracks of a disc, or the entire TPM memory.

To clear the TPM programming, “TPM” must be switched on. The display will then show “TPM”. If the TPM memory is empty, the display reads “NO TPM”.

a) Clearing a track programmed with TPM:

- Insert the corresponding disc.
- Switch on TPM.
- Use the ▲▼ rocker switch to select the track to be cleared.
- Press the CLR button for approximately 2 seconds until “CLEAR” is shown in the display.

Now this track is cleared from the TPM memory.

b) Clearing the TPM memory for a CD

- Insert the corresponding disc.
- Switch on **TPM**.
- Press the **CLR** button for approximately 8 seconds until “CLR CD” is shown in the display.

The TPM memory for this disc is cleared.

c) Clearing the TPM memory for all CDs

- Insert the corresponding disc.
- Switch on **TPM**.
- Press the **CLR** button for approximately 14 seconds until “CLR TPM” is shown in the display.

The TPM memory for all discs is cleared.

Sampling tracks automatically with CD SCAN

This function allows you to sample all CD tracks one after another.

To activate the scan function,

- press the **PS** button for about 2 seconds (BEEP).

The display shows “**CD SCAN**”.

The following tracks will be scanned one after another.

If “TPM” is activated, the set will only sample the tracks stored in the TPM memory.

To continue listening to the sampled track,

- press the **PS** button once again. The set will then continue to play the track currently being sampled.

See also chapter “DSC programming - SCANTIME”.

The Mix function

When the Mix function is activated, the CD tracks will be played at random. The display will then show “MIX”.

If “TPM” is activated, the set will only play the tracks stored in the TPM memory. To skip a title, press button **Λ**.

Press the **MIX** button to switch “Mix” on and off.

Enter/display CD names

This function allows you to name as many as 30 discs. Each time the corresponding disc is inserted, the specified name will be shown in the display (e.g. VIVALDI).

To start the entry:

- Press the **DSC** button. “CD NAME” is displayed.
- Press the rocker switch << >>. If no disc is inserted, the system will display “LOAD CD”.

- Insert a disc.

The first underscore character is flashing.

- Now use the **Λ/V** button to select a character.

The display will show one after another the capital letters (A-Z), the umlauts, the special characters, and the numbers (0-9).

- Use the **Λ/V** button to move to the next character and make a selection.

It is possible to specify a total of 8 different characters.

To finish your entry:

Press the **-dB** button to store the entry and then either the DSC button to quit the DSC mode, or EJECT to name the next disc.

An old name can be deleted by overwriting it with a new one.

Clearing the TPM memory and CD names with DSC

The DSC function allows you to clear the TPM memory and the names of one or several CDs.

For this purpose it is necessary to select the Update function in the DSC menu in order to confirm all CDs whose names and TPM program shall not be deleted.

- Insert a CD whose programming shall remain stored.
- Press **DSC**.
- Press **↕** until "CD UPD" is displayed.
- Press **<< >>** and "READY" will be displayed.

The display then shows "NEXT CD" (BEEP) and the CD is ejected.

- Insert the next CD.

Repeat these steps for all CDs for which the TPM memory and the CD name shall not be deleted.

- Finally, press the TPM button for about 2 seconds (BEEP).
- Quit the DSC mode.

The TPM memory will remain stored for all CDs you have inserted. For all other CDs, the TPM memory is deleted.

DSA

Digital Signal Adaptation

With **DSA**, you can recall and tune in equalizer functions and activate the dynamic driving noise covering function.

Overview of Equalizer Functions

The HiFi reproduction in a car is affected, for example, by the interior fittings (upholstery, windows), loudspeaker positioning, etc.

With the integrated equalizer, you can tune in nine frequency bands per channel: 60 Hz, 125 Hz, 250 Hz, 500 Hz, 1 kHz, 2 kHz, 4 kHz, 8 kHz, 16 kHz.

You can store and recall different settings in five memory banks each (preset buttons **1** to **5**):

With preset button **6**, the corresponding equalizer is deactivated.

For optimal acoustic control, the following alternatives are available:

Self-calibrating equalizer (HiFi calibration)

The set is equipped with a self-calibrating, adaptive 9-band equalizer for four channels. Four channels can be electronically calibrated per memory bank (front left, front right, rear left, rear right).

Manual equalizer

Separate equalizer adjustments can be performed manually for front and rear per memory bank.

Preset equalizer

(Default allocation of equalizer)

Permanent equalizer settings can be recalled with buttons **1** to **6**, or with **^/v / << >>**.

1 ROCK, **2** DISCO, **3** JAZZ, **4** CLASSIC, **5** VOCAL, **6** P - EQ OFF

HiFi calibration

You can perform and store electronic calibration for five different situations.

These calibrations are stored and recalled with the buttons **1** to **5**. You can select the following situations, for example:

- 1** For the driver only
- 2** For driver and front passenger
- 3** Front passenger
- 4** Passengers front and rear
- 5** Rear passengers only

You deactivate the equalizer with button **6** ("EQ OFF" in the display.)

To calibrate, you have to fix the microphone lead (microphone opening pointing down) to the roof lining with adhesive tape.

The position of the microphone for situation 1 (driver alone) is directly on a level with the driver's head. For situation 2, the microphone is between the driver and the front passenger, for situation 3 on a level with the front passenger's head, etc.

Start HiFi calibration

The situation has to be really quiet for calibration, extraneous noises give a false reading.

There should be no-one in the car, objects must not impair the reflection of the loudspeakers. The system must be switched on.

- Position the microphone for the situation to be programmed.

Incorrect calibrations result when the microphone is wrongly positioned.

Depending on the vehicle and on the installation position of the speakers, calibration may be linear or with a bass boost. Try out which setting you like more.

You can preselect with DNC. The following stand for:

- DNC-OFF - linear frequency response
- DNC-LOW - slight bass boost
- DNC-MID - medium bass boost
- DNC-HIGH - stronger bass boost.

- Press **DSA** twice briefly.

The current DNC setting appears in the display.

- Use << >> to select the setting you wish to use for the HiFi calibration.
- Press **DSA** twice briefly.
- Press **-dB** until "EL" appears.
- Press the corresponding button (1 to 5) for approx. 2 seconds (BEEP).

"MicPos 8" appears in the display, the countdown is on. You now have 8 seconds to leave the car. Fully automatic calibration then commences.



Ensure that everything is as quiet as possible during this process.

Once the calibration process is complete, the display shows "EQ-READY" and switches to the last set parameter.

Checking/modifying HiFi calibration

If necessary, you can check and correct the automatic calibration of a channel:

- Press **DSA** briefly,
- press **-dB** until "EL" appears.

The four selectable channels appear in the display with the following characters:

- EL ↑ - front left
- ER ↑ - front right
- EL ↓ - rear left
- ER ↓ - rear right



- Select the channel with ^/∨.
- Select any frequency band you may wish to correct with << >>.

The set frequency is indicated by a flashing bar.

- You can alter the adjustment of the frequency band with ^/∨.

When modifications have been completed, press << >> until no more frequency bands are flashing. If necessary, alter further electronically calibrated channels as described above. The last setting is stored automatically.

Note:

All of the four loudspeakers should be connected for the calibration.

If a loudspeaker is not recognized because it is defective, not hooked up or masked, linear equalizer adjustment is made for the corresponding pair of loudspeakers. Accordingly, the balance/fader setting is only partly possible.

Recall HiFi calibration

If you wish to use electronic HiFi calibration in reproduction:

- Press **DSA** briefly,
- Press **-dB** until “EL” appears.
- Select the equalizer setting with preset buttons **1** to **5**.

Program equalizer manually

If you prefer to program the equalizer manually, you can tune in nine frequency ranges from 60 Hz to 16 Hz separately for the “EQ ↑” front and “EQ ↓” rear loudspeakers.

Here, too, you can store settings for five situations (with preset buttons **1** to **5**).

- Press **DSA** briefly and
- press **-dB** until “EQ” appears in the display.
- Select front “EQ ↑” with \wedge/\vee .
- Select frequency band with $\ll \gg$ and
- adjust intensity with \wedge/\vee . Then press $\ll \gg$ until there is no flashing to be seen on any frequency band.
- Select “EQ ↓” with \wedge/\vee . Tune in frequency band and intensity as described previously.



Tune in all frequency bands for front and rear one after another and store with a preset button (**1** to **5**). To do this, depress the button for approx. 2 seconds (BEEP).

Use preset button **6** to tune all frequency ranges to the medium setting. The manual equalizer is deactivated.

Recall manual equalizer setting

If you want reproduction with the manual equalizer setting,

- press **DSA** briefly and
- press **-dB** until “EQ” appears in the display.
- Select your manual equalizer setting with buttons **1** to **5** (press briefly).

Recall preset equalizer settings

If you want reproduction with the preset equalizer setting,

- press **DSA** briefly and
- press **-dB** until “ROCK”, “DISCO”, “JAZZ”, “CLASSIC” or “VOCAL” appears in the display.
- Select your preset equalizer setting with buttons **1** to **5** (press briefly).

You can deactivate the preset equalizer with preset button **6** (“P-EQ OFF” in the display).



Once the display indicates a preset equalizer setting, e.g. “DISCO”, you can sample all the others briefly:

- Press **PS**,
the corresponding button number of the sampled frequency starts flashing in the display.

Indication of equalizer settings

When the equalizers are programmed, half steps (in the 2 dB-grid) are also indicated in the display. The frequency band is indicated as a full bar (4 dB-grid) after programming.

Clearing equalizer settings

If you would like to clear an equalizer setting indicated in the display,

- press **Io/CLR** for approx. 2 seconds (BEEP).

The setting is cleared, the frequency bands are on medium setting.

DNC

To quit the equalizer mode

In order to quit the equalizer mode, **DSA** must be pressed twice. Approx. 16 seconds after the last setting, the equalizer mode is deactivated.

DSA-Demo

With DSA-Demo you can demonstrate all functions which can be set and recalled with DSA acoustically and optically (via display).

- Press **DSA** for approx. 2 seconds until “DSA-DEMO” appears in the display.

First of all, the change in the sound pattern is demonstrated by the preset equalizer levels.

This is followed by the demonstration of the HiFi setting, the various channels programmed being indicated. Then the effect of the manual setting is demonstrated.

Deactivate DSA-Demo

The DSA-Demo continues infinitely. To deactivate

- press **DSA** briefly.

Dynamic Noise Covering

With DNC, a volume considered to be pleasant when the vehicle is stationary is boosted during driving.

Depending upon noise development in the car, the frequency ranges are boosted with different intensity.

Even during changing noise development, the volume and the sound pattern remain pleasantly distinguishable. Short-term noises such as, for example, when crossing railway tracks, are not taken into account.

DNC calibration

For operation in your particular car, you have to calibrate using the test microphone. With the adhesive tape supplied, the microphone is fixed permanently in the vicinity of the console, but not directly in the most droning positions or close to the ventilation/heating.

The microphone opening must be directed towards the passenger compartment. Calibration should be performed in a quiet place with the motor off.

- Press **DSA** until “DNC-MID”, “DNC-HIGH”, “DNC-LOW” or “DNC-OFF” appears.
- Press any preset button (1-6) for approx. 2 seconds until “MicPos 8” appears in the display.

DNC calibration is now in operation and functioning automatically.

You can interrupt the process by pressing a preset button (1-6).

The display indicates “DNC-ADJ”, now actual calibration is taking place. Once “DNC-OK” appears in the display, calibration is complete. The display indicates “DNC-MID” for approx. 8 seconds.

Programming the DNC sensitivity

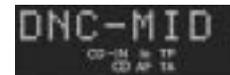
Volume boosting can be selected on three levels:

DNC-LOW, DNC-MID, DNC-HIGH.

The program returns to DNC-MID automatically after calibration.

Select DNC-LOW, for example, for loud engine and heavy-bass music; select DNC-HIGH, for example, for a quiet car and classical music.

- Press **DSA** until “DNC-MID”, “DNC-HIGH”, “DNC-LOW” or “DNC-OFF” appears.



DSC programming

- Select “DNC-LOW”, “DNC-MID” or “DNC-HIGH” with << >>.

With “DNC-OFF”, you deactivate DNC. Approx. 8 seconds after the last tuning, the set reverts automatically to radio or CD display.

If you press **DSA** once more, the set reverts to the former mode immediately.

Using DSC (Direct Software Control), you can adjust certain settings and functions for this car radio to your own liking and then store them.

The basic settings for this audio equipment have been made at the factory. Please refer to the following overview for these settings so that you can always reset to these if desired. If you wish to alter any of the programming,

- press button **DSC**.

Use the rocker switch and the **-dB** button to make your selection from the following functions and to carry out the desired adjustments. The current setting for that function will appear in the display.



∧/∨ Select function
<< >> Set value

CD NAME Use this function to name your discs (see also CD changer control, “Entering/ displaying CD names“)

ANGLE

Use one of the values -1, 0, or +1 to adapt the individual viewing angle.

Adjust the ANGLE so as to provide the best view.

BEEP

This sound will confirm functions which are completed by pressing a button for longer than 2 seconds.

Adjust volume between 0 and 9 (0 = OFF).

BRIGHT

You can adjust the display brightness from values between 1 and 15. You can also select one day and one night adjustment.

Selecting the night brightness:

Switch on the vehicle’s lighting system and program the brightness value. The audio equipment must be connected with the vehicle lighting for this to function properly.

COLOUR	Step-by-step adjustment of the display colour from 0 to 15. 0 = green; 15 = red.	LOUD 1 - low boost LOUD 6 - strong boost	TA LEVEL	Use this function to adjust the volume for the traffic announcements and the warning beep from between 1 and 9. The announcement will then be broadcast at this volume.
CD DISP	During CD operation, use << >> to select between the following displays: NAME – the CD name specified with CD NAME TIME – the playback time	SCANTIME		
		S-DX 1	CD UPD	Use this function to delete disc names in order to get new memory capacities for other CD names (see also Clearing the TPM memory and CD names with DSC”).
LED ON	You can select between LED ON and LED OFF. When setting LED ON, the Key-Card tongue will flash for additional optical theft protection when the set has been switched off and the KeyCard removed.	S-LO 1	VOL FIX	Use this function to adjust the initial volume when the set is switched on. Use <<>> to adjust the desired initial volume.
LOUDNESS	When listening at a low level, the loudness function will create a more natural sound by emphasizing the low frequency range.	SPEECH		To quit the DSC mode and store the setting: • Press DSC .

Appendix

Survey of DSC default settings

ANGLE	0
BEEP	4
BRIGHT	15
COLOUR	7
CD DISP	TIME
LED	ON
LOUDNESS	3
SCANTIME	10s
S - DX	2
S - LO	2
SPEECH	0
TA LEVEL	5
VOL FIX	26

Technical data

Amplifier:

Output power: 4 x 20 watts RMS acc.
to DIN 45 324/3.1
4 x 25 watts max.
power acc. to
DIN 45 324/3.2

FM sensitivity:

0.9 μ V at 26 dB
S/N ratio

Frequency response:

30 - 16 000 Hz (-3dB)

CD:

20 - 20 000 Hz (-1dB)

We reserve the right to make changes!



Blaupunkt-Werke GmbH
Bosch Gruppe

K7/VKD 3 D94 147 031