ASSEMBLY, INSTALLATION, AND REMOVAL OF CONTACTS AND MODULES
FOR FIBER OPTIC 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.
TOOL REQUIRED
0.050" Allen Wrench
Flat Head Screwdriver
Phillips Screwdriver for iCon modules
Mini Fiber Optic Extraction Tool, Part # 910 112 125

CONTACT INSTALLATION INSTRUCTIONS
1. Remove the dust cap from the VPC contact to be inserted.

2. Insert the assembled contact into the back (wiring side) of the assembled module. The contact can only go into one side. Ensure that the contact is squared up with the corresponding module location.

3. Once in place, pull the wire slightly to ensure that 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 Manual.

2. Use the 0.050" Allen wrench to remove the module cap screws located at the top, middle and bottom of the module (Figure B). For 37 and 16/16 position use a Phillips screw driver to remove the (2) 2-56 screws.

3. Grasp the module halves and apply force in opposite directions, rocking the ends of the module slightly while pulling the module cap or top half of the module away from the mating bottom section. Be sure to open both sides of the module simultaneously or contacts could be damaged.

4. Place the Mini Fiber Optic Extraction Tool, part # 910 112 125 (Figure C), 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 DAMAGED.

5. Once the extraction tool is seated and the retaining ring tabs on the contact are compressed, push the tool into the module. The contact will be pushed out of the rear of the module.

NOTE: The process shown here uses standard 90 series modules. The same process is used for modules from other series.

NOTE: If you are using a hybrid module, you may need to reference the User Manual for the other contact type for extraction instructions.

For all other modules, replace the top half of module using both hands to push the separated halves together. Replace and tighten the top half module screws to a maximum torque of 2 in-lbs [0.23 Nm].


WHEN HANDLING FIBER OPTIC CABLES DO NOT LOOK INTO THE ENDS OF ANY CONNECTOR. LASER LIGHT COULD CAUSE PERMANENT EYE DAMAGE.
ITA CONTACT INSTALLATION AND REMOVAL

PART # 610 113 173

TOOLS REQUIRED
Mini Fiber Optic Extraction Tool, Part # 910 112 125

CONTACT INSTALLATION INSTRUCTIONS
1. Remove the dust cap from the VPC contact to be inserted.
2. Insert the assembled contact into the back (wiring side) of the module. Push the contact forward until the crimp is inside the module housing. Once in place, pull the wire slightly to ensure the contact is seated.
3. Reinstall dust cap.

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 Section 2 of this User Manual.

2. Place the Mini Fiber Optic Extraction Tool, part # 910 112 125 (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 damaged. 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. The contact will be pushed out of the rear of the module (Figure B).


NOTE: The process shown here uses standard/90 series modules. The same process is used for modules from other series.

NOTE: If you are using a hybrid module, you may need to reference the User Manual for the other contact type for extraction instructions.

WHEN HANDLING FIBER OPTIC CABLES DO NOT LOOK INTO THE ENDS OF ANY CONNECTOR. LASER LIGHT COULD CAUSE PERMANENT EYE DAMAGE.
STRAIN RELIEF GUIDE

PART # 510 109 116/ 510 109 298/ 510 109 296

STRAIN RELIEF GUIDELINES

1. Ensure that the bend radius exceeds the minimum bend radius of the fiber optic wire at all times. The minimum bend radius for the fiber optic wire is 15x the diameter of the cable (Figure A).

   Max Bend for 62.5/125µ or 62.5/125µ Multimode: 1.77” [45 mm]
   Max Bend for POF: 1.18” [30 mm]

2. The bend radius minimum must be adhered when using the twist lock cable ties. Use two sets of twist lock cable ties for each wire.

   TAKE CARE NOT TO CRUSH FIBER OPTIC WIRE WHEN CINCHING THE TWIST LOCK WIRE TIE.

   For receiver side wires, leave a slight amount of slack in the cable when securing them to the strain relief plate to allow the contacts to align when the modules are engaged (Figure B).

   WHEN HANDLING FIBER OPTIC CABLES DO NOT LOOK INTO THE ENDS OF ANY CONNECTOR. LASER LIGHT COULD CAUSE PERMANENT EYE DAMAGE.

   Figure A. Minimum bend radius is 15x the diameter of the wire.

   Figure B. Use two twist lock cable ties for each wire. Make sure to cinch the ties loosely enough so the wire can move freely when the modules are engaged.
90 SERIES MODULE INSTALLATION AND REMOVAL

PART # 510 104 120/ 510 104 150/ 510 104 243/ 510 104 301


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 Pin 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 (0.23 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.

WHEN HANDLING FIBER OPTIC CABLES DO NOT LOOK INTO THE ENDS OF ANY CONNECTOR. LASER LIGHT COULD CAUSE PERMANENT EYE DAMAGE.
ICON MODULE INSTALLATION AND REMOVAL

PART # 510 161 102/ 510 161 103/ 510 161 104

510 160 102/ 510 160 103/ 510 160 104

TOOLS REQUIRED
Phillips Head Screwdriver

INSTALLATION INSTRUCTIONS

NOTE: The receiver strain relief plate or the ITA cover may need to be removed prior to installing or removing an iCon module. Please refer to the appropriate User Manual for instructions on how to perform these steps.

1. Place the module in the receiver or ITA until the upper and lower module screws touch the mating holes in the inner frame. Install modules such that Position 1 is located at the top of the ITA/receiver frame.

2. Using a Phillips head screwdriver, 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 1.5 in-lbs [0.16 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.

WHEN HANDLING FIBER OPTIC CABLES DO NOT LOOK INTO THE ENDS OF ANY CONNECTOR. LASER LIGHT COULD CAUSE PERMANENT EYE DAMAGE.
MULTIMODE RECEIVER CONTACT CLEANING GUIDE

PART # 910 121 192/ 610 113 172

TOOLS REQUIRED
910 121 192 Tool, Fiber Optic Cleaning Pen, Multimode Glass Fiber, Receiver/ITA

RECEIVER CONTACT CLEANING INSTRUCTIONS

NOTE: Pen tool is the preferred tool for cleaning fiber contact tips.

1. Remove Guide Cap from Pen Tool as shown in (Figure A).

2. Insert tip of Pen Tool into the receiver contact as shown in (Figure B).

3. Grasp Pen Tool body and push forward to start cleaning the contact end face. A click sound indicates the end of the cleaning process. Put Guide Cap on after use.

WARNING: BE CAREFUL NOT TO SLANT THE PEN TOOL WHILE INSERTING INTO CONTACT.

WARNING: DO NOT USE TOO MUCH FORCE DURING THE INSERTION OF THE PEN TOOL INTO THE CONTACT. THIS MAY CAUSE DAMAGE TO CONTACT AND PEN TOOL.

WARNING: IF PUSHING THE PEN TOOL BODY FORWARD IS INHIBITED, STOP AND ENSURE THAT THERE IS NO DEBRIS INHIBITING THE CLEANING PROCESS.

Continued on next page...

Figure A. Remove Guide Cap.

Figure B. Insert Pen Tool into the receiver contact.
MULTIMODE ITA CONTACT CLEANING GUIDE

PART # 910 121 192/ 610 113 173

TOOLS REQUIRED
910 121 192 Tool, Fiber Optic Cleaning Pen, Multimode Glass Fiber, Receiver/ITA

ITA CONTACT CLEANING INSTRUCTIONS

NOTE: Pen tool is the preferred tool for cleaning fiber contact tips.

1. Remove Guide Cap Cover from Guide Cap on Pen Tool as shown in (Figure A).

2. Insert ITA contact into Guide Cap as shown in (Figure B).

3. Grasp Pen Tool body and push forward to start cleaning the contact end face.
   A click sound indicates the end of the cleaning process. Put cover back on after use.

WARNING: BE CAREFUL NOT TO SLANT THE PEN TOOL WHILE INSERTING INTO CONTACT.

WARNING: DO NOT USE TOO MUCH FORCE DURING THE INSERTION OF THE PEN TOOL INTO THE CONTACT. THIS MAY CAUSE DAMAGE TO CONTACT AND PEN TOOL.

WARNING: IF PUSHING THE PEN TOOL BODY FORWARD IS INHIBITED, STOP AND ENSURE THAT THERE IS NO DEBRIS INHIBITING THE CLEANING PROCESS.

Figure A. Remove Guide Cap Cover.
Figure B. Insert ITA contact into Guide Cap
CONTACT AND MODULE CARE

PART # 510 108 189/ 510 109 295/ 510 104 227/ 510 109 294

ALL MINI COAX MODULES

The cleanliness of the Fiber Optic contacts is extremely critical to maintain high performance and extended life. Modules should be cleaned before initial usage and then after any extended storage period. The dust cover should be in place at any time the ITA is not mated with the receiver. Also, the contacts should be cleansed whenever questionable readings are encountered.

NOTE: Pen tool from pages 7 and 8 is the preferred tool for cleaning fiber contact tips.

MAKE SURE ALL LASER LIGHT SOURCES ARE TURNED OFF BEFORE CLEANING. LASER LIGHT CAN PERMANENTLY DAMAGE YOUR EYES.

FOLLOW MANUFACTURER’S DIRECTIONS ON PRESSURIZED CANS. DO NOT TIP OR SHAKE CAN DURING USAGE.

WEAR SAFETY GLASSES AND GOGGLES WHEN CLEANING THE MODULES. PARTICLES AND/OR ALCOHOL COULD BE PROJECTED INTO YOUR EYES BY THE PRESSURIZED CLEANER.

CLEANING INSTRUCTIONS FOR THE ITA FIBER OPTIC MODULE FOR INSTALLED CONTACTS

Recommended Kit: VPC Part # 910 121 170

1. Remove the dust caps from the ITA contacts.
2. Use a can of optical grade pressurized duster to clean the module by thoroughly spraying the inside of the casing containing the termini.
3. Saturate a clean foam tip with optical grade alcohol and wipe the end of an individual contact.
4. Immediately dry the contact with a dry foam tip.
5. Repeat the alcohol cleansing process for all existing contacts.
6. Reinstall the dust cap on the ITA contact.

CLEANING INSTRUCTIONS FOR THE RECEIVER FIBER OPTIC MODULE FOR INSTALLED CONTACTS

Recommended Kit: VPC Part # 910 121 170
Receiver Protective Cover, Part # 510 109 501

1. Remove the protective cover from the receiver module (Figure A).
2. Use an alcohol wipe to clean the top and sides of the module.
3. Saturate a clean foam tip with optical grade alcohol and insert into an individual alignment sleeve, wipe the end of the contact.
4. Immediately dry the sleeve using a can of optical grade pressurized duster that has an extension tube ending with a small tip designed to fit inside the alignment sleeve.
5. Clean the inside of the module cover with an alcohol wipe and allow it to dry.
6. Reinstall the dust cover on the receiver module.

Figure A. Receiver module with protective cover.
## CROSS REFERENCE TABLES

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CONTACT PERFORMANCE SPECIFICATIONS

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Mechanical Characteristics

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Material

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