

## CO<sub>2</sub> SENSOR FIELD CONVERSION KIT

### INSTRUCTIONS FOR CO<sub>2</sub> SENSOR FIELD CONVERSION KITS (89W39 & 89W40) FOR USE WITH SCC/SGC036/060/120/240 UNITS

#### Shipping & Packing List

Check for any shipping damage and that all included items (listed below) are intact. If anything is damaged, or if parts are missing, immediately contact the last carrier. CO<sub>2</sub> Sensor Kits includes the following items:

- 1 - Wiring Harness
  - 1 - K92 Relay
  - 1 - Bag Assembly containing
    - 2 - #8-32 x 1/2" Screws
    - 5 - Wire nuts
    - 2 - #6-32 x 1" Screw
    - 1 - Wiring Diagram - CPC Control (shown in figure 7)
    - 1 - Wiring Diagram - Novar ETM-2024 (shown in figure 8)
    - 1 - Installation Instructions
- (SCC/SGC036/060 units only)
- 1 - **IN 89W39 ONLY**—GP1 General Purpose Board

#### Conversion Procedure

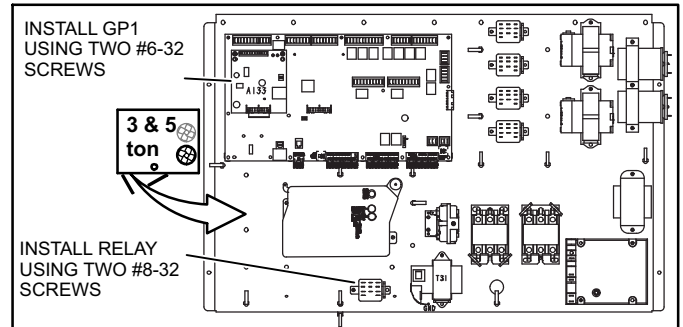
### ⚠ IMPORTANT

**Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life. Installation and service must be performed by a qualified installer or service agency.**

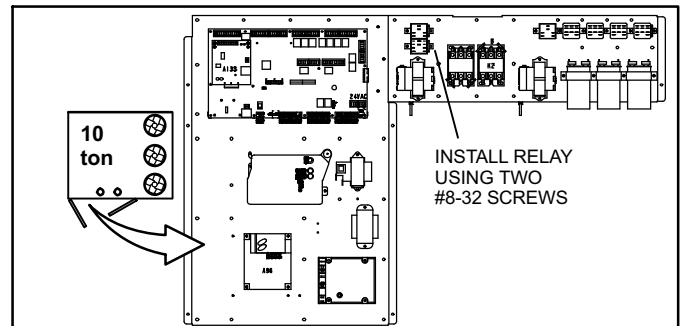
#### Install General Purpose board (GP1) and Relay (K92)

1. Disconnect all power to the unit.
2. Open control section access panels.
3. Install the relay provided in the location shown in Figures 1, 2, or 3 (depending on unit size) with the two #8-32 screws provided.

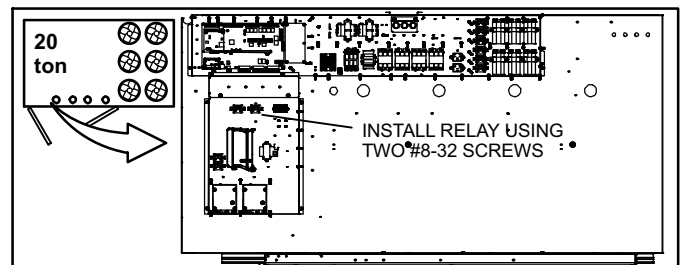
4. On SCC/SGC036/060 units, install the GP1 board provided in the location shown in Figure 1 with the two #6-32 screws provided.



**Figure 1. Installing Relay (K92) and General Purpose Board (GP1) (SCC/SGC036/060)**

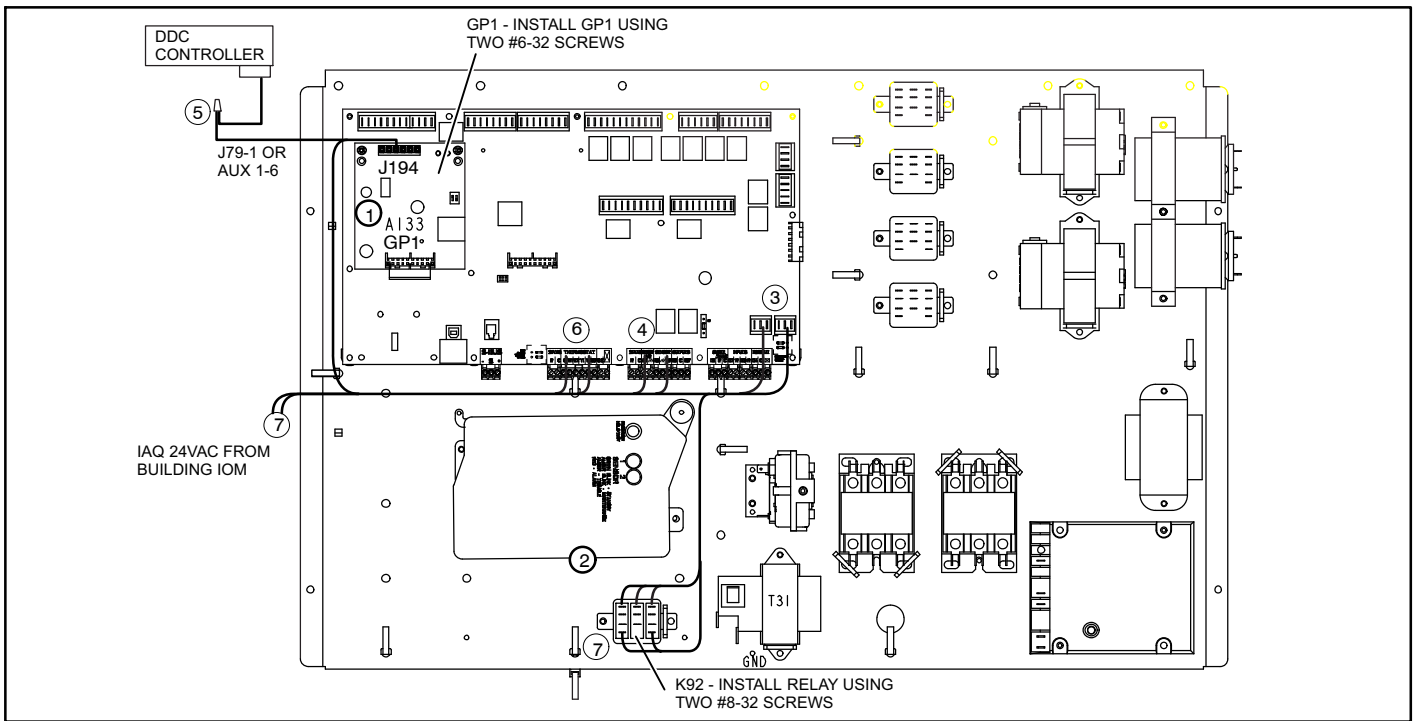


**Figure 2. Installing Relay (K92) (SCC/SGC120)**



**Figure 3. Installing Relay (K92) (SCC/SGC240)**





**Figure 4. Installing Wiring Harness SCC/SGC036/060 Units**

**Install Wiring Harness**

*NOTE - Each harness lead has been hot stamped for ease of assembly. Encircled numbers in figures 4 through 6 correlate with the steps described below.*

Depending on the size of the unit, install the harness provided in the following manner:

- SCC/SGC036/060 Units (see figure 4)**
- SCC/SGC120/240 Units (see figure 5)**
- SCC/SGC120/240 Units (see figure 6)**

1. Attach plug with wires marked J194-1, -3, -10, -12 to P194 on GP1 board.
2. Attach wires marked K92-1, -4, -5, -6, -7, -8, -9 to indicated terminals on K92 relay.
3. Attach wires marked 24VAC and COM to terminal block, J2/J18 on Prodigy M2/A55 Controller, respectively.
4. Locate P298 Field Sensor Strip on the Prodigy M2/A55 Control. Add white wire marked J298-3/IAQ+ provided in the kit, to the Sensor IAQ+ location. Add Gray wire marked J298-4/IAQ- provided in the kit, to the Sensor IAQ- location.
5. **Units with Novar 2024 Controller**—Locate white wire on the Novar DDC control module going from J79-1 on the Novar controller to J297B-6. Cut the wire near the J79 plug and strip the wire on the controller side (labeled J79-1) 3/8". Attach harness wire marked

J79-1/AUX1-6 provided in the kit to the wire marked J79-1. Leave the other cut wire loose in the harness (you will disconnect the other end of the wire in step 6 below.)

**Units with CPC 810-3062 Controller**—Locate pink wire on CPC DDC control module going to AUX1-6 on the CPC controller to P17-9. Remove wire marked AUX1-6 from the DDC controller. Attach wire marked J79-1/AUX1-6 from the harness provided in the kit to the DDC controller in the same place.

6. Locate P297 field thermostat terminal strip on the Prodigy M2/A55 Control. Add green wire marked J297-3/G provided in the kit to the terminal strip, Thermostat-G. Note there will now be (2) wires going into the screw-terminal. Remove white wire marked J297B-6 from the Thermostat-OCP strip. Locate wire marked J297-8/OCP provided in the kit, and install in the Thermostat-OCP location. Note there should only be (1) wire connected to the Thermostat-OCP location.
7. Attach 24VAC signal from building IOM to K92 relay coil, terminals 'A' and 'B'.

*NOTE - Wires from the building are rolled up inside the unit and labeled "IAQ".*

8. Depending on which control module is installed, place appropriate control diagram provided over Temperature Controls diagram.

**Setting the M2 Prodigy ECTO Parameters**  
**SETTINGS > CONTROL > ECTO > BLOCK/PARAM/COUNT**

Apply power to unit. To get to the ECTO Menu on M2 controller: press enter (■); then scroll down (▼) to **SETTINGS** menu and press (▶), scroll down (▼) to **CONTROL** menu, and press (▶), scroll up (▲) to (ECTO) menu. Then, press (▶) for BLOCK/PARAM/COUNT (B#/P#/CNT#), press (▶) again for the first ECTO (B#) setting.

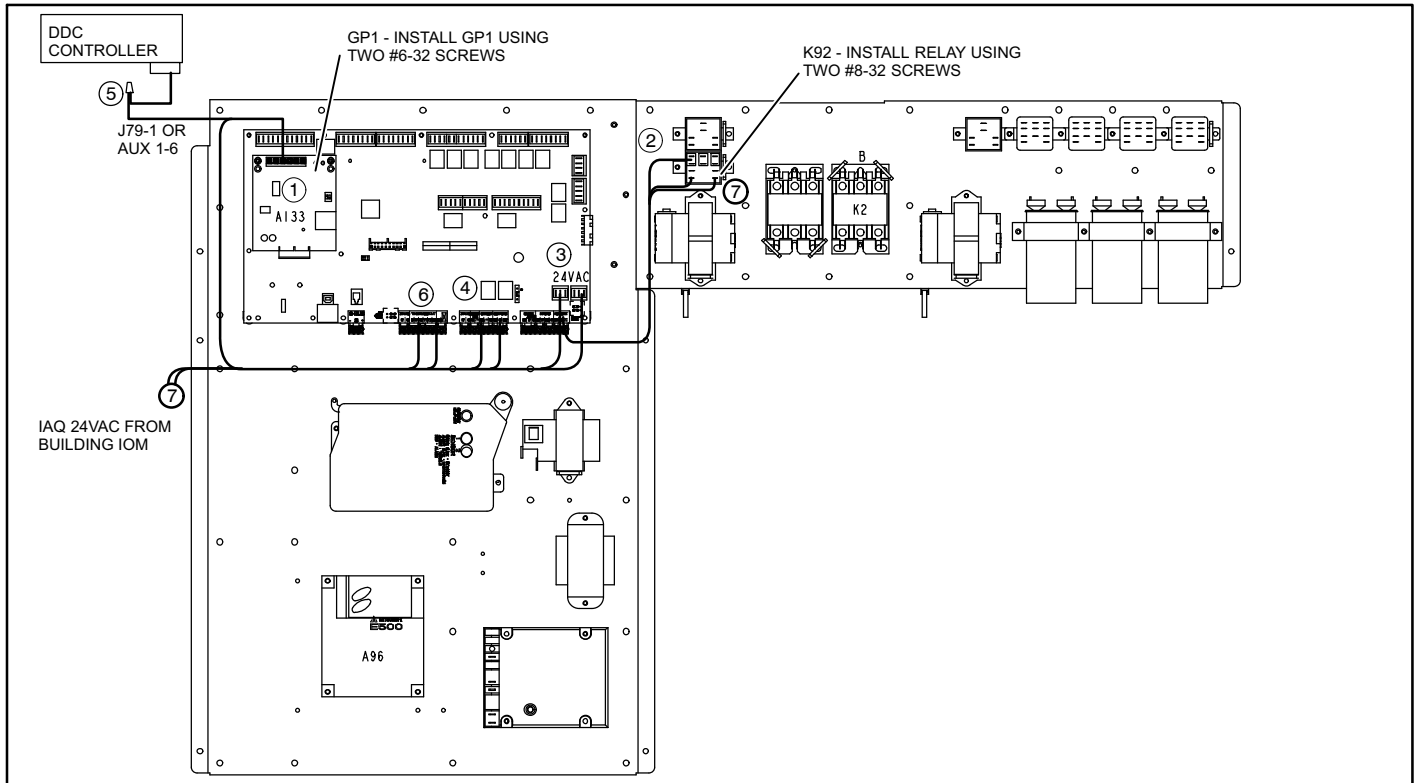
Use (▼▲) for the desired B#; then press (▶);  
 use (▼▲) for the desired P#; then press (▶);  
 use (▼▲) for the desired CNT#; then press enter (■).

The screen will flash (! SET !). Repeat this procedure for the rest of the ECTO's that need to be set. Use the (◀) button to go back if you select the wrong ECTO block and/or parameter. No data is saved until the enter (■) button is pressed after a count has been changed in value.

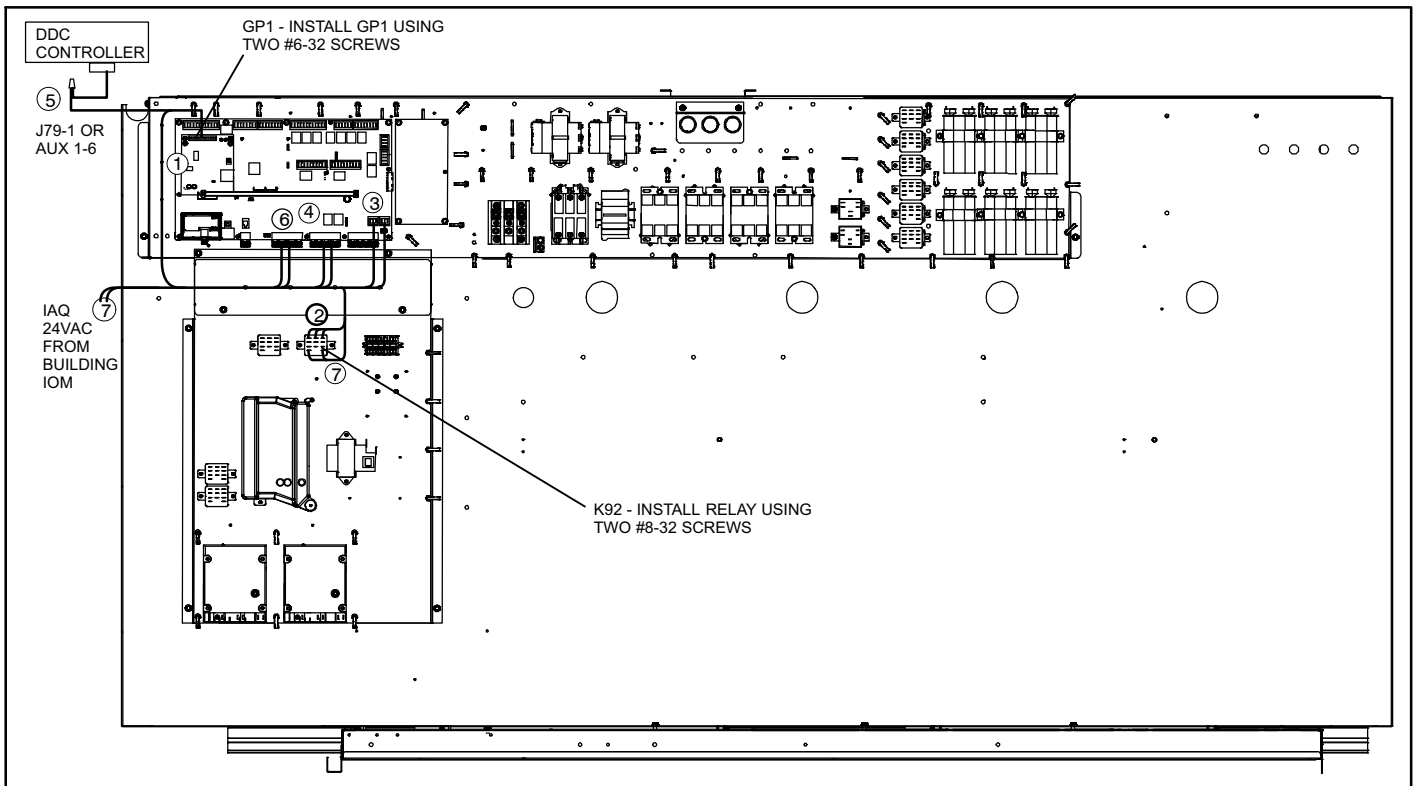
If further information is required, review the *Installation & Setup Guide* for the M2 Unit Controller, located in the control compartment of your Emergence® product.

Set ECTO parameters to the following for proper economizer operation:

- 8.16 to 2
- 8.17 to 100
- 5.26 to 5



**Figure 5. Installing Wiring Harness SCC/SGC120 Units**



**Figure 6. Installing Wiring Harness SCC/SGC240 Units**

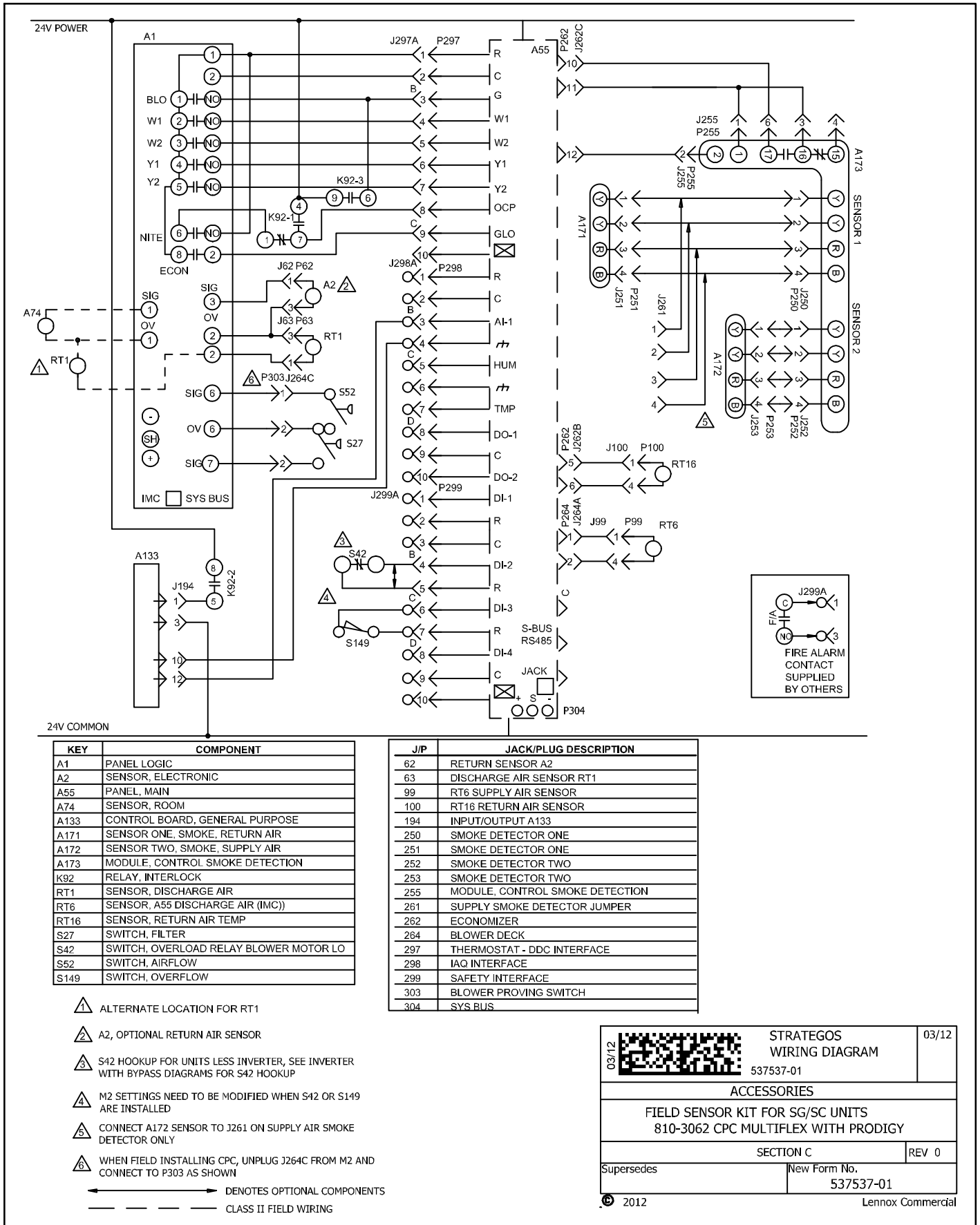

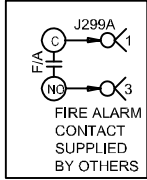
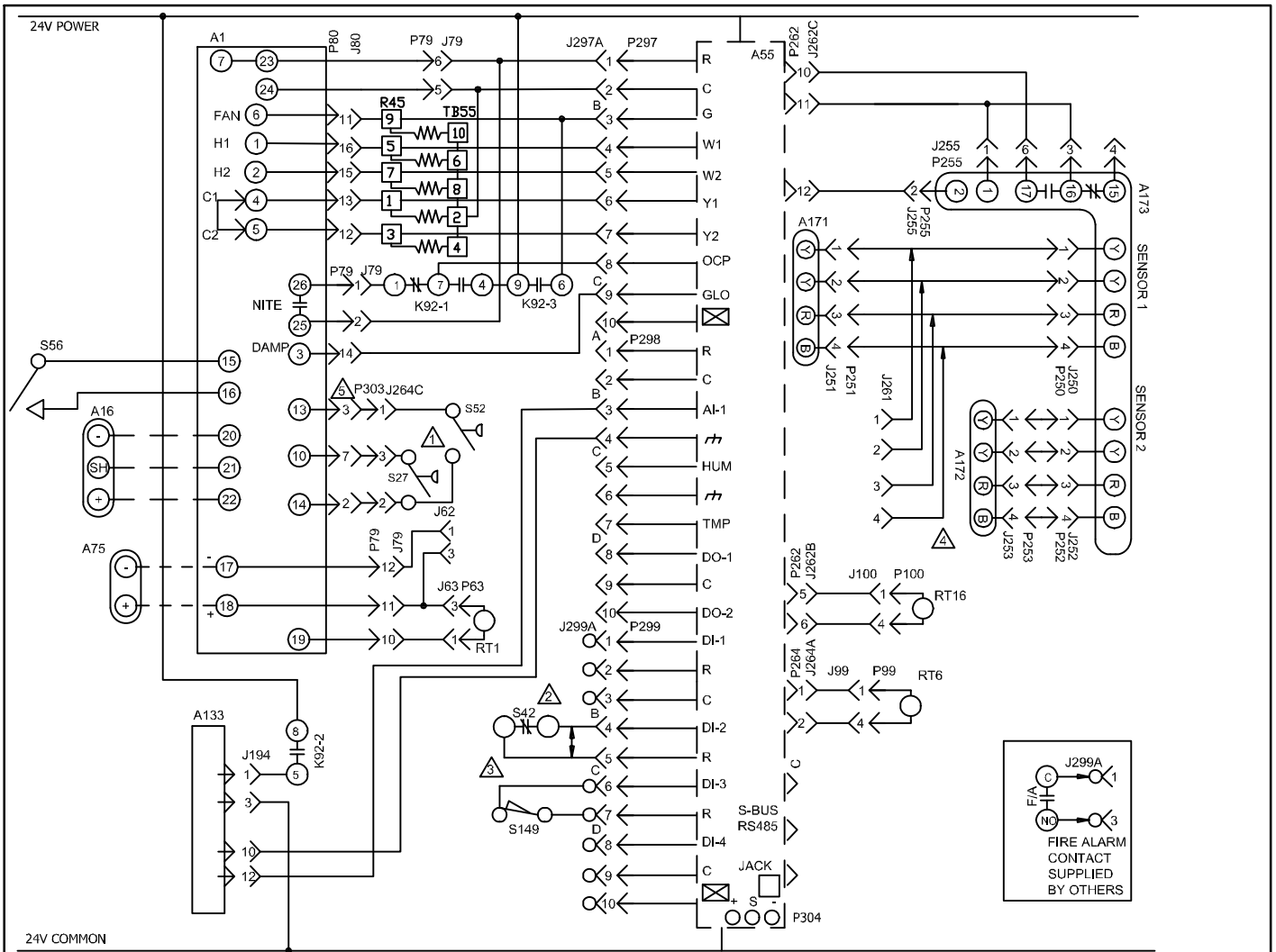


Figure 7. Wiring Diagram - CPC Control

03/12		STRATEGOS WIRING DIAGRAM	03/12
		537537-01	
ACCESSORIES			
FIELD SENSOR KIT FOR SG/SC UNITS 810-3062 CPC MULTIFLEX WITH PRODIGY			
SECTION C		REV 0	
Supersedes		New Form No.	
		537537-01	



- ⚠ S27 AND S52 USED WITH ETM 2024, M2 SETTINGS NEED TO BE MODIFIED WHEN TRANSFERRING TO ETM2024
- ⚠ S42 HOOKUP FOR UNITS LESS INVERTER, SEE INVERTER WITH BYPASSING FOR S42 OR INVERTER ALARM INPUT HOOKUP
- ⚠ M2 SETTINGS NEED TO BE MODIFIED WHEN S42 OR S149 ARE INSTALLED
- ⚠ CONNECT A172 SENSOR TO J261 ON SUPPLY AIR SMOKE DETECTOR ONLY
- ⚠ WHEN FIELD INSTALLING NOVAR 2024, UNPLUG J264C FROM M2 AND CONNECT TO P303 AS SHOWN

————— DENOTES OPTIONAL COMPONENTS  
 - - - - - CLASS II FIELD WIRING

KEY	COMPONENT
A1	PANEL LOGIC
A16	CONTROL MICROPROCESSOR
A55	PANEL, MAIN
A75	SENSOR, ROOM
A133	CONTROL BOARD, GENERAL PURPOSE
A171	SENSOR ONE, SMOKE, RETURN AIR
A172	SENSOR TWO, SMOKE, SUPPLY AIR
A173	MODULE, CONTROL SMOKE DETECTION
R45	STRIP, RESISTOR 1K OHM, 5WATT, TRIAC
RT1	SENSOR, DISCHARGE AIR
RT6	SENSOR, A55 DISCHARGE AIR (IMC)
RT16	SENSOR, RETURN AIR TEMP
S27	SWITCH, FILTER
S42	SWITCH, OVERLOAD RELAY BLOWER MOTOR LO
S52	SWITCH, AIRFLOW
S56	SWITCH, MOMENTARY OVERRIDE
S149	SWITCH, OVERFLOW
TB55	TERMINAL STRIP FOR 1K RESISTOR

J/P	JACK/PLUG DESCRIPTION
62	RETURN SENSOR A2
63	DISCHARGE AIR SENSOR RT1
79	NOVAR HEADER
80	NOVAR PIGTAIL
99	RT6 RETURN AIR SENSOR
100	RT16 SUPPLY AIR SENSOR
194	INPUT/OUTPUT A133
250	SMOKE DETECTOR ONE
251	SMOKE DETECTOR ONE
252	SMOKE DETECTOR TWO
253	SMOKE DETECTOR TWO
255	MODULE, CONTROL SMOKE DETECTION
261	SUPPLY SMOKE DETECTOR JUMPER
262	ECONOMIZER
264	BLOWER DECK
297	THERMOSTAT - DDC INTERFACE
298	IAQ INTERFACE
299	SAFETY INTERFACE
303	BLOWER PROVING SWITCH


03/12	 STRATEGOS WIRING DIAGRAM 537538-01	03/12
		ACCESSORIES FIELD SENSOR KIT FOR SG/SC UNITS NOVAR ETM 2024 WITH PRODIGY
SECTION C		REV 0
Supersedes	New Form No. 537538-01	

Figure 8. Wiring Diagram - Novar ETM-2024