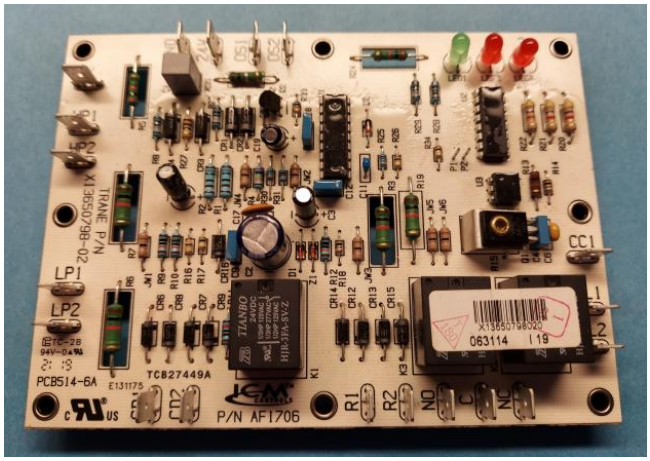
24V Deluxe Board Conversion

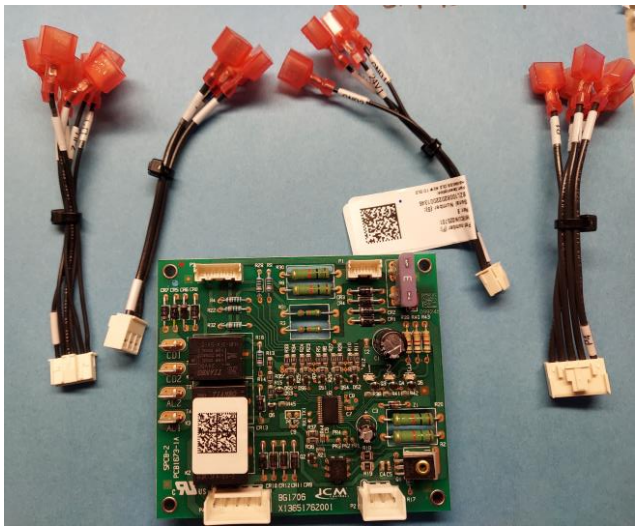
Instructions for Deluxe board field replacements from old board to new style board.

Before starting any of this replacement turn the unit off, **lock out and tag out the unit from service**.

This is what the old version of the 24V Deluxe board looks like:



Below is the new replacement board with the conversion harness kit.



For wire connections that interface with the control board the field service person will need to provide and install ¼ inch female insulated ends. The exception would be wires connecting to CD1, CD2, AL1, and AL2, they can remain as they are in the original harness because the interface directly with the replacement controller. The connector change is needed to protect from short circuiting that could happen with the uninsulated terminals on the original harness.

Below is an illustration of what it would look like with and without insulated terminals and shows the possibility of short circuiting if the terminals are not changed to insulated ones.

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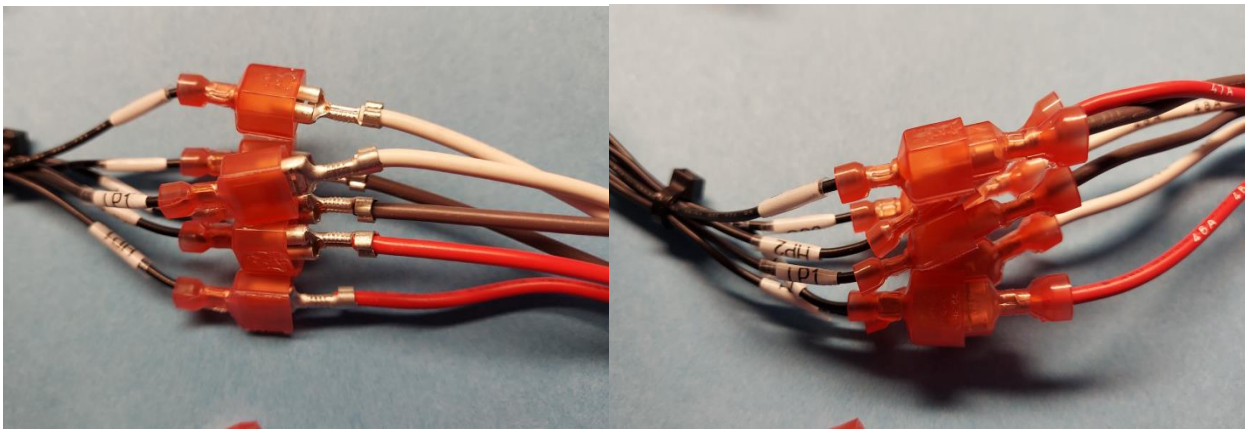
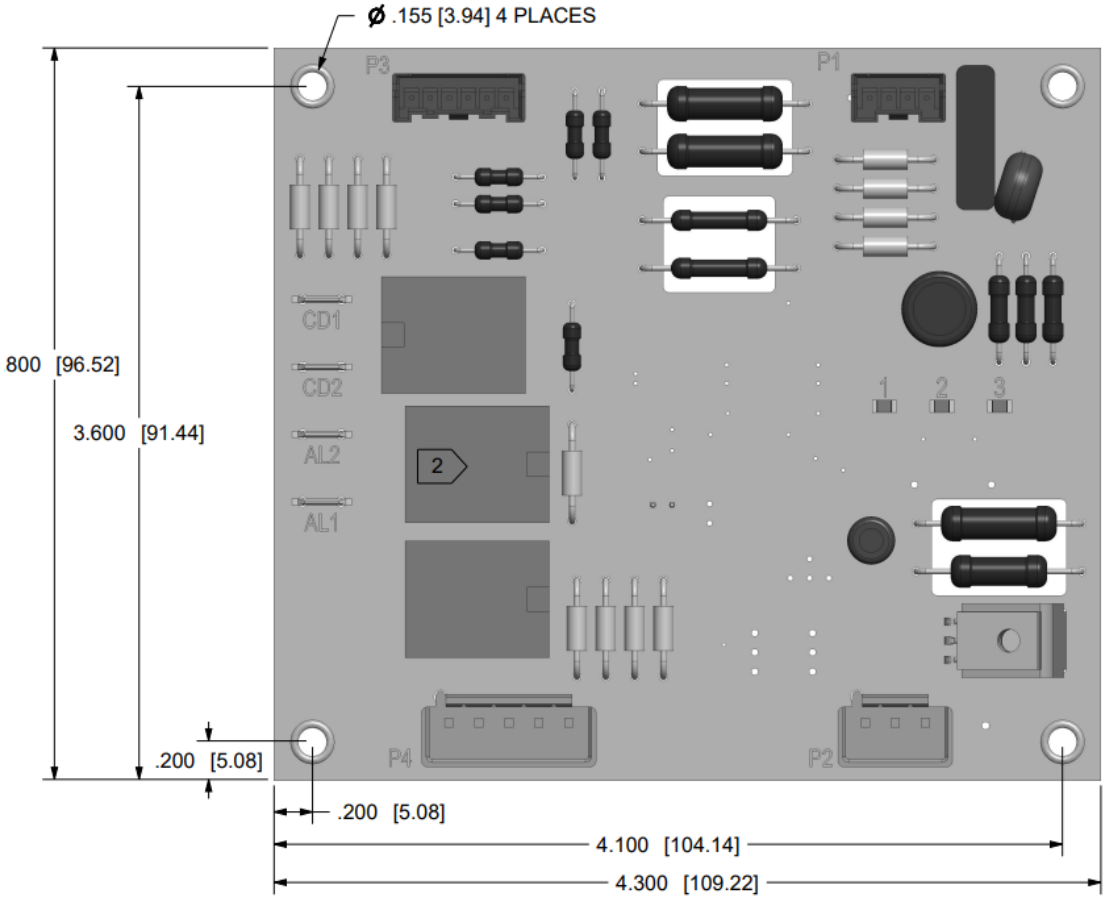
The left picture below shows uninsulated terminals that present a short circuit hazard, and the right picture shows the insulated terminals and correct way to handle the wire conversion.



Mounting the new board in the unit will require some holes being drilled in the control box panel. See dimensional information below:



The hole size for the controller screw engagement is 0.125”, a 1/8-inch drill bit can be used for this. You may be able to use one or more of the original board mounting holes depending on the unit it is replaced in.

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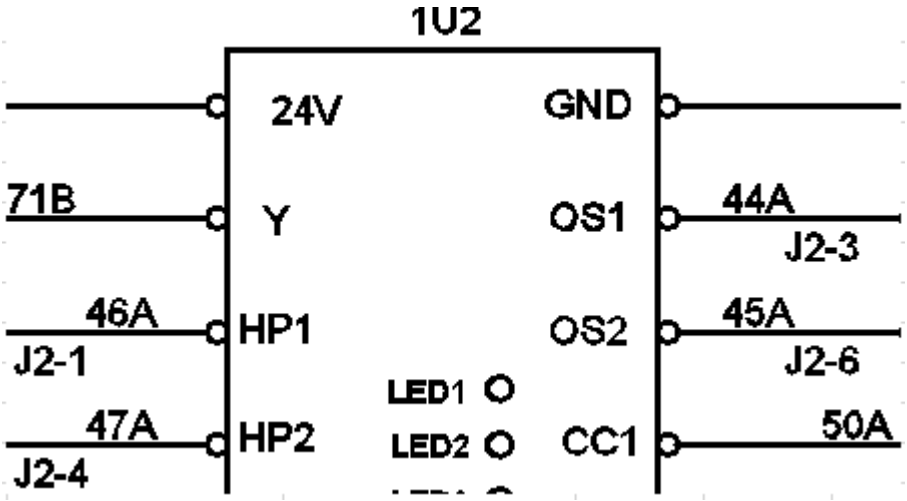
Wiring to the new controller

Using the schematic in the unit and the table below connect the wires from the unit harness to the adaptor harness wires labled with the corrisponding old board designator connections. Fields listed with N/A in the Old Board column require no connection to the New board.

New Board Plug Number	Plug Label	Adaptor Wire Label	Old Board Designators
P1	1U1-P1	24V1	24V
		GND1	GND
		24V2	N/A
		GND2	N/A
P2	1U1-P2	Y	Y
		COM1	N/A
		CC1	CC1
P3	1U1-P3	HP1	HP1
		HP2	HP2
		LP1	LP1
		LP2	LP2
		OS1	OS1
		OS2	OS2
P4	1U1-P4	COM2	C
		NC	NC
		NO	NO
		R1	R1
		R2	R2

Below is a snip of a sample unit schematic used as an example:



Wire 71B would connect to the wire labeled Y in the 1U1-P2 plug of the conversion harness.

Wire 46A would connect to the wire labeled HP1 in the 1U1-P3 plug of the conversion harness.

Wire 47A would connect to the wire labeled HP2 in the 1U1-P3 plug of the conversion harness.

Wire 44A would connect to the wire labeled OS1 in the 1U1-P3 plug of the conversion harness.

Wire 45A would connect to the wire labeled OS2 in the 1U1-P3 plug of the conversion harness.

Wire 50A would connect to the wire labeled CC1 in the 1U1-P2 plug of the conversion harness.

Repeat this process until all wires that interface with the 24V Deluxe controller is connected to conversion harness.

When wiring is complete verify that the conversion harness plugs are connected to their appropriate locations on the new board. The plugs are keyed and sized to help prevent misconnection.