

# iControl<sup>®</sup> System Air Conditioning Conversion Kit



**WARNING:** When the air conditioning conversion kit is installed in a standard iControl or iControl for Prodigy<sup>®</sup> cabinet, the cabinet is no longer rated for a Hazardous (Classified) Area, Class II, Div 2 or Zone 22. The cabinet must be relocated in an unclassified area as defined by fire and electrical codes.

Use the following procedure to install an air conditioning unit on the standard iControl or iControl for Prodigy<sup>®</sup> cabinet.

## Cabinet Preparation



**CAUTION:** While installing the air conditioning unit, be careful not to damage the components inside the iControl cabinet.

## Air Conditioner Opening

See Figure 1.

1. Tape the Nordson template, part 1075431, (provided with the air conditioner) to the outside right panel on your iControl unit. The template should be placed in the center of the panel 769 mm (30.27 in.) from the base of the cabinet.
2. Use the template to mark the locations of the six screws used to secure the air conditioner and the two screws for the terminal block.

**NOTE:** As you are cutting the openings for the A/C unit and screws, be careful not to get debris on the controls inside the cabinet. Secure a curtain of paper, or other flexible material to the inside top and back of the cabinet to isolate the electrical components inside the cabinet from the cutting process.

3. Outline and cut out the opening for the A/C unit.
4. Per the specifications on the template, drill the six screw holes and the two inside holes on the panel.
5. Clean and debur all eight screw holes and the A/C unit opening.
6. Vacuum all debris from the cabinet interior.

**Air Conditioner Opening** (contd)

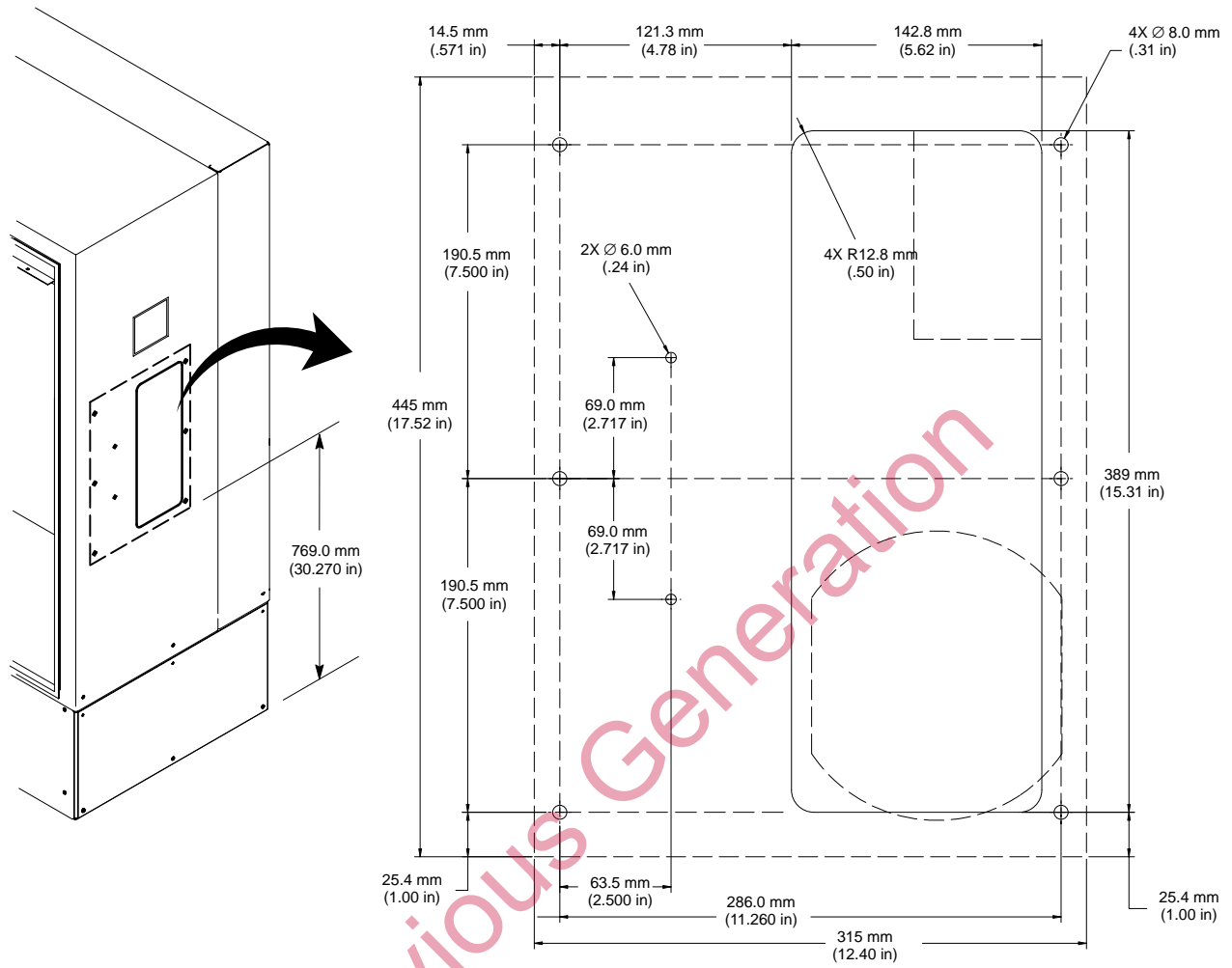


Figure 1 Cabinet Preparation - Template 1075431

## Power Wiring Knockout

**NOTE:** As you are cutting the openings for the kit, be careful not to get debris on the controls inside the cabinet.

Make a knockout for a  $\frac{1}{2}$  in. conduit connector in the back wall of the cabinet in the locations indicated in Figure 2.

Pull the 35-ft lengths of brown, blue, and green/yellow wire through the 25-ft length of conduit furnished with the kit.

Install the conduit,  $\frac{1}{2}$  in. straight conduit connector, and seal in the knockout.

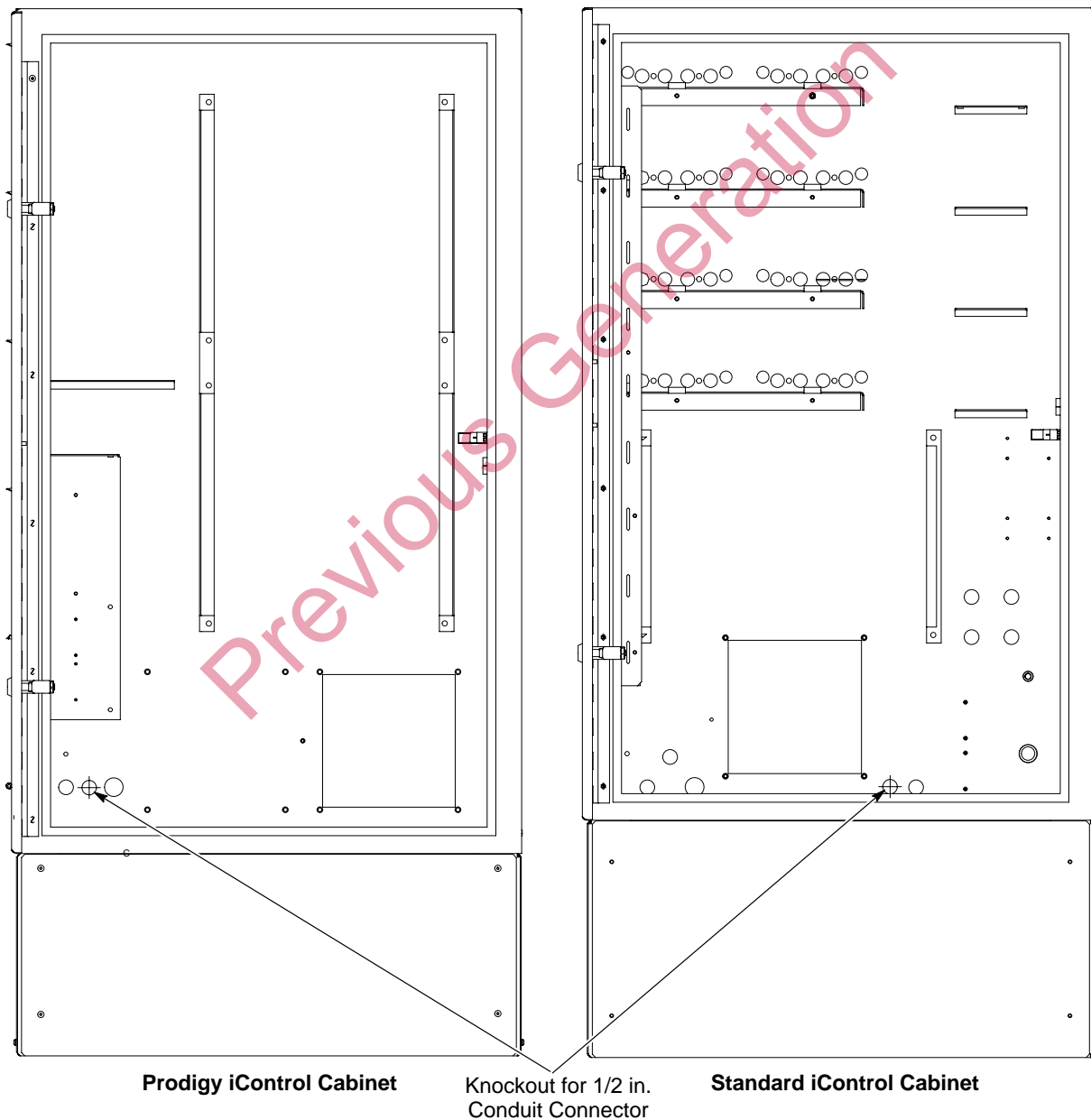


Figure 2 Knockout Location for A/C Power Conduit

## Terminal Block Installation

Mount the terminal block assembly (2) included in the kit as shown in Figure 3 using the screws (1), washers (3), and nuts (4) so that the relay is on top.

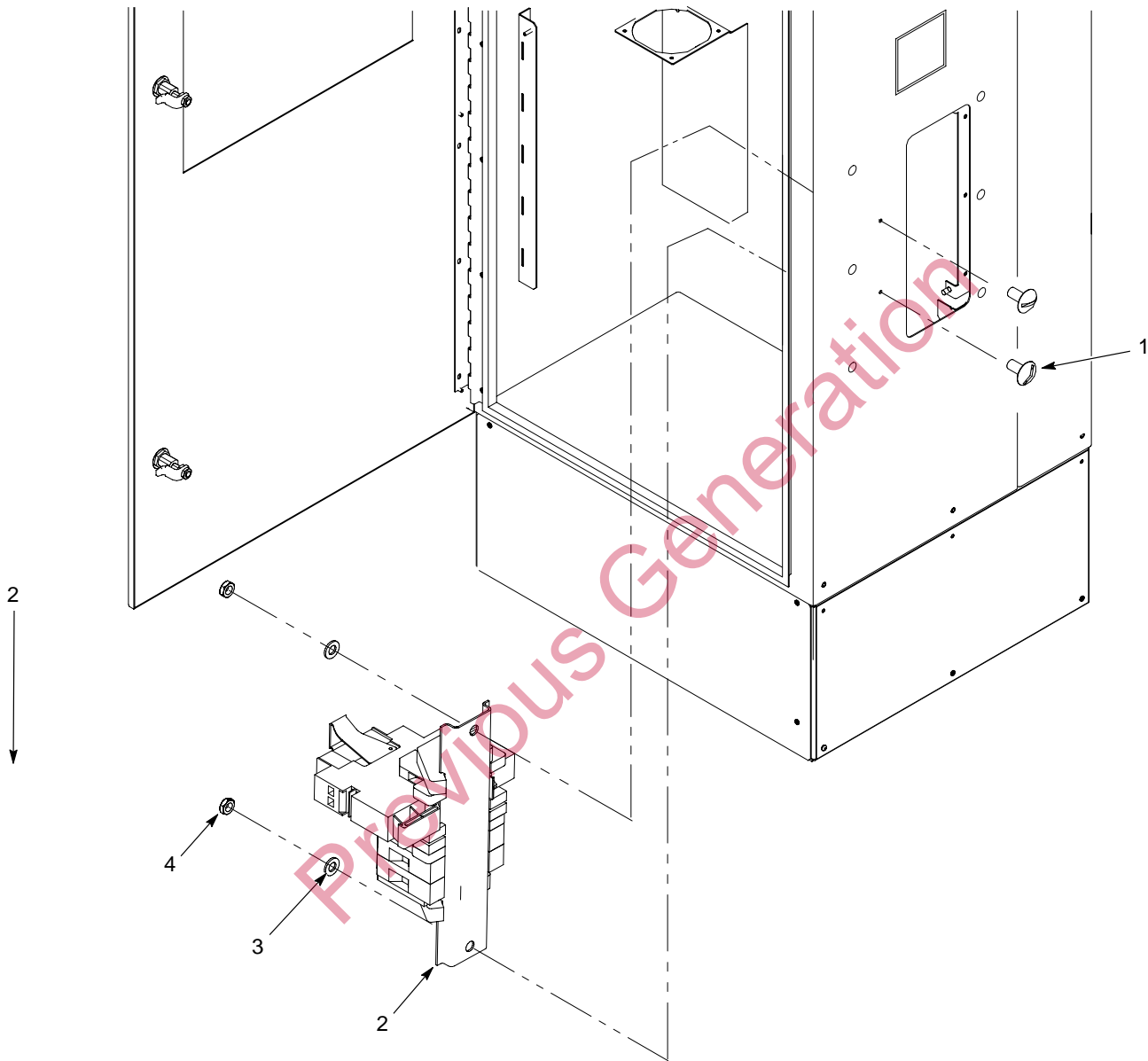


Figure 3 Terminal Block Installation

- 1. Screws
- 2. Terminal block

3. Washers

4. Nuts

## Air Conditioner Installation

**NOTE:** Installing the air conditioner is a two-person task.

1. See Figure 4. Install the studs (2) in the left and right center hole positions on the air conditioner (1).
2. Remove the liner from the gasket (3) and install it with the adhesive side toward the air conditioner, over the two studs, lining up the four holes in the gasket with the bolt threaded holes in the air conditioner.
3. Carefully lift the air conditioner up to the cabinet. Align and push the two studs through the center holes on the cabinet.
4. One person holds the air conditioner in position with the studs holding the weight.
5. The second person installs the supplied washers (4) and nuts (5) on the studs on the inside of the cabinet. Do not tighten the nuts completely.
6. Install the other washers (4) and bolts (6) in the four remaining bolt holes from inside the cabinet.
7. Once installed, tighten the two nuts and four bolts completely.
8. Apply RTV sealant to the A/C unit and terminal block screws and nuts on the inside of the cabinet to encapsulate them and seal the cabinet.

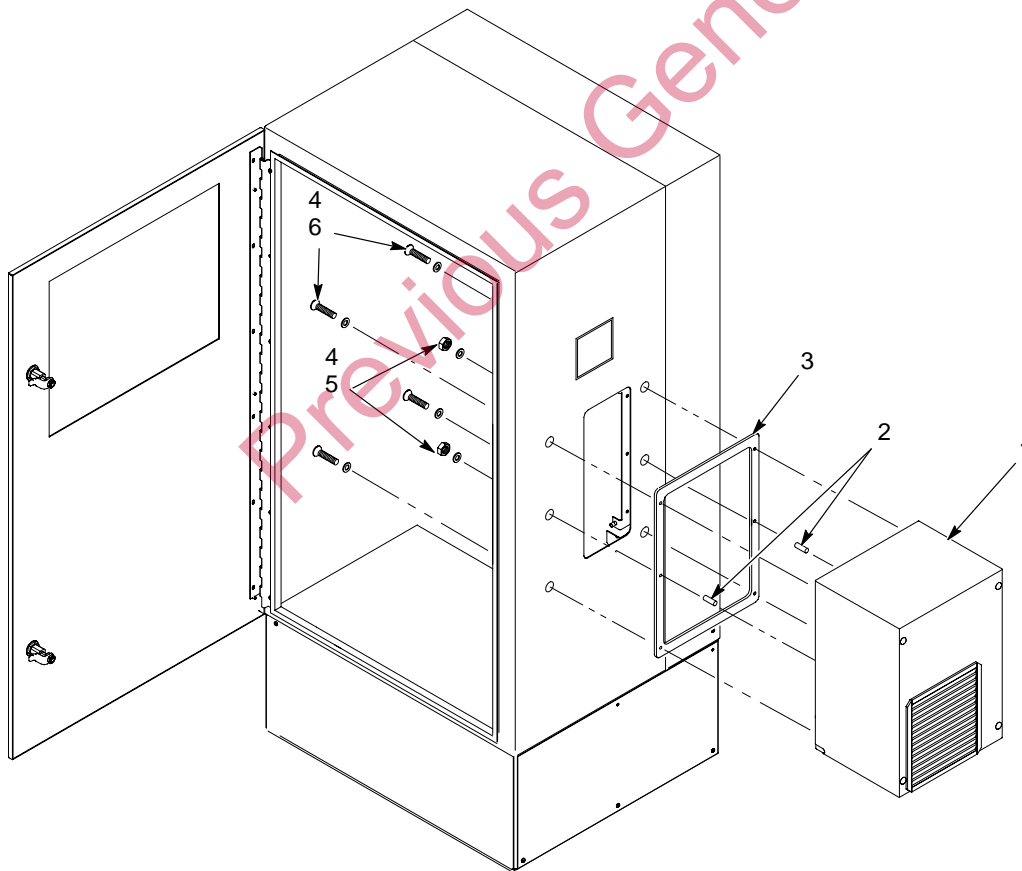


Figure 4 Air Conditioner Installation

1. Air conditioner
2. Studs (2)

3. Gasket
4. Washers (6)

5. Nuts (2)
6. Bolts (4)

## Air Conditioner Wiring

The terminal block contains a fuse holder and a relay. The relay serves to provide power to the air conditioner as long as the iControl unit is turned on. It is wired to function as normally open.

See Figure 5.

1. Inside the iControl cabinet, bring the power wiring from the conduit connector to the terminal block.
2. Connect the brown wire to L1 and the blue wire to L2 on the fuse holder.
3. Connect the green wire to the ground terminal marked PE.
4. Connect the red and black wire from the relay on the terminal block to the 24 Vdc output on the power supply (red to A1, black to A2).
5. Clip the air conditioner wiring to the appropriate length and connect it to the terminal block relay as follows:
  - L1 to terminal 14
  - L2 to terminal 24
  - Ground wire to the ground terminal
6. Use the supplied wraps to bundle together the appropriate wires and cables.
7. Connect the other end of the conduit to an electrical panel and the wiring to a terminal block providing 200-250 Vac at 50/60 Hz. All wiring must conform to code.

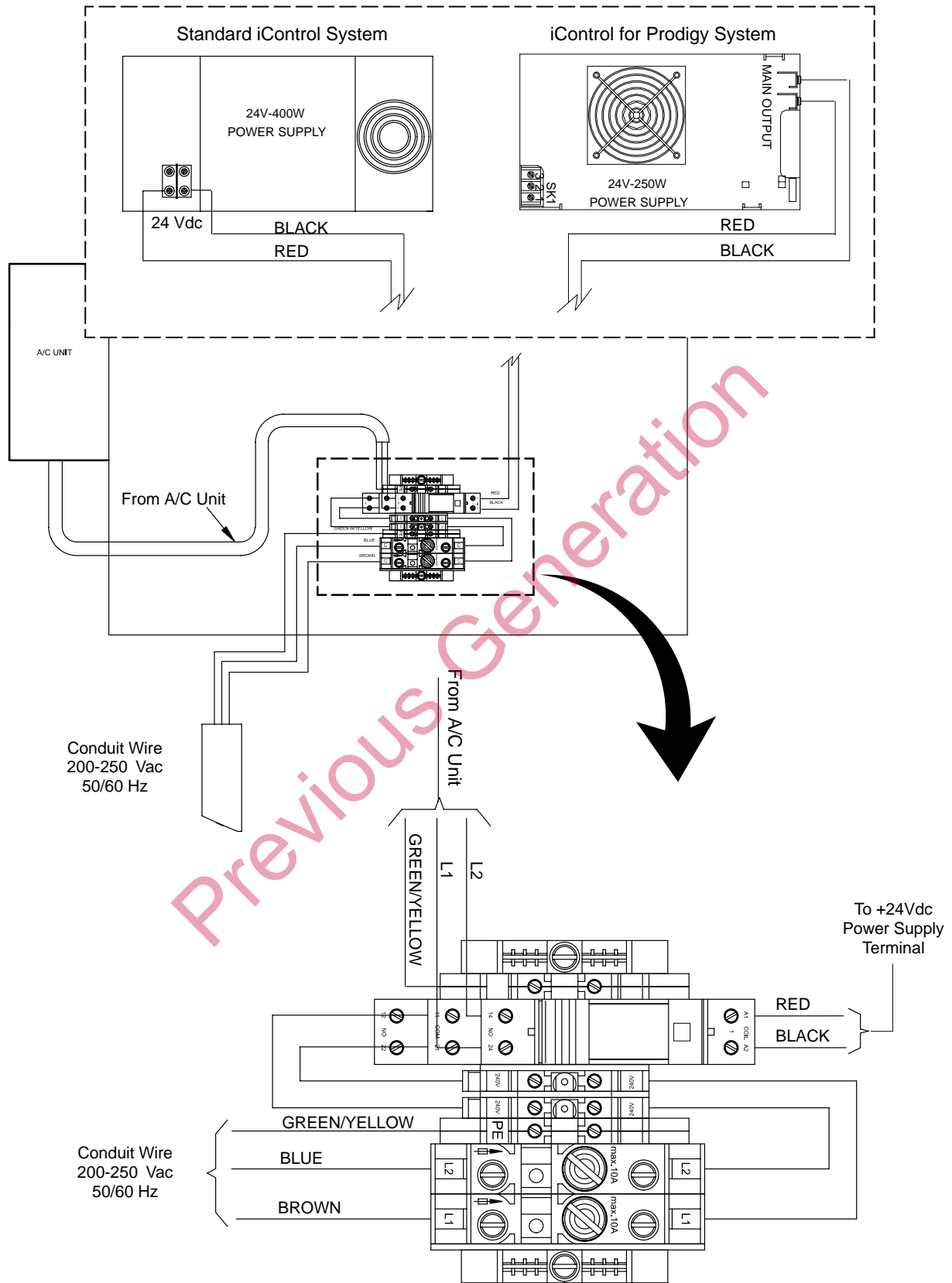


Figure 5 Air Conditioner Wiring

## Thermostat Setting

See Figure 6 . Use a screwdriver to set the thermostat to 105 °F.

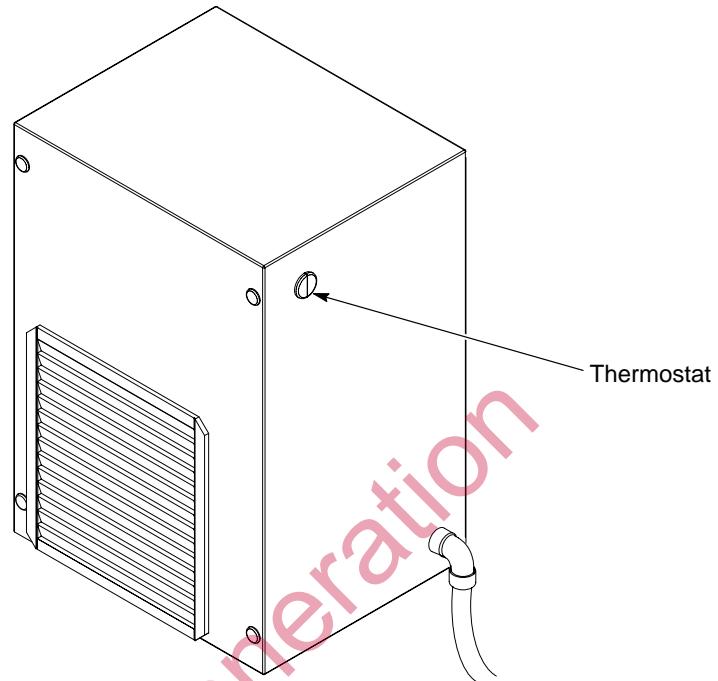


Figure 6 Thermostat Setting

## Parts

Order the following kit to install an air conditioner on both the standard iControl system and the iControl for Prodigy system cabinet.

Part	Description	Quantity
1080049	CONVERSION KIT, AC unit, iControl	1
9399965	• FUSE, 10, slow blow, 250 V, 5 x 20 mm	2

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