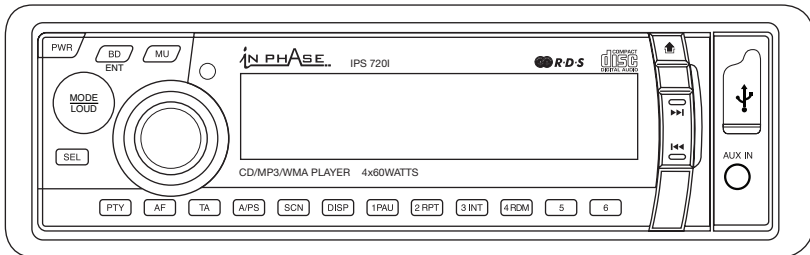




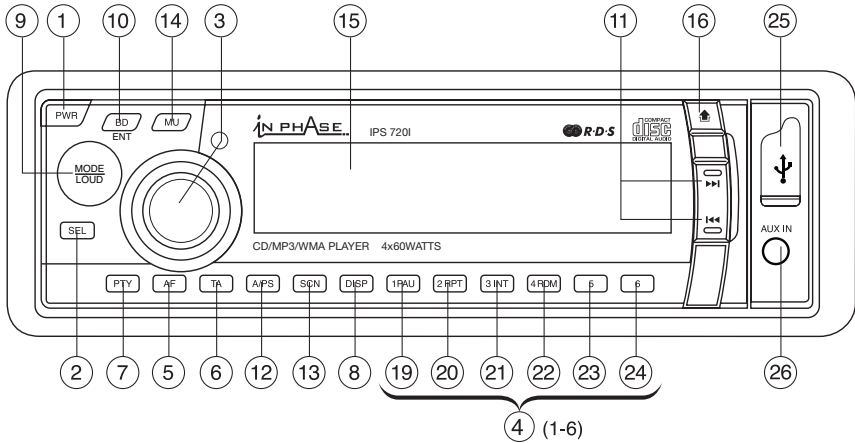
IPS 720I



INSTRUCTION MANUAL

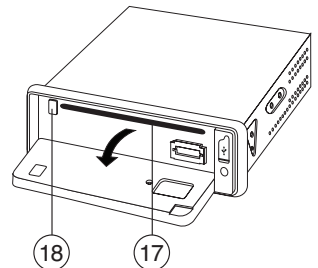
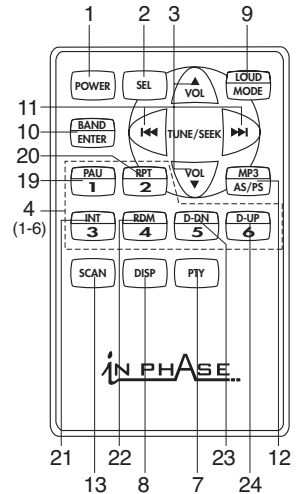


**Car Stereo CD/CDR/CDRW/MP3/WMA Player
with PLL MW/FM Stereo Radio
Radio Data System with PTY
USB / AUX Input
iPOD Compatible
Flip Down and Detachable Front Panel System**

LOCATION OF PARTS AND CONTROLS



1. POWER ON/OFF (PWR)
2. FUNCTION SELECT BUTTON: CONTROLS FOR BASS/ TREBLE/BALANCE/FADER / INITIAL VOLUME / CT / TA VOL / EON / DSP (SEL)
3. VOL UP/VOL DOWN BUTTON: CONTROLS FOR BASS/ TREBLE/BALANCE/FADER / INITIAL VOLUME / CT / TA VOL / EON /DSP
4. PRESET STATIONS (1,2,3,4,5,6)
5. 'AF' function (ALTERNATIVE FREQUENCIES)
6. 'TA' function (TRAFFIC ANNOUNCEMENT)
7. 'PTY' function (PROGRAM TYPE)
8. DISPLAY BUTTON (DISP)
9. MODE/LOUDNESS BUTTON (MODE/LOUD)
10. BAND/ENTER BUTTON (BD/ENT)
11. AUTOMATIC OR MANUAL TUNING (FREQ UP ►► OR FREQ DOWN ◀◀)
CD TRACK/SEARCH BUTTON
12. AUTO SEEK SEARCH TUNING (A/PS)
13. 'SCAN' AUTOMATIC TUNING CONTROL (SCN)
14. MUTE BUTTON (MU)
15. LCD DISPLAY
16. OPEN PANEL BUTTON ()
17. CD EJECT BUTTON ()
18. CD SLOT
19. PAUSE BUTTON
20. REPEAT BUTTON
21. INTRO BUTTON (Preview all Tracks)
22. RANDOM BUTTON
- 23, 24. FOLDER DOWN/UP (MP3 Files only)
25. USB PORT
26. AUX IN



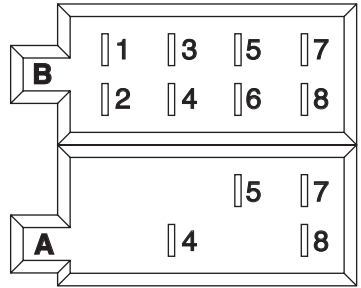
ISO CONNECTOR

RCA Jack Line Out:
 : Red (right)
 : White (left)

RCA Jack Line In:
 : Red (right)
 : White (left)

CONNECTOR A

- 1.
- 2.
- 3.
4. MEMORY +12V
5. AUTO ANTENNA OUTPUT
- 6.
7. +12V (TO IGNITION KEY)
8. GROUND



Note: (connector A no. 7) must be connected by car ignition key in order to avoid that car battery becomes weak when the car will be not used for long period.

CONNECTOR B

1. REAR RIGHT SPEAKER (+)
2. REAR RIGHT SPEAKER (-)
3. FRONT RIGHT SPEAKER (+)
4. FRONT RIGHT SPEAKER (-)
5. FRONT LEFT SPEAKER (+)
6. FRONT LEFT SPEAKER (-)
7. REAR LEFT SPEAKER (+)
8. REAR LEFT SPEAKER (-)

Maintenance

FUSE REPLACEMENT

If the fuse blows, check the power connection and replace the fuse. If the fuse blows again after the replacement, there may be an internal malfunction. In this case, consult your nearest repair center.

Warning

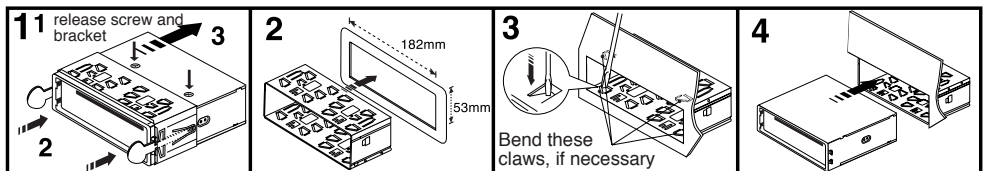
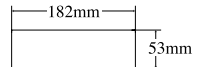
Use the specified amperage fuse for each lead. Use of a higher amperage fuse may cause serious damage.

INSTALLATION

PRECAUTIONS

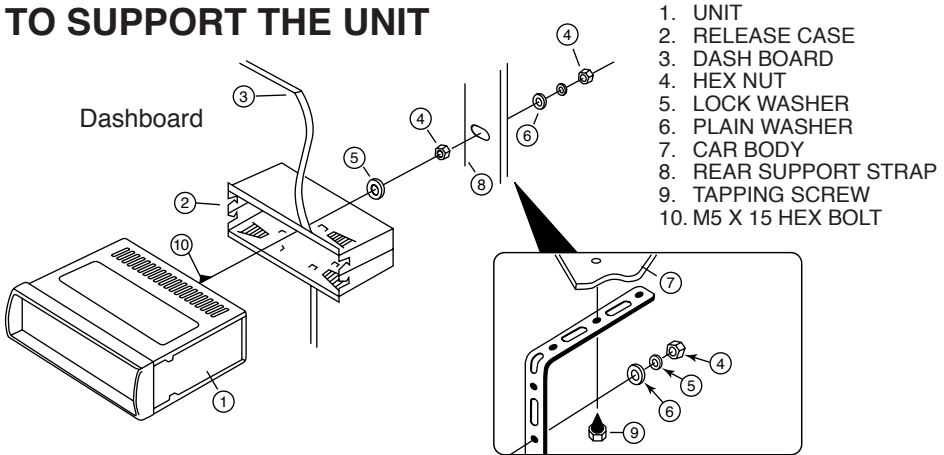
- Choose the mounting location carefully so that the unit will not interfere with the normal driving functions of the driver.
- Avoid installing the unit where it would be subject to high temperatures, such as from direct sunlight or hot air from the heater, or where it would be subject to dust, dirt or excessive vibration.
- Use only the supplied mounting hardware for a safe and secure installation.
- Be sure to remove the front panel before installing the unit.

NOTE : Inclination angle for car radio installation must not exceed 30° otherwise the front panel will not open.



Note: Keep the release key in a safe place as you may need it in the future to remove the unit from the car.


TO SUPPORT THE UNIT

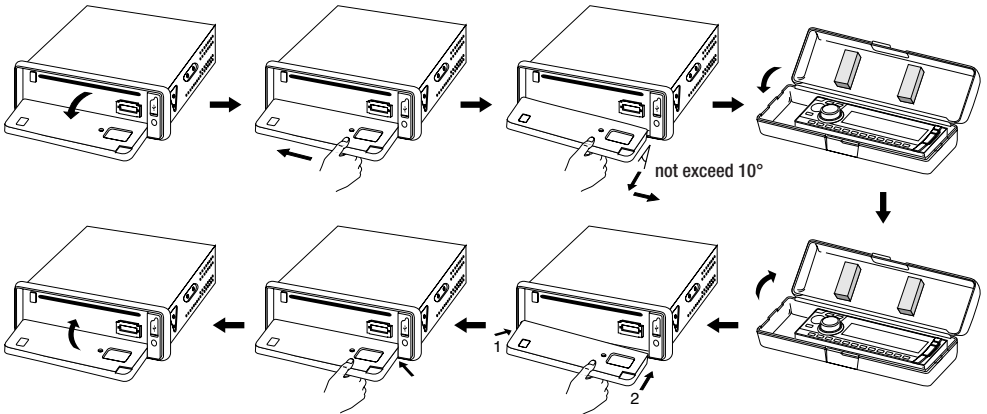


Detaching and attaching the front panel

The front panel of this unit can be detached in order to prevent the unit from being stolen.

FOLDING DOWN AND DETACHING/ATTACHING THE FRONT PANEL

Before detaching the front panel, be sure to press the PWR button (1) OFF first. Then press the () button, let the Front Panel arrive in horizontal position and detach the panel by pulling it towards you as illustrated.



Notes:

- Do not press the front panel hard against the unit when attaching it. It can be easily attached by pressing it lightly against the unit.
- When you carry the front panel with you, put it in the supplied front panel case.
- Do not press hard or give excessive pressure to the display window of the front panel when attaching it to the unit.

1. POWER ON/OFF (PWR)

By pressing this key, the unit is on or off.
This unit is turned on by pressing any key.

2. FUNCTION SELECT BUTTON: BASS/TREBLE/BALANCE/FADER / INITIAL VOLUME / CT / TA VOL / EON / DSP (SEL)

3. VOLUME UP/DOWN

Turning VOL knob (right/left) to adjust VOL/BAS/TRE/BAL/FAD. To select other functions, press the **SEL** button shortly until the desired functions are shown on the display. Figure 1 shows how to control functions that are selected using the SEL button.

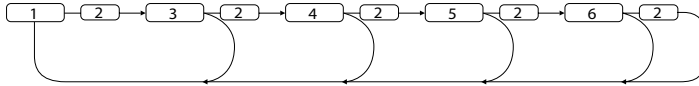


Fig. 1 Selection of sound control functions

1. VOL 2. SEL 3. BASS 4. TRE 5. BAL 6. FAD

Increase or decrease the volume by turning VOL knob (right/left). These buttons can be used to adjust the BASS, TREBLE, BALANCE and FADER.



Press and hold **SEL** to adjust INIT VOL /CT/TA VOL/EON ON/DSP

INIT VOL: Initial Volume when the unit turns on.

CT: Digital Clock. To adjust, turn VOL knob to right for Hours and turn VOL knob to left for Minutes

TA VOL: Traffic Announcement Volume

EON ON: Turn EON feature ON/OFF

DSP Modes: CLASSIC, ROCK, POP, FLAT, NONE

4. PRESET STATIONS (1,2,3,4,5,6)

When pressed momentarily, these keys select a preset station directly. When pressed longer than 1 sec., current station is stored in preset memory bank.

USING THE RDS FUNCTION

What is RDS?

The RDS (Radio Data System) is a digital information system developed by the EBU (European Broadcast Union). Piggy-backed on normal FM broadcasts, RDS offers a variety of information services and automatic retuning functions for RDS-compatible car stereos.

In 1988, RDS became available in the United Kingdom, France, West Germany, Ireland and Sweden. Test transmissions are being conducted in many other European countries. It is expected that RDS will be available in most western European countries in the near future.

5. 'AF/REG' function (ALTERNATIVE FREQUENCIES)

When pressed momentarily, AF/REG switching mode is selected.

When AF/REG switching mode is selected, the radio checks the signal strength of the AF all the time.

When pressed long, it is activated as regional mode ON/OFF.

– Regional mode ON:

AF switching or PI SEEK is implemented to the station which have all PI codes same as current station. REG segment is turned on, in LCD display.

– Regional mode OFF

The regional code in the format of PI code is ignored when AF switching or PI SEEK is implemented.

6. 'TA' function (TRAFFIC ANNOUNCEMENT)

When pressed momentarily, it is activated as TA mode on or off

When TA mode is on and traffic announcement is transmitted

- When the unit in CD/MP3 mode, it will switch to radio mode temporarily.
- If the volume level was under the threshold point, it will be raised to the threshold point.
- When TP station is received, TP segment is turned on in LCD display.

7. 'PTY' function (PROGRAM TYPE)

When pressed momentarily, it is activated as TPY ON/OFF function and start to search corresponding PTY information.

And stop if the corresponding PTY information is detected.

By pressing this key longer than 2 sec., you can select PTY mode by turning Volume UP/DOWN knob as below.

NEWS--AFFAIRS--INFO--SPORT--EDUCATE--DRAMA--CULTURE--SCIENCE--VARIED--POP--ROCK--EASY M--LIGHT M--CLASSIC--OTHER M--WEATHER--FINANCE--CHILDREN--SOCIAL--RELIGION--PHONE IN--TRAVEL--LEISURE--JAZZ--COUNTRY--NATION. M--OLDIES--FOLK M--DOCUMENT--TEST--ALARM.

8. DISPLAY (DISP)

When this key is pressed, it is operated as the conversion of each display mode as follow.

1) In case of receiving RDS station.

RADIO MODE

PS ---- PTY ---- FREQ ---- CT

CD/MP3/WMA PLAYER MODE

CDP ---- CT ---- PTY ---- FREQ ---- PS

2) In case of receiving NON RDS station

RADIO MODE

FREQ ---- CLOCK

CD/MP3/WMA PLAYER MODE

CDP ---- CT ---- FREQ

Each display time is several seconds, and come back to 1'st position after several seconds.

Notes: • **CT** = clock time • **FREQ** = frequency

9. MODE/LOUDNESS BUTTON (MODE/LOUD)

By pressing this key, user can select. AUX/TUNER/CD-MP3 or USB mode.

LOUDNESS: By pressing this key longer than 2 sec., you can select LOUDNESS mode.

10. BAND BUTTON (BD/ENT)

Each band is toggled cyclically by pressing this key FM1---FM2---FM3--MW1--MW2.

11. AUTOMATIC OR MANUAL TUNING (FREQ UP ►► OR FREQ DOWN ◀◀)

(A) RADIO MODE

When pressed momentarily, these keys are operated as SEEK tuning mode.

When pressed longer than 1 sec., they are operated as MANUAL tuning mode.

(B) CD/MP3/WMA PLAYER MODE

When pressed momentarily, they are operated as TRACK UP or TRACK DOWN mode.

When pressed longer than 1 sec., they are operated as CUE or REVIEW mode.

12. AUTO SEEK SEARCH TUNING (A/PS)

PS - By pressing shortly, the radio searches for each preset station. Each preset station will be played for 5 sec.

AS - By pressing longer than 1 sec, the 6 strongest stations are stored in the corresponding preset memory number. When Automatic Scan operation is finish, the radio executes the preset scan.

13. 'SCAN' AUTOMATIC TUNING CONTROL (SCN)

Press **SCN** button to activate radio scan. The unit will search for every station and will play 5 seconds of each station found. To cancel SCAN, press the button once more.

14. MUTE BUTTON (MU)

Press this button to turn off the sound. Press it again to return to the previous volume level.

15. LCD DISPLAY

The Liquid Crystal Display will display the current state of the unit.

16. OPEN THE FRONT PANEL

Press REL button and the front panel will open.

CD/MP3/WMA CONTROL LOCATION OF PARTS

TRACK/SEARCH BUTTON (11)

FORWARD AND REVERSE TRACK SEARCH (or changing songs)

Press the SKIP button (**⏮** or **⏭**) during play to go to the desired track(song).

⏮ ...REVERSE **⏭** ...FORWARD

Press and hold the SKIP button (**⏮** or **⏭**) during play to scan the disc at high speed. When the desired music section of the disc is found, release the button. Normal play will resume.

17. CD SLOT

18. CD EJECT BUTTON

Press the EJECT button to remove the CD.

19. PAUSE BUTTON

During "PLAY", press (19) 'PAU' button to "PAUSE". Press it again to resume play.

20. REPEAT BUTTON

When this button is pressed, "RPT ON" indication is displayed and play of the selected track will be continually repeated until the Track repeat mode is cancelled by pressing 'RPT' button again.

21. INTRO BUTTON (Preview all Tracks)

When this button is pressed, "INT ON" indication is displayed and the first several seconds of each track of the disc is played. Press again to stop intro and listen to track.

22. RANDOM BUTTON

When this button is pressed, "RDM ON" indication is displayed and each track of the disc is played in random instead of normal progression. To cancel RANDOM mode, press 'RDM' button (22) again.

23, 24. FOLDER DOWN/UP (In case of MP3 files)

M5: Folder down / M6: Folder up

HOW TO SELECT MP3/WMA FILES

1. Searching by Track:

- Press "A/PS", then search track is activated.
- Turn "VOL" knob to left or right, select first digit desired.
- Press "SEL" button, then the first digit is fixed and second digit will flash.
- Turn "VOL" knob to left or right, select 2'nd 3'rd respectively.
- Press "BD/ENT", the song selected will start.

2. Searching by Character:

- Press "A/PS" twice, then character search mode is activated.
- Turn "VOL" knob to left or right, you can select the desired letter.
- Press "SEL" button, repeat steps above for 2'nd 3'rd character.
- The songs with the same character that you selected is displayed.
- Turn "VOL" knob to left or right, you can select the desired song.
- Press "BD/ENT", then the song selected will start.

3. Searching by File Name:

- Press "A/PS" 3 times, then folder search is activated.
- Turn "VOL" knob to left or right, you can select the desired folder.
- Press "BD/ENT", then the folder is fixed and the first file will be played.

Connecting it to Portable Digital MP3 Player

25. USB PORT

Using USB cable to connect Your Portable Digital MP3 Player.

26. FRONT INPUT AUX IN

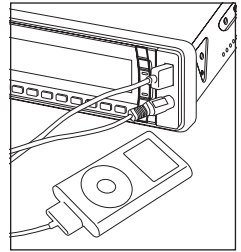
Convenient easy to use front "AUX IN" input jack, allows easy connection of Portable Media Such as iPod and other digital MP3 Players.

More AUX input:

Additional Auxiliary RCA input jack on the back of the unit can be used to connect more external audio sources such as a DVD player, Video game player and other portable audio devices.

Connecting iPod

You can connect your iPod portable device and play songs from the car stereo. Only the audio feature is supported, other features of iPod is not supported.



Playing Songs in iPod

You now can play songs in iPod once the cable is properly connected.

1. Press **MODE** repeatedly until I-POD shows in the display.
2. Press **A/PS**.
3. Rotate **VOL** to select PLAYLIST – ARTISTS – ALBUMS – SONGS – GENRES – COMPOSER.
4. Press **VOL**.

If you are aware on how to use iPod, the way to use the car stereo feature is basically just the same. Take note of the equivalent key function below.

Car Stereo	iPOD	Function
Rotate VOL knob	Rotate CLICK WHEEL	Up/down category/file browsing
Press VOL knob	Press SELECT button	Selecting a category/Play song

Car Stereo and iPod equivalent key function

Note:

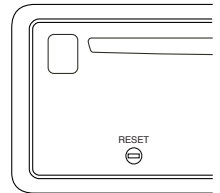
Please refer to your iPod user's manual for operating instructions.
Press A/PS to go back to Main Menu.

IMPORTANT INFORMATION:

This car radio has been designed following the latest USB technology.

The variety of memory stick available in the market, however, doesn't allow to make a product surely and fully compatible with all USB products of today and tomorrow.

- **RESET**
Reset button is placed on the housing.
The reset button is to be activated for the following reason:
 - Initial installation of the unit when all wiring is completed.
 - All the function button do not operate.
 - Error symbol on the display.



TECHNICAL SPECIFICATIONS

CD/MP3/WMA PLAYER SECTION

Signal to noise ratio > 60 dB
 Channel separation > 50 dB (1kHz)
 Frequency response 20 Hz - 20 kHz

TUNER (FM)

Frequency range 87.5-108 MHz
 Intermediate frequency 10.7 MHz
 Sensitivity 2.8 μV
 Stereo separation 30 dB
 Signal to noise ratio 50 dB
 Channel step 50 kHz

TUNER (MW)

Frequency range 522-1620 KHz
 Intermediate frequency 450 KHz
 Usable sensitivity 32 dB

LINE-OUT

Output 5V (max.)
 Impedance 10k Ohm

GENERAL

Power supply 12V DC
 (10.8-15.6V allowable)
 Speaker impedance 4 or 8 Ohm
 Output power 60W x 4CH

Note: Specification and the design are subject to possible modification without notice due to improvements.