

Overview

- The Model 1000 provides an additional control wire between a thermostat and indoor unit, or indoor unit and outdoor unit.
- It is compatible with all 24V AC heating and cooling systems.
- The Model 1000 can provide a common connection 'C' using a thermostat cable with 3 or more wires. For adding a common with only 2 wires see the FAST-STAT Common Maker.

Electrical Safety

- This product is designed for use with a Class 2 transformer providing 23 to 28 volts.
- The total connected load must not exceed 2 amps.
- The connected load cannot operate at more than 30 volts (not designed for direct connection to 120 volt equipment).
- To avoid risk of electrical shock or equipment damage, disconnect power before beginning installation.

Sender Installation

The Sender is the smaller component and has purple, yellow, and green wires. It is installed in the wall behind the thermostat.

- Remove the thermostat from the wall.
- Place the Sender in the wall and connect the wires to the sub-base according to the relevant wiring diagram (pages 2-4) for the system. The Sender will hang by its wires and does not require any mounting.
- Place the thermostat back on the wall.

If extending the wiring between an indoor and outdoor unit, the Sender can be placed inside the indoor unit cabinet or grouped with other wiring.

Receiver Installation

The Receiver is the larger component and has red, black, purple, yellow, and green wires. It is typically installed in the indoor unit cabinet, or a location without exposure to liquids or high temperatures.

Find the relevant wiring diagram for the system (pages 2-4) and connect the wires accordingly.

Testing

After the Model 1000 has been installed, check each control to ensure it is working correctly:

1. Use the thermostat to activate the equipment on the green wire and check that it turns on and off correctly.
2. Use the thermostat to activate the equipment on the yellow wire and check that it turns on and off correctly.

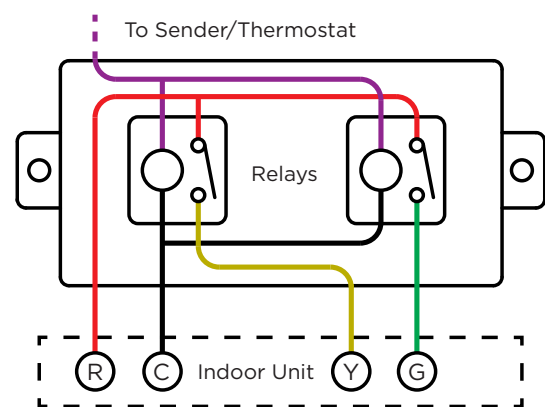
If the Model 1000 does not work as intended, proceed to Troubleshooting to check for manufacturing defects, installation errors, and other issues.

Troubleshooting

1. Measure the voltage at the transformer to ensure it is between 23 to 28 volts.
2. Check that the Sender's purple wire and the Receiver's purple wire are connected through the thermostat cable.
3. Smart thermostats may not automatically detect connected equipment when using a Model 1000. These connections must be manually configured in the thermostat's settings.
4. Jumper the Receiver's purple wire to transformer 'R'. Both relays in the Receiver should energize, outputting 24V on the Receiver's green and yellow wires. If the relays won't energize from this test, then the Receiver may be faulty.
5. At the thermostat, jumper the wire connected to the Receiver's purple wire to thermostat 'R'. This should energize both relays in the Receiver and output 24V on the Receiver's green and yellow wires. If the relays do not energize, there is a problem with the connection between the Sender's and Receiver's purple wires.
6. Jumper the Sender's green wire to thermostat 'R'. This should energize one relay and output 24V on the Receiver's green wire. Repeat the test with the yellow wire. If the output wires do not measure 24V when activated, there is a problem with the Sender. If this test was successful then there is a problem with the thermostat.

Internal Wiring

The Receiver's green and yellow wires are each connected to a relay. One side of the relay is connected to transformer 'R' through the red wire. When a relay is energized, it connects transformer 'R' to the respective green or yellow output wire.



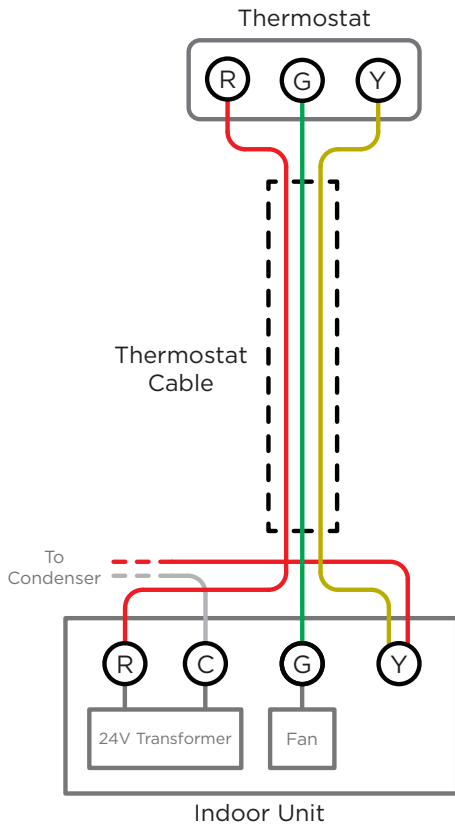
The power for the relay coils travels through the purple and black wires. The load side of the relays is not connected to the coil side.

Contact Us

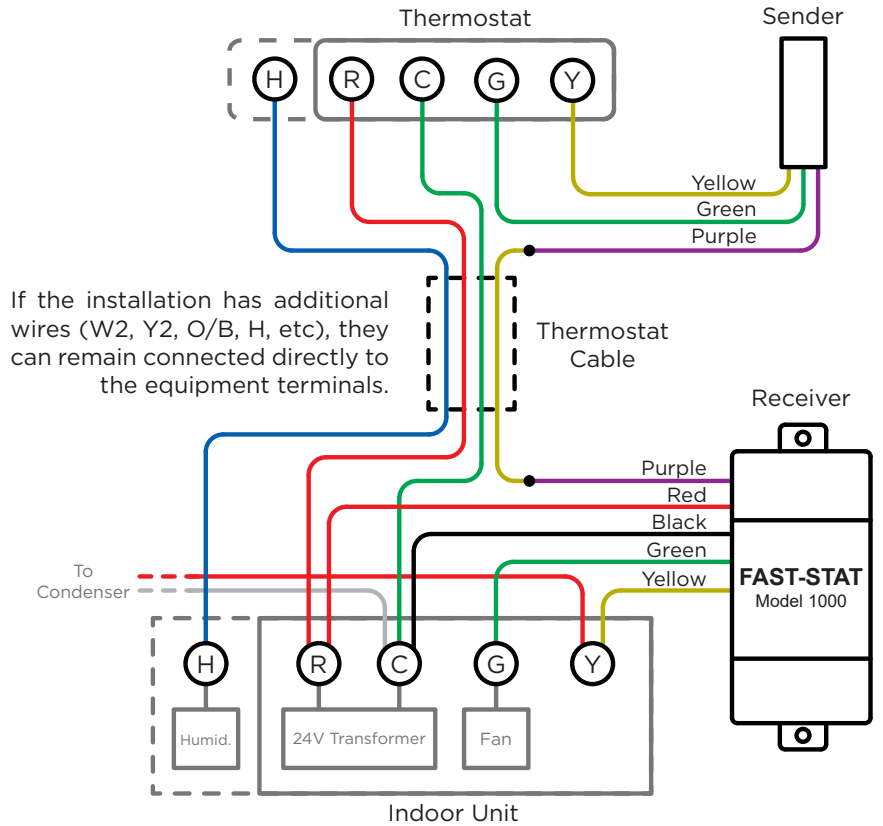
For installation assistance, our technical support line can be reached at 1-800-775-4750, 9am-5pm PST, or emailed at info@nordictech.ca

A Adding a Common Wire

Before

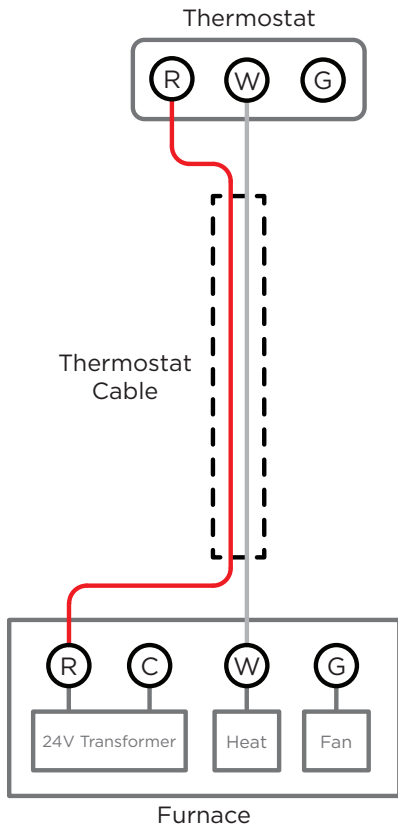


After

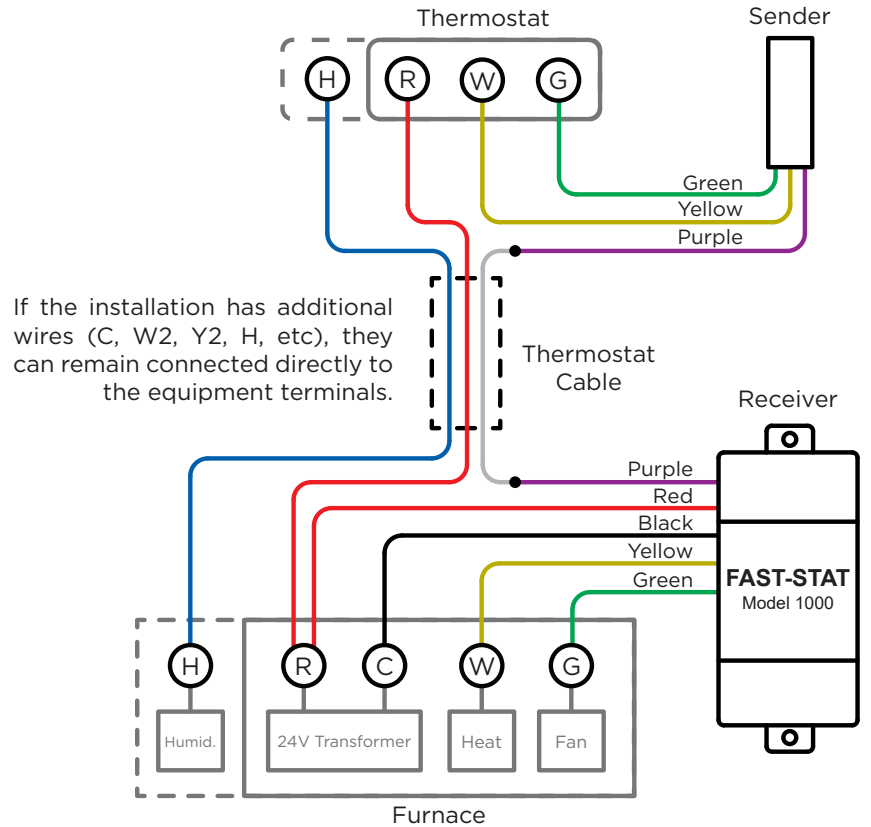


B Adding Manual Fan Control

Before

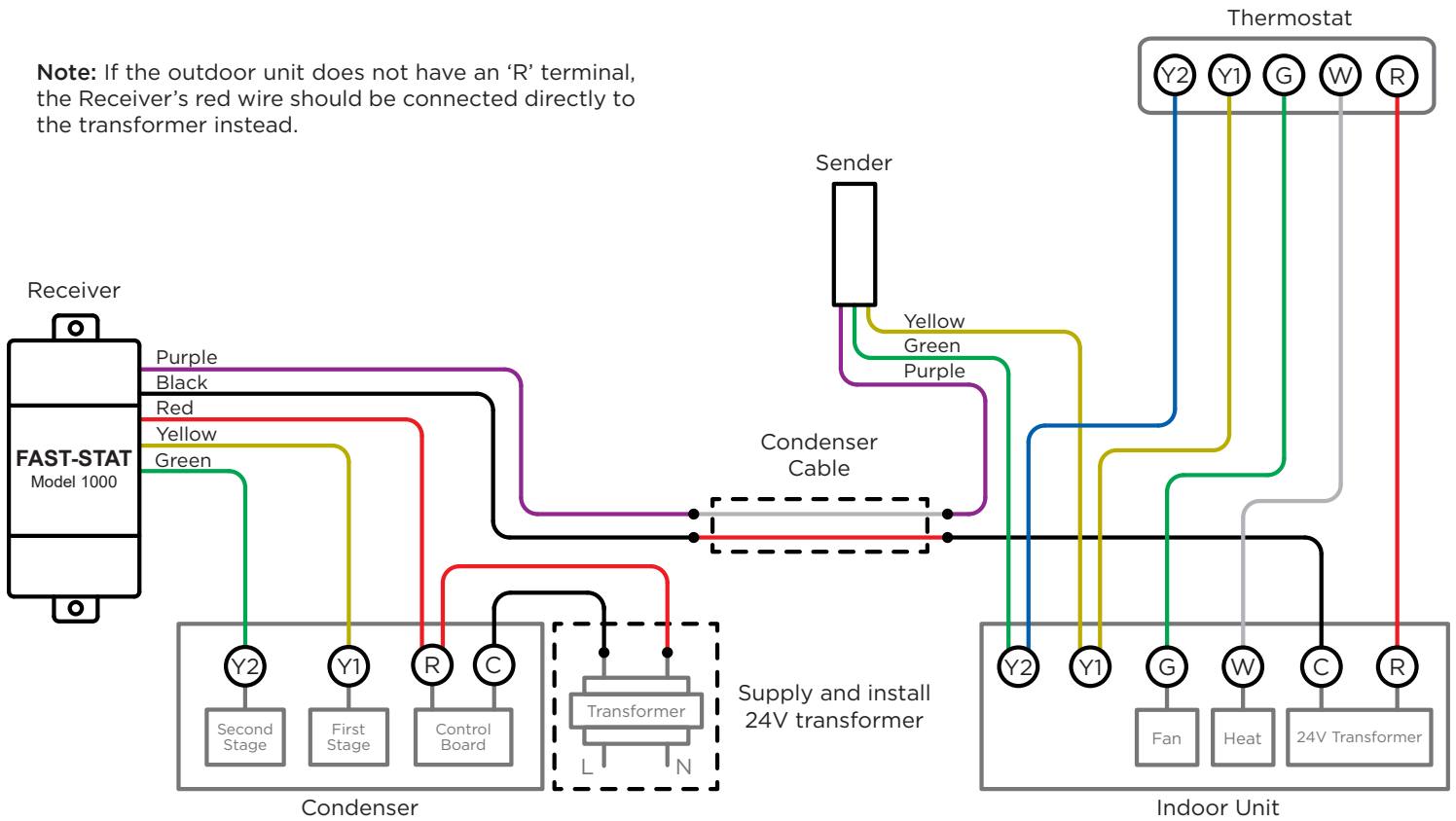


After



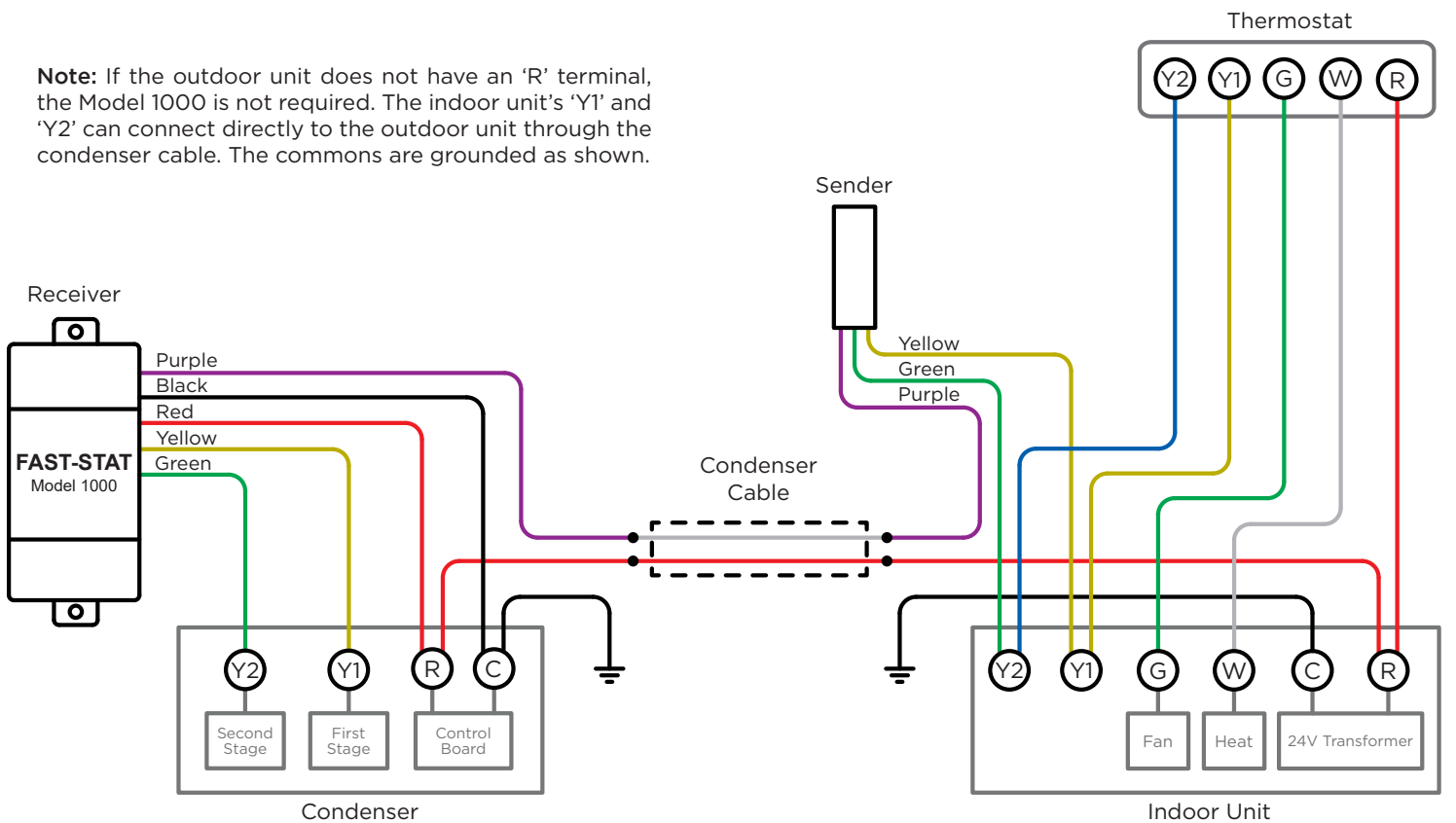
C Upgrading to a Two-Stage Air Conditioner

Note: If the outdoor unit does not have an 'R' terminal, the Receiver's red wire should be connected directly to the transformer instead.



D Upgrading to a Two-Stage Air Conditioner (Grounded Commons)

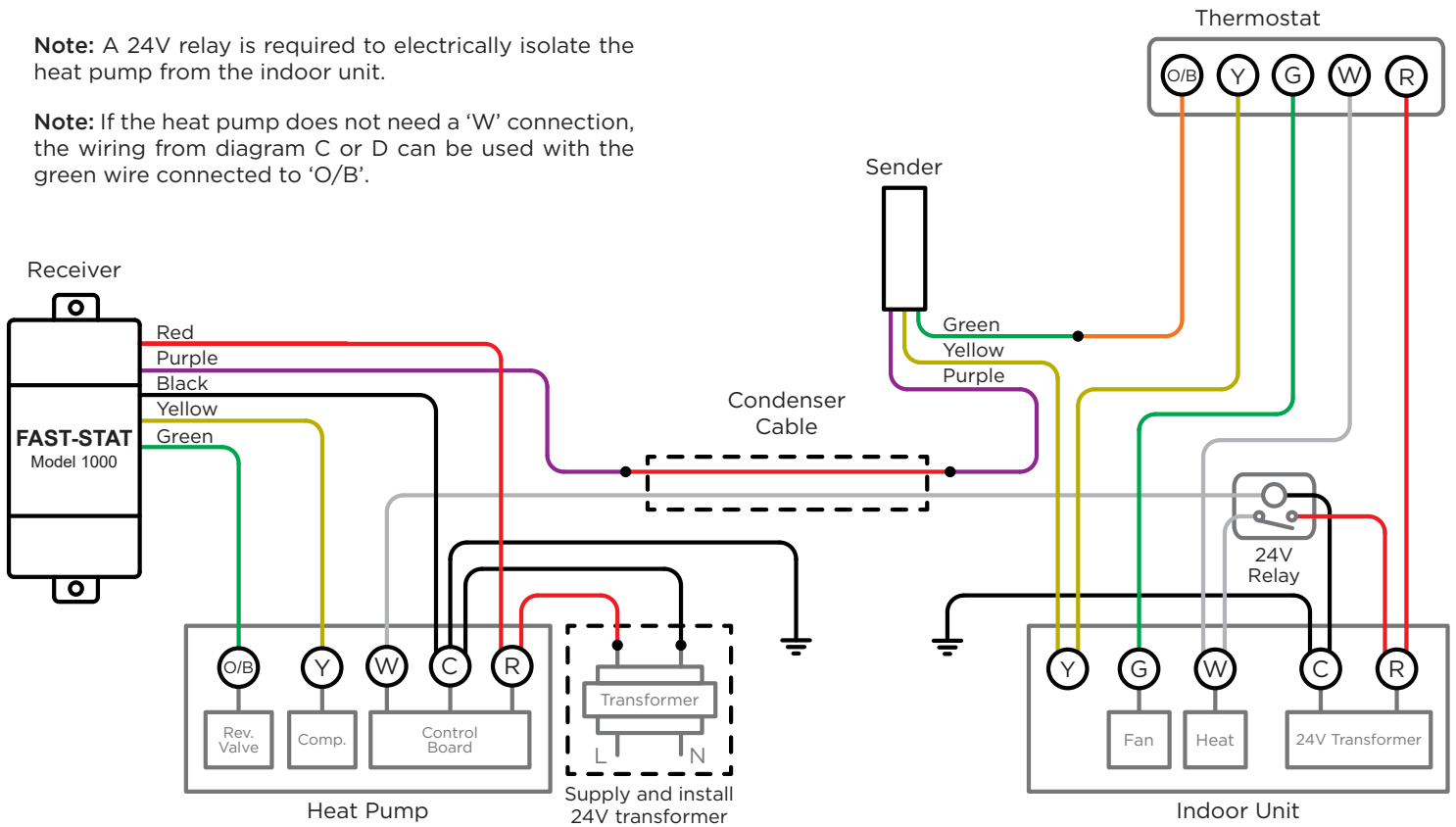
Note: If the outdoor unit does not have an 'R' terminal, the Model 1000 is not required. The indoor unit's 'Y1' and 'Y2' can connect directly to the outdoor unit through the condenser cable. The commons are grounded as shown.



E Upgrading from a Single-Stage Condenser to a Single-Stage Heat Pump

Note: A 24V relay is required to electrically isolate the heat pump from the indoor unit.

Note: If the heat pump does not need a 'W' connection, the wiring from diagram C or D can be used with the green wire connected to 'O/B'.



F Repairing a Broken Wire

Before

After

