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Installation Quick Guide

Metor 6E

P/N 92109435 – Rev. 2

Rapiscan ®
s y s t e m s

An OSI Systems Company

Foreword

Thank You for choosing a Metor product. This installation quick guide is intended for experienced users that are fully trained on the operation of Metor Walk-Through Metal Detectors. In addition to these instructions, local laws and regulations, and requirements by authorities shall be observed.

The user should read also the Installation and Operating Manual supplied on a CD ad understand its contents before the installation or use of the equipment.

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Content of this Manual

We have made an effort to ensure that the information in this manual is accurate as of the date of publication. However, the product that you have purchased may contain options, upgrades or modifications not covered by this manual.

If you have any questions about the content of this manual or the product that you have purchased, please contact Rapiscan Systems Customer Service.

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The provision of this manual to you creates no express or implied warranties of any kind, including, without limitation any warranties with respect to the accuracy, applicability, completeness or fitness of this manual for any particular purpose.

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Revision History

Name of Document: Installation Quick Guide, Metor 6E

Document Number: 92109435, Revision 2

Rev.	ECN #	Date	Name	Comments
A		2013-05-20	TV	Initial draft.
B		2013-06-06	TV	Several additions.
1	03829	2013-06-28	TV	Release version.
2	04550	2013-10-14	TV	DC symbol added.

Table of Contents

1   IMPORTANT INSTRUCTIONS

Read through this chapter carefully before operating the equipment. Keep this manual so that it is always readily available to the user.

The instructions in this manual shall be followed in all situations, when installing, using, or servicing the equipment. Rapiscan Systems cannot be held responsible for any personal or material damage caused by use contradicting the instructions given in this manual.

All safety regulations must be observed. A dangerous or unsafe manner of operation may be a health risk.

Installation may only be carried out by qualified person.

Before installing, operating or servicing the equipment, make sure that it poses no risk of personal or material damage.

Be aware that although the walk through metal detector unit is heavy it may fall down if a heavy force collides with it. To eliminate the risk of overbalancing the WTMD must be attached (anchored) on the floor.

Do not operate the equipment unless you are fully trained to do so. The operator must know the use, service, and safety instructions of the equipment, and local safety regulations.

Service of Rapiscan products shall be preformed only by a Rapiscan Systems qualified service provider or authorized contractor qualified service provider. Make sure that there are no unauthorized persons in the working area when servicing and repairing the equipment.

It is forbidden to operate the equipment when ill, or under the influence of alcohol or drugs.

The equipment may not be connected to mains supply until all other connections necessary for the installation are completed.

The equipment shall always be connected to an earthed socket outlet.

The equipment shall be disconnected from mains supply before servicing, cleaning, or moving it.

Original Metor spare parts should be exclusively used.

Use a damp cloth for cleaning the equipment. Do not use any chemicals or liquid detergents.

The end user is responsible for the final calibration of the equipment for the intended application. It is also the end user's responsibility to regularly verify calibration to the desired sensitivity level by using a suitable test object or objects.

If there is any reason to suspect that the security level of the equipment may have deteriorated due to incorrect operation or external damage, the equipment should be removed from operation and an authorized service provider should be called in.

1.1   Types of Alert Messages

WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury and/or equipment damage or generally unsafe practices.

NOTICE

Indicates an important notice to the reader, that does not necessarily involve the possibility of personal injury or equipment damage.

All warnings, cautions, notices and instructions presented in this manual should be read and followed by all personnel who will use or maintain this equipment.

Failure to follow all such warnings, cautions, notices and instructions may result in damage to the equipment and/or injury or death to personnel. Such failure may also nullify any warranties provide by the manufacturer.

1.2   Symbols used on Unit and in Manual

General Warning Sign

This sign is used to alert the user to potential hazards. All safety messages that follow this sign shall be obeyed to avoid possible harm.

Recycling Symbol

This symbol means that according to local laws and regulations this product should not be disposed of in the household waste but sent for recycling.

CE Symbol

CE marking on a product is a manufacturer's declaration that the product complies with the essential requirements of the relevant European health, safety and environmental protection legislation.

Symbol for Direct Current (DC)

2   TECHNICAL DATA

Power

- Input, nominal..12.5 VDC, 2.1 A
- Input, absolute limits ....12 – 15 VDC, 4 A
- Power consumption, typical ....26 W (12 VDC)
- Power consumption, maximum................37 W (12 VDC)
- Power consumption, at standby...............11 W (12 VDC)

Ratings of recommended external power supply

- Voltage, nominal ....100 – 240 VAC
- Voltage, absolute limits ....90 – 264 VAC
- Frequency, nominal.................................50/60 Hz

Recommended operating conditions

- Ambient temperature...............................-20 °C – +60 °C / -4 °F – +140 °F
  -15 °C – +45 °C / +5 °F – +113 °F,
  when battery back-up is in use
- Storage temperature ....-30 °C – +70 °C / -22 °F – +158 °F
- Relative humidity.....................................0 – 95 %, no condensation
- Elevation ....max. 3000 m / 9840 ft
- Ingress protection rating..........................IP55, excluding external power supply
- Pollution degree 2

3 INSTALLATION

3.1 Mechanical Assembly
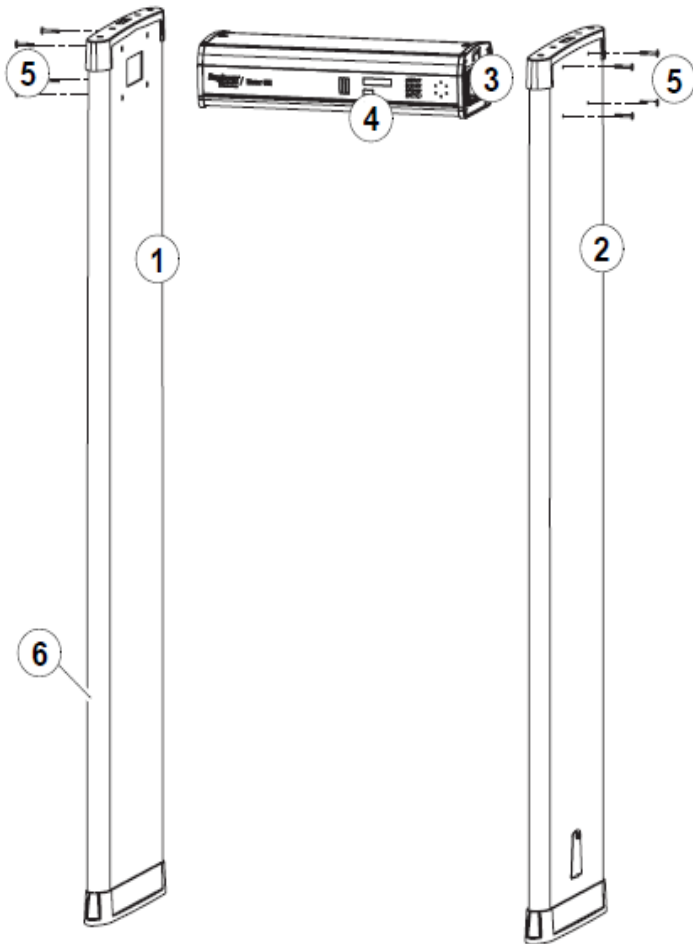
The items needed in mechanical assembly are packed in the box containing the cross piece.

For checking the distance of the coil panels there is a pasteboard gauge in the cross piece box.

| Ref	Part	Pcs
1	Panel 1 (MTRP 5266)	1
2	Panel 2 (MTRP 5267)	1
3	Cross piece	1
5	Mounting screws	8
	Washers	8
	Allen key	1

The following parts illustrated in pictures are integrated into coil panels or cross piece, but they must be considered in assembly:

Ref	Part	Pcs
4	Display and keypad	1
6	Zone displays	2
	(one in each coil panel)	
7	Traffic lights	1

Assembly:
- First define the sides of the coil panels if you have side-by-side operation.
- Zone displays are assembled at factory so that they are towards exit side when panel 2 is on left side and panel 1 on right side. Position of the displays is also shown by stickers on the panels.
- Lay the coil panels on the floor.
- Install the cross piece with display and keypad towards the exit side.
- Place the cross piece to the holes in the coil panel and fasten using the mounting screws and washers.
- Repeat with the other panel.
- Do the final tightening of the screws after lifting the unit to ensure that the panels are parallel.

Enter side

Exit side
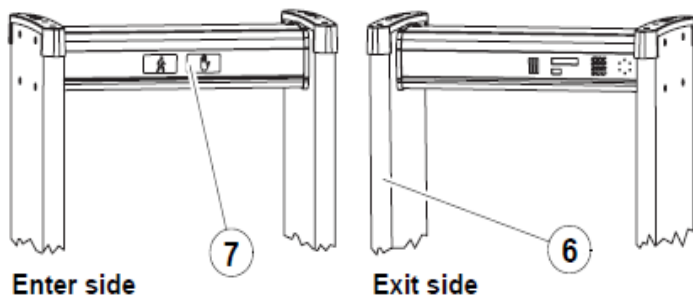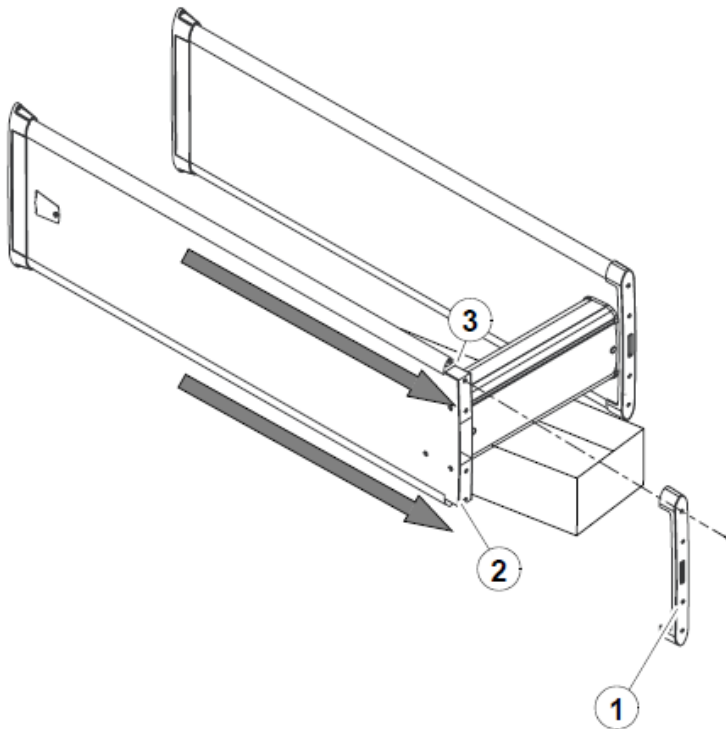
Switching the zone displays to other side of the coil panels:

- Lay the Metor 6E down. Place a support under the cross piece so that only the coil panel bottoms touch the ground (e.g. the cardboard package the cross piece came in).
- Detach the top piece (1) which is held in position by four screws.
- Detach the zone display cable connector (2) and the counter cable connector (3) from the top of the tubes.
- DO NOT remove the green and red cables on top of the panel. DO NOT switch the positions of the cables.
- Gently slide out the zone display and counter tubes to the direction indicated.
- Slide the tubes gently in on the opposite sides of the coil panel.
- Reconnect the cables in corresponding connectors. Check that connectors lock in position.
- Re-install the top piece and fasten it with the four screws.
- DO NOT over tighten the screws as you may damage the thread in coil panel.
- If you are installing an additional zone display simple remove counter tube and replace it with the zone display tube.

NOTICE

After changing the side of the zone display you need to select correct zone display mode from the user interface to enable the zone display using menu "2.4.1 ZONES". Refer to chapter 7.4 for further information.
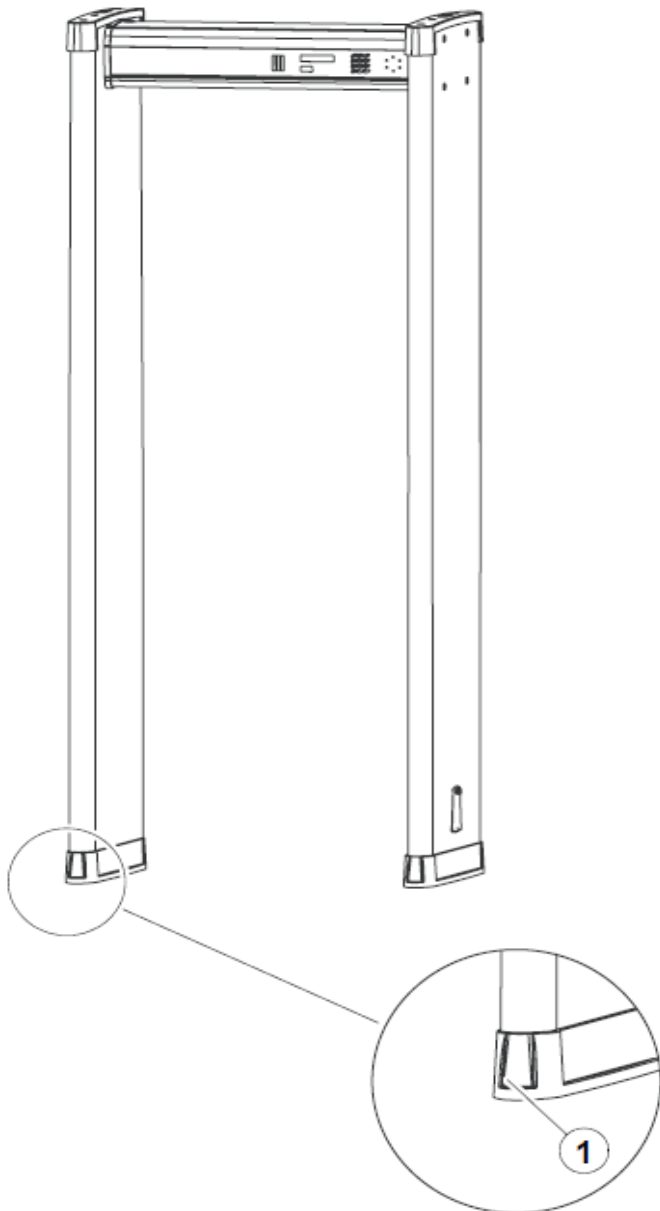
Do not switch zone displays between panels as it will cause counter malfunction. Zone displays for panel 1 have blue RX stickers on them and displays for panel 2 have red TX stickers. Same applies to infrared RX/TX counters.

CAUTION

While assembled three persons are recommended for safe lifting and lowering of the equipment.

3.2   Floor Fixing

- Lift the unit up to a vertical position in its final mounting location.
- Check that the panels are parallel both in walking direction and sidewise. Use the pasteboard gauge provided to ensure that distance between panels is the same at top and at bottom.
- Tighten the mounting screws.
- Use the mounting holes (1) in the panel boots to fix the unit to the floor with screws.
- If drilling holes to the floor is not preferred you can use the flat areas under the boots to attach the unit to the floor with double sided tape or suitable adhesive.

CAUTION

To eliminate the risk of overbalancing the equipment must be fastened to the floor.

The equipment must be disassembled before carrying by a single person or suitable carrying equipment must be used. Care must be taken not to overbalance the equipment when screws are removed from the floor.

3.3 Electrical Connections

- Open cross piece hatch to access connections to the electronics.
- Power supply can be connected to either panel. Remove cable hatch of the selected panel to connect power supply.
- Alternatively power supply can be placed over the unit for direct connection to the electronics through cable gland holes on top of the cross piece.
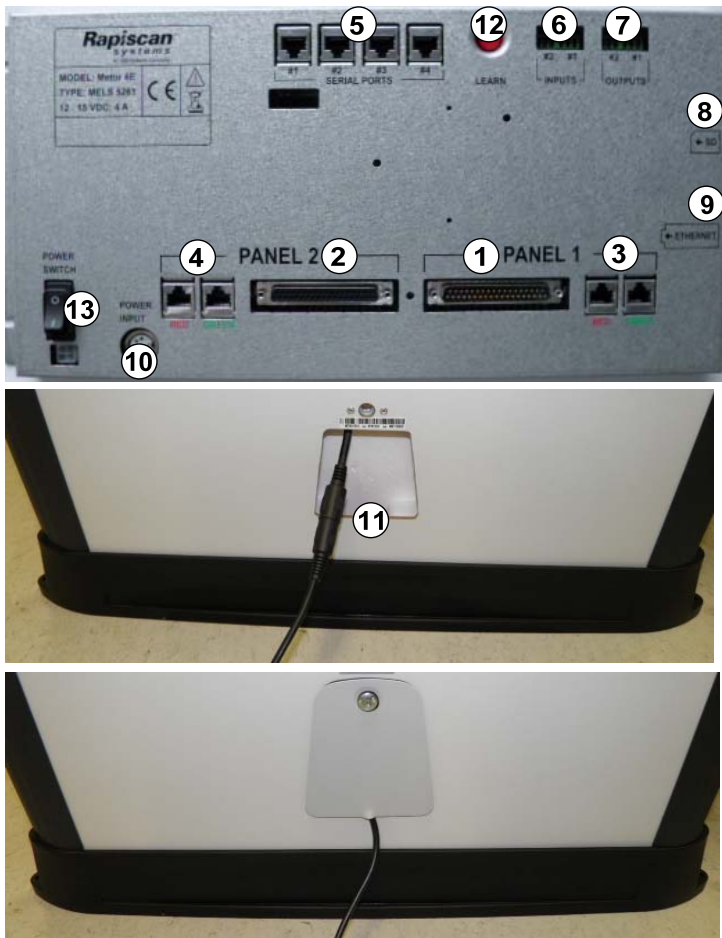
Connections:

1. Panel 1 coil connector
2. Panel 2 coil connector
3. Panel 1 zone display and counter connectors (2 pcs)
   Note color coding of connections.
4. Panel 2 zone display and counter connectors (2 pcs)
5. Serial port connections (4 pcs), all similar, for:
   - Display and keypad
   - Traffic lights
   - MetorNet (option)
   - Remote display (option)
6. Digital inputs (2 pcs)
7. Digital outputs (2 pcs)
8. SD memory card slot
9. Ethernet connector
10. DC power input connector
11. Power supply connection under cable hatch

Switches:

12. LEARN button
13. Power switch

- Do not force connections to avoid damaging the contacts.
- Panel coil connectors are polarized to avoid misconnections.
- Observe color coding when connecting zone display and counter cables.
- Display and traffic lights cables can be connected to any of the serial ports.
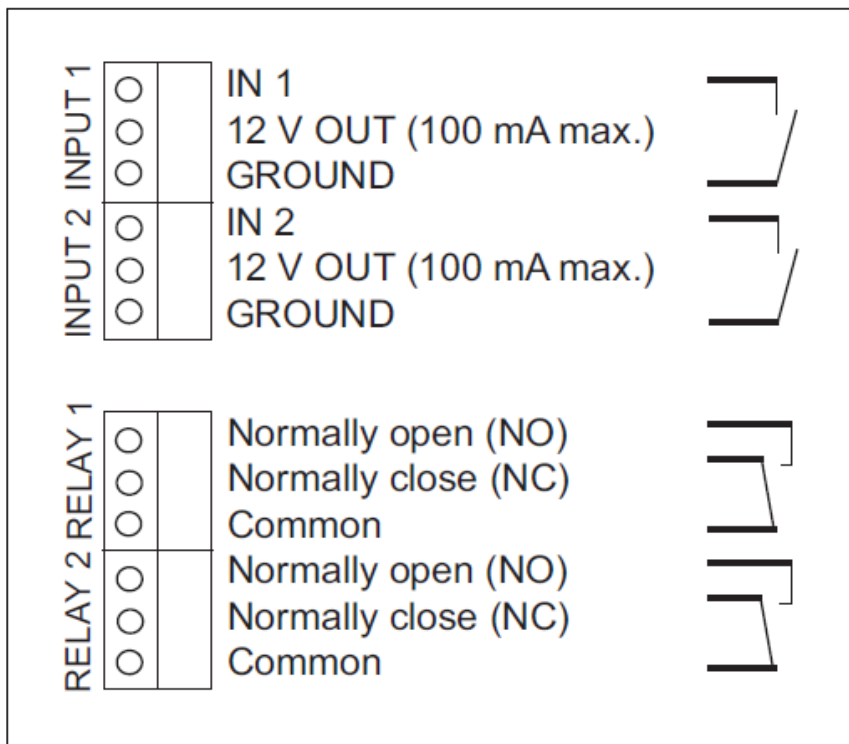
WARNING

Manufacturer supplied power supply must be used. Do not connect any other power supply to the DC power cable.
Power supply shall be located to be easily accessible for disconnection.

3.4   Connections for Digital I/O

The Metor 6E has two configurable digital inputs and two configurable digital outputs. Refer to Installation and Operating Mnaual for instructions how to configure the I/O.

The digital inputs have a pull-up resistor to 12 V. Maximum input voltage is 15 VDC. Recommended connection is a switch that connects input (pin 1) to ground (pin 3).

Maximum load for each relay output is 24 V and 1 A.

WARNING

Line voltage or any circuit connected to line voltage may not be connected to any of the connectors in the electronics, including the relay outputs. External isolation circuitry (double/reinforced insulation) must be used if a circuit connected to line voltage must be controlled.

4   STARTUP AND SHUTDOWN

- Metor 6E is turned on and off from the power switch on the main electronics inside the cross piece.
- To access the switch open the cross piece hatch with the key provided.
- The unit can be switched to standby without the need to open the cross piece hatch by enabling the standby feature from the user interface, refer to chapter 7.7. Standby is turned on and off with button **<C>** on the keypad. During standby all displays and lights are off and metal detection is disabled with magnetic field generation turned off.

```
Metor 6E UI:
VERSION   1.00 (ENG)
```

```
SW VERSION OF UNIT
MDPU    V1.00
```

```
SW VERSION OF UNIT
MCCU    V1.00
```

```
**** METOR 6E ****
   SELFCHECK OK
```

- After switching on Metor 6E runs a self-test.
- Also all lights are turned on briefly.
- During the self-test software versions of the unit will shown as illustrated on the left:
  - User interface version
  - Display unit SW version
  - Electronics SW version
- In the end selfcheck result is shown.
- SW versions may differ from the ones displayed.

CAUTION

When using the maximum setting for the audible alarm the volume is exceeding 90 dBa at distances less than 1 m.

5   MAINTENANCE

5.1   Periodic Maintenance

The Metor 6E is virtually maintenance-free. However, the operation should be checked regularly, preferably daily, to ensure that the security is not compromised.

For additional information on maintenance please refer to the Maintenance Manual.

5.2   Replacing Input Fuse

Inside the electronics (MELS 5261) there is a 5.0AT fuse F8 protecting the electronics. Fuse type is Littlefuse Nanofuse 0454005.MR, part number 58105674.

WARNING

Replace fuse only with equivalent type to avoid risk of fire.

5.3   Replacing Battery

Inside the electronics (MELS 5261) there is a CR2032 type 3 V lithium battery that powers the real time clock while power is off. When battery is empty, the clock resets to January 1, 2010. Empty battery can also corrupt counter statistics. Typical battery life is over ten years.

WARNING

Replace battery only with equivalent type to avoid risk of fire.

APPENDIX A: Contact Information

Use these addresses when ordering spare parts and in warranty or repair issues.

E-mail sales@rapiscansystems.com
service@rapiscansystems.com

United Kingdom's Customer Service Center for Europe, Africa, Mid East

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USA
Tel: +1 888 258 6684 (toll-free for US customers calling inside USA)
- Press #3 Tech Support
- Press #5 WTMD

Customer Service Center for Asia, Australia

Warranty and Repair Issues

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