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ASSEMBLY, INSTALLATION, AND REMOVAL OF CONTACTS AND MODULES

FOR POWER CONTACTS AND MODULES

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Please note that any printed or downloaded User Manuals or Procedure Sheets may not reflect the most current revisions. The information contained in these materials is subject to change. For the most current information available, visit www.vpc.com.

RECEIVER CONTACT ASSEMBLY

PART # 610 116 101 / 610 116 120



Dimensions shown: [millimeters]
inches

ASSEMBLY INSTRUCTIONS

1. Strip wire (**Figure A**).
2. Slide a piece of 0.125" [3.175 mm] diameter shrink tubing 1.0" [25.4 mm] long onto wire.
3. Solder contact to wire (**Figure B**). VPC solders per IPC'S J-STD-001. *NOTE: Make sure the heat from the solder does not shrink the tubing.*
4. Slide the piece of shrink tubing over the soldered end, up to the inspection hole; make sure that the inspection hole is not covered (**Figure C**).
5. Shrink the tubing.

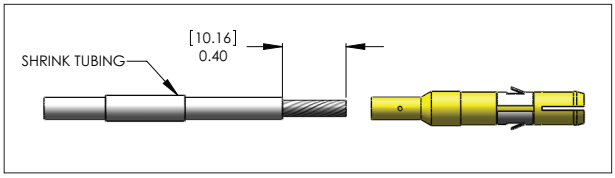


Figure A. Strip length.

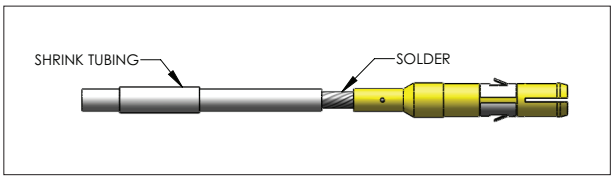


Figure B. Solder, taking care not to shrink the tubing.

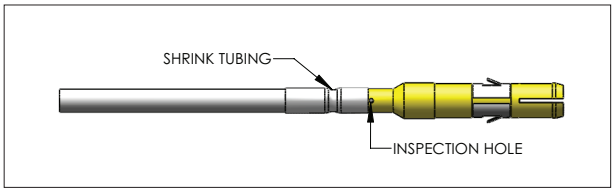


Figure C. Ensure inspection hole is not covered.

Max Wire Gauges

Contact	Max Wire Gauge
610 116 101	12 AWG
610 116 120	8 AWG

RECEIVER CONTACT INSTALLATION AND REMOVAL

PART # 610 116 101 / 610 116 120

TOOLS REQUIRED
Coax/Power Receiver Extraction Tool, Part # 910 112 101

CONTACT INSTALLATION INSTRUCTIONS

1. Assemble the contact to the respective wire.
   NOTE: For more information concerning the contact assembly process please see contact assembly instructions in this User's Manual.

2. Insert the assembled contact into the back of the module, until the retaining ring snaps into place. Once in place, pull the wire slightly to ensure the contact is seated.

CONTACT REMOVAL INSTRUCTIONS

1. Remove the module from the receiver frame.
   NOTE: For more information concerning the process of removing the module from the receiver frame, see module installation and removal instructions in this User's Manual.

2. Place the Coax/Power Receiver Extraction Tool, part # 910 112 101 (**Figure A**), over the contact to be removed/ replaced. Use care to keep the tool perpendicular to the surface of the module, otherwise the tool or contact could be bent. Rotate the tool slightly while pushing it into the counter bore on the mating side of the module.

3. Once the extraction tool is seated and the retaining ring tabs on the contact are compressed, push the tool into the module (**Figure B**). The contact will be pushed out of the rear of the module.

DO NOT DEPRESS THE PLUNGER ON THE BACK OF THE EXTRACTION TOOL UNTIL THE TIP OF THE EXTRACTION TOOL HAS FULLY SEATED INTO THE MODULE AND COMPRESSED THE RETAINING RING TABS ON THE CONTACT.

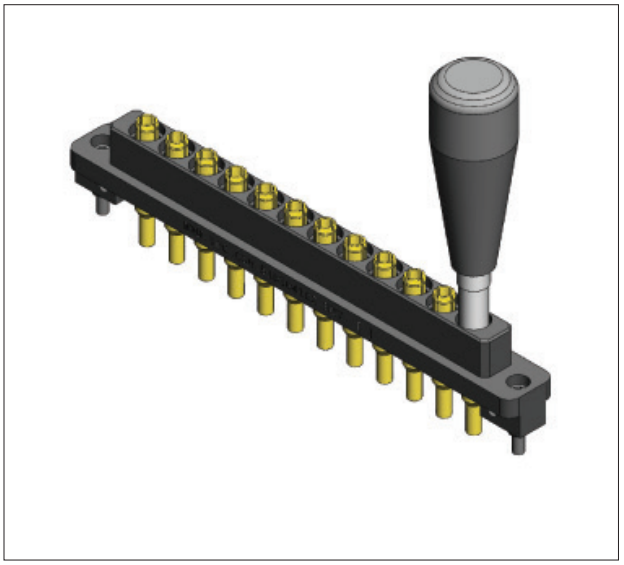


Figure A. Coax/Power Receiver Extraction Tool, Part # 910 112 101.

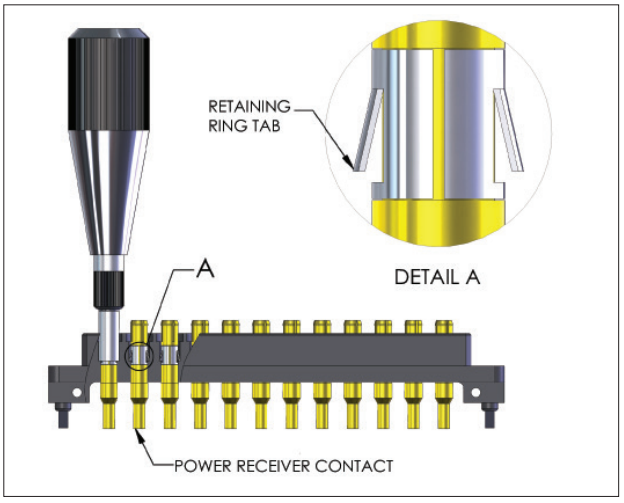
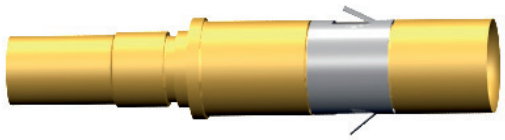


Figure B. Fully seat the tool before pressing down.

ITA CONTACT ASSEMBLY

PART # 610 115 102 / 610 115 103 / 610 115 118



Dimensions shown: [millimeters]
inches

ASSEMBLY INSTRUCTIONS

1. Strip wire (**Figure A**).
2. Slide a piece of 0.125" [3.175 mm] diameter shrink tubing 1.0" [25.4 mm] long onto wire.
3. Solder contact to wire (**Figure B**). VPC solders per IPC'S J-STD-001. *NOTE: Make sure the heat from the solder does not shrink the tubing.*
4. Slide the piece of shrink tubing over the soldered end, up to the inspection hole; make sure that the inspection hole is not covered (**Figure C**).
5. Shrink the tubing.

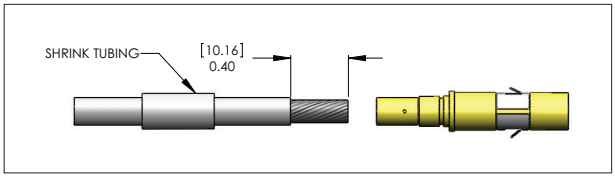


Figure A. Strip length.

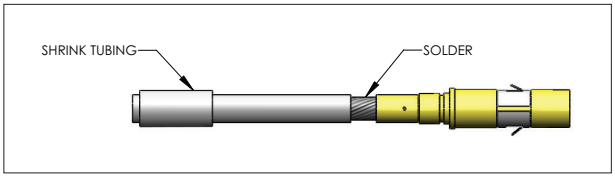


Figure B. Solder, taking care not to shrink the tubing.

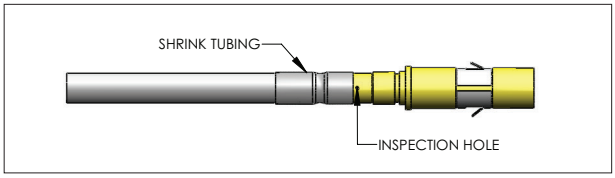


Figure C. Ensure inspection hole is not covered.

Max Wire Gauges

Contact	Max Wire Gauge
610 115 102	10 AWG
610 115 103	12 AWG
610 115 118	8 AWG

ITA CONTACT INSTALLATION AND REMOVAL

PART # 610 115 102 / 610 115 103 / 610 115 118

TOOLS REQUIRED
Coax/Power ITA Contact Extraction Tool, Part # 910 112 105

CONTACT INSTALLATION INSTRUCTIONS

1. Assemble the contact to the respective wire.
   NOTE: For more information concerning the contact assembly process please see contact assembly instructions in this User's Manual.

2. Insert the assembled contact into the back of the module, until the retaining ring snaps into place. Once in place, pull the wire slightly to ensure the contact is seated.

CONTACT REMOVAL INSTRUCTIONS

1. Remove the module from the ITA frame.
   NOTE: For more information concerning the process of removing the module from the ITA frame, see module installation and removal instructions in this User's Manual.

2. Place the Coax/Power ITA Extraction Tool, part # 910 112 105 (**Figure A**), over the contact to be removed/ replaced. Use care to keep the tool perpendicular to the surface of the module as not to bend the tool or the contact to be removed. Rotate the tool slightly while pushing it into the counter bore on the mating side of the module.

3. Once the extraction tool is seated properly and the retaining ring tabs on the contact are compressed, push the tool into the module (**Figure B**). The contact will be pushed out of the rear of the module.

DO NOT DEPRESS THE PLUNGER ON THE BACK OF THE EXTRACTION TOOL UNTIL THE TIP OF THE EXTRACTION TOOL HAS FULLY SEATED INTO THE MODULE AND COMPRESSED THE RETAINING RING TABS ON THE CONTACT.

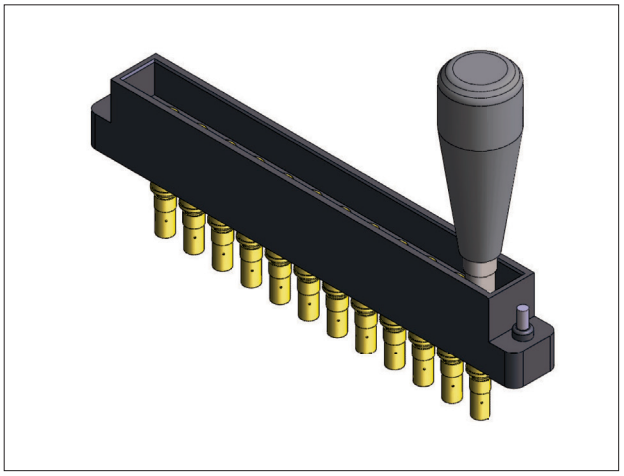


Figure A. Coax/Power ITA Extraction Tool, Part # 910 112 105.

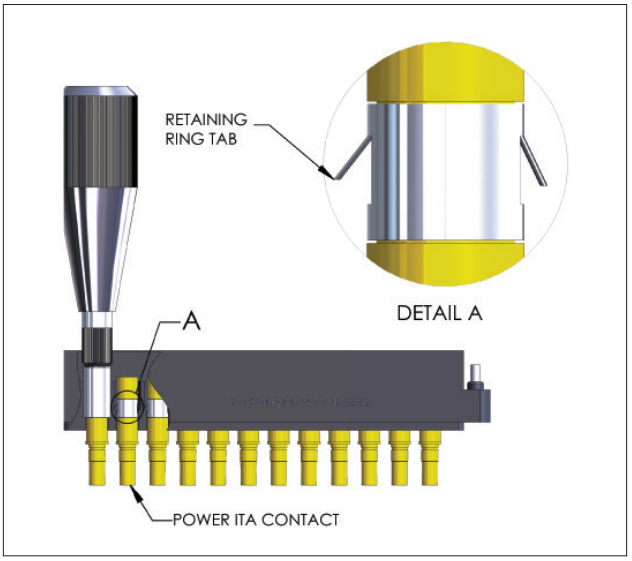


Figure B. Fully seat the tool before pressing down.

90 SERIES MODULE INSTALLATION AND REMOVAL

TOOLS REQUIRED
$^{3}/_{32}$ Allen Wrench

INSTALLATION INSTRUCTIONS

1. Place the module in the receiver or ITA until the upper and lower module screws touch the mating holes in the inner frame. Ensure that Position 1 is located at the top for systems in which the modules are oriented vertically or to the left for systems in which the modules are oriented horizontally.

2. Using a $^{3}/_{32}$ Allen wrench, tighten the top screw 1 to 2 full revolutions, while pushing lightly against the face of the module.

3. Maintain this pressure while tightening the bottom screw 1 to 2 full revolutions.

4. Repeat this sequence until the module is seated. Torque the screw to 4 in-lbs [0.45 Nm].

REMOVAL INSTRUCTIONS

1. To remove, loosen the top screw 1 to 2 full revolutions. Loosen bottom screw 1 to 2 full revolutions.

2. Repeat this sequence until the module is separated from the receiver or ITA.

NOTE: For optimum performance and system longevity, distribute the contact load evenly throughout the module.

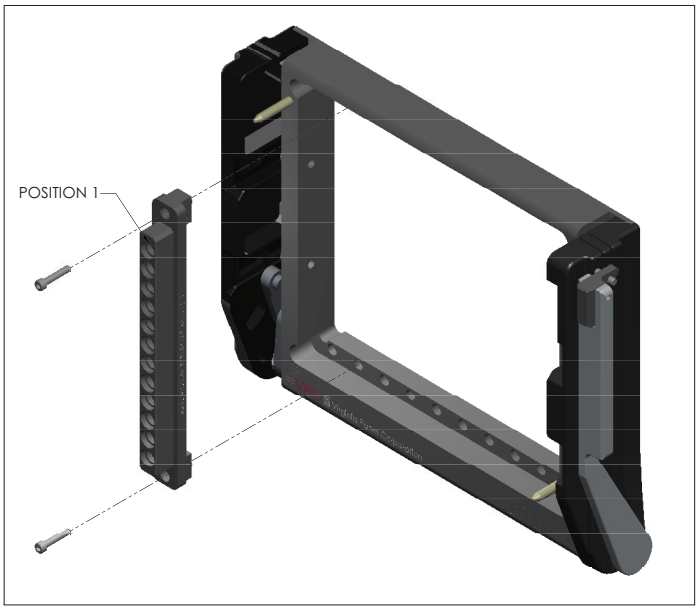


Figure A. Receiver Module.

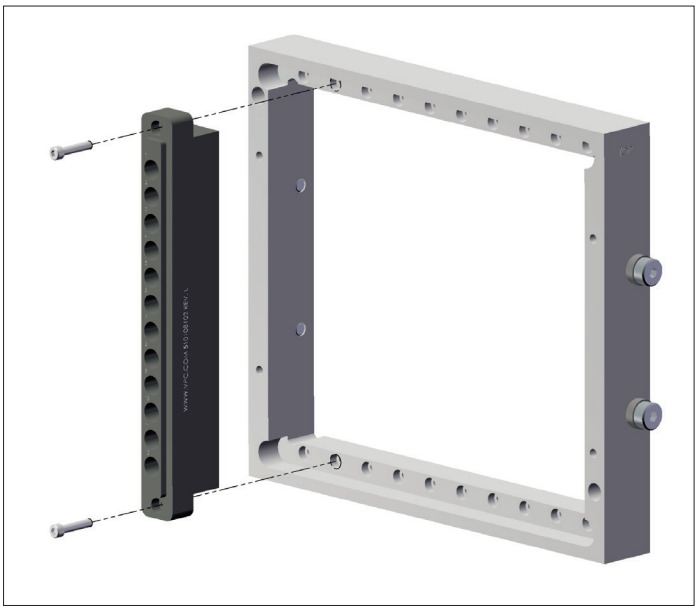


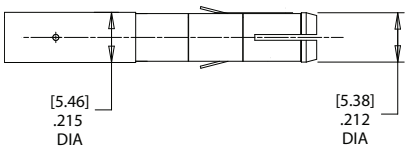
Figure B. ITA Module.

CROSS REFERENCE TABLES

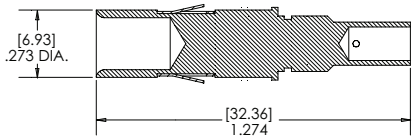
RECEIVER CONTACT	STANDARD/ 90 SERIES RECEIVER MODULE 510 104 102	EXTRACTION TOOL 910 112 101
610 116 101	X	X
610 116 120	X	X

ITA CONTACTS	STANDARD/ 90 SERIES ITA MODULE 510 108 102	EXTRACTION TOOL 910 112 105
610 115 102	X	X
610 115 103	X	X
610 115 118	X	X

CONTACT PERFORMANCE SPECIFICATIONS



Receiver Contact
Part # 610 116 120



ITA Contact
Part # 610 115 102

Dimensions shown: [millimeters]
inches

Electrical Specifications

CONTACT RESISTANCE	Rated at 30 Amps for 5 minutes with a minimum drop of 4 Milliohms to a maximum drop of 10 Milliohms
OPERATING VOLTAGE & CURRENT	480 V AC, 30 Amps

Mechanical Characteristics

CYCLE LIFE	20,000
MATING FORCE	2 lbs max. [0.91 kg]
WIRE SIZE	8 AWG Max for 610 115 118, 610 116 120 10 AWG Max for 610 115 102 12 AWG Max for 610 115 103, 610 116 101

Material

ITA CONTACT	**360 Brass alloy per QQ-B-626** 0.0000050 Au per MIL-G-45204, Type II, Class 0 over 0.0001 Ni per QQ-N-290
RCVR CONTACT	**BeCu C17300** 0.000060 Au per MIL-G-45204 over 0.00005 Ni per QQ-N-290
RETAINING RING	**BeCu alloy 3325** 0.0001 Ni per QQ-N-290

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