



3451 LUNAR COURT, OXNARD CA 93030
PHONE: 805.983.8008
FAX: 805.983.7068

TECHNICAL SUPPORT:
www.soundstormlab.com/support

[www.
soundstormlab.com](http://www.soundstormlab.com)

STM93R
MP3-COMPATIBLE IN-DASH CD RECEIVER
12.2005

USER'S MANUAL



STM93R
MP3-COMPATIBLE IN-DASH CD RECEIVER

CONGRATULATIONS!

Congratulations on your purchase of this Sound Storm CD Receiver.

We hope you enjoy using this product and encourage you to always listen at a moderate, safe sound level to avoid any possible hearing damage or loss. If you listen to excessively loud sound over time, your hearing can adapt to higher volumes and what sounds "normal" to you may be quite harmful and can cause you to have permanent hearing loss. So please practice "safe sound" and always listen at moderate sound levels only.

Start with your volume control at the lowest setting, and slowly increase the level until you can hear it comfortably and clearly, free from distortion. Once you have established this comfortable sound level, leave it there.

ABOUT THIS MANUAL

Please read this manual thoroughly and save it for future reference. This CD receiver incorporates many sophisticated functions which may enhance your listening experience. Without reading the manual, you might miss a few, so please take the time to read and understand all the product's capabilities.

A NOTE ABOUT CD-R/CD-R/W

In addition to commercially-recorded audio CD's, this unit can play CD-R and CD-R/W discs. In some cases, particularly when recorded on older CD burners, some CD-R and CD-R/W discs may not play. Also, whenever you are recording a CD for playback in this receiver, it is recommended that you record at 24x or slower speed for CD-R and 4x or slower for CD-R/W to achieve higher signal quality and better playback performance.

SPECIFICATION

GENERAL

Supply Voltage	DC 12 V. Negative Ground
Current Consumption	Max.7A
Power Output	50Watts X 4.
Number of channels	2 STEREO channels.
Unit Dimensions	178[W] X165[D] X 50[H] mm.

FM SECTION

Frequency range	87.5MHz -107.9MHz
Effective sensitivity	3uV.
I.F Frequency	10.7MHz.

AM SECTION

Frequency range	530KHz - 1710KHz
Effective sensitivity	40dB.
I.F Frequency	450KHz

RCA LINE OUT (OPTION)

Output	5 Volt @ CD MAX.
--------	------------------

CD PLAYER

System	MP3 Audio System.
Suitable CDs	MP3, CD, CD-R, CD-RW Disc
Frequency characteristics	20Hz-100Hz ≤ 5dB 10KHz-20KHz ≤ 5dB.
S/N Ratio to CD	50dB [1KHz]

Fig. 1

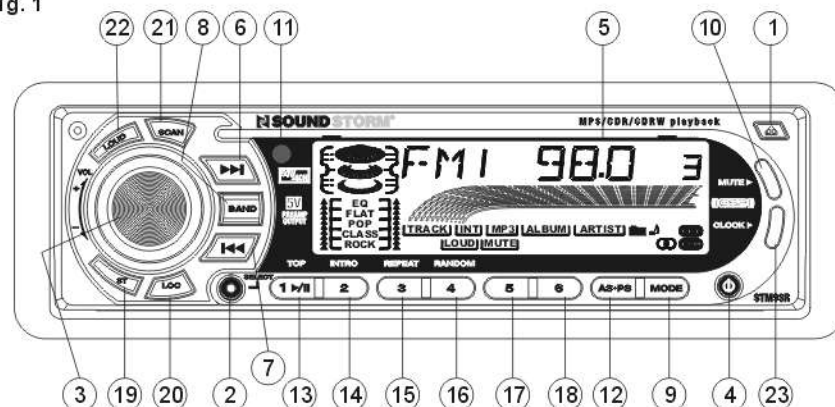
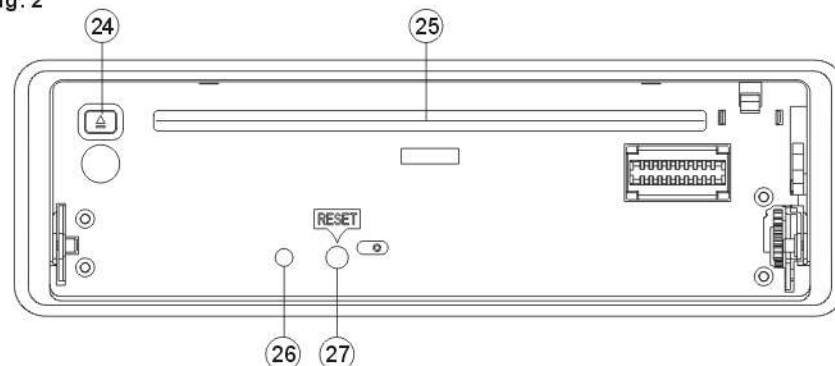


Fig. 2



1. OPEN BUTTON

To remove and/or insert a CD, press the OPEN button to fold-down the front panel. To insert a CD, place it in the slot. To eject a CD, press the EJECT button.

If you wish to remove the front panel, once is it folded down in this manner, pull the front panel forward to remove it.

2. SELECT BUTTON

Push this button to step through the various adjustment parameters, such as VOLUME, BASS, TREBLE, etc. When you stop at a given adjustment parameter, the unit will wait for approximately 5 seconds for you to enter or change a value with the main knob, and then return to the tuner or CD playback mode.

3. VOLUME KNOB

During tuner or CD playback, turning this knob will increase or decrease the volume level. It also serves as the encoder for adjusting the various parameters accessed by pressing the SELECT button.

- b. Pressing and holding the SELECT button for more than 2 seconds will cause the unit to scroll through the following functions. If you wish to change a function's setting, select it and use the VOLUME knob to change to another setting.
- BEEP** The setting choices are:
- BEEP 2ND Unit beeps when a two-function button is pressed for one second, indicating that the secondary function for the button has occurred.
 - BEEP ALL A beep occurs when any button is pushed.
 - BEEP OFF Beeping is disabled for all buttons.

SEEK The setting choices are:

- SEEK 1 Press and hold the << or >> button. The radio tunes up or down and stops seeking when station with a strong signal is found.
- SEEK 2 Press and hold the << or >> button. The radio scans until you release the button and stops on the next available strong station.

DSP (OFF/POP/ROCK/CLASSIC/FLAT)
When you have selected DSP, use the VOLUME knob to select the EQ preset you prefer.

VOL LAST/VOLADJ
This setting controls the volume level you hear when the unit is first turned on. You can select either VOL LAST (the volume setting when the unit was last turned on) or VOLADJ (a preset volume level).
To enter the volume level for VOLADJ, simply adjust the volume to the desired level when in this programming mode.

ESP 40/10 seconds:
Briefly press the SEL button to access the ESP function (anti-shock system which improves playback if there are shocks or vibrations); you can choose between two lengths of time for ESP, either 40 seconds (ESP 40) or 10 seconds (ESP 10) by rotating the VOLUME knob.

- 4. POWER ON/OFF**
When the CD receiver is turned off, pressing any button (except OPEN or EJECT) will turn on the unit. It will also power on when a disc is inserted.
To turn the unit OFF, press and hold the POWER button for about one-half second or longer.

TROUBLE SHOOTING

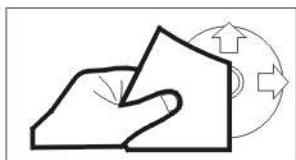
Before using the check list please make all the connections first.
If you still have questions after going through the checklist, please consult your local customer service representative.

Common Symptoms	Cause	Solution
There is no power.	The car ignition is switched off.	If the power supply is properly connected to the car accessory, switch the ignition key to "ON" or "ACC".
	The fuse has blown.	Replace another fuse according to the wiring diagram.
The CDs cannot be loaded.	A disc is inside the player.	Remove the disc in the player then put a new upward
The CDs are loaded only halfway into the CD tray.	The transport screws have not been removed.	Remove the transport screws before using.
The device does not work correctly (EJECT, LOAD, PLAY)	The disc is inserted upside-down.	Insert the compact disc with the label facing upward
	The surface of CD is extremely dirty or it is damaged.	Clean the CD or try another CD, if this works correctly, the first CD is properly damaged.
	Temperature inside the car is too high.	Cool off until the ambient temperature returns to normal
There is no sound.	The volume control is set too low.	Turn up the volume properly.
	The device has not been correctly connected.	Check the power and earth connection according to the wiring diagram.
The operation keys do not work	1. The built-in microcomputer is not operating properly due to noise 2. The front panel is not properly installed.	1. Switch the device off and on again. Or press the RESET button to resume the program. 2. Reinstall the front panel
The sound of the CD player skips	The installation angle is more than 30 degrees	Adjust the installation angle to less than 30 degrees
	The surface of the road is uneven.	Wait until the road becomes smoother before playing the CD.
	The surface of CD is extremely dirty or it is damaged.	Clean the CD or try another CD, if this works correctly, the first CD is properly damaged.
No radio reception.	The antenna cable is not connected.	Insert the antenna cable firmly into the antenna socket of the device.
In automatic search mode the radio does not stop at a transmitting station.	The transmission signals are too weak.	Tune in to a radio station manually.

PRECAUTION OF DISC PLAY:

Cleaning the CD:

Before playing a CD, wipe it off with a clean, dust-free cleaning cloth.
Wipe the disc in the direction of the arrow.



Always insert the CD with the label side facing upwards.

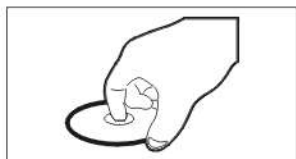
If the CD is inserted with the printed side facing downwards, the device may be damaged.



Note: If there is already a CD in the CD slot, do not try to insert a second CD.

This may damage the device.

Always hold CDs by the edge. In order to keep the CD clean do not touch the surface.
Pull out the CD as shown below.



Do not attach any sticker or adhesive tape on the CD.

Do not expose the CD to direct sunlight or sources of heat such as heating vents.

Do not leave CDs in a car if it is parked in direct sunlight as that will lead to a considerable rise in the temperature inside the car.

Note: Do not use any solvents such as petrol or thinning agents.

Commercially available cleaning substances or antistatic spray. This will damage the device.

5. LCD Display

6.7. TUNE, SEEK, TRACK, SKIP UP / DOWN BUTTONS

a. In RADIO (TUNER) MODE:

Press and quickly release the I<< or >>I button to manually tune up or down to a desired station in a step by step manner. Press and hold either button to allow the unit to scan up or down to locate the next strong station on the dial.

b. During CD/MP3 playback, press and quickly release the >>I button to play the next track. Press the I<< button to restart playing the currently playing track. Press the I<< button twice to play the previous track. Pressing either button will make the CD player skip forward or backward to the next tracks.

8. BAND BUTTON

This receiver permits you to have station 18 FM presets, arranged in three groups (FM1, FM2 and FM3) and 12 AM presets (AM1 and AM2).

Use the BAND button to scroll through these five groups or to change the reception from AM to FM tuning bands.

In MP3 disc mode, if you press BAND button repeatedly, the file name, folder name, song's title, artist and album information will be scrolling on the LCD display.

As long as the current playing MP3 music contains relevant ID3 tag information in version 1.0/2.0 format, the 3 items underlined above will be scrolling on the LCD display; otherwise, they will not.

In CD & MP3 mixed-formatted disc playback mode, pressing the BAND button for more than 2 seconds will change between the playing the CD and MP3 formatted songs.

In a default mode, the unit will first play all the CD formatted songs and then play the MP3 formatted songs.

9. MODE BUTTON

When a disc is present in the CD slot, pressing the MODE button will allow you to change to RADIO mode (and back). The LCD display information changes with the mode (please note: when no disc is present in the unit, this button does not provide a function).

10. MUTE BUTTON

Press the MUTE button to silence the receive. Press again to return the receiver volume to the level at which you were last listening.

11. INFRARED REMOTE CONTROL SENSOR

12. AS·PS BUTTON (Auto-storage /Preset scan)

During radio mode:

- 1) When pressed and held for several seconds, the tuner will search and store the first six strong stations as presets.
- 2) When you press the button once it will scan the presets for 5 seconds and then move to the next station.

MP3 SEARCH MODES:

This unit allows you to search for songs by three different methods: TRACK SEARCH, FIRST CHARACTER SEARCH or DIRECTORY SEARCH.

In all modes, you use the VOLUME knob to make choices, and the SELECT button to enter these choices.

To select the desired search mode, press the AMS button to step through the three methods and stop when the desired search method name is displayed.

In TRACK SEARCH mode, a three digit number will be displayed, indicating the number of tracks the unit has detected are present on the disc. By changing this number, a particular track can be identified. After the total track count is displayed, turning the VOLUME knob will change the number in the "hundreds" place. To select this number, press SELECT. Turning the knob again changes the number in the "tens" place. After pressing SELECT again to confirm this number, repeat for the "ones" place. Pressing SELECT one last time will start playback of this track.

In FIRST CHARACTER SEARCH mode, the display will first show the first letter used in the name of the first of your tracks when listed alphabetically. To select a different first letter, turn the VOLUME knob until you reach the right one. Use the << and >> buttons to move through the various tracks available starting with that letter. Press SELECT to begin play of a desired track.

In DIRECTORY SEARCH mode, the root folder will be visible in the display. Use the VOLUME knob to move to the desired folder. Press the << or >> to move to the desired track in the folder, and SELECT to play this track.

13-18. PRESET STATION MEMORY AND TOP/ >|| , INT, RPT, RDM BUTTONS RADIO MODE:

The six PRESET buttons are used to program (and later, to select) memorized radio stations. To create a preset, simply tune the radio to a desired station and press and hold the button for about 2 seconds. To play it later, press and release the same button later. Please note that you can set FM presets in three different groups (FM1, FM2 and FM3) and in two different AM groups (AM1 and AM2).

CD MODE:

The TOP/ >|| button is used to either PAUSE the playback (when you press and release quickly) or to begin playing the first track on the disc (press and hold for more than 2 seconds).

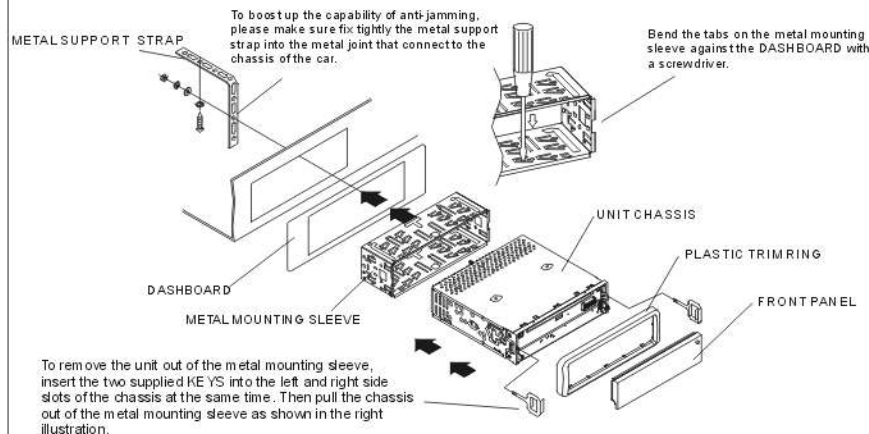
In CD mode, press and release the INT ("Intro") button to play the first 10 seconds of each track. When you hear a track you like and want to play the entire track, press INT again. (In MP3 mode, the INT function plays the first 10 seconds of each track within a particular folder.)

Pressing RPT will cause the currently playing track to repeat until cancelled by a second press of the RPT button. (In the MP3 mode, pressing and holding this button for more than one-half second will cause the songs in a particular folder to repeat until a second press of the RPT button).

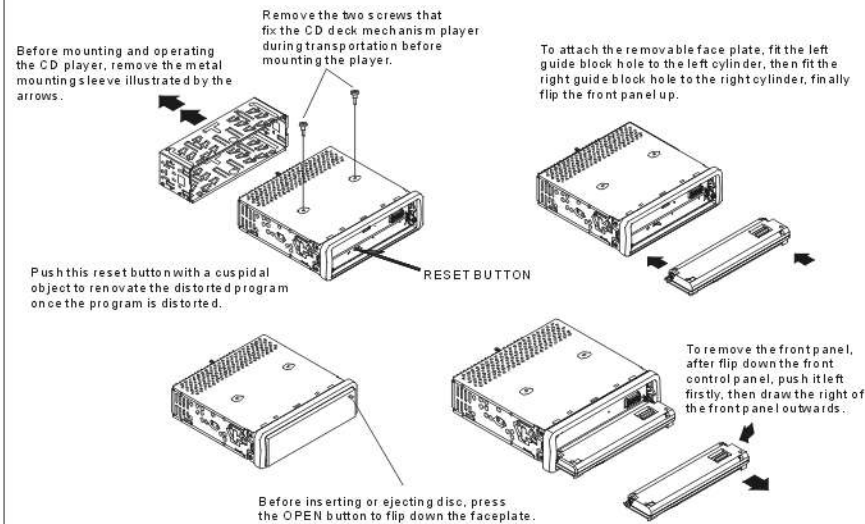
INSTALLATION METHOD

This diagram shows the anti-theft installation method. With this installation, the main unit is installed within a metal mounting sleeve.

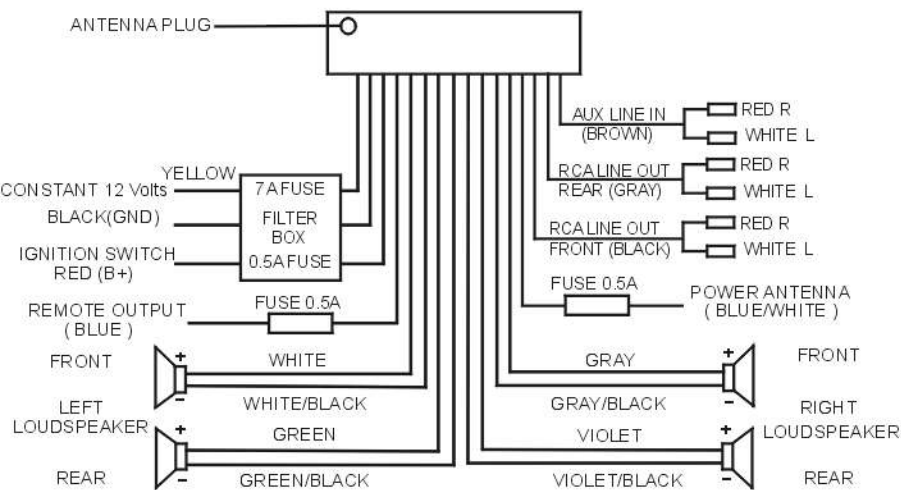
Please connect the wiring, eg, the Power Supply, the Speakers and the Antenna according to the requirements of this Instruction Manual, then install the metal mounting sleeve into the car as per the diagram illustrated below.



NOTE



WIRING DIAGRAM



Note:

1. Make sure use ONLY speakers with 4 ohm load impedance.
2. Do not allow the auto antenna wire and ground touch each other.

To play all the tracks on a disc in random order, press the RDM button. (In MP3 mode, you can press and hold this button for more than one-half second to initiate random play of all tracks in a particular folder). Press again to cancel random playback mode.

To move up or down ten tracks at a time (in either CD or MP3 modes), use the 5 (-10) or 6 (+10) button.

19. ST/MO BUTTON

In radio mode, press the ST briefly to select stereo or mono sound mode.

20. LOC BUTTON

If FM reception is of low quality, press the LOC button to change the attenuation level of the receiver. This sometimes helps the receiver to perform better in challenging environments where the stations are very close together or very strong, or if the signal is very distant.

21. SCAN BUTTON

Press the SCAN button to initiate scanning of the radio band. When a strong signal is detected, its frequency will be displayed in a blinking pattern for five seconds. To select this station, press SCAN again. If you do not select the currently blinking station frequency, after 5 seconds the radio will continue scanning until the next strong signal is found.

22. LOUDNESS BUTTON

Press the LOUD button to engage the Loudness function. This audio function boosts bass frequencies when the volume level is low. Press LOUD again to cancel.

23. CLOCK BUTTON

To view the current time, press the CLOCK button, where it will display for 5 seconds and then revert to the current unit mode. During the period when the time is displayed, you can change the time by pressing CLOCK again, then adjust the hour and minute by rotating the VOLUME knob.

24. EJECT KEY

When the unit is turned on and a disc is present in the player slot, press the EJ button to eject the disc.

25. CD SLOT

26. FLASHING LED

When the front control panel is removed this indicator flashes.

27. RESET BUTTON

After installation, or anytime the unit is disconnected from power, you may need to reset the unit. Use a small pointed object (such as a pen) to press this button. Doing so will erase the clock setting and some of the other stored settings.

OPERATION OF REMOTE CONTROLLER:

NOTE:

Before you use the remote control, be sure to turn on the unit by pressing the POWER button on the front panel.

1. Power On/Off.

2. Mute Button

3. Loudness Button

4. Level/MENU UP Button

5. SEL/MENU Button

6. Level/MENU Down Button

7. MO/ST Button

8. A.P Button

9. Band Button

10. Mode Button

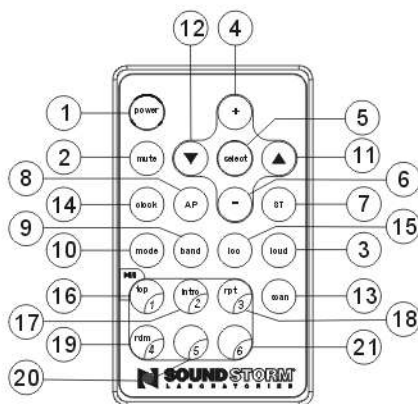
11. Tune/Seek Up And
Track Skip Up/FF Button

12. Tune/Seek Down And
Track Skip Down/REW Button

13. SCN Button

14. Clock Display /Setting Button

15. LOC Button



16. CD Track TOP/►/Radio Preset 1

17. CD Track INT/Radio Preset 2

18. CD Track RPT/Radio Preset 3

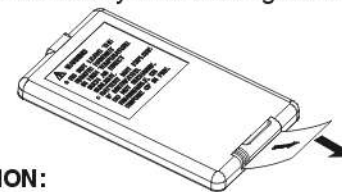
19. CD Track RDM/Radio Preset 4

20. Radio Preset 5

21. Radio Preset 6

MAINTENANCE OF REMOTE CONTROLLER

Before using the remote controller, pull out the insulating patch. This patch was installed to insulate the battery from draining until ready to use.



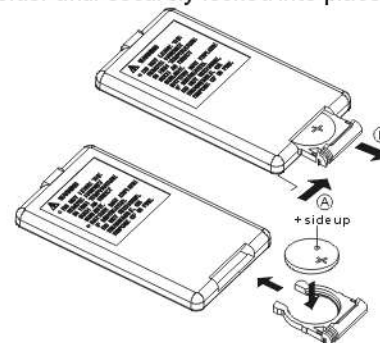
BATTERY INFORMATION:

Lithium Battery: CR2025 3V

Battery Life: Approximately 6 months.

Replacing the Battery from the Remote Controller:

- 1) Remove the battery holder by pressing the locking tab with your thumb and pulling it out.
- 2) Replace the battery with the same type and the “ + ” side facing up.
- 3) Gently push in the holder until securely locked into place.



WARNING:

- Do not recharge, disassemble or dispose of in fire.
- Battery leakage may cause damage to the unit.
- To avoid the risk of accident, keep batteries out of reach of children.