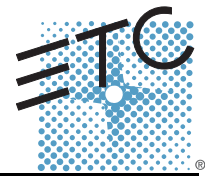


ETC® Service Note

SmartPack Control Card Replacement



Overview

In this section, we will be replacing the control card in a SmartPack. There is also information on how to install a new fan. Please see additional information before following the steps in this manual to confirm the SmartPack is compatible.

Tools Needed

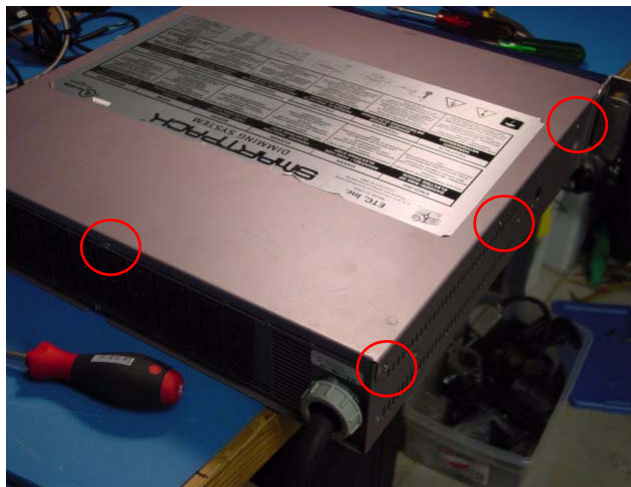
Phillips #2 Screwdriver

*1 x 2 – ½ Jewelers Phillips Screwdriver

Tools with a * are needed for changing that fan assembly.

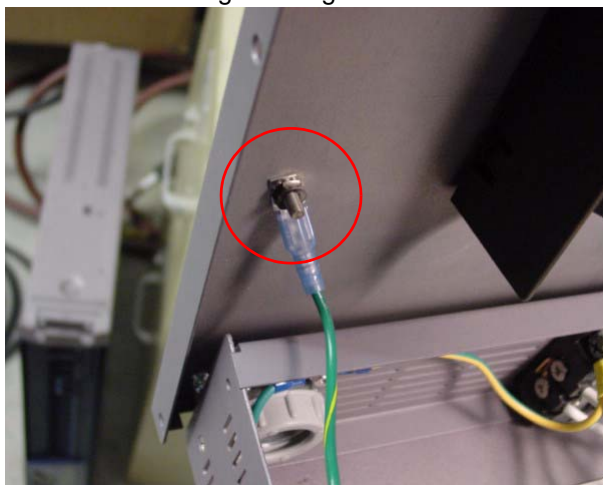
Procedure

Step 1: With your Phillips #2 Screwdriver, remove (7) screws from the top lid. (3) screws are not shown on opposite side of this photo.



Step 2: After all (7) screws are out, remove the lid by sliding it back towards the power cable, then lifting it off and out of your way.

Step 3: Disconnect the circled grounding wire from the lid.

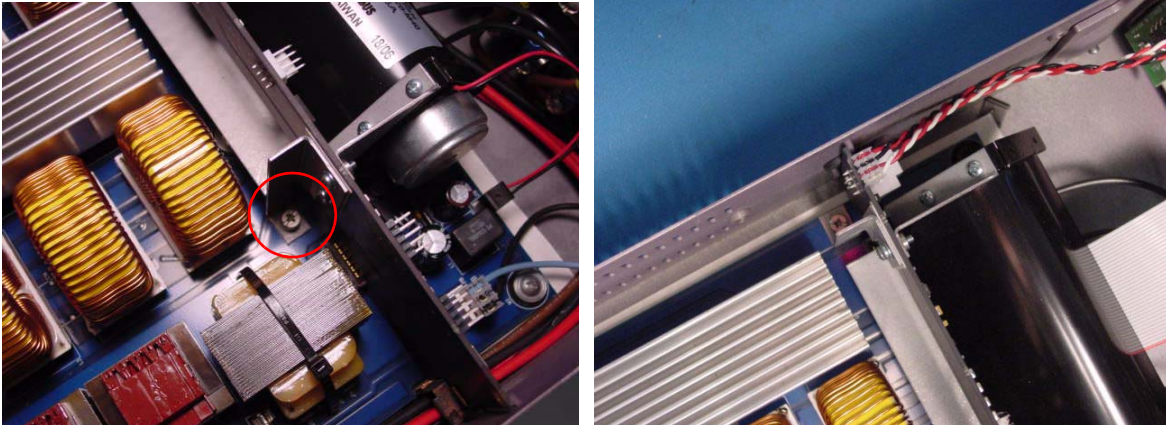


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Web: www.etcconnect.com ■ QSF 4.1.9.1 ■ Copyright © 2009 ETC. All Rights Reserved. ■ Product information and specifications subject to change.
Technical Services ■ Rev A ■ Released 2009-08

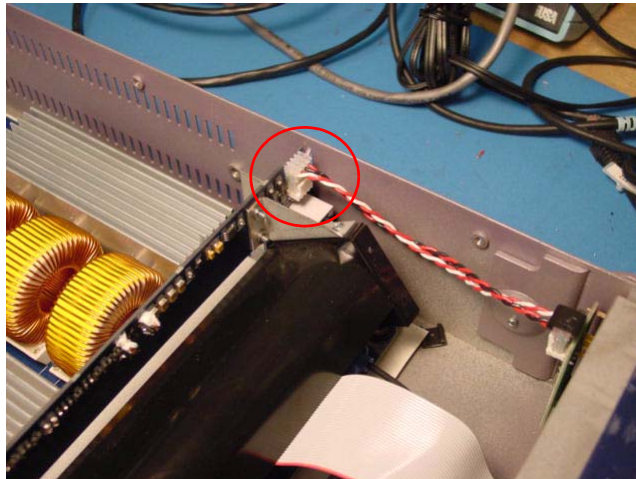
ETC Service Note:

SmartPack Control Card Replacement

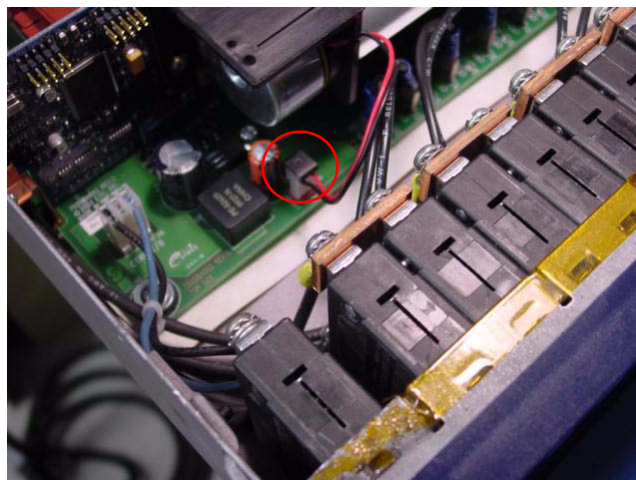
Step 4: Unscrew (2) screws that hold the control card in place.



Step 5: Disconnect the circled data connection.



Step 6: Disconnect circled connection to disconnect fan.

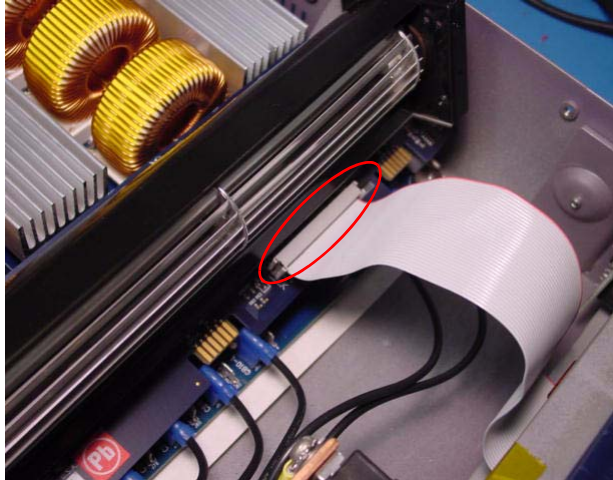


Step 7: Using two hands, pull the blue PCB out by slowly working it back and forth until you can remove it.

ETC Service Note:

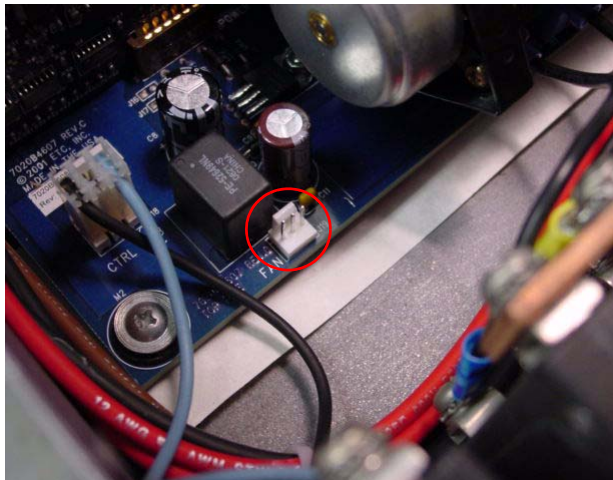
SmartPack Control Card Replacement

Step 8: Disconnect the circled connection slowly with care. Once again slowly work this connection.

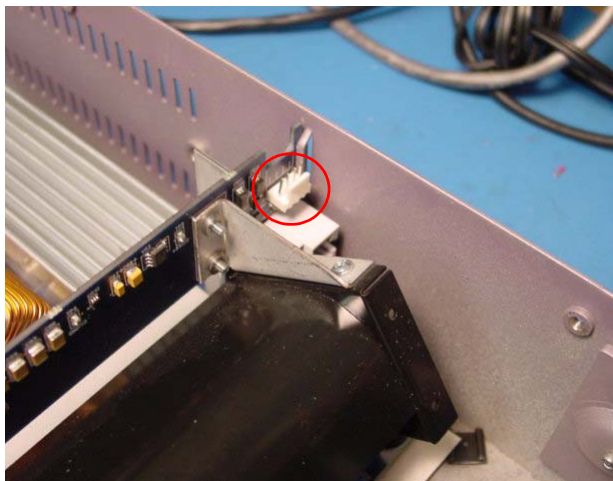


Step 9: Place new control card and fan assembly in position. Evenly push down with hands to make connection. After the card is secure, replace the two screws that hold the control card in place. If you do not have an assembled control card and fan assembly please see Additional Information #2.

Step 10: Make the fan connection.



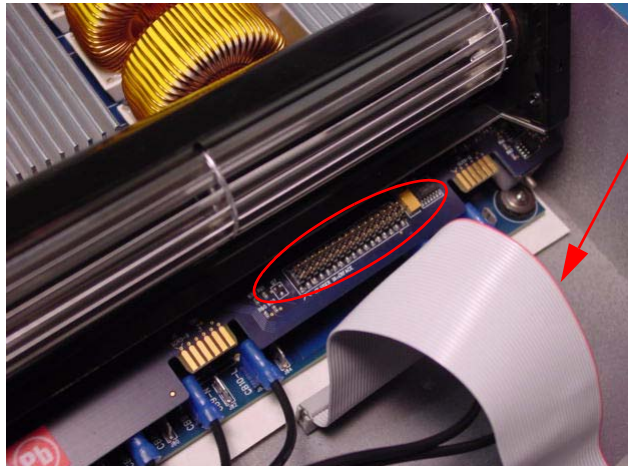
Step 11: Make the data connection.



ETC Service Note:

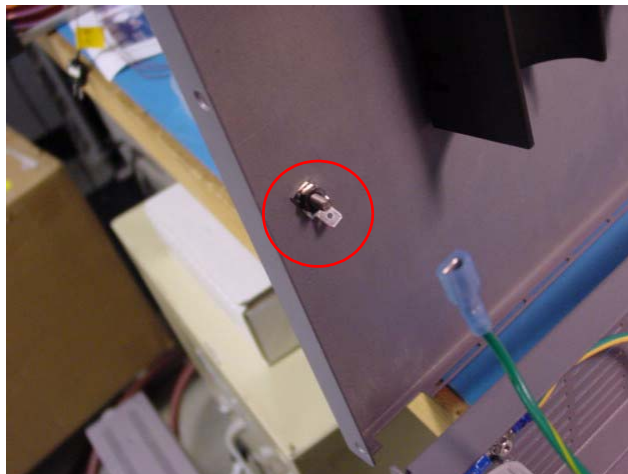
SmartPack Control Card Replacement

Step 12: Make the interface cable connection.



Note that the red stripe on newer modules is to your right. On old PCB's the ribbon cable is soldered in with the stripe on your left

Step 13: Make the ground connection on the lid.

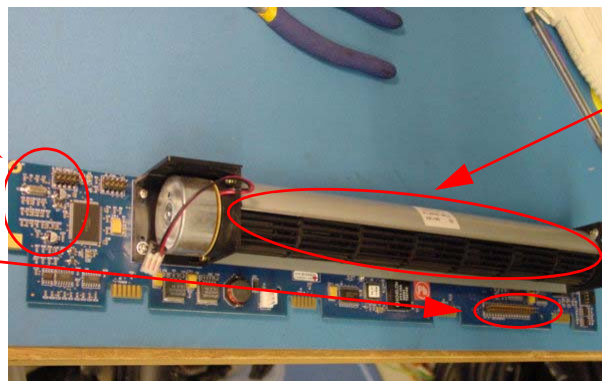


Step 14: Slide the lid back in place and replace the 7 screws as show in Step 1 and 2.

Additional Information

- 1. Due to a change of fans used on the SmartPack, ETC had to make some alterations to the design of the control card. If you need to service the fan or control card on a SmartPack and your equipment looks like the pictures below, you will need to contact ETC to receive an upgrade.**

Note the blue color of the PCB. This means that this is the newer control card. Old control cards have green control cards and the ribbon cable is soldered directly to the board.



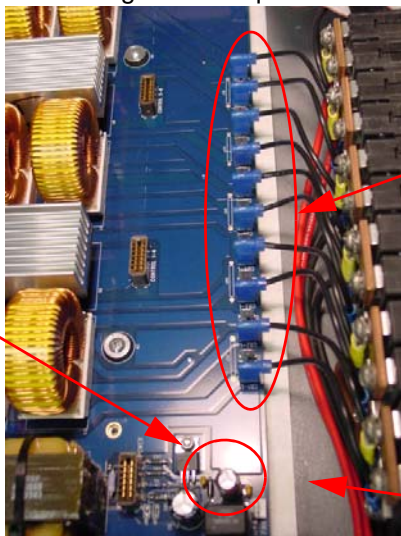
Note the round silver body. This means that you are dealing with the old fan. New fans are in black housing.

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SmartPack Control Card Replacement

Below is a picture of the changes that require new hardware.

On older Rev. of this PCB you would need to change this Capacitor so that it can be bent to a right angle. This is because the new fan's mounting hardware would interfere.



On the upgrade, the original crimp connections will be updated as shown in the picture to right angle crimp connections. This is because the new fans would interfere with the old style.

This picture is the new upgrade needed for new fans.

2. Replacing you Fan or Control Card Assembly.

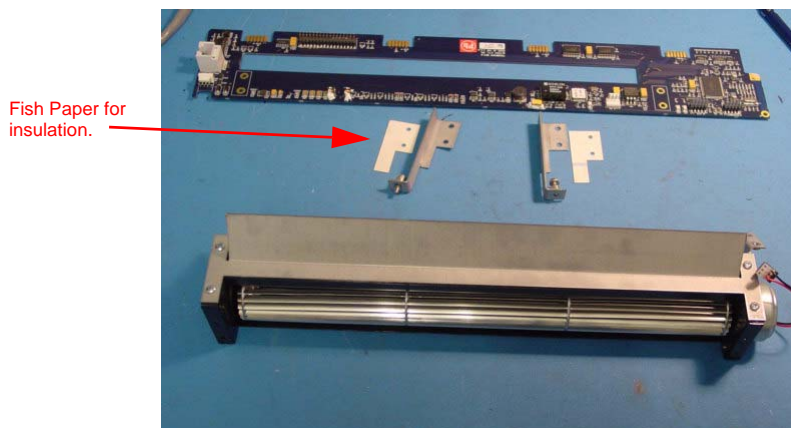
Procedure:

Step 1: First remove these (2) circled brackets by removing the (2) screws. In addition to the brackets and screws you will also free up a (2) small pieces of fish paper used to protect the PCB.

If you only have to replace your control card, you will only have to remove these (4) screws, replace with new PCB and then reattach. After doing so, you can go back to step 9 of the original procedure.



Step 2: Prepare your pieces as show below. This will make it easier to rebuild later. Next remove (4) circled screws.

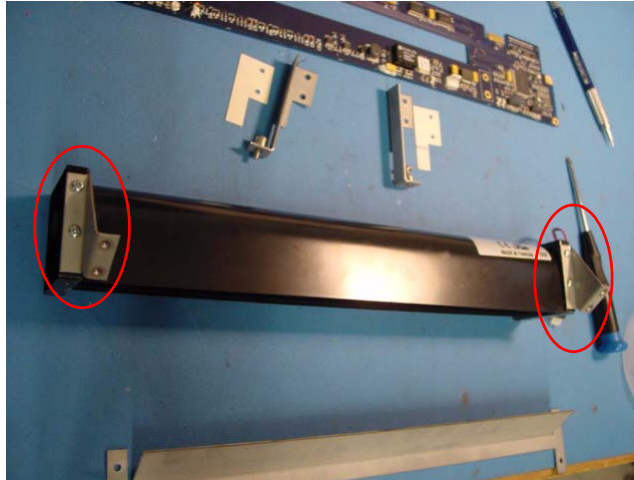


Step 3: Next roll the fan towards you so the remaining brackets are on the top.

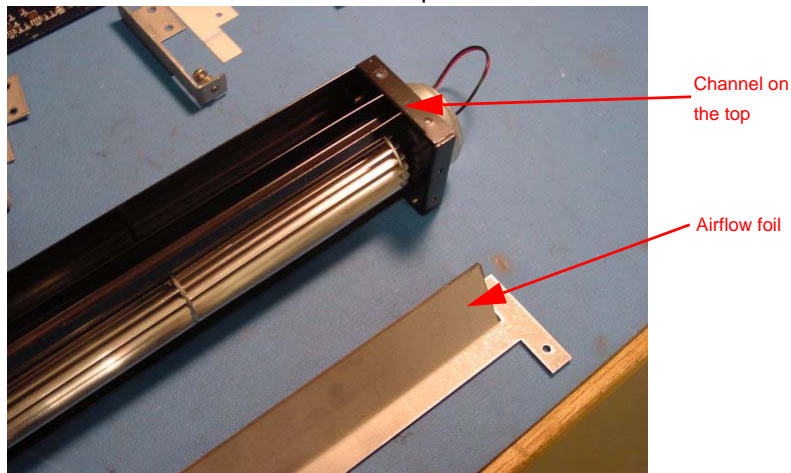
ETC Service Note:

SmartPack Control Card Replacement

Step 4: Remove (2) brackets by removing the (4) circled screws.



Step 5: On your new fan, prepare the fan in the same orientation as the old one was in and roll the fan towards you until the small metal channel is on the top. Then reattach airflow foil by using (4) of your smaller screws. Note the orientation of the fin in this picture. The airflow foil should sit on top of the fan as shown.



Step 6: Replace the (2) mounting brackets by using the last (4) smaller screws. Note the orientation of both brackets.



Step 7: Place the control card on the airflow foil, with the back of the card facing you. Using the (2) mounting brackets that mount the control card to the fan assembly, screw in

ETC Service Note:

SmartPack Control Card Replacement

(2) screws to lock everything into place. Note the fish paper should be used to protect the PCB.



Step 8: You can now go back to step 9 of original procedure.

Part Numbers for Power cubes

<u>Part Number</u>	<u>Description</u>
7020B5612-CFG	Control Card (Configured-New)
7023B8001	Ribbon Cable (from control card to LCD)
B1011-F	Fan (New Style)

Note: When ordering fan request that it comes with crimp connections

Part number: J6129 and J6132. If you choose to do this yourself, you would need a Pancon CTD – 100F Crimp tool.