Ener Hexon® **Smart215**

C&I ESS Spare Parts Replacement SOP

PREFACE

Purpose

Provide customer maintenance personnel with a reference guide for replacing spare parts.

Target Audience

Customer maintenance personnel.

Notes

① For safety instructions, daily operation, and maintenance, please refer to the User Manual.

② Due to software or hardware upgrades, or configuration differences, the equipment structure may not be exactly the same as shown in this SOP. Please adjust according to the actual situation. If in doubt, contact after-sales service personnel for confirmation.

Precondition

After troubleshooting, confirm that the fault is caused by the faulty component, and that the replacement procedure and the new component will not cause secondary damage to other parts or the equipment.

Safety Symbols

Symbol	Description
⚠ DANGER	Indicates an imminent hazardous situation which, if not avoided, will result in death or serious personal injury.
⚠ WARNING	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious personal injury.
⚠ CAUTION	Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate personal injury.
NOTICE	Conveys equipment or environmental safety information. If not observed, it may result in equipment damage, data loss, reduced equipment performance, or other unforeseen consequences. "NOTICE" does not involve personal injury.
🕮 NOTE	Used to emphasize important/key information, best practices and tips. "NOTE" is not a safety warning and does not relate to personal, equipment, or environmental hazards.

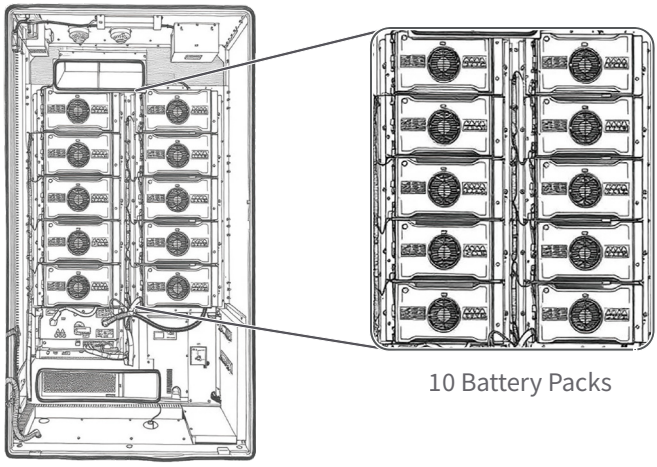
CONTENTS

1 POWER ON/OFF OPERATION

Please refer to the User Manual for detailed instructions.

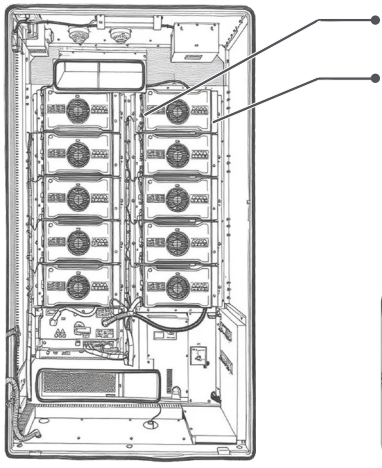
2 REPLACEMENT OF BMU BOARD OR BATTERY PACK FAN

(2.1) Battery Pack Layout: (10 battery packs in total)



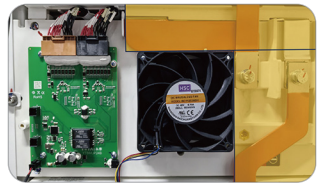
10 Battery Packs

(2.2) Battery Pack Front End Diagram



Battery Pack Front Cover Fastening Screws

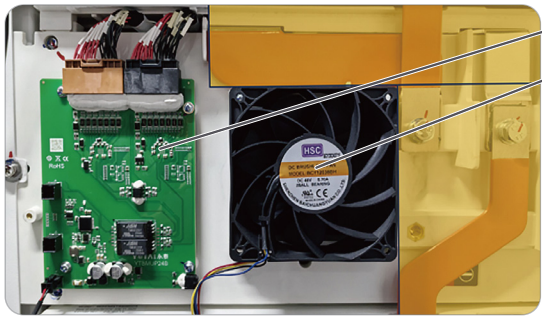
Loosen the Fastening Screws, Remove the Front Cover, the Front End of the Battery Pack is as Follows



⚠ WARNING

Caution!
The Yellow Area is Electrified, Do Not Touch

2.3 BMU Board and Battery Pack Fan Diagram



⚠ WARNING

Caution!
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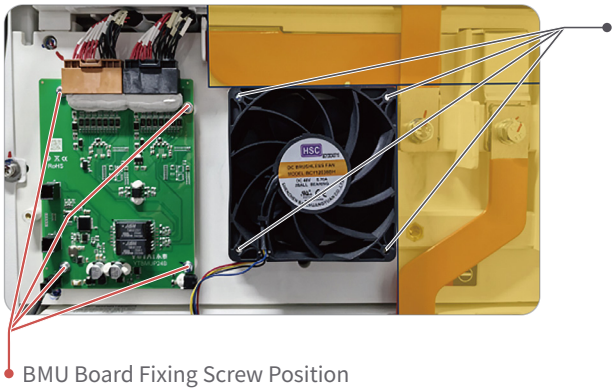
2.4 BMU Board Fixing Screw Position and Fan Fixing Screw Position Diagram



⚠ WARNING

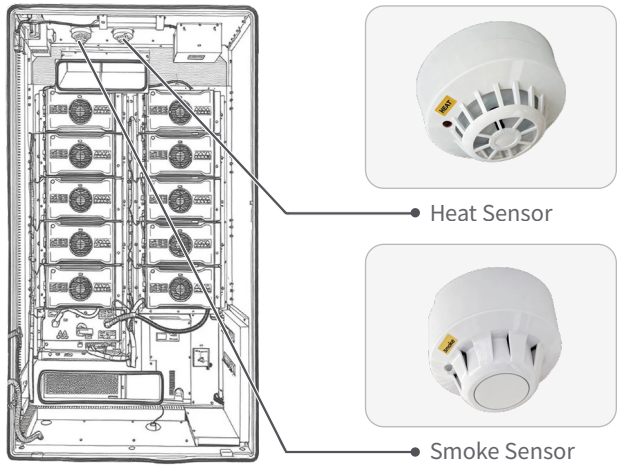
Caution!
The Yellow Area
is Electrified,
Do Not Touch

2.5 BMU Board and Battery PACK Fan Replacement Steps

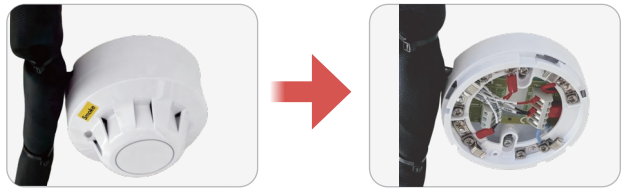
Steps
① Power off the cabinet.
② Remove the front cover of the corresponding battery PACK.
③ Disconnect the cable connectors, noting their positions.
④ Unscrew and remove the faulty BMU board or fan.
⑤ Install the new BMU board or fan.
⑥ Reconnect the cables to their original positions.
⑦ Replace the front cover of the battery PACK.
⑧ Power on the cabinet.
⑨ Verify normal operation of the BMU board or fan.
End.

3 HEAT SENSOR REPLACEMENT

3.1 Smoke Sensor, Heat Sensor Location Diagram



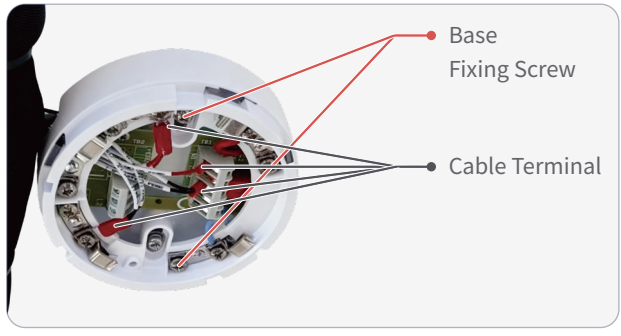
3.2 Open the Temperature Sensor Cover



Rotate the Temperature Sensor Cover Counterclockwise, Open the Smoke Detection Sensor

Inside the Smoke Detection Sensor

3.3 Internal Wiring Terminals and Fixing Screws of the Temperature Sensor Diagram

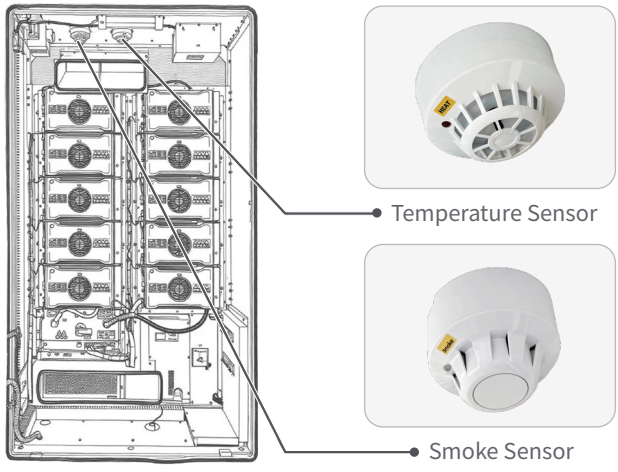


3.4 Temperature Sensor Replacement

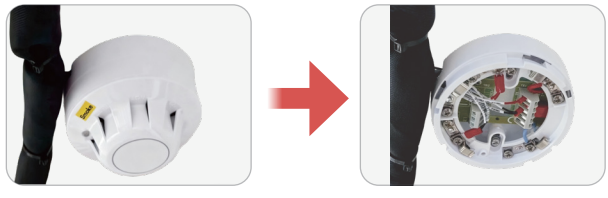
Steps
① Power off the cabinet.
② Remove the temperature sensor cover.
③ Disconnect the wiring terminals, recording wire numbers and positions accurately.
④ Remove the sensor base.
⑤ Install the new sensor base.
⑥ Reconnect cables to their correct terminals.
⑦ Replace the cover.
⑧ Power on the cabinet.
⑨ Verify sensor operation and system status are normal.
End.

4 SMOKE SENSOR REPLACEMENT

4.1 Smoke Sensor Location Diagram



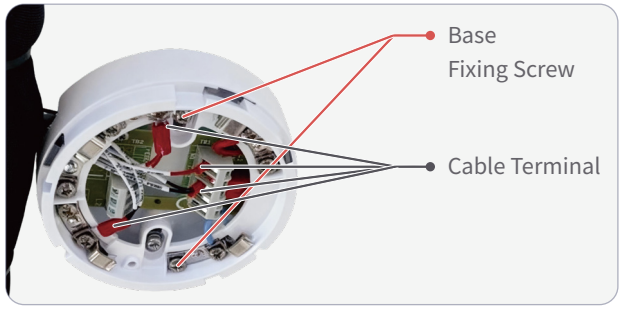
4.2 Open the Temperature Sensor Cover



Rotate the Temperature Sensor Cover Counterclockwise, Open the Smoke Detection Sensor

Inside the Smoke Detection Sensor

(4.3) Smoke Sensor Internal Wiring Terminals and Base Fixing Screws Diagram

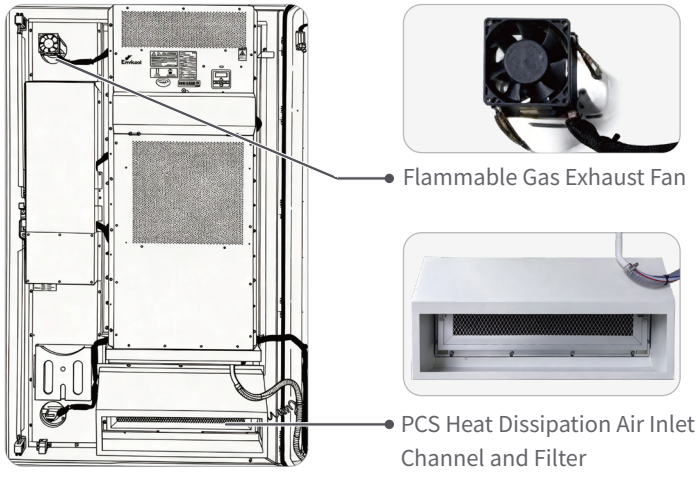


(4.4) Smoke Sensor Replacement

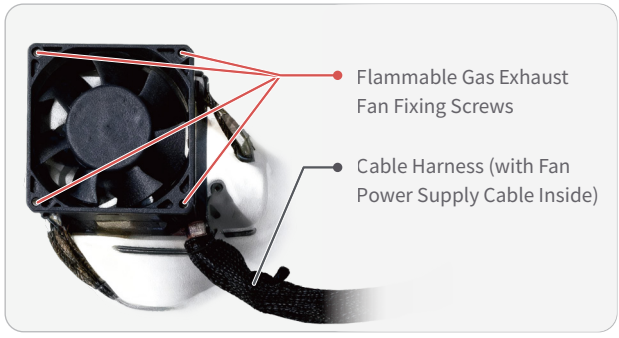
Steps
① Power off the cabinet.
② Remove the temperature sensor cover.
③ Disconnect the wiring terminals, recording wire numbers and positions accurately.
④ Remove the sensor base.
⑤ Install the new sensor base.
⑥ Reconnect cables to their correct terminals.
⑦ Replace the cover.
⑧ Power on the cabinet.
⑨ Verify sensor operation and system status are normal.
End.

5 REPLACEMENT OF FLAMMABLE GAS EXHAUST FAN

(5.1) The fan is located on the inside of the front cabinet door, alongside the PCS air inlet duct and filter.



5.2 Flammable Gas Exhaust Fan Fixing Screws and Cable Positions Diagram

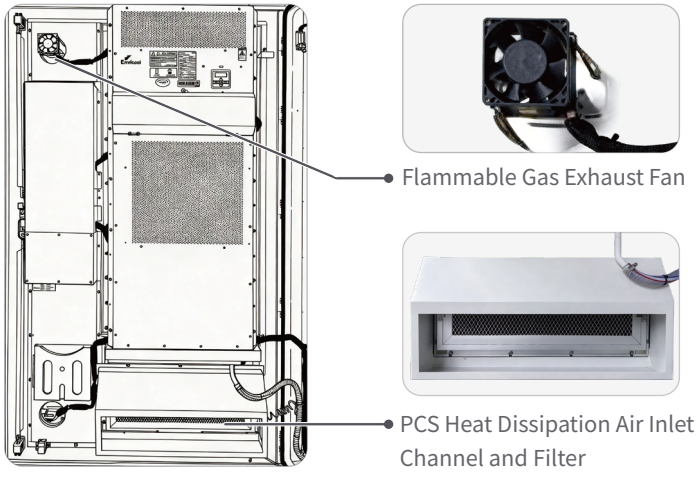


5.3 Flammable Gas Exhaust Fan Replacement

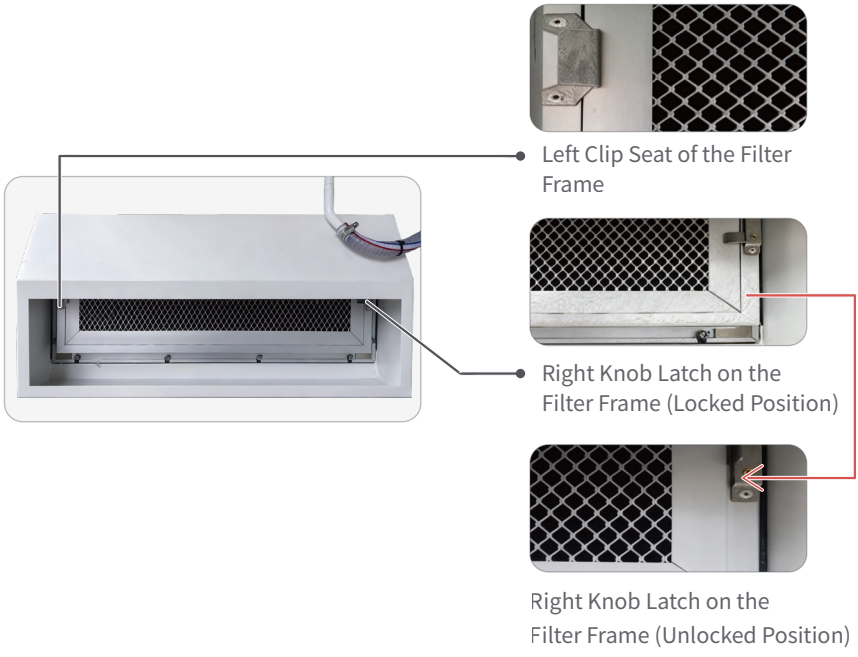
Steps
① Power off the cabinet.
② Open the cable harness sleeve and locate the fan power wires.
③ Disconnect the fan power wires.
④ Unscrew and remove the faulty fan.
⑤ nstall and secure the new fan.
⑥ Reconnect the fan power wires.
⑦ Power on the cabinet.
⑧ Verify fan operation is normal.
End.

6 PCS AIR INLET FILTER CLEANING OR REPLACEMENT

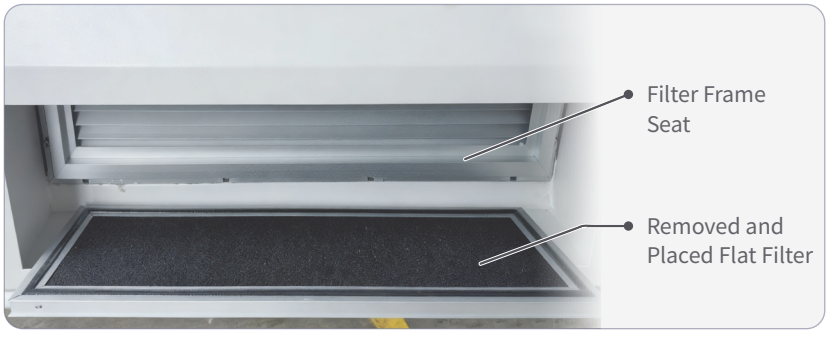
6.1 PCS Air Inlet Filter Location



6.2 PCS Air Inlet Filter Fastening Mechanism Diagram



6.3 PCS Air Inlet Filter Removal and Flat Placement Diagram, and Filter Frame



6.4 PCS Air Inlet Filter Cleaning or Replacement

Steps
① Unlock the latch on the right side of the filter frame.
② Remove the filter (use pliers or another tool if needed, as the filter is flush with the frame).
③ Use compressed air to blow off dust/debris from the filter, taking care not to damage it.
④ If the filter is heavily contaminated or damaged, replace it with a new filter (with frame).
⑤ Reinstall the filter into the frame, locking the latch securely.
End.

7 PCS EXHAUST FAN REPLACEMENT

7.1 PCS Exhaust Fan Position Diagram

PCS Exhaust Fan is Inside the Red Framed Area on the Rear Cover

Remove the Screws Inside the Green Frame to Detach the Rear Cover

7.2 Rear Cover Plate Removal Diagram

The PCS Exhaust Fan is on the Inside Surface of the Rear Cover

Open the Rear Cover Panel →

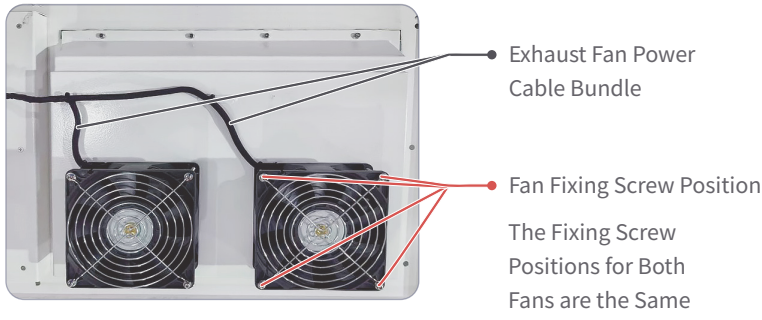
⚠ WARNING

During the Removal Process, Do Not Touch the Internal Cable Terminals of the Cabinet

⚠ WARNING

Caution! The Terminals in the Yellow-Framed Area Are Live, Do Not Touch

7.3 PCS Exhaust Fan Fixing Screw Position and Power Cable Position

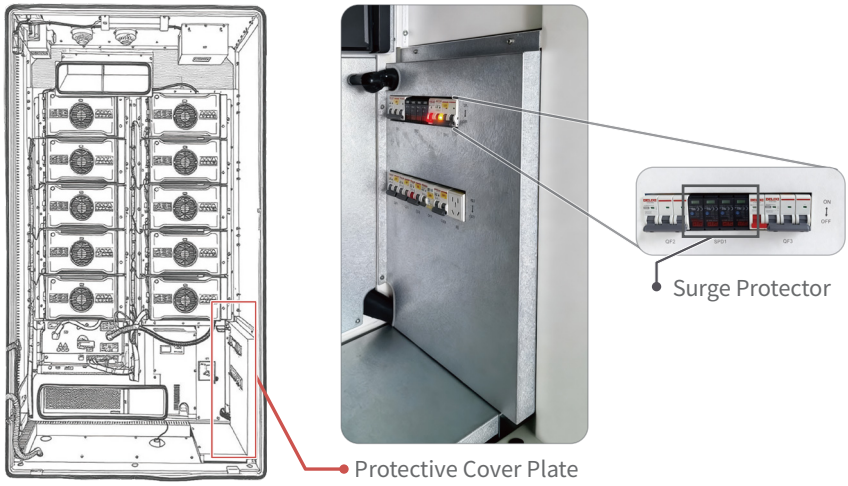


7.4 PCS Exhaust Fan Replacement

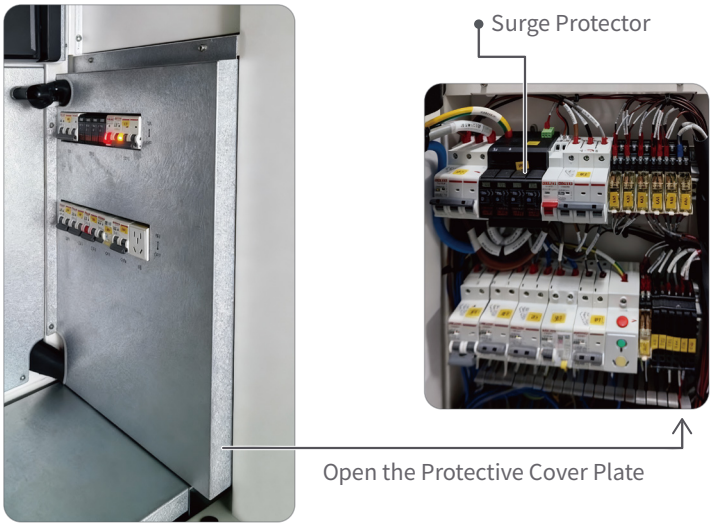
Steps
① Power off the cabinet.
② Remove the rear cover plate (avoid touching internal components or terminals).
③ Open the cable harness sleeve, locate the fan power wires, and disconnect them.
④ Unscrew and remove the faulty fan, then secure the new fan in place.
⑤ Reconnect the power wires, rewrap and secure the cable harness.
⑥ Reinstall the rear cover plate, fastening a few screws.
⑦ Power on the cabinet and confirm fan operation.
⑧ Tighten all cover screws.
End.

8 SURGE PROTECTOR REPLACEMENT

8.1 Surge Protector Position Diagram



8.2 Open Protective Cover



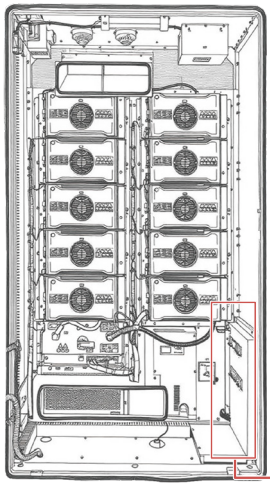
8.3 Surge Protector Normal Status Diagram

8.4 Surge Protector Replacement

Steps
① Power off the cabinet.
② Open the protective cover.
③ Remove the damaged surge protector module (window shows red).
④ Insert the new module into the surge protector base.
⑤ Replace the protective cover.
⑥ Power on the cabinet.
End.

9 INTERMEDIATE RELAYS OR FUSES REPLACEMENT

9.1 Fuse and Relay Position Diagram

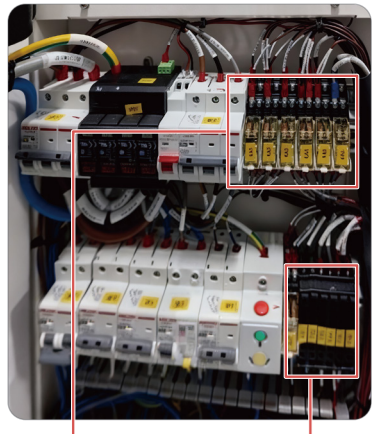


Protective Cover Plate

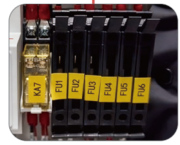
Intermediate Relays KA1-KA7 and Fuses FU1-FU6 are inside the Protective Cover Plate

9.2 Intermediate Relays and Fuses Positions Diagram (After Protective Cover Open)

Open the Protective Cover Plate



Intermediate Relays KA1-KA6



Intermediate Relays KA7 and Fuses FU1-FU6

9.3 Intermediate Relays KA1–KA7 Replacement

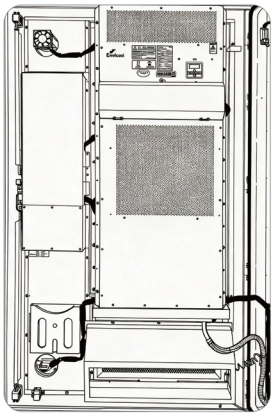
Steps
① Power off the cabinet.
② Open the protective cover.
③ Identify the faulty relay.
④ Remove the damaged relay.
⑤ Insert the new relay.
⑥ Replace the protective cover.
⑦ Power on and verify operation.
End.

9.4 Intermediate Relays FU1-FU6 Replacement

Steps
① Power off the cabinet.
② Open the protective cover.
③ Identify the faulty fuse.
④ Open the fuse holder and remove the damaged fuse.
⑤ Insert the new fuse and close the holder.
⑥ Replace the protective cover.
⑦ Power on and verify operation.
End.

10 LED BOARD REPLACEMENT

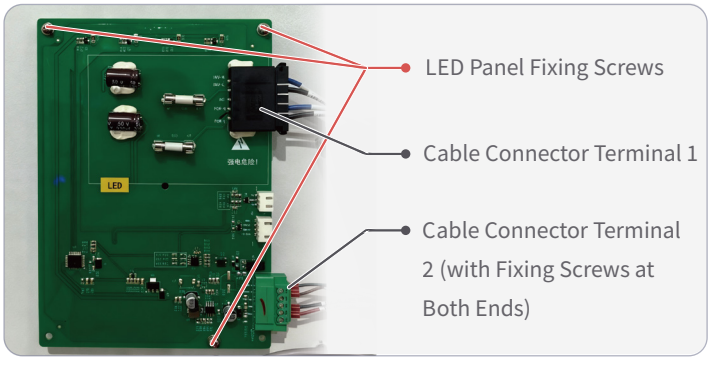
10.1 LED Board Location Diagram



Inside Surface of the Cabinet Door

Open the Protective Cover

10.2 LED Board Location Diagram

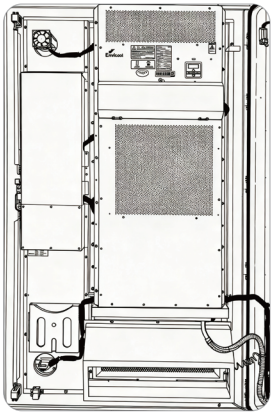


10.3 LED Board Location Diagram

Steps
① Power off the cabinet.
② Open the protective cover.
③ Disconnect connector 1.
④ Loosen screws on connector 2 and disconnect it.
⑤ Unscrew and remove the faulty LED board.
⑥ Install the new LED board.
⑦ Reconnect connector 1 and connector 2, and tighten connector 2 screws.
⑧ Replace the protective cover.
⑨ Power on and confirm operation.
End.

11 EMS BOX REPLACEMENT

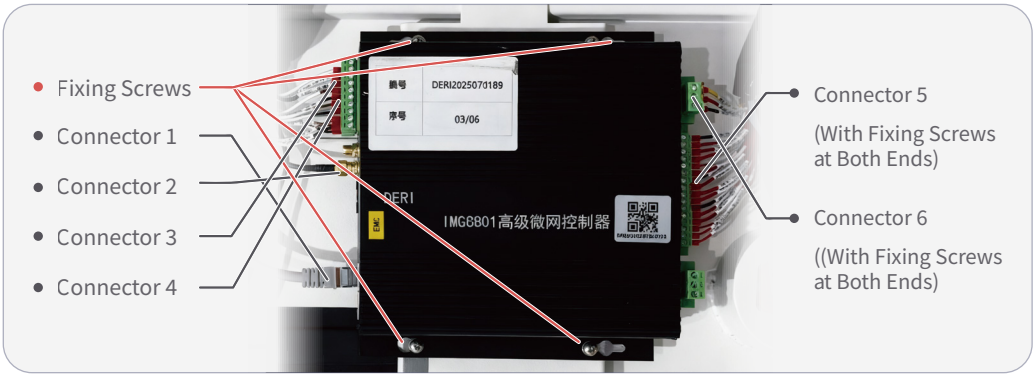
11.1 EMS Box Location Diagram



Inside Surface of the Cabinet Door

Open the Protective Cover

11.2 EMS Box Fixing Screws and Connector Positions Diagram



11.3 EMS Box Replacement Steps

Steps
① Power off the cabinet.
② Open the protective cover.
③ Disconnect all connectors (note: connectors 5 and 6 require loosening screws on both sides).
④ Unscrew and remove the EMS box.
⑤ Install and secure the new EMS box.
⑥ Reconnect all connectors and secure them.
⑦ Power on and verify normal operation.
End.

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