

Operation Manual

6CD CHANGER PLAYER/1CD PLAYER/STEREO TUNER
CD-660/610, TU-610



interM

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Welcome

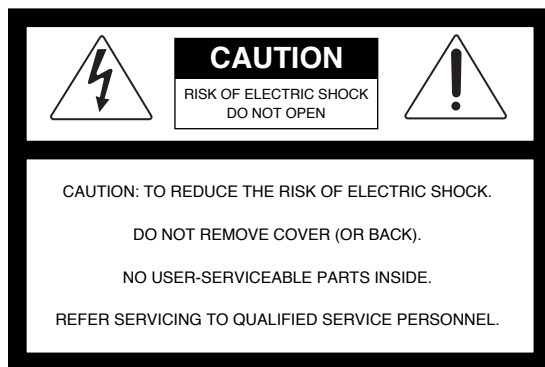
A personal welcome to you from the management and employees of Inter-M

All of the co-workers here at Inter-M are dedicated to providing excellent products with inherently good value, and we are delighted you have purchased one of our products.

We sincerely trust this product will provide years of satisfactory service, but if anything is not to your complete satisfaction, we will endeavor to make things right.

Welcome to Inter-M, and thank you for becoming part of our worldwide extended family!

Warning



WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

*Do not install this equipment in a confined space such as a book case or similar unit.

*The apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.

*Worded: "WARNING FOR YOUR PROTECTION PLEASE READ THE FOLLOWING-WATER AND MOISTURE: Unit should not be used near water (e.g. near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc). Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings."



This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operation and maintenance (servicing) instructions in the literature accompanying the appliance.

Caution: To prevent electric shock do not use this (polarized) plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

Attentions: Pour prévenir les chocs électriques ne pas utiliser cette fiche polarisée avec un prolongateur, une prise de courant ou une autre sortie de courant, sauf si les lames peuvent être insérées à fond sans en laisser aucune partie à découvert.

*** It can be heated up if you use this product in closed box or ill-ventilated place.**

Unpacking

Although it is neither complicated to install nor difficult to operate your Compact Disc Receiver, a few minutes of your time is required to read this manual for a properly wired installation and becoming familiar with its many features and how to use them. Please take a great care in unpacking your set and do not discard the carton and other packing materials. They may be needed when moving your set and are required if it ever becomes necessary to return your set for service.

Installation

Environment

Never place this product in an environment which could alter its performance or reduce its service life. Such environments usually include high levels of heat, dust, moisture, and vibration.

Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



Features

- **REALIZATION OF HIGH QUALITY OF AUDIO WITH DAC CHIP RESPONDING TO 24-BIT/192kHz (CD-610/660)**
In this player, a high quality of chip is used in DAC to convert digital signal to analog signal.
- **USE OF ADVANCED MECHANISM ON 3 BEAM METHOD (CD-610/660)**
This player absorbs shock and maintains stability level by adopting mechanism for automobile strong for shock.
- **RESPONSE TO MP3/WMA (CD-610/660)**
This player responds to CD-DA and MP-3/WMA.
- **CONVENIENT FUNCTION WITH BUILT-IN MICOM (CD-610/660)**
This player provides convenient functions such as program play with adoption of MICOM, random play selecting disc and music adopted by MICOM, various repeat plays and Music introduction (INTRO).
- **PRODUCTS USING THE RECENT ADVANCED TECHNOLOGY (CD-610/660)**
This is a player with excellent sound quality and advanced function of digital and is a crystalloid of super-precision processing technology, optical technology, and digital & analog.
- **MEMORIZATION OF UP TO 40 BROADCASTING FREQUENCIES (TU-610)**
MICOM can memorize 40 broadcasting frequencies.
- **AUTOMATIC BROADCASTING STATION SELECTION (TU-610)**
This player can automatically select broadcasting station with automatic broadcasting stations selection function.
- **BROADCASTING STATION MEMORIZATION BY FRESH MEMORY (TU-610)**
This player can automatically memorize broadcasting frequencies by using fresh memorization element even in power failure.
- **RECENT FASHION OF BEAUTIFUL DESIGN**
This player adopts Vacuum Fluorescent Display on dot matrix method and implements various character display methods, and has design that bonding between aluminum and mold is well harmonize with.
- **AMX, CRESTRON INTERFACE (RS-232)**
This player also supports control ports for customary control integration for remote control units such as AMX and CRESTRON control system.

Additional Descriptions

- MP3 (MPEG AUDIO LAYER-3)

MP3 is one of music file formats that can contain music with stereo sound quality as good as audio CD, which is a type of MPEG as audio, video compression standards. Compression rate is 1Mb by 1 minute and thus about 3~ 5 minutes are sufficient if recording songs of 3~ 5 min or so. Differently from audio CD, a music file made of MP3 can contain over 130 songs for popular songs or folk songs and playing time is also about 10 hours. MP3 clears frequency range for a human being not to discernable and so has advantage to compact it to 1/12 or so while maintaining music as sound quality equivalent to CD level. For example, deriving a song in a music CD while maintaining music as sound quality equivalent to CD level becomes capacity of 50MB or so but if compressing and converting it to a MP3, size of the MP3 largely reduces to 4~5MB.

- WMA (WINDOWS MEDIA AUDIO)

WMA is a multimedia compression method developed by Microsoft Corporation and is technology to compress only music from 'Window Media Technologies', and provides same sound quality as format of MP3 up to 128Kbps, which has lower 64Kbps format than MP3.

In other words, it has a file size of the half of the MP3 and provides same sound quality as MP3.

- DIGITAL OUTPUT AND STANDARDS

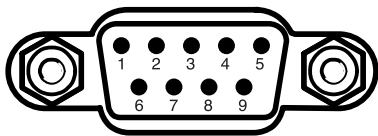
Audio signal of a CD records digitalized signal. Usually digital audio signals are converted to analog signals with a Digital Analog Converter (DAC) within a player. On the other hand, electrical digital signal is replaced with optical signal by coaxial cables, semiconductor laser or light emitting diode (LED), etc and can be connected the other devices with optical fiber cables. The unit receiving optical signal converts optical signals to electrical signals again for various processes. Transmitting digital data as they are is less affected less by electrical noise than electrical signals, and thus less data error occurs.

The digital interface used in this product is a form of S/PDIF (Sony/Philips/Digital/Interface) and complies with standards called as IEC958.

- AMX, CRESTRON INTERFACE

Operation specifications that can be pin-out or controlled by a control port for customary integration for a remote control unit such as AMX and CRESTRON control system are as follows:

1. RS-232 PINOUT Spec



PIN	1	2	3	4	5	6~9
Purpose	Not Used	Receiver	Transmit	Not Used	Ground	Not Used

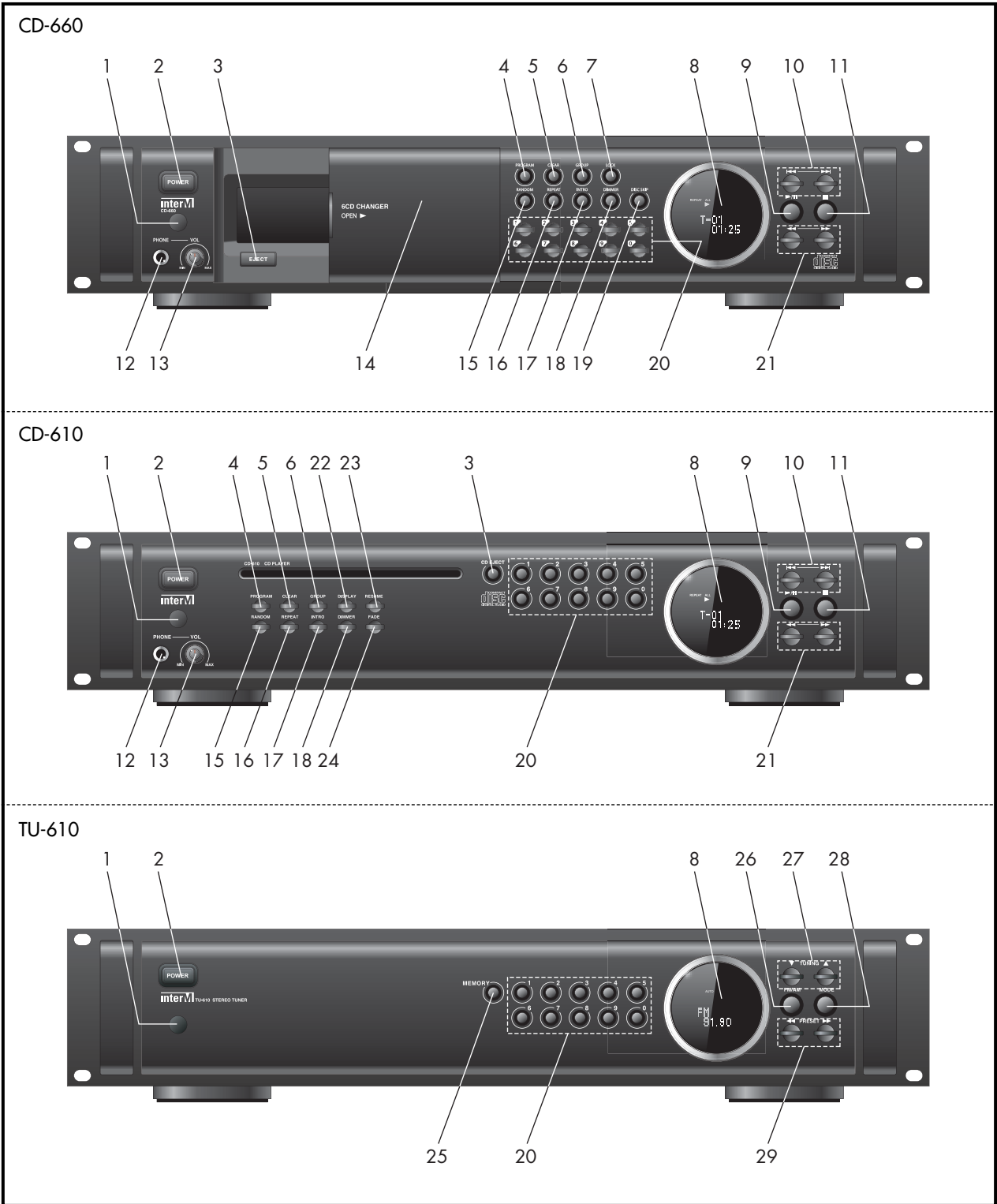
2. Operation controllable

- CD-660 : POWER ON/OFF, PLAY/PAUSE, STOP, SIKP DOWN/UP, SEARCH DOWN/UP, DISC SKIP AND 10KEY.
- CD-610 : POWER ON/OFF, LAY/PAUSE, STOP, SIKP DOWN/UP, SEARCH DOWN/UP, 10KEY.
- TU-610 : POWER ON/OFF, BAND, TUNING DOWN/UP, PRESET DOWN/UP, 10KEY.

3. Control protocol download

You can download related information from Download if connecting to the English Web site, Internet homepage (www.inter-m.com).

Front Panel



1. REMOTE CONTROL SENSOR RECEIPT WINDOW

Be able to operate this player through a receipt window with a remote control (remote control separately sold). Operation distance is about 7M within 30° in the left and right.

* Caution: Operation distance may be reduced to the half or more where a fluorescent lamp around the system has three waves.

2. POWER BUTTON

Turn power on/off by using this button after connecting the power plugs with the power socket.

3. EJECT BUTTON

This is used when taking out a disc magazine by pressing the Eject switch within the disc door. However, if Lock function is set, care must be taken since the player normally operated after releasing password by using the LOCK button.

4. PROG BUTTON

This is a button to program play order of song.

5. CLEAR BUTTON

This is a button used when desiring to cancel password during program or modify during entry password.

6. GROUP BUTTON

This is used to search between folders when files exist various folders for MP-3/WMA.

7. LOCK BUTTON

This is a button to handle setting and release of password for prevention of theft of a disc.

8. DISPLAY WINDOW

This is a window to play system information.

9. ►|| (PLAY/PAUSE) BUTTON

This is a button used when desiring Play or Pause. Press the (►||) button to play and press this button once again to pause.

10. |◀◀ / ▶▶| (SKIP DOWN/UP) BUTTON

This is used when finding previous or afterward song of the song played in a disc.

11. ■ (STOP) BUTTON

This is a button to stop play.

12. PHONE

This is used when listening to music after connecting a headphone.

13. VOL

This is a volume to control a headphone volume, and a handle controllable comes out if pressing the upper part and then releasing it.

14. DISC DOOR

This is opened if pushing the handle part right and is closed if pushing it left.

15. RANDOM BUTTON

This is used when playing songs in a disc randomly.

16. REPEAT BUTTON

This is used when playing songs in a disc in the Repeat mode.

17. INTRO BUTTON

This is used when desiring to listen to only the first part of song in a disc.

18. DIMMER BUTTON

This is a button to adjust brightness of the display window.

19. DISC SKIP BUTTON

This is a button used when moving 6 discs in the Magazine to the desiring disc position. Movement is changed to the order of DISC1->DISC2->DISC3->DISC4->DISC5->DISC6 depending on pressing numbers.

20. 0-9 NUMBER BUTTON

This is used when directly searching a track or entering numbers.

21. ◀◀ / ▶▶ (SEARCH DOWN/UP) BUTTON

This is used when moving to the previous or afterward part of the track during play of a disc. Track moves by pressing time.

22. DISPLAY BUTTON

This function displays time display for current song, or group name, track name for the MP3/WMA and song playing time of the all discs.

23. RESUME BUTTON

This is function to automatically resume to the last position listening to song when playing the player after stop where Resume function turns on. Resume function turns off if pressing this button. Especially if there are many songs as for MP3/WMA, this function can be conveniently used.

24. FADE BUTTON

This is function to sequentially increase output volume when starting play in stop status, and you can select "FADE IN" or "FADE OFF" whenever pressing the FADE button.

25. MEMORY BUTTON

This is used when memorizing broadcasting station frequency.

26. AM/FM BUTTON

This is used when selecting AM or FM broadcasting.

27. ▼ / ▲ (FREQUENCY DOWN/UP) BUTTON

This is used when reducing or increasing broadcasting frequency.

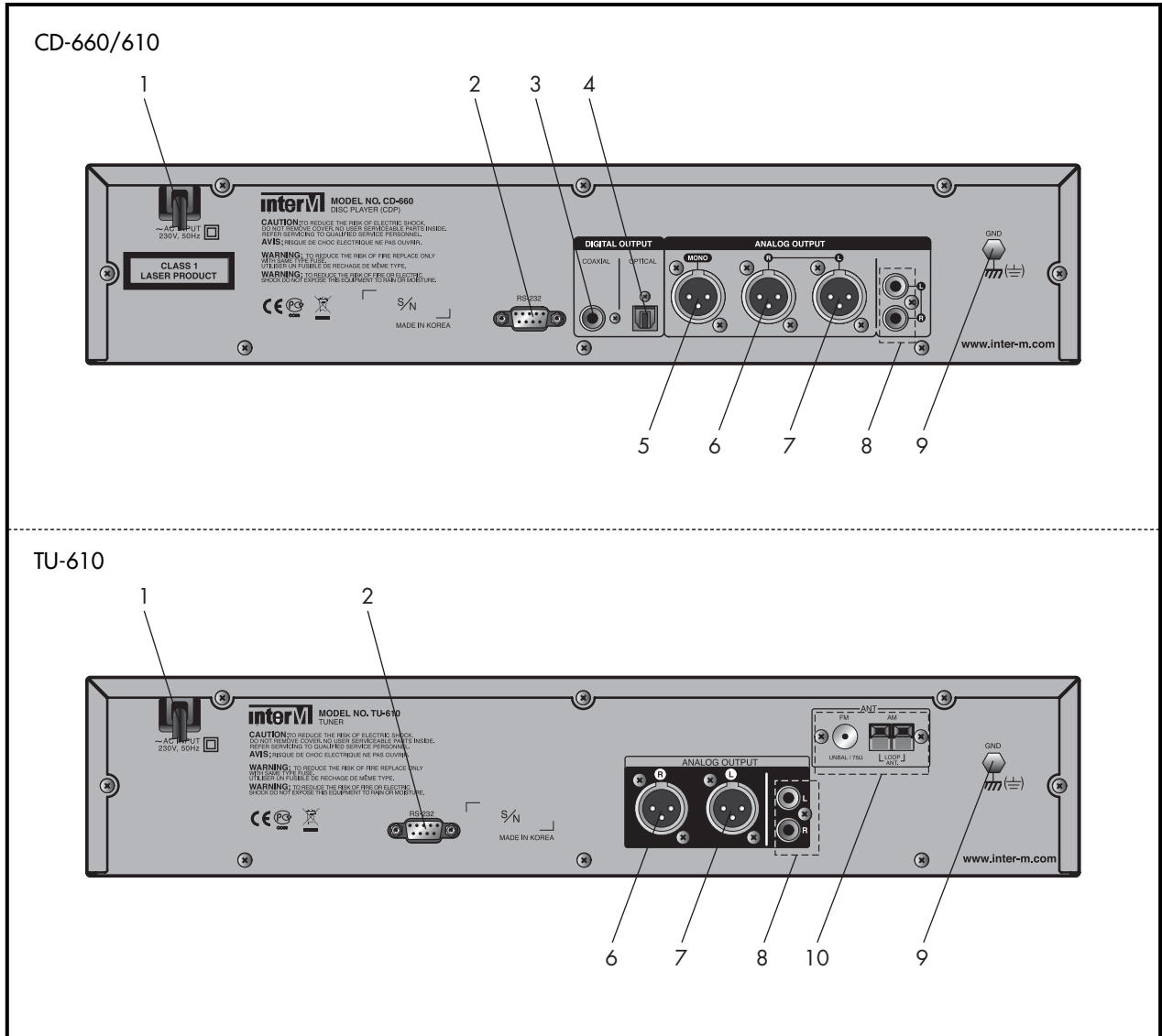
28. MODE BUTTON

This is used when selecting FM broadcasting mode (MONO/STEREO).

29. ◀◀ / ▶▶ (PRESET DOWN/UP) BUTTON

This is used when selecting broadcasting frequency memorized.

Rear Panel



1. AC IN POWER CORD

This is a power connecting cord.

2. RS-232 INTERFACE TERMINAL

This is used as a control port for customary control port for a remote control unit such as AMX and CRESTRON control system.

3. DIGITAL OUT COAXIAL OUTPUT TERMINAL

This is used when outputting digital audio signal recorded in a disc and can transfer digital signal to the AMP without sound loss through the coaxial output terminal.

4. DIGITAL OUT OPTICAL OUTPUT TERMINAL

This is used when outputting digital audio signal recorded in a disc and can transfer digital signal to the AMP without sound loss through the optical output terminal.

5. L+R MIXING OUTPUT (MONO)

This is used when connecting the XLR L+R Mixing Channel Audio (analog) with the sound input terminal of the Mixer or the AMP.

6. R-CHANNEL XLR OUTPUT TERMINAL

This is used when connecting the right Channel Audio of the XLR (analog) with the sound input terminal of the Mixer or the AMP.

7. L-CHANNEL XLR OUTPUT TERMINAL

This is used when connecting the left Channel Audio of the XLR (analog) with the sound input terminal of the Mixer or the AMP.

8. RCA OUTPUT TERMINAL

This is used when connecting the 2 Channel Audios (analog) with the sound input terminal of the Mixer or the AMP.

9. GND TERMINAL

This is a grounding connection terminal for safety when storm exists.

10. ANTENNA TERMINAL

FM terminal: Uses built-in antenna only for FM and can connect 75Ω coaxial cables in case of feeling noise.

AM terminal: Uses built-in antenna only for AM and can connect lead antenna or outdoor antenna in case of feeling noise.

How to use CD player

1. CD-660(6CD CHANGER)

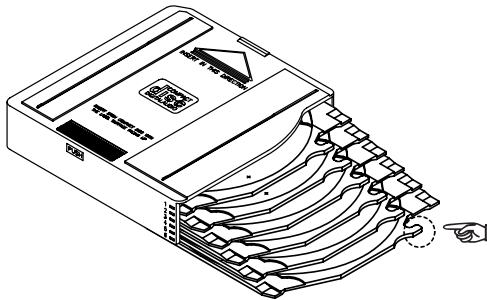
◆ Power ON/OFF

- Power On and Play

1. Press the POWER button in the front panel.
2. CD Magazine those 6 CDs is inserted into shows if pushing the disc door to the right.
3. The Magazine comes out if pressing the EJECT button below the CD Magazine.
However if password is set, Eject is allowed after checking password.
(For method to set and change password, refer to the next page.)
4. Put 6 discs in the CD Magazine neatly and then insert the Magazine into the system.
5. If automatically detecting whether disc exists or reading information, information is played on the display window.
6. Operate by pressing the Play (▶||) button. In this case play is done starting from the first song in a CD.
7. Play stops if pressing the Stop (■) button.
8. Power turns off if pressing the POWER button.

- To insert disc into magazine

1. 6 trays to insert a disc show beside the Magazine taken out of the system.
2. There is a groove to take out a tray by the hands as in below figure. The relevant tray comes out if pulling it by the fingers. Care must be taken since the tray can be separated from the Magazine if applying excessive force. If so, it is not failure and so you must put it in along the groove.

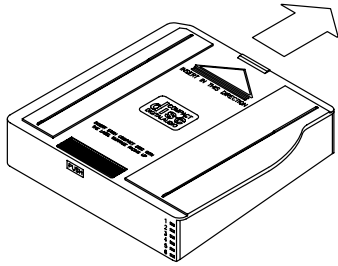


3. Order to insert a disc is the order of DISC 1~DISC 6 from the bottom.
4. Preparation is completed if raising a disc to play from the taking-out tray and then inserting it manually.
5. Only a disc with the size of 12cm is usable. Do not use 8cm CD.

◆ Function

- Play/Pause Function

1. Player automatically searches for the disc if inserting 6 discs into the Magazine and then mounting it on the system to the below direction.
(Make the marking part of insertion direction upward) For your reference, up to 399 songs are displayed only for a disc.



2. Play is done if pressing the Play (▶||) button after closing the disc door.
 3. Press the (▶||) button if desiring to temporarily stop the player.
 4. This function is released if pressing the (▶||) button once again, and play is continuously done from the current part.
 5. Pressing the DISC SKIP button, you can select and play a disc to the order of DISC 1~DISC 6.
- * Caution: CD is automatically rejected if status of a disc is not good or is the format impossible to play.
Check the disc status since this is not failure of system.

- EJECT Function

1. This function is used when taking out the Magazine to put a CD in.
2. The Magazine comes out if pressing the EJECT button regardless of operation status of the player.
3. A screen to enter password is played if having set password for prevention a theft of Magazine. The Magazine comes out if pressing the EJECT button once again. (See Password Setup Function)

- Password Setting Function

If password for prevention a theft of Magazine is set, you can enter password when pressing the EJECT button in order to take out the Magazine.

1. EJECT method
 - 1) Press the EJECT button.
 - 2) Where password is not set, immediately Eject function is performed.
 - 3) Where password is set, "PASSWORD ____ " is displayed on the display window.
 - (1) Enter 4-digit password by using the number button.
 - (2) "PASSWORD OK" is displayed on the display window if password is correct.
 - (3) Eject function is performed if pressing the EJECT button.
2. How to initially set password
 - 1) "PASSWORD____" is displayed on the display window if pressing the LOCK button.
 - 2) Enter 4-digit password by using the number button.
 - 3) Setting is completed if "PASSWORD OK" is displayed on the display window.

3. How to change password

- 1) "PASSWORD____" is displayed on the display window if pressing the LOCK button.
 - 2) Enter 4-digit password already set by using the number button.
 - 3) "PASSWORD NEW _____" is displayed on the display window to enter new password after "PASSWORD OK" is displayed on the display window if the entered password is correct. ("PASSWORD SORRY" is displayed if password is not correct.)
 - 4) Enter 4-digit password to change.
 - 5) If "PASSWORD OK" is displayed on the display window, it means normal change. Lock function is released if entering "0000" into 4-digit of password to change and "PASSWORD RELEASE" is displayed on the display window.
4. Consult with A/S center if forgetting password.

- Repeat Function

⊙ REPEAT function

1. This is repeated play function for a song.
2. "REPEAT" is displayed on the display window if pressing the Play button during Play or after pressing the REPEAT button once. Song currently played is repeatedly played.

⊙ REPEAT 1 function

1. This is repeated play function to repeatedly all songs for only a disc.
2. "REPEAT 1" is displayed on the display window if pressing the Play button during Play or after pressing the REPEAT button twice times. All songs currently played in a disc are repeatedly played.

⊙ REPEAT ALL function

1. This is repeated play function to play all songs in 6 discs.
2. "REPEAT ALL" is displayed on the display window if pressing the Play button during Play or after pressing the REPEAT button 3 times. All songs in 6 discs are repeatedly played.

⊙ ALL function

1. This is play function to play once all songs in 6 discs.

2. CD-610 (1CD PLAYER)

◆ Power ON/OFF

- Power On and Play

1. Press the POWER button on the front panel.
2. If there is no disc, "NO DISC" is displayed on the display window and represents standby status.
3. Lightly push a disc until it is automatically entered into the Disc Insert window.
4. After reading song information in a disc, current status is displayed on the display window and becomes standby status.
5. Operate by pressing the Play (▶||) button. In this case, Play is done starting from the first song in a CD.
6. Play stops if pressing the Pause (■) button, and power turns off if pressing the POWER button.
7. You can use only a disc with the size of 12cm. Don not use a DC with the size of 8cm at any time.

◆ Function

- Play/Pause Function

1. Inserting a disc, the disc play becomes standby status after automatically reading information, and up to 499 songs are displayed.
2. Press the Play (▶||) button and press the (▶||) button to stop play for a while.
3. Pressing the (▶||) button once again, this function is released and the CD is continuously played from the current part.

* Caution: CD is automatically rejected if status of a disc is not good or is the format impossible to play. Check the disc status since this is not failure of system.

- EJECT Function

1. This function is used when taking out a disc.
2. Disc comes out if pressing this button regardless of operation status of the player.

- REPEAT Function

⊙ REPEAT 1 function

1. This is repeated play function for a song.
2. Pressing the Play button during Play or after pressing the Repeat button once, "REPEAT 1" is displayed on the display window, and song currently played is repeatedly played.

⊙ REPEAT ALL function

1. This function is used when songs to repeatedly listen the overall disc exists.
2. "REPEAT ALL" is displayed on the display window if pressing the Play button during Play or after pressing the REPEAT button twice, and song currently played is repeatedly played.

- RESUME Function

1. Setting this function to stop during Play, the last play position is memorized, and song is played from the position last memorized to play repeatedly.
2. Function setting is allowed by pressing RESUME button only in stop status and this function is released if pressing the RESUME button once again or powering off. In this case setting status is displayed as "RESUME ON" or "RESUME OFF".

- FADE Function

1. This is function to prevent a sudden output by gradually increasing play output when starting play in stop status.
2. You can select "FADE IN" or "FADE OFF" whenever pressing the FADE button and current status is displayed on the display window.

- DISPLAY Function

1. TIME/GROUP NAME/TRACK NAME/All SONGS and time for song currently played is are displayed.
2. You can check current status by using DISPLAY button and relevant function is sequentially changed. (Hangul not supported)

CD Player Common Matters

- RANDOM Function

1. This function is used if desiring to randomly listen to songs in the current disc.
2. Pressing the RANDOM button during stop, "RANDOM" is displayed in the display window and songs are played randomly if pressing the (▶||) (Play/Pause) button.
3. Repeat play is also available according to Repeat mode.
4. Press the RANDOM button once again if desiring to cancel Random function.

- Song Introducing Function (INTRO SCAN)

1. This function is used for introducing only the first part of song for 10 minutes.
2. "INTRO" is indicated in the display window if pressing the INTRO button during play, and songs are from the next song to the order for 10 seconds.
3. This function is released if pressing the INTRO or (■) (Stop) button.

- PROGRAM Function

⊙ For initial setting

1. Pressing the PROGRAM button in stop status, "PGM-01 D1 T-00" is displayed on the display window. (For the CD-610, only "PGM-01 T-00" is displayed.)
 - 1) "PGM-01" represents address to store after programming.
 - 2) "D1" represents disc number for the CD-660, and you can select D1 ~ D6 by pressing the Disc Skip.
 - 3) "T-00" represents disc number within disc and you can select desiring song by using the (|◀◀ / ▶▶|) button.
2. Pressing the PROGRAM button after setting item 1) ~ 3), program memory for a music is completed.
3. Program memory is available up to 24 songs by repeating above method.
4. Continuously pressing the PROGRAM button to check memorized contents, memory status is shown to the order.
5. This mode is released if pressing the Stop (■) button.
6. Pressing the (▶||) (Play/Pause) button after pressing the PROGRAM button, programmed songs are played to the order.

⊙ For program change

1. Pressing the PROGRAM button in stop status, current memory status is displayed.
2. Select program number to change by pressing and holding the PROGRAM button.
3. Select music to change by using the (|◀◀ / ▶▶|) (Skip) button. (For the CD-660, it firstly selects and shows the relevant disc by using the Disc Skip button.)
4. Pressing the PROGRAM button, change is completed, and pressing the Stop (■) button, this function is released.

* To clear a programmed music, select it by pressing the PROGRAM button. If pressing the CLEAR button, it is cleared soon.

- GROUP UP/DOWN Function

1. This function is available only for storing files in a separate folder in a PC for a MP3 CD, and music moves by unit of directory.
2. Pressing the GROUP button during play, "GROUP" is displayed on the display window. In this case, if pressing the (|◀◀ or ▶▶|)(Skip) button, the scan cursor moves between folders and plays music from the first music.
3. Pressing the GROUP button once again, this function is released.

- DIMMER Function

1. This function is used when adjusting brightness of the display window.
2. You can select and use 3 types of brightness by using the DIMMER button when needing to adjust brightness of the display window darkly.

- BUZZER Sound ON/OFF Setting Function

1. Function to turn on/off buzzer sound output whenever pressing the button.
2. Let operation status of this product to be located in stop status.
3. Pressing the GROUP button with the (■) (Stop) button pressed, "SET MODE" is displayed on the display window.
4. Pressing the (|◀◀ or ▶▶|)(Skip Down/Up) button, the current buzzer on/off status is displayed.
5. Select On/Off by using the (◀◀ or ▶▶) (Search Down/Up) button. (Default setting: On status)
6. Setting is completed if pressing the (■) (Stop) button or turning off.

How to use TUNER

1. TU-610 (STEREO TUNER)

- How to select Auto/Manual Broadcasting Frequency

1. Press the Power switch on the front panel.
2. Pressing the (▼ / ▲) (Frequency Down/Up) button, frequency is reduced or increased by 100KHz when frequency is in a FM mode, and reduced or increased by 9kHz when it is in an AM mode. You can select frequency of the desiring broadcasting station.
 - Auto select broadcasting station: Pressing the Frequency Down or Up button for more than 2 seconds, scan automatically stops at the frequency position of the receivable broadcasting station and "TUNED" is displayed on the display window and broadcasting is output.
 - Manual select broadcasting station: Manually move to position of the broadcasting station receivable by reducing or increasing frequency by pressing the Frequency Down or Up button once shortly.
If the receivable broadcasting frequency is selected, "TUNED" is displayed on the display window and broadcasting is output.

- For MODE (Mono/Stereo) Button

1. Pressing this button where noise is involved in FM broadcasting, broadcasting mode is converted to the Mono mode and you can listen to clean broadcasting.

- How to memorize each frequency and recall memorized broadcasting channel

1. Select desiring frequency with the (▼ / ▲) (Frequency Down/Up) button.
2. Pressing the MEMORY button, memory is displayed for about 10 sec on the display window.
3. Pressing the number button to memorize among number button from No.1 through No.10, the relevant channel number appears together with frequency and memory display turns off.
4. Up to 40 desiring frequencies can be memorized by repeating above item No. ~ No.3.
5. Among memorized broadcasting frequencies, you can directly input the number to memorize with the number button or directly select desiring broadcasting frequency by using the (◀◀ / ▶▶) (Preset Down/Up) button.

- BUZZER Sound ON/OFF Setting Function

1. Function to turn on/off buzzer sound output whenever pressing the button.
2. Pressing the MODE button with the MEMORY button pressed, "SET MODE" is displayed on the display window.
3. Pressing the (◀◀ / ▶▶) (Preset Down/Up) button, the current buzzer on/off status is displayed.
4. Select On/Off by using the (▼ / ▲) (Frequency Down/Up) button. (Default setting: On status)
5. Setting is completed if pressing the MEMORY button or turning off.

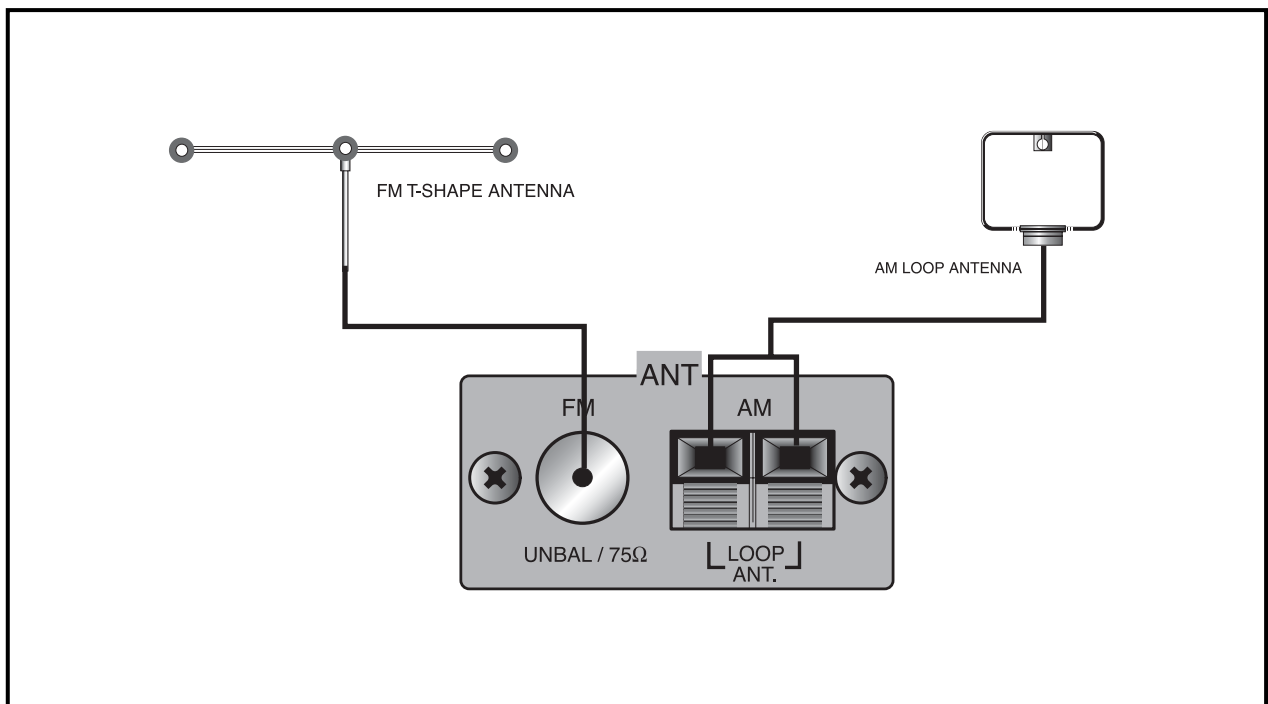
Application of The Antenna

- FM RECEIVING ANTENNA

The electric wave of FM broadcasting is weakening in hills and valleys, around buildings and in iron-reinforced buildings.

- INSTALLATION OF ANTENNA EXCLUSIVELY FOR FM

Listening to the broadcasting, fix the antenna after deciding the location and the direction so that the reception may be optimized.



- INSTALLATION OF ANTENNA USING THE COAXIAL CABLE

Noisy reception may occur in built-up areas and factory sites as well as around power cables. This may be the case even when an antenna is used exclusively for FM. In these regions, install the antenna using 75Ω coaxial cable.

- INDOOR ANTENNA

In the regions where FM broadcasting is heard comparatively well due to the near distance to the station or wooden structure, you can receive broadcasting of good quality by using T-type antenna.

- AM LEAD ANTENNA

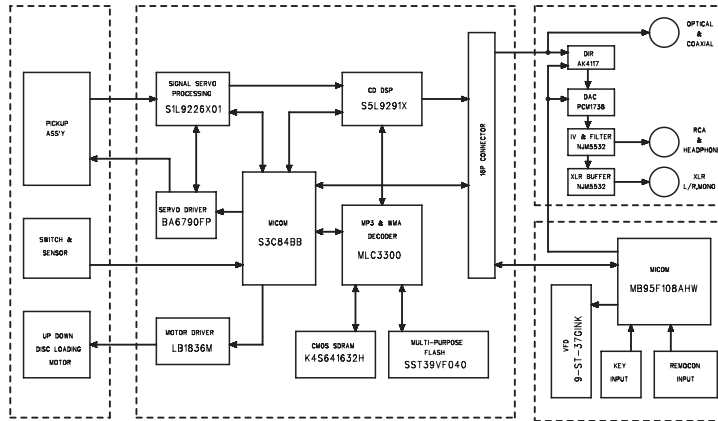
Fix one end of a six to eight metre length of vinyl-coated single cable to the AM terminal and the other end to a high place like a wall.

- AM OUTDOOR ANTENNA

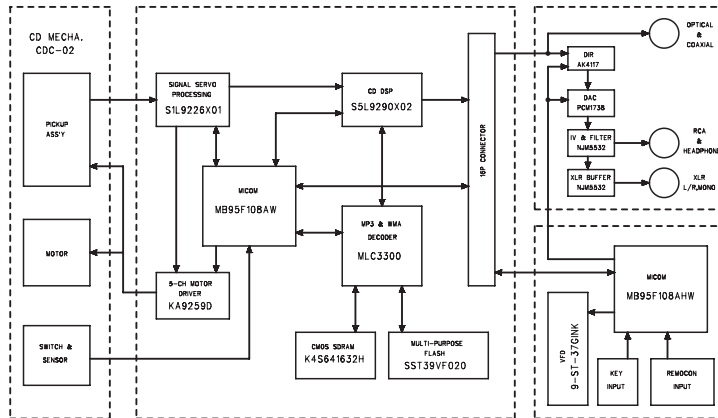
Install the vinyl-coated cable to an outdoor place if the AM reception is not good enough.

Block Diagrams

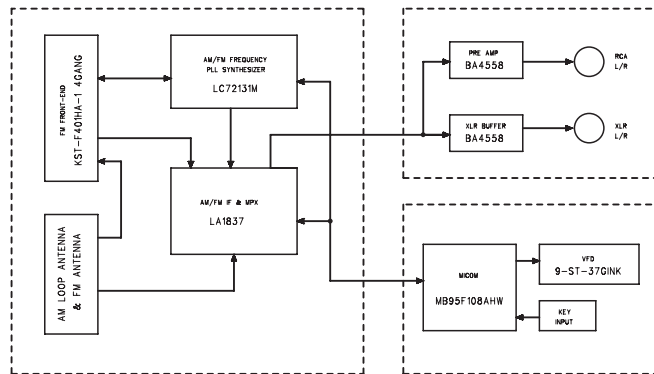
CD-660



CD-610



TU-610



Specifications

	CD-660	CD-610
Audio Channel	2 Channels	
Frequency Response	20Hz~20kHz±1dB	
T.H.D. (with A filter)	0.002% (Less than 0.02%)	
S/N(with A Filter)	100dB (Better than 90dB)	
Analog Output Level	6dB±2dB	
Headphone Output Level	(load impedance 32Ω) 3.5dB±2dB	
Quantization	24-bit	
Analog Output Terminal	RCA-2CH/XLR-2CH/XLR MIX-1CH	
Digital Output (TOS LINK/RCA)	SPDIF(IEC958)	
Player Responds	CD-DA/MP3/WMA	
Operation Temperature	-10°C ~ +40°C	
Power Source	100-120VAC or 220-240VAC; 50/60Hz (Supplied AC mains transformer depends on country requirements)	
Power Consumption	18W(Standby: Less than 1W)	
Weight	6.2kg/13.7lb	5.8kg/12.8lb
Dimensions	482(W)x88(H)x380(D)mm/19(W)x3.5(H)x14.9(D)in	
	TU-610	
FM (22.5kHz MOD. 1kHz)		
Tuning range	87.5~108.0MHz	
Sensitivity	2uV(Less than 10uV)	
T.H.D. (Mono)	0.2% (Less than 0.5%)	
S/N (mono)	60dB (Better than 50dB)	
Output level (75kHz MOD.)	0 dB±3 dB	
AM (30% MOD. 400Hz)		
Tuning range	Europe: 522~1629kHz, U.S.A: 520~1710kHz	
Sensitivity	8uV(Less than 58uV)	
T.H.D.	1% (Less than 2%)	
S/N	50dB(Better than 40dB)	
Output level	-10 dB±3dB	
Operation Temperature	-10°C ~ +40°C	
Power source	100-120VAC or 220-240VAC; 50/60Hz (Supplied AC mains transformer depends on country requirements)	
Power consumption	10W	
Weight	5.2kg/11.5lb	
Dimensions	482(W)x88(H)x380(D)mm/19(W)x3.5(H)x14.9(D)in	

* Specifications and design subject to change without notice for improvements.

Service

Procedures

Take steps to insure the problem is not related to operator error or other products within the system. Information provided in the troubleshooting portion of this manual may help with this process. Once it is certain that the problem is related to the product contact your warranty provider as described in the warranty section of this manual.

Schematic

A Schematic is available by contacting your warranty provider.

Parts List

A Parts List is available by contacting your warranty provider.

Variations and Options

Variations

Products supplied through legitimate sources are compatible with local AC power requirements.

Options

No optional items are available for this product.

Warranty

Warranty terms and conditions vary by country and may not be the same for all products. Terms and conditions of warranty for a given product may be determined first by locating the appropriate country which the product was purchased in, then by locating the product type.

To obtain specific warranty information and available service locations contact Inter-M directly or the authorized Inter-M Distributor for your specific country or region.



Inter-M, Ltd. (Korea) began operations in 1983.

Since then, Inter-M has grown to become one of the largest manufacturers of professional audio and commercial sound electronics equipment in the world.

Inter-M has gained worldwide recognition for its own branded products, as well as private label manufacturing of electronics sold under other names (OEM).

The company is no longer just a Korean company, but rather a global company that is truly international in scope, with factories and offices in Korea and China, and sales and marketing operations located in Japan, Europe, and the U.S.A.

With more than 850 employees around the globe, Inter-M is well-poised for further growth and expansion.

INTER-M AMERICAS, INC.

1 EAST BEACON LIGHT LANE CHESTER, PA USA 19013-4409

TEL : 1-610-874-8870, FAX : 1-610-874-8890

Home Page : <http://www.inter-m.net>, E-mail : service@inter-m.net

INTER-M Corporation

SEOUL OFFICE:653-5 BANGHAK-DONG, DOBONG-KU, SEOUL, KOREA

TEL : 82-2-2289-8140~8, FAX : 82-2-2289-8149

Home Page : <http://www.inter-m.com>, E-mail : export@inter-m.com

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