MANUFACTURED FOR:
MITSUBISHI ELECTRIC US, INC.

Adapter

# PAC-740

INSTALLATION MANUAL

**FOR INSTALLER**

For safe and correct use, please read this operation manual thoroughly before operating the air-conditioner unit.

**English**

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This manual describes the installation of the PAC-740 Adapter that connects to M&P air conditioner R410A series Multi Position Air Handler indoor units. This product, among other things can be used along with the CN24RELAY-KIT-CM3, are required to connect an ERV in the field with the Multi Position Air Handler models, MVZ and PVA.

Please refer to the installation manual for details.

For your safety, be sure to read the Safety Precaution described below thoroughly before installing the PAC-740.

## 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 PAC-740

**⚠ Caution:**
This symbol denotes what could lead to a personal injury or property damage if PAC-740 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 PAC-740, 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 PAC-740. 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 ERV 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 PAC-740 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.**

**⚠ Caution:**

- **Do not install in any place exposed to flammable gas leakage. Flammable gases that accumulate around the PAC-740 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$^{o}$ F or less than 32$^{o}$ 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

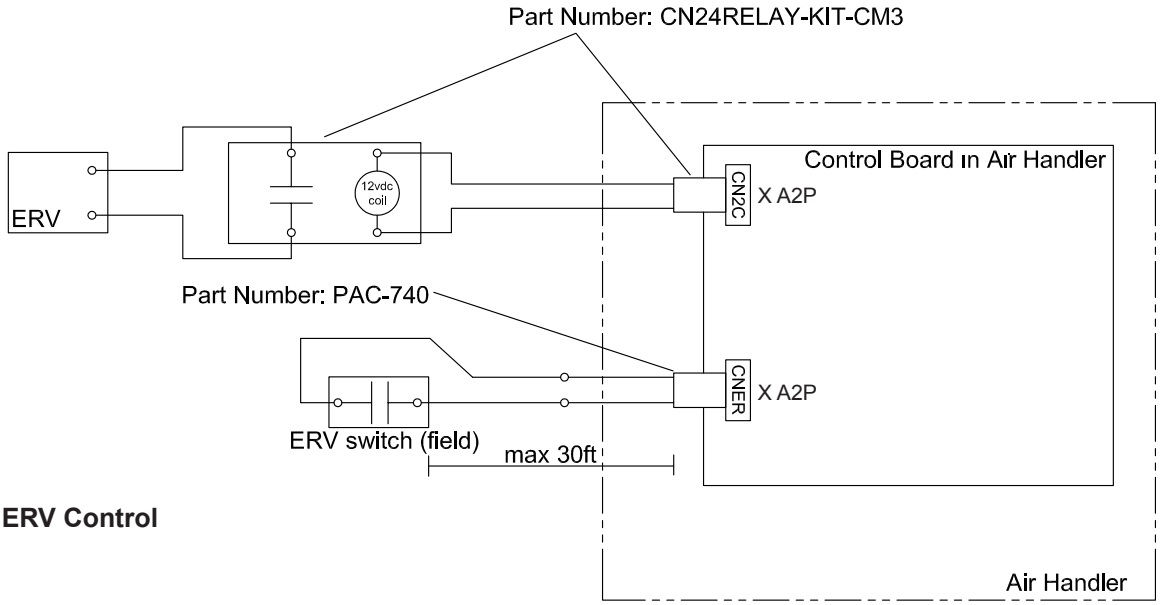
Check that the following parts are included in the package:
(1) (1) Output cable (with white connector and one white and one black 22 AWG wire)
(1) These instructions

## 3. Connection to the Indoor Unit

This adapter has a white connector with 22 AWG wire.
Connector snaps in and should not be difficult to seat.
Please choose the correct connector on the PCB.

## 4. Field-supplied Wiring

Example for Multi Position Air Handler ERV use:




**ERV Control**

Sequence of operation:
1. The ERV demand switch closes CNER
2. 12VDC is provided to CN2C to turn on ERV
3. If the unit goes into defrost, CN2C stops 12VDC output

ERV Switch:
Non-Voltage a-contact
Contact rating voltage >= 15VDC
Contact rating current >= 0.1 A
Minimum applicable load <= 1mA at DC

| ERV output / CNER input | Condition | Fan speed | CN2C output (=Fan output) |
|---|---|---|---|
| OFF | Cool/Heat/Fan operation | RC setting | ON |
| | Defrost | STOP | OFF |
| | STOP | STOP | OFF |
| ON | Cool/Heat/Fan operation | RC setting | ON |
| | Defrost | STOP | OFF |
| | STOP | Low | ON |

**⚠ Warning:**
- **When the Multi Position Air Handler and ERV are configured to perform together, do not use any other type of cables except the PAC-740 and CN24RELAY-KIT-CM3. The use of any other type of cables/relays may result in malfunctions or fire.**

## 5. Wiring Restrictions

Keep the length of the cable connecting to the circuit board of the indoor unit shorter than 32ft.
Longer than 32ft could cause improper operation.

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

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

**Manufactured for MITSUBISHI ELECTRIC US, INC.**
www.mitsubishielectric-usa.com
Toll Free: 800-433-4822


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