

This document is an assembly aide, and not a replacement for the Engineering documentation. Consult the drawings and BOM.

OSM Document Number: 00716154

Rev.	Description	Date	Drawn by	Released by
06	Updated Assembly process to include new automated program	11/17/15	uskg02	
07	Updated per change circle ADN170125	1/30/2019	J. Benton	T. Slagle

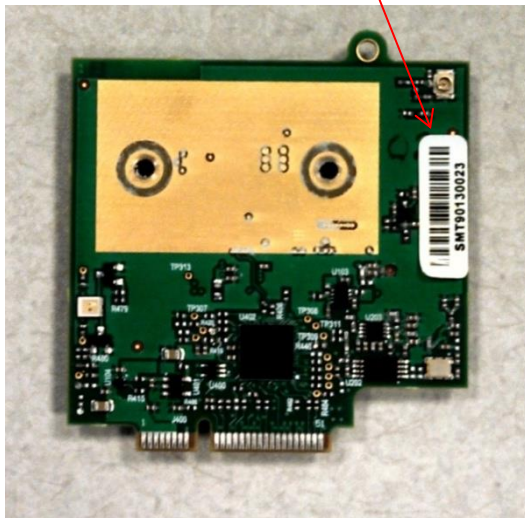
This document provides amplifying instructions for the assembly process. Each step number corresponds to a step on the product fitting instruction. This document should only be used to supplement the information that is provided in the fitting instructions. Product fitting instructions and testing procedures, doc. 00698684 and 00703624 respectively, should be the primary sources of information when assembling this product.

SETUP

- Open shortcut for RAD-900 Serial Numbers application on programming station PC
- Enter work order number and quantity
- Enter serial numbers of radio, motherboard, housing, and power supply

STEP 1.

1.1 Scan barcode on PCBA



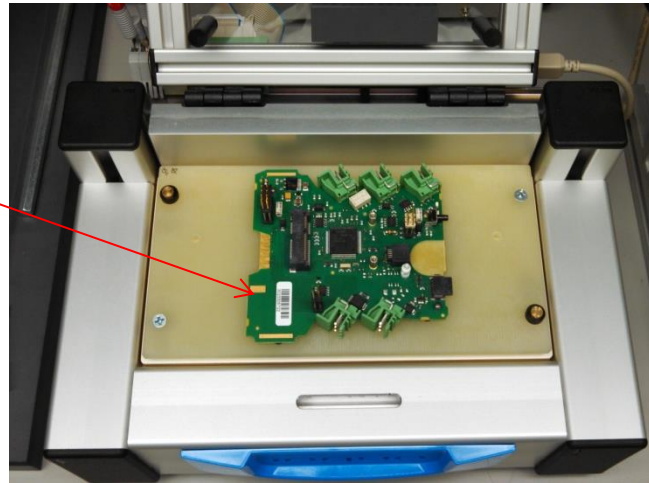
1.4 & 1.5 Print and apply FCC label



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STEP 2.

2.1 Scan barcode on motherboard

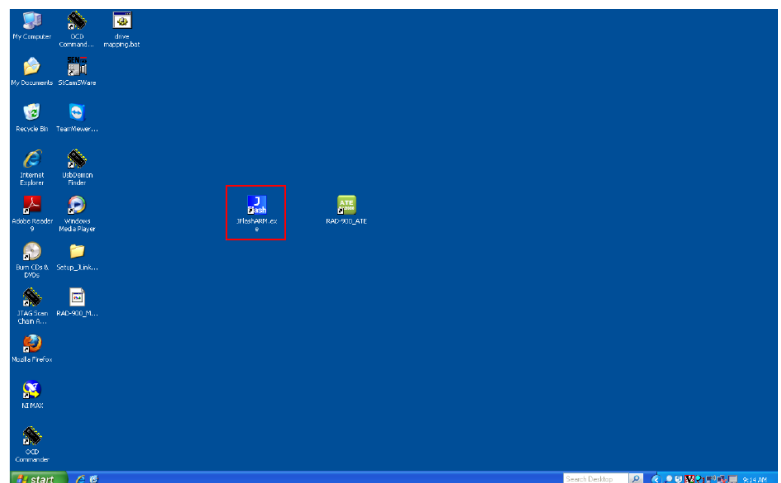


2.2 Install PCBA into firmware flashing fixture (TF7109).

Close lid. Ensure latch on lid engages.



2.2.1 Open JFlashARM.exe file on laptop desktop.



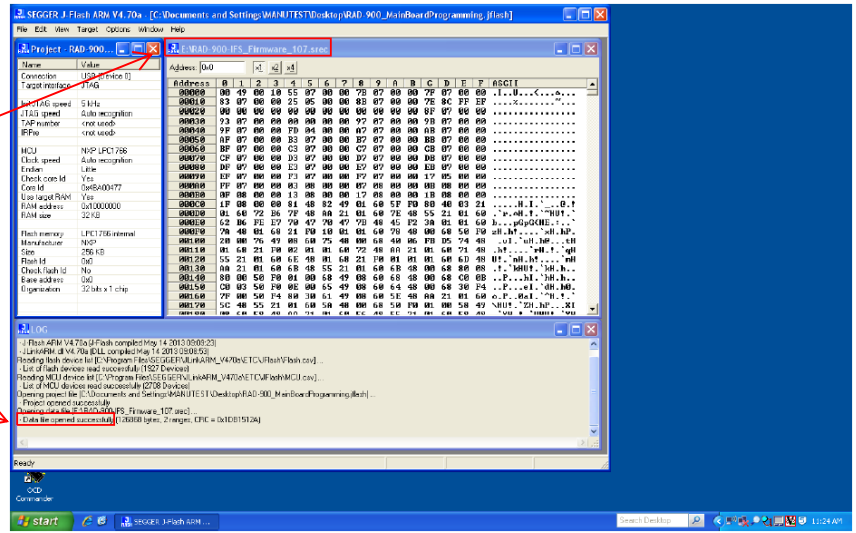
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STEP 2. cont.

2.2.2

When application opens, verify firmware revision against Doc# 00738544.

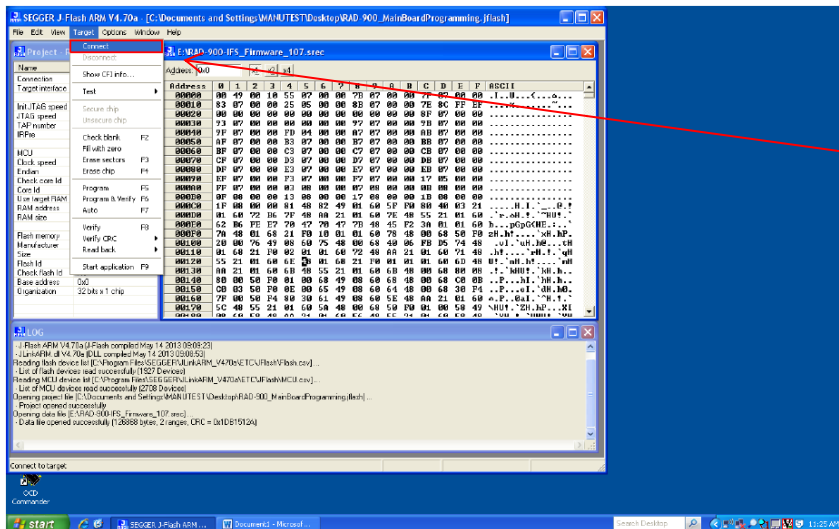
Data file opened successfully.



2.2.3

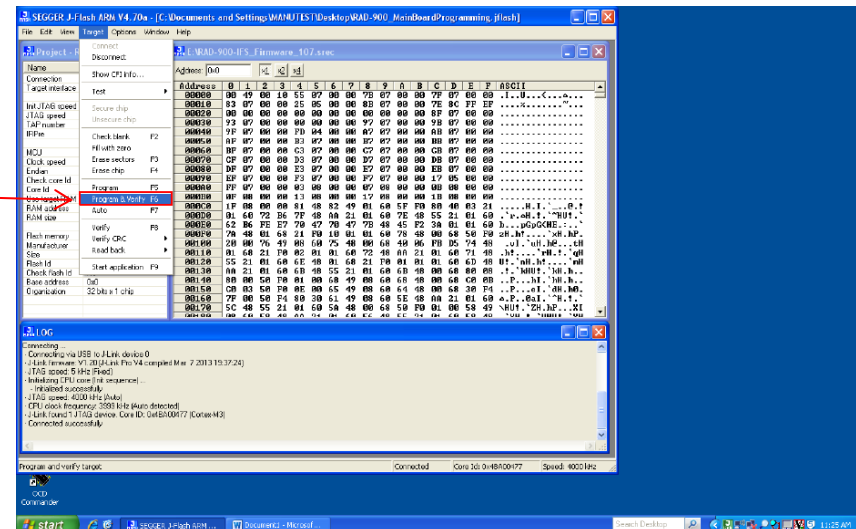
Select "Connect" on the Target pull down menu.

Text box will indicate if connection was successfully made.



2.2.4

Select "Program and Verify" on the Target pull down menu.



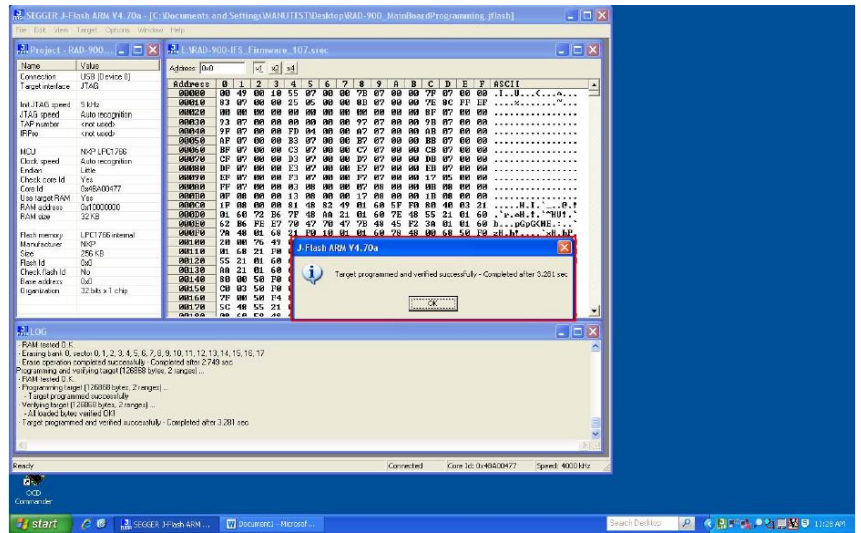
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STEP 2. cont.

2.2.5

Click OK after programming and verification is complete.

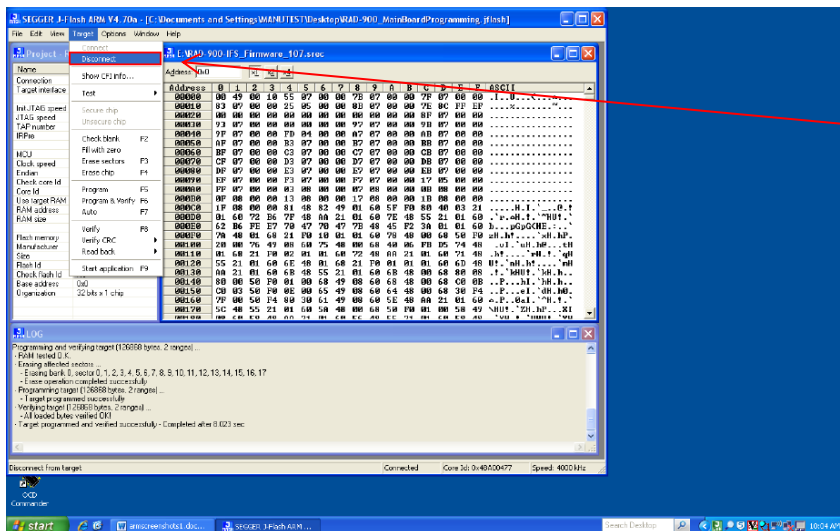


2.2.3

Select “Disconnect” on the Target pull down menu.

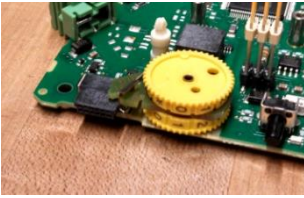
Text box will indicate when disconnection is complete.

Remove PCBA from firmware flashing fixture and proceed to Step 2.3

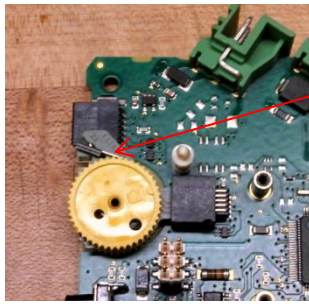


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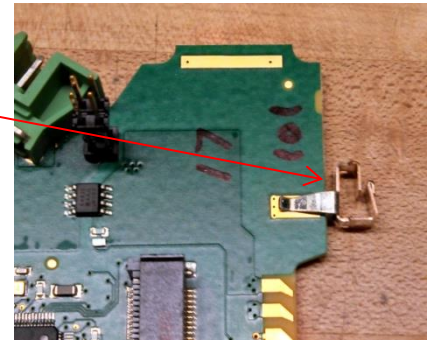
STEP 2. cont.



Incorrectly installed click wheel.



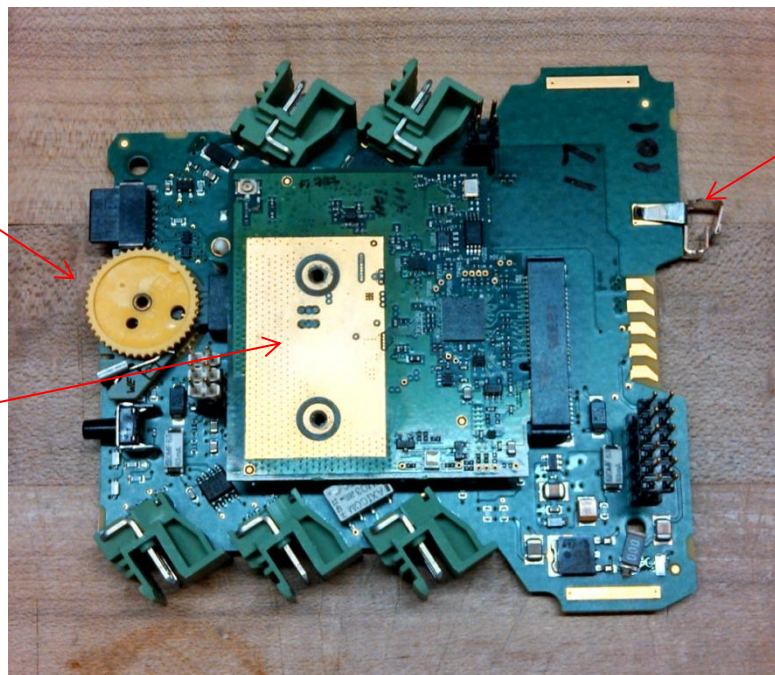
Parts installed
upside down



Incorrectly installed ground clip.

2.3 Install click
wheel

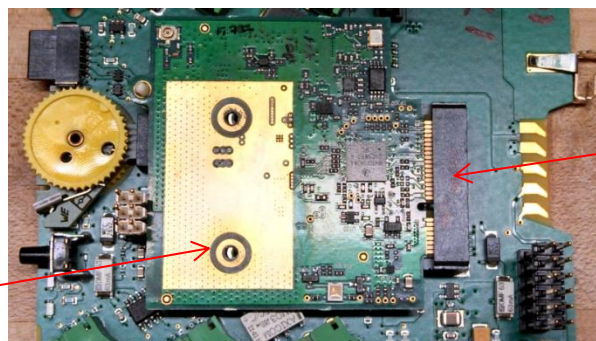
2.3 Install radio
module



2.3 Install PE clip

Correct part after assembly step two.

Thru holes should
align with standoffs



Incorrectly installed daughter board.

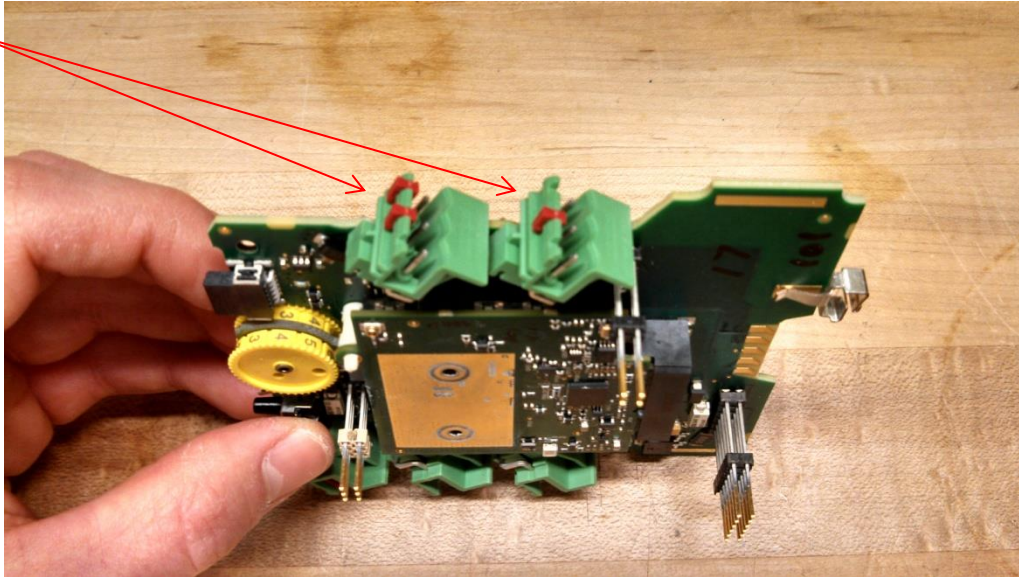
Board edge
contacts should be
fully inserted

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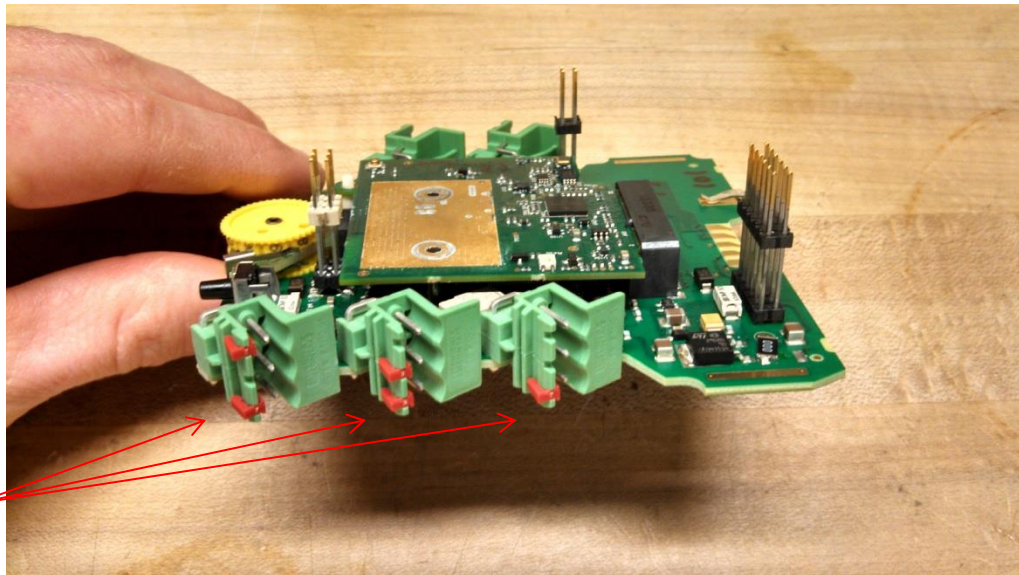
STEP 3.

3.1

Install
coding

**3.1**

Install
coding



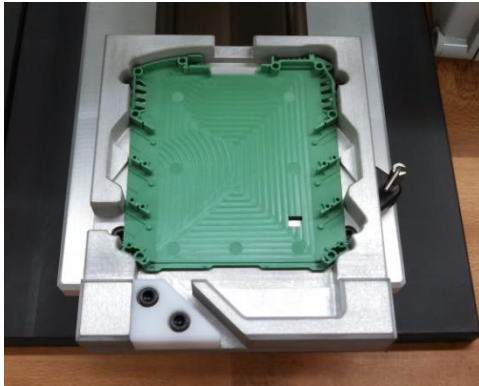
Correct part after assembly step three.

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STEP 4.

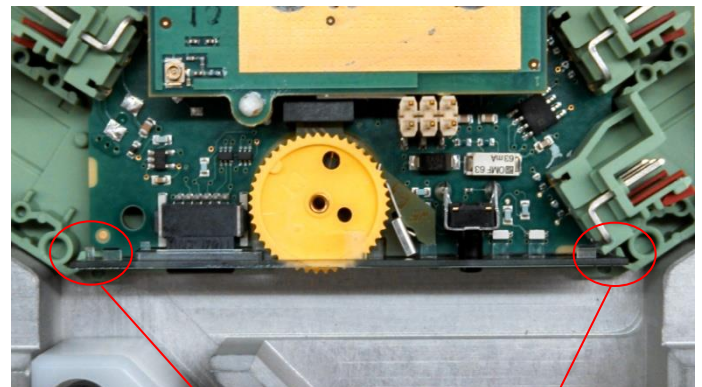
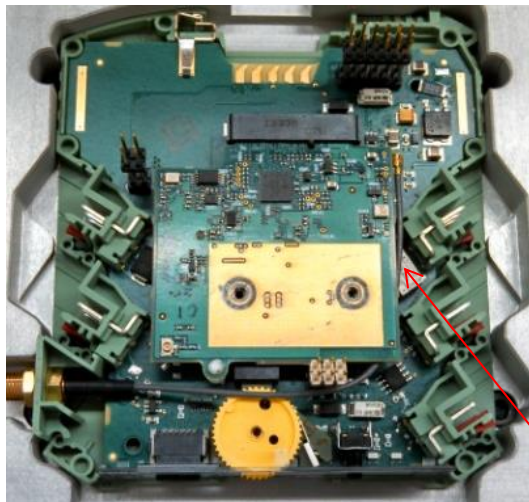
4.1

Scan barcode and install
into tool no. A6118



4.3

Install face plate prior to
placing board on
housing half in fixture



Tuck antenna cable
under radio module so
it will stay clear of
middle housing during
the press operation

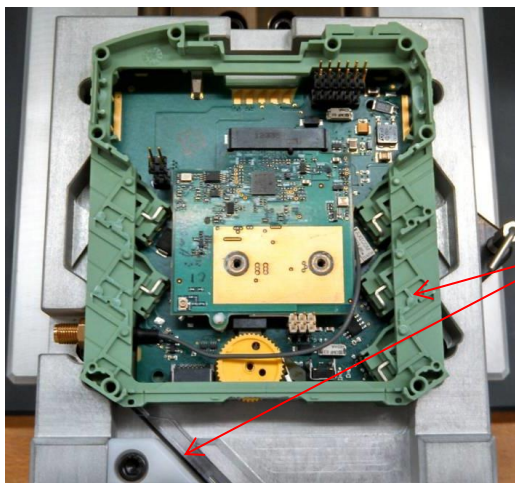
4.3

Load motherboard and face
plate into fixture ensuring face
plate latches are engaging
housing features



4.3

Load face plate cover
and middle housing
then actuate press

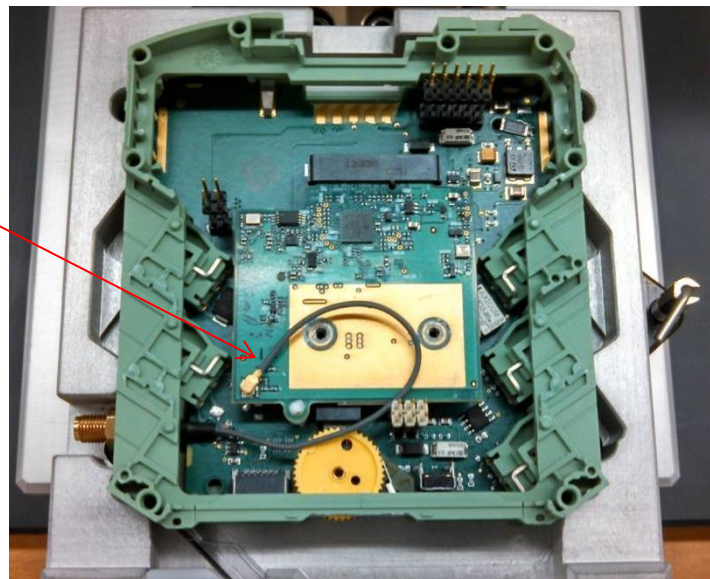


Correct part after assembly step five.

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STEP 5.

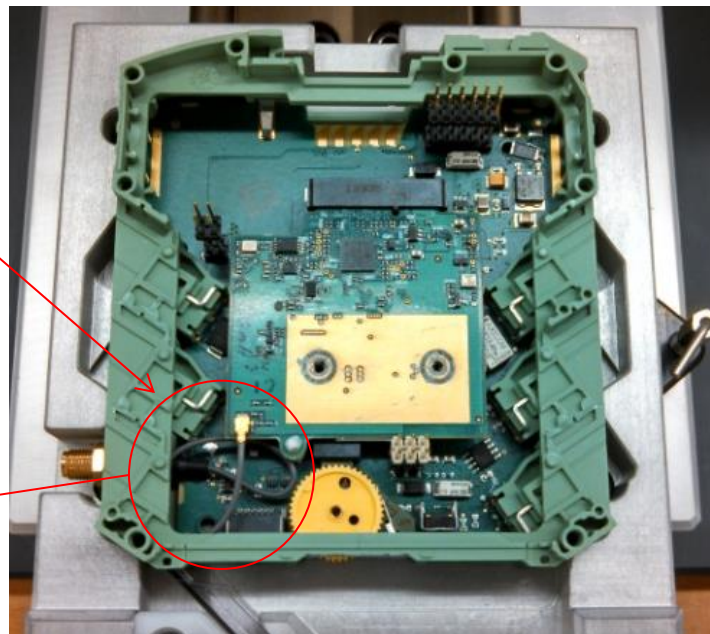
Cable should be coiled
in lower left corner



Incorrectly connected antenna cable.

5.1 & 5.2

Coil cable 360° counter
clockwise and tuck into
corner then secure to
connector

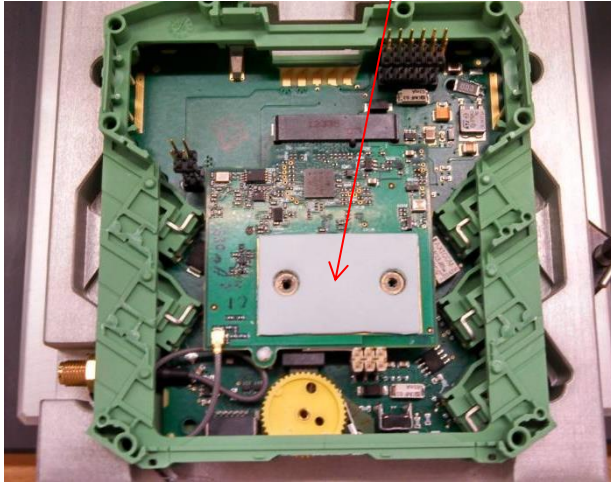


Correct part after assembly step six.

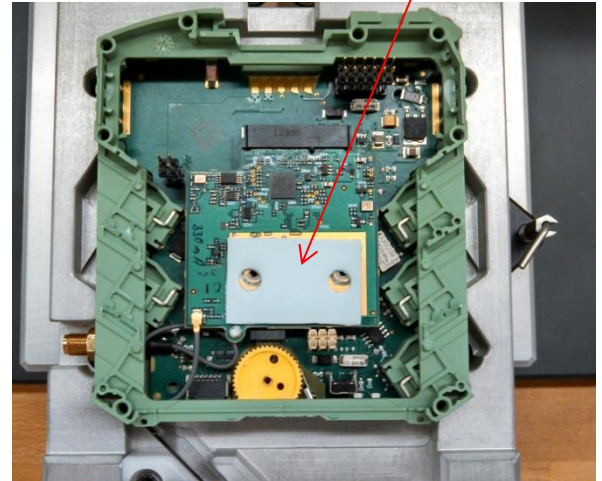
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STEP 6.

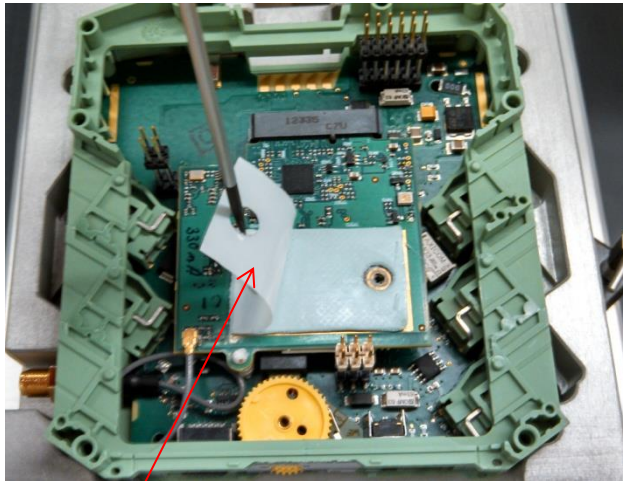
6.1 Install thermal pad



Thermal pad should be centered on copper pad and aligned with thru holes



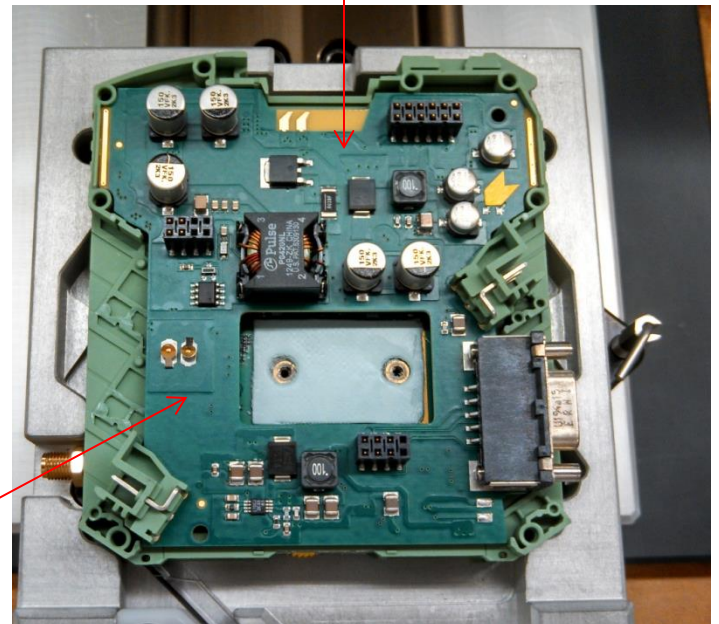
Incorrect thermal pad installation.



6.2 Remove backing from thermal pad

6.3 Scan barcode on power supply board

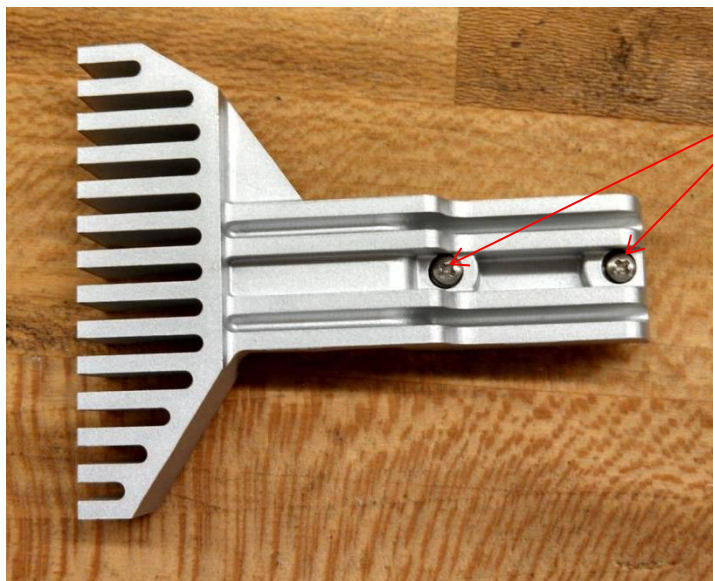
6.4 Install power supply board



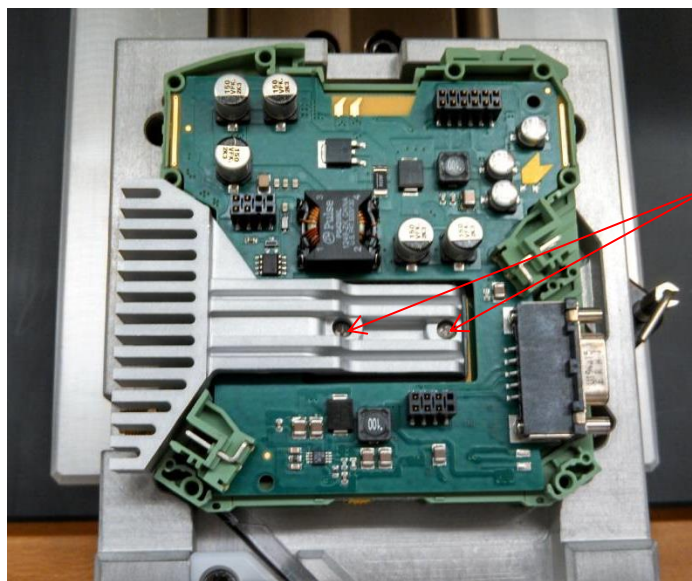
Correct part after assembly step seven.

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STEP 7.

**7.1**

Drop screws into thru holes on heat sink prior to installation on PCBA

**7.2**

Torque screws to 0.5 N*m (4.4 lb*in)

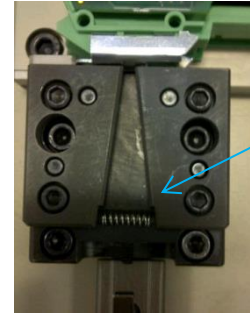
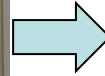
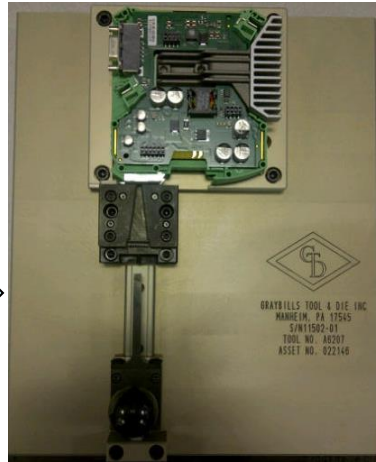
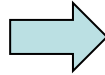
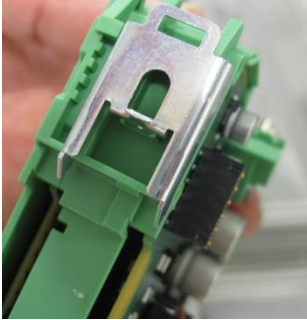
Correct part after assembly step eight.

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STEP 8.

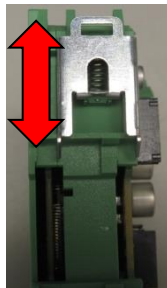
8.1

Assemble DIN clip to Housing Assy

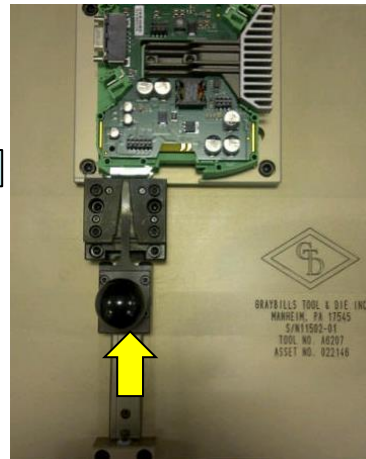


Place spring into fixture as shown

Place Housing Assy in Fixture A6207.

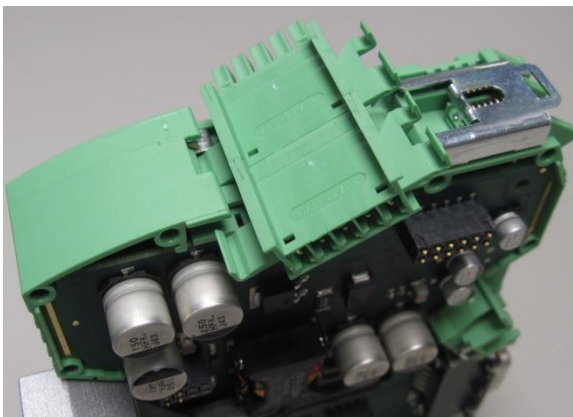


Verify that spring was inserted into the assembly then exercise Din clip to verify proper function

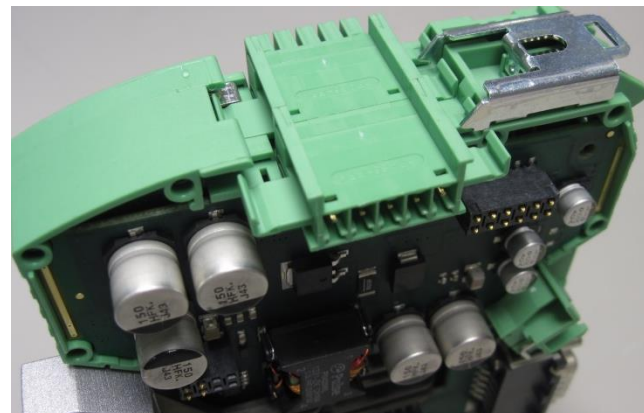


Push handle towards the Housing assy to insert spring. Once spring is inserted then return handle to home position

8.2



Install TBUS connector by pivoting into place as shown

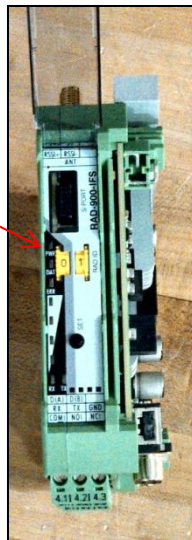


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STEP 9

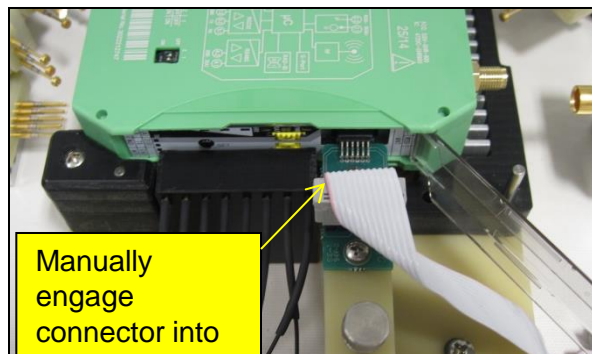
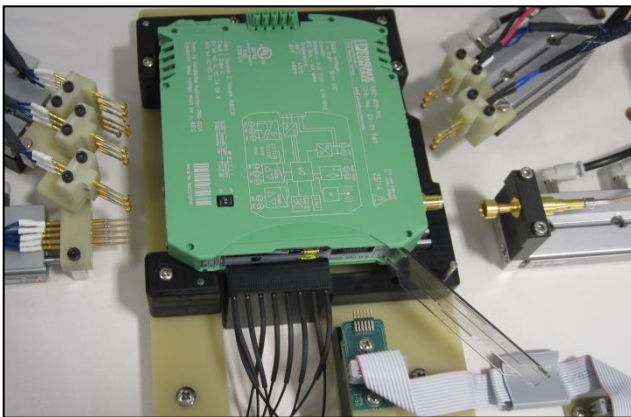
9.1

Address click
wheel to "01"



9.2

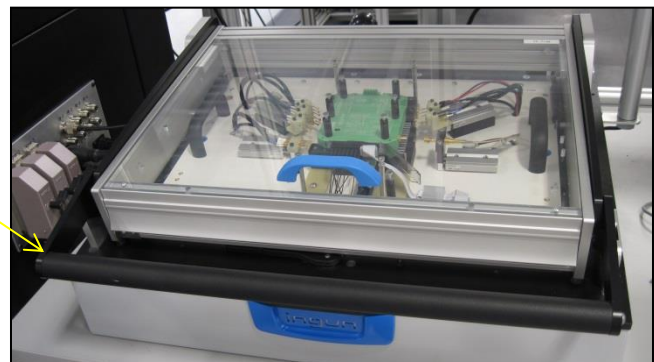
Place Assembly into test
fixture and perform
functional test



Manually
engage
connector into
assembly as
shown



Close tester lid and
handle will lock into
position



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STEP 9. cont.

9.2.1

- Open main program on desktop
- Enter the article number and OSM revision into supplied fields
- Press start

9.2.2

- Press start
- Scan the serial number of the housing through the fixture lid

9.2.3

- The test will start automatically
- Program will store test data and provide test result for product – **“PASS”** or **“FAIL”**

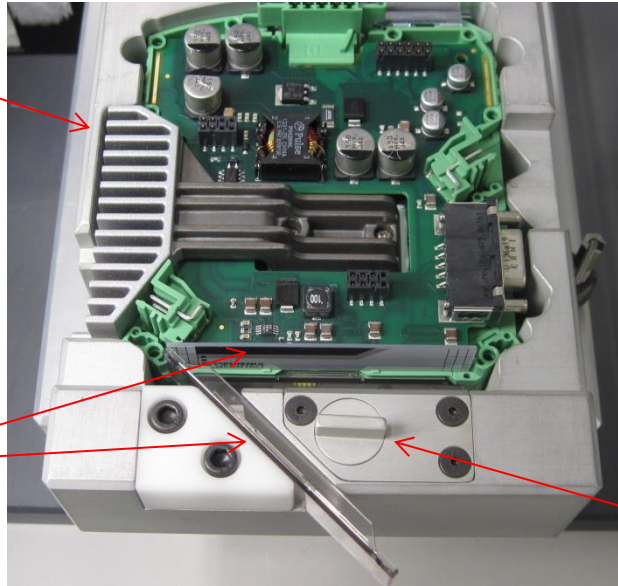
Proceed to STEP 10 if test result is **“PASS”**

Set aside test rejects “FAIL” for Evaluation

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STEP 10.

10.1 Install assembly into
press tool no. A6119



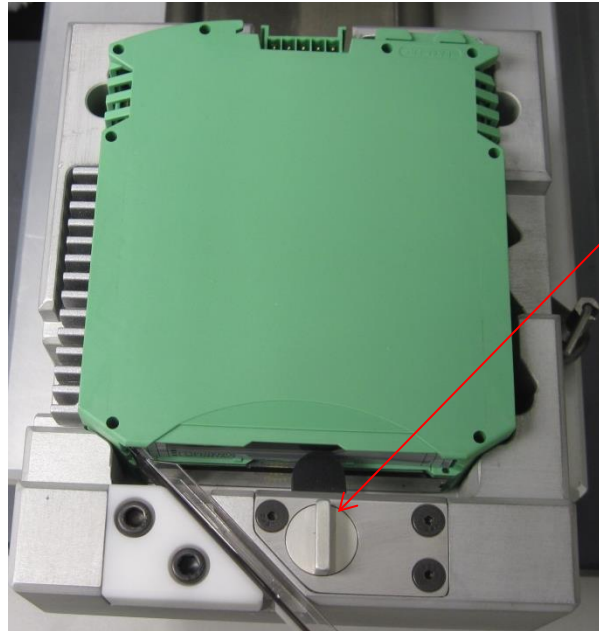
10.2 Install cover and
face plate

Note: Verify correct orientation of
components:
- PxC logo toward bottom of
face plate
- >PC< material mark toward
top of clear cover

10.1.1 Turn knob to reveal
rubber stop before
installing components

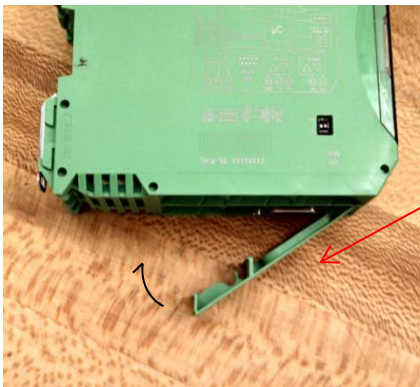


10.2 Load housing
component and
actuate press



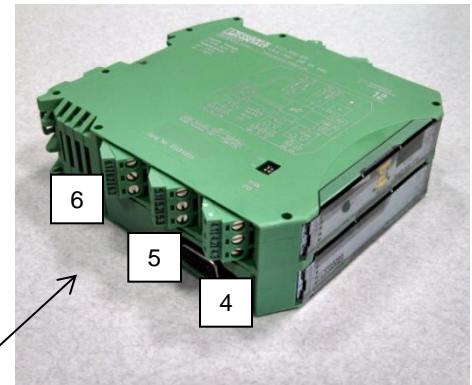
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STEP 11.



11.1.1

Snap in d-sub cover
by pivoting into place
as shown



11.1.2

Install numbered
plugs (5 plcs)

