

Panasonic®

Heavy Duty Cassette/Weather Band Receiver

CQ-2130U



Operating Instructions



- Please read these instructions carefully before using this product and keep this manual for future reference.

Safety Information

WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK OR PRODUCT DAMAGE, DO NOT EXPOSE THIS APPLIANCE TO RAIN, SPLASHING, DRIPPING OR MOISTURE.

CAUTION:

PLEASE FOLLOW THE LAWS AND REGULATIONS OF YOUR STATE, PROVINCE OR COUNTRY FOR INSTALLATION OF THE UNIT.

The following applies only in the U.S.A.

Part 15 of the FCC Rules**FCC Warning:**

Any unauthorized changes or modifications to this equipment would void the user's authority to operate this device.

NOTICE:

This product contains lead in some components. Disposal of these materials may be regulated in your community due to environmental considerations. For disposal or recycling information please contact your local authorities, or the Electronics Industries Alliance: <<http://www.eiae.org>.>

Find the model number and serial number on either the back or bottom of the unit. Please record them in the space below and retain this booklet as a permanent record of your purchase to help with identification in case of theft.

MODEL NUMBER **CQ-2130U** SERIAL NUMBER _____

DATE PURCHASED _____ FROM _____

Panasonic welcomes you to our ever growing family of electronic product owners. We know that this product will bring you many hours of enjoyment. Our reputation is built on precise electronic and mechanical engineering, manufactured with carefully selected components and assembled by people who take pride in their work. Once you discover the quality, reliability, and value we have built into this product, you too will be proud to be a member of our family.

☐ Use this product safely

When Driving

Keep the volume level low enough to be aware of road and traffic conditions.

When Car Washing

Do not expose the product, including the speakers and tapes, to water or excessive moisture. This could cause electrical shorts, fire, or other damage.

When Parked

Parking in direct sunlight can produce very high temperatures inside your vehicle. Give the interior a chance to cool down before switching the unit on.

Use the Proper Power Supply

This product is designed to operate with a 12 V DC, negative ground battery system.

Protect the Tape Mechanism

Keep magnets, screwdrivers, or other metallic objects away from the tape mechanism and tape head to prevent poor performance or malfunctions.

Note: The preset memory is cleared to return to the original factory setting when the power connector or battery is disconnected.

Accessories

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2. Supplied Hardware	1 set (⇒ page 18)
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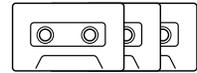
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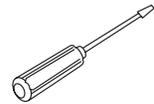


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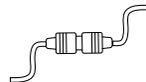
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Power and Sound Controls

Power

Turn the key in the ignition until the accessory indicator lights.

Power on: Press [PWR] (power).

Power off: Press [PWR] (power) again.

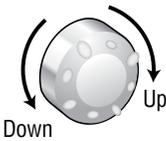


Volume

Turn the knob clockwise to increase volume, and counterclockwise to decrease volume.



Volume level (0 to 39)
(default: 16)



Mute

Press [MUTE] to mute the sound completely.



Mute blinks

Press [MUTE] again to cancel.

Loudness

Press and hold [MUTE] (LOUD) for more than 2 seconds. to enhance bass and treble tones at low or medium volume.



Loudness indicator

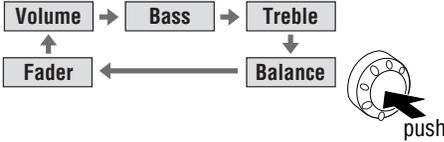
Press and hold [MUTE] (LOUD) for more than 2 seconds again to cancel.

Power and Sound Controls (Continued)

Audio Modes (Bass/Treble/Balance/Fader)

Note: If no operation takes place for more than 5 seconds in audio mode (2 seconds in volume mode), the display returns to the regular mode.

① Push [SEL] to select the audio mode.



② Turn [VOL] (volume) clockwise or counterclockwise to change each level.

Bass:

BASS 12 default : 0 dB
Adjustable range: -12 to +12 dB (by 2 dB step)

Treble:

TRE 12 default : 0 dB
Adjustable range: -12 to +12 dB (by 2 dB step)

Balance:

R (right speaker) or L (left speaker)

BAL R 15
Adjustable range: 1 to 15 (by 1 step) Balance center (default)

Fader:

F (front speaker) or R (rear speaker)

FADE F 15
Adjustable range: 1 to 15 (by 1 step) Fader center (default)

Illumination Switching

Press [SCAN] (ILL) for more than 2 seconds to switch the illumination color (green/amber).

Clock Setting

Selecting the Clock Display

Press [CLK] (clock) to switch clock and alarm time display both.



Note: if no operation takes place for more than 5 seconds in alarm time, the display returns to the clock display.

The 12-hour system is used for the clock.

Initial Time



"SET" is displayed when the clock is not adjusted.



[V] (Hours)

[^] (Minutes)

Time Setting

- 1 Press and hold [CLK] (clock) and do not release to set time. Display blinks and the time setting mode is activated.



Hours

- 2 Press [V] to set the hour.



Minutes

- 3 Press [^] to set the minute.



- 4 Once the time has been set, release [CLK].



Note: Press and hold [V] or [^] to change numbers rapidly.

Time Reset

When you want to reset the time, repeat steps ① to ④.

Note: the current time will be displayed at all the time even the power of the radio is turned off.

Alarm Time Setting

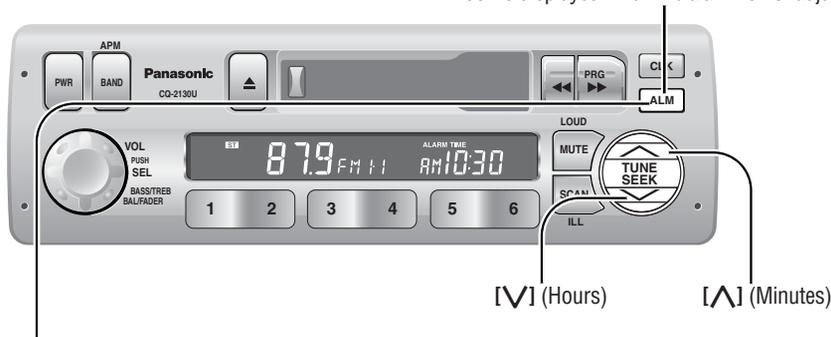
The 12-hour system is used for the clock.

Initial Alarm Time

Press and hold [ALM] (Alarm)



“AM 12:00” is displayed when the alarm is not adjusted.



Alarm Time Setting

- 1 Press and hold [ALM] (Alarm) and do not release to set alarm time. Display blinks and the alarm time setting mode is activated.



Hours

- 2 Press [V] to set the hour.



Minutes

- 3 Press [^] to set the minute.



- 4 Once the alarm time has been set, release [ALM].

Note: Press and hold [V] or [^] to change numbers rapidly.

Alarm Time Reset

When you want to reset the alarm time, repeat steps 1 to 4.

Alarm Operation

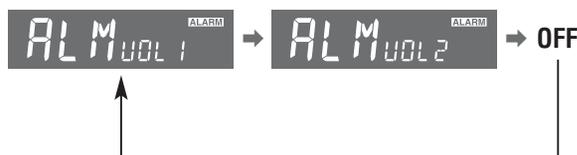
- Alarm is switched to ON or OFF each time [ALM] is pressed.
- When the alarm is switched to ON, the alarm will sound at the set alarm time.

Turning off the Alarm Sound

The alarm will turn off automatically after 90 seconds. Otherwise, press [ALM] once.

Alarm output Volume Selection

You can select ALARM VOL 1 (or VOL 2) by pressing [ALM] in sequence and the display will show as follows.



Cautions:

- Be careful not to set wrong alarm time, otherwise, the alarm may sound while driving.
- If the alarm is set, be sure to check the set alarm time by pressing [CLK].
- If volume is set at “0” level, the output volume will be muted. (Even when ALARM is acting.)

Radio

① Change to the Radio mode

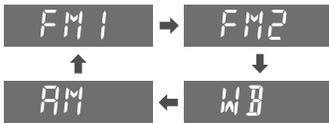
Press **[PWR]** to change to the radio mode.

※Please press **[▲]** (eject) to eject the tape when the cassette tape is playing.



② Band

Press **[BAND]** to change the band.



③ Scan

- Press **[SCAN]**, each station will be scanned sequentially and the display will blink for 5 seconds.
- Press **[SCAN]** again to stop scanning and the last station will continue to broadcast.

④ Manual Tuning

[∧]: Higher frequency

[∨]: Lower frequency

Seek Tuning

Press and hold for more than 0.5 seconds and release it.

[∧]: Higher frequency

[∨]: Lower frequency

Tuning will automatically stop when the next broadcast station is received.

Radio (Continued)

Preset Station Setting

Up to 6 stations can be saved in each of the FM1, FM2 and AM preset station memories.

Note: Existing saved stations are overwritten with new stations after following this procedure.

1 Band

Press [BAND] to select a desired band.
(→ page 9)



Preset buttons from [1] to [6]

2 Auto Preset Memory (APM)

Press and hold [BAND] (APM: auto preset memory) for more than 2 seconds.

- The 6 stations with good reception will be automatically saved in the memory under preset buttons from [1] to [6].
- Once set, the preset stations are sequentially scanned for 5 seconds each.
- Press [BAND] again to stop sequentially scan.

Manual Preset Memory

- 1 Use manual or seek tuning to find a station. (→ page 9)
- 2 Press and hold one of the preset buttons from [1] to [6] until the display blinks once.



blinks once

Preset Station Calling

Press the corresponding preset button from [1] to [6] to tune in a preset station.

Caution: To ensure safety, never attempt to preset stations while you are driving.



Tuning in a Weather Band Station

- Press **[BAND]** to select WB (Weather Band) (→ page 9)
- Press any of the buttons **[1]** to **[6]** to monitor the preset station.

The frequency (162) remains unchanged.



WB

Weather Band Frequency (channel) Number

Note: The weather band (CH1-6) has been preset. CH7 is selected by pressing **[▲]** or **[▼]**.

Weather Band Stations

National Weather Radio Broadcasts from over 380 locations throughout the U.S. on seven VHF/FM frequencies.

Tune to weather band to receive continuous weather information 24 hours a day on one of the following frequencies.

1. 162.550 MHz
2. 162.400 MHz
3. 162.475 MHz
4. 162.425 MHz
5. 165.450 MHz
6. 162.500 MHz
7. 162.525 MHz

Occasionally the frequency of an existing or planned station must be changed because of unexpected radio frequency interfere with adjacent NOAA weather Radio Stations and/or with other Government or commercial Operations within the area. If you have a question concerning NOAA Weather Radio, please contact your nearest National Weather Service Office.

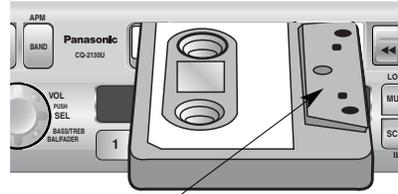
Cassette Tape Player

① Loading a Cassette

Gently insert a cassette with the exposed tape side facing to the right until the mechanism captures it, and playback starts.



Program Indicator
(This indication "U" rotates.)



Exposed Tape side



Stop and Eject

Once inserted into the unit, your tape will play continuously until you eject it. If you press [▲] (eject), the unit ejects the tape and returns to radio operation. When you stop the car engine, the tape will stop but not be ejected.

Notes:

- You can not change to Radio mode while tape playing if you want to change to Radio mode, eject the tape.
- Always remove the cassette when you stop using the cassette player. This will prolong the life of your tape.

2 Play Side Change

Press [◀◀] and [▶▶] at the same time to switch to the program on the other side of the tape. The display changes to indicate which program is playing.



3 Rewind and Fast Forward

When the program indicator ▲ lights, press [◀◀] to rewind or press [▶▶] to fast forward the tape.

When the program indicator ▼ lights, press [◀◀] to fast forward or press [▶▶] to rewind the tape.



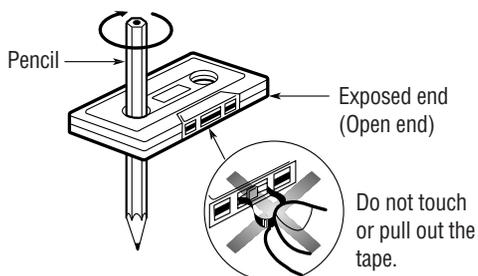
To stop rewind or fast forward, gently press the button that is not in use. The tape will resume playing from that position.

Note: To maintain your cassette player in top condition, avoid using tapes that are longer than 90 minutes (C-90).

Notes on Cassette Tapes

Tape Slack:

Use a pencil or similar object to take up the slack as shown. If a loose tape is used, this may result in the tape becoming tangled in the rotating parts of the unit.



Troubleshooting

Preliminary Steps

Check and take steps as described in the tables below.

If You Suspect Something Wrong

Immediately switch the power off.

Disconnect the power connector and check that there is neither smoke nor heat from the unit before asking for repairs. Never try to repair the unit by yourself because it is dangerous to do so.

Cautions:

- Do not use the unit if it malfunctions or if there is something wrong.
- Do not use the unit in irregular condition, for example, without sound, or with smoke or foul smell, which can cause ignition or electric shock. Immediately stop using it and call the store where you purchased it.

Troubleshooting Tips

□ Common

Trouble	Cause/Step
No power.	Vehicle's ignition switch is not on. ➔ Turn your vehicle's ignition switch to ACC or ON.
	Cables are not correctly connected. ➔ Connect cables correctly.
	Battery cable is not correctly connected. ➔ Connect the battery cable to the terminal that is always active.
	Power connector is not correctly connected. ➔ Connect the power connector to your vehicle's ACC source.
	Grounding wire is not correctly connected. ➔ Connect the grounding wire to a metal part of the car.
No sound.	Mute is set to ON. ➔ Set it to OFF.
	Cables are not correctly connected. ➔ Connect cables correctly.
Noise.	The ground lead is not connected properly. ➔ Connect the ground lead properly.

☐ Radio

Trouble	Cause/Step
Much noise in FM stereo and monaural broadcasts.	<p>The antenna ground lead is not connected properly. ➔ Connect the antenna ground lead properly.</p> <p>The radio antenna is not extended enough. ➔ Extend fully the radio antenna.</p>
Preset station is reset.	<p>Battery cable is not correctly connected. ➔ Connect the battery cable to the terminal that is always active.</p>

☐ Cassette Tape

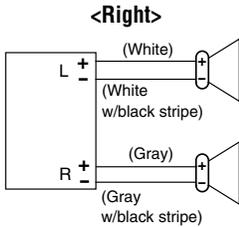
Trouble	Cause/Step
No sound.	<p>Blank tape is inserted in the unit. ➔ Insert recorded tape into the unit.</p>
Tape sound quality is poor.	<p>Heads are dirty. ➔ Clean heads. (Ask a service representative for advice.)</p> <p>Poor quality tape. ➔ Use better quality tape.</p>
Reproduction of high tones is poor.	<p>Heads are magnetized. ➔ Demagnetize heads. (Ask a service representative for advice.)</p>
Wow and flutter level is very high.	<p>Tape running mechanism is dirty or out of order. ➔ Clean tape running mechanism, or repair it. (Ask a service representative for advice.)</p>

☐ Sound Setting

Trouble	Cause/Step
No sound from left, right, front, or rear speaker.	<p>Left and right balance, or front and rear balance is off on one side. ➔ Adjust BAL/FAD as appropriate.</p> <p>Cables are not correctly connected. ➔ Connect the cables correctly.</p>
Left and right sounds are reversed in stereo listening.	<p>The right speaker wire is connected to the left speaker and the left speaker wire to the right speaker. ➔ Connect the speaker wires to the correct one.</p>

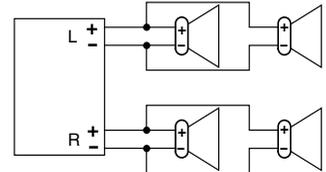
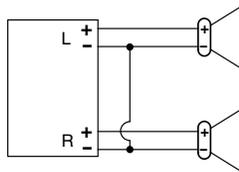
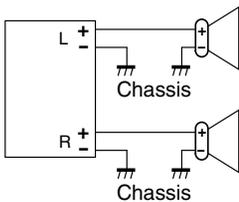
Speaker Connections

Caution: Please follow the instructions given below. Failure to do so will cause damage to the unit and speakers.



- Use ungrounded speaker only.
- The maximum speaker input should be 37 W or more. (If used with the optional power amplifier, the speaker input should be higher than the maximum amplifier output.)
- The speaker impedance should be 4 - 8 Ω .
- This unit uses the BTCL circuit, so each speaker should be connected separately using parallel vinyl insulated cords.
- The speaker cords and the power amplifier unit should be kept away (about 30 cm apart) from the antenna and antenna extension cord.

<Wrong>



- Never connect the speaker cord to the body of the car.
- Do not use a 3-wire type speaker system having a common earth lead.
- Do not connect more than one speaker to one set of speaker leads.

Product Servicing

If the suggestions in the charts do not solve the problem, we recommend that you take it to your nearest authorized Panasonic Servicenter. The product should be serviced only by a qualified technician.

Maintenance

Your product is designed and manufactured to ensure the minimum of maintenance. Use a soft cloth for routine exterior cleaning. Never use benzine, thinner, or other solvents.

Caution

This product is designed without a fuse inside due to fuses already exist in your vehicle. We would recommend to use fuses of the specified rating(10A). Using fuses that exceed the prescribed capacity could cause this product to start smoking, ignite or other malfunction.

If your vehicle is without that fuse inside, we would recommend to add a fuse specified rating 10A at your harness, **For the detail, please consult your dealer.**

Installation Guide



WARNING

❑ This installation information is designed for experienced installers and is not intended for non-technical individuals. It does not contain warnings or cautions of potential dangers involved in attempting to install this product.

Any attempt to install this product in a vehicle by anyone other than a qualified installer could cause damage to the electrical system and could result in serious personal injury or death.

❑ If your vehicle is equipped with air bag and/or anti-theft systems, specific procedures may be required for connection and disconnection of the battery to install this product.

Before attempting installation of this electronic component, contact your vehicle dealer or manufacturer to determine the required procedure and strictly follow their instructions.

FAILURE TO FOLLOW THE PROCEDURE MAY RESULT IN THE UNINTENDED DEPLOYMENT OF AIR BAGS OR ACTIVATION OF THE ANTI-THEFT SYSTEM RESULTING IN DAMAGE TO THE VEHICLE AND PERSONAL INJURY.

❑ Overview

This product should be installed by a professional. However, if you plan to install this product yourself, your first step is to decide where to install it. The instructions in these pages will guide you through the remaining steps:

(Please refer to the “WARNING” statement above.)

- Identify and label the car wires.
- Connect the car wires to the wires of the power connector.
- Install the unit in the dashboard.
- Check the operation of the unit.

If you encounter problems, please consult your nearest professional installer.

Caution: This unit operates with a 12 V DC negative ground auto battery system only. Do not attempt to use it in any other system. Doing so could cause serious damage.

Before you begin installation, look for the items which are packed with your unit.

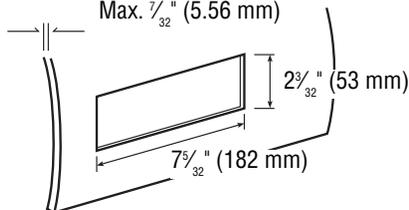
- **Warranty Card**...Fill this out promptly.
- **Panasonic Servicenter List for Service Directory**

...Keep for future reference in case the product needs servicing.

- **Installation Hardware**...Needed for in-dash installation.

❑ Dashboard Specifications

Thickness Min. $\frac{3}{16}$ " (4.75 mm)
Max. $\frac{7}{32}$ " (5.56 mm)



Installation (Continued)

□ Preparation

Warning: If your vehicle is equipped with air bag and/or anti-theft systems, specific procedures may be required for connection and disconnection of the battery to install this product.

Before attempting installation of this electronic component, contact your vehicle dealer or manufacturer to determine the required procedure and strictly follow their instructions.

FAILURE TO FOLLOW THE PROCEDURE MAY RESULT IN THE UNINTENDED DEPLOYMENT OF AIR BAGS OR ACTIVATION OF THE ANTI-THEFT SYSTEM RESULTING IN DAMAGE TO THE VEHICLE AND PERSONAL INJURY.

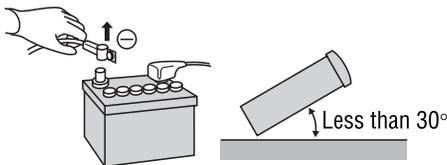
- Disconnect the cable from the negative ⊖ battery terminal (see warning and caution below).
- Remove Mounting Collar ① from the main unit temporarily, which are already mounted at shipment.*

Caution: Various settings that have been stored in the memory in other on-board equipment (vehicle navigation etc.) may be lost if the battery terminals are disconnected.

Therefore, we recommend to make a record of or to back up the settings before disconnecting the terminals.

After completing installation of the main unit, set the equipment again according to the record.

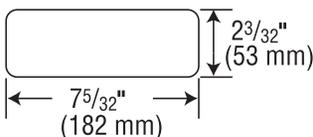
- Unit should be installed in a horizontal position with the front end up at a convenient angle, but not more than 30°.



□ Dashboard Installation

Installation Opening

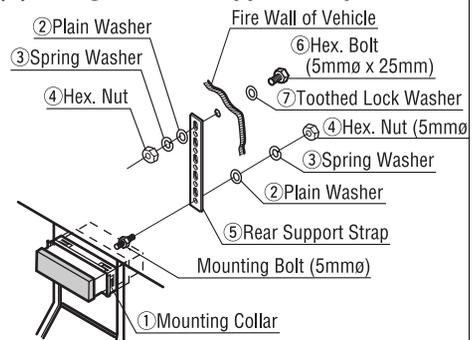
This unit can be installed in any dashboard having an opening as shown below. The dashboard should be 3/16" (4.75 mm) – 7/32" (5.56 mm) thick in order to be able to support the unit.



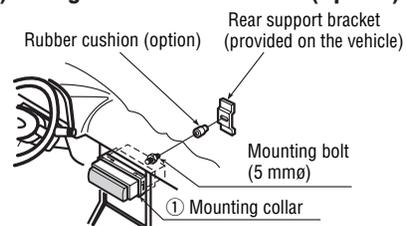
□ Installation Hardware

No.	Item	Diagram	Q'ty
①	Mounting Collar*		1
②	Plain washer (5mmø)		2
③	Spring Washer (5mmø)		2
④	Hex. Nut (5mmø)		2
⑤	Rear Support Strap		1
⑥	Hex. Bolt (5mmø × 25 mm)		1
⑦	Toothed Lock Washer (5mmø)		1
⑧	Removal Tool (U-shaped)		2
⑨	Antenna Connector		1

(a) Using the rear support strap ⑤



(b) Using the rubber cushion (option)

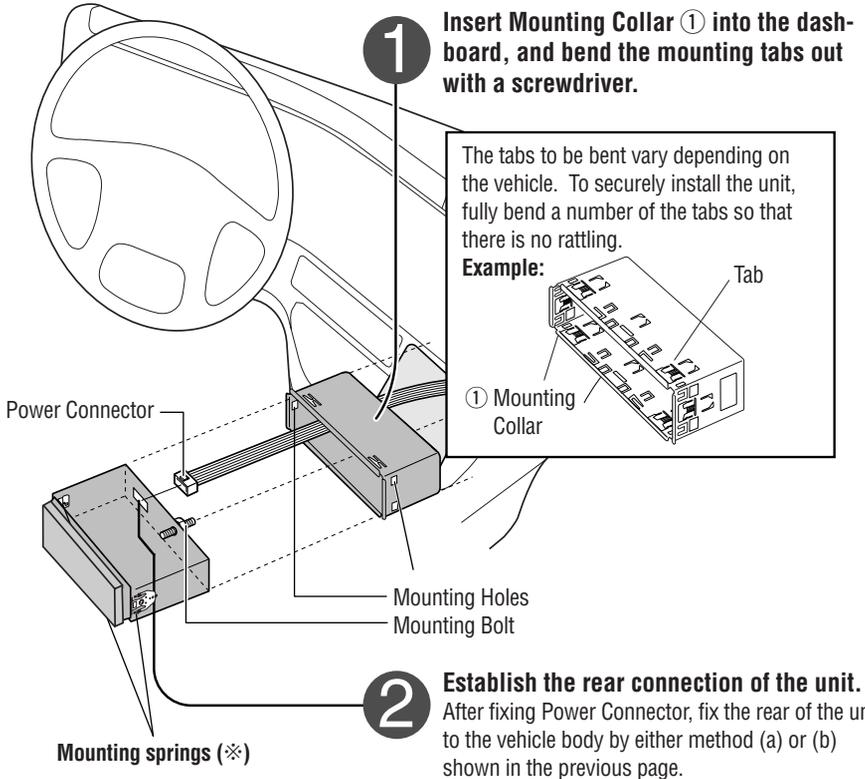


Cautions:

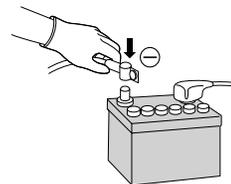
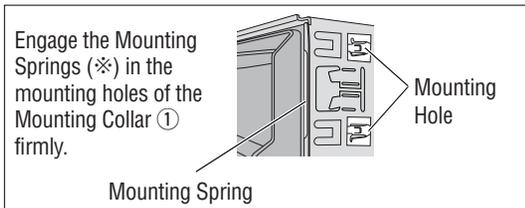
- We strongly recommend that you wear gloves for installation work to protect yourself from injuries.
- When bending the mounting tab of the mounting collar with a screwdriver, be careful not to injure your hands and fingers.

First complete the electrical connections, and then check them for correctness. (→ page 21)

The included Mounting Collar ① is designed specially for this unit. Do not use it to attach any other model.



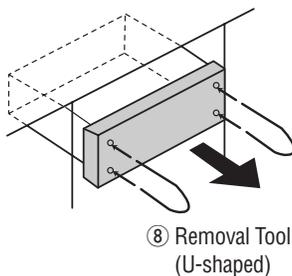
3 After installation reconnect the negative (-) battery terminal.



Installation (Continued)

To Remove the Unit from the vehicle's dashboard

Insert each Removal Tool ⑧ and pull.



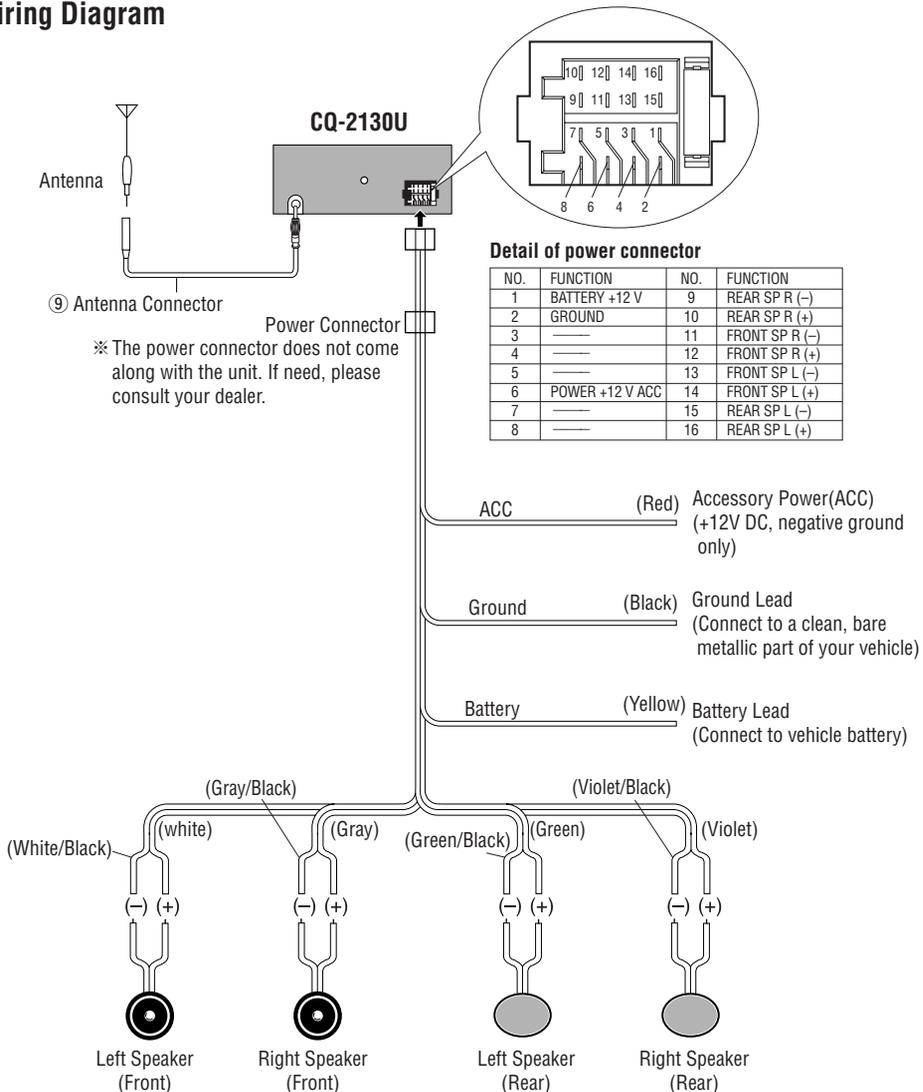
Note: Do not lose Removal Tools. They will be needed to remove the unit from the vehicle's dashboard.

Electrical Connections

Cautions:

- This wiring information is for experienced technical individual, for safety reason, please your dealer wire this connection.
- This product is designed to operate with a 12 V DC, negative ground battery system.
- To prevent damage to the unit, be sure to follow the connection diagram below.
- Do not insert the power connector into the unit until the wiring is completed.
- Be sure to insulate any exposed wires from a possible short-circuit from the car chassis. Bundle all cables and keep cable terminals free from touching any metal parts.
- Remember, if your car has a drive computer or a navigation computer, the data of its memory maybe erased when the battery terminals are disconnected.

Wiring Diagram



Specifications

□ General

Power Supply:	12 V DC (11 V-16 V) test Voltage 14.4 V, Negative ground
Current consumption:	Less than 2.5 A (tape mode, 0.5 W 4-speaker)
Maximum Power Output:	37 W × 4 channels at 400 Hz, Volume Control maximum
Tone adjustment range:	
Bass:	± 12 dB at 100 Hz
Treble:	± 12 dB at 10 kHz
Power Output:	18 W per channel into 4 ohms, 40 to 30 000 Hz at 3 % THD
Suitable Speaker Impedance:	4-8 Ω
Dimensions (W × H × D):	7" × 1-15/16" × 6-1/10" (178 × 50 × 160 mm)
Weight:	3 lbs. 8 oz. (1.6 kg)

□ FM Stereo Radio

Frequency Range:	87.9-107.9 MHz
Useable Sensitivity:	12 dBf. (1.1 μV, 75 Ω, S/N 30 dB)
50 dB Quieting Sensitivity:	17 dBf. (1.8 μV, 75 Ω)
Frequency Response:	30-15 000 Hz ±3 dB
Alternate Channel Selectivity:	75 dB
Stereo Separation:	35 dB at 1 kHz
Signal/Noise Ratio:	70 dB (Mono)

□ AM Radio

Frequency range:	530 kHz–1 710 kHz
Usable sensitivity:	28 dB/μV (25 μV, S/N 20 dB)

□ Tape Player

Reproduction System:	4-track, 2-program stereo
Tape Speed:	1-7/8"/sec (4.76 cm/sec)
FF/REW Time:	Less than 200 sec (C-60)
Frequency Response:	35-14 000 Hz ±3 dB
Wow and Flutter:	0.12 % (WRMS)
signal/Noise Ratio:	52 dB

Above specifications comply with EIA standards.

Note: Specifications and design are subject to modification without notice due to improvements in technology.

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