

Replacing PAC-M200-A Interface Module Found on Split System PremiSys® DOAS Units

Please read and save these instructions for future reference. Read carefully before attempting to operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage!

PAC-M200-A M-NET Cable Specification

Type Of cable	Shielded wire (2-conductors) CL3P/CMP, UL, RoHS
Conductor Gauge	16AWG
Cable diameter	0.189 - 0.25 inches
Remarks	Max cable length: 200 m (656 ft), Maximum length of transmission lines for centralized control and indoor/outdoor transmission lines (Maximum length via indoor units): 500 m (1640 ft). The maximum length of the wiring between power supply unit for transmission lines (on the transmission lines for centralized control) and each outdoor unit and system controller : 200 m (656 ft)

WARNING

Power must be shut off to the PremiSys® and the M-NET power source before any work is performed. All electric work must be performed according to local regulation. Improper electrical work may result in electric shock or fire.

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PAC-M200-A M-NET Wiring

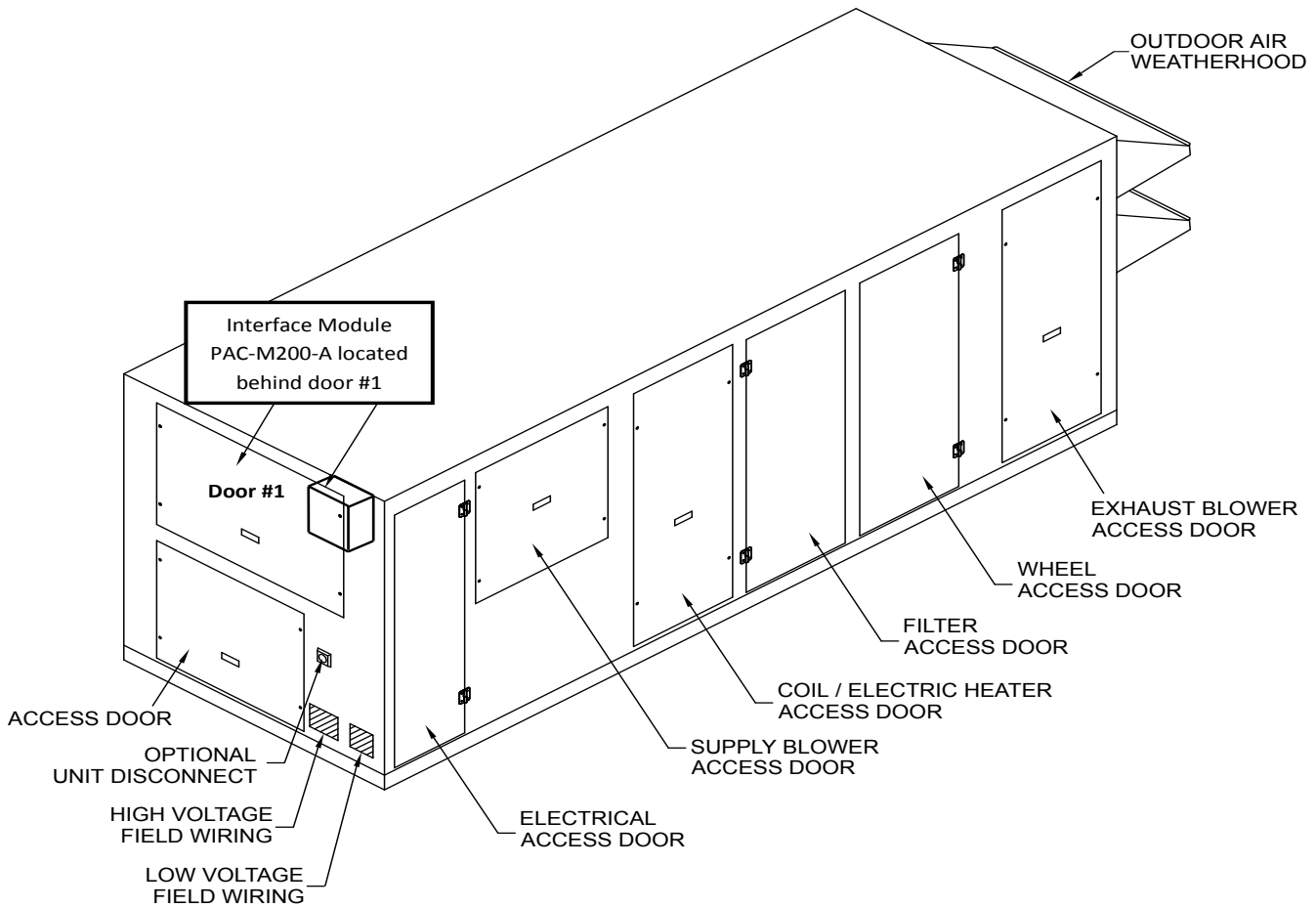


Figure 1. PAC-M200-A M-NET Wiring

PAC-M200-A M-NET INTERFACE MODULE

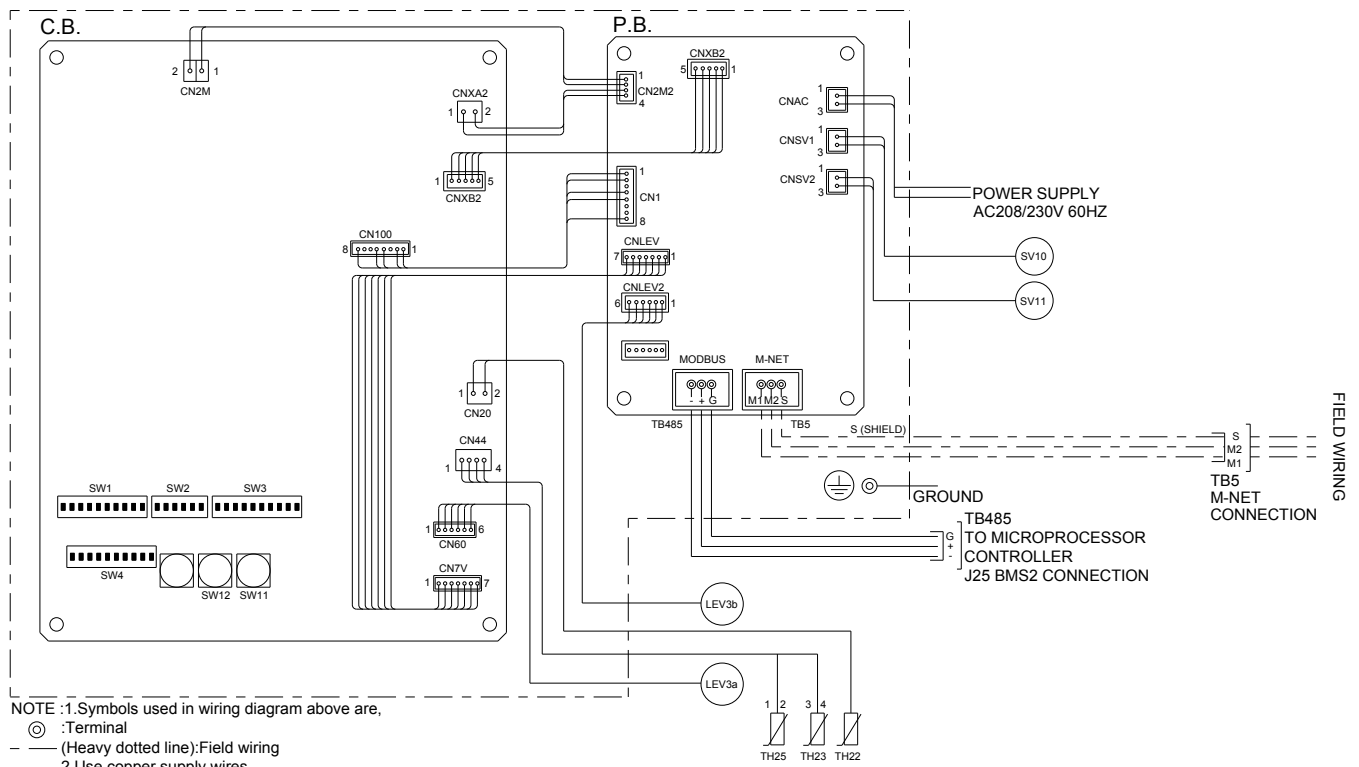


Figure 2. PAC-M200-A M-NET Wiring

Interface Module Replacement

- 1) Shut off all power to the DOAS and connected outdoor unit.
- 2) Open Door #1 shown in Figure 1 (PAC-M200-A will be located here).
- 3) Remove the cover on the PAC-M200-A.
- 4) Disconnect all wiring from the connectors and remove from the box.
- 5) Remove the box and replace with new one.
- 6) Reroute all wires into the box and reconnect. Refer to the above wiring diagram, Figure 2 for correct connections.
- 7) Tighten all cable glands to secure wires.
- 8) Set DIP switches and address dials to the same settings as the box for replacement. Refer to Outdoor Reset Function, page 8.
- 9) Replace cover on PAC-M200-A.

Replacing PAC-M100-A with PAC-M200-A Found on Package System PremiSys® DOAS Units

Please read and save these instructions for future reference. Read carefully before attempting to operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage!

PAC-M100-A M-NET Cable Specification

Type Of cable	Shielded wire (2-conductors) CL3P/CMP, UL, RoHS
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WARNING

Power must be shut off to the PremiSys® and the M-NET power source before any work is performed. All electric work must be performed according to local regulation. Improper electrical work may result in electric shock or fire.

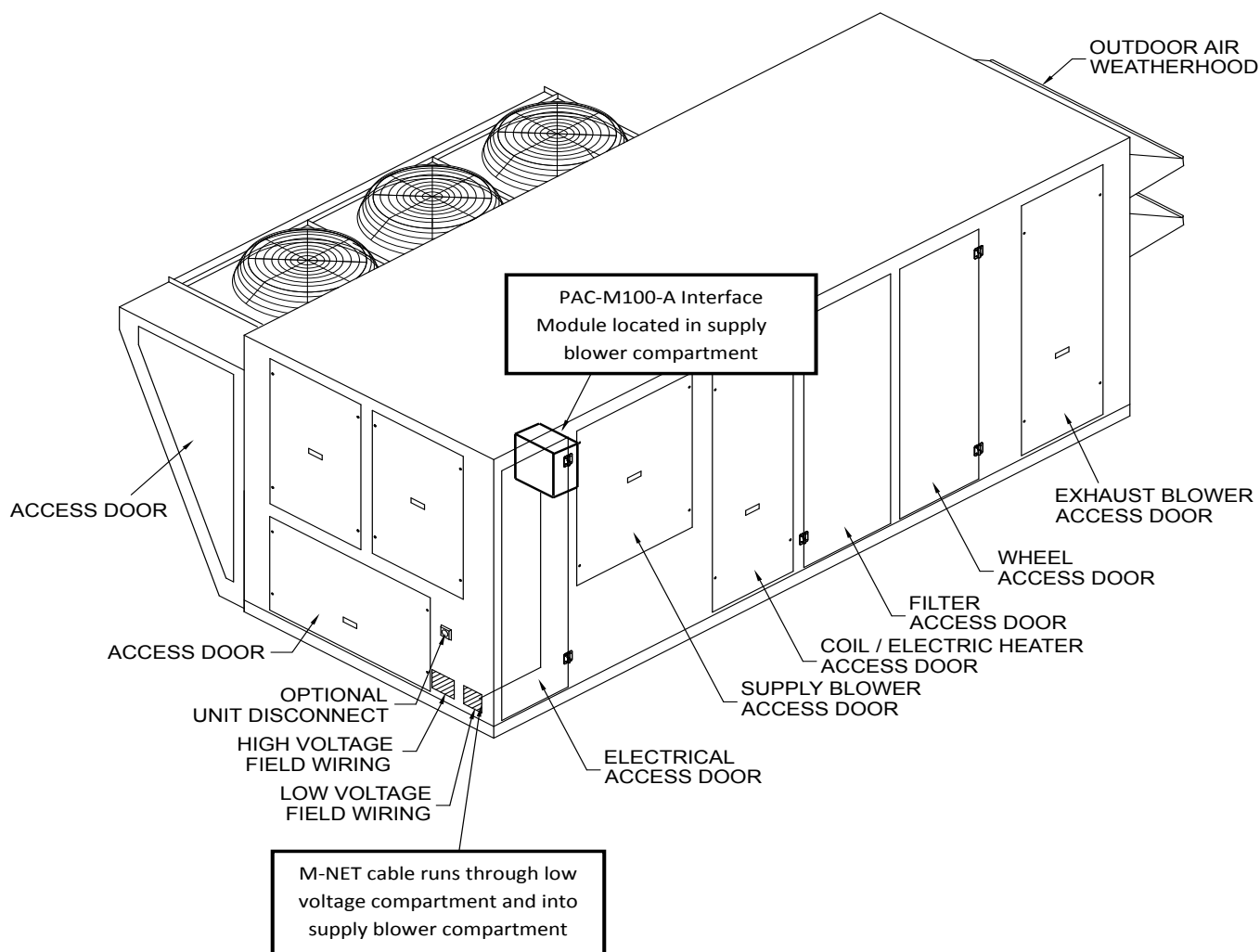


Figure 1. PAC-M100-A M-NET Wiring

PAC-M100-A Replacement

Refer to the above Figure 1. PAC-M100-A M-NET Wiring:

- 1) Remove the supply blower access panel.
- 2) Remove the cover from the PAC-M100-A.
- 3) Disconnect the M-NET wires from the TB5 terminal block.
- 4) Unplug the Modbus wire from the CN2 connector.
Cut the plug off the end of the Modbus wire.
- 5) Remove wires from box and then remove the box.
- 6) Attach PAC-M200-A to the wall of blower compartment.
- 7) Run Modbus and M-NET into the PAC-M200-A through the cable glands.

Refer to next page 6, Figure 2. PAC-M200-A M-NET Wiring:

- 8) Attach the MODBUS to terminal strip TB485
- 9) Attach the M-NET wires to terminal TB5 as shown in the wiring diagram.
**230 volt power supply is not required when replacing PAC-M100-A with the PAC-M200-A.
Power is provided by M-NET.**
- 10) Secure cable glands, set DIP Switches and address dials the same as the PAC-M100-A for replacement.
- 11) Replace cover on PAC-M200-A.

PAC-M200-A M-NET INTERFACE MODULE

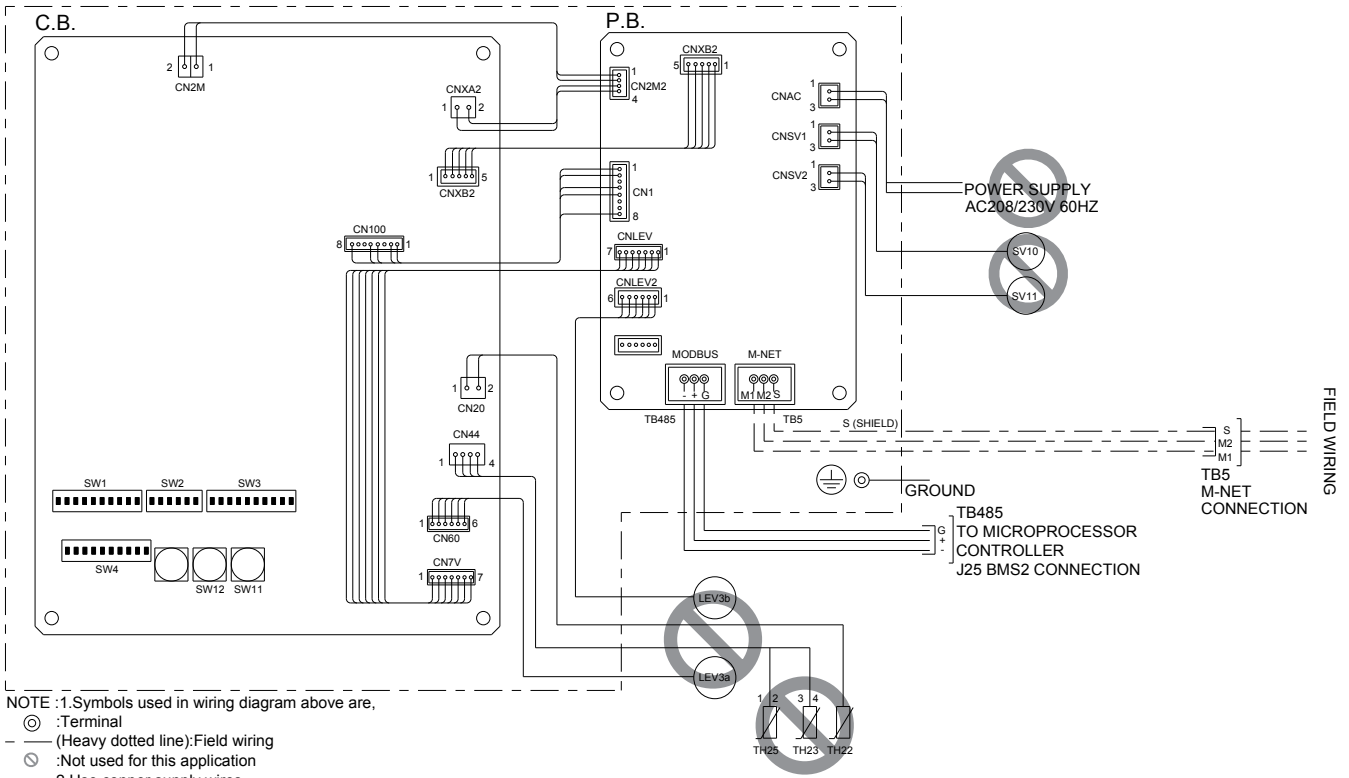
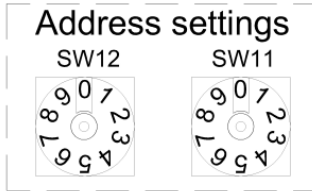


Figure 2. PAC-M200-A M-NET Wiring

M-NET Address Setting



- Two (2) types of rotary switch setting:
 - Setting addresses 1 to 9 and over 10, and
 - Setting branch numbers.

NOTE: Do not use branch setting switch for this unit.

- Examples how to set addresses:
 - If address is "3", leave SW12 (for over 10) at "0", and set SW11 (for 1 to 9) to "3".

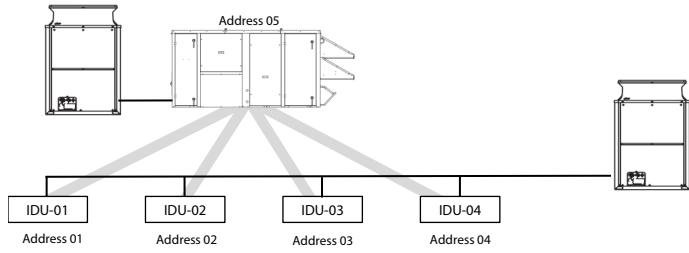
The rotary switches are all set to "0" when shipped from the factory. Use these switches to set unit addresses and branch numbers as well.

NOTE: Indoor unit M-NET addresses vary depending on design. Refer to sample systems, page 7.

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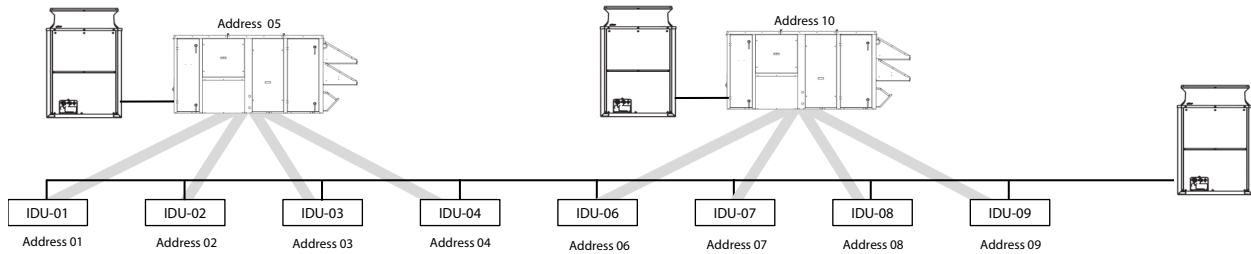
Indoor unit M-NET addresses vary depending on design. Below are some sample systems:

One CITY MULTI System and one DOAS unit



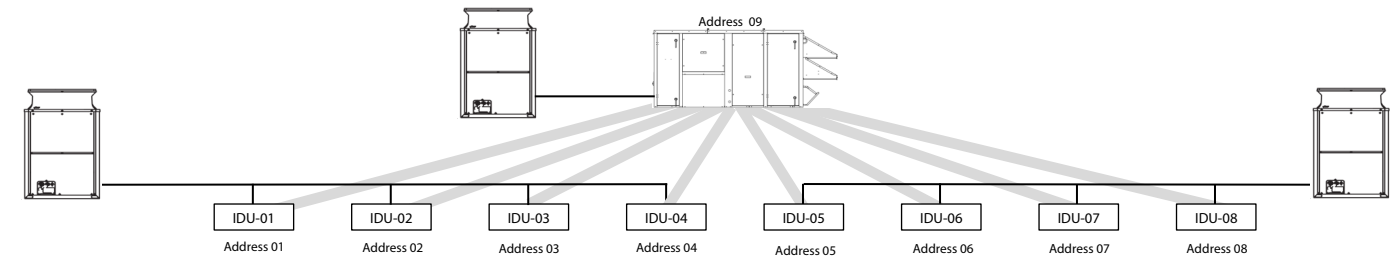
	IDU-1	IDU-2	IDU-3	IDU-4	DOAS
Address	01	02	03	04	05

One CITY MULTI System and two DOAS units



	IDU-1	IDU-2	IDU-3	IDU-4	DOAS-1	IDU-6	IDU-7	IDU-8	IDU-9	DOAS-2
Address	01	02	03	04	05	06	07	08	09	10

Two CITY MULTI Systems and one DOAS unit



	IDU-1	IDU-2	IDU-3	IDU-4	IDU-5	IDU-6	IDU-7	IDU-8	DOAS-1
Address	01	02	03	04	05	06	07	08	09

Outdoor Reset Function

Use DIP Switch SW3 and SW4 to Adjust Outdoor Reset Function located in the PAC-M200-A Interface Module.

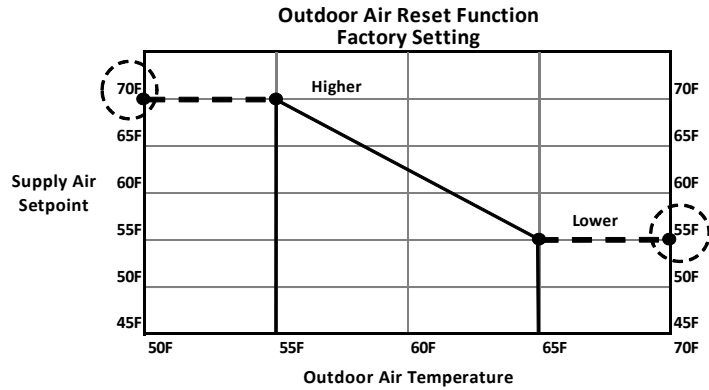
Module Outdoor Air Reset Function Temperature Range
 Outdoor Air 50° F - 75° F
 Supply Air Setpoint 50° F - 75° F

Switch Position



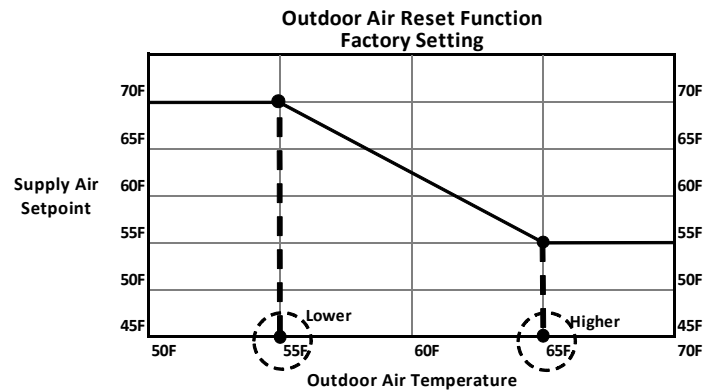
SW4 Dip Switch Settings
Supply air Setpoint

SW4 -					SW4 -										
1	2	3	4	5	Higher Setpoint					Lower Setpoint					
					70F Fac. Setting					55F Fac. Setting					
					50										50
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SW3 Dip Switch Settings
Outdoor Air Temperature

SW3 -					SW3 -										
1	2	3	4	5	Higher Setpoint					Lower Setpoint					
					65F Fac. Setting					55F Fac. Setting					
					50										50
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Control Methods

Condition List



PremiSys®

ON OFF

Mode Cool Heat Auto

Set Temp.

67 °F

Cannot change setting. Will display temperature based on reset chart above

Prohibit Remote Controller Operation

ON/OFF Mode Set Temp. Filter Sign

Hold

ON OFF

Cancel

OK

AUTO (Outdoor Reset) Control

System Supply Air will operate based on the Outdoor Reset Settings

Control method when the PremiSys is providing air into VFR Indoor Units

1. Leave the switches in factory default position on the interface control board
2. Set Microprocessor "Supply Temp Set Point" source to BMS
3. Set Microprocessor "ON/OFF" control source to BMS
4. On central controller, set the system group to ON
5. On central controller, set the system group mode to Auto

The Set Temp. cannot be changed while operating in the auto mode
The current Set Temp. will be displayed
See VRF and PremiSys Integrated Control Function below for description of Mode prohibit

Note:

Mode prohibit can be ON or OFF

Condition List



PremiSys®

ON OFF

Mode Cool OR Heat Auto

Set Temp.

72 °F

Prohibit Remote Controller Operation

ON/OFF Mode Set Temp. Filter Sign

Hold

ON OFF

Cancel

OK

Controlling System Supply Air Temp from the central controller

System Supply Air Temp will operate based on the setting in the central controller
Control method when air is directly into the space

1. Leave the Dip switches in factory setting position on the interface control board
2. Set Microprocessor "Supply Temp Set Point" source to BMS
3. Set Microprocessor "ON/OFF" control source to BMS
4. On central controller, turn the system group to ON
5. On central controller, turn the system group mode to Cool or Heat
The Set Temp. for Cool or Heat mode will be the same
The unit will determine the Mode automatically
6. Set the Set Temp. to a temperature that represents the average space Set Temp. served by this DOAS unit,, for example 72° F

Note:

Mode prohibit can be ON or OFF

See VRF and PremiSys Integrated Control Function below

Recommended OFF when providing outside air directly to the space

Condition List



PremiSys®

ON OFF

Mode Cool Heat Auto

Set Temp.

72 °F

Prohibit Remote Controller Operation

ON/OFF Mode Set Temp. Filter Sign

Hold

ON OFF

Cancel

OK

VRF and PremiSys Integrated Control Function

Override the Supply Air Temperature setpoint in the above control setups
Best used when the air is supplied to the VRF indoor units

When all indoor units are in Cool mode and thermal ON,
the reheat will be turned off and 55° F air will be supplied
Under Prohibit Remote Controller Operation, use the MODE prohibit switch
to activate and deactivate the this function
Prohibit as shown, turns the function OFF
Permit position turns the function ON
Cool mode function only

