

WALK-THROUGH METAL DETECTOR



OWNER'S MANUAL

MODEL TS-2000



SUNS International, LLC

1. Introduction

The SUNS TS-2000 is a high-quality walkthrough metal detector that provides superior metal discrimination and detection. It is ideal for use at airports, industrial sites, government buildings, schools, hospitals, conferences, sport events, or anywhere you need security. It features advanced circuit automatically suppresses or eliminates electrical interference associated with x-ray devices, video monitors and communications equipment, helping to reduce the likelihood of nuisance alarms and improving traffic throughput. A bright, highly visible LED (Light Emitting Diode) bar graph and lights indicating ready and alarm conditions make it easy for the operator to interpret operating information. The LCD with backlit for easy viewing, located in the overhead panel, reports operational information, such as password, volume and sensitivity setting etc.

2. Description:

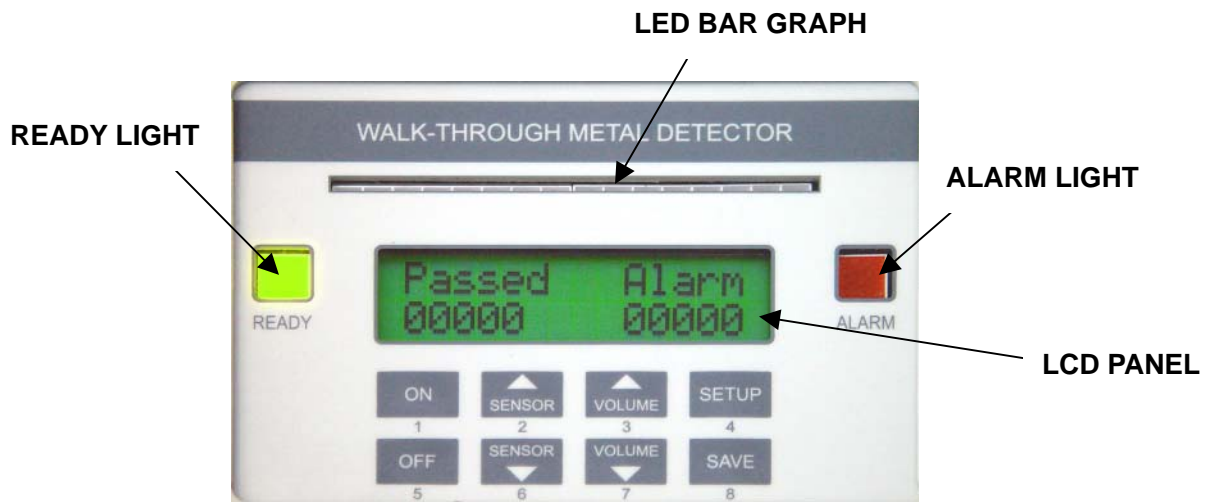


Figure 1

2.1 DISPLAY PANEL

2.1.1 LED BAR GRAPH

This LED display at the top of the Control Panel indicates the detection intensity which is based on the amount and composition of metallic objects passing through the unit.

2.1.2. READY LIGHT

This green light appears when full power has been turned on and the unit is ready to operate. The light will also indicate when an individual inspection has been completed by the unit and it is ready to accept the next person. Operators should make certain the green light is visible before any individual is permitted to pass through the detector.

2.1.3. LCD PANEL

Large alpha/numeric LCD below the Bar Graph reports all operating and setup information of the unit.

2.1.4. ALARM LIGHT

This red light appears when the unit detects a targeted amount of metal on an individual, according to Sensitivity level setting.

2.2 TouchPads

2.2.1 ON

Whenever this touchpad is pressed, the SUNS TS-2000 activates all circuits, initiates a self-test and places the unit in the Operating Mode within (60) seconds.

2.2.2 OFF

When this touchpad is pressed, the unit turns off.

2.2.3 SENSOR - SENSITIVITY ADJUSTMENT

When this touchpad is pressed, the sensitivity level can be increased or decreased and the actual sensitivity setting will be displayed (1-99).

2.2.4 VOLUME

When this touchpad is pressed, the volume level of the unit's audible alarm will be shown on the LCD display (0-9) and the actual volume of the alarm will be heard.

3. INSTALLATION INSTRUCTIONS

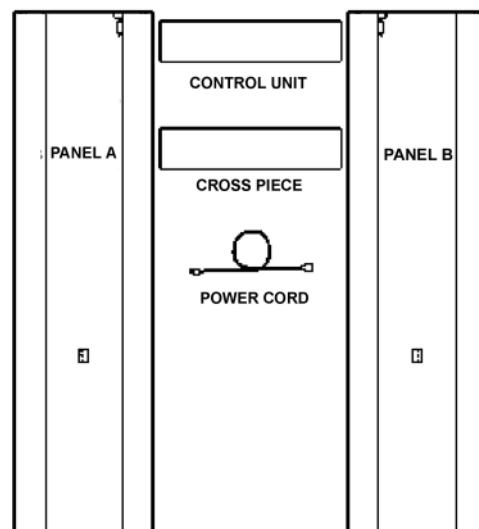
3.1 Site Selection

The SUNS TS-2000 walk through metal detector should be located on a level, stable floor with no large metal items within three (3) feet. Any nearby large metallic object can interfere with operation of the detector. Moving metallic objects, such as an escalator or revolving door, close to the detector can cause false alarms. Such alarms can also be caused by electrical interference from radio telephones, television monitors, powerful electronic motors and transformers, power cables and control circuits.

Special built-in circuitry is designed to suppress much of this electronic noise, especially X-ray monitor horizontal synchronization signals and closed circuit television. The site for a SUNS TS-2000 should be selected with requirements for its pedestrian traffic and use in mind; i.e. space for waiting lines, operators and areas for hand-scanning. Although the detector is effective with traffic moving in either direction, best results are obtained when traffic enters from the side opposite to the control touchpads and LCD display. Locate the archway where it will not be subject to rain, mist or condensation. Protect the power cable from pedestrian as well as vehicular traffic.

3.2 ASSEMBLY

1. Lay out the major pieces of the SUNS TS-2000, as shown at the right.
2. Connect Power Cord to the control unit.
3. Place the styrofoam packing material on floor and lay the Control Unit on it with the touchpad panel facing down. Use four (4) of the Screws and Finishing Washers to connect the Detection Unit to Panels A and B. Do not tighten.



4. Open door of the Control Unit and, first connect two RS-232 connectors to left and right panel. If the main power supply comes from top, you can connect the power cord directly from control unit to power supply. If the power supply is close to floor, you need to decide which panel to connect. (Both panels are prewired). Plug the power cord to the side of panel of your choice and connect the another power cord from bottom of the panel you choose to the main power supply as illustrated below.



inside control box



connect to main power supply

5. Use the remaining screws and washers to attach the Crosspiece to the two panels.
6. Tighten all four screws securely with a slotted screwdriver.
7. With two or more people lift to a vertical position and move to location.
8. Check for stability of unit, which is important for proper operation and safety. If the floor proves to be uneven, either shim a corner or slightly loosen the screws connecting the Detection Unit and Overhead Crosspiece to the Side Panels and adjust as necessary.

4. OPERATIONS

4.1. Basic Start Up Operation

1. Turn the unit on by momentarily pushing the “ON” button on the touch panel. The unit will power up and begin a self-diagnostic check. “SUNS” will be displayed. It takes about one minute for SUNS TS-2000 to go through self-test. LCD will also display a timer count down from 60 second during this test. Push the “OFF” button will turn off the unit.
2. When self-test is completed, LCD will then display the number of people passing through the gate and the number of alarm activated. Green ready light is on, it is ready for individual to pass through metal detector. There are one set of red and green LEDs on the entrance side also.



Entrance side

4.2 Setting Adjustment

Press “SETUP” button, the LCD displays “INPUT PASSWORD”. Enter “2367” (factory preset password) to enter adjust mode.

4.2.1 Sensitivity and Volume Adjustment.

Press “SENSOR ” to increase sensitivity or “Sensor ” decrease sensitivity. The adjustable range is from 0-99. Use a testing piece similar in size, shape and composition to the smallest forbidden target to test the setting.

Press “VOLUME ” to increase volume or “VOLUME ” decrease volume. The adjustable range is from 1-9. Press the “SETUP” to go to next setting options or press “SAVE” to save and exit user setting menu.



4.2.2 Infrared Detector and Alarm Sound Adjustment.

Press “SENSOR ” or “Sensor ” to turn on or turn off Infrared Detector. Press “VOLUME ” to increase pitch of alarm or “VOLUME ” decrease the pitch of alarm. Press the “SETUP” to go to next setting options or press “SAVE” to save and exit user setting menu.

4.2.3 Change Password

If you don't want to change password, press “SETUP” twice to go to next menu. To change password: Enter a four-digit password (use only combination of 2, 3, 6, 7. Can repeat same number). Press the “SETUP” to go to next setting options or press “SAVE” to save and exit user setting menu.

4.2.4 Reset to Factory Setting

Press “SENSOR ” or “Sensor ” to select factory setting or keep your setting (USER Setting). Press “VOLUME ” or “VOLUME ” zero the counter or keep no change to the counter.



4.2.5 Complete Setting

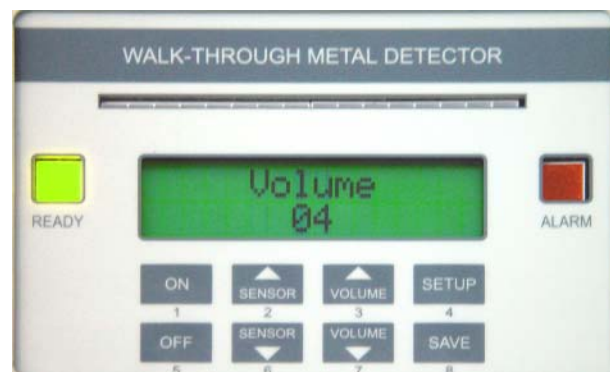
Press “SAVE” to complete setting adjustment and exit to normal operation mode. If you would like to cancel the changes you just make, press “SETUP”.

4.3 Operator Setting Adjustment

This unit allow operator to adjust the volume and reset the counter without need to enter password.

4.3.1. Counter Reset

Press button 6 “Sensor ” for 5 seconds to enter counter reset mode. Press button 2 “Sensor ” to toggle from “Counter Keep” to “Counter Clear” and then press “Save”



4.3.1. Volume Adjustment

Increase volume: Press button 3 “VOLUME ” for 5 seconds to enter volume adjustment. Press button 3 “VOLUME ” again to increase the volume. Press “Save” to save the setting.

Decrease volume: Press button 7 “VOLUME ” for 5 seconds to enter volume adjustment. Press button 7 “VOLUME ” again to decrease the volume. Press “Save” to save the setting.

4.4. Detection

If the metal object carried by the individual is bigger than the minimum size of metal allow for the setting, alarm will be sounded and read Alarm LED will be on and “NO ENTRY” will be display on the LCD panel. Entrance side LED will turn red.

5. MAINTENANCE & REPAIR

5.1. Periodic maintenance

Periodic maintenance of the equipment requires only inspection for loose or damaged parts and cleaning of the exterior surfaces.

- *Open the access door of the Detection Unit and check that all connectors are snapped securely and that all screws and nuts are in place.
- * Inspect the windows of the IR Sensor to make certain they are not blocked in any way.
- * Check to make certain that the eight (8) screws that attach the Crosspiece and Detection Unit to the Panels are in place and tight.
- * Check to make certain that the archway sits flat on the floor and does not sway or rock.
- * If the power cord is at floor level, check for frayed or broken wires. Replace immediately.
- * Clean exterior surfaces with mild soap and water only. If a solvent is necessary for heavy cleaning, use only denatured alcohol.

Test the detector daily, or whenever the environment changes.

5.2. Repair

There are no user-adjustable controls inside the unit.

Should the equipment ever fail to perform properly, contact the seller for the name of the nearest field service representative, or contact the factory.

6. TECHNICAL SPECIFICATIONS

6.1 Dimensions

- Passage Interior: Width: 30" (0.76m) Height: 80" (2m) Depth: 23" (0.58m)
 - Overall Exterior: Width: 35" (0.9m) Height: 87" (2.2m) Depth: 23" (0.58m)
 - Shipping: Width: 35.5" (0.9m) Height: 92" (2.3m) Depth: 6.5" (0.17m)
- Shipping Weight: 143 lbs (65 kg)

6.2 Operating Conditions

Temperature: -4°F (-20°C) to +158°F (70°C)

Humidity: Up to 95% non-condensing.

6.3 Regulatory Information

The TS-2000 meets or exceeds all industry safety and electromagnetic compatibility (EMC) standards and conforms to international directives. The product would have any adverse effects on medical implants, pregnancy, recording media or magnetic strips. Any recommendations or directives issued by personal physicians should be followed