

User's Manual

SMR-50 Needle Detector (Table-Type)

For Information

TEL: 00-82-51-526-3410

Fax: 00-82-51-526-3610



<http://www.smr2000.com>

ISO 9001 (2000) & KSA 9001 (2001) Authentication Obtained

Please be sure to read before use for proper use and safety

[Safety Precautions]

Caution: The followings are directly related to the user's safety, and should be kept in mind when using the product.

1. Pull the plug out.

When the machine is not in use or needs to be checked, it is safe to shut off the power supply.

2. Do not disassemble, remodel, or repair without our company's agreement.

When repair is needed, always contact our company. We take no responsibility for the accidents and casualties due to the repairs or disassembly of the machine which are not done by our personnel.

3. Always keep the workplace in order.

If iron grains are attached to the surface of the detector, the machine may malfunction. Always keep clean the vicinity of the detector.

4. Possession of any magnetic or metallic materials is prohibited when operating the machine.

If the operator of the machine has magnetic substances (magnets) or materials which contain iron (Fe), the machine will malfunction and proper inspection will be disabled.

5. Possession of any types of card is prohibited when operating the machine.

Because this product uses strong magnets, having cards in possession while working near the product may do damage to the cards.

[Suggestions for choosing the installation site]

Caution: Before installing the needle detector, please read the following suggestions carefully. Proper installation may have crucial effects on the efficiency of the product.

- 1. Install the machine at a place with little external tremor, and fix the table so that the detector will not be shaken.** (The table should not be made of metallic or ferric material.)
- 2. Put the product at a place with constant temperature and low moisture.**
- 3. Do not install the product at places where strong electric sparks occur, e.g., near grinders or high-capacity motors.**
- 4. Do not install the product near shaking metals, e.g., highly vibrating machines or moving cars.**
- 5. Install at a place with consistent power supply (in voltage and current).** Do not share power supply with machines that consume a massive amount of electricity (high-capacity air conditioner or motors, for example). Doing so will cause large fluctuations in electrical voltage.
- 6. Install the needle detector away from machines emitting a huge amount of electronic or magnetic waves** (sewing machine with automatic thread trimmer, cleaning gun, vacuum board, for example).
- 7. Do not install the product in or around buildings with high-frequency equipments** (vinyl adhesive machines, for instance). Do not share the same power supply with them.

1. Product Description

The needle detector of SMR-50 is a high-tech equipment that detects broken needles and fragments of iron (Fe) contained in all needle works and indicates their locations by part. Then the machine stops working or returns to the input position.

Although needle detectors that utilize magnets do not normally detect non-ferric metals, such as copper, copper alloy, gold, silver, and aluminum, they may respond to them if their size is large enough, especially if they contain fractions of iron.

Consequently, although most zippers and buttons used for needleworks are non-ferric, please use specially gilded ones if iron is contained in them.

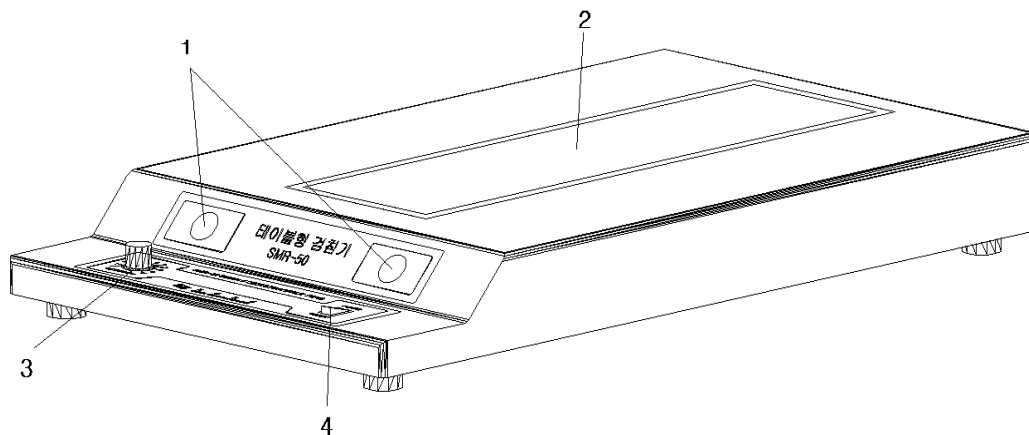
2. Product Specifications

Model	SMR-50
Detective Capability (Fe)	$\phi 0.5 \sim \phi 4$
Weight	16Kg
Size	700mm x 400mm x 80mm
Detective Height	0 ~ 80mm
Detective Length	500mm
Detective Width	150mm
List of Electricity	AC 110V / 220V, 2P, 50 / 60Hz
Power	30W/h

3. Power Supply

The power supply is set at AC 220V 50/60Hz in a single phase mode at the time of shipping. When wishing to use an alternative power supply, please consult our sales agency or our company first.

4. Name of Parts



1. Lamp
2. Detectable Range
3. Adjustment Switch for the volume of detection sensitivity
4. Power Switch

5. Adjusting detection sensitivity before operation.

Detection sensitivity must be adjusted differently in accordance with the installation site.

a) In the case of needleworks without metallic accessories

First, set the volume of sensitivity adjustment at 10, which is the maximum, and leave the power switch on for approximately a minute without test materials. When the detector is stabilized and does not respond, move the test card from right to left to check whether the detection process works properly. If the detector functions normally, the detection lamp lights up, while the buzz sounds at the same time.

Note: When the detection lamp lights up and the buzz sounds in the absence of any metallic materials or the test equipment on the detector, it indicates that the detector is not installed at a proper place. Check again the suggestions for choosing the installation site above, find a proper site, and do the test once again.

b) In the case of needleworks with metallic accessories

Even though the zippers and other accessories used for needleworks are made of non-ferric metals, the detector may still respond to them provided that their size is large enough and the detection sensitivity is high enough. As a result, if the needleworks that are to undergo detection process include any metallic accessories, adjust the detection sensitivity in the following order.

① Set the volume of detection sensitivity at 10 and move the product back and forth, left to right, or vice versa, on the detector.

② Continue the test while decreasing detection sensitivity until the products containing metallic accessories, like zippers, are not detected.

③ Execute the test over and over at the maximum sensitivity at which metallic accessories are not detected.

④ Execute the test with a test card, using the same method as is explained in Section a).

Note: If the detector still responds to the metallic accessories even after lowering the detection sensitivity substantially, it indicates that the accessories contain ferric substances. Remove the accessories from the needleworks and execute the detection test. Otherwise, use specially gilded accessories that are not be detected.

6. How to operate

a) Turn on the power switch. (The detection lamp lights up and the buzz sounds.)

b) Start operation after the detection lamp goes out.

c) Inspect the test material by moving it back and forth, left to right, or vice versa, within the detectable range.

Since detection is not possible outside the detectable range, be sure to execute detection within the range.

d) Turn the power off when the detector is not in use.

7. How to Clean the Detector

Since magnets are in the detector, ferric materials outside are prone to attach to it. Be sure to clean the plate after use with a soft piece of cloth and alcohol or cleansing agent .

Caution: Moisture or soaped water on the surface of the detector may easily cause the plate to be dirty. Besides, irritative substances, such as thinner, benzene, and acetone, is prohibited to use, for they may do damage to the coating of the detector.

8. Quality Guarantee

The period of quality guarantee for this product is **a year** from the date of contract.

If there are any inconveniences in using the machine or any problems with the product, contact our company at all times. We will take care of them as promptly as possible.

We charge for services after the guarantee period. Please be sure to keep this in mind.