

York Retail System Specific Wiring Diagrams

January 2012

Using Honeywell Thermostats

Clicking on the Virginia Air Logo takes you to the Index Page



Clicking on the Page # takes you to that diagram

| | | Index fo | or Low Voltage Wiring Affinity Units | |
|---------------|------------|------------|---|------|
| Outo | loor | Indoor | System Description | Page |
| YZH | 2 Stage HP | | Variable Speed Air Handler - Honeywell VP 8000 | WD1 |
| YZH | 2 Stage HP | | Variable Speed Air Handler - Honeywell VP 9000 | WD2 |
| YZH | 2 Stage HP | YP9C | 95% Modulating VS Gas Furnace - Honeywell VP 8000 | WD3 |
| YZH | 2 Stage HP | YP9C | 95% Modulating VS Gas Furnace - Honeywell VP 9000 | WD4 |
| YZH | 2 Stage HP | | 95% & 80% 1 Stage Multi-Tap Gas Furnace HW VP 8000 | WD5 |
| YZH | 2 Stage HP | | 95% & 80% 1 Stage Multi-Tap Gas Furnace HW VP 9000 | WD6 |
| ZF 1.5-4 Ton | 1 Stage HP | | Variable Speed Air Handler Honeywell VP 8000 | WD7 |
| ZF 1.5-4 Ton | 1 Stage HP | | Variable Speed Air Handler Honeywell VP 9000 | WD8 |
| /ZF 1.5-4 Ton | 1 Stage HP | AHE | Variable Speed Air Handler X13 Motor Honeywell VP 8000 | WD9 |
| ZF 1.5-4 Ton | 1 Stage HP | MX | Variable Speed Air Handler X13 Motor Honeywell VP 8000 | WD10 |
| YZF 1.5-4 Ton | 1 Stage HP | | 95% & 80% 2 Stage Variable Speed Gas Furnace HW VP 8000 | WD11 |
| YZF 5-Ton | 2 Stage HP | | Variable Speed Air Handler Honeywell VP 8000 | WD12 |
| ZF 5-Ton | 2 Stage HP | | Variable Speed Air Handler Honeywell VP 9000 | WD13 |
| ZF 5-Ton | 2 Stage HP | AHE | Variable Speed Air Handler X13 Motor Honeywell VP 8000 | WD14 |
| ZF 5-Ton | 2 Stage HP | MX | Variable Speed Air Handler X13 Motor Honeywell VP 8000 | WD15 |
| ZF 5 Ton | 2 Stage HP | TM9V or 8V | 95% & 80% 2 Stage Variable Speed Gas Furnace HW VP 8000 | WD16 |
| /ZF 1.5-4 Ton | 1 Stage HP | | 95% & 80%Single Stage X13 Gas Furnace HW VP 8000 | WD17 |
| /ZF 1.5-4 Ton | 1 Stage HP | TM9X & 8X | 95% & 80% Single Stage X13 Gas Furnace HW VP 9000 | WD18 |
| YZF 5- Ton | 2 Stage HP | TM9X or 8X | 95% & 80%Single Stage X13 Gas Furnace HW VP 8000 | WD19 |
| YZF 5 Ton | 2 Stage HP | TM9X & 8X | 95% & 80% Single Stage X13 Gas Furnace HW VP 9000 | WD20 |
| /ZF 1.5-4 Ton | 1 Stage HP | TG9S or 8S | 95% & 80% 1 Stage Multi-Tap Gas Furnace HW FP 5000 | WD21 |
| /ZF 1.5-4 Ton | 1 Stage HP | TG9S or 8S | 95% & 80% 1Stage Multi-Tap Gas Furnace HW VP 8000 | WD22 |
| CZH | 2 Stage AC | AVG or MV | Variable Speed Air Handler Honeywell VP8000 | WD23 |
| CZH | 2 Stage AC | AVG or MV | Variable Speed Air Handler Honeywell VP9000 | WD24 |
| CZH | 2 Stage AC | YP9C | 95% Modulating Variable Speed Gas Furnace HW VP8000 | WD25 |
| CZH | 2 Stage AC | YP9C | 95% Modulating Variable Speed Gas Furnace HW VP9000 | WD26 |
| CZH | 2 Stage AC | TM9V or 8V | 95% & 80% 2 Stage Variable Speed Gas Furnace HW VP 8000 | WD27 |
| CZH | 2 Stage AC | | 95% & 80% 2 Stage Variable Speed Gas Furnace HW VP 9000 | WD28 |
| CZH | 2 Stage AC | TM9X or 8X | 95% & 80%Single Stage X13 Gas Furnace HW VP 8000 | WD29 |
| CZH | 2 Stage AC | | 95% & 80%Single Stage X13 Gas Furnace HW VP 8000 | WD30 |
| CZF | 1 Stage AC | AVG or MV | Variable Speed Air Handler Honeywell VP 8000 | WD31 |
| CZF | 1 Stage AC | AVG or MV | Variable Speed Air Handler Honeywell VP 9000 | WD32 |
| CZF | 1 Stage AC | AHE | Variable Speed Air Handler X13 Motor Honeywell VP 8000 | WD33 |
| CZF | 1 Stage AC | MX | Variable Speed Air Handler X13 Motor Honeywell VP 8000 | WD34 |
| CZF | 1 Stage AC | | 95% & 80% 2 Stage Variable Speed Gas Furnace HW VP 8000 | WD35 |
| CZF | 1 Stage AC | | 95% & 80% 2 Stage Variable Speed Gas Furnace HW VP 9000 | WD36 |
| CZF | 1 Stage AC | | 95% & 80% 1Stage Multi-Tap Gas Furnace HW VP 8000 | WD37 |
| CZF | 1 Stage AC | | 95% & 80% 1Stage Multi-Tap Gas Furnace HW VP 8000 | WD38 |
| CZF | 1 Stage AC | TG9S or 8S | 95% & 80% 1 Stage Multi-Tap Gas Furnace HW VP 9000 | WD39 |
| | | | | |
| | | | IONEVINELL ZONING CONTROLS | |

HONEYWELL ZONING CONTROLS

To be determined

| Index for Low Voltage Wiring LX Units | | | | | |
|---------------------------------------|------------|------------|---|------|--|
| | | | | | |
| YHJF 1.5-4 Ton | 1 Stage HP | AHE | Variable Speed Air Handler X13 Motor Honeywell VP 8000 | WD40 | |
| YHJF 1.5-4 Ton | 1 Stage HP | MX | Variable Speed Air Handler X13 Motor Honeywell VP 8000 | WD41 | |
| YHJF 1.5-4 Ton | 1 Stage HP | TM9V or 8V | 95% & 80% 2 Stage Variable Speed Gas Furnace HW VP 8000 | WD42 | |
| YHJF 1.5-4 Ton | 1 Stage HP | TM9X or 8X | 95% & 80% 1 Stage Multi-Tap Gas Furnace HW VP 8000 | WD43 | |
| YHJF 5 Ton | 2 Stage HP | TM9V or 8V | 95% & 80% 2 Stage Variable Speed Gas Furnace HW VP 8000 | WD44 | |
| YHJF 5 Ton | 2 Stage HP | TM9X or 8X | 95% & 80% 1 Stage Multi-Tap Gas Furnace HW VP 8000 | WD45 | |
| YHJD | 1 Stage HP | AHE | Variable Speed Air Handler X13 Motor Honeywell VP 8000 | WD46 | |
| YHJD | 1 Stage HP | MX | Variable Speed Air Handler X13 Motor Honeywell VP 8000 | WD47 | |
| YHJD | 1 Stage HP | TM9X or 8X | 95% & 80% 1 Stage Multi-Tap Gas Furnace HW VP 8000 | WD48 | |
| YHJR | 1 Stage HP | TG9S or 8S | 95% & 80% 1 Stage Multi-Tap Gas Furnace HW VP 8000 | WD49 | |
| YCJF | 1 Stage AC | TM9X or 8X | 95% & 80% 1 Stage Multi-Tap Gas Furnace HW VP 8000 | WD50 | |
| YCJD | 1 Stage AC | TM9X or 8X | 95% & 80% 1 Stage Multi-Tap Gas Furnace HW VP 8000 | WD51 | |

A Brief Description of Low Voltage Terminals used on York units.

- R Hot side of 24 volt transformer
- C Common side of 24 volt transformer
- Y Cooling or heating call on single stage units
- Y1 1st stage cooling or heating call
- Y2 2nd stage cooling or heating call
- Y/Y2 Used to get full indoor unit CFM
- W Heating call on single stage furnaces
- O Energize the reversing valve to get cooling
- G Energize the blower
- W1 1st stage heating call
- W2 2nd stage heating call
- Y2 Out Used to energize the indoor cfm to high speed
- W1 Out Output to energize 1st stage heat when in defrost
- W2 Out Output to energize 2nd stage heat when in defrost
- W1/66 Used to energize 1st stage heat when in defrost
- BSG & BS Terminals on the defrost control to connect bonnet sensor in the duel fuel mode Hum Humidistat input
- DHUM Used to slow the indoor blower in high humidity applications
- Lo Comp Used on modulating furnaces when there is a single stage thermostat for cooling
- Hi Comp Used on modulating furnaces when there is a single stage thermostat for cooling

| YZH | 2-STAGE HEAT PUMP | |
|-----|---|--|
| AVG | SINGLE PIECE VARIABLE SPEED AIR HANDLER | |
| MV | TWO PIECE VARIABLE SPEED AIR HANDLER | |



| /ision Pro800 FH8321U100 | VA | RIABLE SPEED AIR HANDLER | | HEAT PUMP CONTROL |
|-----------------------------|--------------------------------|-----------------------------|------------------------------|----------------------|
| C Y Y2 O | Optional — | C Y1 | BLK YEI BLU/YEI ORG | C Y1 Y2 O |
| Aux L R | Optional ———— | X/L R | WHT PUR RED | |
| RC S1 S2 | Indoor/Outdoor Optional Sensor | HUM Y2/Y | BLU | BSG BS Y2 OUT |
| E G | GRN | W2 W1 G | GRY BRN | W2 OUT W1 OUT |

If 10-wires between the Air Handler and the Heat Pump is not possible W1 and W2 can be combined at the AH with a jumper eliminating W2 out and staged electric heat.

X/L can be eliminated as the fault codes can be retrived from the board.

Please call for more detailed instructions if the number of wires is an issue.

Critical Installation Set up on Thermostat

0170 = 12 (Tells the stat its operating 3 heat and 2 cool stages)

Critical Installation Set up for Air Handler Jumpers

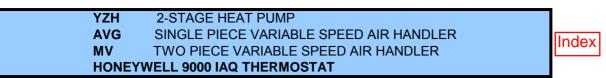
P5 Jumper = Heat P6 Jumper = Heat Pump

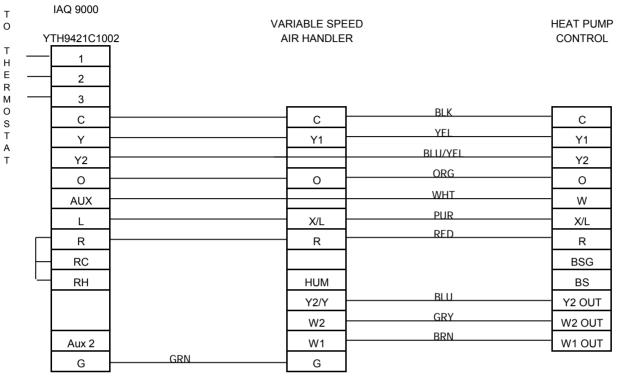
Set Blower Speeds as Required for Proper CFM. P9 = Heat,P10 = Delay,P8 = Cool,P11 = Adj.

Critical Installation Set up for Heat Pump Jumpers

Hot Heat Pump = ON/OFF (optional) Y2 Lock = ON/OFF (Optional) Switch Point = 35° is Factory Default BP (balance point) = 35° is factory setting, but should be set to job specific temperature

LTCO (Low Temperature Cut Out) = ON is factory Setting, this does not have to move unless required Compressor Delay = Change to on for delay when going into and out of defrost





If 10-wires between the Air Handler and the Heat Pump is not possible W1 and W2 can be combined at the AH with a jumper eliminating W2 out and staged electric heat.

X/L can be eliminated as the fault codes can be retrived from the board.

Please call for more detailed instructions if the number of wires is an issue.

Critical Installation Set up on Thermostat

#172, CHANGE TO 2 (tells stat the system in a Heat Pump)
#174, CHANGE TO 2 (tells stat number of cooling stages)
#176, CHANGE TO 3 (tells stat number of heating stages)
#200, CHANGE TO 0 (tells stat back up heat is electric)

Critical Installation Set up for Air Handler Jumpers

P5 Jumper = Heat P6 Jumper = Heat Pump

Set Blower Speeds as Required for Proper CFM. P9 = Heat,P10 = Delay,P8 = Cool,P11 = Adj.

Critical Installation Set up for Heat Pump Jumpers

Hot Heat Pump = ON/OFF (optional) Y2 Lock = ON/OFF (Optional) Switch Point = 35° is Factory Default BP (balance point) = 35° is factory setting, but should be set to job specific temperature LTCO (Low Temperature Cut Out) = ON is factory Setting, this does not have to move unless required

Compressor Delay = Change to on for delay when going into and out of defrost

2-STAGE HEAT PUMP

| | | | DULATING V | ARIABLE SPEED GAS FUR | RNACE | Index |
|---|-----------------------------|--------------------------------|------------------------------|-----------------------|----------------------|--------------------|
| | ision Pro8000 H8321U1006 | V | ARIABLE SPEEI GAS FURNACE |) | HEAT PUMP CONTROL | |
| | С | Optional — | С С | BLK | С | |
| | Y | | Y1 | YEL | Y1 | |
| | Y2 | | | BLU/YFL | Y2 | |
| | 0 | | 0 | ORG | 0 | |
| | Aux | | | WHT | W | |
| | L | Optional | | PUR | X/L | INDOOR A- |
| П | R | | R | RED | R | COIL |
| Н | RC | | Lo Comp | | BSG | ,-₩ * |
| | S1 | Indoor/Outdoor Optional Sensor | HI Comp | | BS - | i W |
| | S2 | | Y/Y2 | BLU | Y2 OUT | |
| | | | Dhum | | W2 OUT | |
| _ | Е | | W | BRN | W1 OUT | |
| | | GRN | | | | |

* OPTIONAL BONNET SENSOR

NOTES:

If 10-wires between the Air Handler and the Heat Pump is not possible W1 and W2 can be combined at the AH with a jumper eliminating W2 out and staged electric heat.

X/L can be eliminated as the fault codes can be retrived from the board.

Please call for more detailed instructions if the number of wires is an issue.

Critical Installation Set up on Thermostat

YZH

0170 = 12 (Tells the stat system is 3 heat stages and 2 cool stages

0200 = 1 (Tells stat back up is fossil fuel)

0210 = 1 (Tells stat fossil fuel kit is external)

Critical Installation Set up on Furnace Jumpers

J19 Zone Control= Y/N(optional) J22 Heat Pump = YES

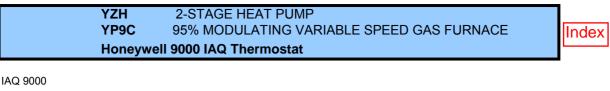
Set Blower Speeds as Required for Proper CFM. J9 = Cool, J16 = Adj, J15 = Delay

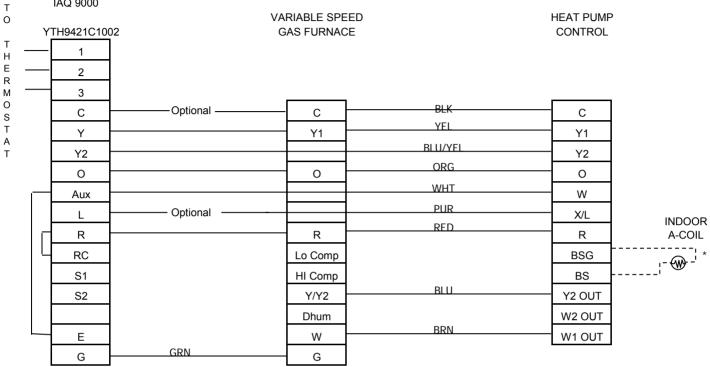
Critical Installation Set up for Heat Pump Jumpers

Hot Heat Pump = ON/OFF (optional) Y2 Lock = ON/OFF (Optional) Switch Point = 35° is Factory Default F Fuel = ON

BP (balance point) = 35° is factory setting, but should be set to job specific temperature

LTCO (Low Temperature Cut Out) = ON is factory Setting, this does not have to move unless required Compressor Delay = Change to on for delay when going into and out of defrost





* OPTIONAL BONNET SENSOR

NOTES:

If 10-wires between the Air Handler and the Heat Pump is not possible W1 and W2 can be combined at the AH with a jumper eliminating W2 out and staged electric heat.

X/L can be eliminated as the fault codes can be retrived from the board.

Please call for more detailed instructions if the number of wires is an issue.

Critical Installation Set up on Thermostat

| #172, CHANGE TO 2 | (tells stat the system in a Heat Pump) |
|-------------------|--|
| #174, CHANGE TO 2 | (tells stat number of cooling stages) |
| #176, CHANGE TO 3 | (tells stat number of heating stages) |
| #200, CHANGE TO 1 | (tells stat back up heat is electric) |
| #210, CHANGE TO 1 | (tells stat external fossil fuel kit) |

Critical Installation Set up on Furnace Jumpers

J9=Zone Control = Y/N (optional) J22=Heat Pump = YES

Set Blower Speeds as Required for Proper CFM. J9 = Cool, J16 = Adj, J15 = Delay

Critical Installation Set up for Heat Pump Jumpers

Hot Heat Pump = ON/OFF (optional) Y2 Lock = ON/OFF (Optional) Switch Point = 35° is Factory Default F Fuel = ON

BP (balance point) = 35° is factory setting, but should be set to job specific temperature

LTCO (Low Temperature Cut Out) = ON is factory Setting, this does not have to move unless required

Compressor Delay = Change to on for delay when going into and out of defrost

| | YZH 2-STAGE TM9X Gas Furna TM8X Gas Furna | | | | Index |
|----------------|---|---------------------|--------------------------------|---------------------------|----------------------|
| Vision Pro8000 | | TM9X Gas Furnace | BLK YFI | HEAT PUMP CONTROL | |
| Y Y2 O AUX | | Y1 | BLU/YFI ORG WHT PUR - Optional | Y1 Y2 O W X/L | |
| R RC S1 S2 | Indoor/Outdoor Optional Sensor | R Y2/Y | RED BLU | R BSG BS Y2 OUT | INDOOR A-COIL |
| E G | GRN | W G | GRY BRN * OP | W2 OUT W1 OUT | ET SENSOR |

If 10-wires between the Air Handler and the Heat Pump is not possible W1 and W2 can be combined at the AH with a jumper eliminating W2 out and staged electric heat.

X/L can be eliminated as the fault codes can be retrived from the board.

Please call for more detailed instructions if the number of wires is an issue.

Critical Installation Set up on Thermostat

0170 = 12 (Tells the stat system is 3 heat stages and 2 cool stages

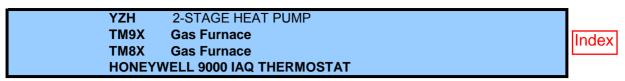
0200 = 1 (Tells stat back up is fossil fuel)

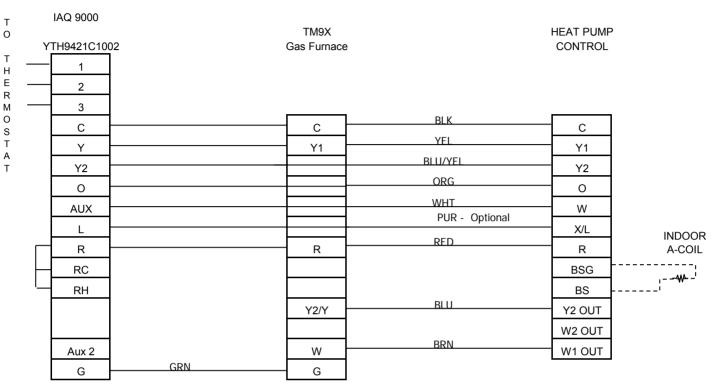
0210 = 1 (Tells stat fossil fuel kit is external)

Critical Installation Set up on Furnace Jumpers

P4 Jumper = Blower Off Delay P7 Jumper = Fan Speed Contionus Fan Set motor speeds as required for proper air flow

Critical Installation Set up for Heat Pump Jumpers





If 10-wires between the Air Handler and the Heat Pump is not possible W1 and W2 can be combined at the AH with a jumper eliminating W2 out and staged electric heat.

X/L can be eliminated as the fault codes can be retrived from the board.

Please call for more detailed instructions if the number of wires is an issue.

Critical Installation Set up on Thermostat

| #172, CHANGE TO 2 | (tells stat the system in a Heat Pump) |
|-------------------|---|
| #174, CHANGE TO 2 | (tells stat number of cooling stages) |
| #176, CHANGE TO 3 | (tells stat number of heating stages) |
| #200, CHANGE TO 1 | (tells stat back up heat is fossil fuel) |
| #210, CHANGE TO 1 | (tells stat fossil fuel is controlled external) |

Critical Installation Set up for Furnace Jumpers

P4 Jumper = Blower Off Delay P7 Jumper = Fan Speed Contionus Fan

Set motor speeds as required for proper air flow

Critical Installation Set up for Heat Pump Jumpers

| | | • |
|-----|---|-------|
| YZF | 1-STAGE HEAT PUMP - 1.5 - 4 Ton | |
| AVG | SINGLE PIECE VARIABLE SPEED AIR HANDLER | Index |
| MV | TWO PIECE VARIABLE SPEED AIR HANDLER | |

| 'ision Pro800 'H8321U100 | VA | RIABLE SPE VIR HANDLE | | HEAT PUMP CONTROL |
|-----------------------------|--------------------------------|--------------------------|-------------------|----------------------|
| C Y Y2 | Optional- | C Y1 | BLK YEL ORG | C Y1 Y2 |
| O Aux L | Optional — | O X/L | WHT PUR | O W X/L |
| R RC | | R | RFD | R BSG |
| S1 S2 | Indoor/Outdoor Optional Sensor | HUM Y/Y2 W2 | BLU GRY | BS Y2 OUT W2 OUT |
| E G | GRN | W1 G | BRN | W1 OUT |

If 10-wires between the Air Handler and the Heat Pump is not possible W1 and W2 can be combined at the AH with a jumper eliminating W2 out and staged electric heat.

X/L can be eliminated as the fault codes can be retrived from the board.

Please call for more detailed instructions if the number of wires is an issue.

Critical Installation Set up on Thermostat

0170 = 7 (tells the stat it's operating at 2 heat and 1 cool stage as a heat pump)

Critical Installation Set up for Air Handler Jumpers

P5 Jumper = Heat P6 Jumper = Heat Pump Set Blower Speeds as Required for Proper CFM Set Blower Speeds as Required for Proper CFM. P9 = Heat,P10 = Delay,P8 = Cool,P11 = Adj.

Critical Installation Set up for Heat Pump Jumpers

Hot Heat Pump = ON/OFF (optional) Y2 Lock = ON/OFF (Optional)

BP (balance point) = 35° is factory setting, but should be set to job specific temperature

LTCO (Low Temperature Cut Out) = ON is factory Setting, this does not have to move unless required Compressor Delay = Change to on for delay when going into and out of defrost

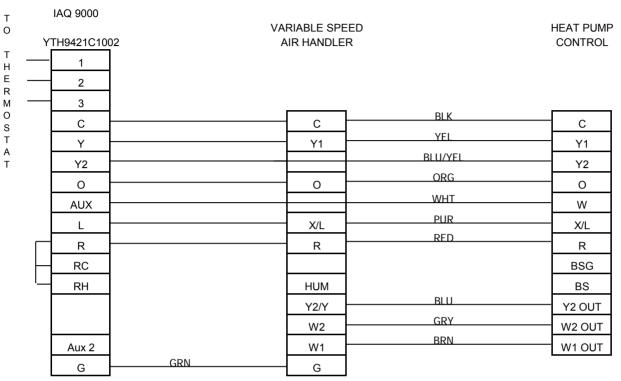
YZF !-STAGE HEAT PUMP 1.5 - 4 Ton

AVG SINGLE PIECE VARIABLE SPEED AIR HANDLER

MV TWO PIECE VARIABLE SPEED AIR HANDLER

HONEYWELL 9000 IAQ THERMOSTAT





NOTES:

If 10-wires between the Air Handler and the Heat Pump is not possible W1 and W2 can be combined at the AH with a jumper eliminating W2 out and staged electric heat.

X/L can be eliminated as the fault codes can be retrived from the board.

Please call for more detailed instructions if the number of wires is an issue.

Critical Installation Set up on Thermostat

#172, CHANGE TO 2 (tells stat the system in a Heat Pump)
#174, CHANGE TO 1 (tells stat number of cooling stages)
#176, CHANGE TO 2 (tells stat number of heating stages)
#200, CHANGE TO 0 (tells stat back up heat is electric)

Critical Installation Set up for Air Handler Jumpers

P5 Jumper = Heat P6 Jumper = Heat Pump Set Blower Speeds as Required for Proper CFM Set Blower Speeds as Required for Proper CFM. P9 = Heat,P10 = Delay,P8 = Cool,P11 = Adj.

Critical Installation Set up for Heat Pump Jumpers

York System Wiring Diagrams

| YZF | 1-STAGE HEAT PUMP - 1.5 - 4 Ton | Index |
|-----|---------------------------------|-------|
| AHE | SINGLE PIECE X13 AIR HANDLER | macx |
| | | ļ |

| | ision Pro800 H8321U100 | | X13 MULTI -TAP NR HANDLER | | HEAT PUMP CONTROL |
|---|---------------------------|---|---------------------------------|------------|----------------------|
| | С | Optional— | C | BLK YEL | C |
| | Y Y2 | | Y1 | ORG | Y1 Y2 |
| _ | O Aux | Optional Indoor/Outdoor Optional Sensor | | WHT | O W |
| _ | L R | | R | PUR RED | X/L |
| | RC | | | | BSG |
| | S1 S2 | | | | BS Y2 OUT |
| | - | | W2 | GRY BRN | W2 OUT |
| | E G | GRN | W1 G | | W1 OUT |

Critical Installation Set up on Thermostat

0170 = 7 (tells the stat it's operating at 2 heat and 1 cool stage as a heat pump)

Critical Installation Set up for Air Handler Jumpers

Set Blower Speeds as Required for Proper CFM

Note: W2 only required if 13 KW and above.

Critical Installation Set up for Heat Pump Jumpers

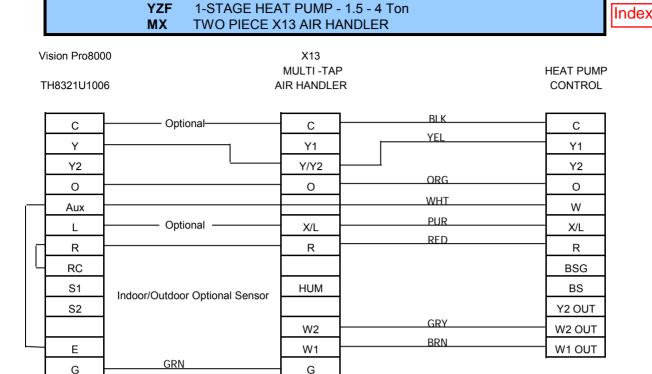
Hot Heat Pump = OFF

Y2 Lock = ON/OFF (Optional as a consumer choice)

BP (balance point) = 35° is factory setting, but can be set to job specific temperature

LTCO (Low Temperature Cut Out) = ON is factory Setting, this does not have to move unless required

Compressor Delay = Change to on for delay when going into and out of defrost



0170 = 7 (tells the stat it's operating at 2 heat and 1 cool stage as a heat pump)

0180 = 1 (Fan is controlled by thermostat)

Critical Installation Set up for Air Handler Jumpers

P5 Jumper = Heat P6 Jumper = Heat Pump

Set Blower Speeds as Required for Proper CFM

Critical Installation Set up for Heat Pump Jumpers

Hot Heat Pump = OFF

Y2 Lock = ON/OFF (Optional as a consumer choice)

BP (balance point) = 35° is factory setting, but can be set to job specific temperature

LTCO (Low Temperature Cut Out) = ON is factory Setting, this does not have to move unless required Compressor Delay = Change to on for delay when going into and out of defrost

| | | TM9V 9 | 5% 2 Stage | AT PUMP - 1.5 - 4 Ton Variable Speed Gas Furnace Vairable SpeedGas Furnace | | Index |
|---|---------------------|---|-----------------------------|--|-----------------------------|------------------|
| ١ | /ision Pro800 | | Variable Spee GAS FURNAC | | HEAT PUMF CONTROL | |
| | C Y Y2 O Aux L R | Optional ———————————————————————————————————— | C Y1 O XL R | BLK YEI BLU/YEL ORG WHT PUR RED | C Y1 Y2 O W X/L R | INDOOR A-COIL |
| | RC S1 S2 E | Indoor/Outdoor Optional Sensor GRN | Y/Y2 W2 W | BLU BRN | BSG BS Y2 OUT W2 OUT W1 OUT | ¦ |

* OPTIONAL BONNET SENSOR

NOTES:

If 10-wires between the Air Handler and the Heat Pump is not possible W1 and W2 can be combined at the AH with a jumper eliminating W2 out and staged electric heat.

X/L can be eliminated as the fault codes can be retrived from the board.

Please call for more detailed instructions if the number of wires is an issue.

Critical Installation Set up on Thermostat

0170 = 7 (Tells the stat iis operating at 2 heat and 1 cool stage as a heat pump)

0200 = 1 (Tells stat back up is fossil fuel)

0210 = 1 (Tells stat fossil fuel kit is external)

Critical Installation Set up on Furnace Jumpers

Heat Pump = Y

Set Blower Speeds as Required for Proper CFM. Heat, Cool, Delay, Adjust

Set Staging Jumper for 10,15,or 20 minutes

Critical Installation Set up for Heat Pump Jumpers

Hot Heat Pump = ON/OFF (optional) Y2 Lock = ON/OFF (Optional) Switch Point = 35° is Factory Default F Fuel = ON

BP (balance point) = 35° is factory setting, but should be set to job specific temperature LTCO (Low Temperature Cut Out) = ON is factory Setting, this does not have to move unless required Compressor Delay = Change to on for delay when going into and out of defrost

| YZF | 2-STAGE HEAT PUMP 5 TON ONLY |
|-----|---|
| AVG | SINGLE PIECE VARIABLE SPEED AIR HANDLER |
| MV | TWO PIECE VARIABLE SPEED AIR HANDLER |



| ٧ | ision Pro800 | 00 | | | |
|---|--------------|--------------------------------|--------------|---------|-----------|
| | | | RIABLE SPEED | | HEAT PUMP |
| 1 | ГН8321U100 | 6 A | IR HANDLER | | CONTROL |
| | С | Optional — | С | BLK | С |
| | | Optional | | YEL | |
| | Y | | Y1 | BLU/YEL | Y1 |
| | Y2 | | | ORG | Y2 |
| | 0 | | 0 | | 0 |
| | Aux | Optional — | | WHT | W |
| | L | | X/L | PUR | X/L |
| 1 | R | | R | RED | R |
| L | RC | | | | BSG |
| | S1 | Indoor/Outdoor Optional Sensor | HUM | | BS |
| | S2 | macon Outdoor Optional Ochsor | Y2/Y | BLU | Y2 OUT |
| | | | W2 | GRY | W2 OUT |
| | Е | | W1 | BRN | W1 OUT |
| | G | GRN | G | | |

If 10-wires between the Air Handler and the Heat Pump is not possible W1 and W2 can be combined at the AH with a jumper eliminating W2 out and staged electric heat.

X/L can be eliminated as the fault codes can be retrived from the board.

Please call for more detailed instructions if the number of wires is an issue.

Critical Installation Set up on Thermostat

0170 = 12 (Tells the stat its operating 3 heat and 2 cool stages)

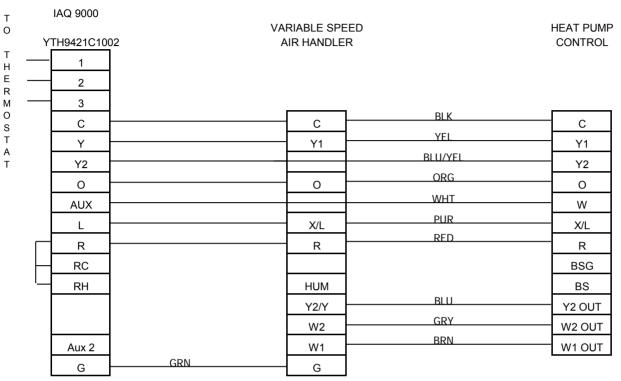
Critical Installation Set up for Air Handler Jumpers

P5 Jumper = Heat P6 Jumper = Heat Pump

Set Blower Speeds as Required for Proper CFM. P9 = Heat,P10 = Delay,P8 = Cool,P11 = Adj.

Critical Installation Set up for Heat Pump Jumpers

YZF 2-STAGE HEAT PUMP 5 TON ONLY
AVG SINGLE PIECE VARIABLE SPEED AIR HANDLER
MV TWO PIECE VARIABLE SPEED AIR HANDLER
HONEYWELL 9000 IAQ THERMOSTAT



NOTES:

If 10-wires between the Air Handler and the Heat Pump is not possible W1 and W2 can be combined at the AH with a jumper eliminating W2 out and staged electric heat.

X/L can be eliminated as the fault codes can be retrived from the board.

Please call for more detailed instructions if the number of wires is an issue.

Critical Installation Set up on Thermostat

#172, CHANGE TO 2 (tells stat the system in a Heat Pump)
#174, CHANGE TO 2 (tells stat number of cooling stages)
#176, CHANGE TO 3 (tells stat number of heating stages)
#200, CHANGE TO 0 (tells stat back up heat is electric)

Critical Installation Set up for Air Handler Jumpers

P5 Jumper = Heat P6 Jumper = Heat Pump

Set Blower Speeds as Required for Proper CFM. P9 = Heat,P10 = Delay,P8 = Cool,P11 = Adj.

Critical Installation Set up for Heat Pump Jumpers

York System Wiring Diagrams

| | 2 -STAGE HEAT PUMP - 5 Ton Only SINGLE PIECE X13 AIR HANDLER | | Index |
|----------------|---|-----------|-------|
| Vision Pro8000 | X13 MULTI -TAP | HEAT PUMF | • |

| 7 | TH8321U100 | 6 A | AIR HANDLER | | | |
|---|------------|--------------------------------|-------------|----------------|--------|--|
| | С | Optional | С | BLK | С | |
| | Υ | | Y1 | YEL | Y1 | |
| | Y2 · | | | | Y2 | |
| | 0 | | | ORG | 0 | |
| _ | Aux | Optional - | | WHT | W | |
| | L | | | PUR | X/L | |
| | R | | R | RED | R | |
| | RC | | | | BSG | |
| | S1 | Indoor/Outdoor Optional Sensor | | | BS | |
| | S2 | | | To Motor Speed | Y2 OUT | |
| | | | W2 | GRY | W2 OUT | |
| | Е | | W1 | BRN | W1 OUT | |
| | G | GRN | G | | | |

Critical Installation Set up on Thermostat

0170 = 12 (tells the stat it's operating at 3 heat and 2 cool stage as a heat pump)

Critical Installation Set up for Air Handler Jumpers

Set Blower Speeds as Required for Proper CFM

Note: W2 only required if 13 KW and above.

Y2 Out must be connected to the X13 motor Speed to deliver 400cfm per ton.

Critical Installation Set up for Heat Pump Jumpers

Hot Heat Pump = OFF

Y2 Lock = ON/OFF (Optional as a consumer choice)

BP (balance point) = 35° is factory setting, but can be set to job specific temperature

LTCO (Low Temperature Cut Out) = ON is factory Setting, this does not have to move unless required Compressor Delay = Change to on for delay when going into and out of defrost

| | YZF 1-STAGE HEAT PUMP - MX TWO PIECE X13 AIR HA | | Index |
|------------------------------|--|-----------------------|----------------------|
| ision Pro8000 TH8321U1006 | X13 MULTI -TAF AIR HANDLE | | HEAT PUMP CONTROL |
| C Y Y2 | Optional C Y1 Y/Y2 | BLK YEL BLU/YEL | C Y1 Y2 |
| O Aux | 0 | ORG WHT | 0 W |

RED

GRY

BRN

X/L

R

BSG BS

Y2 OUT

W2 OUT

W1 OUT

X/L

R

HUM

W2

W1

G

Critical Installation Set up on Thermostat

GRN

Optional -

Indoor/Outdoor Optional Sensor

0170 = 12 (tells the stat it's operating at 3 heat and 2 cool stage as a heat pump)

Critical Installation Set up for Air Handler Jumpers

P5 Jumper = Heat P6 Jumper = Heat Pump Set Blower Speeds as Required for Proper CFM

Critical Installation Set up for Heat Pump Jumpers

Hot Heat Pump = OFF

R

RC

S1

S2

Ε

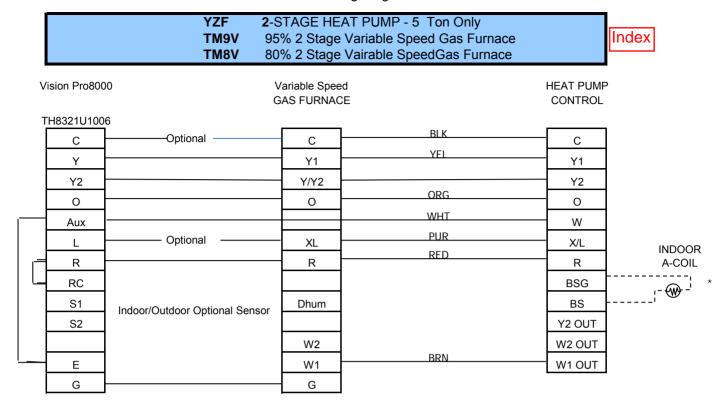
G

Y2 Lock = ON/OFF (Optional as a consumer choice)

BP (balance point) = 35° is factory setting, but can be set to job specific temperature

LTCO (Low Temperature Cut Out) = ON is factory Setting, this does not have to move unless required Compressor Delay = Change to on for delay when going into and out of defrost

York System Wiring Diagrams



* OPTIONAL BONNET SENSOR

Critical Installation Set up on Thermostat

0170 = 12 (Tells the stat iis operating at 3 heat and 2 cool stage as a heat pump)

0200 = 1 (Tells stat back up is fossil fuel)

0210 = 1 (Tells stat fossil fuel kit is external)

Critical Installation Set up on Furnace Jumpers

Heat Pump = Y

Set Blower Speeds as Required for Proper CFM. Heat, Cool, Delay, Adjust

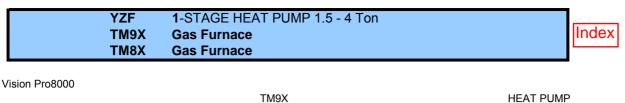
Set Staging Jumper for 10,15,or 20 minutes

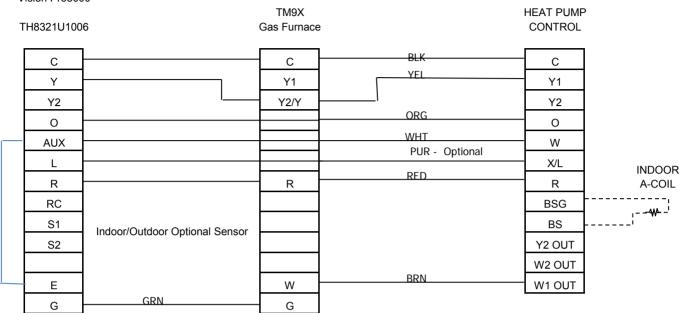
Critical Installation Set up for Heat Pump Jumpers

F Fuel (Fossil Fuel) = ON (Factory Default is off, however it MUST be changed to ON)

BP (balance point) = 35° is factory setting, but should be set to job specific temperature

Compressor Delay = Change to on for delay when going into and out of defrost





* OPTIONAL BONNET SENSOR

Critical Installation Set up on Thermostat

0170 = 7 (Tells the stat system is 2 heat stages and 1 cool stages

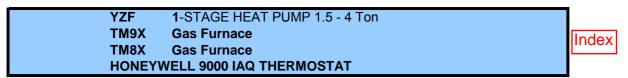
0200 = 1 (Tells stat back up is fossil fuel)

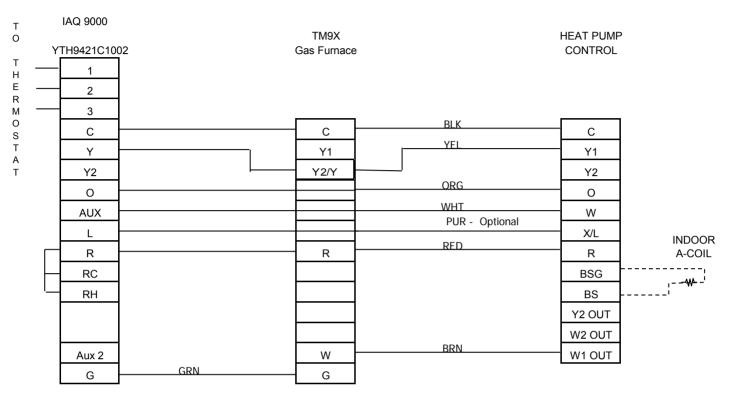
0210 = 1 (Tells stat fossil fuel kit is external)

Critical Installation Set up on Furnace Jumpers

P4 Jumper = Blower Off Delay P7 Jumper = Fan Speed Contionus Fan Set motor speeds as required for proper air flow

Critical Installation Set up for Heat Pump Jumpers





| #172, CHANGE TO 2 | (tells stat the system in a Heat Pump) |
|-------------------|---|
| #174, CHANGE TO 1 | (tells stat number of cooling stages) |
| #176, CHANGE TO 2 | (tells stat number of heating stages) |
| #200, CHANGE TO 1 | (tells stat back up heat is fossil fuel) |
| #210, CHANGE TO 1 | (tells stat fossil fuel is controlled external) |

Critical Installation Set up for Furnace Jumpers

P4 Jumper = Blower Off Delay P7 Jumper = Fan Speed Contionus Fan Set motor speeds as required for proper air flow

Critical Installation Set up for Heat Pump Jumpers

| | | Willing Blo | gramo | |
|-------------------------------|---------------------|--|--------------------|----------------------|
| | YZF TM9X TM8X | 2-STAGE HEAT PUMP 5 - To Gas Furnace Gas Furnace | on Only | Index |
| Vision Pro8000 TH8321U1006 | | TM9X Gas Furnace | | HEAT PUMP CONTROL |
| C Y Y2 O | | C Y1 Y2/Y | BLK YEL BLU/Y ORG | C Y1 Y2 O |
| AUX | | | WHT PUR - Optional | — w |

R

W

G

RED

BRN

* OPTIONAL BONNET SENSOR

X/L

R

BSG

BS

Y2 OUT

W2 OUT

W1 OUT

INDOOR

A-COIL

, - ------i

Critical Installation Set up on Thermostat

0170 = 12 (Tells the stat system is 3 heat stages and 2 cool stages

Indoor/Outdoor Optional Sensor

GRN

0200 = 1 (Tells stat back up is fossil fuel)

R

RC

S1

S2

Ε

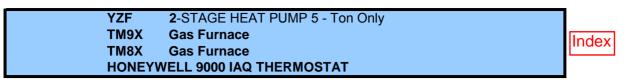
G

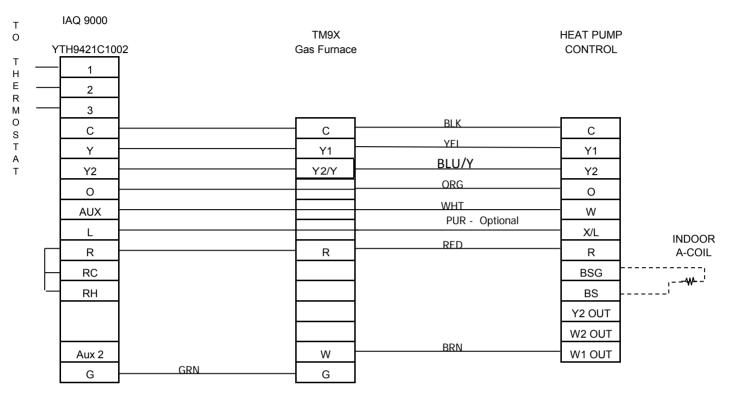
0210 = 1 (Tells stat fossil fuel kit is external)

Critical Installation Set up on Furnace Jumpers

P4 Jumper = Blower Off Delay P7 Jumper = Fan Speed Contionus Fan Set motor speeds as required for proper air flow

Critical Installation Set up for Heat Pump Jumpers





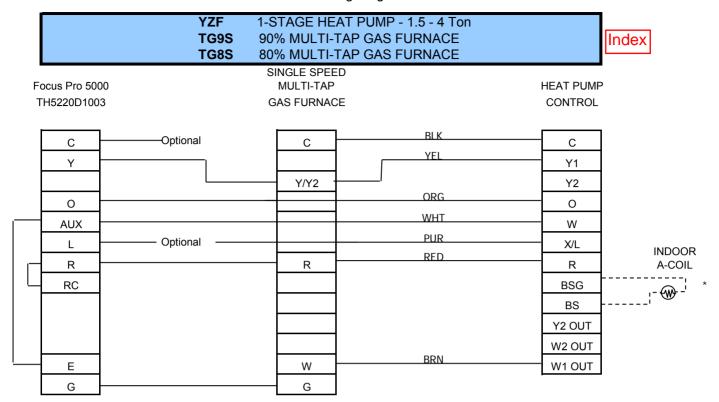
#172, CHANGE TO 2 (tells stat the system in a Heat Pump)
#174, CHANGE TO 2 (tells stat number of cooling stages)
#176, CHANGE TO 3 (tells stat number of heating stages)
#200, CHANGE TO 1 (tells stat back up heat is fossil fuel)
#210, CHANGE TO 1 (tells stat fossil fuel is controlled external)

Critical Installation Set up for Furnace Jumpers

P4 Jumper = Blower Off Delay P7 Jumper = Fan Speed Contionus Fan Set motor speeds as required for proper air flow

Critical Installation Set up for Heat Pump Jumpers

York System Wiring Diagrams



^{*} OPTIONAL BONNET SENSOR

* OPTIONAL BONNET SENSOR

Critical Installation Set up on Thermostat

1 = 5 (Tells the stat 2 heat stages and 1 cool stage)

6 = 5-80% Furnace 3-90% or Better (Tells stat furnace efficiency for cycle rates)

8 = 5-80% Furnace 3-90% or Better (Tells stat furnace efficiency for Emergency cycle rates)

Critical Installation Set up on Furnace Jumpers

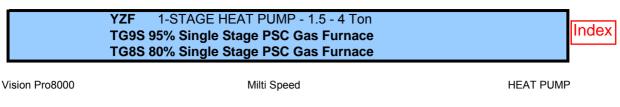
Set Blower Speeds as Required for Proper CFM

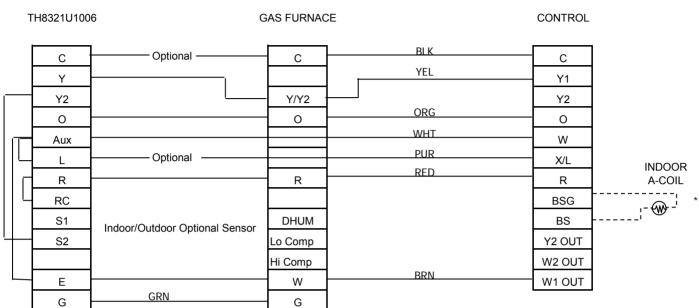
Critical Installation Set up for Heat Pump Jumpers

F Fuel (Fossil Fuel) = ON (Factory Default is off, however it MUST be changed to ON)

BP (balance point) = 35° is factory setting, but should be set to job specific temperature

Compressor Delay = Change to on for delay when going into and out of defrost





* OPTIONAL BONNET SENSOR

Critical Installation Set up on Thermostat

0170 = 7 (Tells the stat iis operating at 2 heat and 1 cool stage as a heat pump)

0200 = 1 (Tells stat back up is fossil fuel)

0210 = 1 (Tells stat fossil fuel kit is external)

Critical Installation Set up on Furnace Jumpers

Set Blower Speeds as Required for Proper CFM

Critical Installation Set up for Heat Pump Jumpers

Hot Heat Pump = ON/OFF (Factory Default is OFF, however we recommend it be changed to ON)

Y2 Lock = ON/OFF (Factory Default is OFF, however we recommend it be changed to ON)

Switch Point = 35° is Factory Default, change if needed

F Fuel (Fossil Fuel) = ON (Factory Default is off, however it MUST be changed to ON)

BP (balance point) = 35° is factory setting, but should be set to job specific temperature

York System Wiring Diagrams

| CZH | 2-STAGE AIR CONDITIONER | |
|-----|---------------------------------|-------|
| AVG | SINGLE PIECE VARIABLE SPEED AHU | Index |
| MV | TWO PIECE VARIABLE SPEED AHU | |

| | sion Pro800 H8321U100 | VA | RIABLE SPEED IR HANDLER | | STAGE A/C CONTROL |
|--------------|--------------------------|--------------------------------|----------------------------|-----------------|----------------------|
| - - | C Y Y2 | Optional - | C Y1 F | BLK YEL BLU/YEL | C Y1 Y2 |
| | W W2 R RC S1 S2 | Indoor/Outdoor Optional Sensor | W1 W2 R HUM X/L G | RED | R |

Critical Installation Set up on Thermostat

0170 = 8 (tells stat 2 heat stages and 2 cooling stages)

0180= 1 (tells stat system is using electric furnace)

0240= 9 (tells stat 1st stage heating cycle rate)

0250= 9 (tells stat 2nd stage heating cycle rate)

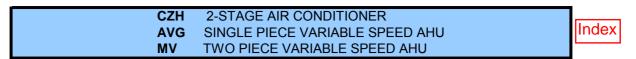
Critical Installation Set up for Air Handler Jumpers

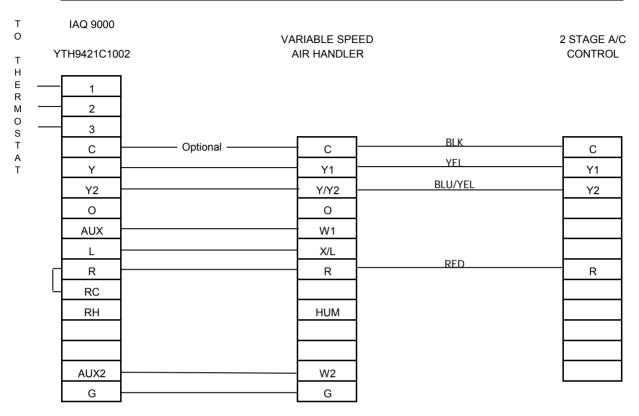
P5 Jumper = Heat P6 Jumper = Heat Pump

Set Blower Speeds as Required for Proper CFM. P9 = Heat,P10 = Delay,P8 = Cool,P11 = Adj.

Critical Installation Set up for Air Conditioning Jumpers

Y2 Lock = ON/OFF (Optional)





0172 = 1 (tells stat Conventional System)

0174= 2 (tells stat number of cooling stages)

0176= 2 (tells stat # of heating stages)

0180= 2 (tells stat equipment controls fan)

Critical Installation Set up for Air Handler Jumpers

P5 Jumper = Heat

Set Blower Speeds as Required for Proper CFM. P9 = Heat,P10 = Delay,P8 = Cool,P11 = Adj.

Critical Installation Set up for Air Conditioning Jumpers

Y2 Lock = ON/OFF (Optional)

York System Wiring Diagram

| | | • |
|------|---|-------|
| CZH | 2-STAGE AIR CONDITIONER | Index |
| YP9C | 95% MODULATING VARIABLE SPEED GAS FURNACE | muex |

Vision Pro8000

| | | AS FURNAC | | 2 STAGE A/C CONTROL | |
|--|---------------------------|--------------------------------|---------------------------|------------------------|---------|
| | C Y Y2 | Optional — | C Y1 Y/Y2 O W | BLK YEL BLU/YEL | C Y1 Y2 |
| | W2 R RC S1 S2 | Indoor/Outdoor Optional Sensor | R Lo Comp HI Comp | RFD | R |
| | G | GRN | G | | |

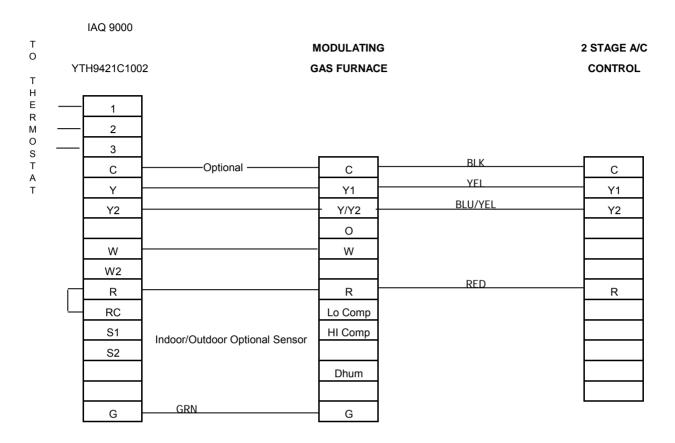
Critical Installation Set up on Thermostat

0170 = 10 (tells stat 1 heat stage and 2 cooling stages) 0240= 3 (tells stat 1st stage heaing cycle rate)

Critical Installation Set Up on Furnace

- 1. If zoning is applied, set the "Zone Control" jumper to YES which eliminates the RUN 2 cycle of the furnace which normally begins when the call from the thermostat ends.
- 2. Set Blower Speeds as Required for Proper CFM

| | | - |
|------|---|-------|
| CZH | 2-STAGE AIR CONDITIONER | Index |
| YP9C | 95% MODULATING VARIABLE SPEED GAS FURNACE | index |



0172 = 1 (tells stat Conventional System)

0174= 2 (tells stat number of cooling stages)

0176= 1 (tells stat # of heating stages)

0180= 0 (tells stat equipment controls fan)

Critical Installation Set Up on Furnace

Set Blower Speeds as Required for Proper CFM. J9 = Cool, J16 = Adj, J15 = Delay

York System Wiring Diagrams

| | | - |
|------|--|-------|
| CZH | 2-STAGE AIR CONDITIONER | |
| TM9V | 95% 2 Stage Variable Speed Gas Furnace | Index |
| TM8V | 80% 2 Stage Vairable Speed Gas Furnace | |

Vision Pro8000

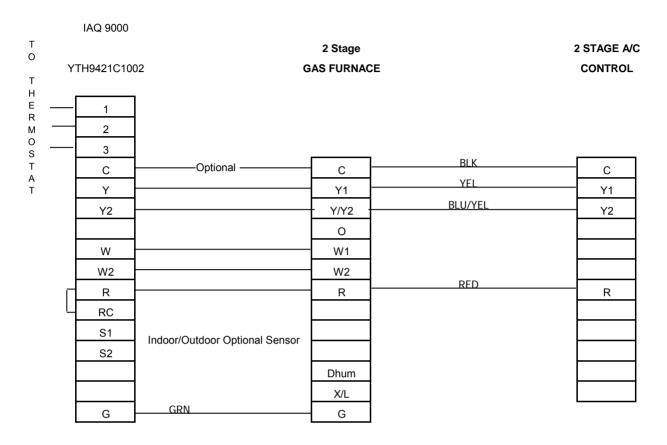
| • • | 31011 1 10000 | | | | |
|-----|---------------|--------------------------------|------------|---------|-------------|
| | | | 2 Stage | | 2 STAGE A/C |
| Т | H8321U100 | 6 G | AS FURNACE | | CONTROL |
| | | | | | |
| | С | Optional — | С — | BLK | С |
| | Y | | Y1 - | YEL | Y1 |
| ŀ | Y2 | | Y/Y2 | BLU/YEL | Y2 |
| | 12 | | | | 12 |
| ŀ | | | 0 | | |
| ŀ | W | | W1 | | |
| ļ | W2 | | W2 | RFD | |
| П | R | | R | KED | R |
| Ч | RC | | | | |
| - | S1 | Indoor/Outdoor Optional Sensor | | | |
| | S2 | indoon/Outdoor Optional Sensor | | | |
| | | | Dhum | | |
| | | | X/L | | |
| | G | GRN | G | | |

Critical Installation Set up on Thermostat

0170 = 8 (tells stat 2 heat stage and 2 cooling stages)0240= 3- 90% Furnace 5-80% Furnace (tells stat 1st stage heaing cycle rate)

Critical Installation Set Up on Furnace

| CZH | 2-STAGE AIR CONDITIONER | |
|------|--|-------|
| TM9V | 95% 2 Stage Variable Speed Gas Furnace | Index |
| TM8V | 80% 2 Stage Vairable Speed Gas Furnace | |



0172 = 1 (tells stat Conventional System)

0174= 2 (tells stat number of cooling stages)

0176= 2 (tells stat # of heating stages)

0180= 0 (tells stat equipment controls fan)

Critical Installation Set Up on Furnace

York System Wiring Diagram

| СZН | 2-STAGE AIR CONDITIONER | |
|------|----------------------------------|-------|
| тм9х | 95% Single Stage X13 Gas Furnace | Index |
| TM8X | 80% Single Stage X13 Gas Furnace | |

Vision Pro8000

| ٧. | 31011 1 1000 | 50 | | | |
|----|--------------|--------------------------------|--------------|---------|-------------|
| | | | Single Stage | | 2 STAGE A/C |
| Т | H8321U100 | 6 G | AS FURNACE | | CONTROL |
| _ | | | | | |
| | С | Optional — | С — | BLK | С |
| | Y | | Y1 | YEL | Y1 |
| ľ | Y2 | | Y/Y2 | BLU/YEL | Y2 |
| • | | | | | 12 |
| ŀ | 10/ | | 10/ | | |
| | W | | W | | |
| | W2 | | | RFD | |
| П | R | | R | NLD | R |
| Ч | RC | | | | |
| - | S1 | Indoor/Outdoor Optional Sensor | | | |
| | S2 | | | | |
| | | | | | |
| | | | | | |
| ŀ | G | GRN | G | | |
| L | G | | G | | |

Critical Installation Set up on Thermostat

0170 = 10 (tells stat 1 heat stage and 2 cooling stages)0240= 3- 90% Furnace 5-80% Furnace (tells stat 1st stage heaing cycle rate)

Critical Installation Set Up on Furnace

CZH 2-STAGE AIR CONDITIONER - R-410a

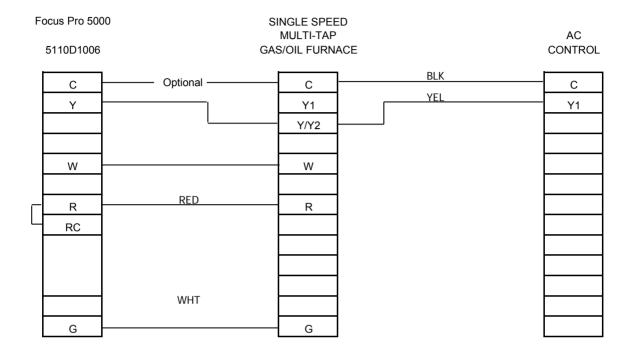
TG9S 90% SINGLE STAGE MULTI-TAP GAS FURNACE

TG8S 80% SINGLE STAGE MULTI-TAP GAS FURNACE

OIL FURNACES - *VERIFY WITH ACTUAL FURNACE MANUFACTURER'S*

WIRING DIAGRAM





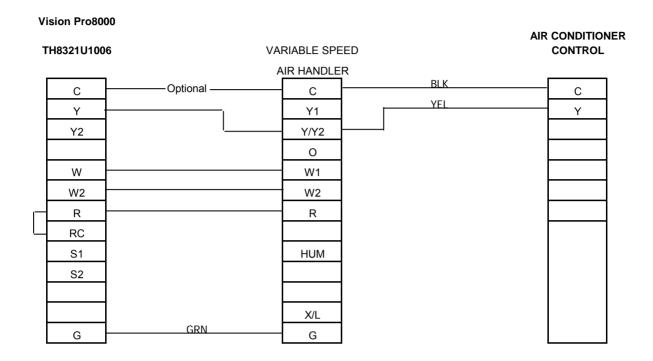
Critical Installation Set up on Thermostat

Parameter 5 = 5 for 80% Furnace or 3 for 90% or Better (tells stat cycle rate)

Critical Installation Set Up on Furnace

| CZF | 1-STAGE AIR CONDITIONER - R-410a |
|-----|---|
| AVG | SINGLE PIECE VARIABLE SPEED AIR HANDLER |
| MV | TWO PIECE VARIABLE SPEED AIR HANDLER |





0170 = 9 (tells stat 2 heat stage and 1 cooling stages)0240= 9 (tells stat 1st stage heaing cycle rate)

Critical Installation Set up for Air Handler Jumpers

P5 Jumper = Heat

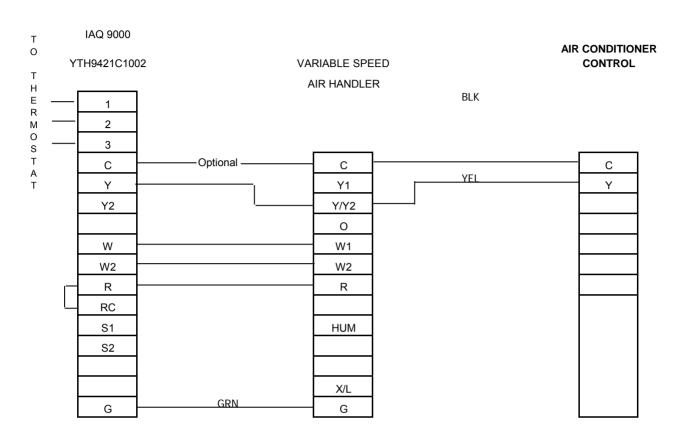
Set Blower Speeds as Required for Proper CFM. P9 = Heat,P10 = Delay,P8 = Cool,P11 = Adj.

Critical Installation Set up for Heat Pump Jumpers

Y2 Lock = ON/OFF (Optional)

| CZF | 1-STAGE AIR CONDITIONER - R-410a |
|-----|---|
| AVG | SINGLE PIECE VARIABLE SPEED AIR HANDLER |
| MV | TWO PIECE VARIABLE SPEED AIR HANDLER |





0172 = 1 (tells stat Conventional System)

0174= 1 (tells stat number of cooling stages)

0176= 2 (tells stat # of heating stages)

0180= 2 (tells stat equipment controls fan)

Critical Installation Set up for Air Handler Jumpers

P5 Jumper = Heat

Set Blower Speeds as Required for Proper CFM. P9 = Heat,P10 = Delay,P8 = Cool,P11 = Adj.

CZF 1-STAGE AIR CONDITIONER AHE SINGLE PIECE X13 AIR HANDLER

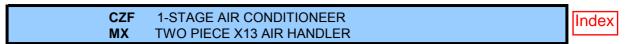
| ision Pro800 H8321U100 | | X13 MULTI -TAF AIR HANDLE | | AIR CONDITIONER CONTROL |
|---------------------------|-------------------------------------|---------------------------------|------------|----------------------------|
| C Y Y2 | Optional— | - C - Y1 | BLK YEL | C Y1 Y2 |
| R RC S1 | | R | | |
| S2 W2 W G | Indoor/Outdoor Optional Sensor GRN | W2 W1 G | | |

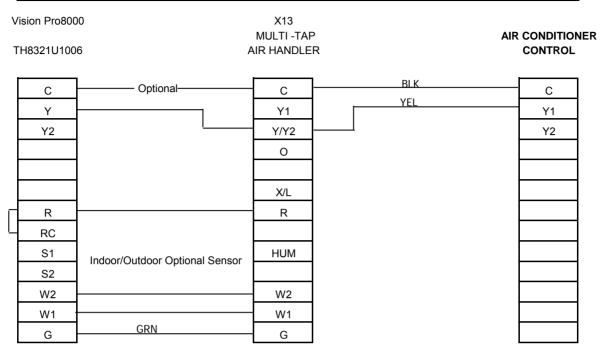
Critical Installation Set up on Thermostat

0170 = 9 (tells the stat it's operating at 2 heat and 1 cool stage Conventional)

Critical Installation Set up for Air Handler Jumpers

Set Blower Speeds as Required for Proper CFM Note: W2 only required if 13 KW and above.





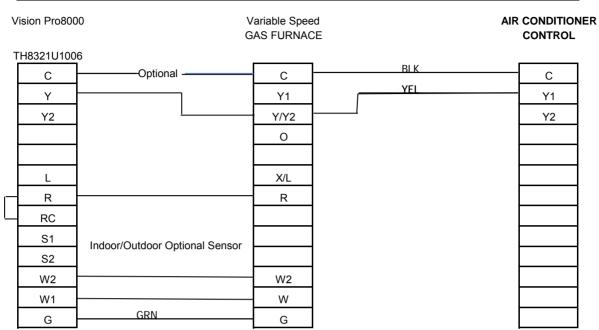
Critical Installation Set up on Thermostat

0170 = 9 (tells the stat it's operating at 2 heat and 1 cool stage Conventional)

Critical Installation Set up for Air Handler Jumpers

P5 Jumper = Heat

| CZF | 1-STAGE AIR CONDITIONEER | |
|------|--|-------|
| TM9V | 95% 2 Stage Variable Speed Gas Furnace | Index |
| TM8V | 80% 2 Stage Vairable SpeedGas Furnace | |

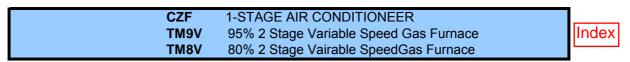


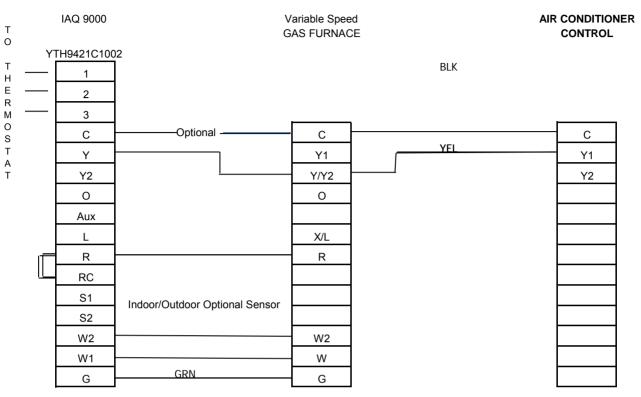
Critical Installation Set up on Thermostat

0170 = 9 (Tells the stat iis operating at 2 heat and 1 cool Conventional) 0240= 3- 90% Furnace 5-80% Furnace (tells stat 1st stage heaing cycle rate)

Critical Installation Set up on Furnace Jumpers

Set Blower Speeds as Required for Proper CFM. Heat, Cool, Delay, Adjust





Critical Installation Set up on Thermostat

0172 = 1 (tells stat Conventional System)

0174= 1 (tells stat number of cooling stages)

0176= 2 (tells stat # of heating stages)

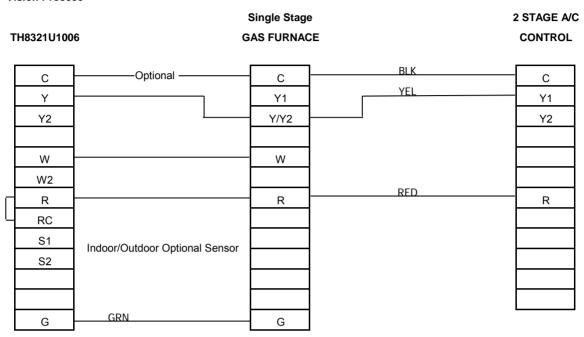
0180= 0 (tells stat equipment controls fan)

Critical Installation Set up on Furnace Jumpers

Set Blower Speeds as Required for Proper CFM. Heat, Cool, Delay, Adjust

| CZF | 1-STAGE AIR CONDITIONER | |
|------|----------------------------------|-------|
| TM9X | 95% Single Stage X13 Gas Furnace | Index |
| TM8X | 80% Single Stage X13 Gas Furnace | |

Vision Pro8000



Critical Installation Set up on Thermostat

0170 = 1 (tells stat 1 heat stage and 1 cooling stages)

0240= 3- 90% Furnace 5-80% Furnace (tells stat 1st stage heaing cycle rate)

Critical Installation Set Up on Furnace

CZF 1-STAGE AIR CONDITIONER - R-410a

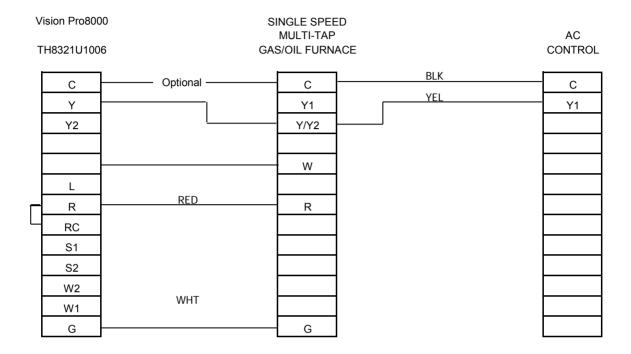
TG9S 90% SINGLE STAGE MULTI-TAP GAS FURNACE

TG8S 80% SINGLE STAGE MULTI-TAP GAS FURNACE

OIL FURNACES - *VERIFY WITH ACTUAL FURNACE MANUFACTURER'S*

WIRING DIAGRAM





Critical Installation Set up on Thermostat

0170 = 9 (Tells the stat iis operating at 2 heat and 1 cool Conventional)

0240= 3- 90% Furnace 5-80% Furnace (tells stat 1st stage heaing cycle rate)

Critical Installation Set Up on Furnace

CZF 1-STAGE AIR CONDITIONER - R-410a

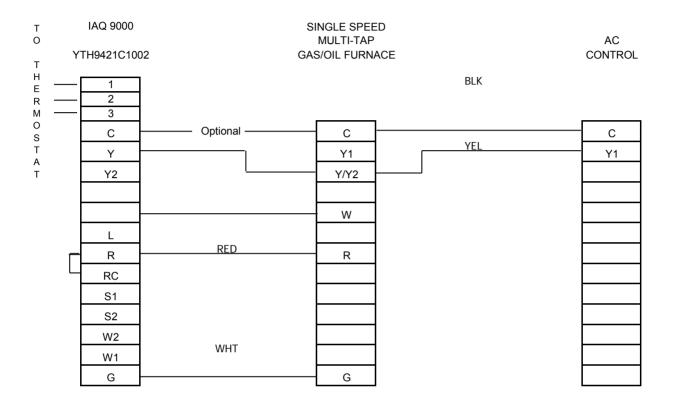
TG9S 90% SINGLE STAGE MULTI-TAP GAS FURNACE

TG8S 80% SINGLE STAGE MULTI-TAP GAS FURNACE

OIL FURNACES - *VERIFY WITH ACTUAL FURNACE MANUFACTURER'S*

WIRING DIAGRAM





Critical Installation Set up on Thermostat

0172 = 1 (tells stat Conventional System)

0174= 1 (tells stat number of cooling stages)

0176= 1 (tells stat # of heating stages)

0180= 0 (tells stat equipment controls fan)

Critical Installation Set up on Furnace Jumpers

YHJF 1-STAGE HEAT PUMP - 1.5 - 4 Ton AHE SINGLE PIECE X13 AIR HANDLER

| | ision Pro800 H8321U100 | | X13 MULTI -TAF NR HANDLE | | HEAT PUMP CONTROL |
|--------|---------------------------|--------------------------------------|--------------------------------|-----|----------------------|
| | С | Optional— | С | BLK | С |
| | Υ | | Y1 | YEL | Y |
| | Y2 | | | | |
| | 0 | | | ORG | О О |
| \Box | Aux Optional | | | WHT | w |
| | | Optional - | | PUR | X/L |
| | R | | R | RED | R |
| | RC | RC S1 Indoor/Outdoor Optional Sensor | | | |
| | S1 | | | | |
| | S2 | | | | |
| | | | W2 | | |
| | Е | | W1 | BRN | W1/66 |
| | G | GRN | G | | |

Critical Installation Set up on Thermostat

0170 = 7 (tells the stat it's operating at 2 heat and 1 cool stage as a heat pump)

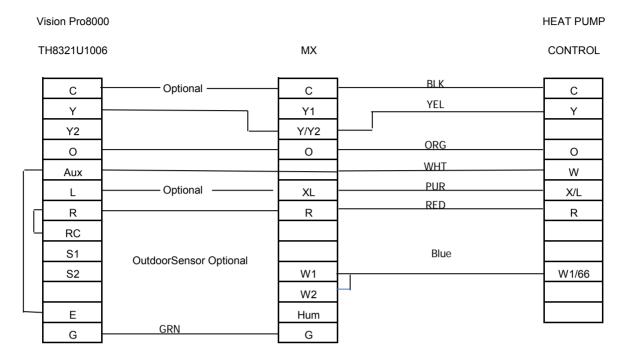
Critical Installation Set up for Air Handler Jumpers

Set Blower Speeds as Required for Proper CFM Note: W2 only required if 13 KW and above.

Critical Installation Set up for Heat Pump Jumpers

Defrost Curve = Position 2

YHJF 1-STAGE HEAT PUMP - R-410a 1.5 - 4 Tons MX Air Handler with X13 Motor



Critical Installation Set up on Thermostat

0170 = 7 (Tells the stat iis operating at 2 heat and 1 cool stage as a heat pump) 0180 = 1 (Fan is controlled by thermostst)

Note: Outdoor sensor cable must be separate from the thermostat cable.

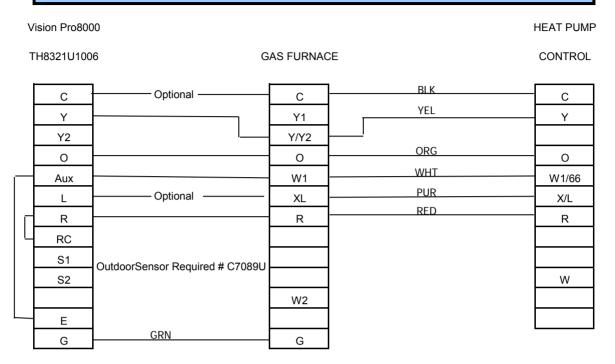
Critical Installation Set up on Air Handler

Set Blower Speeds as Required for Proper CFM Heat Enable = Yes if Electric Heater is installed Hunidistat = Set to yes if Humidistat is present Heat Pump = Yes

Critical Installation Set up for Heat Pump Jumpers

Defrost Curve Position 2

YHJF 1-STAGE HEAT PUMP - R-410a 1.5 - 4 Tons TM9V 96% 2 STAGE GAS FURNACE TM8V 80% 2 STAGE GAS FURNACE



Critical Installation Set up on Thermostat

0170 = 7 (Tells the stat iis operating at 2 heat and 1 cool stage as a heat pump)

0200 = 1 (Tells stat back up is fossil fuel)

0210 = 0 (Tells stat fossil fuel kit is internal)

0270 = 3 (For 90% Furnace or 5 For 80%)

0340 = 2 (Outdoor Sensor Control)

0350 = 35 (Balance Point for Lock Out Range 15 to 45 Degrees)

Note: Outdoor sensor cable must be separate from the thermostat cable.

Critical Installation Set up on Furnace Jumpers

Contionus Fan Speed set as Required Set Blower Speeds as Required for Proper CFM

Fan Off Delay Set as Required

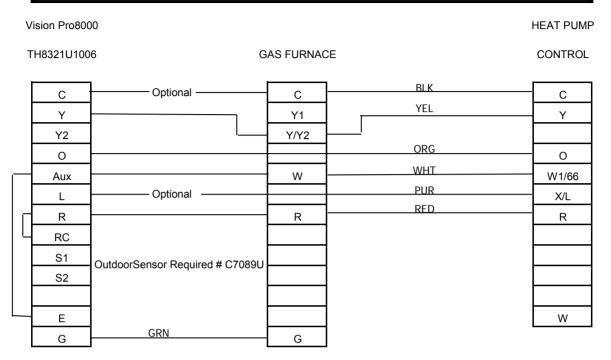
High Heat Delay can be set for 10,15,or 20 minutes.

Heat Pump = Yes

Critical Installation Set up for Heat Pump Jumpers

Defrost Curve Position 2

YHJF 1-STAGE HEAT PUMP - R-410a 1.5 - 4 Tons TM9X 95% SINGLE STAGE GAS FURNACE TM8X 80% SINGLE STAGE GAS FURNACE



Critical Installation Set up on Thermostat

0170 = 7 (Tells the stat iis operating at 2 heat and 1 cool stage as a heat pump)

0200 = 1 (Tells stat back up is fossil fuel)

0210 = 0 (Tells stat fossil fuel kit is internal)

0270 = 3 (For 90% Furnace or 5 For 80%)

0340 = 2 (Outdoor Sensor Control)

0350 = 35 (Balance Point for Lock Out Range 15 to 45 Degrees)

Note: Outdoor sensor cable must be separate from the thermostat cable.

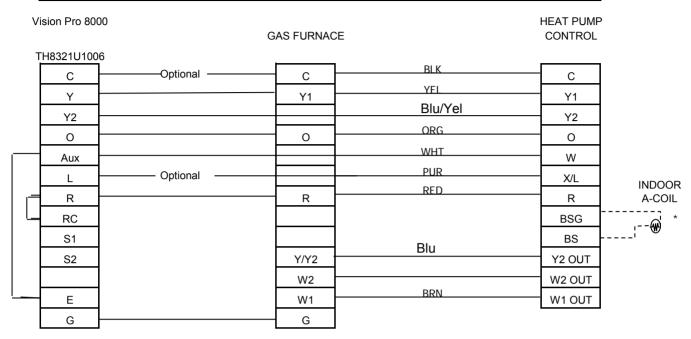
Critical Installation Set up on Furnace Jumpers

Contionus Fan Spped set as Required Set Blower Speeds as Required for Proper CFM Fan Off Delay Set as Required

Critical Installation Set up for Heat Pump Jumpers

Defrost Curve Position 2

YHJF 2-STAGE HEAT PUMP - R-410a 5 Tons Only TM9V 96% 2 STAGE GAS FURNACE TM8V 80% 2 STAGE GAS FURNACE



^{*} OPTIONAL BONNET SENSOR

* OPTIONAL BONNET SENSOR

Critical Installation Set up on Thermostat

0170 = 7 (tells the stat iis operating at 2 heat and 1 cool stage as a heat pump)

0200 = 1 (Tells stat back up is fossil fuel)

0210 = 1 (Tells stat fossil fuel kit is external)

Critical Installation Set up on Furnace Jumpers

Contionus Fan Spped set as Required Set Blower Speeds as Required for Proper CFM

Fan Off Delay Set as Required

High Heat Delay can be set for 10,15,20 minutes.

Heat Pump = Yes

Critical Installation Set up for Heat Pump Jumpers

Hot Heat Pump = ON/OFF (Factory Default is OFF, but it must be turned ON for this application)

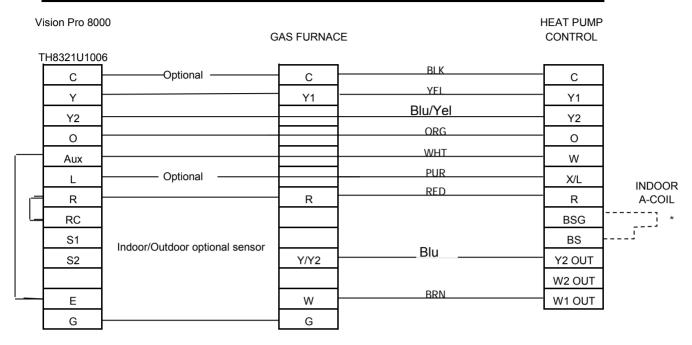
Y2 Lock = ON/OFF (Factory Default is OFF, however we recommend it be changed to ON)

Switch Point = 35° is Factory Default, change if needed

F Fuel (Fossil Fuel) = ON (Factory Default is off, however it MUST be changed to ON)

BP (balance point) = 35° is factory setting, but should be set to job specific temperature

YHJF 2-STAGE HEAT PUMP - R-410a 5 Tons Only TM9X 95% SINGLE STAGE GAS FURNACE TM8X 80% SINGLE STAGE GAS FURNACE



^{*} OPTIONAL BONNET SENSOR

* OPTIONAL BONNET SENSOR

Critical Installation Set up on Thermostat

0170 = 7 (tells the stat iis operating at 2 heat and 1 cool stage as a heat pump)

0200 = 1 (Tells stat back up is fossil fuel)

0210 = 1 (Tells stat fossil fuel kit is external)

Critical Installation Set up on Furnace Jumpers

Contionus Fan Spped set as Required Set Blower Speeds as Required for Proper CFM Fan Off Delay Set as Required

Critical Installation Set up for Heat Pump Jumpers

Hot Heat Pump = ON/OFF (Factory Default is OFF, But it must be turned on for this application)

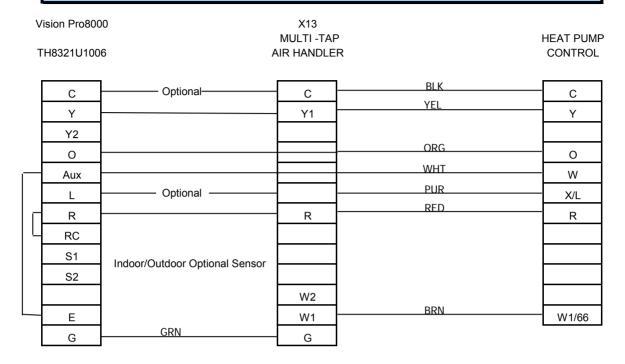
Y2 Lock = ON/OFF (Factory Default is OFF)

Switch Point = 35° is Factory Default, change if needed

F Fuel (Fossil Fuel) = ON (Factory Default is off, however it MUST be changed to ON)

BP (balance point) = 35° is factory setting, but should be set to job specific temperature

YHJD 1-STAGE HEAT PUMP AHE SINGLE PIECE X13 AIR HANDLER



Critical Installation Set up on Thermostat

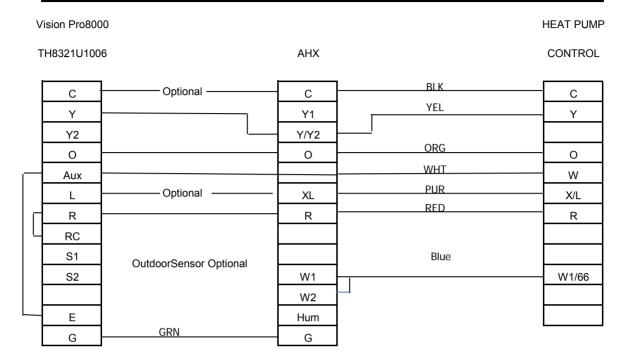
0170 = 7 (tells the stat it's operating at 2 heat and 1 cool stage as a heat pump)

Critical Installation Set up for Air Handler Jumpers

Set Blower Speeds as Required for Proper CFM Note: W2 only required if 13 KW and above.

Critical Installation Set up for Heat Pump Jumpers

YHJD 1-STAGE HEAT PUMP - R-410a 1.5 - 4 Tons MX Air Handler with X13 Motor



Critical Installation Set up on Thermostat

0170 = 7 (Tells the stat iis operating at 2 heat and 1 cool stage as a heat pump)

0180 = 1 (Fan is controlled by thermostst)

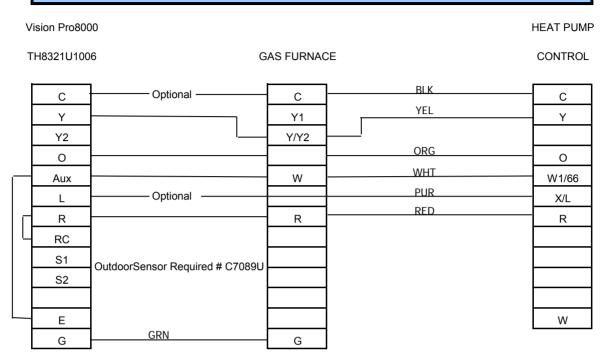
Note: Outdoor sensor cable must be separate from the thermostat cable.

Critical Installation Set up on Air Handler

Set Blower Speeds as Required for Proper CFM Heat Enable = Yes if Electric Heater is installed Hunidistat = Set to yes if Humidistat is present Heat Pump = Yes

Critical Installation Set up for Heat Pump Jumpers

YHJD 1-STAGE HEAT PUMP - R-410a 1.5 - 5 Tons TM9X 95% SINGLE STAGE GAS FURNACE TM8X 80% SINGLE STAGE GAS FURNACE



Critical Installation Set up on Thermostat

0170 = 7 (Tells the stat iis operating at 2 heat and 1 cool stage as a heat pump)

0200 = 1 (Tells stat back up is fossil fuel)

0210 = 0 (Tells stat fossil fuel kit is internal)

0270 = 3 (For 90% Furnace or 5 For 80%)

0340 = 2 (Outdoor Sensor Control)

0350 = 35 (Balance Point for Lock Out Range 15 to 45 Degrees)

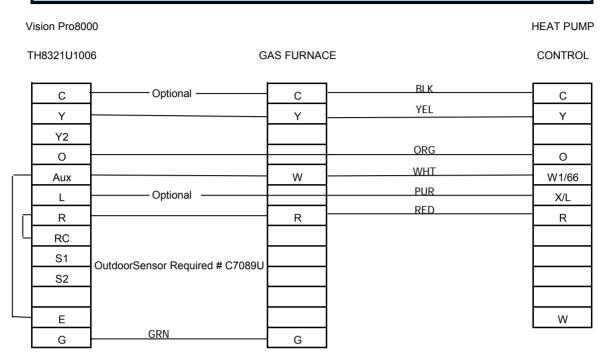
Note: Outdoor sensor cable must be separate from the thermostat cable.

Critical Installation Set up on Furnace Jumpers

Contionus Fan Spped set as Required Set Blower Speeds as Required for Proper CFM Fan Off Delay Set as Required

Critical Installation Set up for Heat Pump Jumpers

YHJR 1-STAGE HEAT PUMP - R-410a 1.5 - 5 Tons TG9S 95% SINGLE STAGE GAS FURNACE TG8S 80% SINGLE STAGE GAS FURNACE



Critical Installation Set up on Thermostat

0170 = 7 (Tells the stat iis operating at 2 heat and 1 cool stage as a heat pump)

0190 = 0 (Reversing Valve in Normal Heat Mode)

0200 = 1 (Tells stat back up is fossil fuel)

0210 = 0 (Tells stat fossil fuel kit is internal)

0270 = 3 (For 90% Furnace or 5 For 80%)

0340 = 2 (Outdoor Sensor Control)

0350 = 35 (Balance Point for Lock Out Range 15 to 45 Degrees)

Note: Outdoor sensor cable must be separate from the thermostat cable.

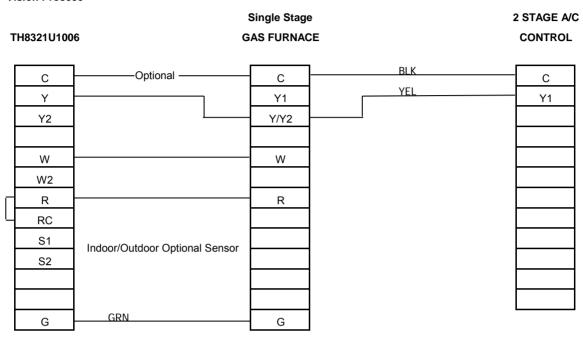
Critical Installation Set up on Furnace Jumpers

Contionus Fan Spped set as Required Set Blower Speeds as Required for Proper CFM Fan Off Delay Set as Required

Critical Installation Set up for Heat Pump Jumpers

| 6 | | | |
|---|------|----------------------------------|-------|
| | YCJF | 1-STAGE AIR CONDITIONER | |
| | TM9X | 95% Single Stage X13 Gas Furnace | Index |
| | TM8X | 80% Single Stage X13 Gas Furnace | |

Vision Pro8000



Critical Installation Set up on Thermostat

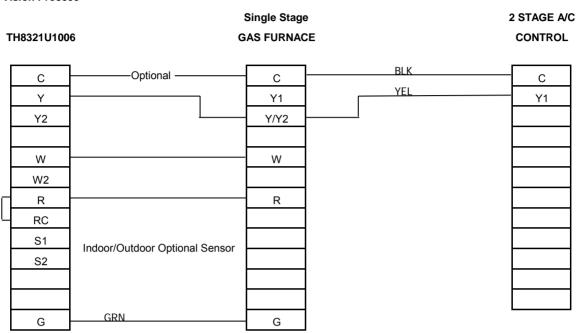
0170 = 1 (tells stat 1 heat stage and 1 cooling stages)

0240= 3- 90% Furnace 5-80% Furnace (tells stat 1st stage heaing cycle rate)

Critical Installation Set Up on Furnace

| YCJD | 1-STAGE AIR CONDITIONER | |
|------|----------------------------------|-------|
| TM9X | 95% Single Stage X13 Gas Furnace | Index |
| TM8X | 80% Single Stage X13 Gas Furnace | |

Vision Pro8000



Critical Installation Set up on Thermostat

0170 = 1 (tells stat 1 heat stage and 1 cooling stages)

0240= 3- 90% Furnace 5-80% Furnace (tells stat 1st stage heaing cycle rate)

Critical Installation Set Up on Furnace