



Step Change Field Modification for
Signature Series™
Ferroresonate Regulator

Document No. ALN131

Issued: February 28, 2007

Rev. A: July 8, 2009

ADB Airfield Solutions

P.O. Box 30829
977 Gahanna Parkway
Columbus, OH 43230

Tel: (614) 861-1304
Fax: (614) 864-2069

Copyright © 2009 by ADB Airfield Solutions, LLC. All rights reserved.

Record of Changes

Page	Rev	Description	EC No.	Checked	Approved	Date
All	A	Release new Service Bulletin	-----	JR		

Step Change Field Modification from 3-Step to 5-Step

1. Introduction

This section of the service bulletin provides instructions to modify a 3-Step *Signature Series*™ Ferroresonate Regulator, to a 5-Step *Signature Series*™ Ferroresonate Regulator.

2. General Instructions

Read and understand the service bulletin before working on the regulator. Turn off and remove power from the Regulator. Open front compartment door.

3. Adjusting the Phoenix Connector

1. After opening the regulator enclosure, locate the main PCB board (44A6035/1) shown in Figure 1. Next locate the Phoenix connector J5 indicated by Note1 on Figure 1 and Note 2 on Figure 2. Remove the Phoenix Connector from the PCB by gently pulling away from the board.

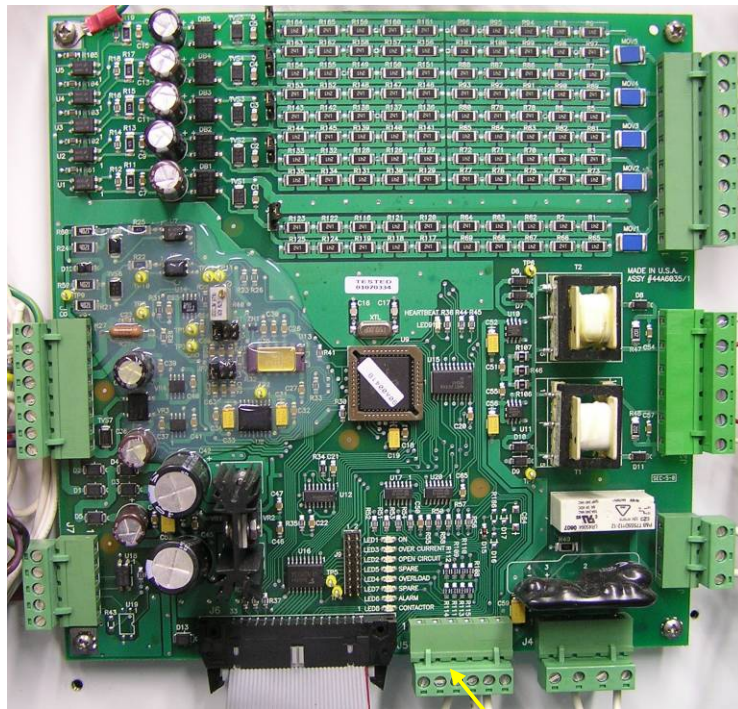


Figure 1: PCB

Note 1

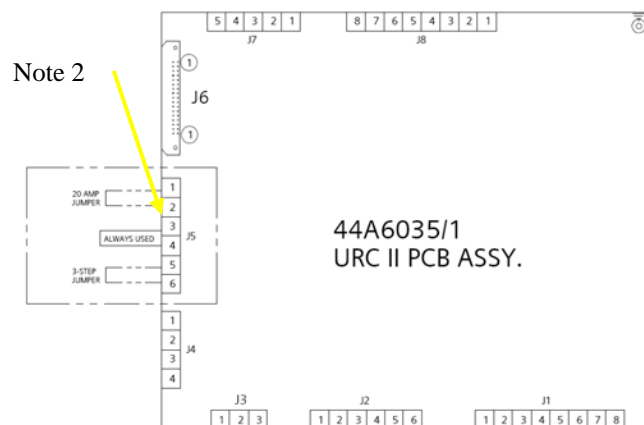


Figure 2: Drawing of PCB

2. Remove the jumper wire from pins 5 and 6 of the Phoenix Connector as shown in Figure 3.

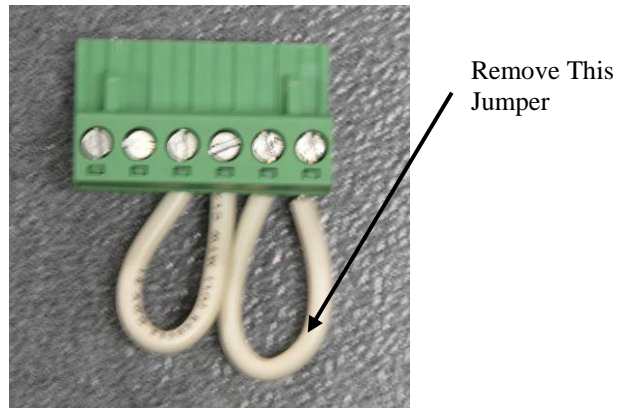


Figure 3: Phoenix Connector (J5)

3. Replace the Phoenix Connector (J5) on the PCB in the regulator.

4. Adjusting the Rotating Switch

4. Locate the Rotating Switch, on the front cover of the regulator. After opening the regulator, remove ribbon cable attached to the rotating switch indicated by Note 3 in Figure 5, by pressing gently outward on the two black clips.
5. Use an Allen Wrench to loosen the Hex head screw that secures the switch cap as shown in Figure 4.

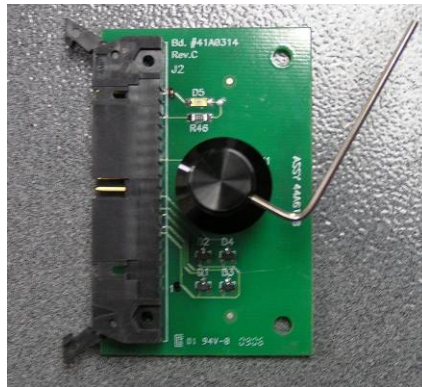
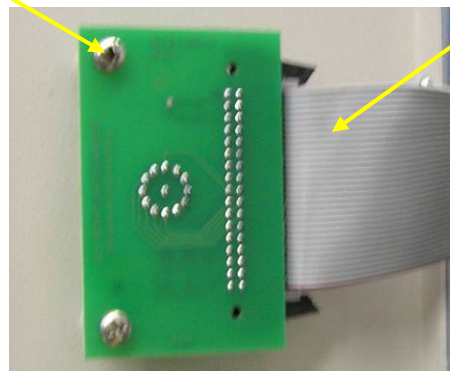


Figure 4: Rotating Switch

6. Next remove the screws that attach the switch to the regulator door, indicated by Note 4 in Figure 5.

Note 4



Note 3

Figure 5: Back of Rotator Switch

7. Once the cap has been removed, loosen the nut shown in Figure 6 that was located under the cap; remove it the lock washer and the rubber ring.



Be Careful not to turn the switch upside down when removing it form the door, or the switch stops may fallout.

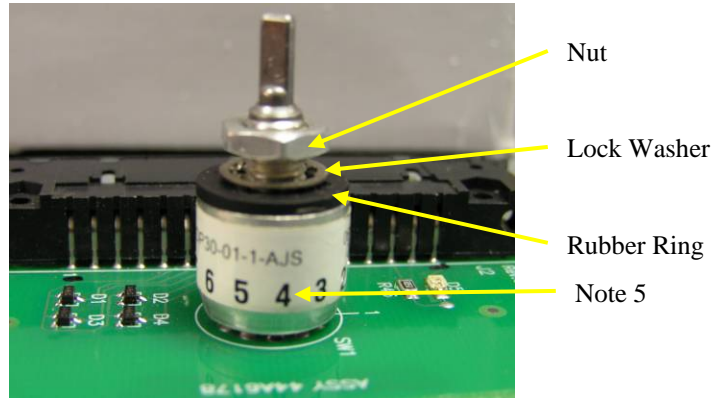


Figure 6: Rotating Switch Side View

8. After the Rubber Ring has been removed, turn the switch over and gently tap it on a flat surface, to remove the Switch Stops indicated by Note 6 in Figure 7. There should be two Switch Stops. They are small, flat square metal pieces.



(Tip: Putting paper down before tapping the switch will help keep from losing the Switch Stops.)

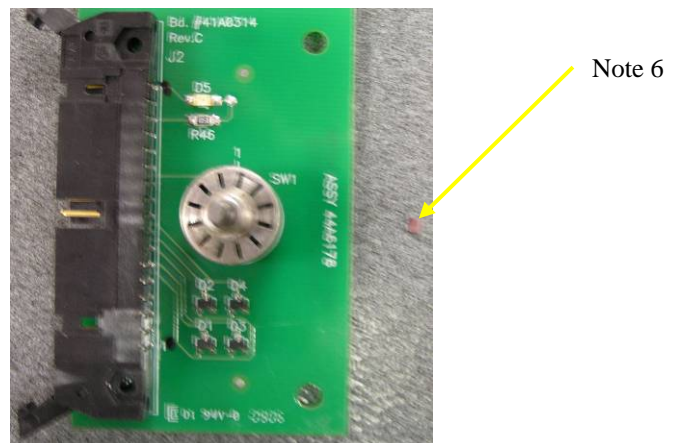


Figure 7: Rotating Switch Pin

9. Carefully place one of the Switch Stops in the slot between 1 and 12 as marked on the switch indicated by Note 4 in Figure 6. Insert the other Switch Stop in between 5 and 6.
10. Replace the Rubber Ring, Lock Washer and tighten the nut back into place.

11. Place the Rotating Switch back into the front door panel, and tighten the secure with the screws removed during step 3.
12. Reconnect the Ribbon Cable, removed in Step 1.
13. Close the front cover and place the Switch Cap back into place. Tighten with Hex screw with Allen Wrench.

Step Change Field Modification from 5-Step to 3-Step

1. Introduction

This section of the service bulletin provides instructions to modify a 5-Step *Signature Series*™ Ferroresonate Regulator, to a 3-Step *Signature Series*™ Ferroresonate Regulator.

5. Special Tools and Equipment Required

Refer to Tables 1 and 2 for the tools and equipment required to install light base beveled spacer rings.

Table 1. Required Equipment Supplied

Description	Part Number	Quantity
Service Bulletin	ALN131	1

Table 2. Required Equipment Not Supplied

Description	Quantity
Screw Drivers & Allen Wrench Tools to remove & replace Phoenix Adapter and Regulator Switch	A/R

6. General Instructions

Read and understand the service bulletin before working on the regulator. Turn off and remove power from the Regulator. Open front compartment door.

7. Adjusting the Phoenix Connector

1. After opening the regulator enclosure, locate the main PCB board (44A6035/1) shown in Figure 1. Next locate the Phoenix connector J5 indicated by Note1 on Figure 1 and Note 2 on Figure 2. Remove the Phoenix Connector from the PCB by gently pulling away from the board.

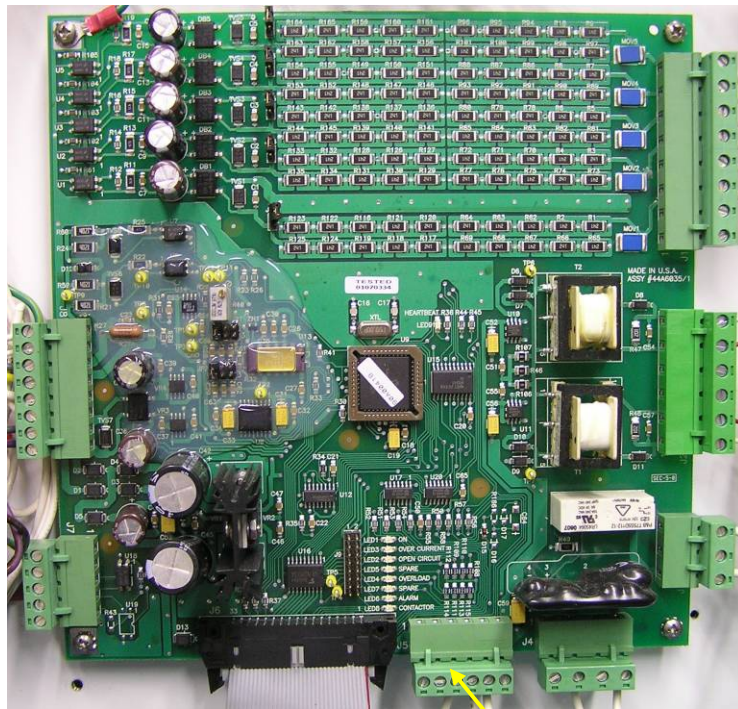


Figure 1: PCB

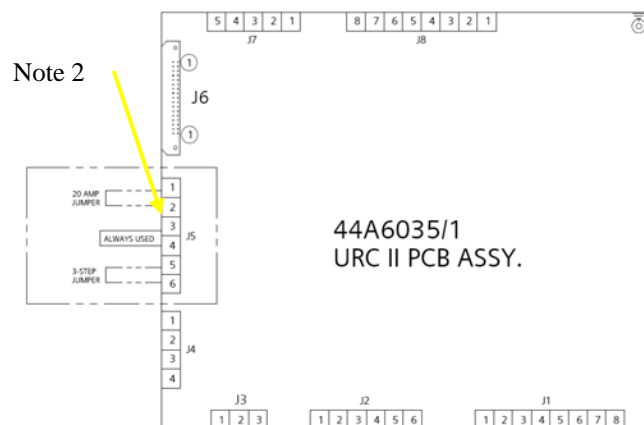


Figure 2: Drawing of PCB

2. Attach the jumper wire from pins 5 and 6 of the Phoenix Connector as shown in Figure 3.

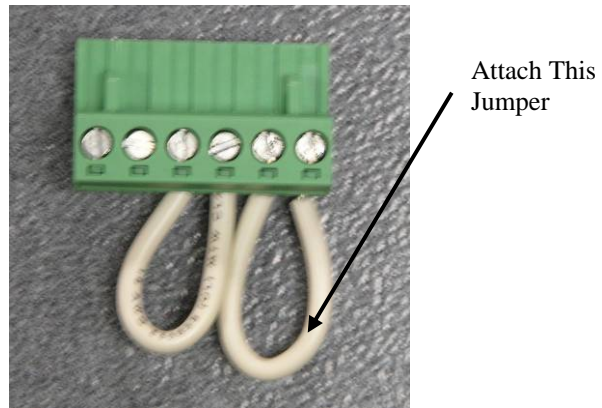


Figure 3: Phoenix Connector (J5)

3. Replace the Phoenix Connector (J5) on the PCB in the regulator.

8. Adjusting the Rotating Switch

4. Locate the Rotating Switch, on the front cover of the regulator. After opening the regulator, remove ribbon cable attached to the rotating switch indicated by Note 3 in Figure 5, by pressing gently outward on the two black clips.
5. Use an Allen Wrench to loosen the Hex head screw that secures the switch cap as shown in Figure 4.

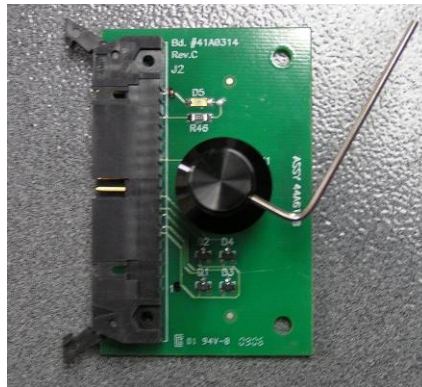
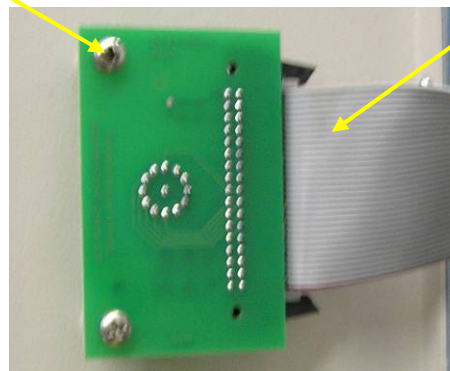


Figure 4: Rotating Switch

6. Next remove the screws that attach the switch to the regulator door, indicated by Note 4 in Figure 5.

Note 4



Note 3

Figure 5: Back of Rotator Switch

- Once the cap has been removed, loosen the nut shown in Figure 6 that was located under the cap; remove it the lock washer and the rubber ring.



Be Careful not to turn the switch upside down when removing it form the door, or the switch stops may fallout.

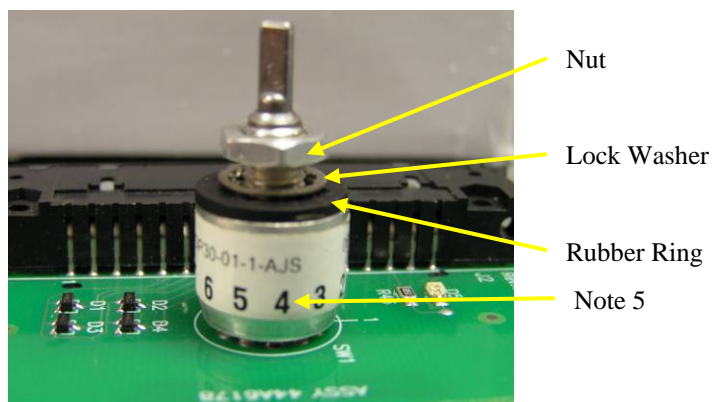


Figure 6: Rotating Switch Side View

- After the Rubber Ring has been removed, turn the switch over and gently tap it on a flat surface, to remove the Switch Stops indicated by Note 6 in Figure 7. There should be two Switch Stops. They are small, flat square metal pieces.



(Tip: Putting paper down before tapping the switch will help keep from losing the Switch Stops.)

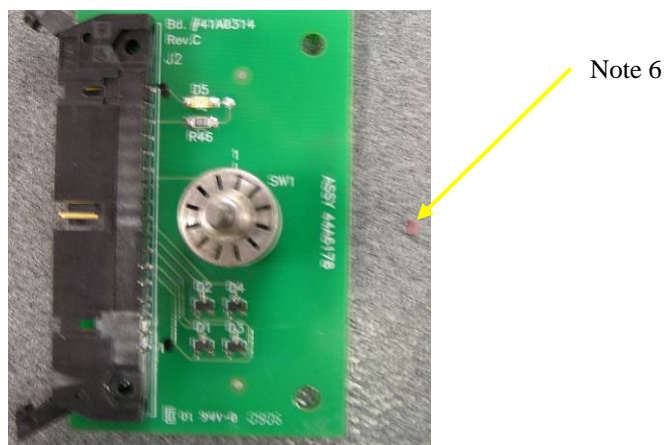


Figure 7: Rotating Switch Pin

- Carefully place one of the Switch Stops in the slot between 1 and 12 as marked on the switch indicated by Note 4 in Figure 6. Insert the other Switch Stop in between 7 and 8.
- Replace the Rubber Ring, Lock Washer and tighten the nut back into place.

11. Place the Rotating Switch back into the front door panel, and tighten the secure with the screws removed during step 3.
12. Reconnect the Ribbon Cable, removed in Step 1.
13. Close the front cover and place the Switch Cap back into place. Tighten with Hex screw with Allen Wrench.