

Radio / Cassette

# Santiago CR 87

Operating instructions



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# Features

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- **Radio Features**
  - 15 FM/5 AM Presets, Including 5 FM and 5 AM Travelstore Presets
  - Station Scan
  - Local/Distant Seek and Manual Tuning
- **Cassette Tape Player Features**
  - Auto-Reverse Cassette Mechanism
  - True Fast-Forward/Rewind
  - Radio Monitor
  - Dolby B NR
- **Audio Features:**
  - 20 Watts x 4 Channel Integrated Amplifier
  - 2-Channel Preamp Output
  - Adjustable Maximum Turn-On Volume
  - Bass, Treble, Balance and Fader Control
  - Loudness Button
  - Mute Button
  - Auxiliary Input
- **Other Features:**
  - Detachable Face (Release Panel)
  - Illumination, Amber
  - Clock Recall
  - 179 x 50 x 150 mm DIN/ISO Chassis
  - Detachable Wire Harness
  - Snap-In DIN Sleeve and Mounting Hardware

Your unit's detachable front faceplate makes the unit useless to would-be thieves.

*Designed, Engineered and Manufactured By Blaupunkt.*

## Traffic Safety and Precautions

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- Do not adjust your unit in difficult driving conditions that demand your full attention.
- As the driver of a motor vehicle, it is your responsibility to pay attention to the traffic situation at all times. Never use your unit in a way that could distract you.
- 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.
- If your vehicle was parked in direct sunlight resulting in a considerable rise in temperature inside the vehicle, allow the unit to cool off before operating it.

# Detachable Face (Release Panel)

## Detaching and Attaching the Face:

The face of this unit can be detached and taken with you to prevent it from being stolen.

### Detaching the Face:

Press the **REL** (Release) Button and detach the face by gently pulling it off as illustrated.

**Note:** Do not pull it straight out from the chassis. Be sure not to drop the face when detaching it from the chassis. Do not expose the face to direct sunlight, heat sources such as hot air ducts or leave it in a humid place.

### Attaching the Face:

Apply the right hand side of the face to the chassis by sliding (part **B**) of the face to (part **A**) at the front of the chassis. Gently push the left side of the face against the front of the chassis until it snaps into place.

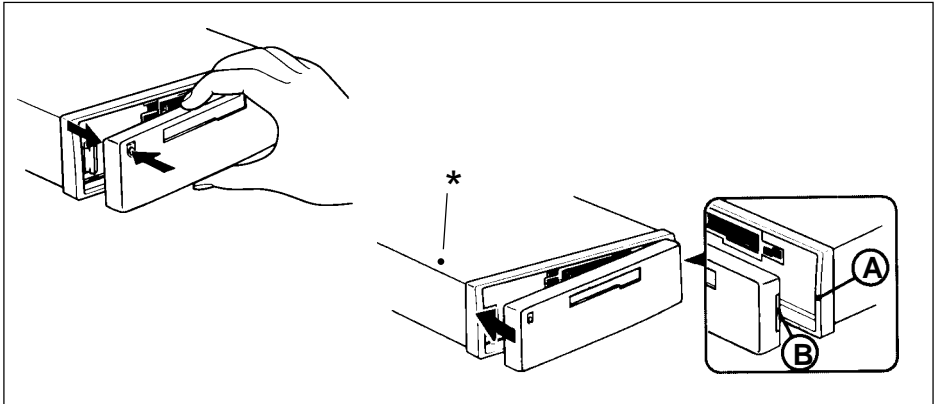
**Note:** Do not press against the display window. Do not press hard against the face when attaching it to the chassis, it may be easily attached with gentle pressure.

### Affixing Faceplate For Retail Display:

The faceplate can be affixed to the unit's chassis, which is desirable for a retail display, for example.

To affix the faceplate:

Insert the black bolt into the hole at the left front of the top of the radio. See \* below.



# Electrical Connections

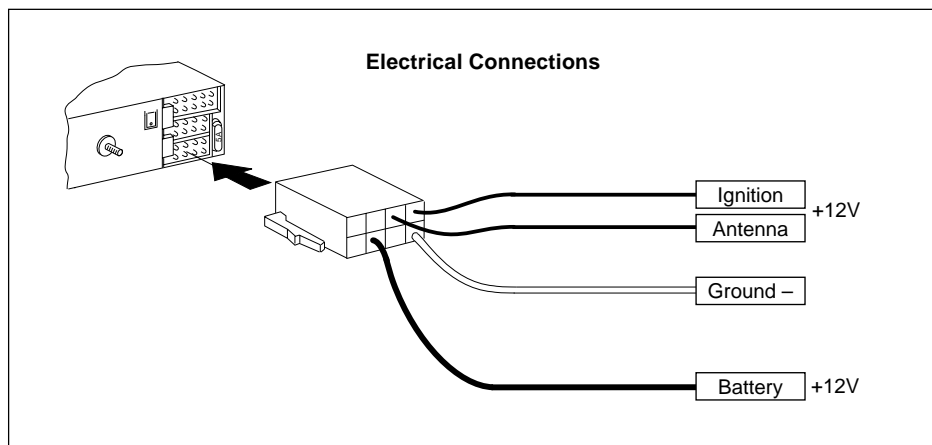
To avoid the aggravation of costly mistakes and serious damage, please carefully read all of the instructions before you begin. Carefully follow all instructions.

## General Recommendations

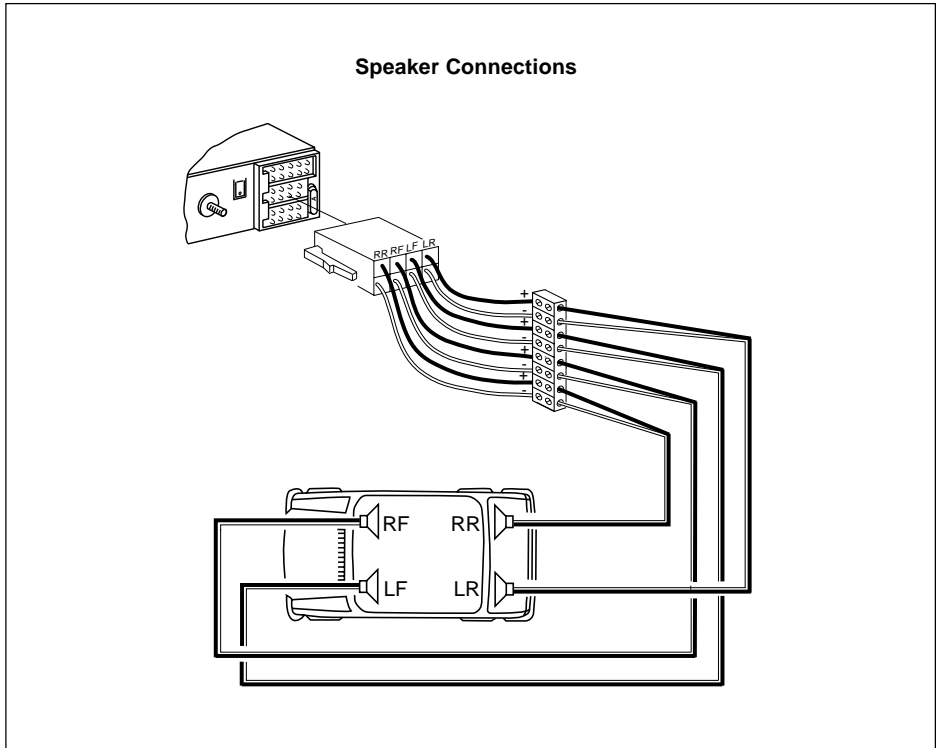
- If you're not confident that you can install the unit correctly, have it installed by a qualified Blaupunkt installation technician.
- Use this unit only with negative ground 12 Volt (11-16 Volt) direct current (DC).
- Be sure to detach the faceplate before you start to connect or install the unit.
- We recommend making and testing all electrical connections before installing the unit. Connect the leads (wires) according to instructions and diagram below.

## Electrical Connection Instructions

1. Disconnect the vehicle battery's negative terminal before making connections.
2. Connect the speakers following the guidelines in the "Speaker Connection" section below.
3. Connect the **antenna** output lead to the antenna motor trigger input terminal (if you have one). The total amperage required of the antenna lead must not exceed 100 mA. Do not connect the antenna lead to the antenna's power supply input.
4. Connect the **ground** lead to a grounded metal part on the vehicle. We recommend grounding all audio system ground leads (head unit, external amplifier, etc.) to a common grounding point, preferably a non-painted surface under the instrument panel.
5. Connect the **battery** input lead to a source of constant battery power, preferably a terminal to an appropriate slot in the fuse box.
6. Connect the **ignition** input lead only after the other leads are connected. Be sure to connect the ignition lead to a positive (+) 12 Volt power terminal that is energized only when the ignition key is set to the on position or accessory position.
7. Cover the ends of any unused leads with electrical tape. This will prevent them from touching the vehicle or each other and causing a short-circuit and damage to the radio or vehicle.
8. Reconnect the vehicle's battery.
9. Verify that no fuses have blown.
10. Plug the harness into the unit.



## Speaker Connections



Attach the faceplate and test the unit.

Once the connections have been successfully made, you can begin to mount the unit.

# Installation

## Recommendations

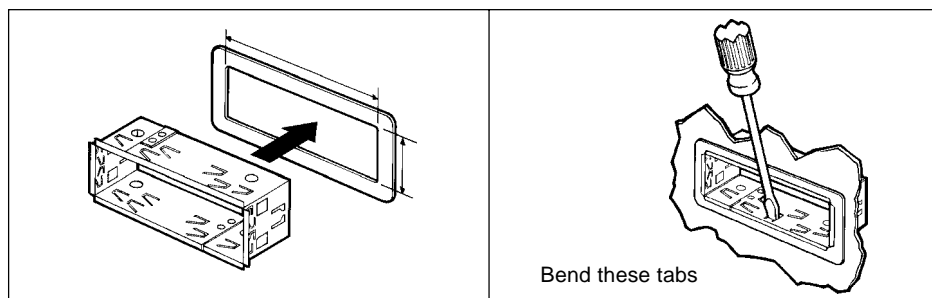
- The illustration below shows a typical installation, however, you may need to adjust the installation, depending on the unit. If you have questions or need additional installation hardware, consult your Blaupunkt dealer.
- Make sure the unit is firmly anchored and does not vibrate.

## Mounting Hardware



## Mounting The Unit in Most Dashboards

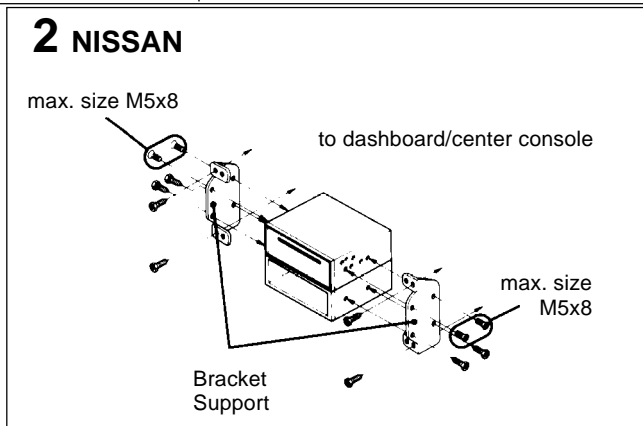
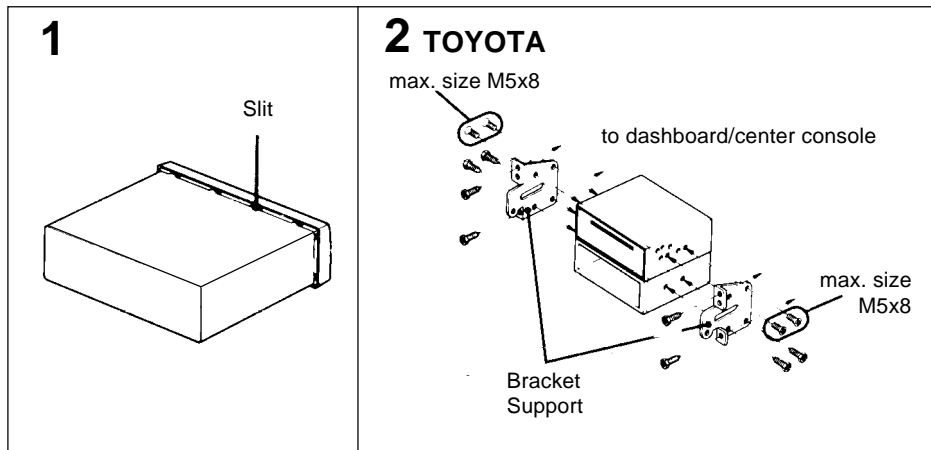
1. Install the Sleeve in the dashboard.
2. Select and bend the appropriate tabs to hold the sleeve firmly in place.



## Mounting the Unit in a Japanese Car

You may have difficulty mounting this unit in some Japanese cars that have ISO mounting features. In this case, consult your Blaupunkt dealer.

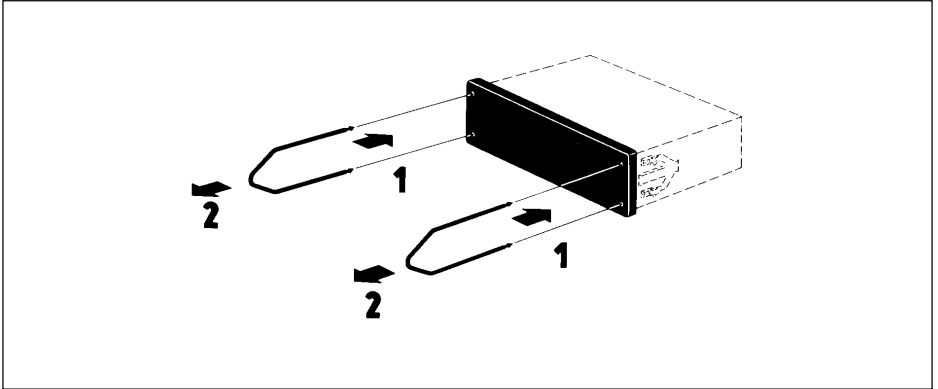
1. Run a blade along the slits on the back of the front trim ring, unscrew the two side screws, and separate it from the unit. Save the trim ring and related hardware in case you ever want to install the unit in another vehicle.
2. Use the vehicle's own mounting hardware to attach the unit.





# Maintenance

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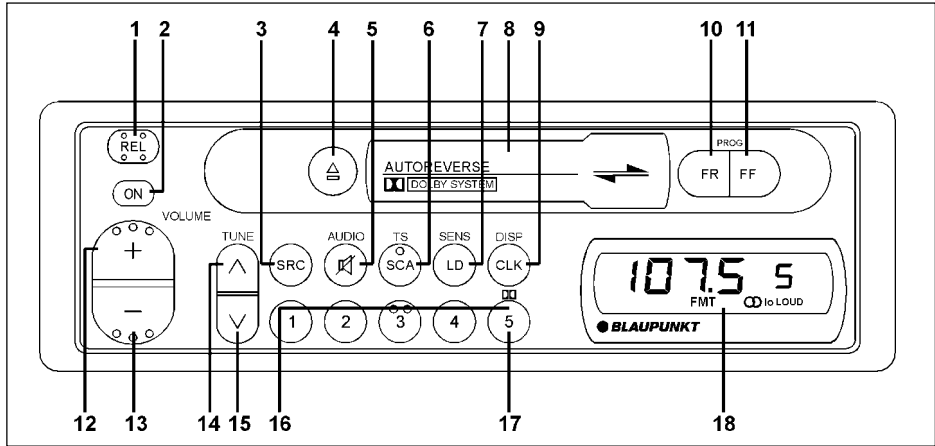
## Removing the Unit






Use the Release Keys as shown below. Keep them in a safe place in case you need them in the future.

## Fuse Replacement

When replacing the fuse, be sure to use one with the correct amperage, which will be stated on the fuse case. Never use a fuse that has a stated amperage exceeding the one supplied for this unit, as this could cause malfunction and serious damage to the unit.

# Location of Controls



- 1     **REL (Release)**     – Detaching Faceplate
- 2     **ON (Power)**       – Power On/Off
- 3     **SRC**               – Source and Radio Band Select
- 4          – Cassette Eject
- 5          – Mute
- 6     **AUDIO**           – Audio
- 7     **TS**               – Travelstore
- 8     **LD**               – Loudness
- 9     **SENS**           – Tuning Sensitivity
- 10    **Cassette Insertion Slot**
- 11    **CLK**             – Clock Recall
- 12    **DISP**           – Display Change
- 10/11 **PROG**           – Tape Program Change (reverse)
- 10    **FR**             – Fast Rewind
- 11    **FF**             – Fast Forward
- 12    **+**               – Volume + / Bass + / Treble + / Balance Left / Fade to Front
- 13    **-**               – Volume - / Bass - / Treble - / Balance Right / Fade to Rear
- 14         – Seek and Manual Tuning / Clock Hours
- 15         – Seek and Manual Tuning / Clock Minutes
- 16    **1, 2, 3, 4, 5**   – FM/AM Presets
- 17         – Dolby B NR (Noise Reduction)
- 18    **Display**

# Instructions – General Operation

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See **Traffic Safety and Precautions** on page 19.

“*Press*” means a momentary press of less than 1/2 second. All presses requiring more than 1/2 second are followed by beep.

“*Time Out*” When additional button presses are anticipated to complete a procedure, the unit will automatically exit the procedure after 4 seconds of inactivity.

## **Clock Recall**

Vehicle ignition must be on. The display switches to clock.

## **Release for Detachable Faceplate**

Push **REL** to detach face. Already inserted cassette remains in unit. Current settings and source mode are stored. If power was not switched off before face removed, unit will automatically power-on when face is reattached.

## **Power On**

When ignition on, press **ON** or insert a disc to turn unit on. Last-used source becomes active, unless unit is turned on by inserting tape, in which case tape player becomes active.

## **Power Off**

Press **ON** for more than 1/2 second to turn the unit off. Unit stores current settings for source, station or track, etc.

## **Setting the Clock**

Turn the unit on. Press the **CLK** Button for four seconds until the clock starts blinking. (The display will change after two seconds. Ignore this and continue to hold for two more seconds.) Once the clock starts blinking, Press the **Λ** to set the hour, and press the **∇** Button to set the minutes. Press the **CLK** Button again to activate the clock.

## **Changing the Information Displayed**

You can temporarily change the information shown in your unit's display. You can also select which information has “display priority” and is shown in the display except for moments when adjustments are made.

- To change the display priority, press the **DISP** Button for two seconds. The display priority changes. The display priority choices are clock or radio frequency/“TAPE”.
- To change the display temporarily, press and release the **DISP** Button to access the desired information. After four seconds, the display changes back to the priority information.

## **Source**

Use **SRC** to select source - AMT, FM1, FM2, FMT, cassette (if already inserted) or external unit (“InP” display).

# Audio Operation

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## Volume Control Buttons

Press **+** and **-** to increase/decrease volume from 0 to 63.

## Adjustable Maximum Turn-On Volume

Press and hold the **ON** Button for more than two seconds. The unit turns off and the turn-on volume level is memorized.

## Mute

Press  to temporarily reduce volume. "MUTE" appears. Mute is terminated by pressing any button.

## Bass, treble, balance and fader

- Bass  
Hold down the **AUDIO** Button until "BASS" appears and then press immediately **+** or **-** to increase or decrease bass in intervals between 7 and -7.
- Treble  
Hold down the **AUDIO** Button until "BASS" appears. Then press **AUDIO** once again so that "TREB" appears. Now press immediately **+** or **-** to increase or decrease treble in intervals between 7 and -7.
- Balance  
Hold down the **AUDIO** Button until "BASS" appears. Then press **AUDIO** twice so that "BAL" appears. Now press immediately **+** or **-** to adjust the left/right volume between 9 (left) and -9 (right).
- Fader  
Hold down the **AUDIO** Button until "BASS" appears. Then press **AUDIO** three times so that "FADE" appears. Now press immediately **+** or **-** to adjust the front/rear volume between 9 (front) and -9 (rear).

## Loudness

Press **LD** to increase sound of low and high frequencies. "LOUD" icon appears. To cancel, press **LD** again.

# Radio Operation

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## Selecting Bands

Press **SRC** as needed to access FM1, FM2, FM3/FMT, AM/AMT banks.

## Tuning Sensitivity

Press **SENS** for more than 2 seconds to switch between lo and dx search sensitivity. In general, set SENS to "lo" when in metropolitan areas or where stations tend to be strong and local, and to "dx" if in rural areas or where stations tend to be weak and distant.

## Seek Tuning

Press  $\wedge$  or  $\vee$  to seek next receivable frequency. Tuning stops at frequency that fulfills sensitivity requirements predetermined.

## Manual Tuning

To activate manual tuning press and hold  $\wedge$  or  $\vee$  until you hear a beep. Press  $\wedge$  or  $\vee$  again and the frequency will go one channel/step in the direction pressed. Press and hold causes continuous manual tuning. The manual tuning mode has to be reactivated after 4 seconds or after storing a station on a preset.

## Preset Station Storage

After tuning to the desired radio station on the desired band, press and hold a Preset Button for more than 2 seconds to store the current frequency. Audio is muted during the storage, the preset number appears, and a beep acknowledges the storage. The number of the selected preset appears in the display.

## Preset Station Selection

Press desired Preset Button.

## Travelstore

In any FM Bank, press **TS** for 2 seconds to activate FM Travelstore. (In AM Bank, press it for 2 seconds to activate AM Travel Store.) "TS" appears. Beginning at the bottom of the band, TS stores five relatively strong stations and returns to preset 1.

## Station Scan Tuning

Press **SCA**. Frequency blinks during scanning. Unit stops at receivable stations for 4 seconds. Unit continuously scans until user stops scan by pressing **SCA**.

## Radio Reception Hint

When listening to weak or distant AM stations, adjusting the Treble to minimum (-7) will reduce noise and improve sound.

## Stereo Symbol

Stereo symbol "∞" turns on if a stereo station with a sufficiently strong signal is received. The unit gradually switches between mono to stereo automatically.


# Cassette Tape Player Operation

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## Tape Playback:

- Insert cassette into Cassette Door. (Note: Make sure that the side of the cassette exposed is facing right.)
- If ignition switch is already in "on" or accessory position, insertion of cassette will turn unit on. If unit already turned on, cassette insertion will override other audio source, such as radio. "LOAD" appears for 2 seconds. Cassette play will begin, and the display will indicate which tape program is in use, "1" or "2".
- The tape will continue to play until ejected, **SRC** button pressed, or unit turned off.



## Ejecting The Tape

Press the  button completely towards the face of the unit. The tape will eject. If unit is turned on, "EJ" will appear in the display for 2 seconds and the last-heard radio station will play.

## Tape Program Change

- Automatic Change (Autoreverse): When the end of the tape is reached, the unit will automatically reverse direction and play the other side of the tape.
- Manual Change: To manually reverse tape direction, press both **PROG** (program) Buttons (**FR and FF**) at the same time.
- The change in direction and in tape program will be confirmed in the display ("1" or "2").



## Fast Winding

- To Fast-Rewind the tape, press the **FR** Button. Tape rewinds and  blinks in the display.
- To Fast-Forward the tape, press the **FF** Button. Tape fast-forwards and  blinks in the display.
- To stop fast-winding, press the other fast winding button, **FR** or **FF**.

## Radio Monitor

During tape winding, the radio will play the most-recently heard radio frequency. All frequencies stored on the current bank of preset stations are accessible during fast winding.

## Dolby B NR\*

With this unit you can play back tapes recorded with Dolby B NR or without noise reduction. Cassette tapes recorded with Dolby B NR stand out by their reduced tape hiss and the improved dynamics. If Do by B NR is switched on, "" will light up in the display. To switch on/off: Press the  button.

\* Noise Reduction system manufactured under license from Dolby Laboratories Licensing Corporation. Dolby and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

# Auxiliary Input Jack

(cable connection with  $\varnothing$  3.5 mm pigtail coupler)

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Connect other audio equipment, such as a portable CD or DAT player, through a 3.5 mm pigtail connector. Press **SRC** until "InP" appears. Adjust volume, bass, and treble settings through the head unit.

# Troubleshooting Guide

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## General

Trouble	Cause/Solution
No sound.	<ul style="list-style-type: none"><li>• Adjust the volume with the + button.</li><li>• With a two-speaker system set the fader control to the center position.</li></ul>

## Radio reception

Trouble	Cause/Solution*
Preset stations are not receivable.	<ul style="list-style-type: none"><li>• The broadcast is too weak.</li></ul>
Automatic tuning is not possible.	<ul style="list-style-type: none"><li>• The broadcast is too weak. —&gt; Use manual tuning.</li></ul>
Travel Store feature does not complete storing of five stations.	<ul style="list-style-type: none"><li>• Not enough broadcast frequencies are receivable.</li></ul>

\* Also make sure that antenna is connected and extended.

If the above mentioned solutions do not help to improve the situation, consult your nearest **Blaupunkt dealer**.

## Blaupunkt Telephone Hotline

### Address of the next service centre in your vicinity (only for Germany)

If you would like to know the address of the next Blaupunkt service centre of your area without having our service list at hand:

- Find out your area code.
- Then call the following chargeable phone number: **01 80 / 5 25 56 66**.
- Using the area code to be entered you will be automatically given the address and phone number of the next Blaupunkt service centre. You can also request this information by fax.



# Specifications

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## Audio Power Specifications

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Power Output and Total Harmonic Distortion: 13 watts per channel minimum continuous average output into 4 ohms, 4 channels driven, from 35-15 000 Hz.

## Other Specifications

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### Tuner

#### FM

Tuning Range:	87.5 - 108 MHz
FM Mono Sensitivity:	1.0 $\mu$ V
Signal-to-Noise Ratio:	65 dB (stereo), 70 dB (mono)
Frequency Response:	35-15 000 Hz

#### AM

Tuning Range:	531 - 1602 kHz
Signal-to-Noise Ratio:	50 dB
Frequency Response:	35-5 000 Hz

### Cassette

Signal-to-Noise Ratio:	55 dB
Dolby B NR:	65 dB
Tape Wow and Flutter:	0.3 %
Tape Frequency Response:	35-15 000 Hz

### Audio

Speaker Impedance:	4-8 ohms
Maximum Amp Power:	4 x 20 watts (at 4 ohms)
RMS Power:	4 x 13 watts (at 4 ohms)
	acc. to DIN 45 325 at 14.4 volts
Bass Control:	$\pm$ 10 dB at 100 Hz
Treble Control:	$\pm$ 10 dB at 10 kHz
Loud:	+ 8 dB at 60 Hz
	+ 2 dB at 8 kHz

### General

Dimensions (w/o projecting parts/controls):	179 x 50 x 150 mm
Mass:	Approx. 1.4 kg
Power Requirement (neg. grd.):	12 V DC car battery (11-16 V DC allowable)
Operating Temperature:	-20 C to 60 C
Supplied Accessories:	<ul style="list-style-type: none"><li>• Unit</li><li>• Faceplate (Release Panel)</li><li>• Wire Harness</li><li>• DIN Sleeve</li><li>• Mounting Hardware</li><li>• Owner's Manual</li><li>• Car Radio Passport</li><li>• Labels</li></ul>

*Design and specifications subject to change without notice.*

**Blaupunkt-Werke GmbH**  
**Bosch Gruppe**

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