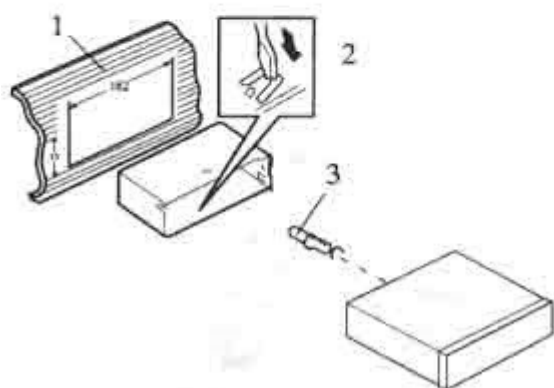
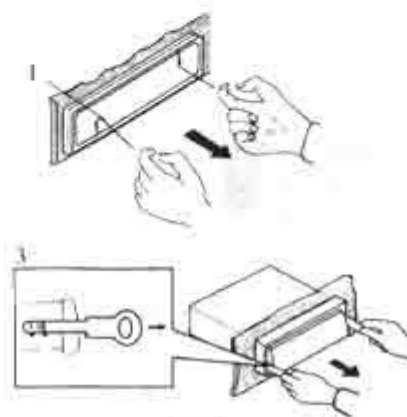


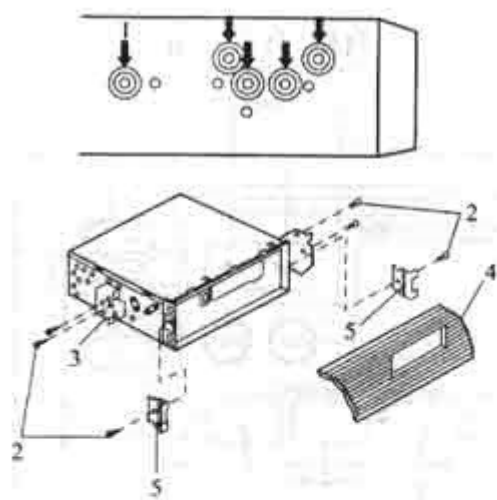
F.1



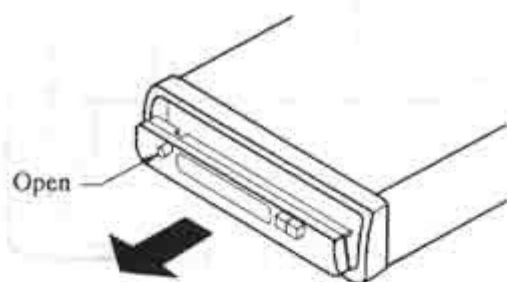
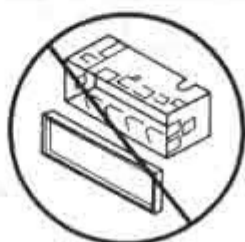
F.2



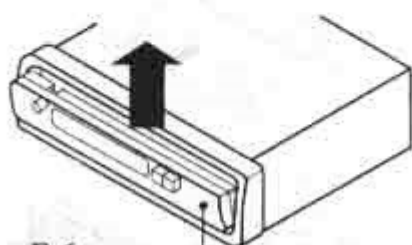
F.3



F. 4

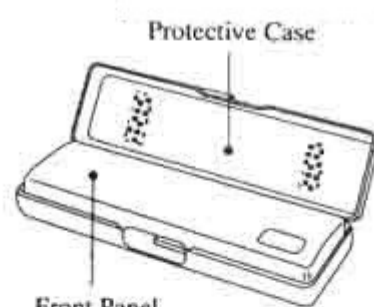


F. 5

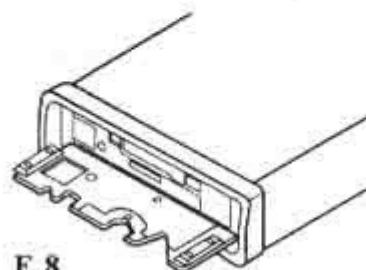


F. 6

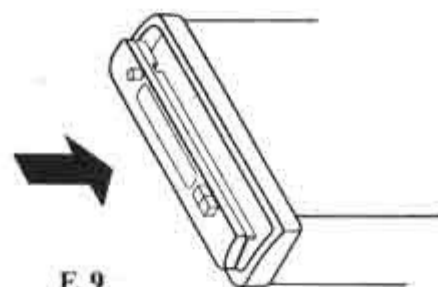
Front Panel



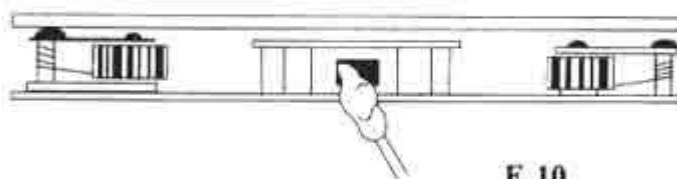
F. 7



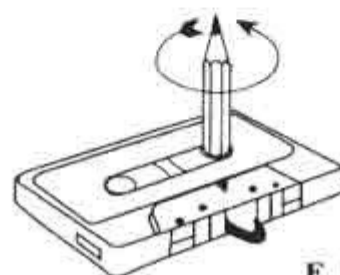
F. 8



F. 9



F. 10



F. 11

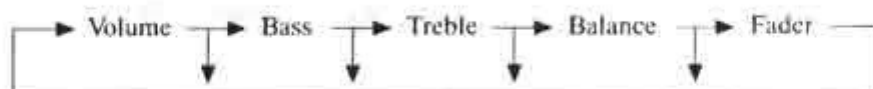
System Control Keys. F. 1

1. OPEN

Push the button to fold down the front panel.

2. SEL (=SELECT)

Press to select audio control mode. The desired mode can be selected as below:



Each mode is indicated on display. The initial state is Volume mode. Press for 5 seconds, then the system will return to Volume mode.

3. VOLUME

Used for audio UP/DOWN control with pressing the SEL button. Sound quality is controlled as below:

- In *volume* mode:
Press '▲' side to increase volume level, and press '▼' side to decrease the level.
- In *bass* mode:
While "BAS" is appeared on display, press '▲' side to increase bass level, and press '▼' side to decrease the level.
The bass level is updated correspondingly and its status is shown on display.
- In *treble* mode:
While "TRE" is appeared on display, press '▲' side to increase treble level, and press '▼' side to decrease the level.
The treble level is updated correspondingly and its status is shown on display.
- In *balance* mode:
While "BAL" is appeared on display, press '▲' side to shift sound level to right speaker, press '▼' side to shift sound level to left speaker.
The shift point is updated correspondingly and its status is shown on the display.
- In *fader* mode:
This function controls the balance between front and rear speakers of 4-speaker system. While "FAD" is appeared on display, press '▲' side to shift sound level to front speakers, press '▼' side to shift sound level to rear speakers.
The shift point is updated correspondingly and its status is shown on the display.

4. MAN/SEEK (=MANUAL DOWN/UP + SEEK DOWN/UP)

- *Manual Tune Up/Down*
Repeatedly press MAN/SEEK ◀◀ or MAN/SEEK ▶▶ for tuning in order to substitute the seek function in the weakest reception stations.
- *Seek Tune Up/Down*
Press and hold MAN/SEEK ◀◀ or MAN/SEEK ▶▶ for at least 1 second tuning to next lower or higher station with a strong signal.

5. BAND

Press to switch the reception band mode in the following order:



6. CLK (CLOCK)

- During radio operation, press the button to recall the time display. Press the button again, then display will return to station frequency read out.
- During tape operation, press the button to recall the time display. Press the button again, display will return to previous tape mode.
- In clock display mode:
 - Setting hours:
While holding down the "CLK" button when the clock is shown on the LCD display, press the MAN/SEEK **⏮** once to adjust the hour one higher. Keeping it press will adjust the hour more faster.
 - Setting minutes:
While holding down the "CLK" button when the clock is shown on the LCD display, press the MAN/SEEK **⏭** once to adjust the minutes one higher. Keeping it press will adjust the minutes more faster.

7. MUTE

Press the "MUTE" button to cut down sound output, and LCD display will flash. Press again to recover to the previous volume level.

8. LOUD

Press the LOUD button to reinforce the bass especially when listening at low volume level, and LCD display will indicate "LOUD". Press it again to release the mode.

9. LOC

Switch between a local setting for reception of strong stations, and a distance setting for additional reception of weaker stations. The system is initially set to distance mode. Press the button LCD display will indicate "LOC". Press it again to release the mode.

10. ST (STEREO/MONO)

Press it to select FM MONO or stereo mode. The system is initially set to stereo mode. LCD display will indicate " ST " upon reception of stereo broadcasting. If FM stereo broadcasting is too weak, press the button for MONO mode audio to improve the background noise.

11. SCAN

- *Preset Scan*
Press SCAN button for less than 2 seconds to scan the programs. During the preset scanning, it will stop at each program for five seconds and the number of the station is flashing on the display. To stop the scan operation, press either the "SCAN" button again or anyone of memory button.
- *Auto (AST) Store*
Press SCAN button for more than 2 seconds to enable auto function in the selected band and store the first six stations it finds preset memories automatically.

12. LCD (=LIQUID CRYSTAL DISPLAY)

LCD shows the current status of the unit.

13. PWR (=POWER)

Press once to turn on the unit. Press once again to turn the power off.

14. FAST FORWARD/REWIND BUTTONS ◀▶

These 2 buttons perform the dual functions of changing the direction of tape playback and fast forward (▶▶) / rewind (◀◀) of the tape.

- *Change Tape Playback Direction:*

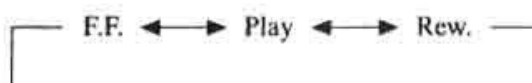
Press both buttons together to play the other side of a tape.

- *Fast Forward/Rewind:*

Press the button with the double arrows pointing the same direction as the direction indicator on the LCD to fast forward; press other button in the opposite direction to fast rewind.

Note:

- Do not directly change each other forward and rewind. Press both the fast forward and rewind together to play mode first, and then change to the other mode as below:



15. MOD (=MODE)

Press this button to choose desired listening mode.
(e.g. radio mode or tape mode)

16. 1, 2, 3, 4, 5, 6

Preset stations at tuner mode. With this system, a total of 30 stations can be stored in the memory.

The stations might be FM1, FM2, FM3, AM1/MW and AM2/LW band. The operation is as below:

- *Store In Memory*

Press and hold desired preset button for more than 2 seconds. The current listening station will be stored into the preset.

- *Retrieve A Preset Station*

Press any one of the button (1 to 6) to retrieve a station which had been stored in the memory, the chosen number is shown on display.

17. CASSETTE COMPARTMENT

Insert a cassette into the cassette compartment. The cassette mechanism will turn into play mode.

18. EJECT

Press the "OPEN" button to open the front panel and then press the eject button to eject the cassette.

19. FLASHING LED

If the front panel is removed, the LED will be flashing.

20. RESET

Reset button is placed on the housing and must be activated with either a ballpoint pen or thinner metal object. It is recessed to prevent accidental engagement. All radio programming will be cleared after pressing the reset button. Therefore, the reset button is to be activated for initial installation of the unit when all wiring is completed.

INSTALLATION

Notes:

- Choose the mounting location where the unit will not interfere with the normal driving function of the driver.
- Before finally installing the unit, connect the wiring temporarily and make sure it is all connected up properly and the unit and the system works properly.
- Use only the parts included with the unit to ensure proper installation. The use of unauthorized parts may cause malfunctions.
- Consult your nearest dealer if installation requires the drilling of holes or other modifications of the vehicle.
- Install the unit where it does not get in the driver's way and cannot injure the passengers if there is a sudden stop, like an emergency stop.
- If installation angle exceeds 30° from horizontal, the unit might not give its optimum performance.
- Avoid installing the unit where it would be subject to high temperature, such as from direct sunlight, or from hot air, from the heater, or where it would be subject to dust, dirt or excessive vibration.



DIN FRONT/REAR-MOUNT

This unit can be properly installed either from "Front" (conventional DIN Front-mount) or "Rear" (DIN Rear-mount installation, utilizing threaded screw holes at the sides of the unit chassis). For details, refer to the following illustrated installation methods.

DIN FRONT-MOUNT (Method A)

Installing the unit, F. 2

1. Dashboard
2. Holder

After inserting the holder into the dashboard, select the appropriate tab according to the thickness of the dashboard material and bend them inwards to secure the holder in place.

3. Screw

Removing the unit, F. 3

1. Frame
2. Insert fingers into the groove in the front of frame and pull out to remove the frame.
(When re-attaching the frame, point the side with a groove downwards and attach it.)
3. Lever

Insert the levers supplied with the unit into the grooves at both sides of the unit as shown in figure until they click. Pulling the levers makes it possible to remove the unit from the dashboard.

DIN REAR-MOUNT (Method B)

Installation using the screw holes on the sides of the unit, F. 4

Fastening the unit to the factory radio mounting bracket.

1. Select a position where the screw holes of the bracket and the screw holes of the main unit become aligned (are fitted), and tighten the screws at 2 places on each side.
Use either truss screws (5 x 6mm) or flush surface screws (4 x 6mm), depending on the shape of the screw holes in the bracket.
2. Screw
3. Factory radio mounting bracket
4. Dashboard or Console
5. Hook (Remove this parts)

Note: The mounting box, outer trim ring, and half-sleeve are not used for method B installation.

USING THE DETACHABLE FRONT PANEL

To Detach the Front Panel

1. Press the open button (open), then the front panel will be folded down. (F. 5)
2. Remove the front panel by pulling its middle outward. (F. 6)
3. For safekeeping, store the front panel in the supplied protective case immediately after being removed. (F. 7)
4. Push the front metal plate into the main body. A 'click' sound should be heard. (F. 8)

To Re-install the Front Panel

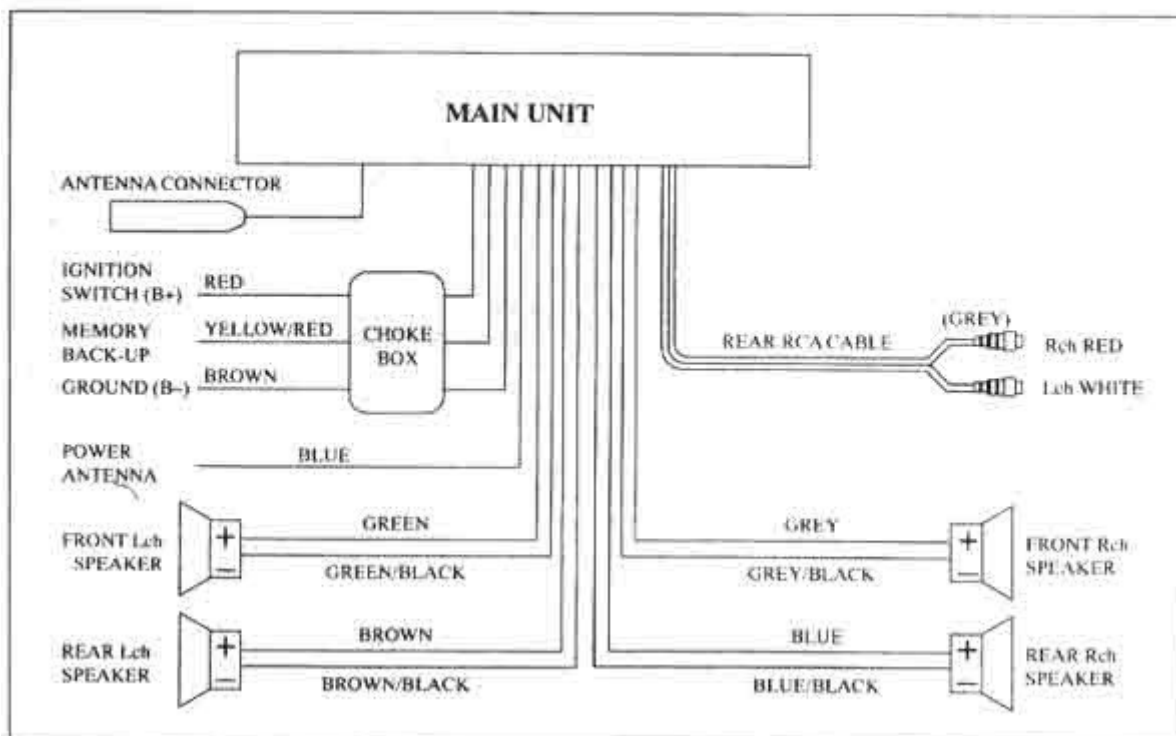
1. Push the front panel into the main body. A 'click' sound should be heard. (F. 9)
2. Note that if the front panel fails to lock in position properly, pressing control button may not work and on the LCD display may be missing some segments. Pushing the open button and then re-install the front panel again.

Precautions when Handling

1. Do not drop the front panel.
2. Do not put pressure on the display or control buttons when detaching or re-installing the front panel.
3. Do not touch the contacts on the front panel or on the main unit body. It may result in poor electrical contact.
4. If any dirt or foreign substances adhered on the contacts, they can be removed with a clean and dry cloth.
5. Do not expose the front panel to high temperatures or direct sunlight anywhere.
6. Keep away any volatile agents (e.g. petrol, thinner, or insecticides) from touching the surface of the front panel.
7. Do not attempt to disassemble the front panel.

WIRING CONNECTION

4 X 30W SYSTEM



General

Power Supply Requirements	: DC 12 volts, Negative ground
Chassis Dimensions	: 178 (W) x 155 (D) x 50 (H)
Loading Impedance	: 4 - 8 Ohm Per Channel
Maximum Power	: 4 x 30 Watts

Tone Controls

Bass (at 100 Hz)	: ± 10 dB
Treble (at 10 KHz)	: ± 10 dB
Current Drain	: 10 Ampere (MAX.)

Tape Player

Tape Speed	: 4.76 cm/sec
F.F. or REV. Time	: < 180 sec.

Frequency Response	: 50 ~ 8,000 Hz
Channel Separation	: > 35 dB
Crosstalk	: > 40 dB

Wow and Flutter	: < 0.35% WRMS
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Radio

FM

Frequency Coverage	: 87.5 to 108.0 MHz
Sensitivity (30 dB S/N)	: 6 μ V
Image Rejection	: > 45 dB
Stereo Separation	: > 25 dB

MW

Frequency Coverage	: 522 to 1620 KHz
Sensitivity (20 dB S/N)	: 32 dB
Image Rejection	: 42 dB

LW

Frequency Coverage	: 144 to 290 KHz
Sensitivity (30 dB S/N)	: 38 dB
Image Rejection	: 42 dB