

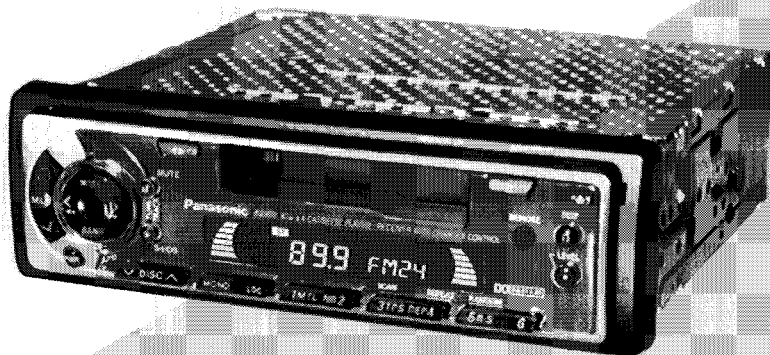
# Panasonic®

Removable Face High-Power Cassette Player/Receiver with Changer Control

Combiné lecteur de cassette à haute puissance et façade amovible/Poste récepteur avec commande de changeur

## CQ-R235U

### Operating Instructions Manuel d'utilisation



Please read these instructions carefully before using this product and save this manual for future use

Prière de lire ces instructions attentivement avant d'utiliser le produit

et garder ce manuel pour l'utilisation ultérieure

**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 volt, negative ground battery system (the normal system in a North American car).

**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.

**Use Authorized Servicenters**

Do not attempt to disassemble or adjust this precision product. Please refer to the Servicenter list included with this product for service assistance.

**For Installation**

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

**Part 15 of the FCC Rules**

**Part 15 of the FCC Rules**

This unit has been manufactured under the part 15 of the FCC Rules. Do not attempt to make any changes or modifications to this unit.

Optional Remote Control Unit is available to this unit

**Identification Label**

**Panasonic**

Model No. **CQ-R235U**  
N° De Modèle

12V

4-8Ω

15A

FM75Ω

Manufactured by Dalian Matsushita Communication Industrial Co., Ltd.  
Dalian China      Made in China

Serial No.  
N° De Série

This device complies with Part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference.

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-R235U** SERIAL NUMBER

DATE PURCHASED FROM

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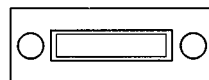
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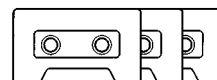
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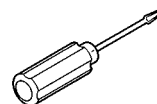
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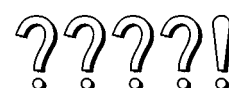
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**Panasonic** est heureuse de vous compter parmi les utilisateurs de ses appareils électroniques. Nous pouvons vous assurer que cet appareil vous procurera de longues heures d'agrément. Notre réputation est fondée sur une ingénierie électronique et mécanique de haute précision laquelle préside à la fabrication d'appareils ne comportant que des composants de choix assemblés par un personnel soucieux de la bonne réputation acquise par la qualité de son travail. Après avoir découvert la qualité, la valeur et la fiabilité de cet appareil, vous aussi serez fier d'être un client **Panasonic**.

## ❑ Précautions à prendre

### Au volant

Régler le volume à un niveau qui ne risque pas de masquer les bruits ambiants.

### Lavage de la voiture

Afin de prévenir tout risque de court-circuit ou d'incendie, ne pas exposer l'équipement, y compris les haut-parleurs et les cassettes, à l'eau ni à une humidité excessive.

### Voiture stationnée

L'habitacle d'une voiture immobile exposée au soleil toutes vitres fermées devient rapidement très chaud. Laisser rafraîchir l'intérieur du véhicule avant d'utiliser l'appareil.

### Source d'alimentation

Cet appareil est conçu pour fonctionner sur un système d'alimentation avec batterie de 12V avec négatif à la masse (système standard sur les voitures de construction nord-américaine).

### Mécanisme de défilement

Ne pas approcher d'aimants, de tournevis ou tout autre objet métallique du mécanisme de défilement de la bande et de la tête magnétique.

### Réparation

Ne pas tenter de démonter ou d'ajuster l'appareil soi-même. Confier toute réparation à un centre de service agréé.

### Installation

L'appareil doit être installé en position horizontale avec son extrémité avant inclinée vers le haut à un angle conventionnel et jamais supérieur à 30°.



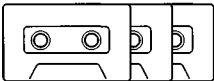
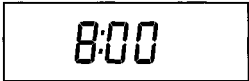
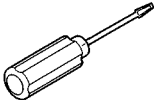
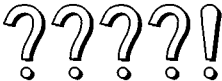
Une télécommande est disponible en option pour cet appareil.

Il est recommandé de noter, dans l'espace prévu ci-dessous, les numéros de modèle et de série inscrits soit à l'arrière soit sous le fond de l'appareil, et de conserver ce manuel comme mémorandum de l'achat afin de permettre l'identification de l'appareil en cas de vol.

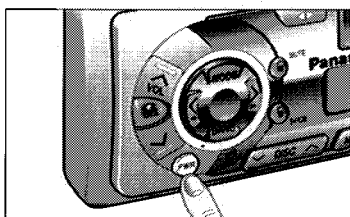
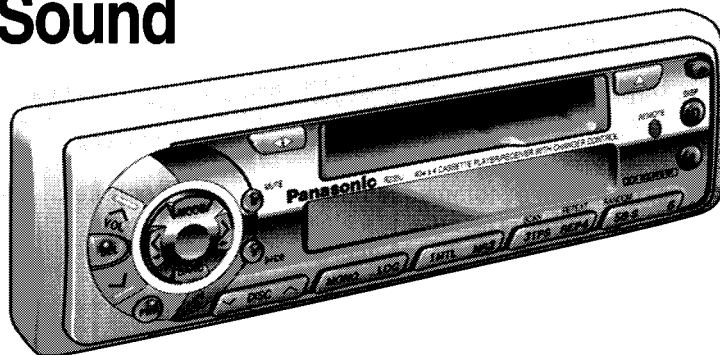
Numéro de modèle **CQ-R235U** Numéro de série \_\_\_\_\_

Date de l'achat \_\_\_\_\_ Vendeur \_\_\_\_\_

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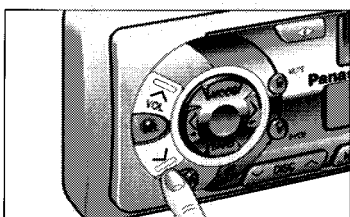
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# Power and Sound Controls



## Power

Turn the key in the ignition until the accessory indicator lights  
Press **[PWR]** to switch on the power  
Press **[PWR]** again to switch off the power



## Volume

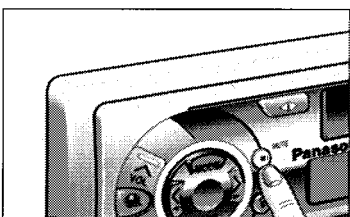
- Press **[^VOL]** or **[vVOL]** to increase or decrease the volume

**VOL 20** — Volume Level (0 to 40)

- Press and hold **[^VOL]** or **[vVOL]** for more than 0.5 seconds to change the numeric level in sequence

### Anti-Volume-Blast Circuit

This product has a safety function which slowly raises volume level when power is switched back on after it is turned off at a specific level (20) or higher



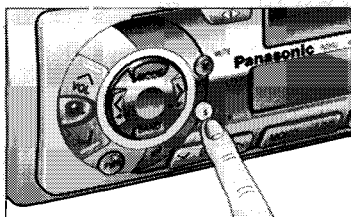
## Mute

- Press **[M]**(MUTE) to mute the sound completely

**MUTE**

- Press **[M]**(MUTE) again to cancel

**Note:** In the audio mode (BAS/TRE/BAL/FAD), the display will be back to regular operation mode with no operation for more than 5 seconds (2 seconds in the VOL mode)



## S•HDB (Super High Definition Bass)

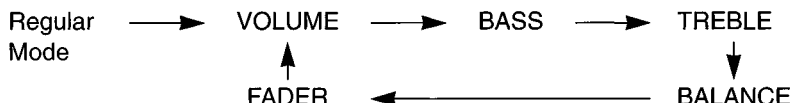
Especially for rock music, the bass-sound will be more powerful

- Press [S](S•HDB) to be able to listen to high-definition bass
- Press [S](S•HDB) again to return to the normal tone

**S•HDB**

## Audio Mode

Press [SEL] to change the audio mode setting as follows



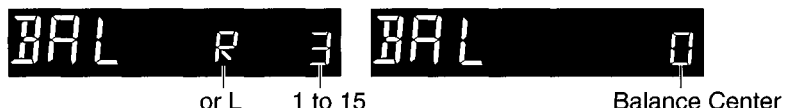
## Bass and Treble

- Press [SEL] to change to the bass (or treble) mode Press [∧VOL] or [∨VOL] to increase or decrease the bass (or treble) level



## Balance

- Press [SEL] to change to the balance mode Press [∧VOL] or [∨VOL] to shift the sound volume to the right (R) or left (L) speakers



## Fader

- Press [SEL] to change to the fader mode Press [∧VOL] or [∨VOL] to shift the sound volume to the front (F) or rear (R) speakers

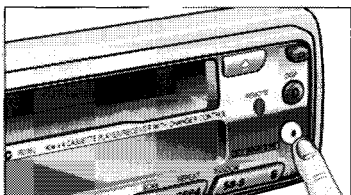


**Note:** In the audio mode (BAS/TRE/BAL/FAD), the display will be back to regular operation mode with no operation for more than 5 seconds (2 seconds in the VOL mode)

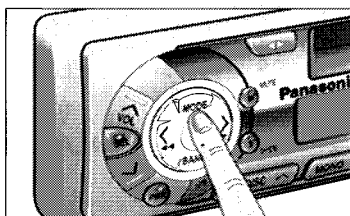
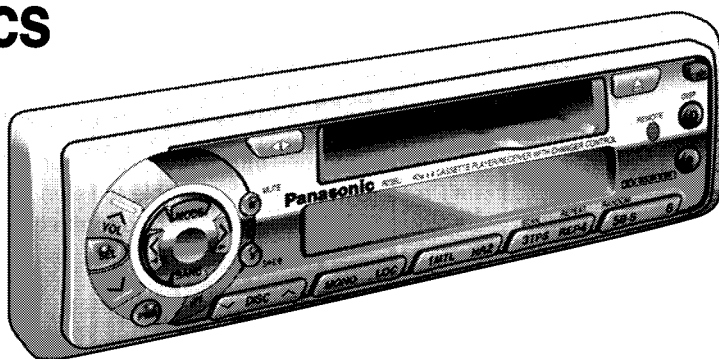
## Level Meter

Press [•](LEVEL) to display the level of sound sources  
Press [•](LEVEL) again to cancel

**Note:** The level meter indications do not change when VOL, BAL, or other control is turned

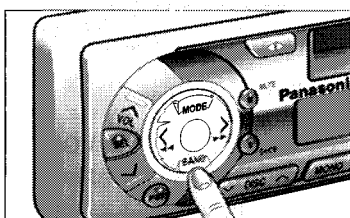
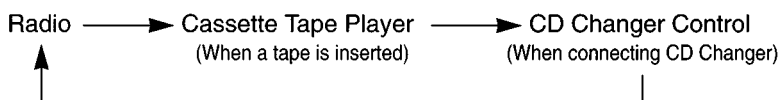


# Radio Basics



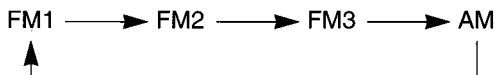
## Tuner Mode

Press **[MODE]** to change the operation mode setting as follows

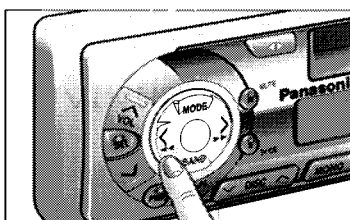


## Band

Press **[BAND]** to change the band setting as follows



"ST" indicator lights during reception of an FM stereo broadcast



## Manual Tuning

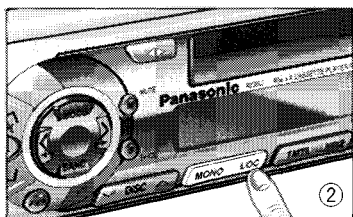
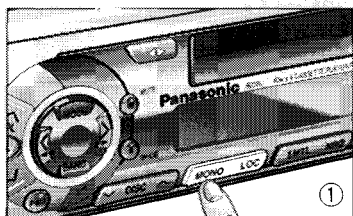
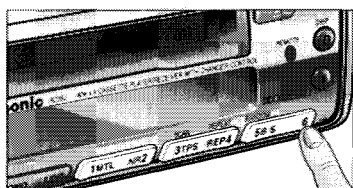
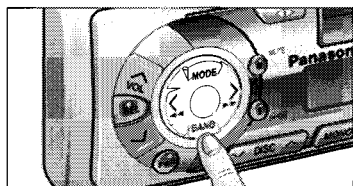
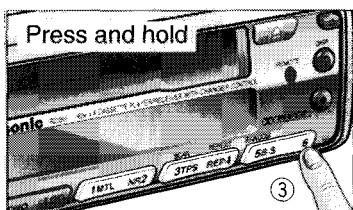
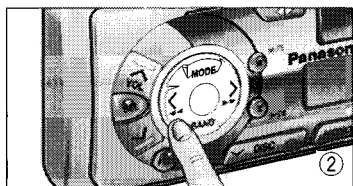
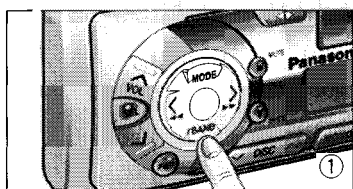
Press **[<TUNE]** or **[>TUNE]** to tune in a higher or lower frequency



## Seek Tuning

Press and hold **[<TUNE]** or **[>TUNE]** for more than 0.5 seconds, then release it. Tuning will automatically stop when the signals of the next broadcast station are received





## Station Preset

FM1, FM2, FM3 and AM can save a maximum 6 stations each in their preset station memories

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

## Manual Station Preset

- ① Press **[BAND]** to select a desired band
- ② Use manual or seek tuning to find a station which is to be preset in the memory
- ③ Press and hold one of the preset buttons **[1]** to **[6]** until the display blinks



**Note:** You can change the memory presetting by repeating the above procedure

## Auto Station Preset

Select the band and press and hold **[BAND]**(APM) for more than 2 seconds (Auto Preset Memory)

- The 6 strongest available stations will be automatically saved in the memory on preset buttons **[1]** to **[6]**
- Once set, the preset stations are sequentially scanned for 5 seconds each

## Tuning in a Preset Station

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

## MONO/LOCAL Selection

- At the MONO setting, noise is significantly decreased when weak signals are received from an FM broadcast station (Only for FM mode)
- At the LOCAL setting, only strong signals of stations are searched in seek tuning, while at the LOCAL OFF setting, relatively weak signals are also searched

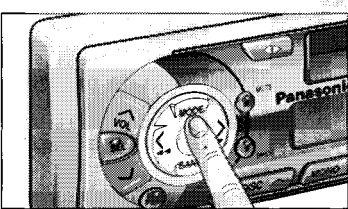
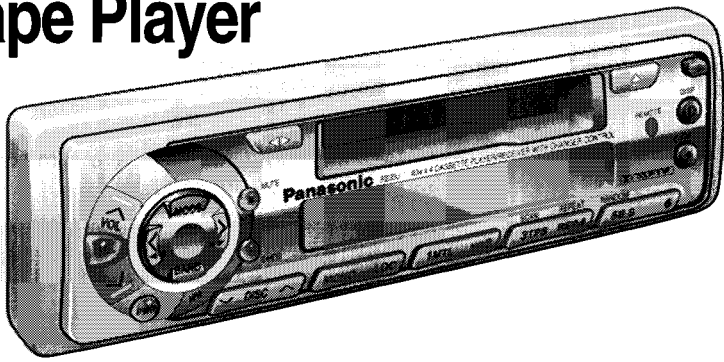
Press **[MONO]** to switch on or off the MONO mode as follows

MONO OFF ↔ MONO ON

Press **[LOC]** to switch on or off the LOCAL mode as follows

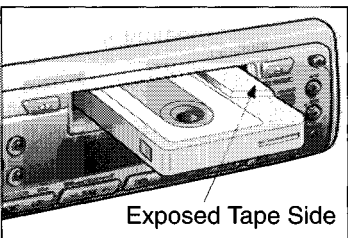
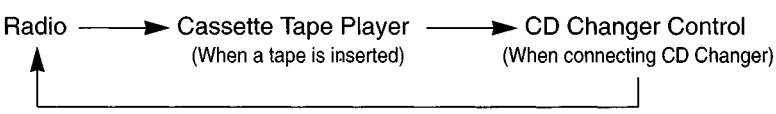
LOCAL OFF ↔ LOCAL ON

# Cassette Tape Player Basics



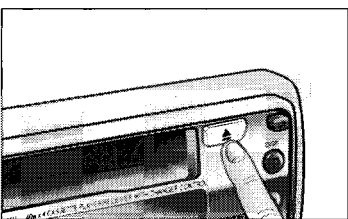
## Mode Selection

Press [MODE] to change the operation mode setting as follows



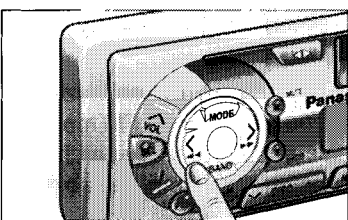
## Loading a Tape

Insert a cassette with the exposed tape side facing to the right. Gently push the cassette in until the loading begins. The cassette will be loaded in place and playback starts.



## Ejecting the Tape

Press [▲] to eject the tape. The previous operation mode will resume.  
**Note:** Always remove the cassette tape from the unit when the cassette tape player is not being used.

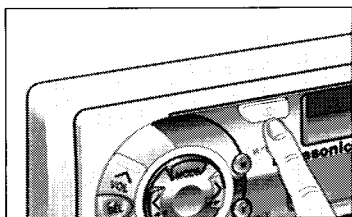


## Rewind and Fast Forward

Press [◀◀TRACK] or [▶▶TRACK] to activate rewind or fast forward of the tape.



Press [◀▶] to stop.  
If you rewind the tape fully, it will play on the same program side again.  
If you fast forward to the end, play will resume from the beginning of the other side of the tape.



## Changing Sides

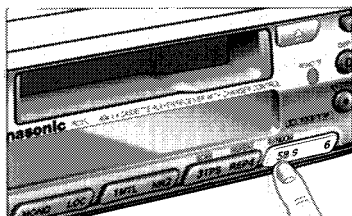
Press [◀▶] to reverse



Top Side Playing



Bottom Side Playing



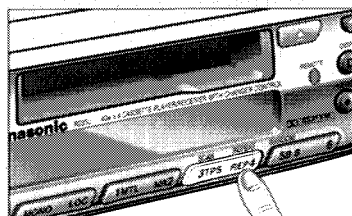
## Blank Skip

- Press [5](B•S) to skip long unrecorded portions on the tape
- Press [5](B•S) again to cancel

B•SKIP

### Notes:

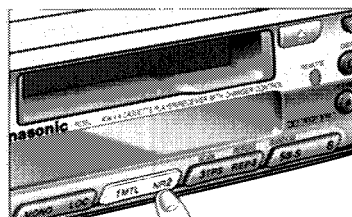
- When repeat is on, the blank skip does not work because the repeat has priority over the blank skip
- The blank skip does not work when an unrecorded portion of a tape is less than 15 seconds



## Repeat Play

- Press [4](REP) to repeat the current program
- Press [4](REP) again to cancel

REPEAT

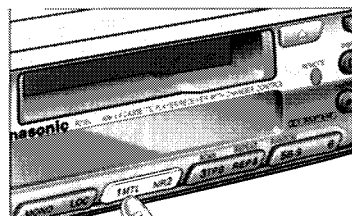


## Dolby Noise Reduction

- Press [2](NR) to set the Dolby B NR mode
- Press [2](NR) again to cancel

NR

**Note:** Set the Dolby B NR mode when playing back a tape recorded with Dolby B Noise Reduction



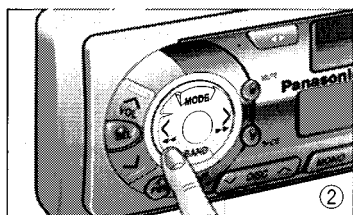
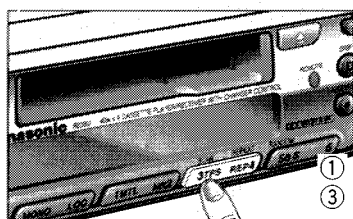
## Metal Tape Mode

- Press [1](MTL) when playing metal or chromium dioxide (CrO<sub>2</sub>) tapes
- Press [1](MTL) again to cancel

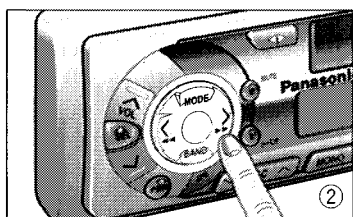
MTL

**Note:** Playing non-metal tapes in MTL mode causes high frequency imbalance, which affects tone quality

# Cassette Tape Player Basics (continued)



or

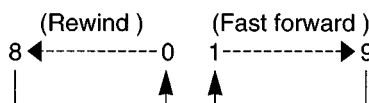


## TPS Operation (Tape Program Search)

① Press [3](TPS) to activate the tape program search mode



② To select a desired program, press [▶▶TRACK] or [◀◀TRACK] corresponding times to go forward (up to 9) or backward (up to 8)

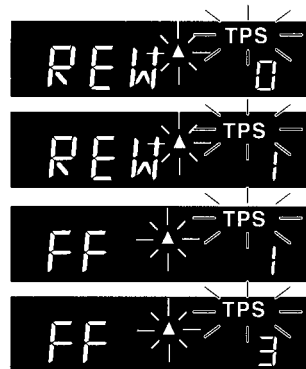


Ex1 To select the current program again, press [3](TPS) and [◀◀TRACK]

Ex2 To select the last program, press [3](TPS) and [◀◀TRACK] twice

Ex3 To select the next program, press [3](TPS) and [▶▶TRACK]

Ex4 To select the next 3rd program, press [3](TPS) and [▶▶TRACK] three times



③ Press [3](TPS) again to cancel

### Notes:

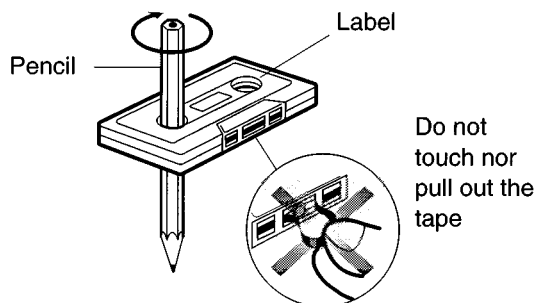
The TPS mode may not work correctly in the following cases. This, however, does not mean that the unit is defective

- There is an interval less than 4 seconds or having a high level of noise or hum between programs
- There is particularly low-level passage during the program

## Notes on Cassette Tapes

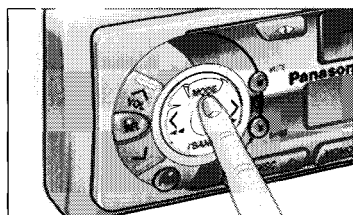
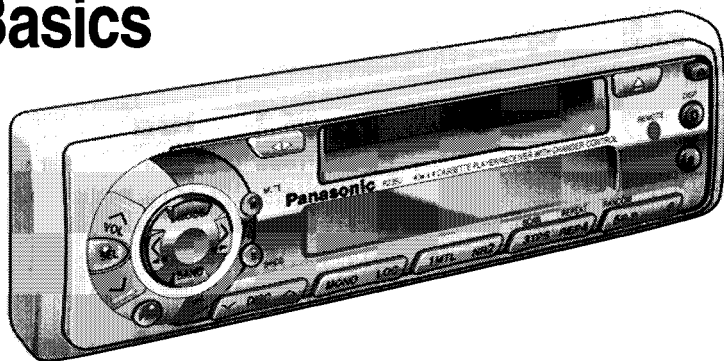
### Tape Slack

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 product



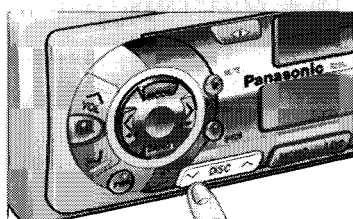
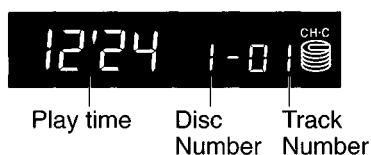
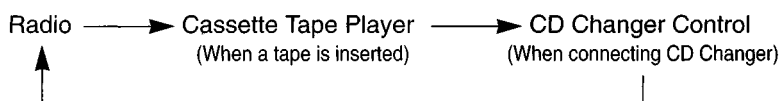
# CD Changer Basics

**Note:** CD changer functions are designed for an optional CD changer unit



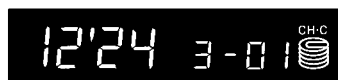
## Starting the CD Changer

Once the CD changer has been connected, press **[MODE]** to change to the CD changer mode as follows. When a disc magazine is inserted, CD play starts automatically.

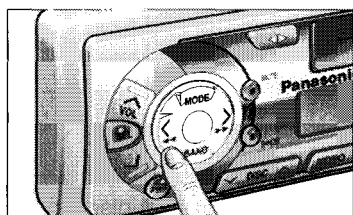


## Disc Selection

Press **[V/DISC]** or **[^/DISC]** to select a disc in descending or ascending order.

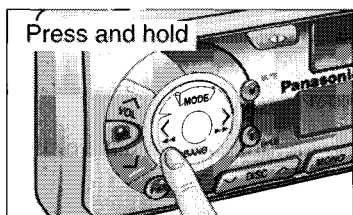


Then, the selected disc will start to play from the first track.



## Track Selection

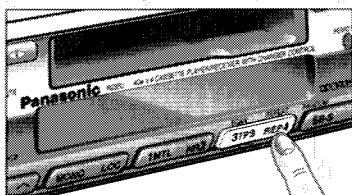
- Press **[▶▶TRACK]** to advance to the next track.
- Press **[◀◀TRACK]** to start play from the beginning of the track now playing.
- Press **[▶▶TRACK]** or **[◀◀TRACK]** repeatedly to skip the desired number of tracks.



## Track Search

- Press and hold **[▶▶TRACK]** or **[◀◀TRACK]** for more than 0.5 seconds to activate fast forward or reverse.
- Release **[▶▶TRACK]** or **[◀◀TRACK]** to resume regular CD changer play from the released position.

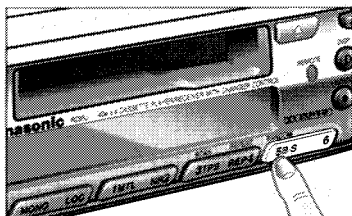
# CD Changer Basics (continued)



## Track Repeat

- Press [4](REPEAT) to repeat the current selection
- Press [4](REPEAT) again to cancel

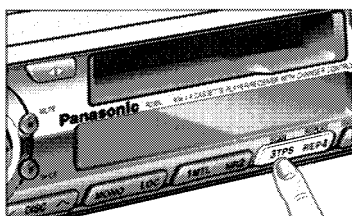
REPEAT



## Random Selection

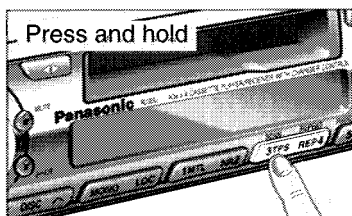
- Press [5](RANDOM) All the available tracks will be played in a random sequence
- Press [5](RANDOM) again to cancel

RANDOM



## Track Scan

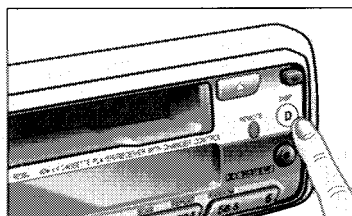
- Press [3](SCAN) The display blinks, and the first 10 seconds of each track on the discs play in sequence
- Press [3](SCAN) again to cancel



Press and hold

## Disc Scan

Press and hold [3](SCAN) for more than 2 seconds The 1st track of all the discs in the magazine is played for 10 seconds each Press and hold [3](SCAN) for more than 2 seconds again to cancel



## Changing the Display

Press [D](DISP) to switch the display as follows

Play Time/Disc/Track ↔ Clock display

**Note:** You cannot change the current display while the CD changer is set to the scan play mode

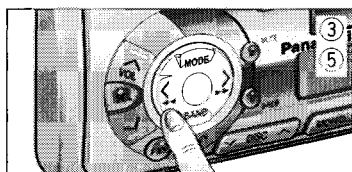
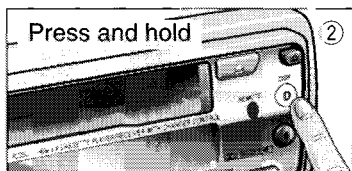
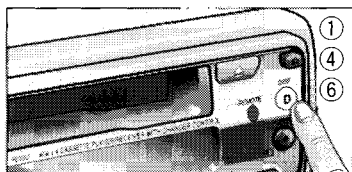
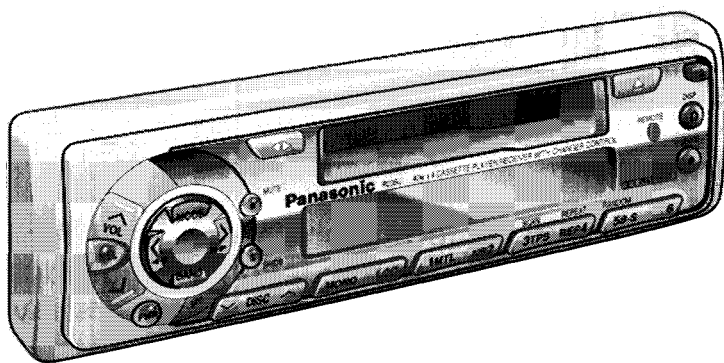
## Error Display Messages

E1	Displays when the compact disc is dirty or inverted Selects the next available compact disc
E2	Displays when compact disc is scratched Selects next available compact disc

E3	Displays when the compact disc stops operating for some reason Please turn off the car engine (ACC off) and remove the fuse from yellow lead for 1 minute Then reinstall the fuse
0000	Displays when there is no disc in the magazine

# Clock Basics

The 12-hour system is used for the clock.



## Initial Time

- ① Press [D](DISP) "Adj" appears on the display
- ② Press and hold [D](DISP) again for more than 2 seconds "12" blinks, and the time setting mode is activated
- ③ Press [<TUNE] or [>TUNE] to set the hour
- ④ Press [D](DISP) again to proceed with the minutes setting
- ⑤ Press [<TUNE] or [>TUNE] to set the minute  
Press and hold [<TUNE] or [>TUNE] for more than 0.5 seconds to change numbers on the display in sequence
- ⑥ Once the time has been set, press [D](DISP)

Adj

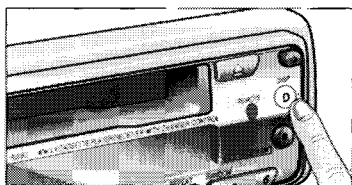
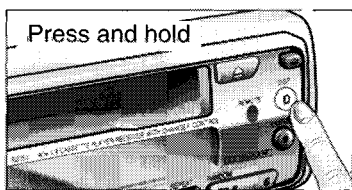
12:00

8:00

8:15

8:15

**Note:** The [D](DISP) button will not work while the CD changer is set to the scan play mode. Cancel the scan play mode before pressing [D](DISP).



## Time Reset

Press and hold [D](DISP) for more than 2 seconds to activate the time setting mode to reset the time. Then, repeat step ③ to ⑥ above.

## Clock Display

Press [D](DISP)

# 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 motor car by anyone other than qualified installer could cause damage to the electrical system and could result in serious personal injury or death.

### 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 dash
- Check the operation of the unit

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

**Caution:** This unit operates with a 12 volt 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 on the right which are packed with your unit.

- **Warranty Card** Fill this out promptly
- **Panasonic Servicenter for Service Directory**  
Keep for future reference in case the product needs servicing
- **Installation Hardware** Needed for in-dash installation

### Installation Hardware

No.	Item	Diagram	Q'ty
①	Mounting Collar		1
②	Hex Nut (5 mmφ)		1
③	Rear Support Strap		1
④	Tapping Screw (5 mmφ x 16 mm)		1
⑤	Mounting Bolt (5 mmφ)		1
⑥	Power Connector		1
⑦	Dismounting Plate		1
⑧	Removable Face Plate Case		1
⑨	Trim Plate		1



## Required Tools

You'll need a screwdriver, a 1.5 volt AA battery, and the following

12 V DC  
Test Bulb



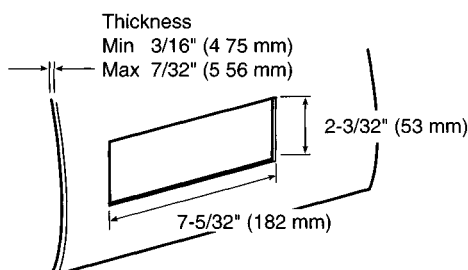
Electrical  
Tape



Side-Cut  
Pliers



## Dashboard Specifications



## Identify All Leads

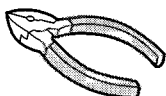
The first step in installation is to identify all the car wires you'll use when hooking up your sound system.

As you identify each wire, we suggest that you label it using masking tape and a permanent marker. This will help avoid confusion when making connections later.

**Note:** Do not connect the power connector to the stereo unit until you have made all connections. If there are no plastic caps on the stereo hooking wires, insulate all exposed leads with electrical tape until you are ready to use them. Identify the leads in the following order:

### Power Lead

If your car has a radio or is pre-wired for one, cut the connector wires one at a time from the plug (leaving the leads as long as possible) so that you can work with individual leads.



Turn the ignition on to the accessory position, and ground one lead of the test bulb to the chassis.

Touch the other lead of the test bulb to each of the exposed wires from the cut radio connector plug. Touch one wire at a time until you find the outlet that causes the test bulb to light.

Now turn the ignition off and then on. If the bulb also turns off and on, that outlet is the car power lead.

If your car is not wired for an audio unit, go to the fuse block and find the fuse port for radio (RADIO), accessory (ACC), or ignition (IGN).

### Battery Lead

If your stereo unit has a yellow lead, you will need to locate the car's battery lead. Otherwise, you may ignore this procedure. (The yellow battery lead provides continuous power to maintain a clock, memory storage, or other function.)

If your car has a radio or is pre-wired for one, with the ignition and headlights off, identify the car battery lead by grounding one lead of the test bulb to the chassis and checking the remaining exposed wires from the cut radio connector plug.

If your car is not wired for an audio unit, go to the fuse block and find the fuse port for the battery, usually marked BAT.

### Speakers

Identify the car speaker leads. There are two leads for each speaker which are usually color-coded. A handy way to identify the speaker leads and the speaker they connect with is to test the leads using a 1.5 volt AA battery as follows:

Hold one lead against one pole of the battery and stroke the other lead across the other pole. You will hear a scraping sound in one of the speakers if you are holding a speaker lead.

If not, keep testing different lead combinations until you have located all the speaker leads. When you label them, include the speaker location for each.

# Installation Guide (continued)

## Antenna Motor

If your car is equipped with an automatic power antenna, identify the car motor antenna lead by connecting one bulb tester lead to the car battery lead and touching the remaining exposed wires from the cut radio connector plug one at a time. You will hear the antenna motor activate when you touch the correct wire.

## Antenna

The antenna lead is a thick, black wire with a metal plug at the end.

## ❑ Connect All Leads

Now that you have identified all the wires in the car, you're ready to begin connecting them to the stereo unit wires. The connection diagram (➔ Page 23) shows the proper connections and color coding of the leads.

We strongly recommend that you test the unit before making a final installation.

You can set the unit on the floor and make temporary connections to test the unit. Use electrical tape to cover all exposed wires.

**Important:** Connect the red power lead last, after you have made and insulated all other connections.

## Ground

Connect the black ground lead of the power connector to the metal car chassis.

## Speakers

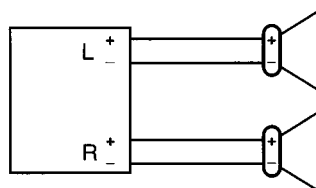
Connect the speaker wires. See the wiring diagram below for the proper hookups. Follow the diagram carefully to avoid damaging the speakers and the stereo unit.

The speakers used must be able to handle more than 40 watts of audio power. If using an optional audio amplifier, the speakers should be able to handle the maximum amplifier output power. Speakers with low input ratings can be damaged.

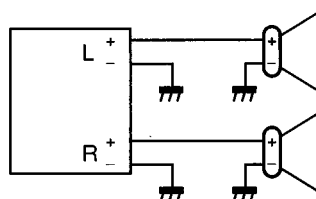
Speaker impedance should measure 4 - 8 ohms, which is typically marked on most speakers. Lower or higher impedance speakers will affect output and can cause both speaker and stereo unit damage.

**Caution:** Never ground the speaker cords. For example, do not use a chassis ground system or a three-wire speaker common system. Each speaker must be connected separately using parallel insulated wires. If in doubt about how your car's speakers are wired, please consult your nearest professional installer.

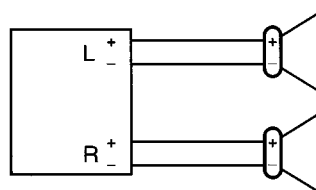
**CORRECT**  
No Common Ground



**INCORRECT**  
Common Chassis Ground



**INCORRECT**  
Speaker Common  
(common earth lead)



## Motor Antenna

Connect the car motor antenna lead to the blue motor antenna relay control lead.

## Battery

Connect the yellow battery lead to the correct radio wire or to the battery fuse port on the fuse block.

**Antenna**

Connect the antenna by plugging the antenna lead into the antenna receptacle

**Equipment**

Connect any optional equipment such as an amplifier, according to the instructions furnished with the equipment. Leave about 12 inches (30 cm) of distance between the speaker cords/amplifier unit and the antenna/antenna extension cord. Read the operating and installation instructions of any equipment you will connect to this unit.

**Power**

Connect the red power lead to the correct car radio wire or to the appropriate fuse port on the fuse block.

If the stereo unit functions properly with all these connections made, disconnect the wires and proceed to the final installation.

**Final Installation**

**Lead Connections**

Connect all wires, making sure that each connection is insulated and secure. Bundle all loose wires and fasten them with tape so they won't fall down later. Now insert the stereo unit into the mounting collar.

Congratulations! After making a few final checks, you're ready to enjoy your new auto stereo system.

**Final Checks**

1. Make sure that all wires are properly connected and insulated.
2. Make sure that the stereo unit is securely held in the mounting collar.
3. Turn on the ignition to check the unit for proper operation.

If you have difficulties, consult your nearest authorized professional installer for assistance.

**Precautions**

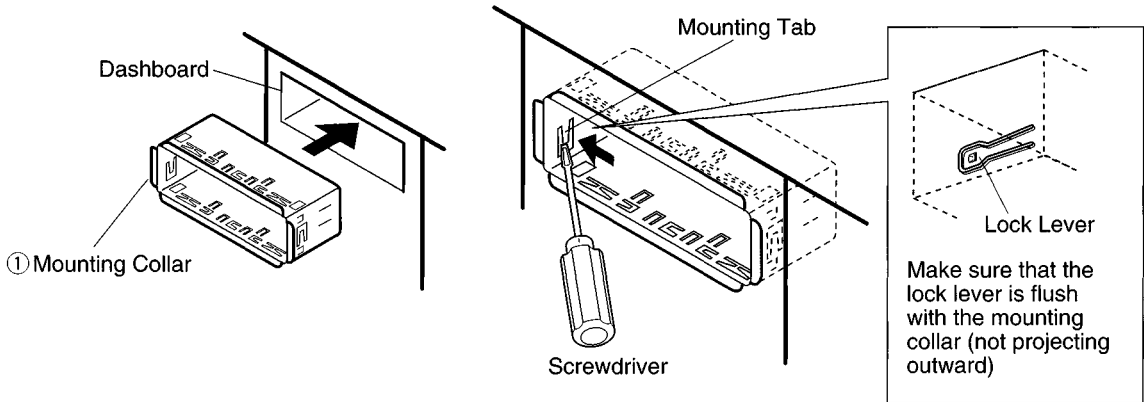
- When bending the mounting tab of the mounting collar with a screwdriver, be careful not to injure your hands and fingers.
- We strongly recommend you to wear gloves for installation work to protect yourself from injuries.

**Installation Procedures**

- Disconnect the cable from the negative (-) battery terminal.

**1. Secure the Mounting Collar ①.**

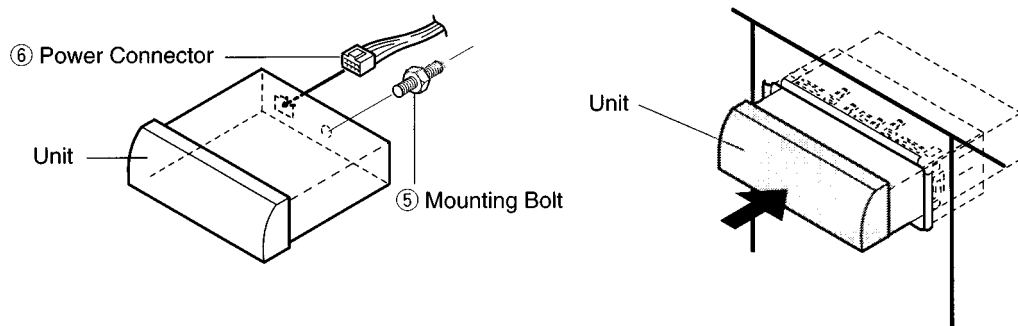
Insert Mounting Collar ① into the dashboard, and bend mounting tabs out with a screwdriver.



# Installation Guide (continued)

## 2. Secure the rear of the unit.

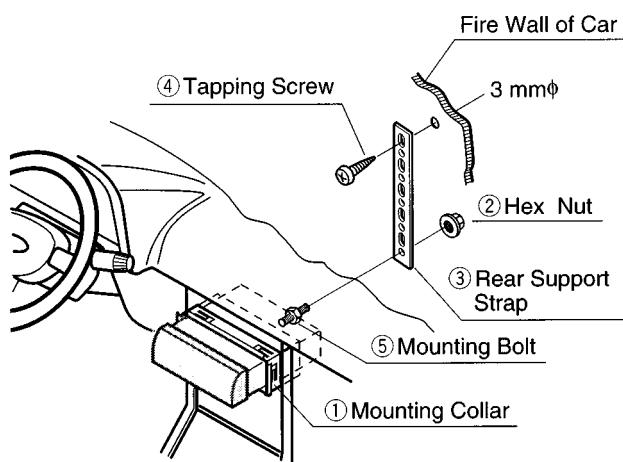
- Check the electrical connection by referring to this operating instructions (→ Page 23)
- Connect Mounting Bolt ⑤, using a suitable wrench
- Insert Power Connector ⑥ to the unit
- Insert the unit into Mounting Collar ① and push it in until a "click" is heard



- Secure the rear of the unit to the car by either of the two recommended methods as follows

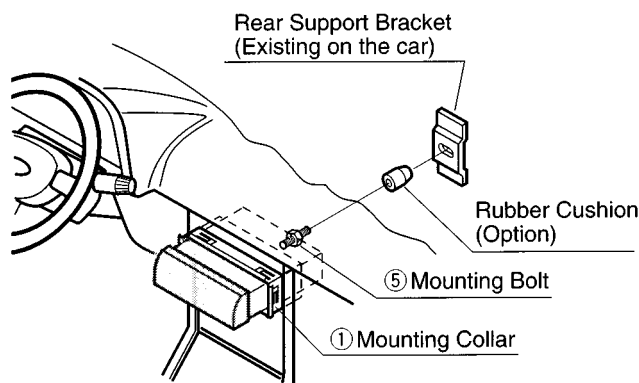
### • Using the Rear Support Strap ③

Affix one end of the Rear Support Strap ③ to the rear of the unit, and the other end to the fire wall of the car, or some other metallic area



### • Using the Rubber Cushion (Option)

(If there is an existing Rear Support Bracket on the fire wall of the car)  
Cover the Mounting Bolt ⑤ on the rear of the unit with Rubber Cushion (Option), and mount it into the existing Rear Support Bracket



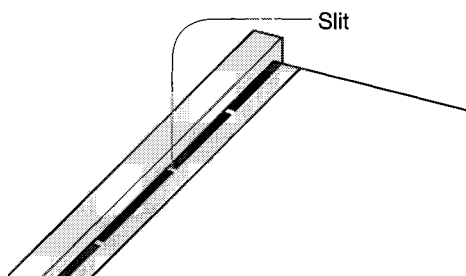
## 3. After installation reconnect the negative (-) battery terminal.

### To remove the trim plate (for Japanese Cars)

You may not be able to install this unit in some makes of Japanese cars. In such a case, consult your dealer or professional installer.

To mount this unit on a Japanese car, first cut the 9 slits in back of the trim plate with side-cut pliers, remove the trim plate, then mount this unit.

If you find a trim plate necessary after mounting the unit inside, use the supplied Trim Plate ⑨.



### To Remove the Unit

- Remove the removable face plate (See Anti-Theft System below)
- Pull out the unit while pushing the lock lever using Dismounting Plate ⑦ (→ Fig 1, 2)
- Remove the unit by pulling it with both hands (→ Fig 3)

Fig.1

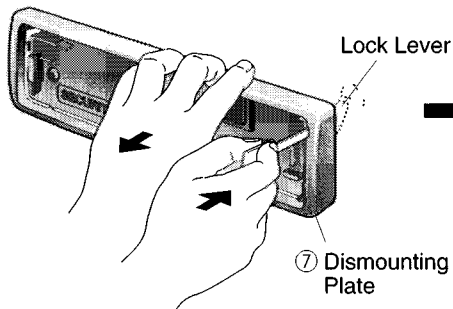


Fig.2

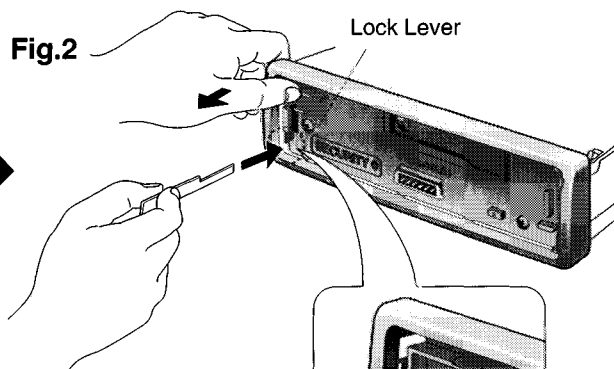
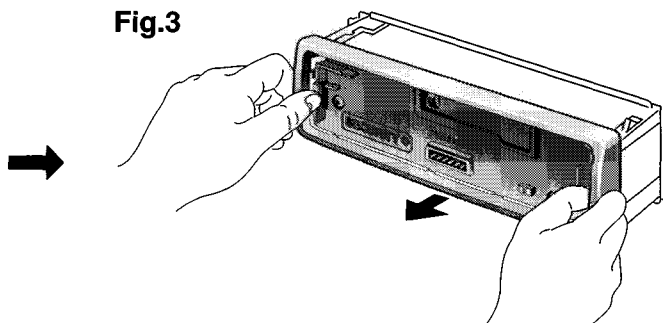


Fig.3



**Note:** Do not lose the Dismounting Plate. It will be needed to remove the unit from the car's dashboard.

### 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

- Switch off the power
- Press the release button (↑)
 

The removable face plate will be released

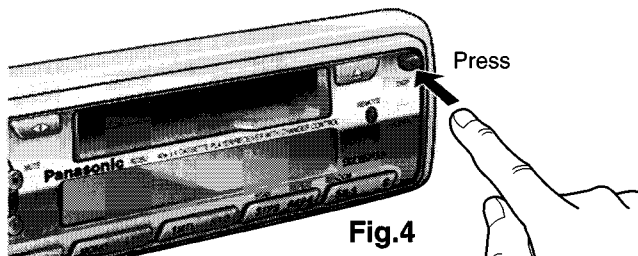


Fig.4

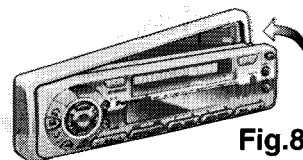
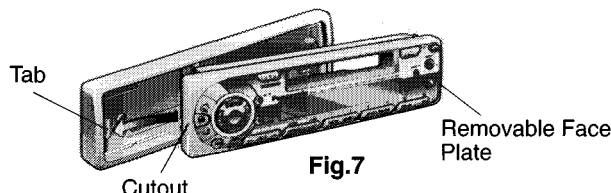
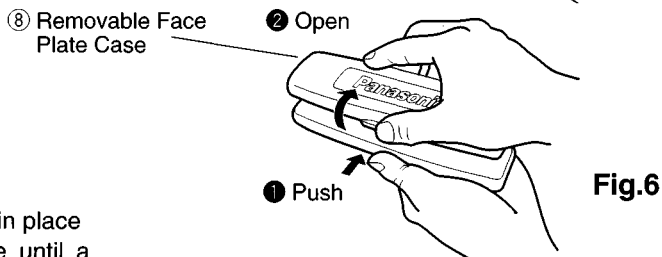
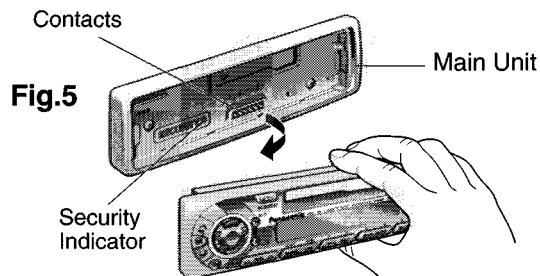
# Installation Guide (continued)

c) Remove the removable face plate by pulling on the right side of the unit. Place the removable face plate in a supplied case.

d) As shown in Fig 6, gently push the lower side of the case and open its cover. Keep the removable face plate in the case. Then you can safely take the plate with you.

## To install the Removable Face Plate

- Slide the left side of the removable face plate in place.
- Press the right end of removable face plate until a "click" is heard.



### Cautions:

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

## Security Indicator

The security indicator blinks when the removable face plate is removed from the unit.

## To Deactivate Security Indicator

Press and hold [SEL] for more than 2 seconds when the power is ON. "LED" "OFF" is displayed, and the security indicator turns off. (Default LED ON)

Display  
"LED" "ON"  
↑↓  
"LED" "OFF"

Security Indicator  
Blinks  
(Press and hold [SEL] for more than 2 seconds)  
OFF

**Cautions:** When you want to remove the unit, the security indicator functions can be canceled by the following procedure.

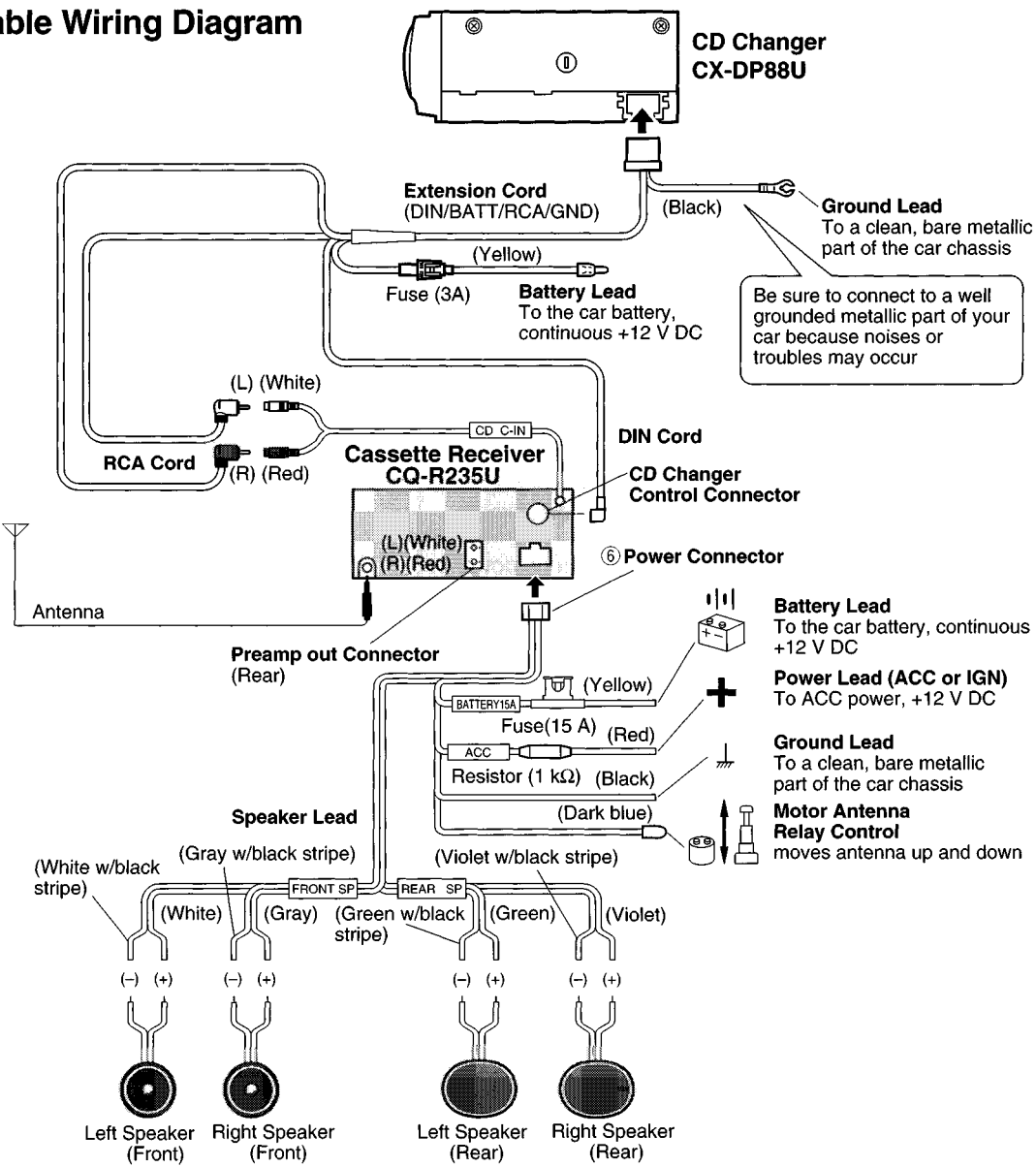
- Install the removable face plate.
- Disconnect the power connector for more than 3 minutes and then reconnect it.

**Cautions:**

- This product is designed to operate with a 12 volt, negative ground battery system.
- To prevent damage to the unit, be sure to follow the connection diagram below.
- Remove approx. 5 mm of protective covering from the ends of the leads before connecting.
- 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.

- This unit can be connected to an optional CD changer (CX-DP88U etc ) For details consult your nearest Panasonic dealers
- For connection to a CD changer, refer to the operating instructions of the CD Changer (CX-DP88U etc )

## Cable Wiring Diagram



# Troubleshooting

## ❑ Maintenance

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

## ❑ When Something Doesn't Work

Check the charts for possible causes and solutions to any problem you might be experiencing. Some simple checks or minor adjustments may eliminate the problem.

## ❑ Product Servicing

If the suggestions in the charts don't 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.

## ❑ Replace the Fuse

Use fuses of the same specified rating (15 amps). Using different substitutes or fuses with higher ratings, or connecting the product directly without a fuse, could cause fire or damage to the stereo unit.

**If the replacement fuse fails, contact your nearest Panasonic Servicenter for service.**

## ❑ Troubleshooting Tips

Problem	Possible Cause	Probable Solution
Unit does not turn on	Dead car battery Ignition not on Bad power line connection Fuse is blown	Charge car battery Turn the ignition key to On (ACC) Check connections Replace fuse (See Replace the Fuse above)
Radio has static	Antenna not hooked up Close to high power lines	Hook up antenna Move away from high power lines
Radio memory buttons do not work	Not holding buttons down long enough	Press and hold buttons for more than 2 seconds
Tape sound quality is poor	Heads are dirty Poor quality tape	Clean heads (Ask a service representative for advice) Use better quality tape
CD changer does not operate	Unit not properly connected Unit not switched into CD changer mode No CDs in the magazine	Check connections Press <b>[MODE]</b> to select CD changer mode Check disc magazine
CD does not play a specific disc	Disc loaded inverted Disc damaged Disc not loaded in magazine	Reload disc properly Check disc for scratches and chips Check disc magazine



# Specifications

## General

Power Supply	12 V DC (11 V - 16 V) Test Voltage 14.4 V, Negative ground
Maximum Power Output	40 W x 4 channels at 400 Hz, Volume Control maximum
Tone Adjustment Range	Bass, $\pm 12$ dB at 100 Hz Treble, $\pm 12$ dB at 10 kHz
Pre-Amp Output Voltage	2.0 V (with CD changer connected)
Output Impedance	600 $\Omega$
Suitable Speaker Impedance	4 $\Omega$ (4 - 8 $\Omega$ acceptable)
Current Consumption	Less than 2 A (tape mode, 0.5 W 4-speaker)
Dimensions (W x H x D)	7" x 1-15/16" x 5-7/8" (178 x 50 x 150 mm)
Weight	3 lbs 1 oz (1.4 kg)

## AM Radio

Frequency Range	530 - 1,710 kHz
Usable Sensitivity	28 dB/ $\mu$ V (25 $\mu$ V, S/N 20 dB)

## FM Stereo Radio


Frequency Range	87.9 - 107.9 MHz
Usable Sensitivity	13.2 dBf (1.25 $\mu$ V, 75 $\Omega$ )
50 dB Quieting Sensitivity	15.2 dBf (1.6 $\mu$ V, 75 $\Omega$ )
Frequency Response	30 - 15,000 Hz $\pm 3$ dB
Alternate Channel Selectivity	75 dB
Stereo Separation	35 dB at 1,000 Hz
Image Response Ratio	65 dB
IF Response Ratio	100 dB
Signal/Noise Ratio	70 dB

## Cassette Player

Reproduction System	4-track, 2-program stereo
Tape Speed	1-7/8"/sec (4.76 cm/sec)
FF/REW Time	Less than 110 sec (C-60)
Frequency Response	35 - 14,000 Hz $\pm 3$ dB (normal) 35 - 17,000 Hz $\pm 3$ dB (metal)
Wow and Flutter	0.12 % (WRMS)
Signal/Noise Ratio	52 dB (Dolby off) 62 dB (Dolby B NR on)

\*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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"DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation

**Panasonic Consumer Electronics  
Company, Division of Matsushita  
Electric Corporation of America**  
One Panasonic Way, Secaucus,  
New Jersey 07094  
<http://www.panasonic.com>

**Panasonic Sales Company.  
Division of Matsushita Electric of  
Puerto Rico, Inc. ("PSC")**  
Ave 65 de Infanteria, Km 9.5  
San Gabriel Industrial Park, Carolina,  
Puerto Rico 00985

**Panasonic Canada Inc.**  
5770 Ambler Drive,  
Mississauga, Ontario  
L4W 2T3  
<http://www.panasonic.ca>

# Electrical Connection for Speakers and Battery

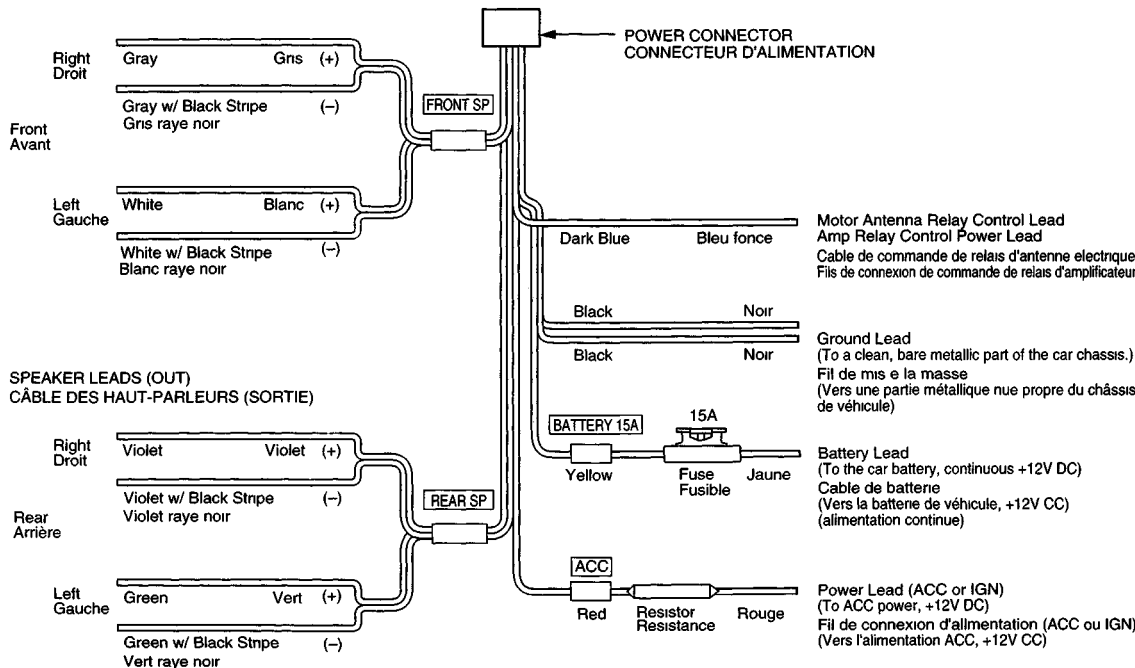
## Connexions Électrique du Haut-parleur et de la Batterie

Note: For details of wiring, refer to Operating Instructions.

Do not connect the power lead to the unit until the wiring is completed.

Note: Voir le Manuel d'instructions pour les détails du raccordement.

Ne pas insérer le connecteur d'alimentation dans l'appareil avant d'accomplir tous les raccordements.



## FOR PRODUCT OPERATION AND INFORMATION ASSISTANCE

Please refer to your Dealer  
or contact our Customer Care Centre at:

**Telephone#:** (905)624-5505

**Fax#:** (905)238-2360

## POUR DE L'AIDE SUR LE FONCTIONNEMENT DE L'APPAREIL OU POUR TOUTE DEMANDE D'INFORMATION

Veuillez contacter votre détaillant  
ou notre service à la clientèle au:

**N° de Téléphone:** (905)624-5505

**N° de Télécopieur:** (905)238-2360

## FOR PRODUCT REPAIRS

Please contact one of the following:

- ▶ Your Dealer who will inform you of an authorized Servicentre nearest you
- ▶ Our Customer Care Centre at (905)624-5505
- ▶ A Panasonic Factory Servicentre listed below:

### Richmond, British Columbia

Panasonic Canada Inc.  
13131 Bathgate Place  
Richmond, B.C. V6V 1Z3  
Tel: (604)278-4211  
Fax: (604)278-5627

### Calgary, Alberta

Panasonic Canada Inc.  
6835-8th St N.E.  
Calgary, AB T2E 7H7  
Tel: (403)295-3955  
Fax: (403)274-5493

## POUR LA RÉPARATION DES APPAREILS

Veuillez consulter:

- ▶ votre détaillant, lequel pourra vous renseigner sur le centre de service le plus proche de votre domicile;
- ▶ notre service à la clientèle au (905)624-5505;
- ▶ un de nos centres de service de la liste ci-dessous:

### Mississauga, Ontario

Panasonic Canada Inc.  
5770 Ambler Dr.  
Mississauga, ON L4W 2T3  
Tel: (905)624-8447  
Fax: (905)238-2418

### Lachine, Quebec

Panasonic Canada Inc.  
3075 rue Louis A. Amos  
Lachine, PQ H8T 1C4  
Tel: (514)633-8684  
Fax: (514)633-8020

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CARE PLAN

USA ONLY

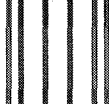
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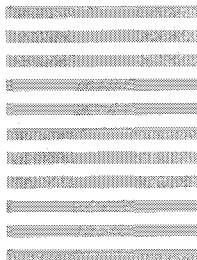
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Best time to call  
YEFM07261 (98/07/27)

**For Product Information, Operating Assistance, Literature Request, Dealer Locations, and all Customer Service inquiries please contact:**

**1-800-211-PANA(7262), Monday-Friday 9am-9pm Saturday-Sunday 9am-7pm, EST**

**WEB SITE:** <http://www.Panasonic.com>

You can purchase parts, accessories or locate your nearest servicer by visiting our Web Site

### **ACCESSORY PURCHASES:**

Customer Orders Only 800-332-5368 (Customer Orders Only)

Panasonic Services Company 20421 84th Avenue South, Kent, WA 98032

(6 am to 5 pm Monday-Friday, 6 am to 10 30 am Saturday, PST)

(Visa, MasterCard, Discover Card, American Express, Check)

### **FACTORY SERVICENTERS LOCATIONS**

#### **CALIFORNIA**

6550 Katella Avenue  
Cypress, CA 90630

800 Dubuque Avenue  
S. San Francisco  
CA 94080

20201 Sherman Way  
Suite 102  
Canoga Park, CA 91306

3878 Ruffin Road  
Suite A  
San Diego, CA 92123

#### **COLORADO**

1640 South Abilene Street  
Suite D  
Aurora, CO 80012

#### **FLORIDA**

3700 North 29th Avenue  
Suite 102  
Hollywood, FL 33020

#### **GEORGIA**

8655 Roswell Road  
Suite 100  
Atlanta, GA 30350

#### **ILLINOIS**

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1703 North Randall Road  
Elgin, IL 60123  
(Pick-up/Drop-off only)

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62 Mountain Road  
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#### **MASSACHUSETTS**

60 Glacier Drive  
Suite G  
Westwood, MA 02090

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Sterling Heights, MI 48312

#### **MINNESOTA**

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Airport Business Center  
Bloomington, MN 55425

#### **OHIO**

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Civic Center Plaza  
Forest Park, OH 45240

#### **PENNSYLVANIA**

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Suite B  
Langhorne, PA 19047

Chartiers Valley  
Shopping Center  
1025 Washington Pike  
Bridgeville, PA 15017

#### **TENNESSEE**

3800 Ezell Road  
Suite 806  
Nashville, TN 37211

#### **TEXAS**

7482 Harwin Drive  
Houston, TX 77036

13615 Welch Road  
Suite 101  
Farmers Branch,  
TX 75244

#### **WASHINGTON**

20425-84th Avenue South  
Kent, WA 98032

#### **HAWAII**

99 859 Iwaiwa Street  
Aiea, Hawaii 96701  
Phone (808)488-1996  
Fax (808)486-4369

### **SERVICE IN PUERTO RICO**

Matsushita Electric of Puerto Rico, Inc. Panasonic Sales Company/Factory Servicer,  
Ave. 65 de Infanteria, Km. 9.5, San Gabriel Industrial Park, Carolina, Puerto Rico 00985  
Phone (787)750-4300 Fax (787)768-2910



#### LIMITS AND EXCLUSIONS

There are no express warranties except as listed above.

THE WARRANTOR SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY, INCLUDING WITHOUT LIMITATION, DAMAGE TO TAPES, RECORDS OR DISCS. ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY, AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO THE APPLICABLE WARRANTY PERIOD SET FORTH ABOVE. Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions or limitations may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

If a problem with this product develops during or after the warranty period, you may contact your dealer or Servicenter. If the problem is not handled to your satisfaction, then write to the Customer Satisfaction Center at the company address indicated on the reverse side.

#### FOR YOUR PROTECTION

Complete and immediately mail the Purchase Information Card so that we may contact you directly in the event a safety notification is issued in accordance with the 1972 Consumer Product Safety Act, or for other reasons Panasonic may deem necessary. Also, we ask that you complete the questionnaire so we may analyze your comments and, in this way, help us evaluate customer needs.

#### IF YOU SHIP THE PRODUCT

Carefully pack and send it prepaid, adequately insured and preferably in the original carton. Attach a postage-affixed letter detailing the complaint, to the outside of the carton.

Do NOT send the product to the Executive or Regional Sales offices. They are NOT equipped to make repairs.

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No. \_\_\_\_\_

Code  
No. \_\_\_\_\_

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MARKETING RESEARCH DEPARTMENT

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