

TS90 Hand-Held Metal Detector



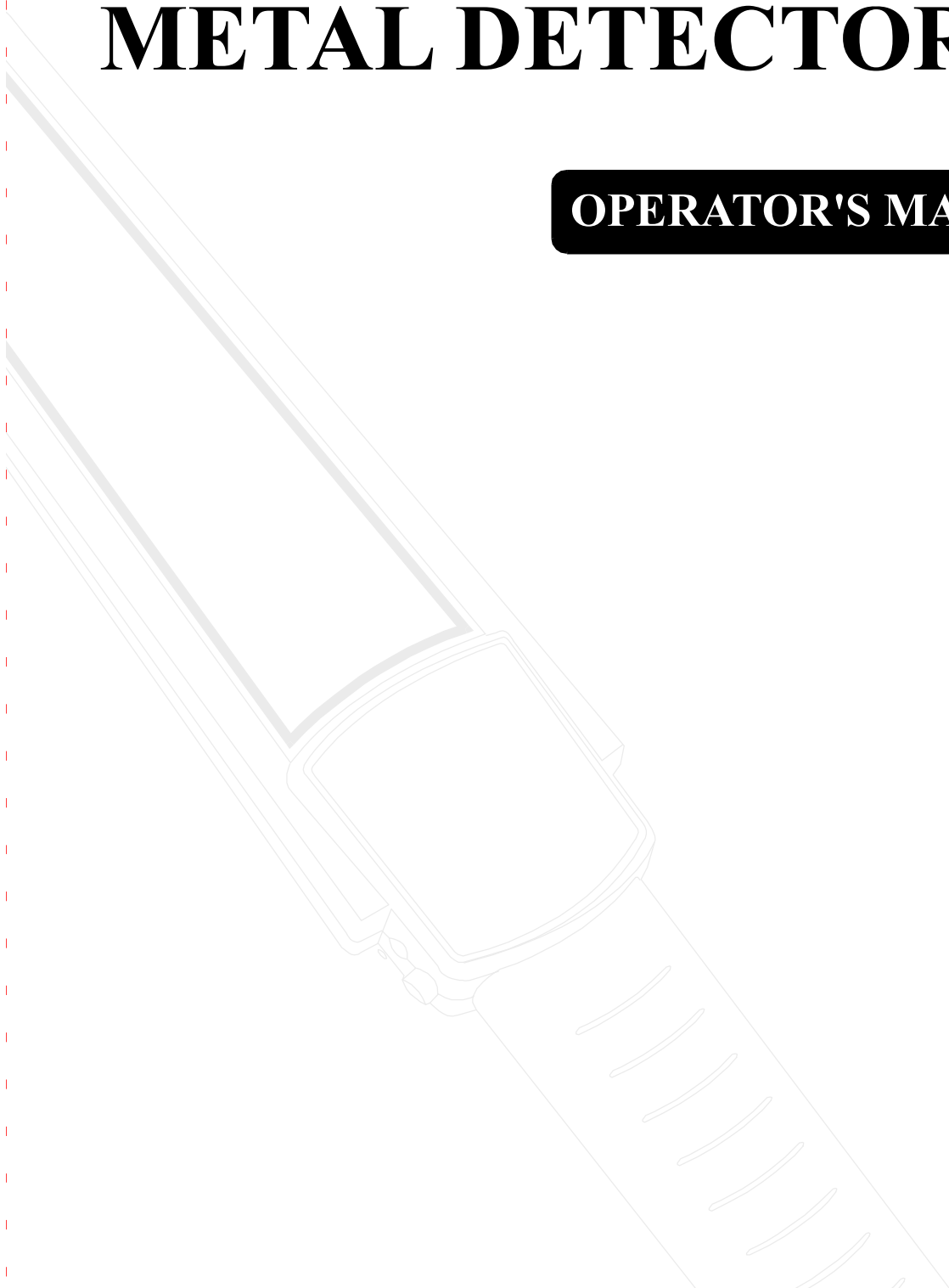
E-Sun TS90 Security Products Features

1. Sensitivity: A25-cent coin:60mm Iron pipe-tube in ϕ 20mm:120mm ·
2. Sensitivity Adjustment: Yes, Continuous ·
3. Tuning: Automatic ·
4. Alert: Audio, LED light
5. Temperature environment: $-10^{\circ}\text{C}\sim 50^{\circ}\text{C}$ Operating current: <8mA
6. Operating Frequency:35KHz
7. Power:6F22 9V \times 1 (low power alert)
8. Battery Life(Alkaline):Up to 80 hours
9. Size:420 \times 80 \times 40mm
10. Weight : 450g(including battery)

* Operate at reduced sensitivity with De-sensitivity Button pressed

BODY SCANNER METAL DETECTOR

OPERATOR'S MANUAL



Important

Please read and understand this instruction booklet before using the scanner. Always test scanner 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's sensitive enough to detect metal objects the size of a 25 cent coin. It sounds a high-pitched tone whenever it detects metal - a long tone for large objects, and a short tone for small objects.

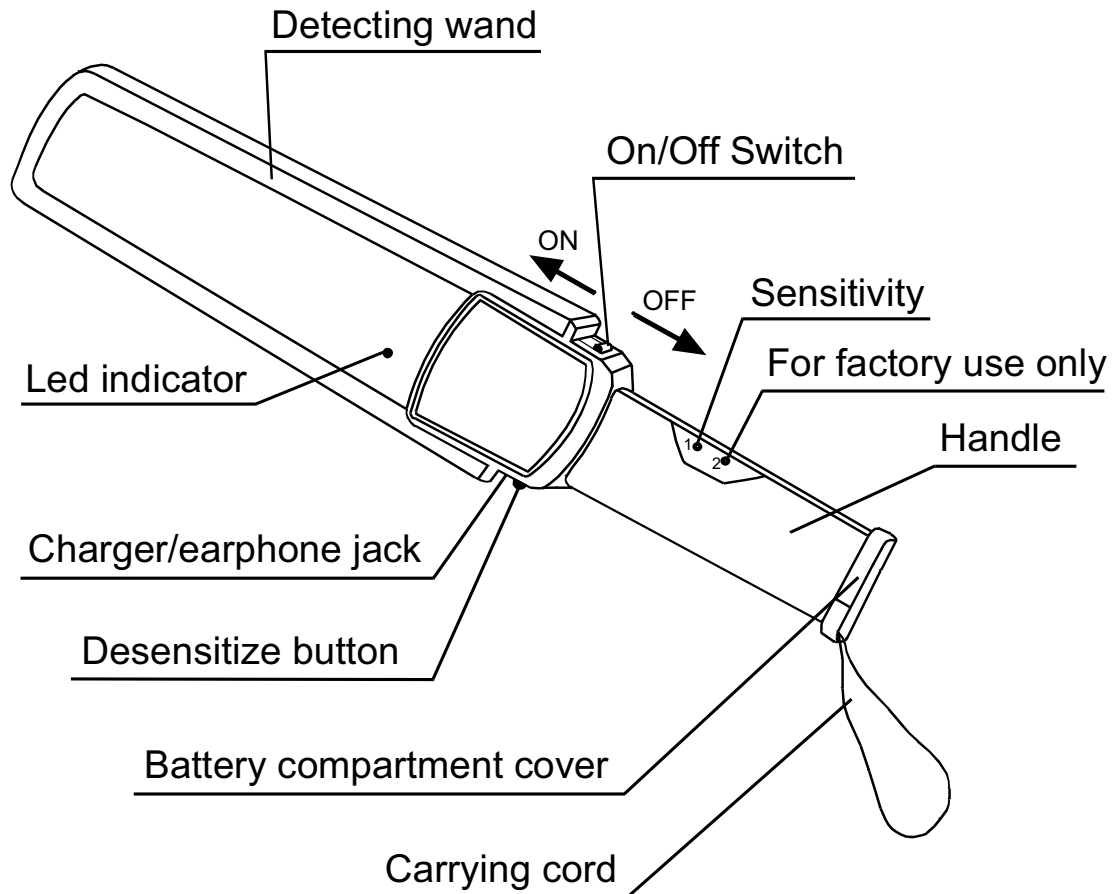
Its features include:

- 1.** A Red LED Indicator lights up when the Body Scanner detects metal.
- 2.** A Desensitize Button reduces the Body Scanner sensitivity by about 50 percent, so you scan for example near floors, which contain large amounts of steel reinforcement take off or where larger objects only are required to be detected.
- 3.** The earphone jack lets you connect an optional earphone to the Body Scanner so you can scan with privacy.

Installing the Battery

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

Figure 1



Notes:

- If you use a rechargeable nickel-cadmium battery, you must charge it before operating the Body Scanner. See "Charging a Nickel-Cadmium Battery."
- Never leave a weak battery in the Body Scanner.
- If you do not plan to use the Body Scanner for several days, remove the battery.

Follow these steps to install the battery:

1. Remove the battery compartment cover.
2. Carefully remove the old battery.
3. Insert a new battery into the battery compartment. Make sure the battery is connected with the proper polarities "+" and "-", otherwise this could damage the detector.
4. Close the battery compartment cover.

When the battery starts to get low, the Body Scanner makes a "chirping" sound instead of a smooth steady sound, and the indicator flashes on and off rapidly when it detects metal. Replace the battery, or recharge it if using a rechargeable nickel-cadmium battery. (You need an AC adapter, which must supply 12 volts DC, its center tip must be set to positive, it must deliver at least 10mA, and its plug must correctly fit the Body Scanner's recharge/earphone jack. Using an AC adapter that does not meet these requirements could damage the Body Scanner or the AC adapter.)

Warning

Do not try to recharge alkaline or other non-rechargeable batteries. They may explode.

Charging A Nickel-Cadmium Battery

1. Set the On/Off switch to OFF and install the battery in the Body Scanner.
2. Insert the AC adapter's plug into the Body Scanner's recharge/ earphone jack.
3. Plug the AC adapter's other end into a standard AC outlet;
4. Charge the battery for 14 to 16 hours.
5. Unplug the AC adapter from the AC outlet first. Then unplug it from the Body Scanner.

Note:

Occasionally let the nickel-cadmium battery fully discharge before recharge it.

Important:

At the end of the batteries useful life, it must be recycled or disposed of properly.

How to use the Body Scanner

1. Set the On/Off switch to "ON" to turn the Body Scanner on, or to "OFF" to turn it off. When it is turned on, the audio will "chirp" briefly, this is normal;
2. To conserve battery life, always make sure the Body Scanner is off when not in use;

1. The Body Scanner emits a high-pitched tone whenever it detects metal a long tone for large objects, and a short tone for small objects;
2. Before using the Body Scanner, always test it by turning it on and scanning a small metal object (such as a coin) make sure the tone sounds and the indicator lights up using a smooth, even speed to scan. It sounds a high-pitched tone whenever it detects metal.

Adjusting the Body Scanner Sensitivity

The Body Scanner is set to the optimum sensitivity level for most security scanning applications. You can adjust the sensitivity level for specialized applications, which require higher or lower sensitivity.

1. Remove the rubber cover from the handle. There are two small holes in the middle.
2. Insert the tip of a small screwdriver through the 1/8-inch hole in the handle until it touches the adjustment control inside. (see figure 1- the adjustable hole is sensitivity. **Do not adjust the second hole next to it, which is reserved for factory use only.**)
3. Turn the screwdriver slowly until its tip fits in the control slot.
4. Using a test object, adjust the control for the desired sensitivity - clockwise to increase or counter-clockwise to decrease sensitivity. Keep the same desired distance between detector and test object, adjust the control until detector begins to sound. This is your desired sensitivity.
5. Put the rubber cover back on the handle.

NOTE:

The further you move the control, greater the change in sensitivity

Using An Earphone

- You can use your Body Scanner with an earphone that has a 1/8" plug, so you can hear the alarm through the earphones.
- Insert the earphone's plug into the Body Scanner recharge/earphone jack . The external sound cuts off automatically.

Maintenance

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

1. Keep the Body Scanner dry. If it gets wet, wipe it dry immediately. Liquids may contain minerals can corrode the electronic circuits.
2. Handle the Body Scanner gently and carefully. Dropping it can damage the circuit boards and case, and may result in mis-operation.
3. Do not expose the Body Scanner to extreme temperatures as these can shorten the life of the unit.
4. Clean the Body Scanner with a damp cloth occasionally. Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the Body Scanner.
5. Modifying or tampering with the Body Scanner's internal parts can cause a malfunction.

Specification

Sensitivity	A 25 cent coin (USD)	2.5 inch (0.6 inch*)
	Iron pipe-tube in \varnothing 20mm	4 inch (1.2 inch*)
Temperature Environment	-10 C ~ +50 C	
Relative Humidity	0% ~ 75% @ -10 C ~ 40 C	
	0% ~ 45% @ 40 C ~ 50 C	
Operating current	<6mA	
Weight	430g (with battery)	
Dimension (mm)	420×80×40	
Power	9V IEC6F22 NEDA 1604(Low battery alert)	
Operating Frequency	13KHz	
Tuning	Automatic	
Alert	Audio & LED light	

* with reduced sensitivity by pressing and holding Desensitize Button.