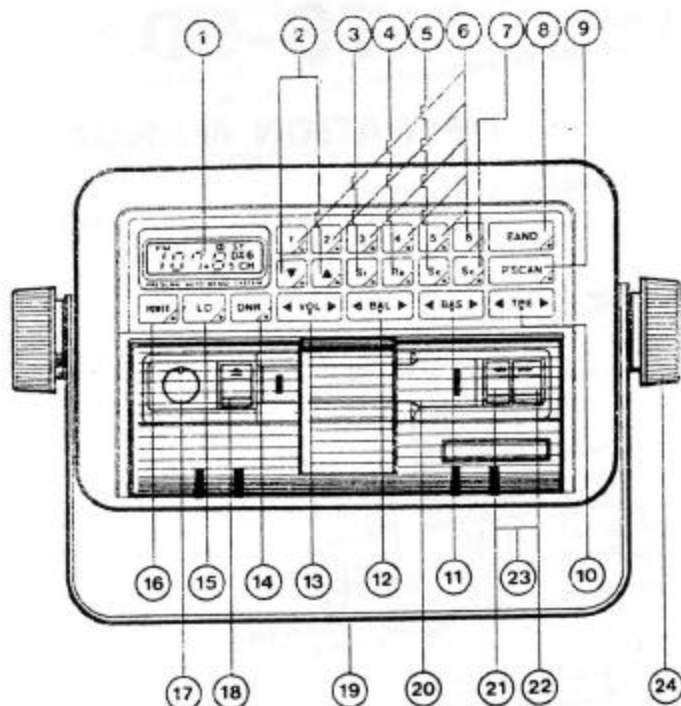


SI-TEX TS-90 Marine Stereo Operation Manual

CONTROL & INDICATIONS



1. Dual Color Multi Function LCD Display
Indicates all the functions that are being used and color changes at tape mode (green) and radio mode (orange).
2. Manual Down/Up Fine Tuning (▼) (▲)
Pushing these buttons increments and decrements the receiving frequency by one step each respectively. When the switch is held pressed for 0.5 seconds or longer, the microprocessor keeps scanning the band at fast speed until the button is released.
3. Stereo/Mono Switch (ST)
Under normal conditions the unit is operated in stereo mode. During reception of weak or noisy FM stereo signals, push the switch off to decrease the unwanted noise.
4. Clock/Frequency Switch (RE)
Press to select clock or radio frequency display.
Clock Adjustment: To adjust clock, first press RE switch to select clock display and then press both RE switch and manual tuning down ▼ for hour adjustment or up ▲ for minute adjustment.

5. Auto LO/DX Seek Switch (SE)

- *Press this button to seek the next higher station in LO mode and lock on that station. If the starting frequency is reached without finding a station, it skips the starting frequency and restarts the search in DX mode.
- *Press the button twice to search for the next higher station in DX mode if a station is found, it will lock on that station.

6. Preset Memory Buttons

Press the buttons to preset memories and recall preset memories. To preset memory without using auto memory function, select a desired station by seek or manual up/down and then press the preferred channel number for 5 seconds until the broadcast sound is heard at normal volume. Station is now programed and selected station is displayed in LCD.

7. Auto Scan Switch (SC)

Press the button to scan to the next higher station and it will be held for 5 seconds only. Press the scan switch again, it will lock the received frequency.

8. Band Switch (BAND)

Select desired band by pressing band switch (MW, FM1, FM2)

9. Preset Scan/Auto Memory (P'SCAN)

*Push the button and release it in less than 2 seconds, it starts preset scanning starting at the present station following the current preset station if one is being received. It holds the station for 5 seconds, then proceeds to the next preset station. If the desired station is found press the button again and it will lock on that station.

*Push the button for 2 seconds or longer, it starts searching for stations in LO mode in the up direction starting at the preset station following the currently received preset station. It writes any detected stations into memory channels until all channels are filled. If any memory channels remain empty, it will search again in DX mode until all memory channels are filled.

10. Treble Control (TRE)

Press the ► key to increase the treble and ◀ key to decrease the treble.

11. Bass Control (BAS)

Press the ► key to increase the bass and ◀ key to decrease the bass.

12. Balance Control (BAL)

Press the ► key to increase the volume of the right speakers and ◀ key to increase the volume of the left speakers.

13. Volume Control (VOL)

Press the ► key to increase the volume and ◀ key to decrease the volume.

14. DNR Switch (DNR)

Dyanmic Noise Reduction for tape & radio.

15. Loudness Switch (LD)
Push the switch on when listening at low volume levels for proper sound balance relative to human ear sensitivity.
16. Power Switch (POWER)
Press the switch to turn on and press again to turn off the unit.
17. Fader Control (FAD)
Clockwise rotation increases volume of the rear speakers and counter clockwise rotation increases volume of the front speakers.
18. Eject Button (▲)
Push the button to eject cassette tape.
19. Mounting Bracket
20. Cassette Tape Slot
Insert the cassette tape here and make sure the tape opening is on the right hand side.
21. Locking Rewind Button (◀◀)
Push (◀◀) button to rewind the tape. The button will lock in. To release locked rewind button, lightly press the fast forward (▶▶) button to release locked rewind button.
22. Locking Fast Forward (▶▶)
Push (▶▶) button to fast forward tape. The button will lock in. To release locked fast forward button, lightly press the rewind button.
23. Program Selector (◀◀ ▶▶)
Push both rewind and fast forward buttons at same time to change from side A to side B or vice versa before the end of the tape is reached.
24. Knurled Knob

INSTALLATION INSTRUCTION

Caution:

Read the installation instructions before attempting installation. This unit is for use on 12V negative ground systems only. Any other voltage or polarity will damage the unit.

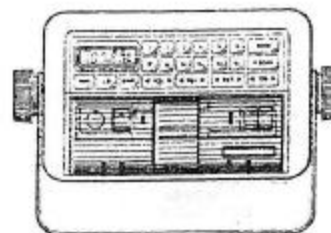
Mounting the Main Unit

The main unit should be mounted where the display can be easily monitored and operated, and should also be protected from direct sun-light, direct water splash and high temperatures.

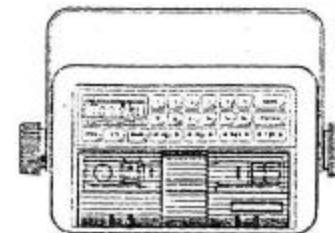
The main unit should then be mounted to the bracket by the knurled knobs on each side.

Typical mounting method

On-Dash Mount



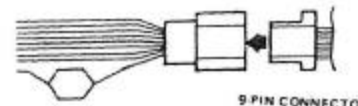
Ceiling Mount



Note:

1. The location where the main unit is mounted should have enough space in the rear for antenna and power cable connection.
2. Place the main unit as far away from any magnetic equipment as possible, for example, compass.
3. Whenever the main unit is removed from the bracket, be sure to disconnect the power and antenna cables before it is removed, and keep dry.

ELECTRICAL CONNECTIONS



ANTENNA CONNECTION

Connect an antenna to the antenna receptacle on the rear of the set. Recommended length of antenna for proper reception of FM broadcast is 71cm (or 28 inches).

POWER SOURCE CONNECTION

Caution:

1. This player works only on NEGATIVE GROUND SYSTEM with 12 volt battery.

For correct polarity, use the attached cable only to prevent damage to your unit.

RED fused lead wire (+) To acc. switch (+) 12V
VIOLET fused lead wire To (+) terminal of battery

BLACK lead wire (-) To be grounded to any unpainted part of your boat

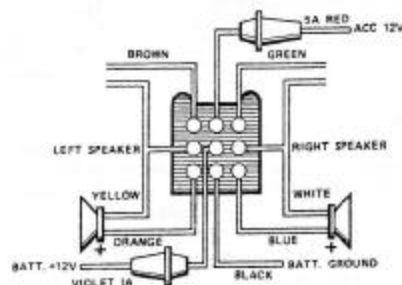
2. This unit requires idle current of as low as 10mA to maintain present status of the receiver from previous operation through the VIOLET wire (+12V battery) directly connected to the battery.

To avoid this idle current, the VIOLET wire can be combined with the RED wire (+12V switch) for supply through the main power switch.

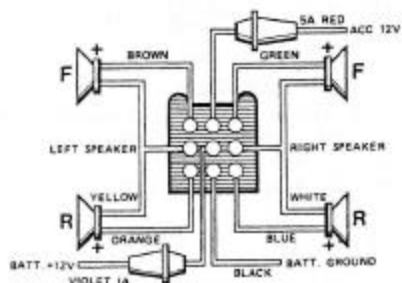
SPEAKER CONNECTION

Caution:

Do not connect any speaker wire to ground or boat body.



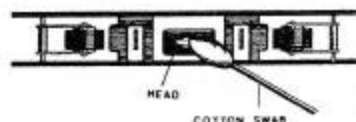
SPEAKER Z-4 OHM
2 SPEAKER SYSTEM



SPEAKER Z-8 OHM
4 SPEAKER SYSTEM

CARE AND MAINTENANCE

1. After a period of use it will be found that the quality of tape reproduction is deteriorating steadily. If no action is taken, a stage may be reached where there is almost complete loss of output on one or both channels. This is due to the build-up on the tape head of small particles of the tape material. To ensure high quality reproduction, the tape head should be cleaned regularly (about every 20 hours of playing time). Insert a special head cleaning cassette into the tape compartment and allow it to run a few minutes to remove any foreign matter. A soft cotton swab moistened with alcohol or special head cleaning fluid may also be used to clean the tape head.
2. C-30, C-60 & C-90 tapes are recommended. Avoid the use of C-120 tape which is too thin and easily tangles up the tape mechanism.
3. Before inserting a cassette tape into the unit, look through the cassette window to make sure there is no excessive slack (loose turns). If necessary, insert a pencil or similar object into the reel hub and rotate to take up the slack.
4. Do not tamper with the tape head, or place any metallic object into the cassette tape slot.
5. Avoid touching the exposed portion of the tape.



SPECIFICATION

FM SECTION

Tuning Range	87.9 — 107.9 MHz
Sensitivity	12 dB (S/N 30dB)
S/N Ratio	50 dB
IF Rejection	70 dB
Stereo Separation	30 dB
Image Rejection	40 dB

AM SECTION

Tuning Range	530 — 1,610 KHz
Sensitivity	39 dB (S/N 20dB)
S/N Ratio	45 dB

TAPE SECTION

Cassette Mechanism	Auto Reverse
Tape Speed	4.75 cm/sec
Wow & Flutter	0.19% WRMS
S/N Ratio	45 dB
Channel Separation	30 dB
Cross Talk	35 dB

GENERAL

Max. Output Power	20W + 20V
Speaker Impedance	2 x 4 ohms, 4 x 8 ohms
Power Supply	12.0 V — 14.4 V
Max. Line Output	500 mV
Idle Current Consumption	10 mA
Dimensions	170(W) x 105(H) x 203(D) mm

Specifications and feature are subject to modification without previous notice due to improvements.
DNR is a trademark of National Semiconductor Corp.

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