

Instruction Sheet # 7156108	Rev. 3
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Subject: Addition of an external manual reset overload protector for 830044 motors

Application: Units manufactured between August 1, 1989 and August 9, 1996 using the P/N 830044 motor

Parts List:

1 - Thermal overload with box	1 - Motor Nameplate
1 - 1/2" Conduit lock nut	1 - 1/2" Conduit chase nipple
3 - Yellow wire nut	1 - 16-14 Ga. .250 Faston connector
1 - 7/8" Snap bushing	1 - 14 Ga. ground wire
1 - Label kit	1 - Instruction sheet
2 - #10 SS external tooth lock washers	2 - #8-32 X 3/8" screws
2 - #8-32 KEPS nuts	6 ft. - 14 Ga. Black wire

Tools required:

Straight blade screwdriver	Phillips head screwdriver
Needle nose pliers	Channel lock pliers
Wire stripper	Terminal crimper
Electric drill and 3/16" (0.188) drill bit	

Refer to:

Reach-In Incubators (single Speed)	Page 3
Reach-In Incubators (dual speed)	Page 5
Environmental Rooms	Page 7
Environmental Rooms (alternate installation)	Page 9

Read the entire installation procedure before beginning

MANUAL NO. 7156108			
REV	ECN	DATE	DESCRIPTION
3	---	6/10/97	Wires on overload protector changed to black per G. Goudy heg
2	16396	5/9/97	Revised per B. Gray heg
1	16343	5/2/97	Revised per B. Gray heg
0	---		New instruction sheet: B. Gray heg

Installation for Reach-in Incubators (single speed applications)

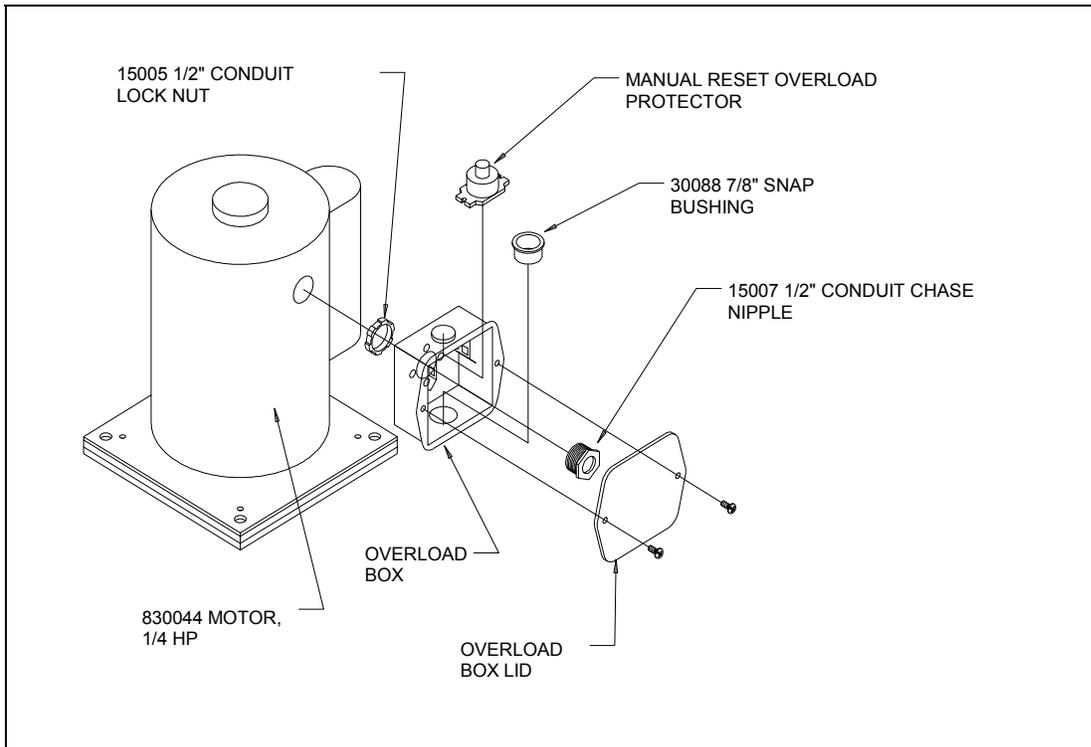
Models: 3851, 3853, 3911, 3913, 3919, 3920, 3940, 3941, 3949, 3980, 3986, 4940, 4949, and 8270



De-energize all potential sources of energy to this unit and lockout/tagout their controls. (O.S.H.A. Regulation, Section 1910-147.)

1. Disconnect and lockout/tagout power to the unit.
2. Gain access to the motor. The motor is located behind the control panel on the top of the unit. On some models, additional room may be obtained by removing the top cover.
3. Verify that the model number of the motor is 5KCP37KN89GS. If the model number of the motor does not match exactly, the motor is not a suspect motor and does not need the overload installed.
4. Record the motor's serial number on the service log or on the Certificate of Completion. The number is located in the lower left corner of the motor nameplate.
5. Remove the cover from the wiring connection on the motor.
6. Disconnect the wires from the motor, making note of which colors connect to each terminal.
7. Remove the round plug from the side of the motor.
8. Install the snap bushing into the bottom hole of the overload box. (Refer to Figure 1)
9. Install the overload protector inside the overload box as shown in Figure 1, and mount the box to the motor. **Note:** The conduit lock nut is installed between the motor and the overload box.
10. Route the neutral (white) wire that was removed from the motor, through the snap bushing in the overload box and through the conduit chase nipple. Reconnect the white wire to the motor terminal from which it was removed.
11. Install the .250 Faston Tab on one of the black wires of the overload protector.
12. Route this wire through the conduit chase nipple and connect it to the now vacant motor terminal.
13. Remove the .250 Faston from the original motor wire. Using the yellow wire nut, connect it to the other black wire from the overload. The wires should have about 1/4" of insulation removed and should be twisted together before the wire nut is put on.

14. Install the supplied 14 ga. green ground wire from the ground terminal of the overload box to the ground terminal on the motor. Use the #10 star washers on the ground screws of both the motor and overload box.



**Figure 1: Overload mounting for Reach-in Incubators
(single speed applications)**

15. Secure the covers on the overload box and the motor.
16. Install the new motor nameplate.
17. If removed, replace the top panel.
18. Close and secure the control panel.
19. Reapply power to the unit and return it into service.

Installation for Reach-in Incubators (dual speed applications)

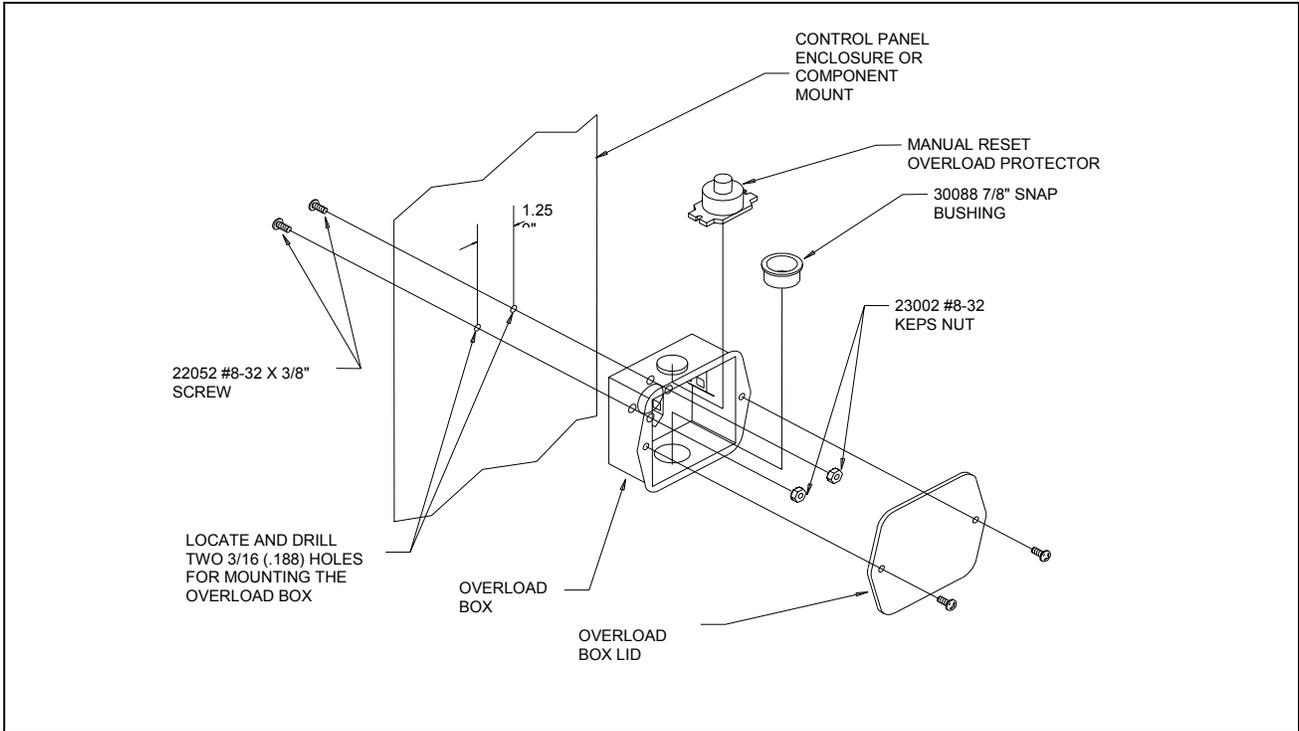
Models: 3851, 3853, 3919, 3920, 3940, 3941, 3949, 3952, 3956, 3958, 3980, 3986, 4940, 4949, and 8720



De-energize all potential sources of energy to this unit and lockout/tagout their controls.

1. Disconnect and lockout/tagout power to the unit.
2. Gain access to the component mounting area, located behind the control panel on the top of the unit. On some models addition room may be obtained by removing the top cover.
3. Verify that the model number of the motor is 5KCP37KN89GS. If the model number of the motor does not match exactly, the motor is not a suspect motor and does not need the overload installed.
4. Record the motor's serial number on the service log or on the Certificate of Completion. The number is located in the lower left corner of the motor nameplate.
5. Install the snap bushing and overload protector inside the overload box as shown in Figure 2.
6. Locate the blower speed select switch.
7. Mount the overload protector and overload box in a convenient area near the speed select switch. Two holes will be needed to be drilled as shown in the illustration. Secure the box with the two #8-32 x 3/8" screws and KEPS nuts provided.
8. Remove the wire from the common terminal of the blower speed select switch and connect it to one of the black wires on the overload protector using the yellow wire nut. **Note:** It may be necessary to extend this wire. Use a section of the black wire and one of the wire nuts provided.
9. Connect the other black wire of the overload protector to the common terminal of the blower speed select switch. **Note:** It may be necessary to extend this wire. Use a section of the black the wire and the wire nuts provided.
10. Secure the covers on the overload box and the motor.
11. Attach the label shown below to the outside lid of the overload conduit box.

ATTENTION!
**This manual reset overload protector
is for the blower motor.**



**Figure 2: Overload mounting for Reach-in Incubators
(Dual speed applications)**

12. Install the new motor nameplate.
13. If removed, replace the top panel, then close and secure the control panel.
14. Reapply power to the unit and return it into service.

Installation for Environmental Rooms

Models: 7000, 7010, 7012, 7013, 7015, 7016, 7017, 7018, 7020, 7030, 7040, 7042, 7044, 7070, 7110, 7120, 7130, 7140, and 7220

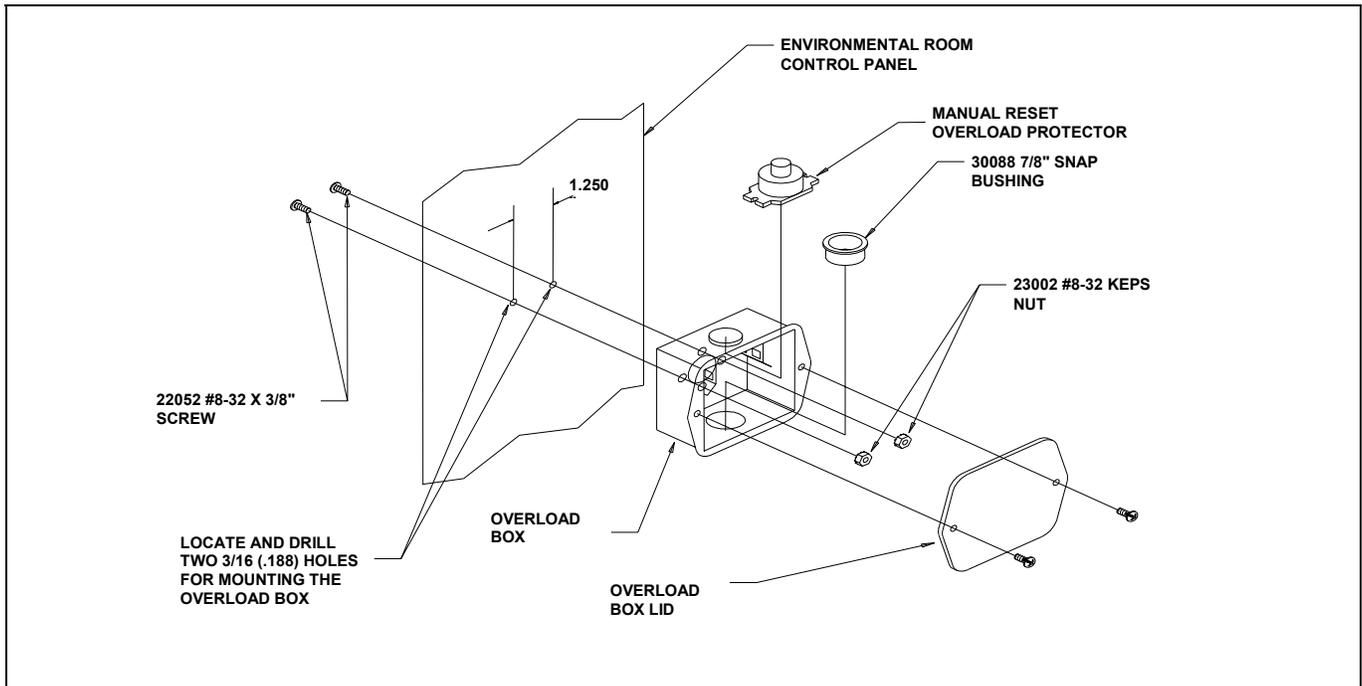


De-energize all potential sources of energy to this unit and lockout/tagout their controls.

1. Disconnect and lockout/tagout power to the unit.
2. Gain access to the motor.
3. Verify that the model number of the motor is 5KCP37KN89GS. If the model number of the motor does not match exactly, the motor is not a suspect motor and does not need the overload installed.
4. Record the motor's serial number on the service log or on the Certificate of Completion. The number is located in the lower left corner of the motor nameplate.
5. Remove the cover from the wiring connections on the motor.
6. Disconnect the wires from the motor, making note of which colors connect to each terminal.
7. Install the overload protector in the overload box as shown in Figure 3.
8. Mount the overload box to the motor as shown. **Note:** The conduit lock nut is located between the box and the motor.
9. Route the neutral (white) wire removed from the motor, through the overload box and conduit chase nipple. Reconnect the white wire to the motor terminal from which it was removed.
10. Install the .250 Faston Tab on one of the black wires from the overload.
11. Route this wire to the motor through the conduit chase nipple and connect it to the now vacant motor terminal from which the other wire was removed.
12. Remove the .250 Faston from the original motor wire. Using the yellow wire nut, connect it to the other black wire from the overload.
13. Install the supplied 14 ga. green ground wire from the ground terminal of the overload box to the ground terminal on the motor. Use the #10 star washers on the ground screws of both the motor and overload box.
14. Secure the covers on the overload box and the motor.

15. Install the new motor nameplate.
16. Attach the label shown to the exterior of the room control panel.

ATTENTION!
**The blower motor(s) on this room
has(have) been equipped with (a)
manual reset overload protector(s)
located near the motor(s)**



**Figure 3: Overload mounting for Environmental Rooms
(Single speed applications)**

17. If removed, replace the top panel.
18. Close and secure the control panel.
19. Reapply power to the unit and return it to service.

Installation for Environmental Rooms

(Alternate installation for single motor environmental room applications)

Models: 7000, 7010, 7012, 7013, 7015, 7016, 7017, 7018, 7020, 7030, 7040, 7042, 7044, 7070, 7110, 7120, 7130, 7140, and 7220



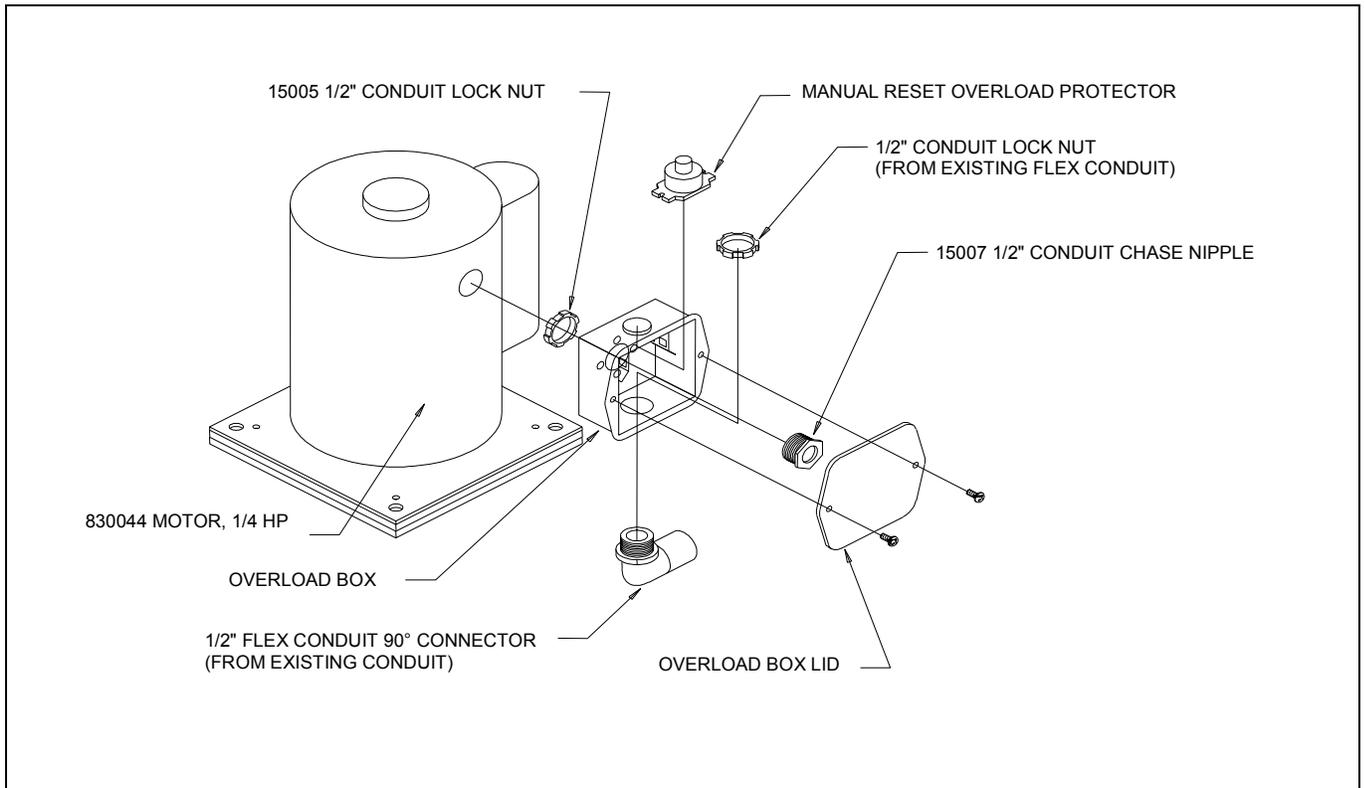
De-energize all potential sources of energy to this unit and lockout/tagout their controls.

1. Disconnect and lockout/tagout power to the unit.
2. Verify that the model number of the motor is 5KCP37KN89GS. If the model number of the motor does not match exactly, the motor is not a suspect motor and does not need the overload installed.
3. Record the motor's serial number on the service log or on the Certificate of Completion. The number is located in the lower left corner of the motor nameplate.
4. Install the new motor nameplate.
5. Attach the label shown below to the blower motor.

ATTENTION!
This motor is protected with a manual reset overload protector located in the control panel.

6. Remove the front cover of the control panel.
7. Install the overload protector and snap bushing in the overload box as shown in Figure 4.
8. Mount the overload protector and overload box in a convenient area. Two holes will be needed to be drilled as shown in the illustration. Secure the box with the two #8-32 x 3/8" screws and KEPS nuts provided.
9. Remove the wire from the common terminal of the blower speed select switch and connect it to one of the black wires on the overload protector using a yellow wire nut. **Note:** It may be necessary to extend this wire. Use a section of the black wire and the wire nuts provided.

10. Connect the other black wire of the overload protector to the now vacant terminal of the blower speed select switch. **Note:** It may be necessary to extend this wire. Use a section of the black the wire and one of the wire nuts provided.
11. Secure the covers on the overload box and the motor.



**Figure 4: Overload mounting for Environmental Rooms
(Alternate installation for single blower environmental room applications)**

12. Attach the label shown below to the outside lid of the overload conduit box.

ATTENTION!
**This manual reset overload protector
is for the blower motor.**

13. Close and secure the control panel.
14. Reapply power to the unit and return it into service.