

MANUFACTURED FOR:
MITSUBISHI ELECTRIC US, INC.

Separate Power Terminal Block Kit

SPTB1

INSTALLATION MANUAL

FOR INSTALLER

For safe and correct use, please read this installation manual thoroughly before installing the Separate Power Terminal Block Kit.

English

Contents

| | |
|-----------------------------|---|
| 1. Safety Precautions | 2 |
| 2. Parts List..... | 2 |
| 3. Installation | 3 |
| 4. Wiring Schematic..... | 5 |

This manual describes the installation of the SPTB1 Separate Power Terminal Block for Mitsubishi Electric M&P series air conditioners. The SPTB1 will allow for a separate power supply to the indoor unit rather than receiving power from the outdoor unit. Please refer to SPTB1 product guide for proper application.

1. Safety Precautions

Before installing the unit, make sure you read all the "Safety precautions".

The "Safety precautions" provide very important points regarding safety. Make sure you follow them.

Symbols used in the text

⚠ Warning:

This symbol denotes what could lead to serious injury or death if you misuse the SPTB1

⚠ Caution:

This symbol denotes what could lead to a personal injury or property damage if SPTB1 is misused

After reading this instruction manual, keep it in a place where the end user can find it anytime he or she wants to. When someone moves, repairs or uses the SPTB1, make sure to forward this manual to the final user.

⚠ Warning:

- **Ask your technical representative to install the unit.** Any deficiency caused by your own installation may result in electric shock or fire.
- **Ensure that installation work is done correctly following this instruction manual.** Any deficiency caused by installation may result in electric shock or fire.
- **Firmly connect the wiring using the specified cables.** Carefully check that the cables do not exert any forces on the terminals. Improper wiring connections may produce heat and possibly fire.
- **Never modify or repair the SPTB1.** Any deficiency caused by your modification or repair may result in electric shock or fire. Consult with your technical representative about repair.
- **All electrical work must be performed by a licensed technician, according to the local regulations and the instructions given in this manual.** Any lack of electric circuit or any deficiency caused by installation may result in electric shock or fire.
- **Stop the operation if any malfunction occurs.** If malfunction occurs (burning smell, etc.) stop the operation and turn off the power supply. Contact your technical representative. If the controller continues to operate after a malfunction occurs, this may cause damage, electric shock or fire.
- **Do not turn on the main power until installation has been completed.** Doing so may result in electric shock or fire.
- **Keep the area around the unit clean to keep the indoor unit from accumulating dust on the components.** Dust particles that enter the indoor unit may cause fire.
- **Do not move and re-install the SPTB1 yourself.** Any deficiency caused by the installation may result in electric shock or fire. Ask your distributor or special technical representative for moving and installation.

Note:

The installer will still need to run S2 and S3 wires from the outdoor unit to the indoor unit. See Wiring Schematic section of this installation manual.

⚠ Caution:

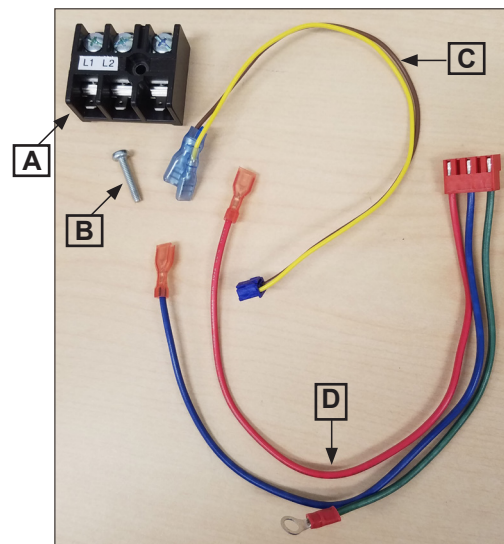
Do not power the electric heat package from the outdoor unit.

⚠ Caution:

- **Do not install in any place exposed to flammable gas leakage.** Flammable gases that accumulate around the SPTB1 may cause an explosion.
- **Do not use in any special environment.** Using in any place exposed to oil (including machining oil), steam and sulfuric gas may deteriorate the performance significantly or give damage to the component parts.
- **Do not install in any place at a temperature of more than 104° F or less than 32° F or exposed to direct sunlight.**
- **Do not install in any place where acidic or alkaline solution or special spays are often used.** Doing so may cause an electric shock or malfunction.
- **Wire so that it does not receive any tension.** Tension may cause wire breakage, heating or fire.
- **Do not install in an environment where moisture is condensed into water.** Doing so may cause electric shock or malfunction.
- **Do not wash with water.** Doing so may cause electric shock or malfunction.

2. Parts List

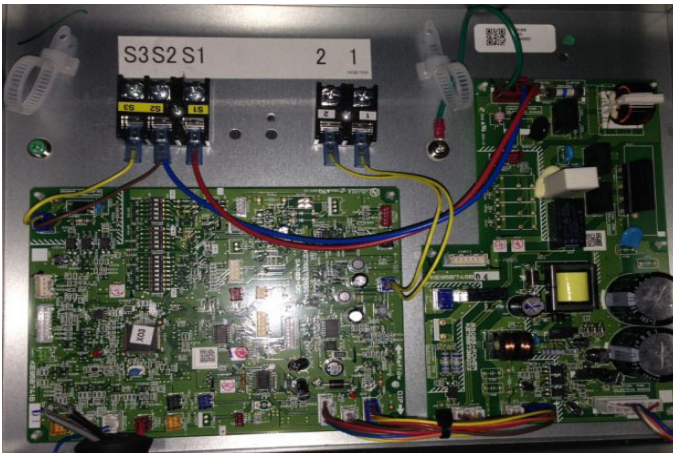
- A. (1) Terminal Block labeled "L1" and "L2"
- B. (1) M4 self-drilling screw
- C. (1) Wiring harness for communication (brown and yellow wires with connector)
- D. (1) Wiring harness for power (red, blue and green wires with connector)



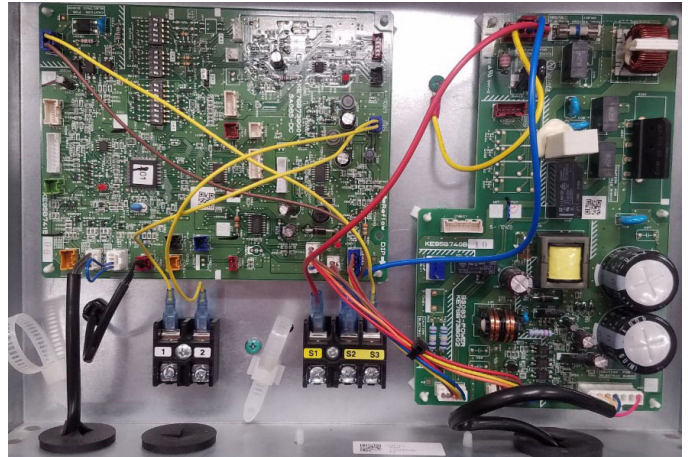
3. Installation

Note: The below instructions are for an M&P series multi position air handler. Be sure all power is removed from the indoor and outdoor unit before performing any of the below steps. Other Mitsubishi Electric indoor units will vary. These steps should only be performed by a licensed contractor.

Step. 1 Locate the control box for the M&P series air handler as per the indoor unit installation manual. Examples are shown below.

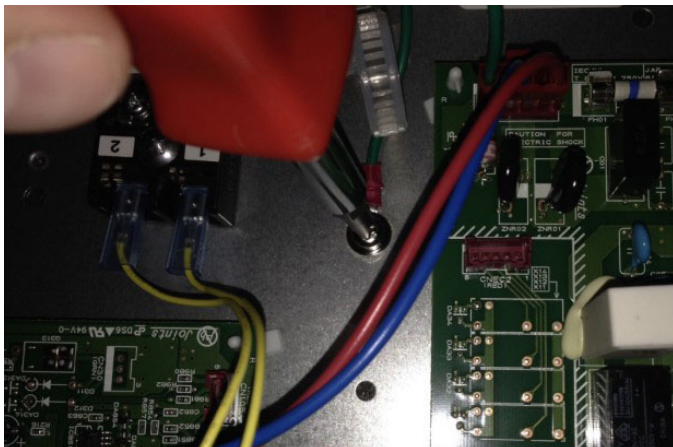


PVA models

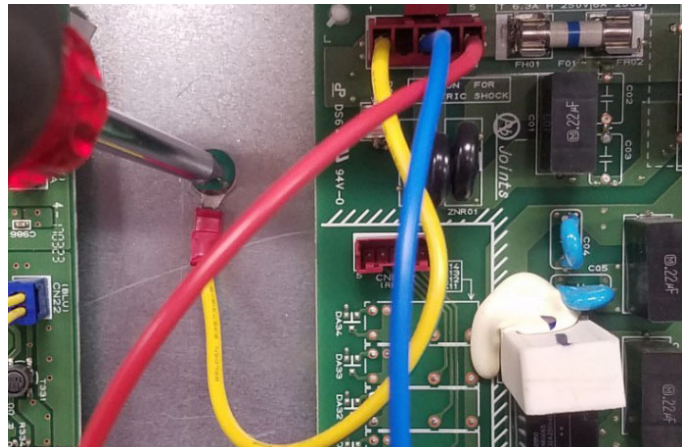


SVZ models

Step. 2 Remove the screw that secures the green (or yellow with green) wire to the sheet metal (ground).

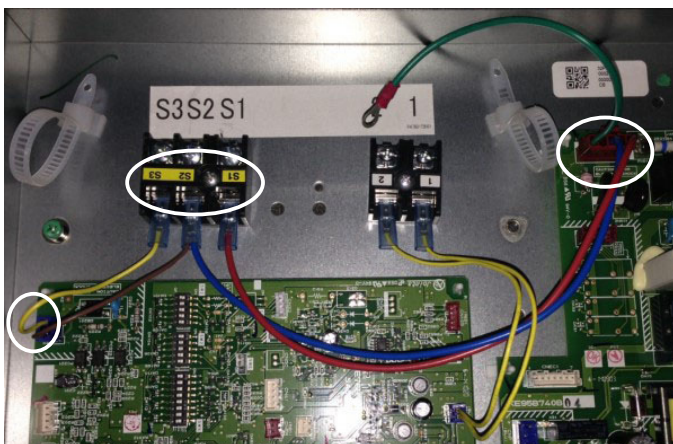


PVA models

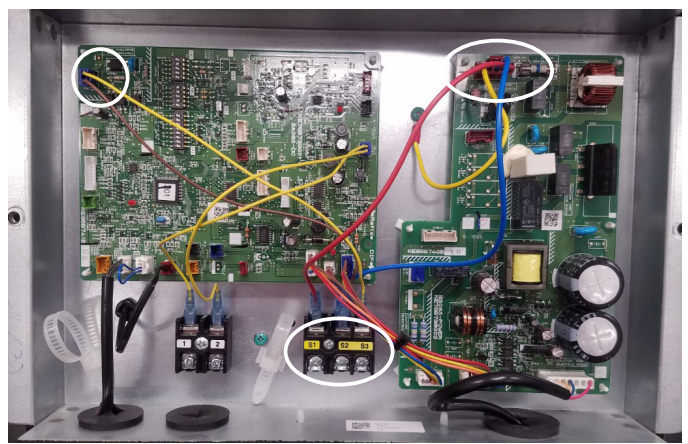


SVZ models

Step. 3 To remove the harness, unplug the red plug (CND). Next, unplug S1, S2, and S3, and then unplug CN3C.

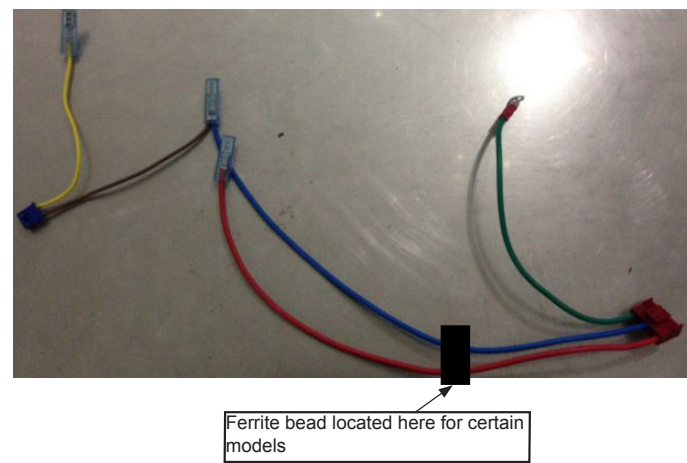


PVA models

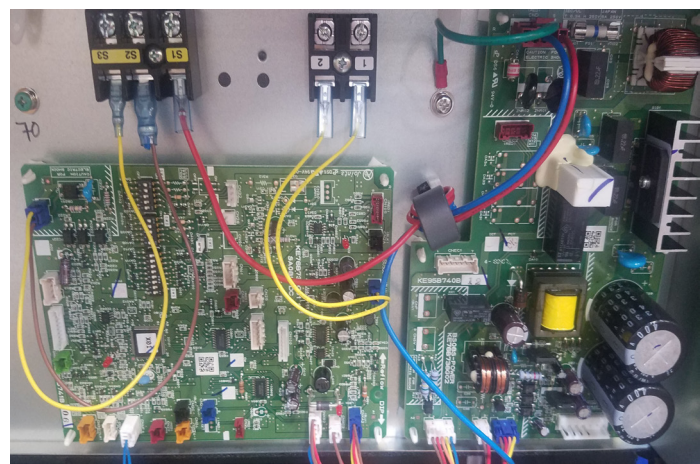


SVZ models

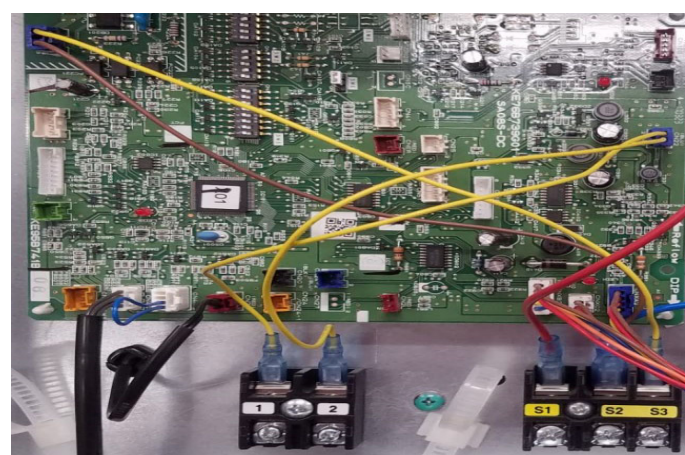
Step. 4 Remove the harness from the air handler and discard. If the model has a ferrite bead (round metal component that the blue and red wires pass through), reinstall it in the same manner over the blue and red wires in the Power wiring harness provided in the SPTB1 kit.



Step. 5 Plug the connector from the Communication wiring harness into the CN3C connector. Next, connect the yellow wire to S3 and the brown wire to S2.

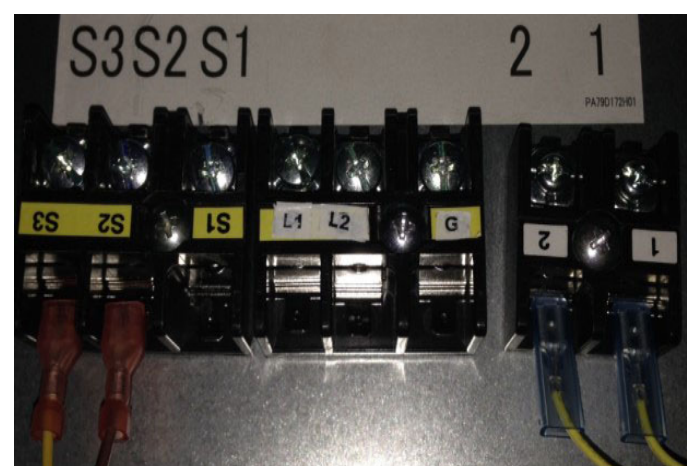


PVA models



SVZ models

Step. 6 Install the terminal block, with the provided M4 screw, between the two terminal blocks in the control box. The control box contains a pilot hole for the M4 screw.



PVA models



SVZ models

Note: If a ferrite bead was removed from the original wiring harness from the air handler, reinstall it over the blue and red wires in the new Power wiring harness.



Ground

Line Voltage 240
1PH

Control Board

14GA

Indoor Unit

Outdoor Unit

SPTB1

CB1

Outdoor unit grounded from separate power supply

This product is designed and intended for use in the residential,
and light-industrial environment.

Please be sure to put the contact address/telephone number on
this manual before handing it to the customer.

A large, empty rectangular box with a thin black border, intended for the user to write contact information before handing the manual to the customer.

Manufactured for MITSUBISHI ELECTRIC US, INC.

1340 Satellite Boulevard, Suwanee, GA 30024
Toll Free: 800-433-4822 www.mehvac.com