Wiring Assembly Instructions

561201- Contact, Receiver, Micro Coax, RG178, Joy 05, 06, 018

Fig. A. (Contact Sub-Assembly)

Contact Sub-Assembly Piece Parts.

<table>
<thead>
<tr>
<th>Wire Type</th>
<th>Wire Awg.</th>
<th>Strip Length In Inches</th>
<th>Crimp Tool</th>
<th>Hex Die Set</th>
<th>Indicator</th>
<th>Selector No.</th>
<th>Heat-shrink Length X Dia.</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOY 05/06/18 RG178</td>
<td>26</td>
<td>A) 1/32”  B)5/32”  C)3/16”  D)3/32”</td>
<td>452300</td>
<td>452315</td>
<td>R</td>
<td>N/A</td>
<td>5/8” x 1/4”</td>
</tr>
</tbody>
</table>

Test Requirements

<table>
<thead>
<tr>
<th>Test Type</th>
<th>Voltage (Hi-pot Only)</th>
<th>Pull Test</th>
<th>Depth Gauge</th>
<th>Marker Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hi-pot</td>
<td>500V DC</td>
<td>3lbs</td>
<td>412670</td>
<td>40 - 60</td>
</tr>
</tbody>
</table>

**NOTE**: Overall length of cable should be less 3/8” to compensate for the contact attachment.

**STEP1)** From the "Contact Crimp Information" Table, use the crimp tool and hex die set listed.

**STEP 2)** Ensure hex die is set to correct indicator as listed in “Contact Crimp Information” Table.

**NOTE**: Refer to **Fig. B** for reference.
**STEP 3)** Using a ruler along with wire strippers or automatic wire stripping machine, strip the cable to the dimensions in the "Strip Length" column. Example of stripped wire shown below in Fig. C.

**STEP 4)** Slide heat-shrink and crimp ring over cable. Pull shield back over the cable outer jacket as shown below in Fig. D.

**NOTE:** Ensure that no strand of Center Conductor contacts the shield to prevent shorts.

**STEP 5)** Strip the Dielectric to achieve dimension "D" in the "Strip Length" column on "Crimp Information" Table. See Fig. E.

**STEP 6)** Tin center pin and center wire. Insert cable center wire into center conductor and solder in place. Fig. F. and G.
**STEP 7)** Ensure dielectric is fully seated in shell. Slide shell assembly onto center conductor/cable sub-assembly until fully seated as shown in Fig. H.

**Fig. H.**

**STEP 8)** Evenly form shielding over contact as shown in Fig. J

**Fig. J.**

**STEP 9)** Slide crimp ring over shield and up to contact until firmly seated in Fig. K

**Fig. K.**

**STEP 10)** Inspect contact/cable assembly using depth gauge listed in "Test Requirements" Table. Calibrate gauge using instructions below prior to inspection.

<table>
<thead>
<tr>
<th>Contact and Calibration equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Contact</strong></td>
</tr>
<tr>
<td>40-120001-03</td>
</tr>
</tbody>
</table>

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Step 1) Remove Calibration Pin from back of the Depth Gauge.

Step 2) Loosen Locking Screw on Depth Gauge body.

**FACTORY ADJUSTED ONLY**
Step 3) Insert the non-knurled end of the Calibration Pin into the end of the Depth Gauge.

Step 4) With the Calibration Pin firmly seated, rotate the Depth Gauge bezel until the needle reads "0". Re-tighten the locking screw.

Step 5) With the Calibration Pin still firmly seated, rotate the two markers to the numbers specified in the table on Sheet 1.

Step 6) Remove the Calibration Pin and return to the body of the Depth Gauge for future use.

Your Depth Gauge is now properly calibrated and ready to check the appropriate contact.
STEP 11) Test contact by inserting contact/cable assembly fully into test gauge, until seated firmly. **Fig. L.**

STEP 12) Gently tap top of pin gauge to ensure that gauge is seated fully to bottom of center contact pin.

STEP 13) Hold contact/cable assembly, and test gauge firmly, proceed to take measurement per **Fig. M.**

![Diagram of contact/cable assembly and test gauge](image.png)

**For 561201 contacts, center Pin Depth should be:**

0.150"+/-0.010"

![Diagram showing measurement and dimension](image.png)

**Fig. L.**

**Fig. M.**
NOTE: If contact being inspected is inside existing module, reference Fig. N below.

When checking contacts already installed in modules:

* Due to the design of the receiver modules, the module "Cap" must first be removed.

![Diagram of a module with a "Cap" labeled and instructions for removing screws using a 3/4" Hex key.

Fig. N

When the contacts have been checked the "Cap" MUST be re-fitted.
* Never attempt to mate ITA and Receiver modules with a cap removed

STEP 14) Results should be between the "Marker Settings". Listed on the "Test Requirements" Table.
NOTE: Do not proceed to step 15 if results are unacceptable. (Repeat steps 3 through 13).

STEP 15) Use crimp tool, and crimp large diameter of crimp ring in location (A) of hex die Fig. P.

NOTE: Keep steady pressure on wire during crimping to maintain position of center conductor.

STEP 16) Crimp small diameter of crimp ring in location (B) of hex die. Fig. R.
NOTE: Make sure the contact seats properly in the stops aligned with locations on hex die Figs. P and R details.
STEP 17) Gauge crimped contact/cable assembly again using the depth gauge (steps 10 to 14). The reading should still be within range.

STEP 18) Perform a "Hi-pot" test to the settings listed in "Test requirements". If a "pass" test occurs proceed to next step.

STEP 19) Shrink heat-shrink onto crimp ring, to match the image below in Fig. S, to complete cable assembly.

NOTE: Shrink-tube is to provide strain-relief.