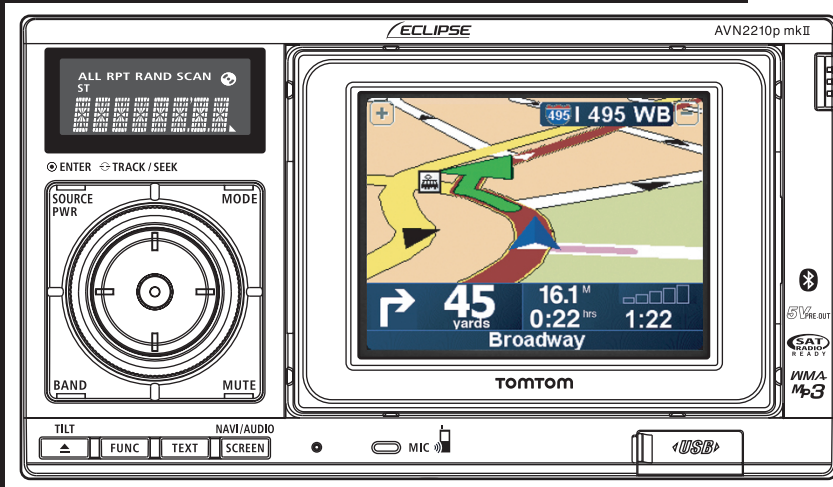# OWNER'S MANUAL



# AVN2210p mkII

In-Dash Portable Navigation with
CD/USB Multi-Source Receiver

We appreciate your purchase of this receiver.
Please read through this manual for correct operation.
We suggest that after reading it you keep this manual
in a safe place for future reference.

**FUJITSU TEN**

# For your Safety in Using the AVN2210p mkⅡ

Warnings and caution signs, illustrated below, are posted throughout this manual as well as on the AVN2210p mkⅡ. They show safe and correct ways to handle the product so as to prevent personal injury to you, others and to avoid property damage.
Please read through the "Warning" and "Caution" notes before reading the owner's manual for operational features and functions.

| ⚠ | **Warning** | This sign indicates a situation in which incorrect handling or disregard of this sign may result in death or serious personal injury. |
|---|---|---|
| ⚠ | **Caution** | This sign indicates a situation in which incorrect handling or disregard of this sign may result in personal injury or may result solely in damage to property. |

Please read all materials such as manuals and warranties that have come with the product.
Eclipse will not be held liable for unsatisfactory product performance due to failure to follow these instructions.

## ⚠ WARNING

● **Do not modify this system for use other than that specified herein. Also, do not deviate from the installation procedures described herein; Eclipse will not be held liable for damages including, but not limited to serious injury, death or property damage resulting from installations that enable unintended operation.**
● **This main unit requires 12V DC and should only be installed in a vehicle with a 12V negative ground electrical system. Any other installation use other than its intended use may cause severe damage to the main unit as well as shock or personal injury.**
● **Never install this main unit where it will interfere with safe operation of the vehicle. Never block the drivers' view. Do not install main unit where it may interfere with operation of the brakes, the steering or any safety systems, including seat belts and air bags.**
● **Before drilling holes in a vehicle for installation, you must confirm the locations of pipes, tanks, electrical wiring, and other vehicle systems and components to ensure that there will be no interference or contact. In addition, you must also apply rust prevention and leak prevention measures at the drilling area. Otherwise, fire or electric shock could occur.**
● **When installing main unit do not remove or alter existing vehicle fasteners, including nuts, bolts, screws, clips, and fittings. Never detach, move or alter existing vehicle wiring, including electrical grounds and straps. Alteration of existing vehicle components may make vehicle unsafe to operate.**
● **Before installation, remove the negative (-) battery terminal to prevent shocks, electrical arcing, fires, and damage to vehicle wiring and the main unit you are installing.**
● **Secure wiring with non conductive tape or plastic ties so that wires do not interfere with vehicle operation, including brake pedal, gear shifter and steering. Position wires so that they will not be rubbed, abraded, or damaged by moving vehicle components, including power seats.**
● **To avoid main unit and vehicle damage, including fire, never supply power to installed main unit in a way which will overload the capacity of an existing vehicle circuit. Never leave a power supply wire or connection uninsulated. Always install supplied fuses, circuit breakers, and relays.**
● **Air bags are a vital part of an safety system. Never install main unit in a way which will alter air bag wiring or interfere with air bag deployment. Air bags must function properly in the event of an accident.**
● **When installation is complete, test all vehicle electrical systems for proper operation, including lights, horn, brake lights, and emergency flashers.**
● **For your protection, never use a power drill without safety glasses or goggles. Debris or broken drill bits may cause severe eye injuries, including blindness.**
● **Use electrical tape to insulate the ends of all wires, even if not used. Proper insulation prevents arcs, shocks and fires.**
● **Some devices require the use of batteries. Never install main unit where young children can get access to batteries. If a battery is swallowed, seek immediate medical attention.**
● **When the vehicle is in motion, never take your eyes off the road to make adjustments to the main unit. You must pay attention to the road to avoid accidents, do not let the operation or adjustment of the main unit distract you from proper vehicle operation.**
● **The driver should not look at the screen while driving. Accidents may occur as a result of not paying attention to your driving.**

# ⚠ WARNING

- Do not place foreign objects in the disc insertion slot or USB input terminal. Fires or shocks may result.
- Do not disassemble or alter this main unit. Accidents, fires or shocks may result.
- Do not let water or foreign objects enter the internal parts of this main unit. Smoke, fires or shocks may result.
- Do not use when main unit is malfunctioning (the screen is not lit or no sound comes out). Accidents, fires or shocks may result.
- Always replace fuses with fuses of identical capacity and characteristics. Never use a higher capacity fuse than the original. Using the wrong type of fuse may cause a fire or severe damage.
- If foreign objects or water enters the main unit, smoke comes out, or there is a strange odor, stop using it immediately, and contact your dealer. Accidents, fires, or shocks may result if you continue to use it in these conditions.
- The driver should not change the CD or USB memory while driving. Accidents may occur as a result of not paying attention to your driving, you must first stop or park your car in a safe location and then proceed to remove or insert the CD and/or USB.
- Plastic bags and wrappings may cause suffocation and death. Keep away from babies and children. Never place bags or wrappings over anyone's head or mouth.

# ⚠ CAUTION

- Wiring and installing this main unit requires expertise and experience. Professional installation is recommended. Consult with your dealer or a professional installer. Incorrect wiring may damage the main unit or interfere with safe vehicle operation.
- Use only the accessory parts as specified. Using other parts may cause damage to the main unit or cause parts to dislodge and fall or fly off the main unit.
- Do not install the main unit in places where it may be exposed to dew condensation on (around the air conditioning hose, etc.), come in contact with water, or in conditions of high moisture, dust or oily smoke. If water, moisture, dust or oily smoke enters this main unit, smoke, fires or malfunctions may result.
- Do not install in places with direct sunlight or where it will be hit directly by hot air from the heater. This may increase the interior temperature of this main unit, resulting in fires and malfunctions.
- Do not impede the air flow of the heat sink or vents of this main unit. Impeding the air flow will cause the interior of the main unit to overheat, and fires may result.
- Connect as specified in the installation manual. If not connected correctly, fires or accidents may result.
- Install wiring in a manner in which they are not pinched by movable parts such as seat rails, and screw parts of the vehicle body. Accidents, fires and shocks may result from disconnection and electrical shorts.
- Install wiring in a manner in which they do not make contact with metal parts. The wiring maybe be damaged by contact with metal parts, resulting in fire and shocks.
- Avoid any contact with hot surfaces when wiring the main unit. High temperatures may damage wiring, causing shorts, arcing and fires.
- When changing the installation location for this main unit, please consult the dealer where you bought it for safety reasons. Expertise is necessary for removal and installation.
- Keep volume to a reasonable level so that you can hear sounds from outside the vehicle, including warning sounds, voices, and sirens. Failure to do so may cause an accident.
- Be careful that hands and fingers are not pinched when adjusting the tilting angle or closing display. Injuries may result.
- Do not put your hands or fingers into the disc insertion slot or USB input terminal. Injuries may result.
- Do not touch heat dissipating parts of the main unit as burns may result.
- Volume should be set at a moderate level to avoid hearing damage when the main unit is powered on.
- Do not operate when the sound is not being emitted properly such as distortion.
- This main unit uses invisible laser light. Do not disassemble or alter this main unit. If trouble occurs, contact the dealer where you bought the main unit.
  Altering this main unit may cause exposure to laser emissions (worsening eyesight), or result in accidents, fires or shocks.
- If the main unit is dropped or the cosmetics appear broken, turn off the power to the main unit and contact your dealer. If used in this condition, fires or shocks may result.
- Using the vehicle speed pulse signal, you can use the route guidance function even in the locations where usually no guidance is given (example: in a tunnel). However, the accuracy of the guidance is not guaranteed since the guidance is performed using the information about road surface condition and vehicle speed.
- Precautions for PND Operation
  Do not remove the SD card while operating the PND.
  Turn off the power to the PND, and wait at least 3 seconds after the display goes off, before removing the SD card. Failure to do so may cause data in the SD card to be lost or damaged.
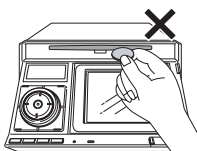
# Operating Precautions

<Your AVN2210p mkII will perform well over a long period of time through correct handling and care.>

## Notes on Operation

- For your safety, play only at moderate volumes in order to hear exterior sounds.

- Discs with the logo shown to the left can be played.
- You can play music CDs (CD-R/CD-RW) on this player. Be sure to use discs that have been properly processed.
  Depending on the editing format and software used, some discs may not play properly.

- Do not insert anything other than a CD into the main unit.
  Do not insert any foreign objects, such as coins or credit cards, into the disc slot.

- Avoid severe mechanical shock.
  When the player is subjected to severe vibration while traveling over a rough surface, playback may be intermittent. When a situation like this occurs, resume playback after returning to a smoother road.

- About dew condensation.
  In cold or rainy weather, just as the interior glass surface gets fogged, dew (water condensation) may also settle on the main unit. When this occurs, disc playback may become intermittent or impossible. Dehumidify the air in the vehicle for a while before resuming playback.
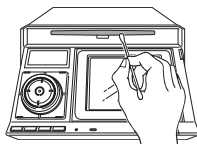
- Cleaning the disc slot.
  The disc slot tends to get dusty. Clean it occasionally to prevent accumulated dust from scratching the discs.

# Basic Operation

## Adjusting Sound

### *Muting the Volume*

**1** **Press the [MUTE] button.**

To cancel muting, either press the [MUTE] button again or turn the [VOL] rotary knob to the right.
While the audio system is muted, navigation voice guidance continues unmuted.

### *Setting Guide Tone*

**1** **Press the [FUNC] button to establish the FUNCTION mode.**

**2** **Press the [FUNC] button until the indication on the sub display switches to BEEP.**

**3** **Press the [SELECT (Right/Left)] button to switch between ON and OFF statuses for BEEP.**

Right : ON
Left : OFF

**4** **Press the [ENTER] button.**

## *Switching Audio Control Modes*

**1** **Modes will switch in the order shown below each time the [ENTER] button is pressed.**

BASS → MID → TREB → BAL → FAD → NON-F → NF-P → LPF → LOUD → SVC → VOL → BASS → ...

Turn the [VOL] rotary knob to the right or left in the audio mode while referring to the table below to adjust the sound.

| Mode | Function | [VOL] rotary knob/Function | |
|------|----------|------|------|
| BASS | Adjusts bass level. | Turn to the right | Emphasizes low sounds. |
| | | Turn to the left | Softens low sounds. |
| MID (MIDDLE) | Adjusts middle level. | Turn to the right | Emphasizes mid range sounds. |
| | | Turn to the left | Softens mid range sounds. |
| TREB (TREBLE) | Adjusts treble level. | Turn to the right | Emphasizes high sounds. |
| | | Turn to the left | Softens high sounds. |
| BAL (BALANCE) | Adjusts left/right (BALANCE) speaker balance. | Turn to the right | Emphasizes right speakers. |
| | | Turn to the left | Emphasizes left speakers. |
| FAD (FADER) | Adjusts front/rear (FADER) speaker balance. | Turn to the right | Emphasizes front speakers. |
| | | Turn to the left | Emphasizes rear speakers. |
| NON-F (NON-FADER LEVEL) | Adjusts non-fader level (for connected sub-woofer). | Turn to the right | Increases the sub-woofer level. |
| | | Turn to the left | Decreases the sub-woofer level. |
| NF-P (NON-FADER PHASE) | The merger of sound between the front and rear speakers and the woofer can be improved by selecting the phase. Switch the phase which lets the speakers combine without any disharmony. | Turn to the right | NORMAL (Make the output timing of the front/rear speakers and the woofer the same.) |
| | | Turn to the left | REVERSE (Change the phase of the output timing of the front/ rear speakers and the woofer.) |

| Mode | Function | [VOL] rotary knob/Function | |
|---|---|---|---|
| LPF (Low Pass Filter for Sub-Woofer output) | Adjust frequency filtering settings. | Turn to the right | LPF ON : Only allow lower frequencies (low range) through. |
| | | Turn to the left | LPF OFF : Allow all frequencies through regardless if the frequencies are low or high. |
| LOUD (LOUDNESS) | Accentuate low and high frequencies when the volume is low. | Turn to the right | ON |
| | When loudness is ON, the apparent deficiency in the high sounds is compensated for. | Turn to the left | OFF |
| SVC (Source Volume Control) | In this mode you can set the volume level for each audio source, taking the FM radio volume level as the reference level. (The volume level of the audio source you are currently listening to is adjusted.) | Turn to the right | Increase the SVC setting level. |
| | | Turn to the left | Decrease the SVC setting level. |

## Switching Between the Audio and Navigation Screen

**1** **Each time you press the [SCREEN] button the display switches between the audio screen and the navigation screen.**
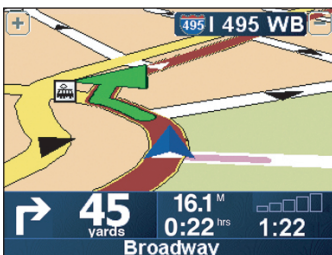
## Turning the PND Display ON and OFF

**1** **While the PND display is OFF, press the [SCREEN] button.**

The PND display will come ON.

**2** **Press the [SCREEN] button for longer than a second while the PND display is ON.**

The PND display will go OFF.

### ● *Note* ●

For details on using PND, refer to the operation manual of the PND.

## Switching Between Left and Right Speaker Output for the Navigation Voice

Voice guidance speaker output can be switched between right and left speaker.

**1** **Press the [SOURCE/PWR] button for more than one second to turn the audio mode OFF ("GOOD BYE" will momentarily be displayed).**

**2** **Right and Left speakers can be switched each time the [FUNC] button and the [SCREEN] button are pressed simultaneously for more than 3 seconds.**

RIGHT ↔ LEFT
RIGHT: Output from the right front speaker
LEFT: Output from the left front speaker

## Selecting the Dimmer Setting

In order to make the screen easier to view, the screen brightness will change when the vehicle lights (side lights, tail lights, license plate lamp) are lit.

**1** **Press the [SOURCE/PWR] button for more than one second to turn the audio mode OFF ("GOOD BYE" will momentarily be displayed).**

**2** **Selecting the dimmer setting can be switched each time the [MUTE] button and the [FUNC] button are pressed simultaneously for more than 3 seconds.**

DIMM ON ↔ DIMM OFF
ON: Dimmed
OFF: Not dimmed

### ● *Note* ●

The brightness and day/night view of PND display can be changed in conjunction with the dimmer setting. Also they can be changed manually from PND.
See the manual for the PND for information about "Docking Preferences".

# Using the Audio Cover

*Using the Audio Cover*

After removing the PND from the main unit, it is recommended to use the optional Audio Cover which comes with TRK-107p*.
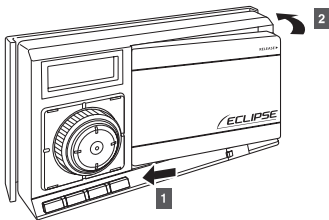
* TRK-107p: Sold separately

*How to Insert the Audio Cover*

**1** **Insert the left end of the Audio Cover into the main unit.**

Engage the catch at the left end of the Audio Cover with the lock on the main unit.

**2** **Insert the Audio Cover.**
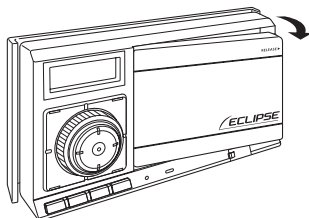
Press the right end of the Audio Cover until it clicks into place.

## *How to Detach the Audio Cover from the Main Unit*

**1** **Press the [Release] button.**

The right end of the Audio Cover detaches from the body of the main unit.

**2** **Remove the Audio Cover.**

Hold the Audio Cover on the right side, lift up and pull it toward you to remove it.
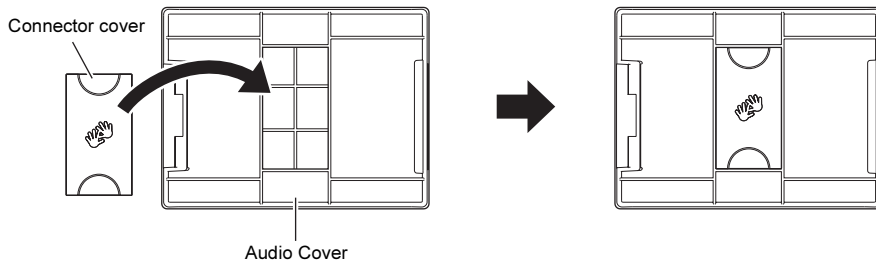


📖 ATTENTION

If the Audio Cover gets wet, do not attach it to the main unit.

## ● *Note* ●

After detaching the PND, you can fit the connector cover onto the back of the Audio Cover as shown below.

Connector cover



Audio Cover

# How to Operate the Tuner

## Calling up Preset Channels

**1** **Press the [MODE] button to select the preset channel mode.**

**2** **Turn the [VOL] rotary knob to call up the station registered for a preset channel between P1 and P6.**

**3** **Press the [ENTER] button.**

The registered preset channel will be selected and the corresponding station will be received.
Six stations can be memorized for each of FM 1, 2 and 3, and six stations can be memorized for AM, making a total of 24 stations.

## Calling up a Preset Channel from the PND Display

**1** **Touch the relevant preset switch to call up the station in audio screen.**



Preset switches
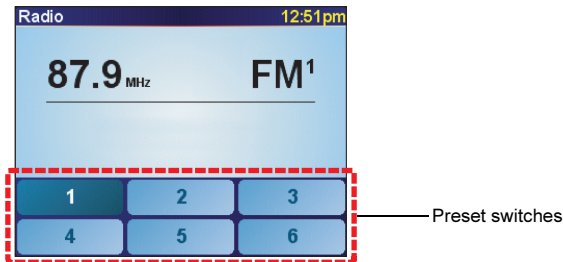
# Memorizing Stations

## *Memorizing Stations Manually*

**1** **Tune into the station to be memorized for the preset channel.**

**2** **Press the [MODE] button to select the rotary select mode.**

**3** **Turn the [VOL] rotary knob to select one of the preset channels P1 to P6.**

**4** **Press the [ENTER] button until "P○MEMORY" appears on the sub display.**

The selected station is memorized and the preset registration number and frequency are indicated on the display.
To manually set additional selected stations for the remaining preset channels, repeat this procedure for each channel.
If the stations have been stored in memory, selecting the preset channel with the [MODE] button and the [VOL] rotary knob or pressing a switch between [1] and [6] on the PND display will allow you to tune to that preset station.

### ⚠ *CAUTION*

If the vehicle's battery is disconnected (for repairs to the vehicle or for removing the main unit), all stations in memory will be lost. In such a case, set stations in memory again.

## *Memorizing Stations Manually on the PND Display*

**1** **Tune into the station to be memorized.**

**2** **Press the [SCREEN] button and switch the display to the audio screen.**

**3** **Touch and hold the preset switch where you want to memorize the station until "P○MEMORY" appears on the sub display.**

The selected station will be memorized.
To manually set additional selected stations at the remaining preset channels, repeat this procedure for each channel.
Subsequently, when you listen to the radio you will be able to select stations by touching the preset switches.

## *Memorizing Stations Automatically*

**1** **Press the [FUNC] button to establish the FUNCTION mode.**

**2** **Press the [FUNC] button until the sub display switches to ASM.**

**3** **Press the [ENTER] button.**

After "ASM ON" is displayed, automatic station selection will start. A search will be conducted from the lowest frequency through progressively higher frequencies and stations with strong reception will be memorized for preset registration numbers [1] to [6].
When the operation has ended the "ASM ON" indication will be cleared and the station memorized last (i.e. the one memorized for P6) will continue to be received.
Subsequently, when you listen to the radio you will be able to select stations by calling up preset numbers.

📖 ATTENTION

• Pressing the preset switches ([1] to [6]) allows you to make one-touch station selections. The frequency of the selected station is displayed on the preset switch.
• When a new station is set in memory, the station previously set in memory will be deleted.
• If there are fewer than six receivable stations, the stations set in the remaining switches will remain unchanged.

---

### ⚠ *CAUTION*

If the vehicle's battery is disconnected (for repairs to the vehicle or for removing the main unit), all stations in memory will be lost. In such a case, set stations in memory again.

## Preset Station Scan

This function enables reception of all the stations in the preset switches to be played for five seconds each.

**1** **Press the [FUNC] button to establish the FUNCTION mode.**

**2** **Press the [FUNC] button until the sub display switches to P SCAN.**

**3** **Press the [ENTER] button.**

"P SCAN" will be displayed and the stations memorized for preset channels P1 to P6 will be called up in order and received for five seconds each.
To cancel the preset scan, press the [FUNC] button.

# How to Operate the CD/MP3/WMA Player

## About Compact Discs

- The signal recorded on a compact disc is read by a laser beam, so nothing touches the disc surface. A scratch on the recorded surface or a badly warped disc may cause deteriorated sound quality or intermittent playback. Observe the following precautions to ensure high quality sound performance:
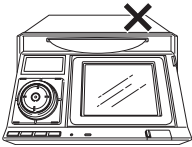
- Do not leave an ejected disc in the disc slot for very long; the disc may warp. Discs should be stored in their cases and kept away from high temperature and humidity.
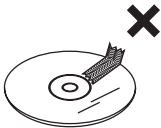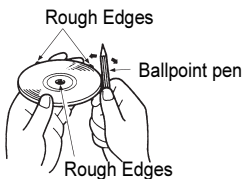
- Do not stick a piece of paper or tape. Do not write on or scratch either side of a disc.

- Discs spin at a high speed inside the main unit. Keep cracked or warped discs out of the player to avoid damage to the main unit.

- Avoid touching the recorded surface when handling a disc; handle discs by their edges.

- You may notice that some brand new discs are rough around the center hole or outside edge. Remove the rough edges with the side of a ballpoint pen, etc. Rough edges may prevent proper loading in the main unit. Flakes from the rough edges may also stick to the recorded surface and interfere with playback.
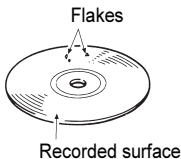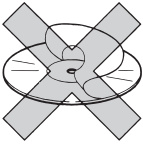
- Do not use accessories (stabilizers, protective seals, laser lens cleaners, etc.) sold for "improving sound performance" or "protecting CDs." The changes in CD thickness or outside dimensions made by these accessories may cause problems in the player.
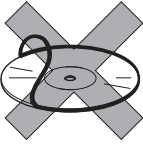
- Please be sure NOT to attach any ring-shape protector (or other accessory) to your discs. Those protectors are commercially available and said to protect disc and to improve sound quality (and antivibration effect), but they can do more harm than good in regular uses. The most common problems are disc insertion, disc ejections, and won't play problems due to the protector ring that came off in the disc mechanism.

- Do not use a CD with glue or remnants of adhesive tape or labels. They may cause the CD to get stuck inside or damage the main unit.
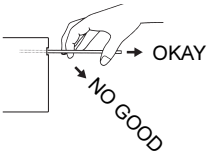
- When removing the ejected disc, pull it straight out along the slot. Pressing downward in the process may scratch the recorded surface of the disc.
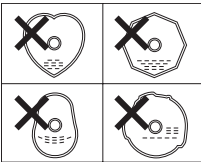
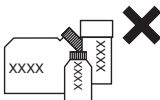- Specially-shaped CDs, like heart-shaped or octagonal CDs, cannot be played. Do not attempt to play them, even with an adapter, since they may damage the player.

## About Cleaning a CD

- Use a commercially available compact disc cleaner to clean a CD, wiping gently from the center to the edge.

- Do not use benzine, thinner, LP record spray or other cleaners on CDs. They may damage a CD's finish.

# About MP3/WMA

## *What is MP3/WMA?*

MP3 (MPEG Audio Layer III) is a standard format for audio compression technology. By using MP3 a file can be compressed to one-tenth the size of the original.

WMA (Windows Media$^{TM}$ Audio) is format for audio compression technology. WMA files can be compressed to a size smaller than MP3 files.

This main unit has limitations on MP3/WMA file standards and recorded media and formats that can be used.

## *Playable MP3 File Standards*

- Supported standards:MPEG-1 Audio Layer III
- Supported sampling frequencies: 44.1, 48 (kHz)
- Supported bit rate: 64, 80, 96, 112, 128, 160, 192, 224, 256, 288, 320 (kbps)
  - * Supports VBR (64~320kbps).
  - * Does not support free format.
- Supported channel modes:  monaural, stereo, joint, dual

## *Playable WMA File Standards*

- Supported standards:  WMA Ver. 7
  - WMA Ver. 8
  - WMA Ver. 9
- Supported sampling frequencies: 32, 44.1, 48 (kHz)
- Supported bit rate: 48, 64, 80, 96, 128, 160, 192, 256, 320 (kbps)
  - * Supports VBR (48~192 kbps).
  - * Does not support lossless compression.
  - * Does not support WMA files recorded at a frequency of 48kHz with a bit rate of 96kbps.

## *ID3/WMA Tag*

MP3/WMA files have an "ID3/WMA Tag" that allows input of information so that data such as song title and artist can be saved.

This main unit supports ID3v. 1.0, 1.1 and WMA tags.

## *Media*

Media capable of playing MP3/WMA includes CD-R and CD-RW discs. Compared to CD-ROM media commonly used for music discs, CD-R and CD-RW discs are fragile in high temperature/high humidity environments and one section of the CD-R and CD-RW may become incapable of playback. Fingerprints or scratches on the disc may prevent playback or cause skipping during playback. Sections of a CD-R and CD-RW may deteriorate if left inside a vehicle for long periods of time. It is also recommended that CD-R and CD-RW discs be kept in a light-blocking case because the discs are vulnerable to ultra-violet light.
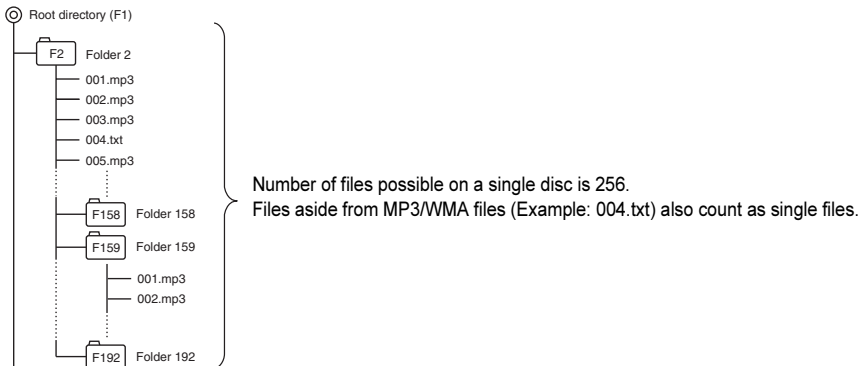
## *Format of Discs*

The format of discs to be used must be ISO9660 Level 1 or Level 2.
Control items for this standard are as follows:

- Maximum directory layers: 8 layers
- Maximum characters for folder names/file names: 32 (including "." and 3 letter file extension)
- Allowable characters for folder names/file names: A~Z, 0~9, _ (underscore)
- Number of files possible on a single disc: 256

[Configuration example for CD supporting MP3/WMA]

◎ Root directory (F1)

```
F2    Folder 2
      001.mp3
      002.mp3
      003.mp3
      004.txt
      005.mp3

      F158   Folder 158
      F159   Folder 159
             001.mp3
             002.mp3

      F192   Folder 192
```

Number of files possible on a single disc is 256.
Files aside from MP3/WMA files (Example: 004.txt) also count as single files.

- Maximum folders this main unit can recognize:   192*

*: A root directory is counted as one folder.

## *File Names*

Only files with the MP3/WMA file extension ".mp3", ".wma" can be recognized as MP3/WMA and played. Be sure to save MP3 files with the ".mp3" file extension. Be sure to save WMA files with the ".wma" file extension. The "MP" letters of the file extension will be recognized whether entered as uppercase letters or lowercase letters.

### ⚠ *CAUTION*

If the ".mp3", ".wma" file extension is attached to a file other than an MP3/WMA file, that file will be mistakenly recognized by the main unit as an MP3/WMA file and played, resulting in loud noise output that can damage the speakers. Be sure to avoid attaching the ".mp3", ".wma" file extension to files that are not MP3/WMA files.

### Multi-Sessions

Multi-sessions are supported, and playing of CD-R and CD-RW discs with annotated MP3/WMA files is possible. However, when "Track at once" has been written, close the session or process the warning message. Standardize the format of each session without changing the format.

### Playing MP3/WMA

When a disc with recorded MP3/WMA files is inserted, the main unit first checks all the files on the disc. No sound is output while the main unit is checking the files on the disc. It is recommended that the disc be recorded without files other than MP3/WMA files and without unnecessary folders in order to speed up the checking of disc files by the main unit.

### MP3/WMA Playing Time Display

It is possible that playing time will not be correct, depending on the writing condition of the MP3/WMA file.

*It is possible that playing time will not be correct when VBR Fast Up/Down is operated.

### Display Order of MP3/WMA File/Folder Names

Names of MP3/WMA folders and files within the same level are displayed in the following order.

1.MP3/WMA folders displayed first, by ascending order of numbers, letters.

2.Files displayed next, by ascending order of numbers, letters.

## Making and Playing MP3/WMA Files

MP3/WMA files created by recording broadcasts, records, audio recordings, video recordings or live performances cannot be used for purposes other than personal entertainment without permission of the copyright holder as set forth in copyright law.

### Downloading From Internet MP3/WMA Music Sites

There are many kinds of sites that distribute MP3/WMA files on the Internet, such as "pay per download" online shopping sites, "try before you buy" listening sites and free download sites. Follow the rules for each site (such as paying fees) and download according to site instructions.

### Converting CD Music to MP3/WMA Files

Prepare a computer with commercially available MP3/WMA encoding software (conversion software). Some encoding programs available on the Internet do not require payment. Music data files in MP3/WMA format can be made by inserting the music CD into the CD-ROM drive of the computer and following the procedures of the MP3/WMA encoding software to compress the songs of the music CD. A 12 cm music CD (having a maximum of 74 minutes of recording/650 MB of data) can be normally compressed approx. to 65 MB (about 1/10 of the original size).

## *Writing to CD-R/CD-RW*

MP3/WMA files can be recorded on CD-R/RW by using a CD-R/RW drive connected to a computer. Record by setting the recording format of the recording software to ISO9660 level 1 or level 2 (not including extension format).

Select CD-ROM ( mode1 ) or CD-ROM XA ( mode2 ) for the disc format.

## *When Playing Back CD-R/RW*

Insert a CD-R/RW disc having recorded MP3/WMA files.  The system will automatically determine whether the disc is a music CD or a CD-R/RW with MP3/WMA files and begin playing the disc.  A music CD recorded onto a CD-R/RW can also be played.  However, depending on the type of disc being used, a disc may not play.

### ATTENTION

- A fixed bit rate of 128kbps and sampling frequency of 44.1kHz is recommended for obtaining stable audio quality at playback.
- Depending on the characteristics of a disc, CD-R and CD-RW may not be playable.
- Because there are many types of MP3/WMA encoding software available, including commercial and freeware programs, audio quality may deteriorate, noise may be generated when playing starts and some recordings may not play, depending on the condition of the encoder and the file format.
- When files other than MP3/WMA files are recorded on a disc, the system may take some time to recognize the disc and it may not play the disc.

## Skipping to the Next Track (File)/Returning to the Beginning of a Track (File)

**1** **Press the [SELECT(Right/Left)] button.**

Right: Advances to the next track (file).
Left (pressing once): Returns to the beginning of the track (file) being played.
Left (pressing more than two times): Returns to the previous track (file).

## FAST FORWARD/REWIND

**1** **Press the [SELECT(Right/Left)] button for more than one second.**

Right: Fast forward.
Left: Rewind.

## Random Track Order

**1** **Press the [FUNC] button while a CD track is being played to switch to RAND on the sub display.**

**2** **Press the [SELECT (Right/Left)] button to select whether TRACK RANDOM is ON or OFF.**

Right: ON
Left: OFF

**3** **Press the [ENTER] button.**

Tracks will be played in a random order.

## Random File/Folder Order

**1** **Press the [FUNC] button while an MP3/WMA file is being played to switch to RAND on the sub display.**

**2** **Press the [SELECT (Right/Left)] button to select the random play setting.**

Press the [SELECT(Right/Left)] button to switch the mode in the following sequence:
RAND OFF ↔ RAND ONE ↔ RAND ALL

**3** **Press the [ENTER] button.**

RAND ONE... Play the files in the folder being played in a random order.
RAND ALL... Play the files in all folders in a random order.

## Repeat Track

**1** **Press the [FUNC] button while a CD track is being played to switch to RPT on the sub display.**

**2** **Press the [SELECT (Right/Left)] button to select RPT ON or OFF.**

Right: ON
Left: OFF

**3** **Press the [ENTER] button.**

The track being played is played again.

## Repeat File/Folder

**1** **Press the [FUNC] button while an MP3/WMA file is being played to switch to RPT on the sub display.**

**2** **Press the [SELECT (Right/Left)] button to select repeat play.**

Press the [SELECT(Right/Left)] button to switch the mode in the following sequence:
RPT OFF ↔ RPT ONE ↔ RPT ALL

**3** **Press the [ENTER] button.**

RPT ONE... Repeat playing of the file being played.
RPT ALL... Repeat playing of all files in the folder.

## Scan Tracks

**1** **Press the [FUNC] button while a CD track is being played to switch to SCAN on the sub display.**

**2** **Press the [ENTER] button.**

The main unit will play the first 10 seconds of each track.

## Scan Files/Folders

**1** **Press the [FUNC] button while an MP3/WMA file is playing to switch to SCAN on the sub display.**

**2** **Press the [SELECT (Right/Left)] button to select the scan setting.**

Press the [SELECT(Right/Left)] button to switch the mode in the following sequence:
Right: SCAN ALL
Left: SCAN ONE

**3** **Press the [ENTER] button.**

SCAN ALL... Play the first ten seconds of the first file in each folder.
SCAN ONE... Sequentially play the first ten seconds of all files in the folder being
played and all files beneath it in the hierarchy.

📖 ATTENTION

• To continue playing a desired track/file, turn the scan function OFF.
• After the entire disc is scanned once, ordinary playback starts from the point where scanning started.
• During random playback, select REPEAT to repeat the track/file being played. To cancel repeat play (go back to random play), turn the REPEAT function OFF.
• Occasionally the same track/file will be played two or more times in a row ; this is normal operation and is not a sign of a problem.
• When any of the functions - "Playing the Start of Tracks/Files", "Repeated Playing" and "Playing the Tracks/Files in Random Order" - is selected, a message such as "SCAN", "ALL SCAN", "REPEAT", "ALL RPT", "RANDOM" or "ALL RAND" appears on the display to verify the current function.

## Returning to the Root Directory

**1** **Press the [SELECT (Upper/Lower)] button (lower part) for longer than a second while an MP3/WMA file is playing.**

## Selecting the Display During Play

### *When a CD is playing*

**1** **Press the [TEXT] button to display text information on the sub display (only with CD TEXT disc).**

Press the [TEXT] button to switch the screen's display pattern in the following sequence:
Disc title/Track title → Track No. + Playing time → Disc title/Track title...

## *When an MP3/WMA file is playing*

**1** **Press the [TEXT] button to switch the display on the sub display.**

Press the [TEXT] button to switch the screen's display pattern in the following sequence:
Folder name/File name → Artist/Title → Folder No. /File No. → Playing time → Folder name/File name → ...

📖 ATTENTION

• If the CD came with a logo shown below, it is recorded with a disc title and track titles.
  Text information will be displayed during playback.

• CD text, Folder name/file name or tag recorded with characters other than alphanumeric and symbols cannot be displayed.


## Switching Between CD-DA and MP3/WMA

When sound data (CD-DA) and MP3/WMA music files are both found on the same disc, the sound data is played.

**1** **To play the MP3/WMA music files, press the [BAND] button.**

# How to Operate the USB Music File Player

## About Playable USB Memory Standards

- Supported File System: FAT 16/32
- Playable Audio Format: MP3
- Max.Current: 500mA
- Compatibility: USB1.1/2.0 (Maximum transmit speed equivalent to USB 1.1: 12 Mbps)
- Correspondence: USB mass storage class (Playing from external HDD is not supported)

### *Playable MP3 File Standards*

- Supported standards: MPEG-1
                        MPEG-2
                        MPEG-2.5
- Supported sampling frequencies: 32, 44.1, 48 (kHz)
- Supported bit rate: 8, 16, 24, 32, 40, 48, 56, 64, 80, 96, 112, 128, 160, 192, 224, 256, 288, 320 (kbps)
      * Supports VBR. (64~320kbps)
      * Does not support free format.
- Supported channel modes: monaural, stereo, joint, dual

### *ID3 tags*

MP3 files have an "ID3 Tag" that allows input of information so that data such as song title and artist can be saved.

This main unit supports ID3v. 1.0, 1.1, 2.2, 2.3 and 2.4.

### *Format of USB Memory*

The format of the USB Memory to be used must be ISO9660 Level 1 or Level 2.

Control items for this standard are as follows:

- Maximum directory layers:                8 layers
- Maximum characters for file names:       Up to 256 characters (the maximum number of characters obtained by adding the folder name and the file name, including "." and the 3-letter file extension)
- Allowable characters for file names:     A~Z, 0~9, _ (underscore)
- Number of files possible on a single memory:  3000

[Configuration example for USB memory supporting MP3]

```
├── 001.mp3
├── 002.mp3
├── 003.mp3
├── 004.txt
├── 005.mp3
    ⋮
├── 1498.mp3
├── 1499.mp3
    ⋮
└── 3000.mp3
```
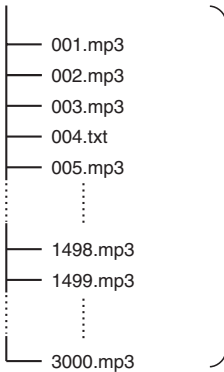
Number of files possible on a single USB memory is 3000.
Files aside from MP3 files (Example: 004.txt) will be included as one of the 3000 files.

## Skipping to the Next File/Returning to the Beginning of the File

**1** **Press the [SELECT(Right/Left)] button.**

Right: Advances to the next file.
Left (pressing once): Returns to the beginning of the file being played.
Left (pressing more than two times): Returns to the previous file.

## FAST FORWARD/REWIND

**1** **Press the [SELECT(Right/Left)] button for more than one second.**
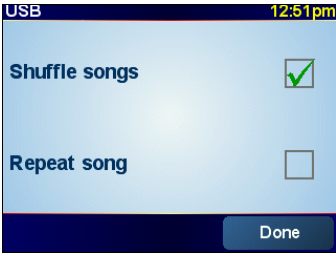
Right: Fast forward.
Left: Fast rewind.

## Random File Order (Shuffle Songs)

**1** Touch "Preferences".

**2** Touch "Shuffle songs □".

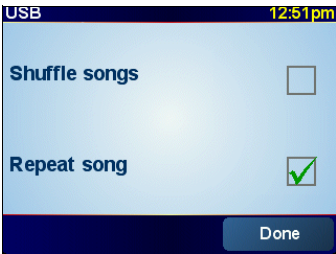All music files in the USB memory are played in random order.
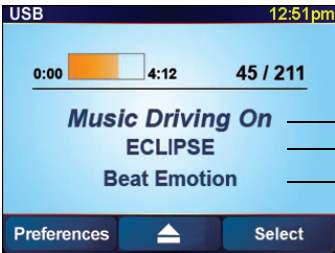


## Repeat Song

**1** Touch "Preferences".

**2** Touch "Repeat song □".

The music file currently being played is repeated.

## File Search

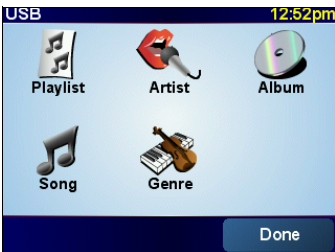**1** Touch "Select".



Song title
Artist name
Album name

**2** Touch "Playlist", "Artist", "Album", "Song" or "Genre".



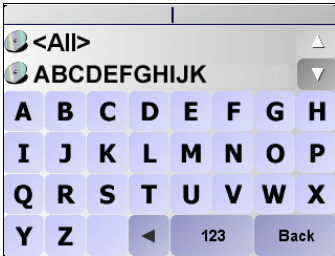**3** Touch the name of the music file to be played.

The selected file in the USB memory is played.
If ▲ and ▼ are displayed, you can change the displayed page of the music file list by touching them.
You can search for a file name or the name of an artist by touching "Find".

You can search for a music file by entering alphanumeric characters.



---
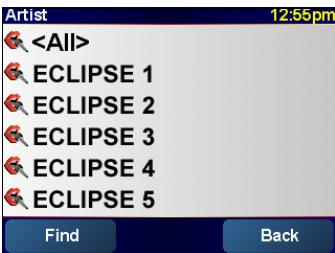
## ⚠ *CAUTION*

- Music files in the USB memory can be played only when the PND is attached to the main unit.
- Do not remove the USB without first switching the display to the audio screen and then touching ⏏ switch. Loss of data may result if this procedure is not followed.
- When the music file in the USB memory is played, if the USB memory or PND is removed from the main unit, the mode will be returned to the one previously selected.
- To read the files in the USB memory, it may take up 15 seconds.
- When a voice guidance is performed in the USB mode, all the speakers will be muted and the guidance will be heard through the speaker.

# How to Operate iPod®

An iPod can be connected to the main unit using an optional dedicated connection cable, allowing you to listen to iPod music files and operate some iPod functions from the main unit.

iPod is for legal or right holder-authorized copying only. Don't steal music. iPod is a trademark of Apple Inc., registered in the U.S. and other countries.

## Going to the Next File/Returning to the Beginning of a File

**1** **Press the [SELECT(Right/Left)] button.**

Right: Advances to the next file.
Left (pressing once): Returns to the beginning of the file being played.
Left (pressing more than two times): Returns to the previous file.

## FAST FORWARD/REWIND

**1** **Press the [SELECT(Right/Left)] button for more than one second.**

Right: Fast forward.
Left: Rewind.

## Random File Order(Shuffle Songs)

**1** **Touch "Preferences".**

**2** **Touch "Shuffle songs □".**

The files in the iPod are played in a random order.
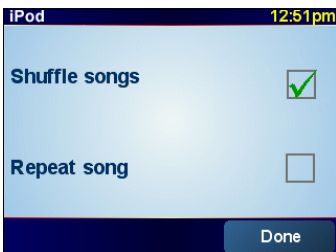
## Repeat Song

**1**   **Touch "Preferences".**

**2**   **Touch "Repeat song ☐".**

The iPod music file being played will be played again.



## File Search

**1**   **Touch "Select".**
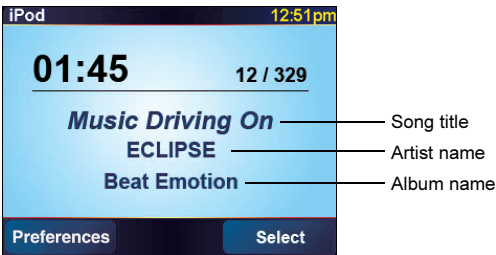


- Song title
- Artist name
- Album name

**2**   **Touch "Playlist", "Artist", "Album", "Song" or "Genre".**

**3** **Touch the name of the music file to be played.**

The selected file in the iPod will be played.
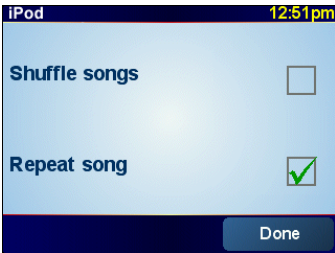If ▲ and ▼ are displayed, you can change the displayed page of the music file list by touching them.
You can search for a file name or the name of an artist by touching "Find".



You can search for a music file by entering alphanumeric characters.



---
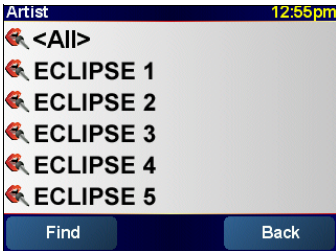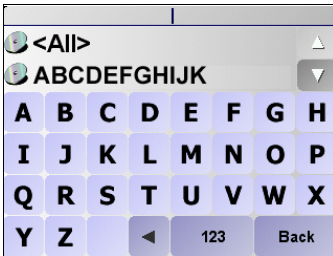
**⚠ *CAUTION***

- Music file in the iPod can be played only when the PND is attached to the main unit.
- When the music file in the iPod is played, if the iPod or PND is removed from the main unit, the mode will be returned to the one previously selected.
- To read the files in the iPod, it may take up 15 seconds.

# How to Operate the Optional Satellite Radio

If the optional XM/SIRIUS satellite radio tuner unit is connected, satellite radio broadcast can be received.

With XM/SIRIUS satellite radio, over 100 channels are available including music, sports, news, and entertainment programs. The channel can be selected from categories such as ROCK and DANCE, or by selecting individual channel manually. Reception of XM/SIRIUS satellite radio is fee based; you have to subscribe to it. It is possible to subscribe through the XM/SIRIUS radio website.

XM radio website:

URL: http://www.xmradio.com

SIRIUS radio website:

URL: http://cdn.sirius.com

## ATTENTION

- For information about the operation and set-up of the XM/SIRIUS satellite radio tuner unit, see the XM/SIRIUS satellite radio unit's owner's manual.
- A total of 24 stations can be memorized: six stations for each of the four groups under SIRIUS and six stations for each of the four groups under XM.

## Selecting the Channel Directly

Once the [FUNC] button is pressed, a channel can be selected by directly entering its channel number.

**1** **Press the [FUNC] button and select "DIRECT CH".**

**2** **Press the [ENTER] button.**

**3** **Press the [SELECT (Right/Left)] button and move the cursor onto the digit where the channel number is to be entered.**

Right: Advance to next digit.
Left: Return to previous digit.

**4** **Press the [SELECT (Upper/Lower)] button, select the numerals for the channel number.**

Press the [SELECT(Upper/Lower)] button to change the the numerals in the following sequence:
0 ↔ 1 ↔ 2 ↔ 3 ↔ 4 ↔ 5 ↔ 6 ↔ 7 ↔ 8 ↔ 9 ↔ 0 ↔ ...

**5** **Press the [ENTER] button.**

# Memorizing Channels

## *Manually setting Channels into memory*

**1** Tune into the station to be memorized.

**2** Press the [MODE] button to select the rotary select mode.

**3** Turn the [VOL] rotary knob to select one of the preset switches P1 to P6.

**4** Press the [ENTER] button for more than one second.

The selected channel will be memorized and the preset number and channel name will be displayed in the display area.
To set additional manually selected stations for the remaining preset channels, repeat this procedure for each preset channel.
Subsequently, when listening to the satellite radio you will be able to tune in to stations by calling up the preset number.

## *Manually Memorizing Channels on the PND Display*

**1** Tune into the station to be memorized.

**2** Press the [SCREEN] button and switch the display to the audio screen.

**3** Touch the preset switch where you want to memorize the station until you hear a "beep" sound.

The selected station will be memorized.
To set additional manually selected stations for the remaining preset channels, repeat this procedure for each preset channel.
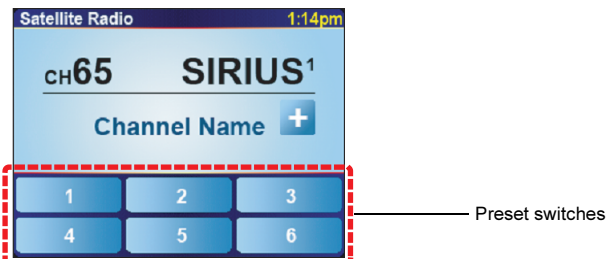Subsequently, when listening to the satellite radio you will be able to tune into stations by touching the preset switch.



Preset switches

If the vehicle's battery is disconnected (for repairs to the vehicle or for removing the main unit), all channels in memory will be lost. In such a case, set channels in memory again.

## Preset Scan

**1** **Press the [FUNC] button until the sub display switches to SCAN, then press the [ENTER] button to confirm.**

"P SCAN" will be displayed and the stations memorized for preset channels P1 to P6 will be called up in order and received for five seconds each.
To cancel the preset scan, press the [FUNC] button.

## Channel Preset Recall

**1** **Press the [MODE] button to select the preset channel mode.**

**2** **Turn the [VOL] rotary knob to recall the station registered for a preset channel.**

**3** **Press the [ENTER] button.**

A total of 24 stations can be memorized: six stations for each of the four groups under SIRIUS and six stations for each of the four groups under XM.

## Switching the Display Information

### *Switching Manually*

**1** **Switch the display information by pressing the [TEXT] button.**

Press the [TEXT] button to change the display item on sub display in the following sequence:
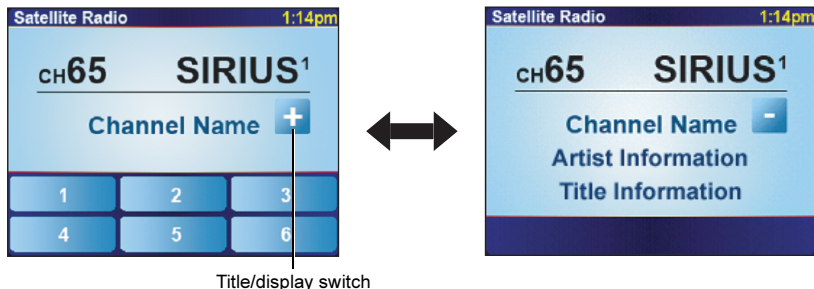channel → category → title → artist → channel No. → channel → ... (SIRIUS)
channel → category → title → name → channel No. → channel → ... (XM)

## *Switching the Display Information from the PND Touch Panel*

**1** **Touch the title/display selection switch to change the screen display.**

Channel, artist, and title information will be displayed.



Title/display switch

📖 ATTENTION

If there is no name, NO_ DATA will appear.

## Displaying XM ID

The XM ID is necessary when subscribing to XM services.

**1** **Press the [FUNC] button to select the XM ID.**

**2** **Press the [ENTER] button.**

The XM ID is displayed.
To clear the ID display, press the [ENTER] button again.

## Displaying SIRIUS ID

The SIRIUS ID is necessary when subscribing to SIRIUS services.

**1** **Press the [FUNC] button to select the SIRIUS ID.**

**2** **Press the [ENTER] button.**

The SIRIUS ID is displayed.
To clear the ID display, press the [ENTER] button again.
If the whole ID cannot be displayed at one time, press the [SELECT (Right/Left)] button
to view the remaining characters.
Left side: First half of the display
Right side: Second half of the display

# How to Operate the Portable Audio Player

Use an optional AUX105 to connect a portable audio player to the main unit.

## Switching the AUX Mode ON and OFF

**1** **Press the [SOURCE/PWR] button for more than one second to turn the audio mode OFF.**

"Audio off" is displayed on the PND display. On the sub display "GOOD BYE" will be momentarily displayed and then "ALL OFF".

**2** **Press the [TEXT] button and [FUNC] button simultaneously for longer than 3 seconds.**

AUX ON ↔ AUX OFF

ATTENTION

When AUX is set to ON ("AUX ON"), the AUX mode is established by pressing the [SOURCE/ PWR] button. When AUX is set to OFF ("AUX OFF"), the AUX mode is not established by pressing the [SOURCE/PWR] button.

# Information You should Know

## If One of These Messages Appears

If any of the following messages are displayed on sub display, check the equipment while referring to the Cause and Corrective action columns.

| Messages | Cause | Corrective action |
|---|---|---|
| CD/MP3 | | |
| INFO 3 | DISCS ARE DIRTY OR DAMAGED | The loaded disc is dirty or upside down. Check it for proper orientation and verify it is clean. |
| INFO 5 | CD PLAYER FAILS MECHANICALLY | The CD player is inoperative for some reason. |
| INFO 6 | WHEN THE CD PLAYER INTERNAL TEMPERATURE IS HIGH (TO PROTECT PICKUP UNIT) | ・The temperature in the CD player is too high for operation. Wait till it cools down.<br>・Resume playing after the "High temperature sensed and CD stopped" display disappears. If the CD still cannot play, have your dealer repair it. |
| INFO 7 | AN INTERNAL POWER SUPPLY FAILURE IS OCCURRING | ・Turn the ACC off once before turning it on once again to resume the operation.<br>・If this condition persists, please contact your dealer. |
| FILE ERR | NO CORRECT FILE IN CD | Confirm the file. |
| USB | | |
| FILE ERR | NO CORRECT FILE IN USB MEMORY | Confirm the file. |
| USB ERR | PROBLEM WITH DATA TRANSMISSION | Confirm connection with USB memory or USB memory standards. |
| XM | | |
| ANTENNA (Flashing) | XM ANTENNA IS DISCONNECTED | Connect the XM antenna. |
| NO SIGNL | XM Satellite RADIO SIGNAL RECEIVING FAILS | Adjust the XM antenna position to receive the satellite signal. |
| LOADING | AUDIO/INFORMATION OF THE CHANNEL | Wait for a moment. |
| OFF AIR | NO BROADCASTING ON SELECTED CHANNEL | Select another channel. |
| CH--- | UNRECEIVABLE CHANNEL OR NO AVAILABLE CHANNEL IN SELECTED CATEGORY | Select another channel. |
| UPDATING | UPDATING THE DECRYPTION CODE | Wait for a moment. |

| Messages | Cause | Corrective action |
|---|---|---|
| **SIRIUS** | | |
| ANTENNA | SIRIUS ANTENNA IS DISCONNECTED | Connect the SIRIUS antenna. |
| LINKING | SIRIUS Satellite RADIO SIGNAL RECEIVING FAILS | Adjust the SIRIUS antenna position to receive the satellite signal. |
| CALL 888-539-SIRIUS | NO SUBSCRIPTION TO THE SELECTED CHANNEL | Subscribe to SIRIUS to receive the service by SIRIUS Satellite radio. |
| SUB UPDATED | SUBSCRIBING FOR THE CHANNEL AND ESTABLISHING THE RECEIVING STATUS | Wait for a moment. |
| INVALID | NO RECEIVABLE CHANNEL | Select another channel. |
| UPDATING | UPDATING THE CHANNEL MAP | Wait for a moment. |
| **iPod** | | |
| READING ... | iPod IS SENDING DATA | Wait until the message disappears before operating. |
| NO DATA | THERE ARE NO MUSIC FILES STORED IN iPod | Check files in iPod. |
| ERROR1 | iPod STOPPED SENDING DATA FOR SOME REASON | Check connection with iPod. |
| ERROR2 | iPod SOFTWARE NOT SUPPORTED | • Make sure that the software for your iPod is the latest version.<br>• Make sure that your iPod model name is listed on the iPC-107's manual (iPC-107 : Sold separately). |

# Before Asking for Repairs

Slight differences in operation can sometimes be mistaken for malfunctions, so check the following table before asking for any repairs.

> ⚠️ **CAUTION**
>
> If a problem occurs, for instance when the main unit does not respond to any button presses, or the display doesn't work correctly, press the [Reset] button using a paper clip or similar item.
> Pressing the [Reset] button will delete all the entries from memory. The settings will return to those made at the factory prior to shipment.

If the following fail to solve the problem, contact the place of purchase.

| Problem | Possible reason | Corrective action |
|---|---|---|
| The screen is dark for a brief period when the power is turned on at low temperatures. | This is a characteristic of LCDs. | This is not a malfunction. Wait for a brief period. |
| The display is distorted for a brief period after the power is turned on. | This is a characteristic of LCD backlighting. | This is not a malfunction. The display will stabilize after a brief period. |
| No sound comes out. | Volume is poorly adjusted or MUTE is functioning. | Turn the [VOL] rotary knob and check volume. Or cancel MUTE. |
| | The music is muted when the PND is attached to the main unit and when:<br>- the voice guidance is performed<br>- talking in hands-free mode* | This is not a malfunction. The music can be heard again when the voice guidance finishes or the hands-free mode is turned off. |
| Sound comes out of only one side (left or right, front or back). | A speaker wire is disconnected. | Check the connections of the speaker wires. |
| | Volume is poorly adjusted. | Check the balance and fader adjustments. |
| Sound quality does not change even after making adjustments. | The adjusted audio quality is not included in the radio broadcast or disc. | Check by changing the radio station or disc. |
| A CD will not go into the deck. | Power is not turned on. | Turn the vehicle ignition switch to [ACC] or [ON]. |
| | A disc is already inserted and you are trying to insert a second disc. | Eject the previously inserted CD and insert the preferred CD. |
| A CD cannot be played. | There is water condensation in the equipment. | Do not use the equipment for a while and then try using it again. |
| | There is a large scratch or warp in the CD. | Insert a different CD. |
| | The CD is very dirty. | Clean the CD. |
| | The CD is upside down. | Insert the CD with the proper orientation. |
| | A non-supported type of CD has been inserted. | Insert a CD that is supported by the deck. |

| Problem | Possible reason | Corrective action |
|---|---|---|
| There is a point of light on the display. | At least 99.99% of the pixels on the LCD panel are effective, but it is possible that 0.01% of the pixels may not light or may stay lighted. | This is not a defect, so please use the equipment in this condition. |

*: Depending on your mobile phone, the mute function may not work correctly. If it doesn't, press the [MUTE] button on the main unit. Also, refer to the ECLIPSE web site whose address is given below for details on applicable phone models. (http://www.eclipse-web.com)

# Specifications

<GENERAL>

| | |
|---|---|
| Power Supply | 13.2V DC (11-16V) |
| Current Drain | 3A |
| Dimensions (whole unit) (W x H x D) | 7" x 4" x 6-1/2" (180 x 100 x 165mm) |
| Weight (whole unit) | 5.5lbs (2.5kg) |
| Dimensions (PND only) (W x H x D) | 4" x 3" x 1" (101 x 76.1 x 23.3mm) |
| Weight (PND only) | 0.4lbs (0.2kg) |
| Operating temperature range (whole unit) | -4°F to 149°F (-20°C to +65°C ) |
| Operating temperature range (PND only) | 14°F to 131°F (-10°C to +55°C ) |
| Storage temperature range | -40°C to +85°C (-20°F to +185°F ) |
| Suitable load impedance | 4Ω |

<DISPLAY>

| | |
|---|---|
| DISPLAY | 3.5" TFT |
| Resolution | 230,400 pixels (320 x 240 x 3) |

<FM TUNER>

| | |
|---|---|
| Frequency Range | 87.75~107.9MHz (200kHz step) |
| Usable Sensitivity | 15dBf |
| 50dB Quieting Sensitivity | 24dBf |
| Stereo Separation | 38dB (1kHz) |

<AM TUNER>

| | |
|---|---|
| Frequency Range | 530~1710kHz (10kHz step) |
| Usable Sensitivity | 22μV |

<CD SECTION>

| | |
|---|---|
| Frequency Response | 20Hz~20kHz ±3dB |
| Wow & Flutter | Below measurable limits |
| Stereo Separation | 80dB |
| S/N Ratio (A-weighted) | 95dB |
| Dynamic Range | 95dB |
| Total Harmonic Distortion | 0.008% |

<USB MEMORY SECTION>

| | |
|---|---|
| USB Interface | 1.1 |
| Frequency Response | 20Hz~20kHz ±3dB |
| S/N Ratio (A-weighted) | 95dB |
| Total Harmonic Distortion | 0.008 % |

<EQUALIZER SECTION>

| | |
|---|---|
| Bass/Mid/Treble Control | ±11dB at 80Hz/±11dB at 700Hz/±11dB at 10kHz/ |

<AUDIO AMPLIFIER>

| | |
|---|---|
| Power Output | 14W x 4 (20Hz~20kHz, 1% THD, 4$\Omega$, Vcc=14.4V) |
| | Max. 50W x 4 |
| Output Level/Impedance | 5V/55$\Omega$ line-out impedance |
| Loudness | +9dB at 100Hz/+6dB at 10kHz |

# How to Contact ECLIPSE

<U.S.A/CANADA>

Fujitsu Ten Corp. of America (Eclipse)
19600 South Vermont Avenue, Torrance, CA 90502
Phone: 1-800-233-2216