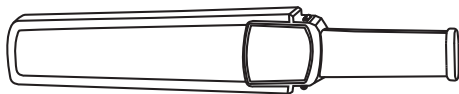**Model: TS90/TS90A**

BODY SCANNER

METAL DETECTOR

Owners Manual

INSTRUCTION

Please read and understand this manual before using the detector. Always test detector for proper operation before use. The Body Scanner/Metal Detector is ideal for using at airports, industrial sites, government buildings, schools, hospitals, conferences, nightclubs, sport events, and anywhere you need security. It is sensitive enough to detect a metal object whose size is the same as a 25 cent coin. When it detects metal, it will give alarm.

Features

1. A red LED Indicator lights up when the Body Scanner detects metal.
2. Pressing and holding the Desensitize button reduces the Body Scanner's sensitivity by about 50 percent, so you can scan for example near floors which contain large amount of steel rebars, or scan in the place where only larger objects are required to be detected.
3. The earphone jack lets you connect the earphone to the Body Scanner so you can scan in privacy.
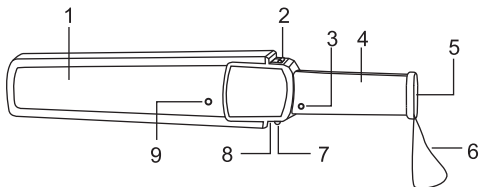
STRUCTURE

Figure 1

1. Detecting Wand

It is the detecting part. While detecting, you should move it near the area to be detected.

2. Selector Switch

It can be use to switch on/off the detector as well as to set the detector to AUDIO alarm mode or VIBRATION alarm mode (for TS90A only).

For TS90A, there are three positions for this switch:

VIBRATION ----- vibration alarm mode

AUDIO ----- audio alarm mode

OFF ----- switch off the detector

For TS90, there are two positions for this switch:

OFF ----- switch off the detector

ON ----- audio alarm mode

3. **Sensitivity Adjuster**

   Used to adjust the detector's detection sensitivity.

   Note: You must remove the rubber cover from the handle before you can see and adjust the sensitivity adjuster.

4. **Handle**
5. **Battery Cover**
6. **Carrying Strap**
7. **Desensitize Button**

   To decrease the detector's sensitivity, press and hold down this button while you detect for metallic object.

8. **Charger / Earphone Jack**

   Plug-in jack for earphone or battery charging.

9. **LED**

   When the detector detects metallic object, this LED lights as an indicator.
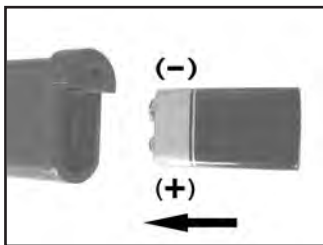
INSTALLING BATTERY

The Body Scanner / Metal Detector requires one 9V (6F22 or equivalent) battery for power. We recommend using an alkaline battery. You can also use a rechargeable battery.

Follow these steps to install battery:

1. Remove the battery cover.
2. Remove the exhausted battery.
3. Refer to Figure 2, install a new battery (9V, 6F22 or equivalent) into the battery compartment. Make sure the polarity connection is correct; otherwise the detector may be damaged. Reinstall the battery cover.

Figure 2

4. If the LED indicator flashes continuously when the detector is far away from any metallic object, the battery is low. Although the detector still can be used for a while,

its sensitivity will decrease. In this situation, you should replace the battery, or recharge it if it is a rechargeable battery.

Note:
Remove battery from the battery compartment if you will not use the detector within a long period.
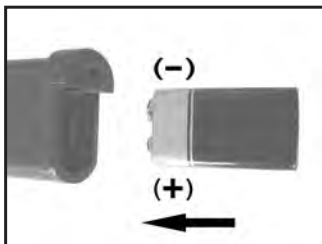

⚠ Warning

Do not attempt to recharge any non-rechargeable battery, otherwise it may explode.

CHARGING A RECHARGEABLE BATTERY

1. Set the selector switch to **OFF** position, then install the rechargeable battery in the battery compartment properly (Figure 3). Install the battery cover.

Figure 3

2. Insert the AC adapter's output plug into the detector's Charger/ Earphone jack.
3. Plug the AC adapter into a standard AC outlet.
4. Charge the battery for 10 to 14 hours.
5. Unplug the AC adapter from the AC outlet first. Then remove it from the detector.

Note:

You must use a special AC adapter. Using an AC adapter that does not fit the detector may damage the detector or the AC adapter itself. At the end of a battery's useful life, it must be recycled or disposed of properly.

OPERATION INSTRUCTION

1. Turn on the detector with the selector switch.
   (For TS90A, set the selector switch to the desired
   position.)
   When you just turn on the detector, the LED will light up
   and the detector will start self-calibration automatically;
   about 2 secs later, the LED flashes twice while the
   detector gives sound or vibration alarm twice, then the
   LED turn off. Now the self-calibration is over and the
   detector is ready for use.
   Note: During the self-calibration, keep the detector far
   away from any metal; otherwise the detector's
   detection sensitivity will be affected.
2. Hold the handle and move the detecting wand smoothly
   to the area or object to be detected. When the detector
   detects a metallic object, it will sound or vibrate,
   meanwhile the LED will light.
   Tip: For TS90, the alarm is LED light and sound. For
   TS90A, the alarm is LED light and sound (or
   vibration).
3. Move the detecting wand around the suspected area
   to confirm that you have found metal.
4. To preserve the battery life, set the selector switch to
   the " OFF " position when you finish the detection.

Note:
1. Before you use the detector, verify its operation by

detecting a known metallic object (such as a coin).
2. If the environment temperature changes dramatically during use, the detection sensitivity of the detector may change; thus detection may be affected. In this situation, you must turn off the detector and then turn it on again to make the detector redo self-calibration to fit the new temperature.
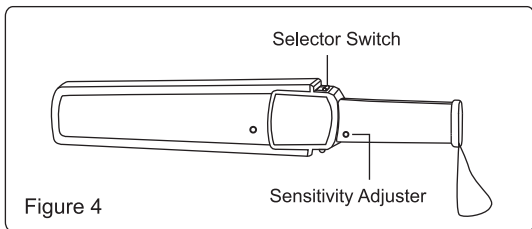
ADJUSTING THE SENSITIVITY

The detector has been set to the optimum sensitivity level for most security scanning applications at factory. You can adjust the sensitivity level for special applications, which require higher or lower sensitivity.

To adjust the sensitivity:
1. Turn on the detector.
2. Remove the rubber cover from the handle. Refer to Figure 4, locate the Sensitivity Adjuster.
3. Prepare a suitable metallic object to be used a test object. Gently place the tip of a suitable screwdriver onto the Sensitivity Adjuster. Then turn the screwdriver slowly until its tip fits the slot of the Sensitivity Adjuster.
   Adjust the Sensitivity Adjuster for the desired sensitivity. (Turning it clockwise increases the sensitivity, turning it anticlockwise decreases the sensitivity. If the sensitivity is set too high, the detector will give alarm wrongly and

you should decrease the sensitivity appropriately.)
Each time you finish a sensitivity adjustment, move the
detecting wand to the test object to verify the detector's
sensitivity. If the detector does not give alarm when
moved to the test object, adjust the Sensitivity Adjuster
again. Keep trying until the detector can give alarm at a
desired distance from the test object when you move the
detecting wand to the test object.

4. Reinstall the rubber cover to the handle.

Selector Switch

Sensitivity Adjuster

Figure 4

USING AN EARPHONE

● You can use your detector with an earphone, so you can
hear the sound alarm through the earphone.

● Insert the earphone's plug into the detector's
Charger/Earphone jack. The external sound cuts off
automatically.

AUTOMATIC POWER-OFF

If the detector does not give alarm (vibration or sound) for about 20 minutes, it will turn off automatically. To turn it on again, set the selector switch to the " OFF " position first and then to the " AUDIO " or " VIBRATION " position.

MAINTENANCE

The detector is an example of superior design and craftsmanship. The following suggestions will help you care for the detector so you can use it for years.

1. Keep the detector dry. If it gets wet, wipe it dry immediately.
2. Handle the detector gently and carefully. Dropping it can damage the circuit and case, and may result in misoperation.
3. Do not expose the detector to extreme temperatures as these can shorten the life of the unit.
4. Clean the detector with a damp cloth occasionally. Do not use harsh chemicals or solvents, or strong detergents to clean the detector.
5. Do not modify (or tamper with) the detector's internal parts or circuit; otherwise the detector may not work or its quality may decrease.

SPECIFICATION

Sensitivity	A 25 cent coin (USD)	60mm (15mm*)
	Iron pipe of Ø20mm	100mm (30mm*)
Operating Temperature		-10°C ~ +50°C
Quiescent Operating Current		< 8mA
Weight		about 330g (including battery)
Dimensions		370×78×38mm
Power		9V battery, 6F22 or equivalent
Operating Frequency		about 17kHz
Tuning		Automatic
Alarm		LED light & audio / vibration

* with reduced sensitivity by pressing and holding Desensitize Button.

ACCESSORIES

Manual: 1 piece
Earphone: 1 piece

OPTIONAL ACCESSORIES

AC adapter: 1 piece
Rechargeable battery: 1 piece

NOTE

1. This manual is subject to change without notice.
2. Our company will not take the other responsibilities for any loss.
3. The content of this manual can not be used as the reason to use the detector for any special application.

DISPOSAL OF THIS ARTICLE

Dear Customer,
If you at some point intend to dispose of this article, then please keep in mind that many of its components consist of valuable materials, which can be recycled. Please do not discharge it in the garbage bin, but check with your local council for recycling facilities in your area.

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