CQ-DP745EW

COMPACT disc DIGITAL AUDIO

Removable Face High-Power CD Player / Receiver

Specifications*

General

Power Supply	: DC 12V (11V - 16V), Test Voltage 14.4V Negative Ground
Tone Action	: Bass; ± 12dB at 100Hz Treble; ± 12dB at 10kHz
Current Consumption	: Less than 2.5A (CD Play Mode)
Maximum Power Output (Volume Max.)	: 35W × 4 Channels (at 4Ω)
Power Output (DIN45 324)	: 14W × 4 Channels (at 4Ω)
Output Impedance	: 4 - 8Ω

AM Radio

Frequency Range	: 531 - 1,602kHz
Usable Sensitivity	: 28dB/μV (S/N 20dB)

FM Stereo Radio

Frequency Range	: 87.5 - 108MHz
Usable Sensitivity	: 6dB/μV (S/N 30dB)
Stereo Separation	: 40dB (at 1kHz)

CD Player

Sampling Frequency	: 32 times oversampling
DA Converter	: MASH·1bit/4 DAC System
Pick-Up Type	: Astigma 3-beam
Light Source	: Semiconductor laser
Wavelength	: 780 nm
Frequency Response	: 20Hz to 20,000Hz (± 1dB)
Signal to Noise Radio	: 96dB
Total Harmonic Distortion	: 0.01% (1kHz)
Wow and Flutter	: Below measurable limits
Channel Separation	: 75dB

Dimensions**

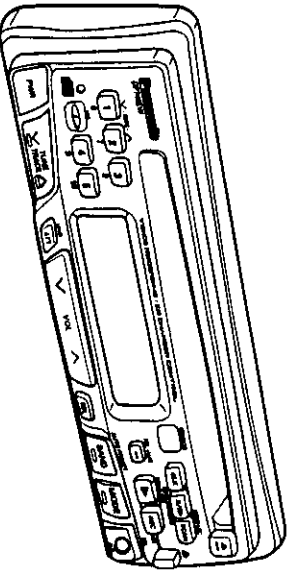|	
Main unit (W × H × D)	: 178 × 50 × 150 mm

Weight**

Main unit	: 1.5kg

* Specifications and the design are subject to possible modification without notice due to improvements.

** Dimensions and Weight shown are approximate.

• Above specifications comply with EIA standards.
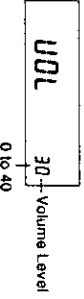
Power and Sound Controls

Power

If the car is not already running, turn the key in the ignition until the accessory indicator lights.

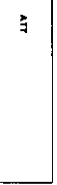Press PWR to switch on the power.

Volume

Press "VOL∧" or "VOL∨" to increase or decrease volume.

```
UOL    30 — Volume Level
       0 to 40
```

Press "VOL∧" or "VOL∨" for more than a half second to change numeric levels on the display rapidly.

Attenuator

• Press ATT. Volume will decrease to about 1/10 of its previous level.
• Press ATT again to deactivate when listening at normal volume.

```
ATT
```

Tone Enhancement

Press and hold LOUD (ATT) for more than 2 seconds to enhance bass and treble tones when listening at low or medium volume. Press and hold LOUD (ATT) for more than 2 seconds again to deactivate.

Note: This unit is equipped with an anti-volume-blast circuit which serves as an automatic volume level adjuster so that you will not be deafened by sudden loud volume.
This system operates as follows. When PWR is switched on, the volume level is low. After that, the volume level gradually returns to its previous level prior to switching off the unit.
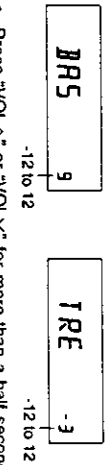

Power and Sound Controls continued
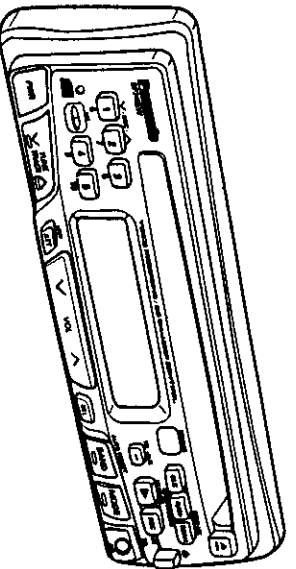
Changing Audio Modes

Press SEL to switch the audio mode in the following order.

VOLUME → BASS → TREBLE → BALANCE → FADER

Bass and Treble

• Press SEL to select the BASS (TREBLE) mode, press "VOL∧" or "VOL∨" to increase or decrease the bass/treble response.

```
BAS    9              TRE    -3
       -12 to 12             -12 to 12
```

• Press "VOL∧" or "VOL∨" for more than a half second to change numeric levels on the display rapidly.

Balance

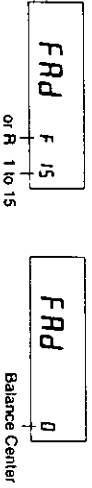• Press SEL to select the BALANCE mode. Press "VOL∧" or "VOL∨" to shift the sound volume to right or left speakers.

```
BAL    R  15          BAL    0
       or L  1 to 15          Balance Center
```

• Press "VOL∧" or "VOL∨" for more than a half second to change numeric levels on the display rapidly.

Fader

• Press SEL to select the FADER mode. Press "VOL∧" or "VOL∨" to shift the sound volume to the front or rear speakers.

```
FAd    F  15          FAd    0
       or R  1 to 15          Balance Center
```

• Press "VOL∧" or "VOL∨" for more than a half second to change numeric levels on the display rapidly.
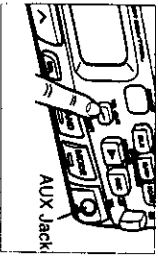
Note: When a control mode (BAS/TRE/BAL/FAd) is selected but no operation is made within 5 seconds, the display will return to the normal operation (volume adjustment) mode. In such a case, press SEL again to select the next control mode.

CQ-DP745EW

Radio Basics
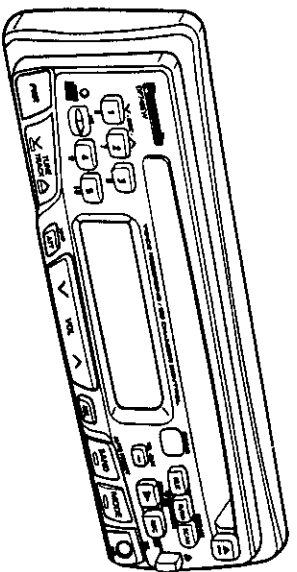
Selecting Auxiliary Source

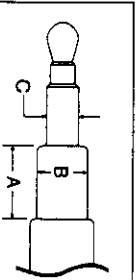① Press TEL-AUX (☐) to select AUX input mode.

`AU In`

② Connect the auxiliary equipment (an optional DCC player deck or any other appropriate equipment) to the AUX Jack.

Cancelling AUX input mode

Press TEL-AUX (☐) or MODE again while the AUX mode is operated, the mode will return to the previous mode. Or insert a CD and the mode will change to CD mode.

Caution:
In order to insert the plug into the "AUX" Jack properly, make sure to use the correct size of the stereo plug shown on the left.

A-MIN 1/2" LONG (12mm)
B-MAX 2/5" DIA. (10mm)
C-MIN 1/8" DIA. (3.5mm)

Changing TEL Mode

Press TEL-AUX (☐) repeatedly when the optional Hands Free Unit is connected.

The mode will change from current mode to TEL mode and vice versa.

`TEL`

Last mode ←——→ TEL mode

To change Tuner Mode

Tuner mode is selected if the MODE button is pressed in either CD Player, CD Changer Control or AUX mode.

`IO2.7 FñI`

Selecting a Band

Press BAND to select the bands in the following order.

FM1 ——→ FM2 ——→ FM3 ——→ AM

Manual Tuning

Press "∧TUNE" or "∨TUNE" to move to a higher or lower frequency.
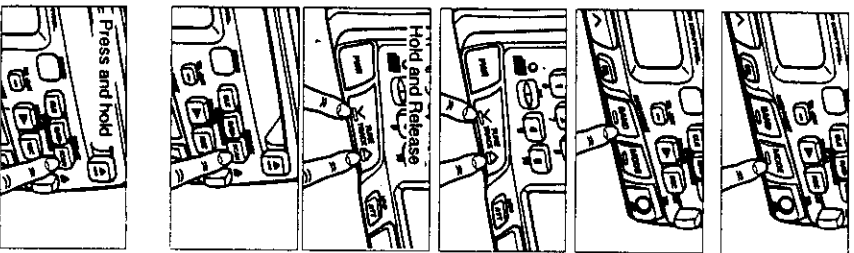
Seek Tuning

Press and hold "∧TUNE" or "∨TUNE" for more than a half second, then release. The radio automatically stops on the next station.

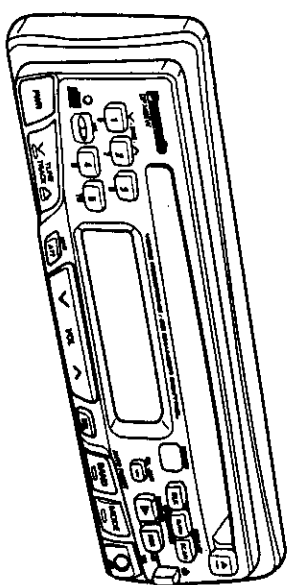## To reduce interference during FM stereo broadcasts

Press MONO (SCAN) to switch monaural reception in case much interference is present in an FM stereo signal or to improve the listening quality of weak FM broadcasts. To turn it off, press the MONO again.

Switching from DX to LOC

Normally, searching stops even at a weak wave station.(DX mode)
To stop searching at a strong wave station only, press LOCAL (SCAN) more than 2 Seconds. To turn it off, press and hold LOCAL (SCAN) more than 2 Seconds.

CQ-DP745EW

Preset Station Setting

Up to 20 stations can be preset in the station memory as follows;

FM1	FM2	FM3	AM
5 stations	5 stations	5 stations	5 stations

Manual Station Preset

① Press BAND to select a desired band.

② Use manual or seek tuning to find a station that you want to program into memory.

③ Press and hold one of the station selector buttons 1 through 5 until the display blinks.

Repeat the process to set other stations for the FM1 to AM bands.

```
102.7  FM3 ── BUTTON NUMBER
```
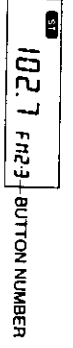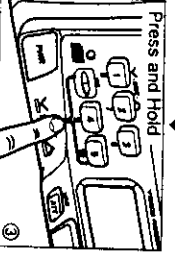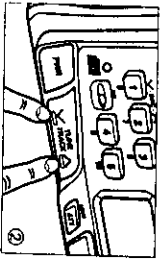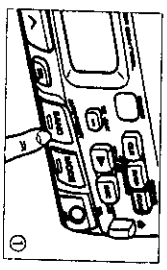
Note: You can change the memory setting by repeating the above procedure.

Tuning in a Preset Station

Press any of the buttons 1 through 5 to tune in the station preset by the above steps ① to ③.

Auto Station Preset

Select a band and press and hold BAND (AUTO PRESET) for more than 2 seconds.

• The five strongest available stations will be automatically set in memory preset buttons 1 through 5.

• Once set, the preset stations are sequentially scanned for 5 seconds.

• Press the appropriate preset button for the station you want to hear.
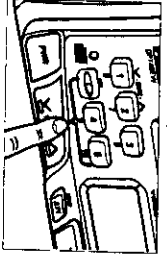
Caution: For safety reasons, do not attempt to program while driving.

Compact Disc Player Basics

Mode Selection

While the disc is inserted, press MODE to switch the operation mode in the following order.
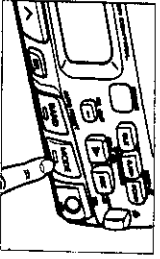
Tuner ──→ CD Player ──→ CD Changer Control

To start the CD Player

Insert the disc (label side up) and playback starts automatically.

```
LOAd
```

"LOAd" will be displayed until the disc is loaded. Play starts from first track.

```
0
```

Note: While the disc is inserted, " o " indicator will light. If you press "MODE" after the disc is ejected, the disc will be re-inserted.

Stopping and Ejecting a Disc

Press "▲" to stop CD play, and the disc will quietly eject from the CD slot. (During disc ejection, "EJ" will be displayed.)
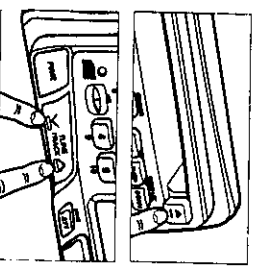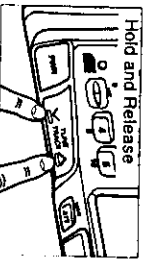
Selecting a Track

Press "TRACK∧" once to go to the next track. Press repeatedly to step forward through all the tracks.

Press "∨TRACK" once to play from the beginning of the track you are listening to. Press twice to play the previous track. Press repeatedly to step backward through all the tracks.
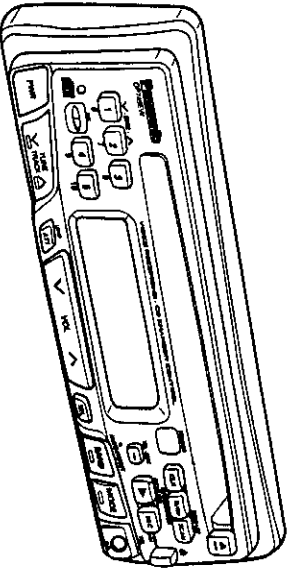
Searching a Track

Press and hold "TRACK∧" or "∨TRACK" for more than a half second to activate fast forward or reverse through a track.

Release "TRACK∧" or "∨TRACK" to resume the normal CD play from that position.
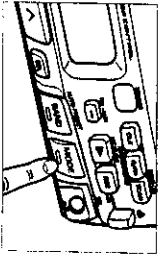
CD Changer Basics

To start the CD Changer

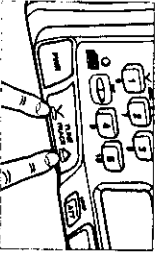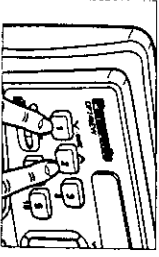With a disc magazine inserted in the CD Changer, press MODE. Play starts from first track.

[Only for CX-DP600EN]

```
0:00 → 1:01
```

Selecting a Disc

Press "Disc∨" or "Disc∧" to select discs in descending or ascending order. Display shows as follows until the selected disc is loaded. Play starts from first track.
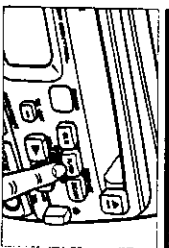
[Only for CX-DP600EN]

```
000 → 1:01
```

Selecting a Track

Press "TRACK∧" once to go to the next track. Press repeatedly to step forward through all the tracks.
Press "∨TRACK" once to play from the beginning of the current track. Press twice to play the previous track. Press repeatedly to step backward through all the tracks.

Searching a Track

Hold and Release

Repeating a Track

Press R/R▶ to repeat the current selection. "REPEAT" indicator lights.

```
REPEAT
```

The current selection continues to repeat until you press R/R▶ again.

Random Selection

Press and hold R/R▶ for more than 2 seconds. "RANDOM" indicator will light. A random selection of music is played from all available tracks.

```
RANDOM
```

To turn off the random play feature, press and hold R/R▶ again for more than 2 seconds.

Note:

- If R/R▶ is pressed during random play, the track now in play automatically returns to beginning upon coming to the end plays back again. (Random repeat)

```
REPEAT RANDOM
```

- When R/R▶ is pressed again, repeat play stops and returns to random play.
- Press and hold R/R▶ again for more than 2 seconds, random play stops.

Scanning Tracks

Press SCAN. The display blinks and the first 10 seconds of each track on the discs play in sequence.
To stop scanning and continue with the current track, press SCAN again.

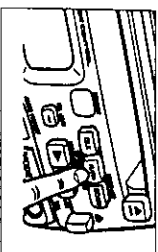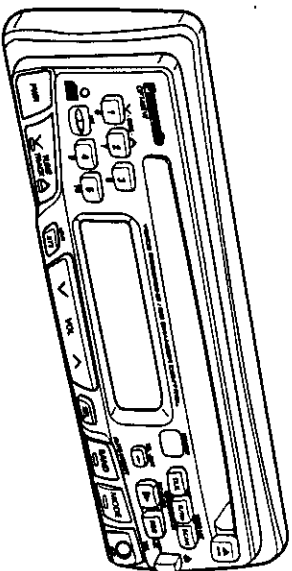## Scanning Discs

Press and hold SCAN for more than 2 seconds. The 1st track of all the discs in the magazine is played for 10 seconds each. Also, Disc Number blinks at the same time. To stop the current play of the disc scanning, press and hold SCAN for more than 2 seconds again.
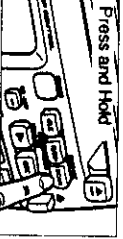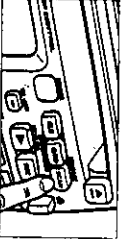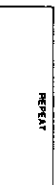
| E1	Displays when the compact disc is dirty or upside down. The disc eject automatically.
C3	

Repeating a Track

Press R/R▶ to repeat the current selection. "REPEAT" indicator will light.

REPEAT

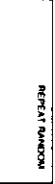The current selection will continue to repeat until you press R/R▶ again.

Random Selection

Press and hold R/R▶ for more than 2 seconds. "RANDOM" indicator will light. A random selection of music is played from all available tracks.
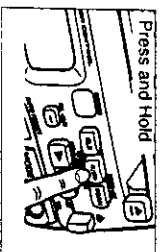
RANDOM

To turn off the random play feature, press and hold R/R▶ again for more than 2 seconds.

Notes:
- If R/R▶ is pressed during random play, the track now in play automatically returns to its beginning upon coming to the end and plays back again. (Random repeat)

REPEAT RANDOM

- When R/R▶ is pressed again, repeat play stops and returns to random play.
- Press and hold R/R▶ again for more than 2 seconds, random play stops and repeat play starts.

Press and Hold
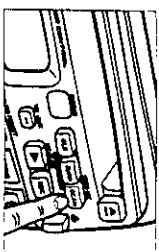
Scanning a Disc

Press SCAN. The display will blink and the first 10 seconds of each track on the disc play in order.
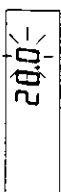
To stop scanning and continue with the current track, press SCAN again.

Selecting by Track Number (Direct access)

- Press a number from "1" to "5" then the corresponding track will start.
- Press and hold a number from "6" to "10" ("1" to "5") for more than one second and the corresponding track will start.

Clock Basics (The clock system is 12-hours.)

Initial Time Setting

① Press CLK. "AdJ" is displayed.

② Press and hold CLK again for more than 2 seconds. "12" blinks indicating the time setting mode is activated.

③ To set hours, press "∨TUNE" or "TUNE∧". Hold "∧" or "∨" to change numbers rapidly.

④ Press CLK again for minute setting.

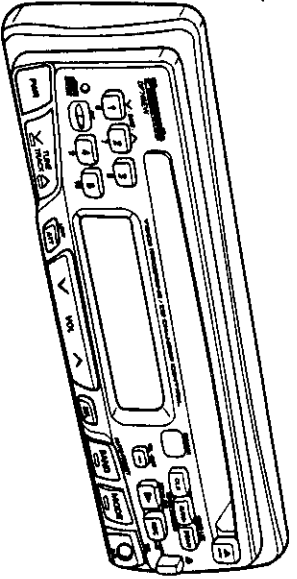⑤ To set minutes, press "∨TUNE" or "TUNE∧". Hold "∧" or "∨" to change numbers rapidly.

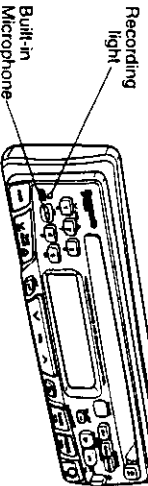⑥ When you have set the time, press CLK.

Resetting the Time

When you want to reset the time, press and hold CLK for more than 2 seconds to activate the time setting mode. Then, repeat step ③ to ⑥ above.

Selecting the Clock Display

Press CLK for clock display.

Press CLK once again, the current audio display mode resumes.

Voice Recording

The Voice Recording function offers record/playback of program from the unit and external source from the built-in microphone for up to 20 seconds. It is mainly used as follows:

1. To record and playback important notes.
2. To record and playback surprise messages to others.
3. To record a simple direction for other drivers and use it as a road guide.

There are many other ways to enjoy this function as you like.

Operation method

Changing Record Mode

- When ▶ (MIC/AUDIO) is pressed for more than 1 second, record mode changes from MIC to an audio mode (Radio/CD/CD Changer/AUX). ("MIC" indicator turns off from LCD display)
- When ▶ (MIC/AUDIO) is pressed again for more than 1 second, record mode changes from an audio mode to MIC. ("MIC" indicator turns on)

Microphone ◀ → Audio (Tuner/CD/CD Changer/AUX)

To record

- When "REC" is pressed for more than 1 second during the MIC record mode, external sound is recorded through the built-in microphone.
- When "REC" is pressed for more than 1 second during the audio record mode (Radio/CD/CD Changer/AUX), current program from the unit is recorded.
- When "REC" is pressed for more than 1 second again, (before the 20 seconds end) record ends.
- When recording reaches at the end of 20 seconds, the recording light turns off.

Note:

1. Maximum recording time is 20 seconds.
2. In the audio mode, the recording from the microphone cannot be made.
3. If you want to erase the previous recorded message, please do.
   ① Press "REC" for more than 1 second until the recording light is turned on.
   ② As soon as the recording light turns on, press "REC" again for more than 1 second until the recording light is turned off.

To play

- Press ▶ (PLAY) to playback the previous recorded message.
- When playback ends, the previous audio mode is resumed.

Caution:

1. Do not make recording while the car in motion.
2. The previous message will be erased, as soon as you press the recording button.
3. Surrounding noise will be recorded, while the recording from microphone.

Recording light

Built-in Microphone

Anti-Theft System

This unit is equipped with a removable face plate. By removing this face plate, the radio becomes totally inoperable. The security indicator will blink.

To Remove the Removable Face Plate

① Switch off the power.
② Press the release button (◆). The removable face plate will be released.
③ Remove the removable face plate by pulling on the right side of the unit. Place the removable face plate in a supplied case.
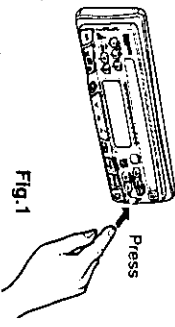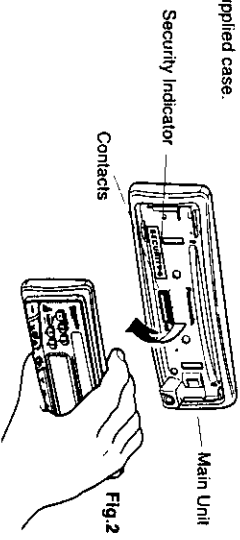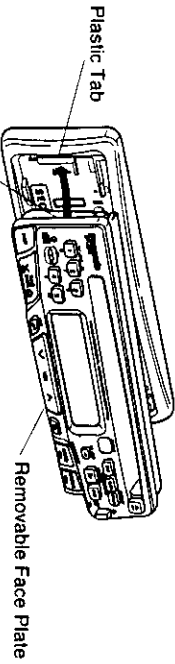
Fig.1

Press

Security Indicator

Contacts

Main Unit

Fig.2

To install the Removable Face Plate

① Slide the left side of the removable face plate in place.

Plastic Tab

Cutout

② Press the right end of the removable face plate until "click" is heard.
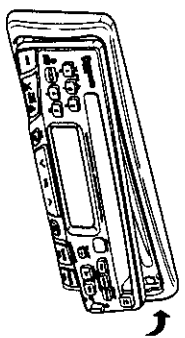
Removable Face Plate

Fig.3

Fig.4

Caution:
1. Before removing the removable face plate, make sure the power is off.
2. This removable face plate is not water-proof. Do not expose it to water or excessive moisture.
3. Do not remove the removable face plate, while driving your car.
4. Do not place the removable face plate on the dashboard or nearby areas where the temperature rises to high levels.
5. Do not touch the contacts on the removable face plate or on the main unit, since this may result in poor electrical contacts.
6. If dirt or other foreign substances get on the contacts, wipe them with a clean, dry cloth.

Anti-Theft System continued

Warning Alarm/Horn Alert

Caution

This car radio equipped with an integrated Warning Alarm & Horn Alert in order to make robbery more difficult.
But it has to be secured that the installation will be properly done so that the Warning Alarm & Horn Alert may work in a perfect way. Concerning the installation the following points have to be observed:

1. The supplied mounting collar has to be firmly fixed with the mounting tabs to the dashboard.
2. The radio has to be put into the mounting collar in that way that it exactly ends with the collar.
3. Please make sure that the technical features (impedance and power) of the speakers installed correspond to the specifications of this car radio (See technical specifications).

Only when these three points are observed during the installation, the correct function of the "Warning Alarm"/"Horn Alert" will be secured.
If the main unit is not correctly wired and installed, the system may accidentally sound the the alarm.

Warning Alarm, Horn Alert and Security Indicator

The security indicator blinks when the removable face plate is removed from the unit. Furthermore, the alarm will set off for 1 minute then reset when an attempt is made to remove the unit from the mounting collar.

## Activate Warning Alarm, Horn Alert and Security Indicator

1. Press and hold SEL for more than 4 seconds when the power is ON. "LED ON" is displayed, and the security indicator and Warning Alarm turn ON.
Note: The ALARM mode is inactivated when it is shipped.
2. To check whether the unit is set in the ALARM ON mode, make sure that the security indicator blinks when the removable face plate is removed.

Display

	Security Indicator	Warning Alarm	Horn Alert
LED ➡ Disappears ➡ ON	Blinks	ON	ON
LED ➡ Disappears ➡ OFF	OFF (Press and hold SEL for more than 4 seconds.)	OFF	OFF

Caution:
1. Warning Alarm and Horn Alert system may not operate,if the exclusive supplied mounting collar is not used.
This mounting collar will set off the alarm when the unit is being removed.
If the main unit is not correctly wired and installed, the system may accidentally sound the alarm.
2. When removing or installing the unit, make sure that it is in the ALARM OFF mode.
3. When the Warning Alarm is activated by mistake, or when you want to remove the unit, the Warning Alarm and the security indicator functions can be canceled by the following steps of procedure.
   • Install the removable face plate.
   • Disconnect the power connector.

Horn Alert (Option)

- Horn Alert operates with Warning Alarm to sound the vehicle's horn (or the commercially available horn).
It operates in Alarm ON mode only.

Speaker in vehicle

Warning Alarm

Vehicle's horn

Horn Alert
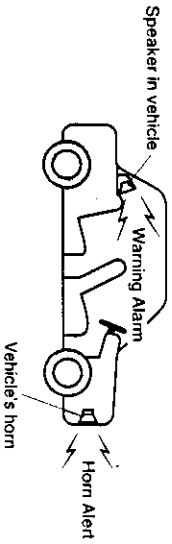
In the following case, use a commercially available horn that conforms to the specifications below.

Type of Car	Commercial External Horn
Horn inoperative when ACC/ING is OFF	Necessary
No relay used to actuate horn	Necessary

(※) Commercial horn specifications
(1) Operating voltage : 6 V to 16 V
(2) Drive current : 0.5 A or less
(3) Sound pressure level : 80 dB up to 100 dB when horn is actuated at 12 V, 0.5 A

- How to turn off: Difference between Horn Alert and Warning Alarm.

	Horn Alert (Car horn)	Warning Alarm (Speaker)
The set's power cable is pulled out or cut off.	Keeps sounding	Stops sounding
Removable face plate is fitted in.	Keeps sounding	Stops sounding
Ignition (ACC) is turned ON.	Stops sounding	Keeps sounding

Caution:
- Be sure to read the Manual (CA-HAL1EN) supplied with the Horn Alert Unit for a detailed description of the Horn Alert Unit and its installation method.
- Wrong wiring can cause wrong operation. Carefully read the manual before wiring the set.

Voice Rec Handheld Case
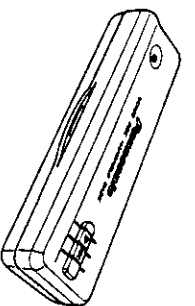
Usage:

Recording or playback (for about 20 seconds) can be made by setting the removable face plate in this case.

< Example of Use >

1. Important reminders can be recorded and playback in voice.
2. The route to a destination can be recorded in voice, and be used as a route guide.

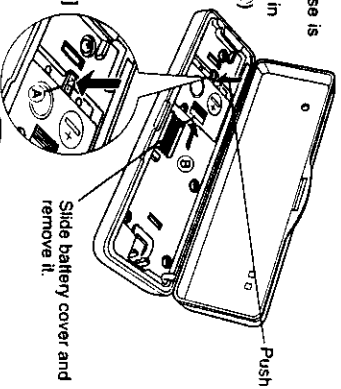Find other ways of recording, playback as desired.

Caution for Use

- This unit is not water-proof. Do not expose it to water or excessive moisture.
- Do not drop this unit.
- Do not place this unit in direct sunlight for a long time.

1. Inserting Batteries (Panasonic Lithium Battery CR2032)

- Please confirm the power switch on the back of the case is switched to the OFF position.
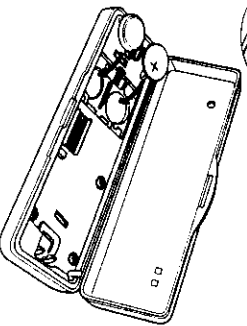① Push Ⓐ inside (Figure 1-Ⓐ) and slide the battery cover in the arrow direction as shown and remove it. (Figure 1-Ⓑ)
②Insert batteries, making sure that the polarities [(+), (−)] are correct. (Figure 2)
③Close the battery cover until "click" is heard.

Slide battery cover and remove it.

Push

Fig. 1

Fig. 2

2. Inserting Removable Face Plate into Place

- Please confirm the power switch on the back of the case is switched to the OFF position.

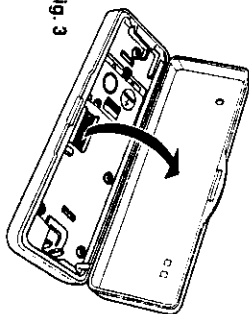① Open the cover of the case. (Figure 3)

Fig. 3

② Slide the left end of the removable face plate into place as shown in the figure. (Figure 4)

③ Then, push the right end of the removable face plate until "click" is heard. (Figure 5)
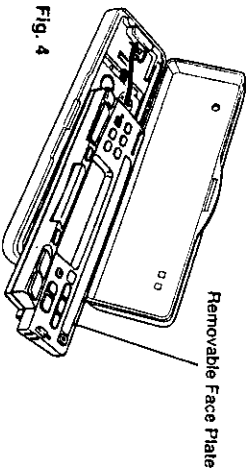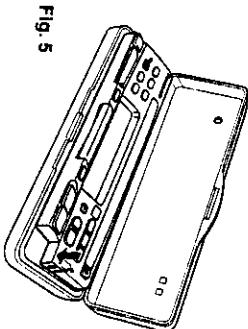
④ Close the cover.

Fig. 4

Removable Face Plate

Fig. 5

3. Operation

< Recording with Removable Face Plate set in this case >

① Press the power switch on the back of the case to the ON position.

② Press and hold REC on the case for more than 2 seconds, then speak into the microphone to record your voice (for up to 20 seconds). (The recording light turns on during recording.)
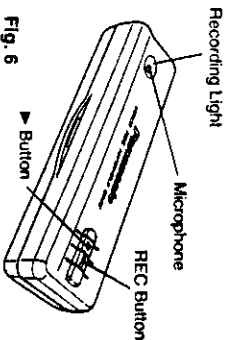
Fig. 6

Recording Light

Microphone

REC Button

▶ Button

How to erase

If you want to erase the previous recorded message, please do.

① Press and hold REC for more than 2 seconds until the recording light is turned on.

② As soon as the recording light turns on, press and hold REC again for more than 2 seconds until the recording light is turned off.

Voice Rec Handheld Case continued

< Playback of Removable Face Plate set in this case >

① Press the power switch on the back of the case to the ON position.

② Press ▶ the case to hear the recording message from the speaker.

Note:
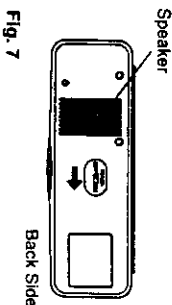If it is difficult to hear the message, please bring the case to your ear.

Fig. 7

Speaker

Back Side

Note:
- After recording or playback, be sure to press the power switch to the OFF position. If the power switch remains in the ON position, the batteries will be consumed soon.
- For detail instructions of recording and playback, please refer to the Operating Instructions of the applicable model.

4. Removing Removable Face Plate

① Press the power switch on the back of the case to the OFF position.

② Open the cover of the case.

③ Press the release button (▲) for the removable face plate. The right end of the removable face plate pops up and can be removed. (Figure 8)
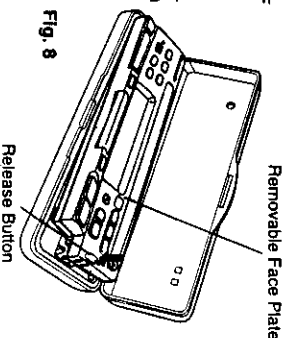
Fig. 8

Removable Face Plate

Release Button

5. Replacing Batteries (Panasonic Lithium Battery CR2032)

- Please confirm the power switch on the back of the case is switched to the OFF position.

Replace the old batteries with new lithium batteries of the part number specified above. (Refer to page 19.)

Note:
- To prevent accidents, keep your batteries away from access by infants.
- If playback sound level has fallen, it is time to replace the batteries.
- Battery life is about 3 months in normal use (at normal temperature).

CQ-DP745EW