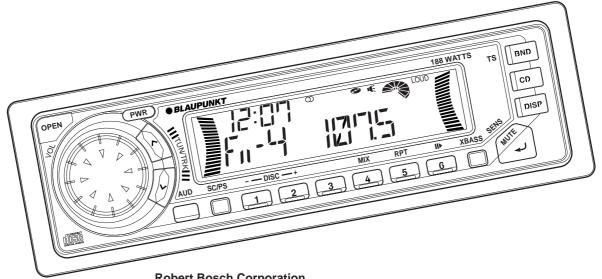
# **BOSTON CD189 HOUSTON DM189**

High-Power FM/AM/CD Receiver with Detachable Face



Robert Bosch Corporation Sales Group — Blaupunkt Division 2800 South 25th Avenue, Broadview, Illinois 60153



# **FCC WARNING**

This equipment has been tested and found to comply with the limits for a Class B device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and, if not installed and used in accordance with instructions, may cause harmful interference with radio communications. However, there is no guarantee that radio interference will not occur in particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by tuning the equipment off and on, the user is encouraged to consult the dealer or an experienced radio/TV technician for help.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

#### **Features**

- · Detachable Flip down front panel
- Built-in power amplifier (max. output : 47W × 4ch)
- FM/AM PLL Synthesizer tuner
- 30 Station preset memory
- Travel Store / Scan tuning
- X-BASS System
- Station name, Disc name store / Station call
- CD changer control (HOUSTON DM189 only) (CDCA08 & CDCA071\*)
  - \* CDCA071 requires adaptor # 7607 898 093 available separately.

## **Precautions**

- Avoid installing the unit where it would be subject to high temperatures, such as in direct sunlight or a hot air stream from the heater, or where it would be subject to dust, dirt, or excessive vibration.
- Do not turn on the unit if the temperature inside the car is very high. Always cool down the unit before usage. Parking your car in direct sunlight will result in a temperature rise.
- If the unit does not turn on, check the connections first. Then check whether the fuse at the back of the unit is blown.
- Carefully read this manual before using the unit. If you encounter any problems that are not covered in this manual, please consult the dealer where you purchased the unit or the dealer nearest to you.
- This unit has been designed specifically for playback of compact discs bearing the first mark. Other discs cannot be played.

# **Handling Compact Discs**

- Be careful when removing a compact disk after the playback is completed because the disk may be extremely hot.
- Do not expose compact discs to direct sunlight or any heat source.
- Check all compact discs before playing, and discard cracked, scratched or warped discs.
- Wipe dirty or damp discs outward from the center with a soft cloth.
- Do not use any solvents such as commercially available cleaners, antistatic spray, or thinner to clean the compact discs.

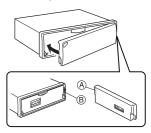




# **Handling the Front Panel**

# **Attaching the Front Panel**

Place the right hand side of the front panel so that the parts (a) of the front panel are engaged with the parts (b) of the unit as shown below. Then push the left hand side of the front panel until it is securely locked.



# Front Panel Open / Close

#### Panel open

Press the OPEN.

# Panel close Raise the from

Raise the front panel with your finger until it locks in place.





# **Identification of Controls**

#### Notes

- · Be sure to use this unit with the front panel closed. The unit is automatically switched off when the front panel is left open for about 10 minutes.
- Do not handle the unit roughly when opening/closing the front panel.
- · Do not put any object or use it like a tray when the front panel is open in a lying position.
- Do not press the OPEN button when closing the front panel.
- Do not put much force to the operation buttons or the display window as it may cause damage or deform the unit.
- Connectors on the unit and front panel are vital parts transmitting the signal. Do not touch, push and scratch them.
- · Be careful not to pinch your fingers or hands when opening and closing the front panel.
- . Do not press hard on the front panel when affixing it to the unit. No more than light to moderate pressure should be needed.
- · When taking the front panel with you, please use the supplied carrying case to protect the front panel from dirt and damage. Make sure there is no dust or dirt on the electrical terminals on the back of the front panel as this could cause intermittent operation or other malfunctions.

# **Detaching the Front Panel**

1. Press the (OPEN) firmly to open the flip down front panel.



2. Pull the front panel toward your direction to remove it.



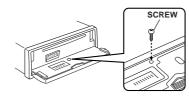
3. Close the inner cover.

Do not leave inner cover in the down position unless the front pannel is in place.



#### Security

Bolt the front panel with the screw (supplied) in the inner cover as shown below, to protect the front panel from robbery and from getting lost.

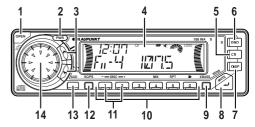


# **Ejecting the CD**

Press recessed button located to the left behind the Front Panel



**EJECT** button



- **OPEN** button
- 2 PWR button

Turns the power of the unit on or off.

3 TUN/TRK button

Used to tune in to the desired station.

- 4 LCD Display window
  - CD button

Switches the CD playback mode.

BND/TS button

Selects the AM/FM Band & Travel store

7 DISP button

Mode selector. Clock adjustment. Display priority setting.

8 MUTE/SENS button

Muting the sound. Switches the seek sensitivity between local and distance.

9 XBASS button

Boosting the bass sound.

10 PRESET MEMORY button

During radio reception:

1 - 6 : For Preset memory

During CD mode:

; For Mix play (Mix & Mix all during CDC;

HOUSTON DM189 only)

- ; For Repeat play : For Pause
- 11 DISC SELECT button (HOUSTON DM189 only)
- Select the desired CD in CDC(CD changer) mode. 12 SC/PS button
- Scan tuning. Preset scan tuning. Scan play in CD mode.
- 13 AUD button Audio control selector: Bass. Treble, Loudness, Balance & Fader
- 14 Dial

Adjusts the volume level/bass/treble/balance/fader. Storing the station names. Select Alpha-numeric characters

F-2

# **General Operations**

# **Volume Level Control and Memory**

Rotate the dial to set the memory for the volume level which will be recalled when the unit is turned on.

 Adjust the volume level. Spinning or fast rotation of the dial knob will increase the number of turns needed to reach max. volume.



Volume down

Volume up

Hold the PWR pressed for more than 2 seconds.
 The unit will turn off and the selected max. turn-on volume level is set in memory.

#### Note

If the unit is turned off with the volume lower than the memory setting, the unit will return to the lower setting when turned back on.

# Muting the sound

Press (MUTE/SENS)

" MUTE " apeares on the display window.

To restore the previous volume level, press MUTE/SENS again.

# **Setting the Clock**

- 1. Turn the ignition key to the ON position.
- 2. Press the PWR to turn on the unit.
- 3. Press the DISP to display "CLK ADJ".
  - A. Press the MUTE / SENS within 3 seconds to flash the "12" (HOUR ADJ).
  - B. Rotate the dial to set the hour digit.
  - C. Press the MUTE/SENS to flash the "00" (MIN ADJ).
  - D. Rotate the dial to set the minute digit.

- **4.** Press the DISP to display "CLOCK 12".
- Rotate the dial to select the 12 or 24-hour time mode. Each time you rotate the dial, the mode changes or toggles as follows;

CLOCK 12 ↔ CLOCK 24

**6.** Press the (DISP) momentarily. The clock is activated.

# **Ignition-off Clock Recall**

The display will illuminate showing the time and then automatically shut off after 5 seconds.

Press the OISP while the ignition switch is in the "OFF" position.

#### **Mode Selector**

Each time the DISP is pressed, the display window will change over as shown below;

#### Display priority setting

Display Priority can be set for the following items;

#### Radio mode

- Frequency and Station Name, plus during
   CDC(CD changer) mode (HOUSTON DM189 only)
- Track No, Track time and Disc name.

#### Example

To set Station Name to the Display Priority.

- 1. Press the OISP three times, and the temporary display appears in the display window.
- 2. Hold the DISP pressed for more than 2 seconds.

"NO NAME" or any station name blinks once to indicate that Station Name is selected for the Display Priority. After 5 seconds, the display mode will automatically return to the Display Priority showing either "NO NAME" or the station name.

#### Tip

Frequency Display is initially set as the Display Priority, and Station Name ("NO NAME") is set to "Temporary".

# **Adjusting the Sound Characteristics**

1. Press the AUD to select the desired adjustment mode.

BASS 
$$0 \rightarrow$$
 TREBLE  $0 \rightarrow$  LOUD OFF(LOUDNESS)  
 $\uparrow$   $\downarrow$  R0 F0(FADER)  $\leftarrow$  L0 R0(BALANCE)

Rotate the dial to adjust the selected item.
 Adjust within 3 seconds after selecting the item.
 After 3 seconds, the dial functions as volume control.
 Use the following tables as a guide for adjusting the settings in each mode.



BASS	BASS -5	BASS +5
TREBLE	TREBLE -5	TREBLE +5
LOUD	LOUD OFF	LOUD ON
BALANCE	L9 R0(Full left)	L0 R9(Full right)
FADER	R9 F0(Full rear)	R0 F9(Full front)

# **Radio Reception**

# **Seek Tuning**

1. Press the BND/TS to select the desired band.

FM 1  $\rightarrow$  FM 2  $\rightarrow$  FT  $\rightarrow$  AM  $\rightarrow$  AT FT & AT are Travel Store bands.

2. Press the VINTEK to tune in stations. Tuning automatically stops at a broadcasting frequency.

"SEEK" indicator will appear on the display window.

# **Manual Tuning**

- 1. Press the (BND/TS) to select the desired AM or FM band.
- 2. Press the TUNTER or TUNTER of TOT TOT TOT TOT TOT THE OF THE O
  - " MANUAL" indicator will appear on the display window. After 4 seconds of completing Manual Tuning, the tuning control will revert to the Seek Tuning mode.

# **Scan Tuning**

- 1. Press the BND/TS to select the desired band.
- 2. Hold the pressed for less than 2 seconds. The unit will scan the selected band for stations.

  "SCAN" indicator will appear on the display window.

  Press the pagain to stop Scan Tuning and remain this on the selected frequency.

#### Tip

While tuning, the pie-shaped signal-strength meter on the display is lit differently depending on the strength of the signal. While scanning bands, the pie-shaped signal-strength meter spins. While playing CD's, this display spins also.

# **Preset Scan Tuning**

- 1. Press the BND/TS to select the desired band.
- 2. Hold the SCPS pressed for more than 2 seconds.

  " SCAN " indicator will appear on the display window.

  The unit will scan preset memory for the 12 stations from the AM/AT band or the 18 stations from the FM 1/FM 2/FT bands. The unit will stop at each preset station for 8 seconds, before continuing to the next preset station.

  Press the SCPS again to stop Preset Scan Tuning and remain this on the selected frequency.

# **Memorizing Stations Automatically (Travel Store)**

- 1. Press the BND/TS to select the desired band.
- Hold the (BND/TS) pressed for longer than 2 seconds.
   Up to 6 stations with strong signals will be automatically stored in preset memory for the selected band.

#### Note

This function is available for FT and AT.

# Memorizing Only the Desired Stations

You can store up to 6 stations on each band (18 for FM 1, FM 2 and FT, 12 for AM and AT) in the order of your choice.

- 1. Press the BND/TS to select the desired band.
- 2. Press the VIUNTRK to tune in stations.
- Press and hold the desired preset memory button to for about 2 seconds until the frequency indicator flashes twice.

The number of the pressed preset memory button appears on the display window.

#### Note

If when you store another station on the same preset number button, the previously stored station is replaced with new one.

# **Receiving the Memorized Stations**

- 1. Press the (BND/TS) to select the desired band.
- 2. Press the 1 6 momentarily.

# Local/Distant (LO/DX) Selection

This feature is used to select the strength of the signals at which the radio will stop during Seek Tuning.

Press the MUTE/SENS for more than 2 seconds to select the Local setting and only strong (local) stations will be received. The "lo" indicator appears on the display window.

Pressing again will select the Distant setting and the radio will stop at a wider range of signals, including weaker more distant stations. The "lo" indicator will go out on the display window. DX is the suggested default setting.

# Storing the station names

You can assign a name to each radio station and store it in memory. As many as 30 station names can be stored, composed with 8 characters each.

#### Storing the station names

- 1. Tune in a station whose name you want to store.
- 2. Press the DISP for more than 2 seconds.
  The "NAME EDT" will light then the "\_\_\_\_\_" on the display window. The first " " flashes.
- 3. Enter the characters.
  - A. Rotate the dial in a clockwise direction to select the desired characters.

- B. Press the TUNTRK to move the flashing cursor to the next position. If you press VIUNTRK, the flashing cursor moves to the left.
- C. Repeat steps A and B to complete entering the entire name 8 characters max.

#### Tip

To erase/correct a name, press the DISP for more than 2 seconds to clear the character and re-enter.

- **4.** Press the MUTE/SENS to store the station name. The station name flashes
- **5.** To return to the normal radio reception, Press DISP

#### Erasing the station names

- Tune in any station and press the OBP for more than 2 seconds.
- 2. Press the MUTE/SENS.

  The station name or "\_\_\_\_\_" is now flashing.
- Rotate the dial to select the name of the station that you want to erase. To erase all the name of the station, display "\*ALL DEL".
- **4.** Press the (DISP) for more than 2 seconds. Repeat steps 3. and 4. if you want to erase other names.
- **5.** To return to the normal radio reception, Press DISP

# Direct Access to Memorized Stations via Station Call

You can search for the memorized AM & FM station names in the memory.

- 1. Press the DISP to display the "STN CALL" on the display window.
- 2. Rotate the large dial to select the desired station name.
- 3. Press the MUTE/SENS to tune in the desired station.

#### Level Meter selection

The meter displays can be selected from four types.

#### You can select:

- METER 1 : Type that the level meter goes upward.
- METER 2 : Type that only the very top segment lights.
- METER 3 : Type that the remaining segments light. (opposite of METER 2)
- METER 4 : Type that the level meter goes up and down
  - dividing from the center segment.
- METER 0 : No meter is indicated.
- 1. Press the DISP to display the "METER 1" on the display window
- Rotate the dial to select the desired meter indication.
   METER 1 → METER 2 → METER 3 → METER 4 → METER 0



# **Level Meter Sensitivity selection**

The sensitivity of the level meter display can be switched.

#### You can select:

- LEVEL 1 : Normal sensitivity
- LEVEL 2 : High sensitivity
- Press the OBP to display the "LEVEL 1" on the display window.
- 2. Rotate the dial to select the desired meter sensitivity.

LEVEL 1 ← LEVEL 2

# Enhancing the bass sound

For extended bass centered @ 72Hz, the XBASS function can be set for either each band and CD mode.

#### You can select:

- XBASS 1 : Enhanced BASS level (low)
- XBASS 2 : Enhanced BASS level (Middle)
- XBASS 3 : Enhanced BASS level (High)
- XBASS 4 : Enhanced BASS level (Very high)
- XBASS 0 : No BASS enhanced/off

Press the (XBASS) repeatedly to select the bass sound.

" • " appears on the display window.

Each time you press (XBASS), the current mode appears on the display window and then the mode change as follows: XBASS 0 → XBASS 1 → XBASS 2 → XBASS 3 → XBASS 4

# **CD Operations**

# Playing the CD player

#### **Loading Discs**

- 1. Press the OPEN and insert the disc.
- 2. Close the front panel.
  Playback begins automatically.
  - "LOADING" indicator will flash in the display window.

#### Note

Make sure that the front panel is closed when playback begins.

Playback with the front panel open causes the unit to turn off automatically in about 10 minutes.



#### ! NEVER Insert a 3-inch CDs.

This unit is designed for playback of standard 5-inch CD's only. Do not attempt to use 3-inch CD singles in this unit, either with or without an adaptor, as damage to the player and/or disc may occur.

#### Tips

- When a CD is loaded, the on the display remains lit.
- During playback of a CD, the pie-shaped signal-strength meter spins.

#### Listening to a disc that is already loaded

Press the ©D to select the CD mode. Playback begins automatically.

#### Pausing Playback

Press the 6/II

To resume playback, press the 6/1 again.

#### Stopping Playback

Press the (and/TS) to select the radio reception (FM 1, FM 2, FT or AM, AT).

#### **Ejecting Discs**

Press the ( to eject the disc located behind flip-down front panel.

#### Notes

- The unit will turn on automatically when a CD is inserted if the ignition switch is "ON".
- When the disc is ejected from the CD slot, remove it within 10 seconds; otherwise, the disc will be reloaded automatically.

#### Track Search

Press the Tuntrex during CD mode. Track numbers appear in the display window.

: Playback starts from the beginning of the next track.

Playback starts from the beginning of the current track.
 Press again to play the previous track.

#### Cue / Review

Press and hold the TUNNTRK . Release when you have found the desired point.

: To search forward.

To search backward.

#### Scan Play

Press the SC/PS during CD mode.

The "SCAN ON" indicator appears in the display window. This will play the first 10 seconds of all the tracks on the disc.

Press the SCIPS again to cancel this feature.

#### Repeat Play

Press the 5/RPT during CD mode.

The "RPT ON" indicator appears in the display window and the current track is played repeatedly.

Press the (5/RPT) again to cancel this feature.

#### Mix Play

Press the 4/MIX during CD mode.

All the tracks on the current disc are played in random order.

Press the (4/MIX) again to cancel this feature.

# CD Changer Controls (HOUSTON DM189 only)

# Playing the CD Changer

This product can control a CD changer. Please check with your nearest car stereo specialist for recommendations of the models that will work with this radio (See page 1).

Press the to switch the CD changer mode. Disc No, Track No, and Track time appear on the display window and playback begins automatically. Press again to change back to builtin CD operation.

#### Disc Select

Press the Disc select buttons to select the desired disc for play.

(+/2): To advance to a higher number disc.

: To return to a lower number disc.

#### Track Search

Press the V TUN/TRK ^

Track numbers appear in the display window.

: Playback starts from the beginning of the next track.

Playback starts from the beginning of the current track.

Press again to play the previous track.

#### Cue / Review

Press and hold the TUNITRK ... Release when you have found the desired point.

: To search forward.

To search backward.

# Track / Disc Scan Play

#### Track Scan

Press the SC/PS

The "SCAN ON" indicator appears in the display window. This will play the first 10 seconds of all the tracks on the disc.

Press the (SC/PS) again to cancel this feature.

#### Disc Scan

Press the SC/PS for more than 2 seconds.

The "DSCAN ON" indicator appears in the display window. This will play the first 10 seconds of the first track on each disc.

Press the SC/PS again to cancel this feature.

#### Track / Disc Repeat Play

#### Track Repeat

Press the (5/RPT)

The "RPT ON" indicator appears in the display window and the current track is played repea.tedly.

Press the (5/RPT) again to cancel this feature.

#### Disc Repeat

Press the 5/RPT for more than 2 seconds.

The "  $\mbox{DRPT}$   $\mbox{ON}$  " indicator appears in the display window and the current disc will be continually repeated.

Press the SIRPT again to cancel this feature.

#### Track / Disc Mix Play

#### Track Mix

Press the 4/MIX

The "MIX ON" indicator appears in the display window.
All the tracks on the current disc are played in random order.

Press the (AMIX) again to cancel this feature.

#### Disc Mix

Press the (4/MIX) for more than 2 seconds.

The "MIX ALL" indicator appears in the display window. Both discs and tracks will be played in random order. Press the (AMIX) again to cancel this feature.

#### Tip

During Disc scan, Disc Repeat or Disc Mix, the DISC will be lit on the display.

# Storing the disc names

You can label each disc with a personalized name. As many as 99 disc names can be stored, composed with 7 characters each.

#### Storing the disc names

- Play the CD and press the OISP for more than 2 seconds. The "NAME EDT" will light then the "\_\_\_\_\_" on the display window. The first "\_" flashes.
- 2. Enter the characters.
  - A. Rotate the dial in a clockwise direction to select the desired characters.

 $(A \rightarrow B \rightarrow C \rightarrow ... Z \rightarrow < \rightarrow > \rightarrow * \rightarrow + \rightarrow , \rightarrow - \rightarrow ' \rightarrow /$  $\rightarrow 0 \rightarrow 1 \rightarrow 2 \rightarrow 3... 9 \rightarrow " "Space)$ 

- B. Press the TUNTRK to move the flashing cursor to the next position. If you press VIUNTRK, the flashing cursor moves to the left.
- C. Repeat steps A and B to complete entering the entire name 7 characters max.

#### Tip

To erase/correct a name, press the DISP for more than 2 seconds to clear the character and re-enter.

- **3.** Press the MUTE/SENS to store the disc name. The disc name flashes.
- 4. To return to the normal CD playback mode, Press DISP

#### Erasing the disc names

- Press the OBP for more than 2 seconds during CD changer mode.
- 2. Press the MUTE/SENS).
  The disc name or "\_\_\_\_\_ " is now flashing.
- Rotate the dial to select the name that you want to erase. To erase all the name, display "\*ALL DEL".
- Press the DISP for more than 2 seconds.
   Repeat steps 3. and 4. if you want to erase other names.
- 5. To return to the normal CD playback mode, Press DISP

## Installations

# **Supplied Mounting Hardware**







Sleeve

Bushing & Screws

Mounting Strap and Screw

Release Keys

#### **Precautions**

- Be sure to detach the front panel before you start installing the unit.
- When mounting the unit in a car, keep the unit as level as possible. If the unit must be mounted at an angle, due to the design of the vehicle, make sure that the unit does not lit by more than 30°.
- Choose the mounting location carefully so that the unit will not interfere with the normal driving operations of the driver.
- Use only the supplied mounting hardware for a safe and secure installation.

# **Mounting Example**

Installation in the dashboard

1. Install the sleeve in the dashboard.



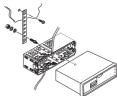
Select and bend the appropriate tabs to hold the sleeve firmly in place.



#### **Mounting Strap Use**

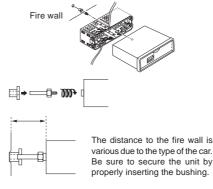
Attaching the Mounting Strap to the underside of the dash board, using screw.

Attach the back of the unit to the Mounting Strap using the support stem bolt and hardware.



#### **Bushing Use**

As shown in the figure below, securely fasten the screw, which has been inserted into the bushing, to the rear of the set.





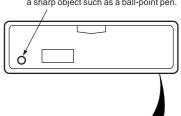
Insufficient fastening of the screw may cause some CD's to skip.

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# If your car has no accessory position on the ignition key switch (POWER SELECT switch)

The illumination on the front panel is factory-set to be turned on even when the unit is not being played. However, this setting may cause some car battery wear if your car has no accessory position on the ignition key switch. To avoid this battery wear, set the POWER SELECT switch located on the bottom of the unit to the position, then press the reset button. The illumination is reset to stay off while the unit is not being played.

Reset button
Press the reset button with the point of
a sharp object such as a ball-point pen.



# POWER SELECT SWITCH (Located on the bottom of the unit)

Change the position with a jeweler's screwdriver, etc.

- Your car has an accessory position on the ignition switch.
- **B**: Your car has no accessory position on the ignition switch.

Be sure to  $\underline{\text{press the reset button}}$  after changing the switch and connecting the lines.

# **Connections**

#### Caution

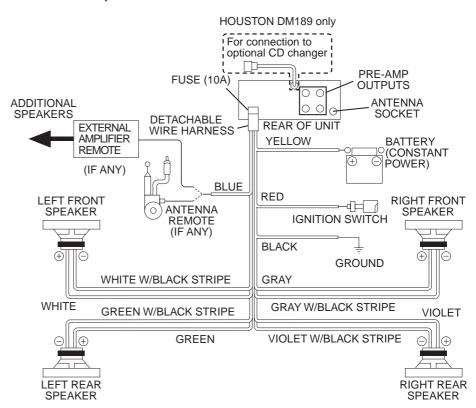
- Connect each pair of speaker leads only to a single speaker (or speaker system) that has an impedance of least 4 ohms, as well as 47 watts power-handling capability.
- Do not connect speaker leads to any inputs on external amplifiers. This will cause damage to the internal amplifier of this unit.

#### Connection procedure

#### Warning

- To prevent short circuit, remove the key from the ignition and disconnect the battery's (-) (minus) terminal.
- This unit is designed for negative ground 12 V DC operation only. You can not use it for 24 V or other types of car batteries.
- 1 Make sure the car's ignition key has been removed.
- 2 Disconnect the minus terminal of the car's battery.
- 3 Connect the wiring harness wires in the following order: GND (Black), BTT (Yellow), ACC (Red) and ANTENNA REMOTE (Blue), and tape each so they do not come in contact with each other.
- 4 Connect the speaker wires of the wiring harness.
- 5 Connect the car's antenna terminal to the antenna socket of the unit.
- 6 Connect the detachable wire harness to the unit.
- 7 Reconnect the minus terminal of the car's battery.
- 8 Start the car's engine.
- 9 Make sure the unit operates properly.

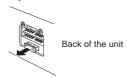
# **Connection Example**



### Maintenance

# Replacing the Fuse

If the fuse is blown, check the power connection first and then replace the fuse. If the fuse blows again under normal conditions, the unit may be defective.



#### Warning

Use only a fuse with the specified amperage (10 A). Use of another type of fuse can result in a fire or unit damage.

# **Cleaning the Connectors**

If the connectors of the unit and the front panel are contaminated, malfunctions may occur.

Detach the front panel and clean the connectors with an alcohol dampened cotton swab as shown below.

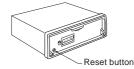




Back of the front panel

# Returning to the Initial Settings

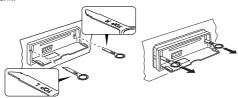
When the reset button is pressed, the microcomputer of the unit returns to the initial settings. If the display window is not properly shown or the unit malfunctions, press the reset button with the point of a sharp object such as a ball-point pen.



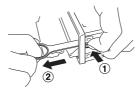
# Removing the Unit

Use the supplied release keys when you need to remove the unit from the car.

Insert the "TOP R "and "TOP L "of the release keys on the right and left position until it clicks respectively, to remove the unit.



As shown in the figure below, push the plate spring firmly to remove the release keys.



#### Notes

- Handle the release keys carefully to avoid injuring your fingers.
- Keep the release keys in a safe place for future use.

# **Troubleshooting Guide**

The following check will assist in the correction of most problems which you may encounter with your unit. Before going through the check list below, refer back to the connection and operating procedures.

#### General

Trouble	Cause/Solution	
No sound	Adjust the volume with the dial. Set the fader control to the center position with a 2-speaker system.	
Indications do not appear on the display window.	Remove the front panel and clean the connectors with cotton swab dipped in isoprophyl alcohol (90% or higher).	

# Radio reception

Trouble

Preset stations are not receivable.	The broadcast is too weak.
Automatic tuning is not possible	The broadcast is too weak. $\rightarrow$ Use manual tuning.

Cause/Solution

Travelstore feature does Not enough broadcast frequennot complete storing of six cies are receivable. stations.

Also make sure that antenna is connected, extended and dry inside

If the above mentioned solutions do not help to improve the situation, consult your nearest **Blaupunkt** dealer or in the United States call 1-800-266-2528 for technical assistance, parts and service. Call 1-800-950-2528 for dealer referral or to request product brochure.

# **CD Player Troubleshooting**

When problems occur with CD playback, an error message appears in the display window.

Refer to the table below to identify the problem, then take the suggested corrective action. If the "MECA ERR" appears or "SW ERROR" persists, contact your nearest **Blaupunkt** dealer.

Message	Possible cause	Recommended action
CD ERROR	Dirty disc. Scratched disc. Up-side-down. Focus error.	Clean the disc. Replace the disc. Check the disc. Try ejecting and reinserting under normal temperature conditions.
	Data and focus error.	Under normal tempera- ture conditions, eject and insert clean, un- damaged disc properly.
SW ERROR	Mechanical problem.	Eiect and reinsert.

# CD Changer Troubleshooting (HOUSTON DM189 only)

If a problem should develop while operating CD changer, an error message appears in the display window.

Refer to the table below to identify the problem, then take the suggested corrective action. If the error persists or "09 ER-ROR" appears, contact your nearest **Blaupunkt** dealer.

Message	Possible cause	Recommended action
NO DISC	No magazine No disc Up-side-down	Load the magazine in the CD changer Check the disc
01 ERROR	CD ROM is loaded	Replace with Music CD's
COMM ERR	Communication error	Check the connection of the CD changer
TEMP ERR	Excessive tempera- ture conditions at the CD changer	The error sign will go off and play will resume when the temperature at the changer returns to a normal range.

# **Specifications**

#### **GENERAL**

Dimensions : Approx. 178 mm  $\times$  50 mm  $\times$  155 mm

 $(W \times H \times D)$ 

Power requirements: 12 volts DC car battery

(negative ground)
Output Power : 47 watts × 4 channels

Output Wiring : Floating-ground type designed for 4

speaker use.

RCA low-level outputs (4 channels).

Output Impedance : Compatible with 4-8 ohm speakers.

Low - Level Output : 2 V. (4 channels)

#### **TUNER**

Tuning Range : AM : 530 - 1,710 kHz (10 kHz step)

FM: 87.5 - 107.9 MHz (200 kHz step)

Sensitivity : AM :  $20 \mu V$ FM :  $1.5 \mu V$ 

FM

Stereo Separation : 30 dB

#### **CD PLAYER**

Frequency

Response : 20 - 20,000 Hz

S/N Ratio : 90 dB

Wow & Flutter : Below the measurable limit