

AEPF

AIR HANDLER SUPPLEMENTAL & OPEATING INSTRUCTIONS

Goodman Manufacturing Company, L.P. © 2005-2006
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www.goodmanmfg.com -or- www.amana-hac.com
P/N: IO-287A Date: October 2006

THIS PRODUCT CONTAINS ELECTRONIC COMPONENTS WHICH REQUIRE A DEFINITE GROUND. PROVISIONS ARE MADE FOR CONNECTION OF THE GROUND. A DEDICATED GROUND FROM THE MAIN POWER SUPPLY OR AN EARTH GROUND MUST BE PROVIDED.

INSTALLER

These instructions must be used in conjunction with the latest version of IO-286, which is shipped with the unit. It is important to follow both of these instructions and those in the latest version of IO-286 when installing th AEPF series of air handlers.

THERMOSTAT CONNECTIONS

The following composite wiring diagrams detail various configurations in which the AEPF air handlers can be used. Examples include single-stage cooling and heat pump with single or two-stage electric heating. All these configurations can be applied with convenient connections to outdoor thermostat applications.

The following sections will be detailed:

- Single-Stage Cooling (GMC Thermostat Part #CHT18-60 or equivalent.)
- Heat Pump (GMC Thermostat Part #18-60 or equivalent)

Each diagram details the connections between room thermostat and AEPF air handlers, and the connections between the AEPF air handlers and the Condensing Unit (or Heat Pump) with optional connections to Outdoor Thermostats. For each configuration, refer to the explanation of the proper jumper(s) to remove for the corresponding blower speed that will result in the programmed ECM™ motor.

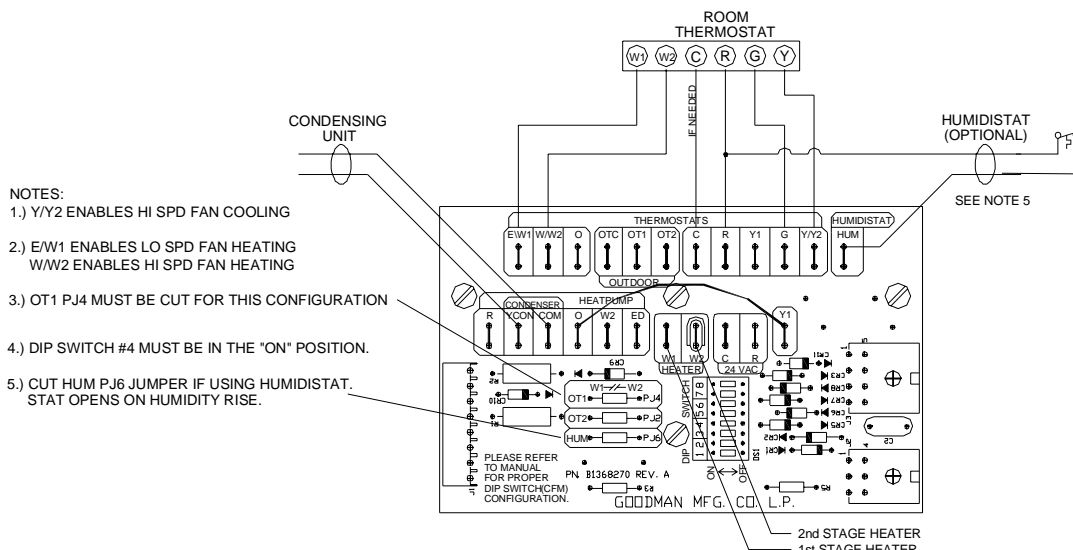
IMPORTANT: WHEN MATCHING THE AEPF AIR HANDLERS TO A SINGLE STAGE COOLING UNIT OR HEAT PUMP, REMEMBER TO CONNECT THE "Y/Y2" THERMOSTAT CONNECTION ON THE VARIABLE SPEED BOARD (VSTB) TO THE THERMOSTAT. CONNECTING "Y1" WILL RESULT IN FIRST STAGE COOLING BLOWER SPEED AND MAY CAUSE THE CONTACTOR TO CHATTER.

An equivalent thermostat can be used in place of the Goodman thermostat part number. The GMC thermostats that listed are mercury type thermostats.

WARNING

HIGH VOLTAGE!
Disconnect ALL power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury or death.

SINGLE STAGE COOLING WITH SINGLE OR TWO-STAGE HEATING



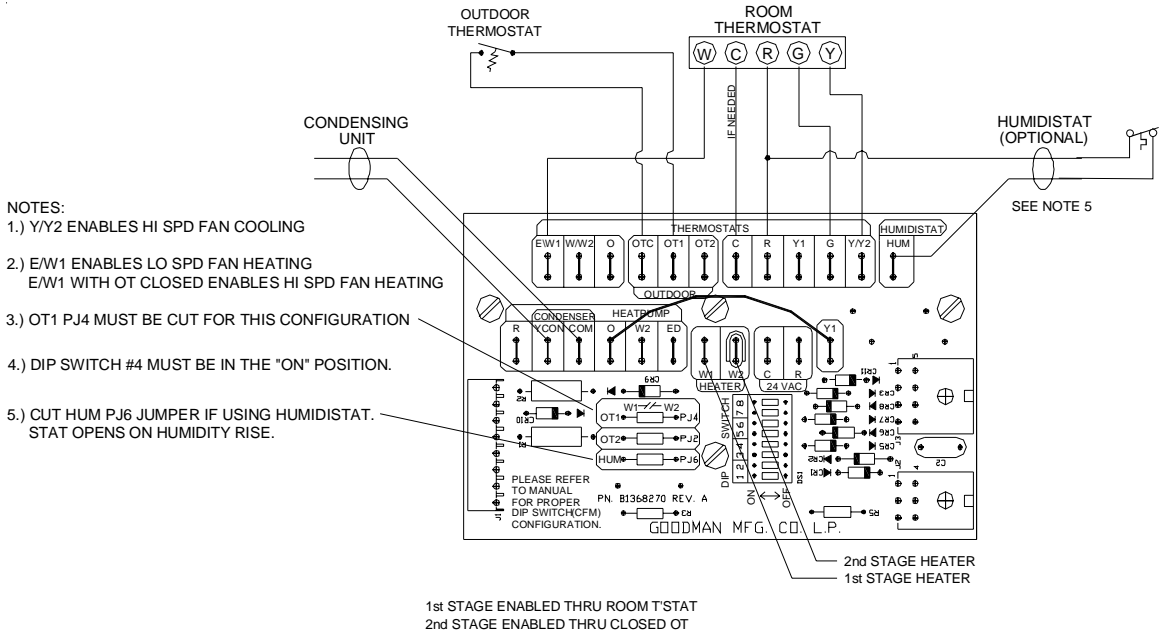
COOLING ONLY - 2 STAGE HEAT THERMOSTAT



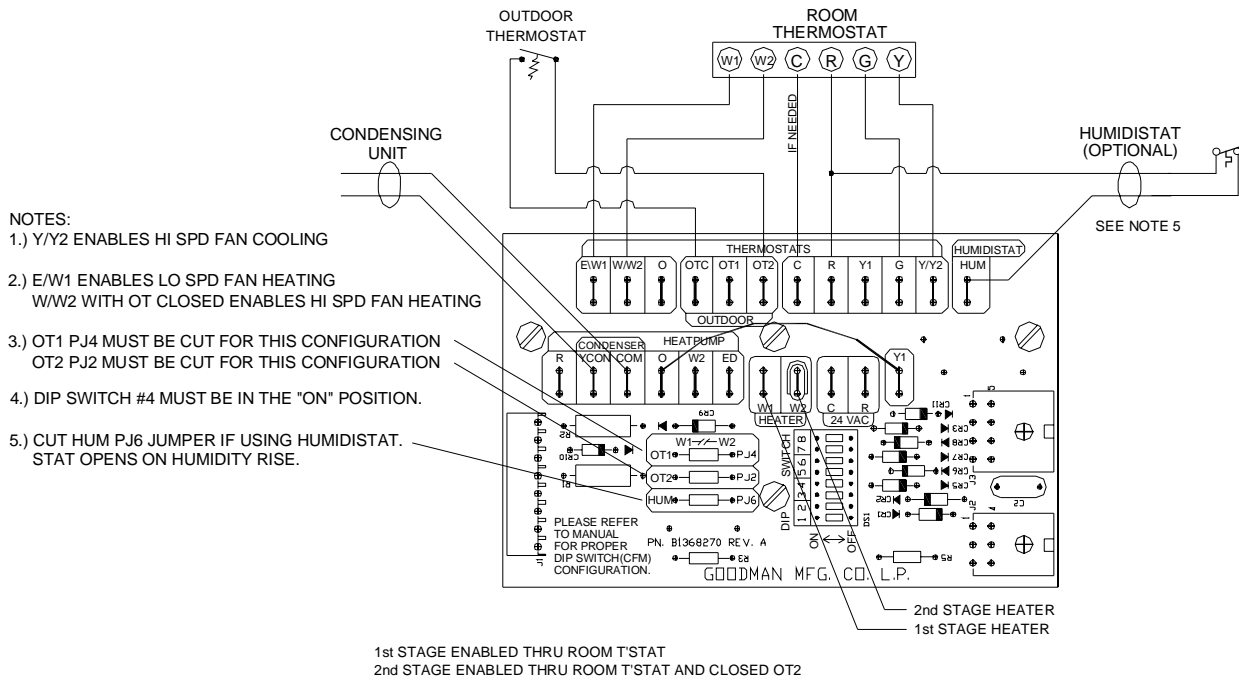


WARNING

HIGH VOLTAGE! DISCONNECT ALL POWER BEFORE SERVICING. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



COOLING ONLY - 2 STAGE HEAT (1st ROOM T'STAT & 2nd OT)

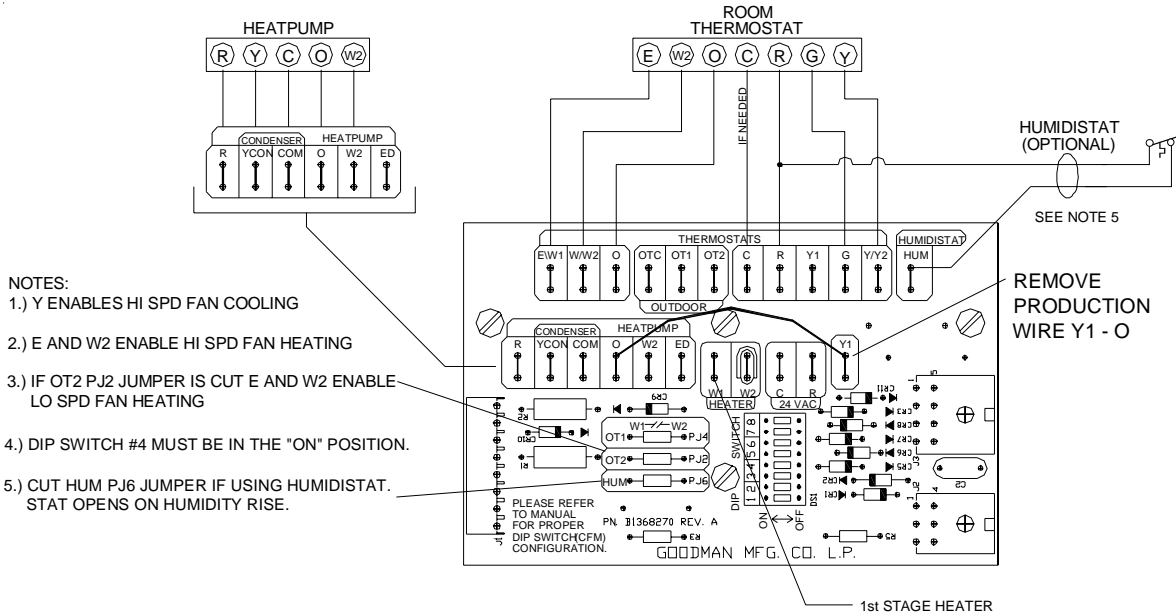


COOLING ONLY - 2 STAGE HEAT (T'STAT ENABLED OT)

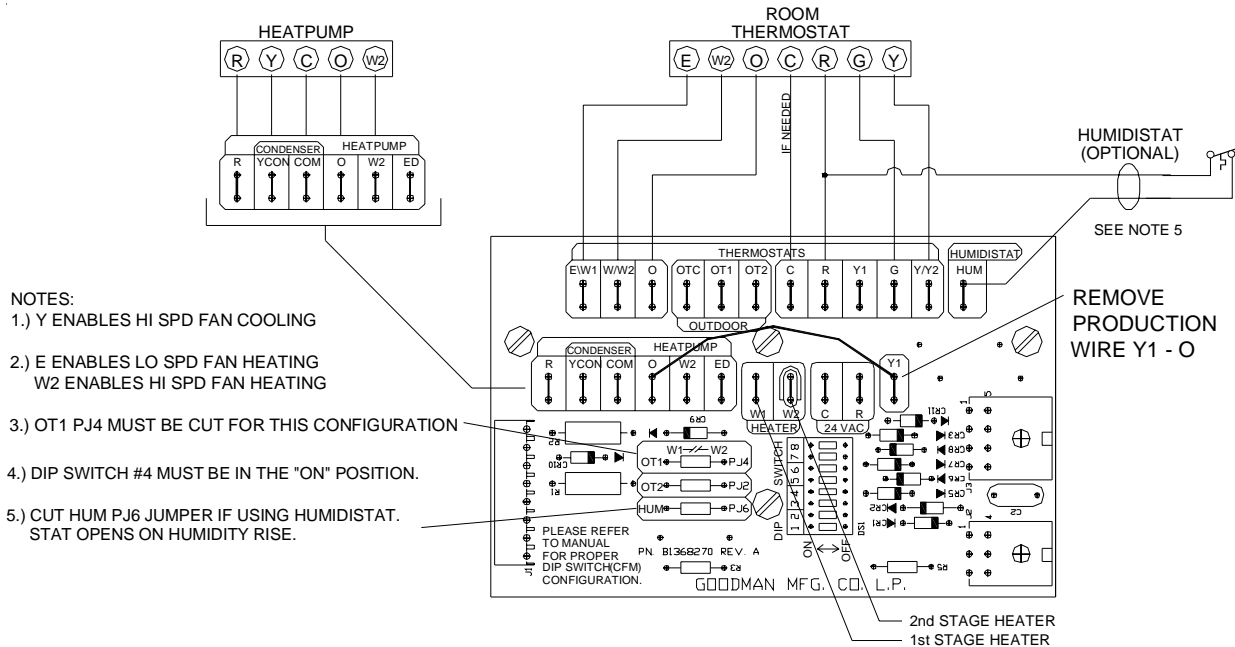
Wiring is subject to change, always refer to the wiring diagram on the unit for the most up-to-date wiring.

WARNING HIGH VOLTAGE! DISCONNECT ALL POWER BEFORE SERVICING. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

HEAT PUMP WITH SINGLE OR TWO-STAGE HEATING (OPTIONS FOR EMERGENCY HEAT)



HEATPUMP - WITH 1 STG EMHT 1 STG AUX HEAT



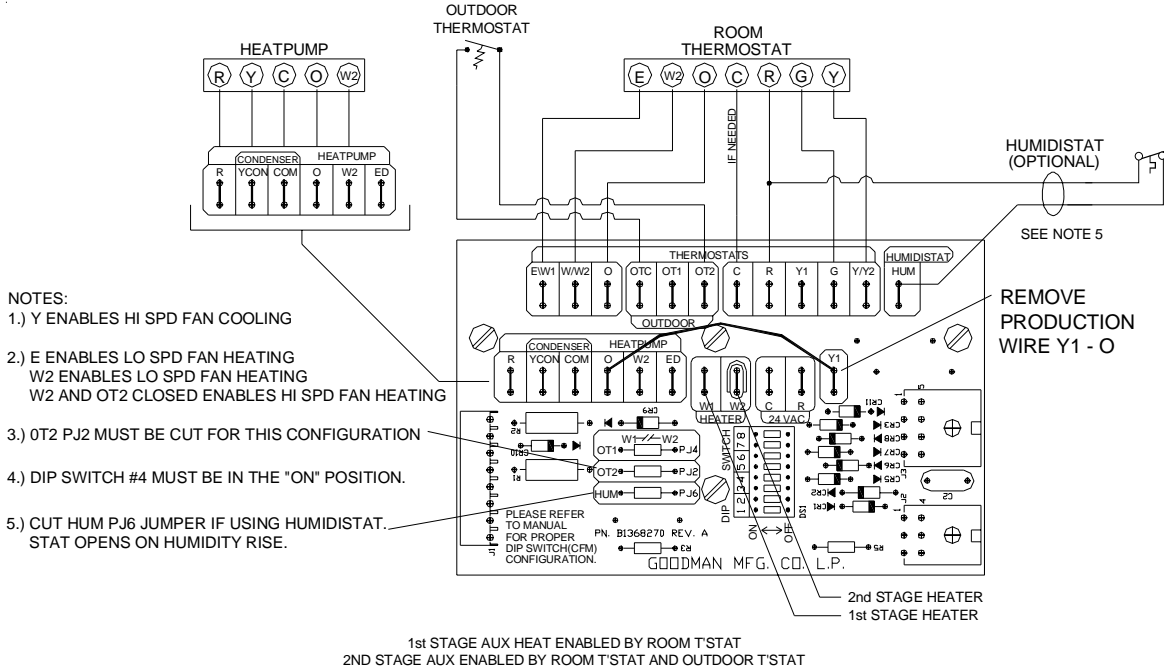
HEATPUMP - 2 STG EMHT 1 STG AUX HEAT

Wiring is subject to change, always refer to the wiring diagram on the unit for the most up-to-date wiring.

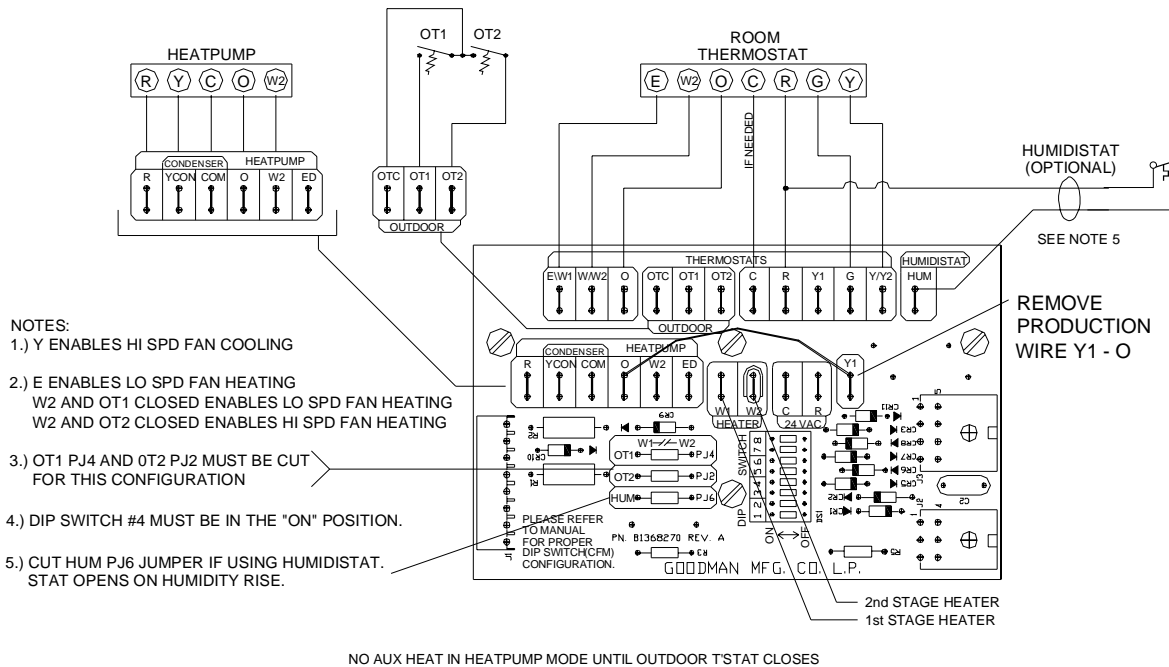


WARNING

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HEATPUMP - 2 STG EMHT 2 STG AUX - 1 OUTDOOR T'STAT



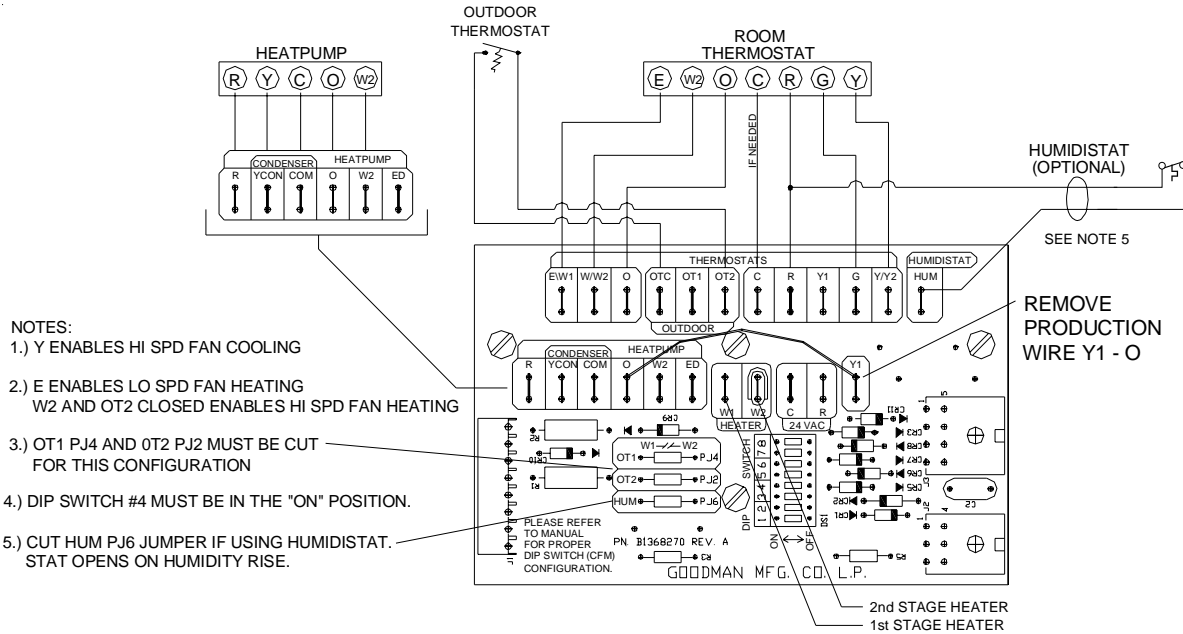
HEATPUMP - 2 STG EMHT 2 STG AUX - 2 OUTDOOR T'STATS

Wiring is subject to change, always refer to the wiring diagram on the unit for the most up-to-date wiring.



WARNING

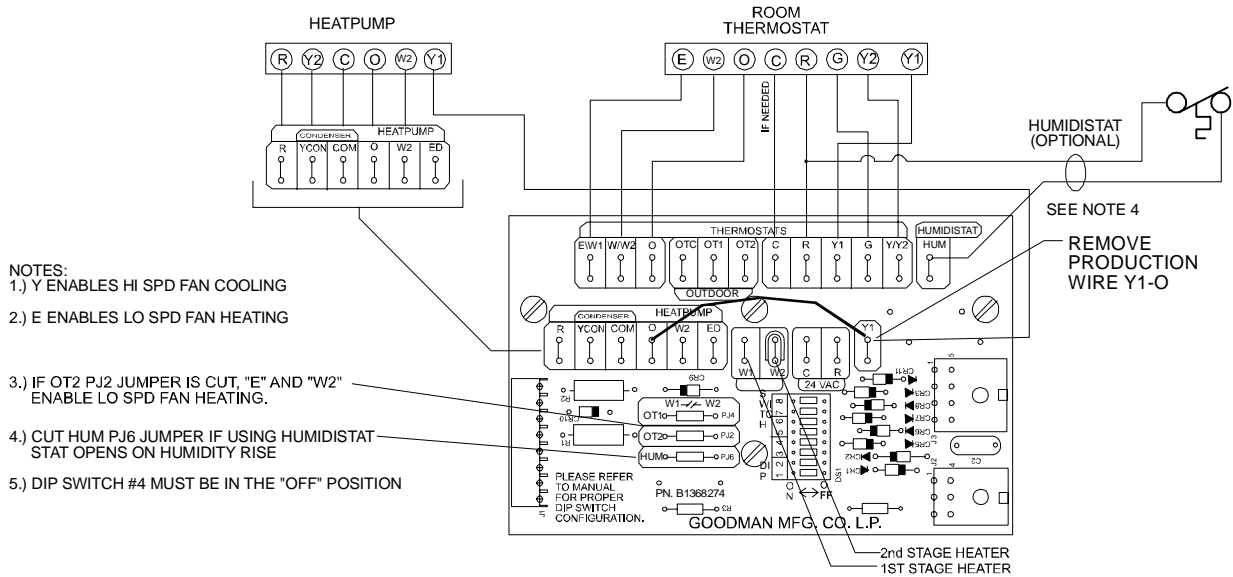
HIGH VOLTAGE! DISCONNECT ALL POWER BEFORE SERVICING. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



NO AUX HEAT IN HEATPUMP MODE UNTIL OUTDOOR T'STAT CLOSES

HEATPUMP - 2 STG EMHT 1 STG AUX - 1 OUTDOOR T'STAT

2 SPEED HEAT PUMP WITH SINGLE OR TWO STAGE HEATING (OPTIONS FOR EMERGENCY HEAT) WITH CONVENTIONAL TWO STAGE THERMOSTAT



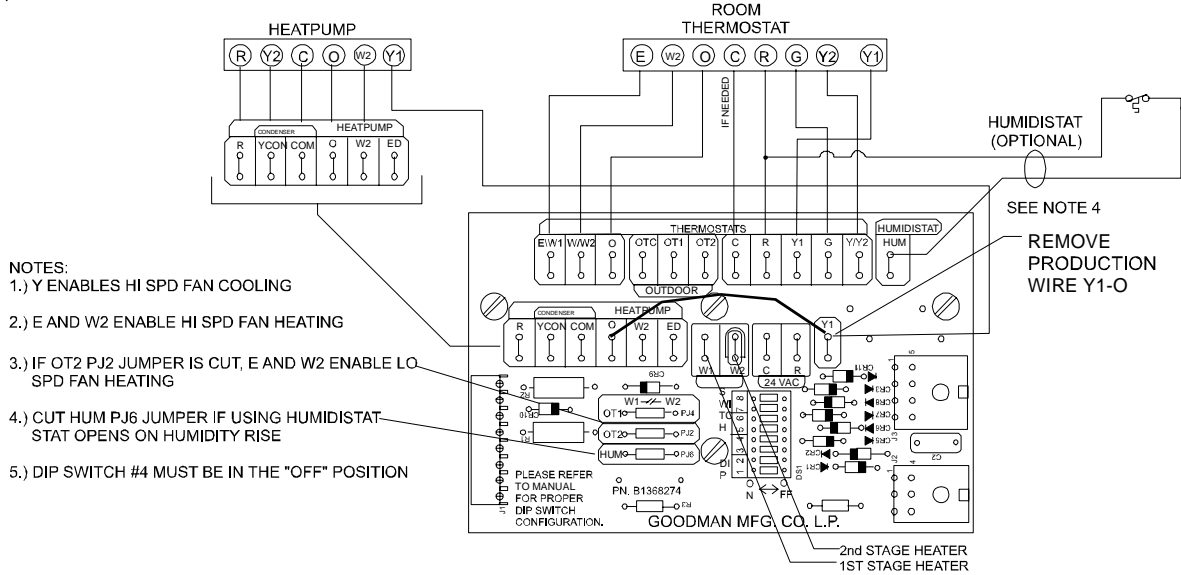
HEATPUMP - WITH 1 STG EMHT 1 STG AUX HEAT

Wiring is subject to change, always refer to the wiring diagram on the unit for the most up-to-date wiring.

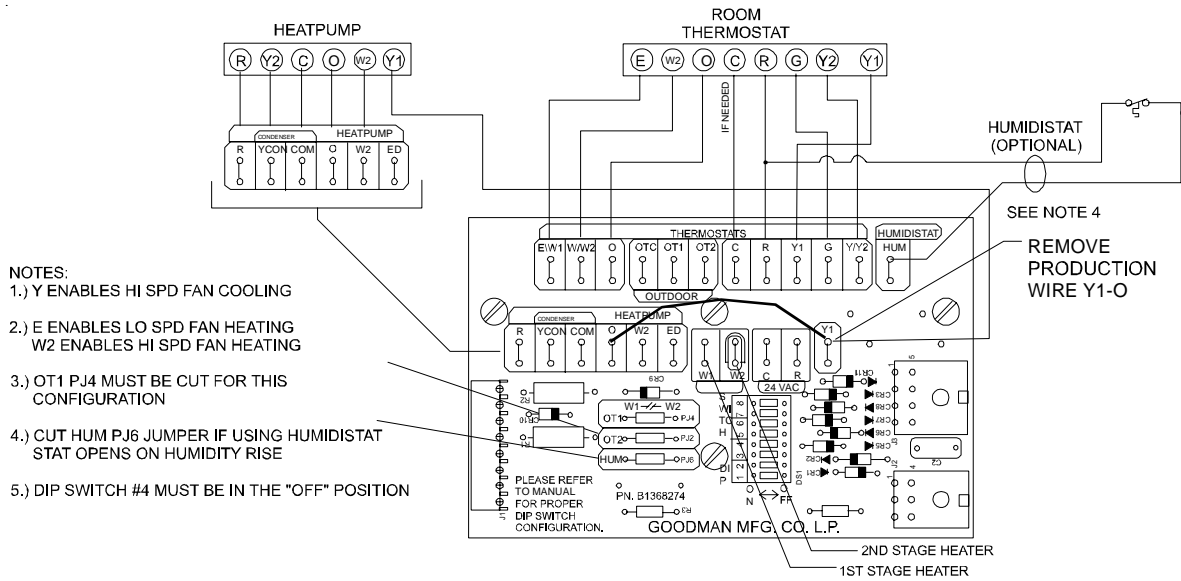


WARNING

HIGH VOLTAGE! DISCONNECT ALL POWER BEFORE SERVICING. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



HEATPUMP - WITH 1 STG EMHT 1 STG AUX HEAT



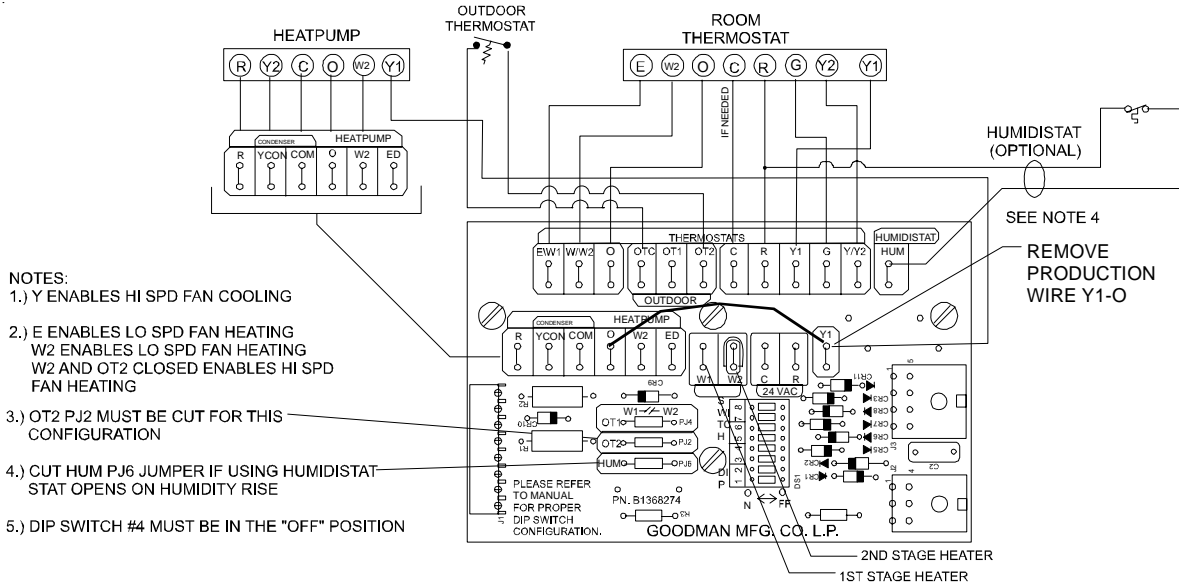
HEATPUMP - 2 STG EMHT 1 STG AUX HEAT

Wiring is subject to change, always refer to the wiring diagram on the unit for the most up-to-date wiring.



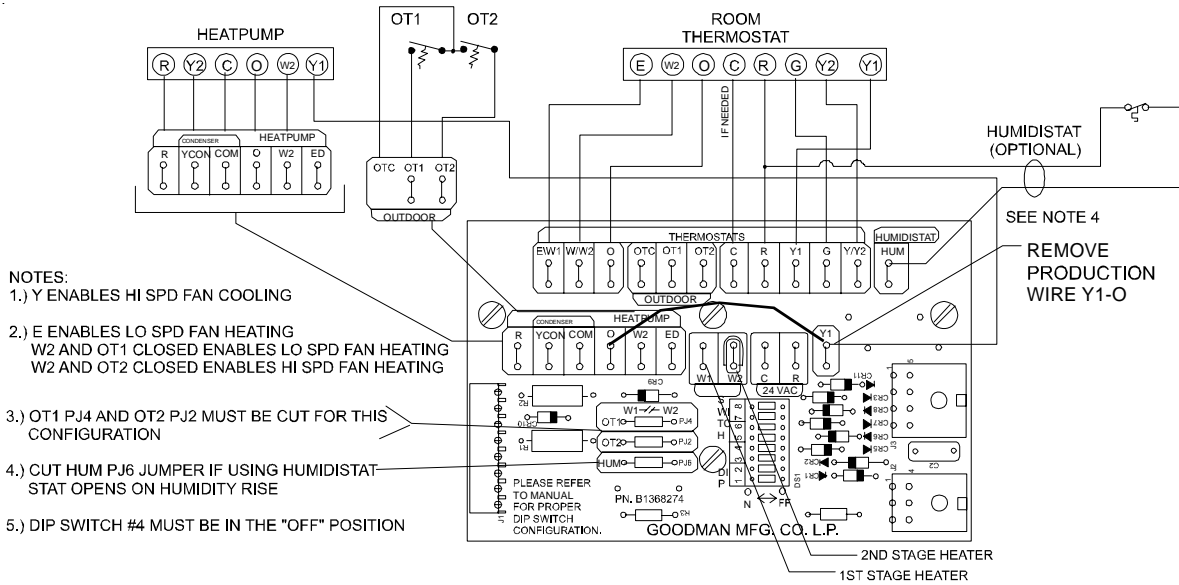
WARNING

HIGH VOLTAGE! DISCONNECT ALL POWER BEFORE SERVICING. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



1ST STAGE AUX HEAT ENABLED BY ROOM T'STAT
2ND STAGE AUX ENABLED BY ROOM T'STAT AND OUTDOOR T'STAT

HEATPUMP - 2 STG EMHT 2 STG AUX - 1 OUTDOOR T'STAT



NO AUX HEAT IN HEATPUMP MODE UNTIL OUTDOOR T'STAT CLOSES

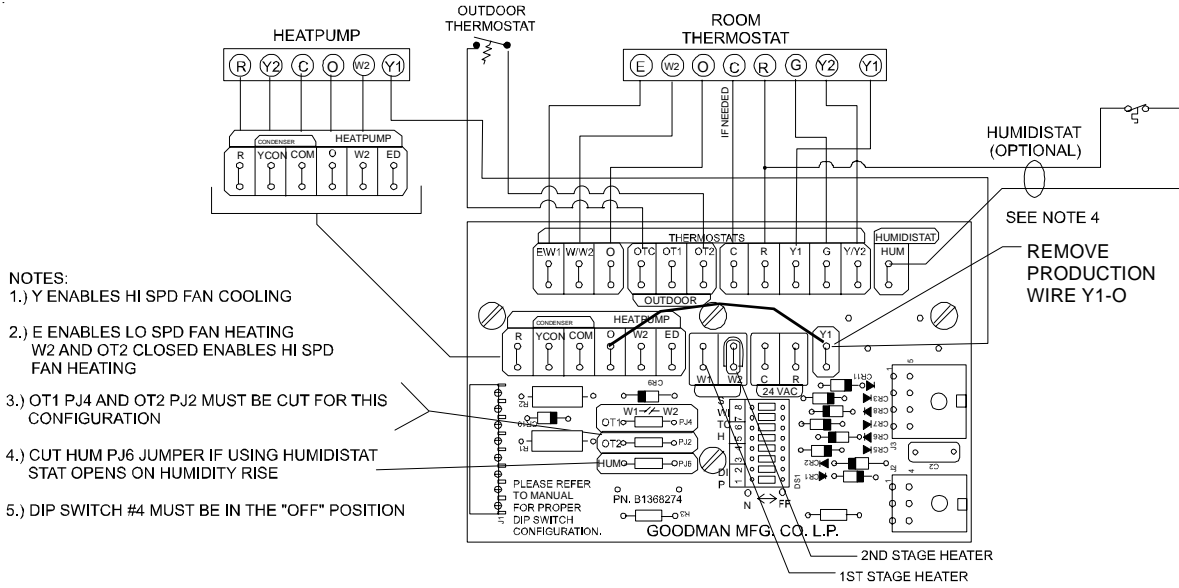
HEATPUMP - 2 STG EMHT 2 STG AUX - 2 OUTDOOR T'STATS

Wiring is subject to change, always refer to the wiring diagram on the unit for the most up-to-date wiring.



WARNING

HIGH VOLTAGE! DISCONNECT ALL POWER BEFORE SERVICING. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



NO AUX HEAT IN HEATPUMP MODE UNTIL T'STAT CLOSES

HEATPUMP - 2 STG EMHT 1 STG AUX - 1 OUTDOOR T'STAT

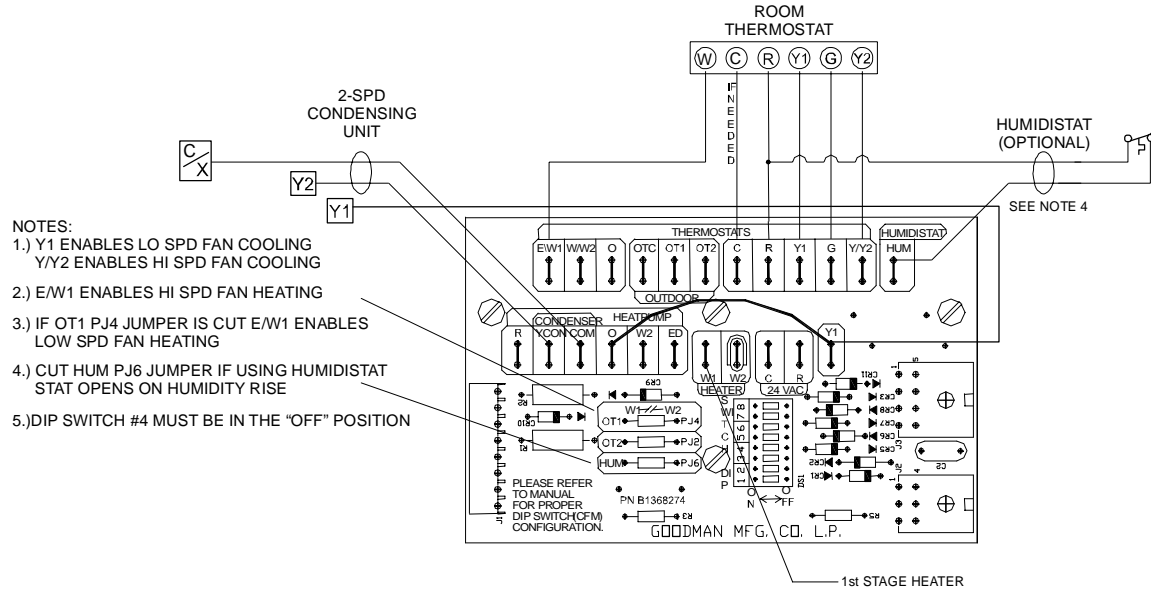


WARNING

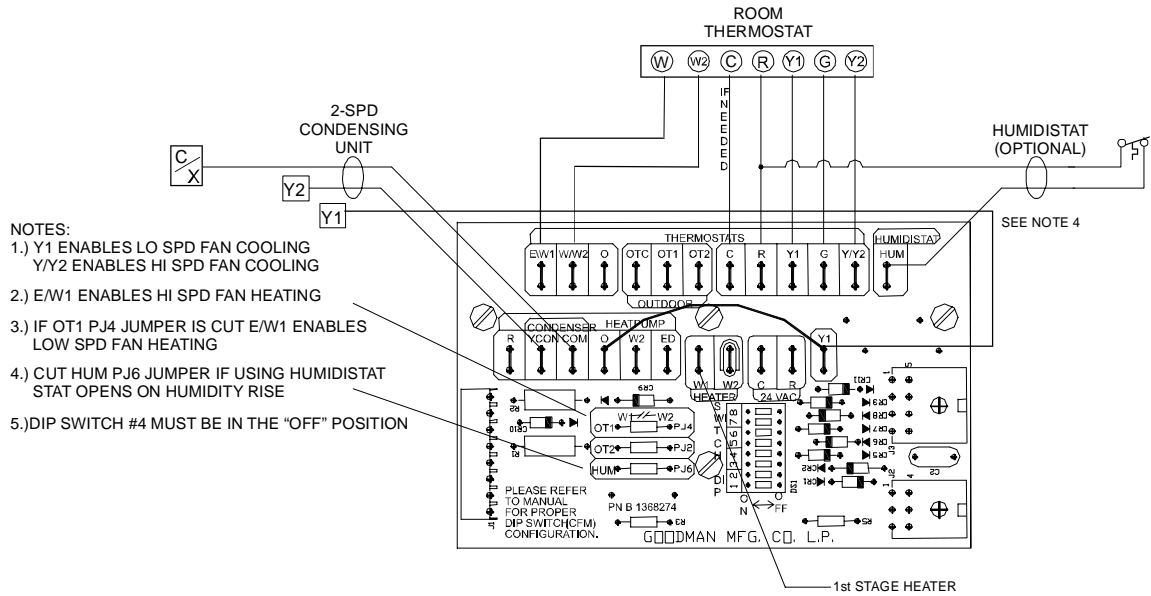
HIGH VOLTAGE! DISCONNECT ALL POWER BEFORE SERVICING. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



TWO-STAGE COOLING WITH CONVENTIONAL TWO-STAGE THERMOSTAT

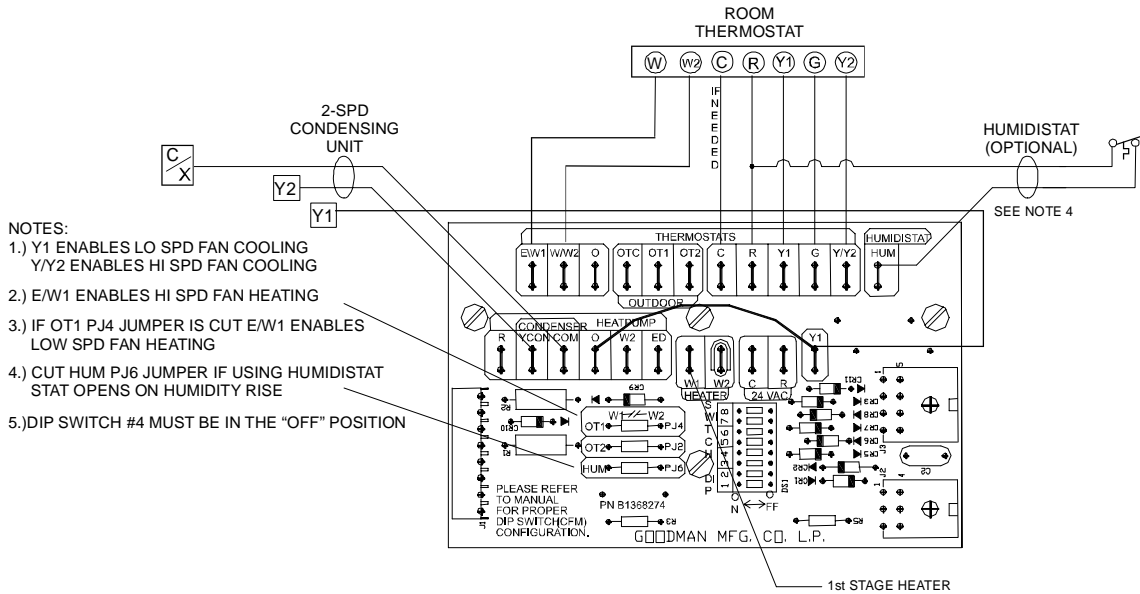


2 SPD COOLING ONLY - WITH 1 STAGE ELECTRIC HEAT



2 SPD COOLING ONLY - WITH 2 STAGE HEAT THERMOSTAT

Wiring is subject to change, always refer to the wiring diagram on the unit for the most up-to-date wiring.

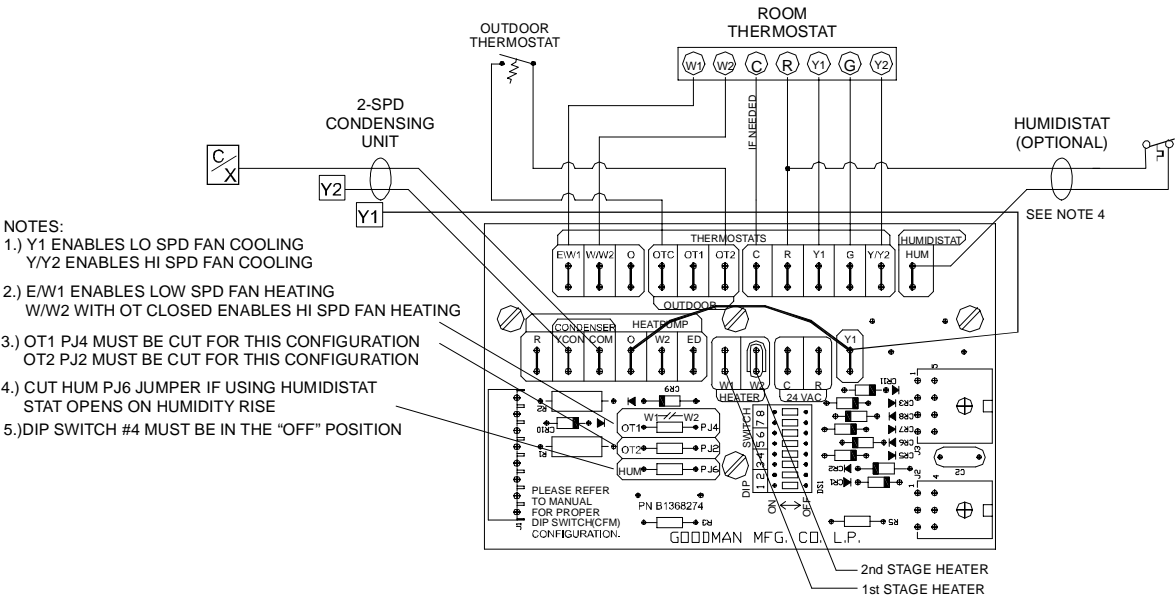


2 SPD COOLING ONLY - WITH 2 STAGE HEAT THERMOSTAT

WARNING

HIGH VOLTAGE! DISCONNECT ALL POWER BEFORE SERVICING.

MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



2 SPD COOLING ONLY - 2 STAGE HEAT (T' STAT ENABLED OT)

Wiring is subject to change, always refer to the wiring diagram on the unit for the most up-to-date wiring.

Quality Makes the Difference!

All of our systems are designed and manufactured with the same high quality standards regardless of size or efficiency. We have designed these units to significantly reduce the most frequent causes of product failure. They are simple to service and forgiving to operate. We use quality materials and components. Finally, every unit is run tested before it leaves the factory. That's why we know. . . **There's No Better Quality.**

Visit our websites at www.goodmanmfg.com or www.amana-hac.com for information on:

- Products
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- Customer Services
- Parts
- Contractor Programs and Training
- Financing Options