

Addendum to the 1502 and 1503 Time Domain Reflectometer Instruction manuals.

TEKTRONIX®

**WATERTIGHT
SEALING PROCEDURES
for**

**1502/1503 TIME DOMAIN
REFLECTOMETERS**

INSTRUCTION MANUAL

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TABLE OF CONTENTS

	Page
LIST OF ILLUSTRATIONS	2
PURPOSE	3
MATERIALS	3
SPECIAL TOOLS	3
ASSEMBLY PROCEDURES	4
Step 1. Preparation of subpanel for further assembly.	5
Step 2. Install the holder for the Battery Level Indicator.	5
Step 3. Install the seal for the Power Switch.	5
Step 4. Install washers for the Fuseholders.	5
Step 5. Install the Pushbutton seals in the Subpanel.	5
Step 6. Installation of rubber seals in Subpanel grooves.	6
Step 7. Installation of Implosion shield.	7
Step 8. Preparation of Frontpanel.	8
Step 9. Bonding of Plug-in Compartment seal.	9
Step 10. Bonding of washer to BNC type connector.	9
Step 11. Install pushbuttons and their shaft assemblies.	10
Step 12. Attach Subpanel to the three Frame Sections.	11
Step 13. Install Frontpanel on Subpanel.	11
Step 14. Install Fuseholders in Frontpanel.	11
Step 15. Install Fuseholder Caps.	12
Step 16. Install Battery Meter.	13
Step 17. Install FOCUS and INTENSITY controls.	13
Step 18. Install FINE POSITION control.	14
Step 19. Install DISTANCE METER.	15
Step 20. Install ZERO REFERENCE control.	16
Step 21. Install the Record control.	17
Step 22. Install the GAIN (1502), or 0-dB SET (1503).	18
Step 23. Partial installation, Main Circuit Board.	19
Step 24. Install cam switch inserts.	19
Step 25. Finish installation, Main Circuit Board.	19
Step 26. Install Power Switch Shaft.	20
Step 27. Install POSITION and FINE POSITION knobs.	21
Step 28. Install ZERO REFERENCE knob and CHECK pushbutton.	22
Step 29. Install FOCUS and INTENSITY knobs.	23
Step 30. Seal Battery Pack.	24
Step 31. Frontpanel jacks on X-Y Module.	25
Step 32. Thumbscrews for X-Y Module.	26
Step 33. Latch assemblies for Front Cover.	27

LIST OF ILLUSTRATIONS

	Page
Figure 1. Subpanel, identification of parts for Steps 1 through 7.	4
Figure 2. Rubber seals, edge sealing for Subpanel.	6
Figure 3. Detail of implosion shield sealing.	7
Figure 4. Front Panel, identification of parts for assembly Steps 8 through 26.	8
Figure 5. Detail of Plug-In Compartment seal.	8
Figure 6. Detail of BNC Connector and Washer.	9
Figure 7. Detail of Pushbuttons and their Shafts.	10
Figure 8. Detail of Subpanel and screw-hole sealing.	10
Figure 9. Detail of Fuseholder installation.	11
Figure 10. Detail of Fuseholder Caps.	12
Figure 11. Application of sealant to Battery Meter.	12
Figure 12. Alignment of Battery Meter.	12
Figure 13. Application of sealant to FOCUS and INTENSITY controls.	13
Figure 14. Application of sealant to FINE control bushing.	14
Figure 15. Application of sealant to FINE control nut.	14
Figure 16. Installation of Distance Meter.	15
Figure 17. Application of sealant to ZERO REFERENCE control bushing.	16
Figure 18. Application of sealant to ZERO REFERENCE control nut.	16
Figure 19. Application of sealant to CAMERA/RECORD toggle-switch bushing.	17
Figure 20. Application of sealant to CAMERA/RECORD toggle-switch nut.	17
Figure 21. Installation of rubber Cap-Seal on CAMERA/RECORD toggle-switch.	17
Figure 22. Application of sealant to the GAIN or the 0-dB SET control bushing.	18
Figure 23. Detail showing lubrication and sealing for the variable resistor.	18
Figure 24. Lubrication of the O-rings and sealing for the Cam Switches.	19
Figure 25. Installation of the POWER SWITCH.	20
Figure 26. Lubrication of POSITION control knob.	21
Figure 27. Installation of knob on shaft.	21
Figure 28. Lubrication of ZERO REFERENCE knob.	22
Figure 29. Installation of knob on ZERO REFERENCE control.	22
Figure 30. Lubrication of FOCUS and INTENSITY control knobs.	23
Figure 31. Sealing of Battery Pack screwholes.	24
Figure 32. Application of dielectric type compound.	24
Figure 33. Detail of front panel jacks.	25
Figure 34. Detail of X-Y Module thumbscrews.	26
Figure 35. Sealing of Latch Assembly screw-holes.	27

PURPOSE

This addendum includes only those assembly procedures that are concerned with making a 1502 or 1503 a watertight instrument.

MATERIALS

Tektronix Part No.	Description	Notes
006-2302-00	Dow Corning No. 3144 Adhesive Sealant	This Room Temperature Vulcanizing agent (RTV) is used to form watertight gaskets. (After application, allow 24 hours curing time.)
006-1171-00	Dow Corning No. 3145 Adhesive Sealant	
252-0199-00	Dow Corning No. 3140 Coating	This RTV agent is used where the application requires a sealant more fluid than the No. 3144 sealant. (Allow 24 hour curing time.)
006-0315-00	Dow Corning No. 4 Silicone Dielectric Compound	This compound is used in the Battery Pack assembly.
006-2475-00	Dow Corning No. 1204 Primer	Used as a primer for No. 3144 sealant applications.
006-2207-00	General Electric No. G-661 Silicone grease	Used as a waterproof lubricant.
006-0500-00	Acetone	Cleaning Agent.
006-0034-00	Isopropyl Alcohol	Cleaning Agent.

ASSEMBLY PROCEDURES

NOTE

In the following assembly steps, the part being discussed is identified by its Tektronix Part Number (TPN) and its location in the Mechanical Parts List (MPL) of the Instruction Manuals for the 1502 and 1503. Example, in Step 1 the Front Subpanel is being discussed. In the 1502 manual, the part is identified as TPN 426-1187-01 and is listed in the MPL under Fig. & Index No. 3-26. In the 1503 manual, the part is identified as TPN 426-1187-02 and is listed in the MPL under Fig. & Index No. 3-26.

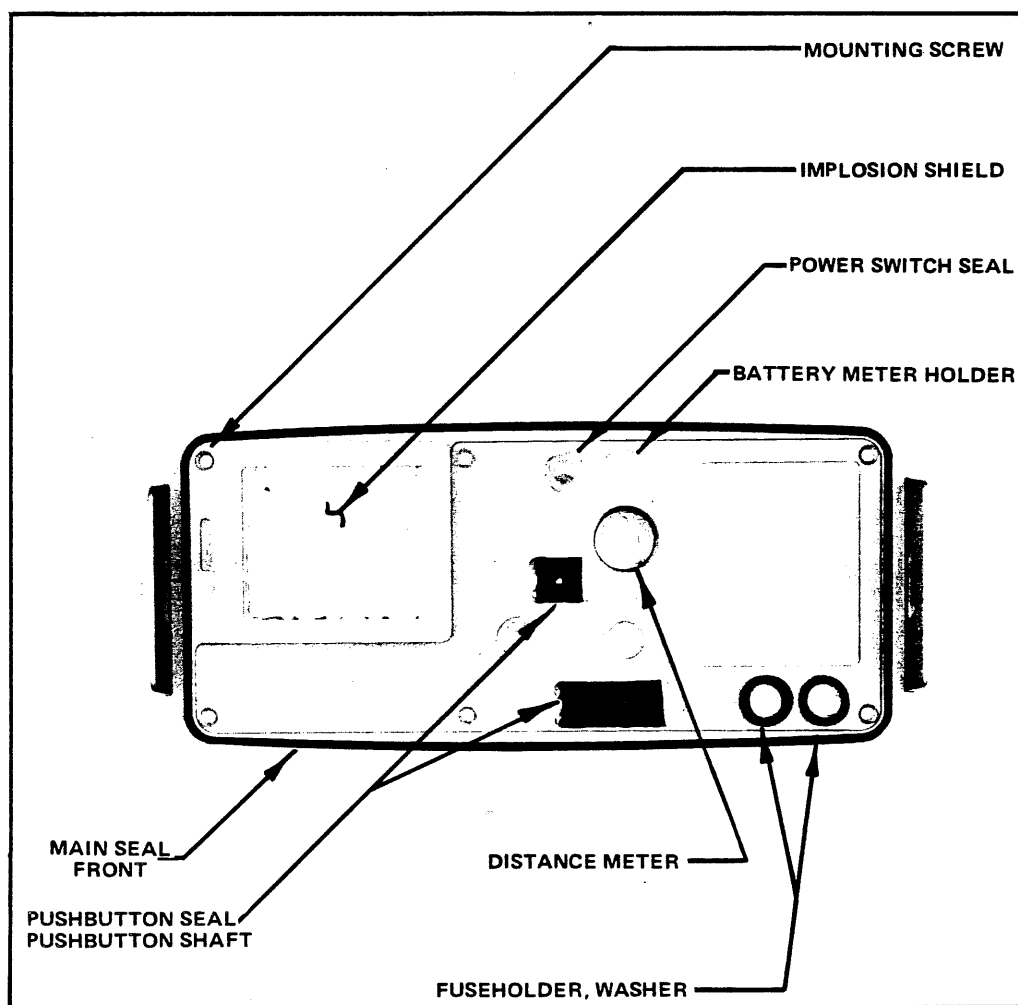


Figure 1. Subpanel, identification of parts for steps 1 through 7.

STEP 1. Preparation of the Subpanel for further assembly (see Figure 1)

A. SUBPANEL, FRONT

- (1) 1502 TPN 426-1187-01, MPL Item 3-26.
- (2) 1503 TPN 426-1187-02, MPL Item 3-26.

B. Procedure.

- (1) Clean entire Subpanel with isopropyl alcohol.

STEP 2. Install the Holder for the Battery Level Indicator in the Subpanel

A. HOLDER

- (1) 1502 TPN 352-0243-00, MPL Item 2-54.
- (2) 1503 TPN 352-0243-00, MPL Item 2-57.

B. Procedure.

- (1) Insert the holder into the Subpanel.
- (2) This item does not require the application of a sealing compound

STEP 3. Install the seal for the Power Switch in the Subpanel

A. SEAL, SWITCH

- (1) 1502 TPN 348-0422-00, MPL Item 2-52.
- (2) 1503 TPN 348-0422-00, MPL Item 2-55.

B. Procedure.

- (1) Clean mating surface of seal with acetone.
- (2) Coat mating surface of seal with No. 3144 sealant.
- (3) Install seal in Subpanel.

STEP 4. Install washers for the Fuseholders in the Subpanel

A. WASHER, FLAT (2 ea.)

- (1) 1502 TPN 210-1246-00, MPL Item 2-49.
- (2) 1503 TPN 210-1246-00, MPL Item 2-51.

B. Procedure.

- (1) Clean the washers with acetone.
- (2) Coat the mating surfaces of the washers with No. 3144 sealant.
- (3) Insert the washers in the Subpanel.

STEP 5. Install the Pushbutton seals in the Subpanel.

A. SEAL, PUSHBUTTON

- (1) 1502 TPN 348-0409-01, MPL Item 2-51, and TPN 348-0409-03, MPL Item 2-50.
- (2) 1503 TPN 348-0409-01, MPL Item 2-53, TPN 348-0409-02, MPL Item 2-54, and TPN 348-0409-04, MPL Item 2-52.

B. Procedure.

- (1) Clean mating surfaces of seals with acetone.
- (2) Coat mating surfaces with No. 3144 Sealant.
- (3) Install seals in subpanel.

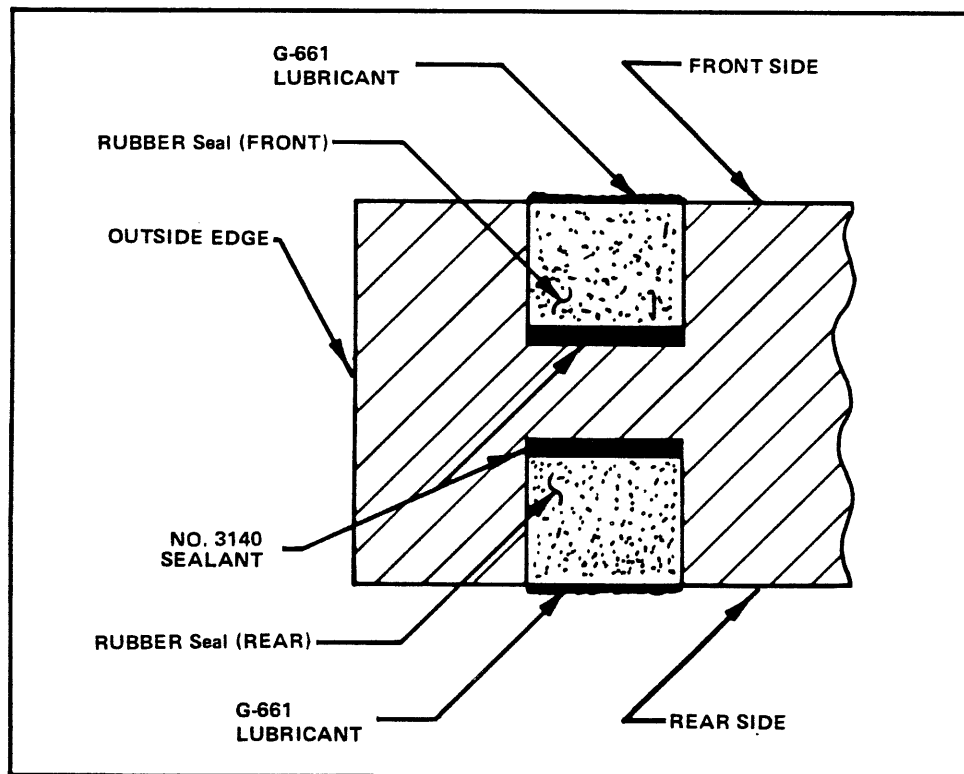


Figure 2. Rubber Seals, edge sealing for subpanel.

STEP 6. Installation of rubber seals in two grooves located on the outer (see Figures 1 and 2) edges of the front and rear sides of the Subpanel.

A. SEAL, RUBBER (2 ea.)

- (1) 1502 TPN 348-0477-00, MPL Item 2-55.
- (2) 1503 TPN 348-0477-00, MPL Item 2-58.

B. Procedure.

- (1) Clean the rubber seals with acetone.
- (2) Apply a film of No. 3140 sealant to the inner surface of each groove See Figure 2. Do not apply the sealant to the other surfaces of the grooves. No. 3140 is more fluid than No. 3144 and can be applied with a hypodermic type applicator.
- (3) Place a seal in each groove. Trim each seal to a length such that its ends butt together. Apply a film of No. 3140 sealant to the Butt joint.
- (4) Before installing the instrument in a cabinet, lubricate the outer edges of the seals as shown in Figure 2.

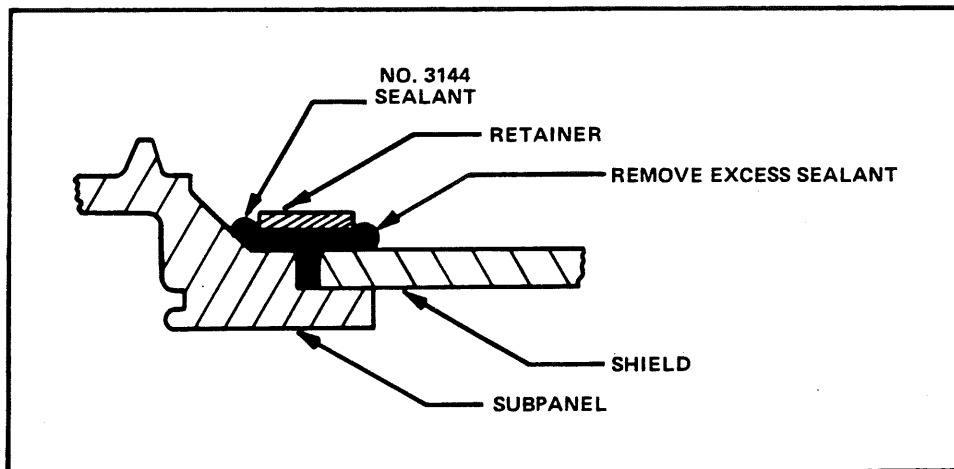


Figure 3. Detail of implosion shield sealing.

STEP 7. Install the implosion shield and its retainer on the Subpanel (see Figures 1 and 3)

A. SHIELD, IMPLOSION

- (1) 1502 TPN 337-2206-00, MPL Item 2-94.
- (2) 1503 TPN 337-2206-00, MPL Item 2-91.

B. RETAINER

- (1) 1502 TPN 343-0610-00, MPL Item 2-93.
- (2) 1503 TPN 343-0610-00, MPL Item 2-90.

C. Procedure.

- (1) Clean the retainer and the implosion shield mounting area of the Subpanel with acetone.
- (2) Remove the protective paper from the implosion shield.
- (3) Position the shield on the Subpanel and form a continuous bead of No. 3144 sealant, approximately .090 inch in diameter, around the shield/Subpanel interface.
- (4) Position the retainer over the bead of sealant and press into place.

NOTE

- (1) Pressing the retainer should cause some of the sealant to appear outside the retainer area, see Figure 3. Failure of the sealant to appear at any point around the retainer is an indication of inadequate sealing.
- (2) When performing this step, assure that the shield makes flush contact with the subpanel, see Figure 3.
- (5) After a curing time of approximately 4 hours, use a small wooden dowel, such as a Q-tip handle, and remove the excess sealant that is visible between the shield and retainer.

1502/1503 SEALING

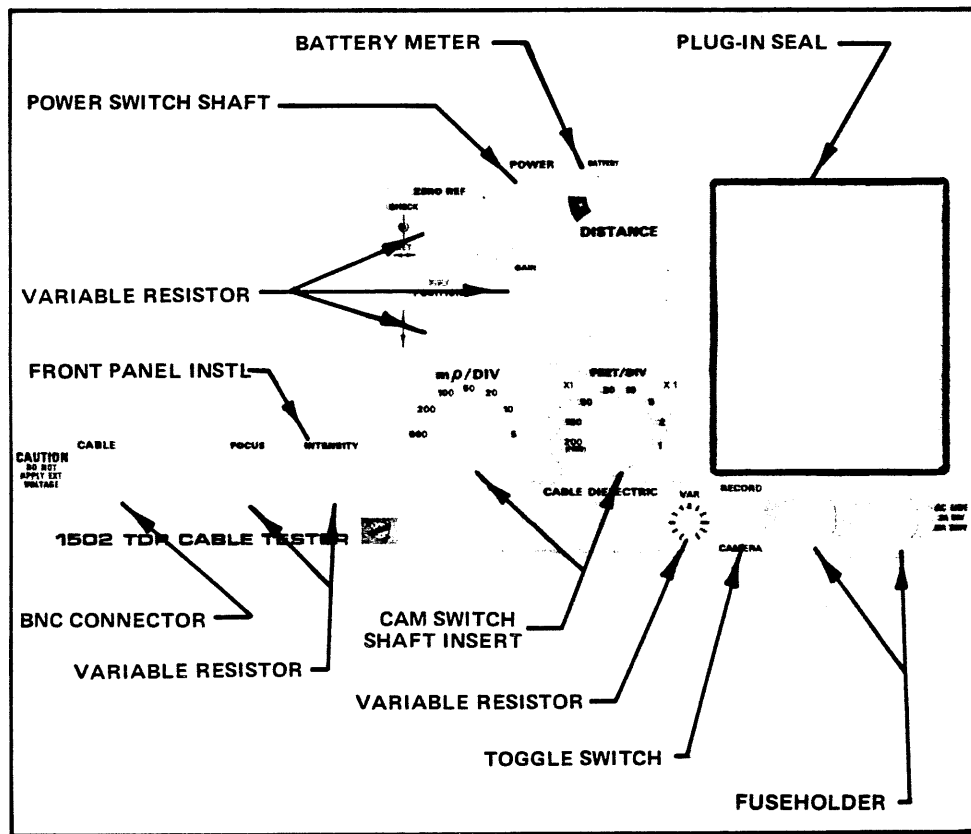


Figure 4. Front Panel, identification of parts for assembly steps 8 through 26.

STEP 8. Preparation of Front Panel for assembly (see Figure 4)

A. FRONT PANEL

- (1) 1502 TPN 333-1991-00, MPL Item 2-47.
- (2) 1503 TPN 333-2003-00, MPL Item 2-49.
- (3) 1503 Option 5, TPN 333-2123-00, MPL Item 2-49.

B. Procedure.

- (1) Clean mating surface of front panel with acetone.
- (2) Coat mating surface of panel with No. 1204 primer. Allow 2 hour curing time.

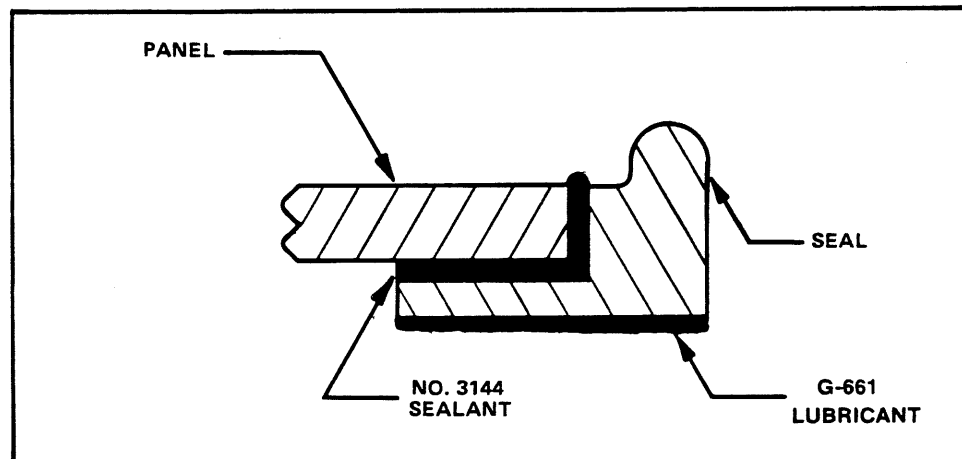


Figure 5. Detail of Plug-In Compartment seal.

STEP 9. Bonding of Plug-in Compartment seal to Front Panel (see Figure 5)**A. SEAL, PLUG-IN**

- (1) 1502 TPN 348-0421-00, MPL Item 2-48.
- (2) 1503 TPN 348-0421-00, MPL Item 2-50.

B. Procedure.

- (1) Clean mating surfaces of seal with acetone.
- (2) Apply No. 3144 sealant to mating surface of seal.
- (3) Position seal on rear side of Front Panel.
- (4) Clamp Seal in place.
- (5) Allow 2 hour curing time. Remove clamp, inspect seal bond, and remove any excess sealant. Allow an additional 22 hour curing time.

NOTE

Be sure seal is bonded securely to edge of panel as well as rear surface of panel.

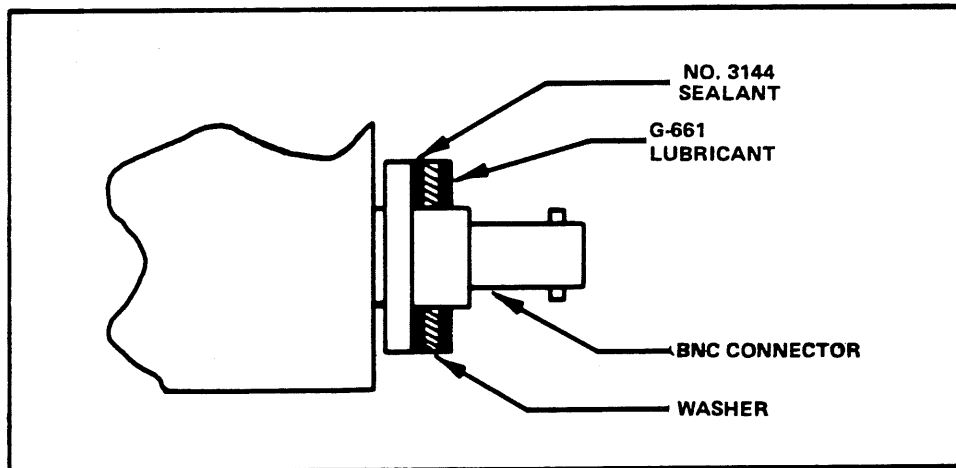


Figure. 6. Detail of BNC Connector and Washer.

STEP 10. Bonding of washer to BNC type connector that is located on the Main Circuit Board Assembly (see Figure 6)**A. CONNECTOR, RECEPTACLE**

- (1) 1502 TPN 131-1097-00, MPL Item 2-125.
- (2) 1503 TPN 131-1691-00, MPL Item 2-170.

B. WASHER, FLAT SPONGE

- (1) 1502 TPN 210-1251-00, MPL Item 2-111.
- (2) 1503 TPN 210-1251-00, MPL Item 2-94.

C. Procedure.

- (1) Clean mating surfaces of BNC Connector and Washer with acetone. Allow to dry.
- (2) Apply No. 1204 Primer to mating surface of BNC connector. Allow 2 hour curing time.
- (3) Coat Mating surface of washer with No. 3144 sealant.
- (4) Assemble washer on BNC connector.

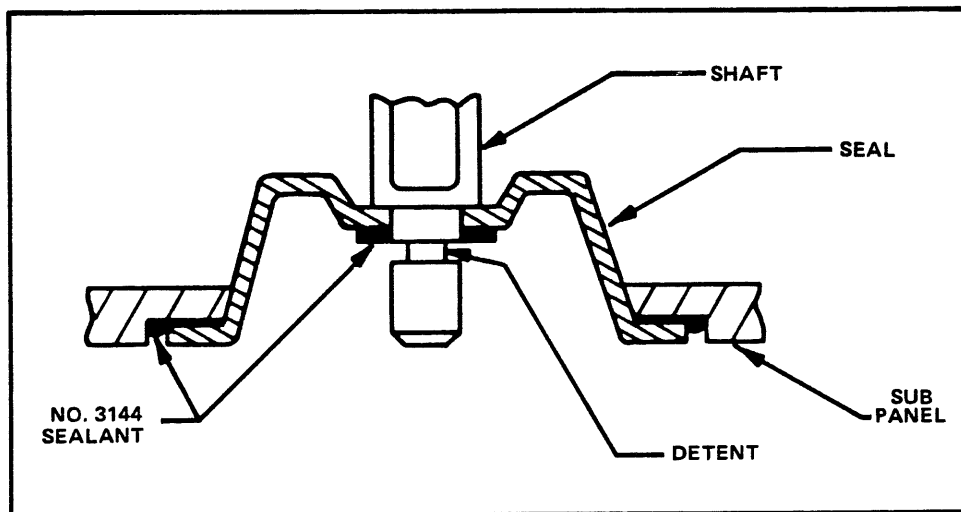


Figure 7. Detail of Pushbuttons and their Shafts.

STEP 11. Install pushbuttons and their shaft assemblies (see Figure 7)

A. PUSHBUTTONS

- (1) 1502 TPN 366-1620-11, MPL Item 2-8;
TPN 336-1620-10, MPL Item 2-9;
TPN 336-1620-08, MPL Item 2-10;
TPN 366-1620-02, MPL Item 2-11.
- (2) 1503 TPN 366-1620-11, MPL Item 2-7;
TPN 366-1620-09, MPL Item 2-8;
TPN 366-1620-02, MPL Item 2-9;
TPN 366-1620-03, MPL Item 2-10;
TPN 366-1620-04, MPL Item 2-11;
TPN 366-1620-05, MPL Item 2-12;
TPN 366-1620-06, MPL Item 2-13;
TPN 366-1620-07, MPL Item 2-14.

B. EXTENSION SHAFT

- (1) 1502 TPN 384-1101-00, MPL 2-1114, (4 ea.).
- (2) 1503 TPN 384-1101-00, MPL 2-97 (8 ea.).

C. Procedure.

- (1) Clean the mating surfaces of each shaft with isopropyl alcohol.
- (2) Insert the shafts into the pushbutton seals. See Figure 7.
- (3) Apply bead of No. 3144 sealant to each shaft/seal interface.
- (4) Install pushbuttons in their respective locations.

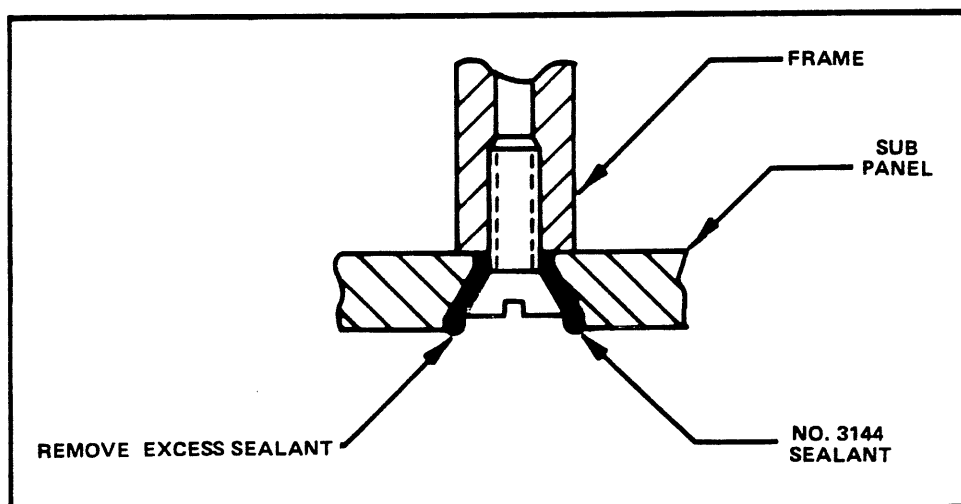


Figure 8. Detail of Subpanel screwhole sealing.

STEP 12. Attach Subpanel to the three Frame Sections (see Figure 8)**A. FRAME SECTIONS**

- (1) 1502: Left, TPN 426-1184-00, MPL Item 3-116; Center, TPN 426-1185-00, MPL Item 3-117; Right, TPN 426-1186-00, MPL Item 3-118.
- (2) 1503: Left, TPN 426-1184-00, MPL Item 3-115; Center, TPN 426-1185-00, MPL Item 3-116; Right, TPN 426-1186-00, MPL Item 3-117.

B. SCREWS

- (1) TPN 213-0718-00, MPL Item 3-27 (1 ea.).
- (2) TPN 213-0227-00, MPL Item 3-28 (5 ea.).

C. Procedure.

- (1) Fill the countersunk screw holes on the Subpanel with No. 3144 sealant. See Figure 8.
- (2) Attach the Subpanel to the three Frame sections. The decorative screw is installed in the upper-left corner of the subpanel.

STEP 13. Install Front Panel on Subpanel**A. Procedure.**

- (1) Apply G-661 lubricant to the rear surface of the Plug-in Seal, 348-0421-00, and to the two Fuse Holder Seals, 210-1246-00.
- (2) Place Front Panel on the Subpanel.

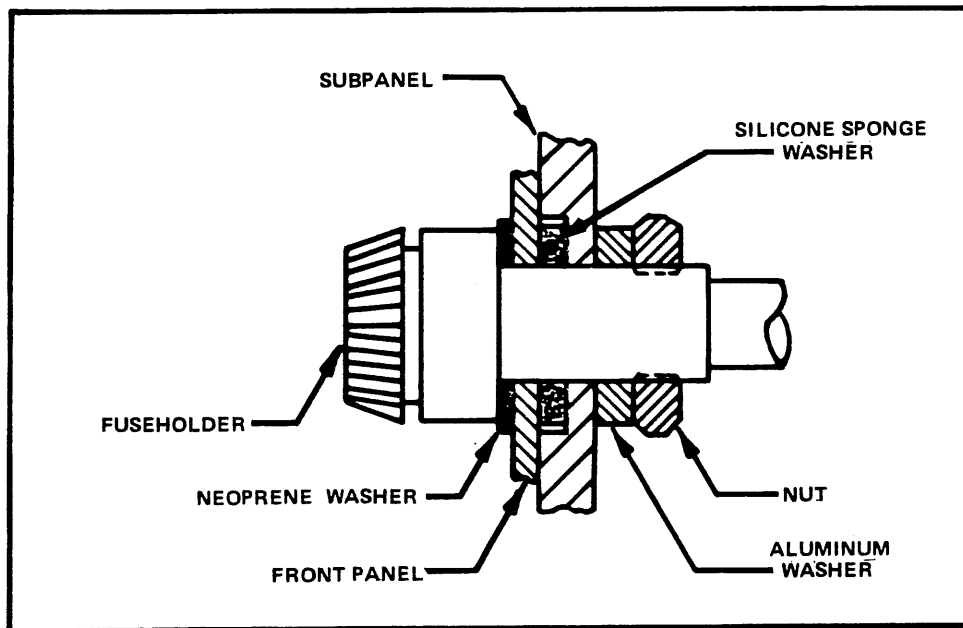


Figure 9. Detail of Fuseholder installation.

STEP 14. Install Fuseholders in Front Panel (see Figure 9)**A. FUSEHOLDERS**

- (1) 1502 TPN 352-0362-00, MPL Item 2-24.
- (2) 1503 TPN 352-0362-00, MPL Item 2-26.

B. Procedure.

- (1) Install the two Fuseholders as shown in Figure 9.
- (2) Tighten the retaining nut on the fuseholder until the Front Panel is pulled flush with the Subpanel.

CAUTION

Do not overtighten.

1502/1503 SEALING

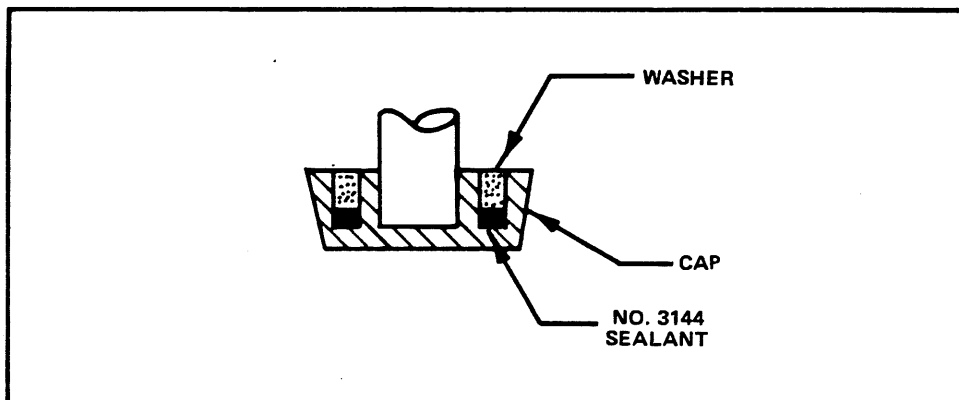


Figure 10. Detail of Fuseholder Caps.

STEP 15. Install Fuseholder Caps (see Figure 10)

A. WASHERS

- (1) 1502 TPN 210-1245-00, MPL Item 2-25.
- (2) 1503 TPN 210-1245-00, MPL Item 2-27.

B. Procedure.

- (1) Clean washers and Fuseholder Caps with isopropyl alcohol.
- (2) Apply No. 3144 sealant to one surface of a washer and place the washer in one of the Fuseholder Caps. Repeat for the other washer and cap.
- (3) Insert the caps in the Fuseholders and press to ensure the washers are fully seated.
- (4) Remove the caps, inspect, and remove any excess sealant.
- (5) Apply a film of G-661 lubricant to exposed surface of washer.
- (6) Insert fuse (see Electrical Parts List for correct value) into cap and install cap with fuse in the Fuseholder.

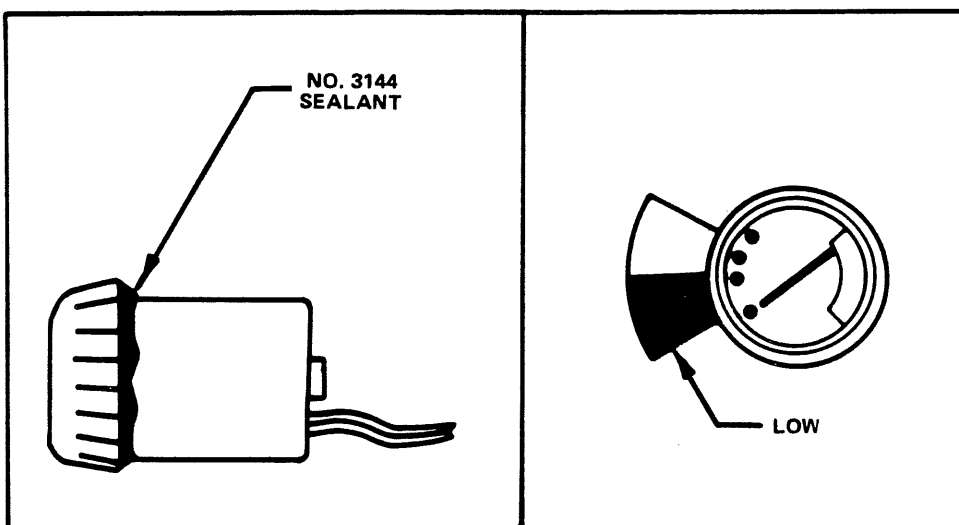


Figure 11. Application of sealant to Battery Meter.

Figure 12. Alignment of Battery Meter.

STEP 16. Install Battery Meter (see Figures 11 and 12)**A. METER**

- (1) 1502 TPN 149-0031-00, MPL Item 2-53.
- (2) 1503 TPN 149-0031-00, MPL Item 2-56.

B. Procedure.

- (1) Apply a thin bead of No. 3144 sealant to the junction of the bezel and meter canister (see Figure 11).
- (2) Install Meter in Front Panel with markings aligned as shown in Figure 12.

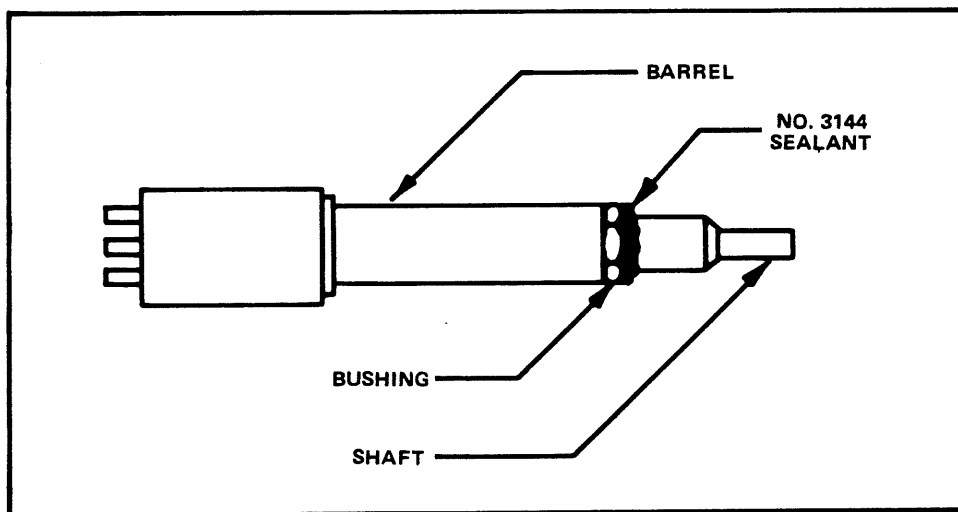


Figure 13. Application of sealant to FOCUS and INTENSITY controls.

STEP 17. Install the FOCUS and INTENSITY controls (see Figure 13).**A. RESISTOR, VARIABLE (2 ea.).**

- (1) 1502 TPN 311-0690-01, MPL Item 2-38 and Item 2-41.
- (2) 1503 TPN 311-0690-01, MPL Item 2-40 and Item 2-43.
- (3) These two variable resistors are used for FOCUS and INTENSITY control and are listed in the Electrical Parts List.

B. Procedure.

- (1) Unscrew the bushing part of the resistor assembly and pack the barrel/shaft interface with G-661 lubricant.
- (2) Screw the bushing into the resistor assembly.
- (3) Form a bead of No. 3144 sealant around the fillet area of the bushing.
- (4) Use the washers and nuts supplied and install these two controls in the Front Panel.

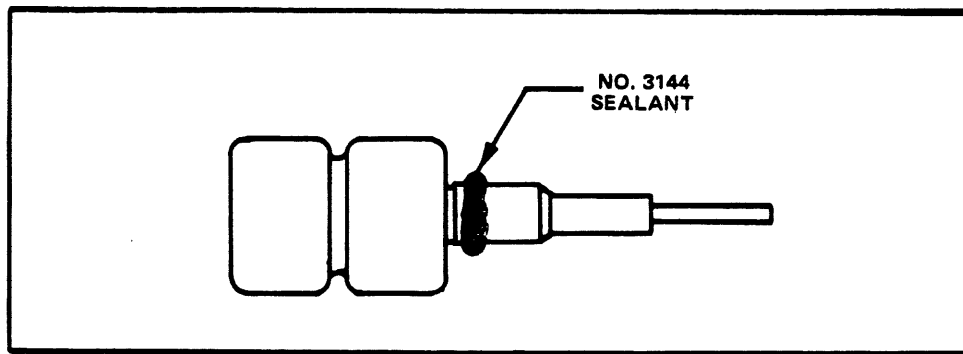


Figure. 14. Application of sealant to FINE control bushing.

STEP 18. Install FINE POSITION control (see Figures 14 and 15).

A. RESISTOR, VARIABLE

- (1) 1502 TPN 311-0678-00, MPL Item 2-30.
- (2) 1503 TPN 311-0678-00, MPL Item 2-32.
- (3) The part number for this variable resistor is listed in the Electrical Parts List.

B. Procedure.

- (1) Form a bead of No. 3144 sealant around the bushing threads as shown in Figure 14.
- (2) Install nut on bushing as shown in Figure 15.
- (3) Form a bead of No. 3144 sealant at the interface of the nut and bushing as shown in Figure 15.
- (4) Use washer and nut supplied and install the control in the Front Panel.

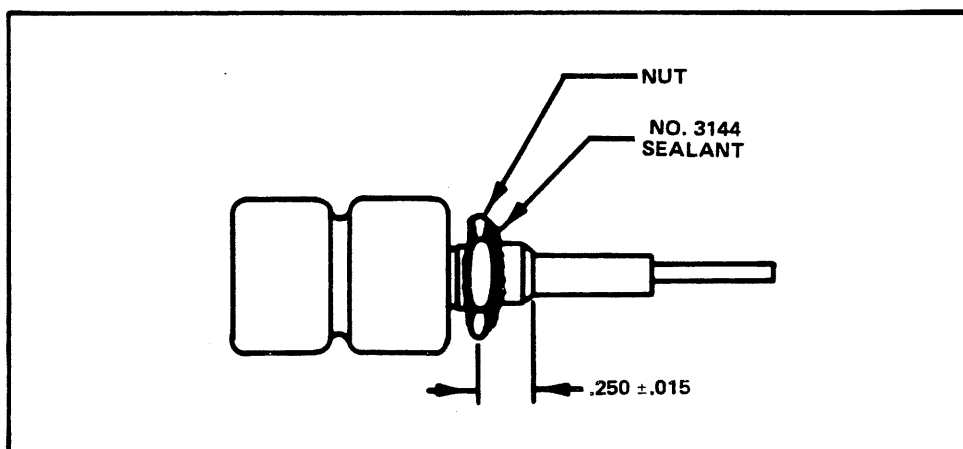


Figure. 15. Application of sealant to FINE control nut.

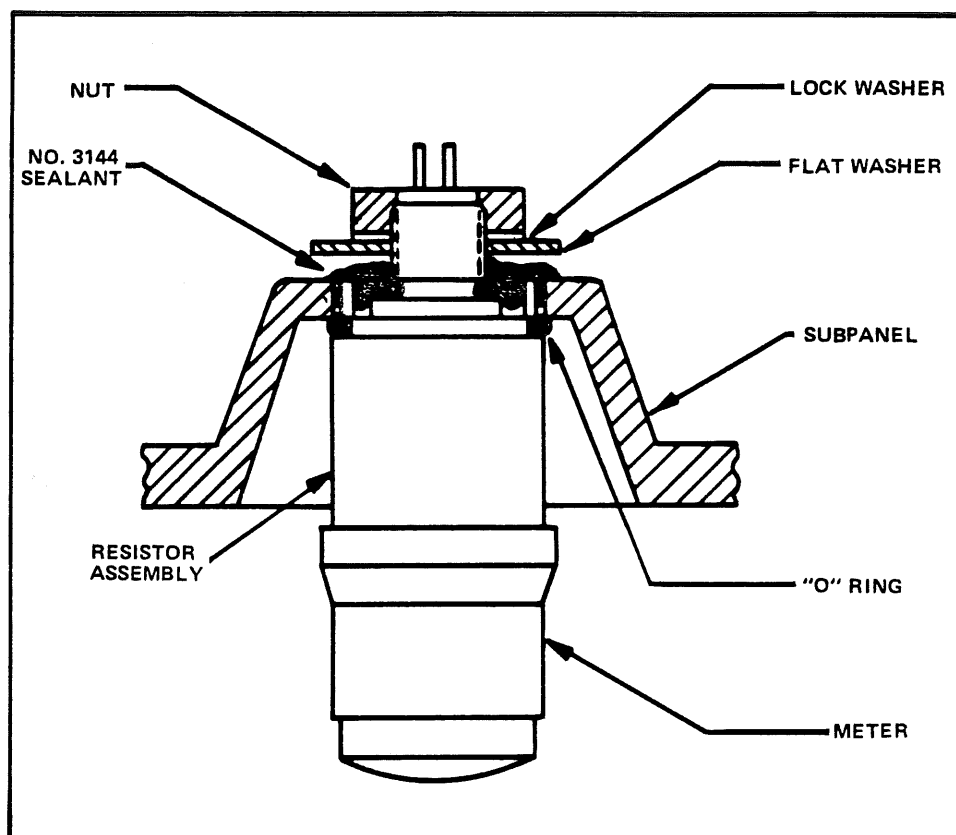


Figure. 16. Installation of Distance Meter.

STEP 19. Install the DISTANCE METER in the Front Panel (see Figure 16).

A. RESISTOR, VARIABLE

- (1) 1502 TPN 311-1755-01, MPL Item 2-44.
- (2) 1503 TPN 311-1755-01, MPL Item 2-46.
- (3) This variable resistor is listed in the Electrical Parts List as circuit number R0271.

B. Procedure.

- (1) Insert the resistor assembly in the Front Panel.
- (2) Form a bead of No. 3144 sealant at the interface of the resistor assembly and the Front Panel. The bead should include the threads and anti-rotation lug.
- (3) Use the flat-washer, lock-washer, and nut to secure the resistor assembly to the Front Panel.

C. Distance Indicator Knob Replacement.

- (1) If it is necessary to attach a knob shell/lens assembly to the DISTANCE indicator, form a bead of No. 3144 adhesive sealant TPN 006-1171-00 at the interface of the DISTANCE indicator and the knob shell.

1502/1503 SEALING

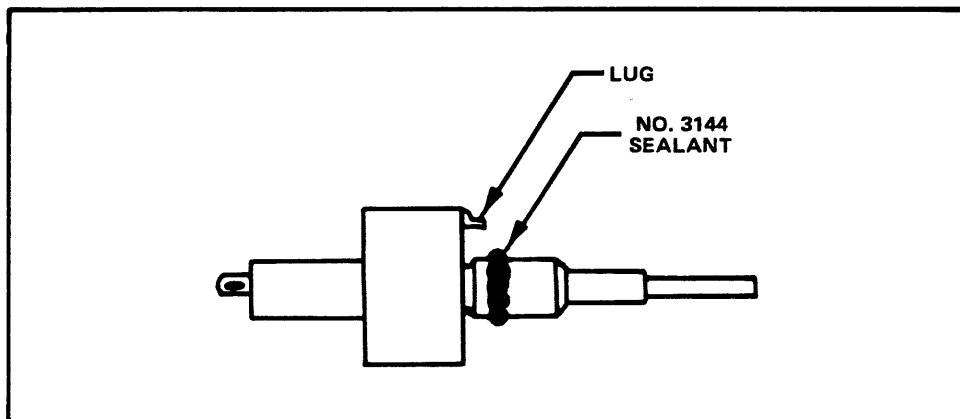


Figure 17. Application of sealant to ZERO REFERENCE control bushing.

STEP 20. Install the ZERO REFERENCE control in the Front Panel (see Figures 17 and 18)

A. RESISTOR, VARIABLE

- (1) 1502 TPN 311-1806-00, MPL Item 2-27.
- (2) 1503 TPN 311-1806-00, MPL Item 2-49.
- (3) This variable resistor is listed in the Electrical Parts List.

B. Procedure.

- (1) Form a bead of No. 3144 sealant around the threads of the bushing as shown in Figure 17.
- (2) Flatten or remove the anti-rotation lug on the resistor housing.
- (3) Install nut as shown in Figure 18.
- (4) Form a bead of No. 3144 sealant around the nut/bushing interface.
- (5) Use attaching hardware and install resistor in Front Panel.

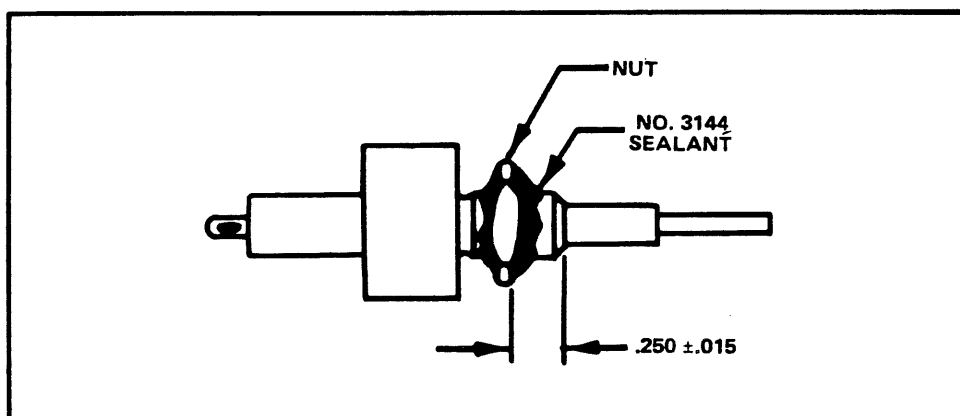


Figure 18. Application of sealant to ZERO REFERENCE control nut.

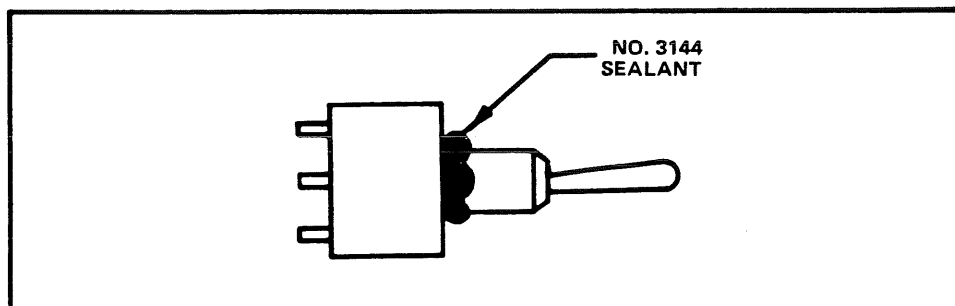


Figure 19. Application of sealant to RECORD toggle-switch bushing.

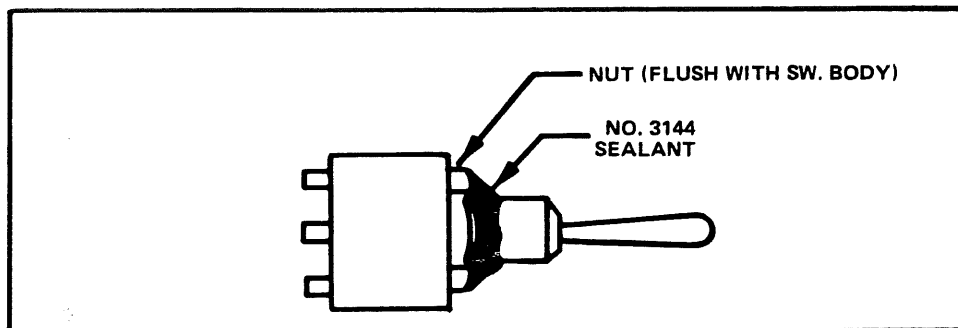


Figure 20. Application of sealant to RECORD toggle-switch nut.

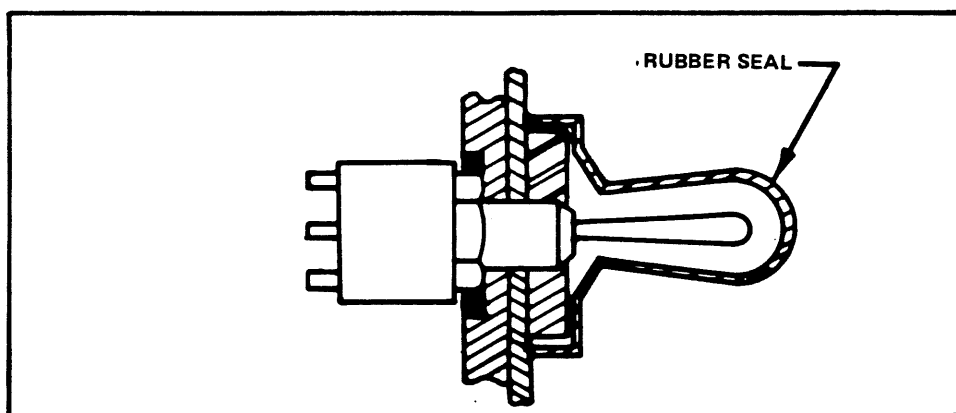


Figure 21. Installation of rubber Cap-Seal on RECORD toggle-switch.

STEP 21. Install the Record control (see Figures 19, 20, and 21)

A. SWITCH, TOGGLE

- (1) 1502 TPN 260-1727-00, MPL Item 2-20.
- (2) 1503 TPN 260-1727-00, MPL Item 2-23.

B. CAP, TOGGLE SWITCH, SEAL

- (1) 1502 TPN 200-1744-00, MPL Item 2-21.
- (2) 1503 TPN 200-1744-00, MPL Item 2-24.

C. Procedure.

- (1) Form a bead of No. 3144 sealant around the bushing/switch body interface as shown in Figure 19.
- (2) Install nut that was supplied with the switch, as shown in Figure 20.
- (3) Form a bead of No. 3144 sealant around the bushing/nut interface as shown in Figure 20.
- (4) Use attaching hardware and install the toggle switch in the Front Panel.
- (5) Install the cap-seal on the toggle switch (see Figure 21).

1502/1503 SEALING

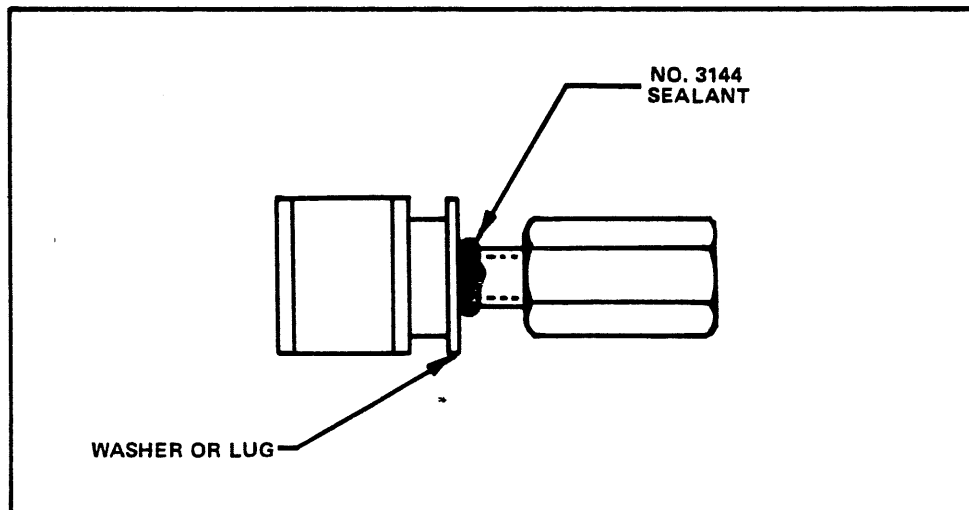


Figure 22. Application of sealant to the GAIN or the 0-dB SET control bushing.

STEP 22. Install the VAR control and either the GAIN (1502) or 0-dB SET (1503) control (see Figures 22 and 23).

A. RESISTOR, VARIABLE

- (1) 1502 TPN 311-0091-00, MPL Item 2-16 (VAR control); 1502 TPN 311-0160-00, MPL Item 2-33 (GAIN control).
- (2) 1503 TPN 311-0091-00, MPL Item 2-19 (VAR control); 1503 TPN 311-0160-00, MPL Item 2-35 (0-dB SET control).

B. Procedure.

- (1) Partially unscrew Hex spacer nut and form a bead of No. 3144 sealant around the bushing threads as shown in Figure 22.
- (2) Re-tighten the Hex spacer nut.
- (3) Pack the Shaft/Threaded Bushing interface with G-661 lubricant as shown in Figure 23.
- (4) Form a bead of No. 3144 sealant on the end of the Hex spacer nut as shown in Figure 23.
- (5) Install the resistor in the Front Panel.

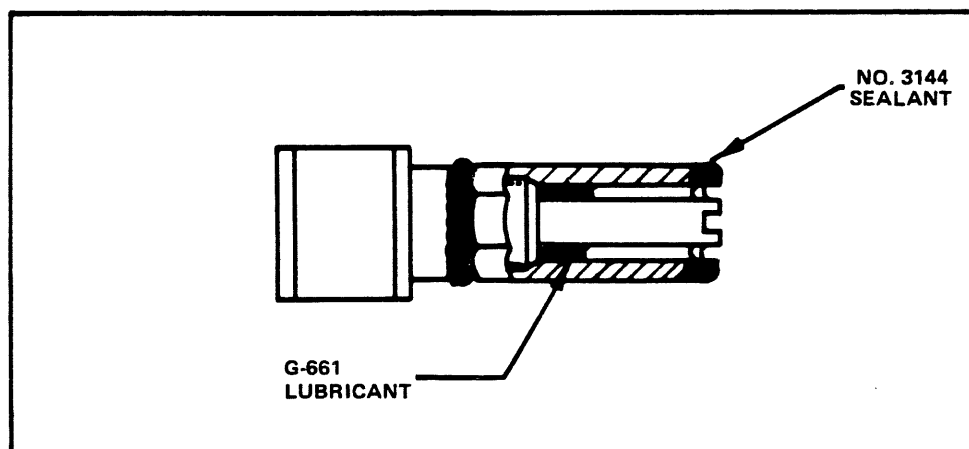


Figure 23. Detail showing lubrication and sealing for the variable resistor.

STEP 23. Partial installation procedure for Main Circuit Board Assembly**A. MAIN CIRCUIT BOARD ASSY.**

- (1) 1502 TPN 672-0487-00. Not shown in MPL as separate item.
- (2) 1503 TPN 672-3866-00. Not shown in MPL as separate item.

B. Procedure.

- (1) Lubricate washer on BNC connector with G-661 lubricant.
- (2) Insert Main Circuit Board Assembly into instrument chassis engaging pushbutton shafts with their respective switches. (Take care not to damage pushbutton seals.)
- (3) Do not install Main Circuit Board holding screws at this point.

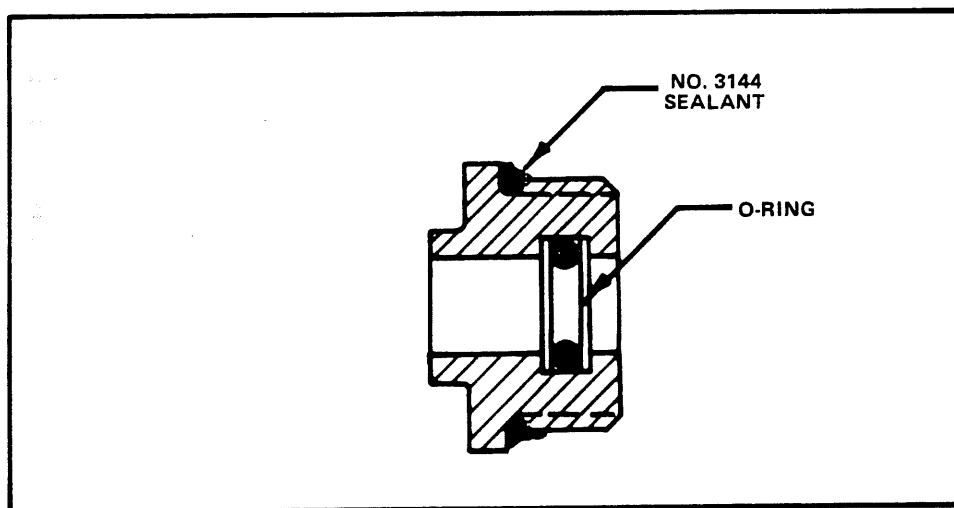


Figure 24. Lubrication of the O-rings and sealing for the cam-switches.

STEP 24. Install cam switch inserts (see Figure 24)**A. INSERT, SHAFT SEAL (2 ea.)**

- (1) 1502 TPN 377-0451-00, MPL Item 2-155.
- (2) 1503 TPN 377-0451-00, MPL Item 2-100.

B. PACKING (O-ring, 2 ea.)

- (1) 1502 TPN 354-0555-00, MPL Item 2-116.
- (2) 1503 TPN 354-0555-00, MPL Item 2-101.

C. Procedure.

- (1) Apply G-661 lubricant to O-ring and install as shown in Figure 24.
- (2) Form a bead of No. 3144 sealant around the fillet area of the insert.
- (3) Install the two inserts in the Front Panel. Tighten until snug, then back off 2° to 3°. Remove any excess sealant.

STEP 25. Finish installation procedure for Main Circuit Board Assembly**A. Procedure.**

- (1) Install washer and nut on BNC connector. Tighten nut to a torque reading of 20 ± 3 inch-pounds.
- (2) Install Main Circuit Board holding screws.

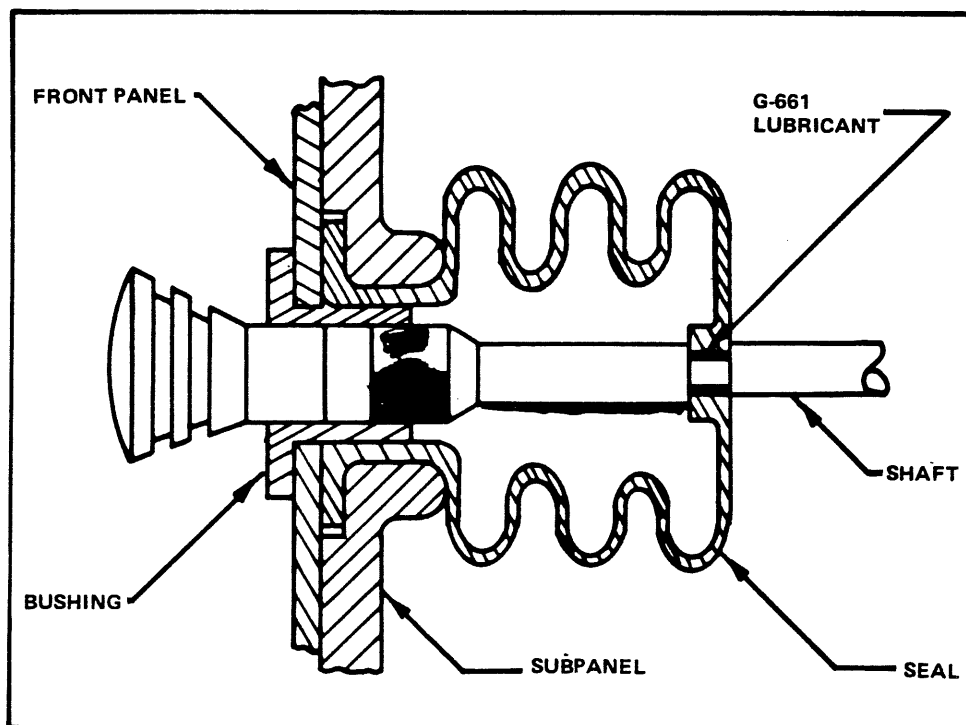


Figure. 25. Installation of the POWER SWITCH.

STEP 26. Install Power Switch Shaft into Front Panel (see Figure 25)

A. EXTENSION-SHAFT

- (1) 1502 TPN 384-1159-01, MPL Item 2-14.
- (2) 1503 TPN 384-1159-01, MPL Item 2-17.

B. BUSHING

- (1) 1502 TPN 358-0216-00, MPL Item 2-15.
- (2) 1503 TPN 358-0216-00, MPL Item 2-18.

C. Procedure.

- (1) Insert the bushing into the Power Switch Seal that was previously installed in the Front Panel.
- (2) Apply G-661 lubricant to the detent area of the Power Switch Shaft.
- (3) Install as shown in Figure 25.

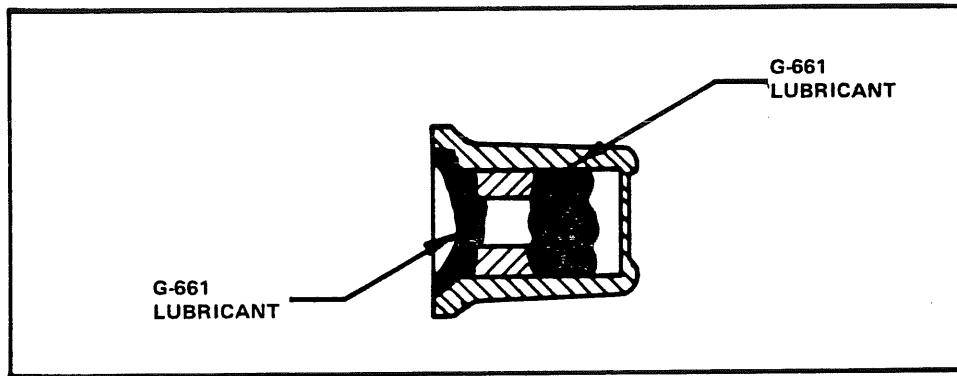


Figure 26. Lubrication of POSITION control knob.

**STEP 27. Installation of the POSITION knob and the FINE POSITION knob
(see Figures 26 and 27)**

A. KNOB, POSITION

(1) 1502/1503 TPN 366-1334-00, MPL Item 2-4.

B. KNOB, FINE POSITION

(1) 1502/1503 TPN 366-1319-00, MPL Item 2-2.

C. Procedure.

(1) Apply G-661 lubricant to the POSITION knob as shown in Figure 26.

(2) Assemble the POSITION knob and the FINE POSITION knob on the control shafts as shown in Figure 27.

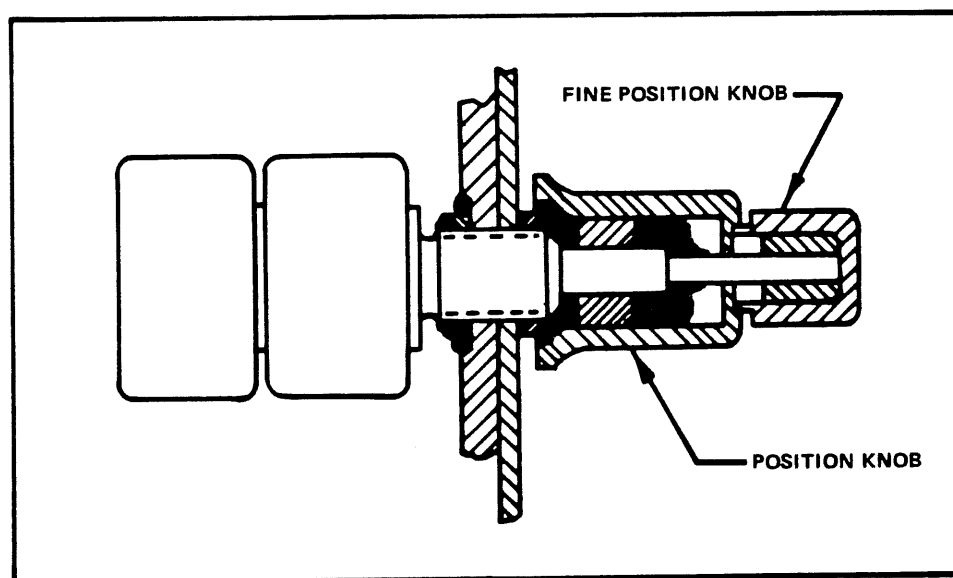


Figure 27. Installation of knob on shaft.

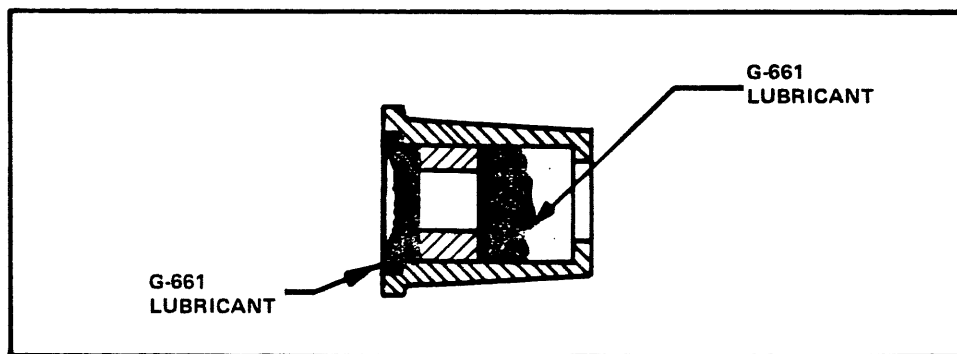


Figure. 28. Lubrication of ZERO REFERENCE knob.

STEP 28. Installation of the ZERO REFERENCE knob and the zero reference CHECK pushbutton (see Figures 28 and 29).

A. KNOB, ZERO REFERENCE

- (1) 1502/1503 TPN 366-1334-00, MPL Item 2-4 (same as FINE POSITION knob).

B. PUSHBUTTON

- (1) TPN 366-1059-00, MPL Item 2-3.

C. Procedure.

- (1) Apply G-661 lubricant to the ZERO REFERENCE knob as shown in Figure 28.
- (2) Assemble the knob and pushbutton on the control shafts as shown in Figure 29.
- (3) Actuate the pushbutton several times. Remove any excess lubricant.

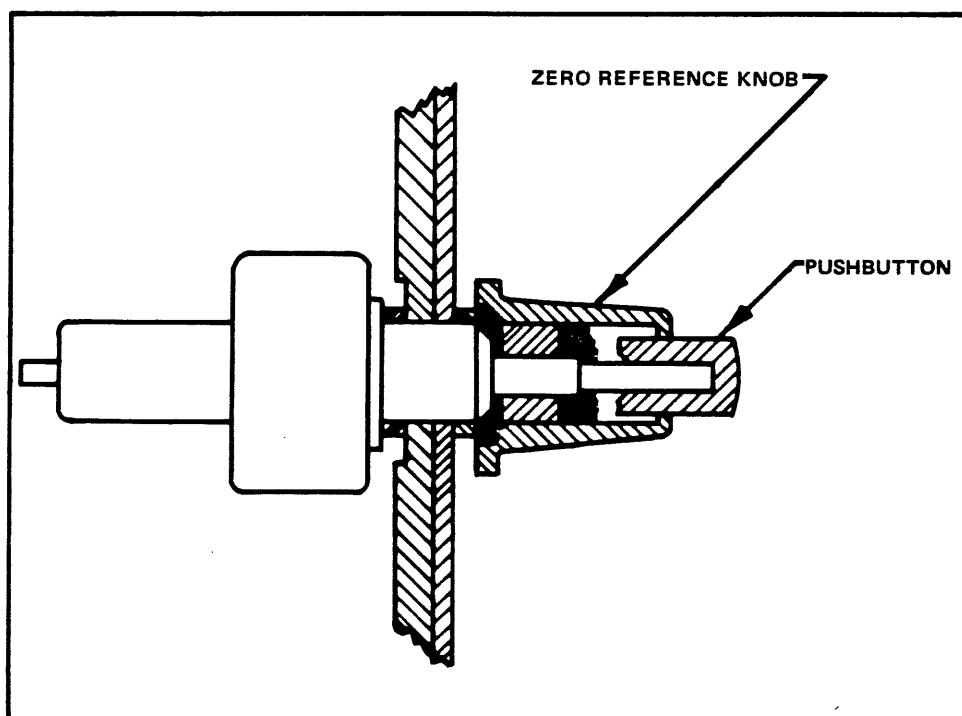


Figure. 29. Installation of knob on ZERO REFERENCE control.

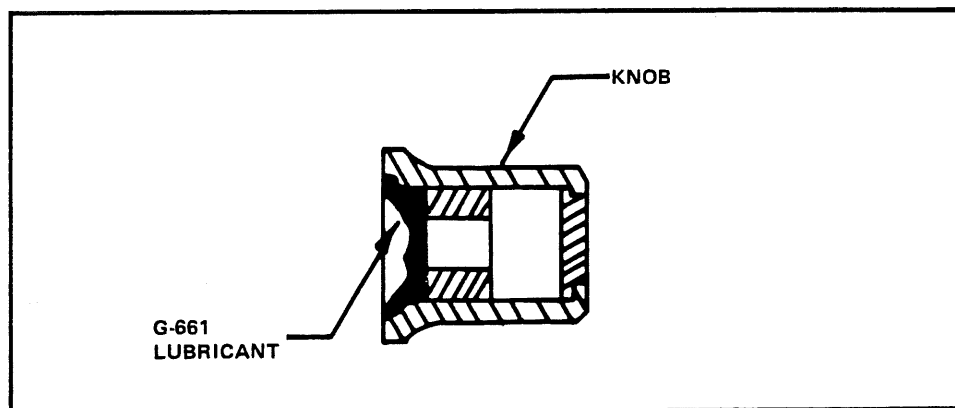


Figure 30. Lubrication of FOCUS and INTENSITY control knobs.

STEP 29. Install the FOCUS and INTENSITY knobs (see Figure 30)

A. KNOB, 2 ea.

(1) TPN 366-0494-00, MPL Item 2-1.

B. Procedure.

(1) Apply G-661 lubricant to both knobs as shown in Figure 30.

(2) Install the knobs on the shafts of the FOCUS and INTENSITY controls.

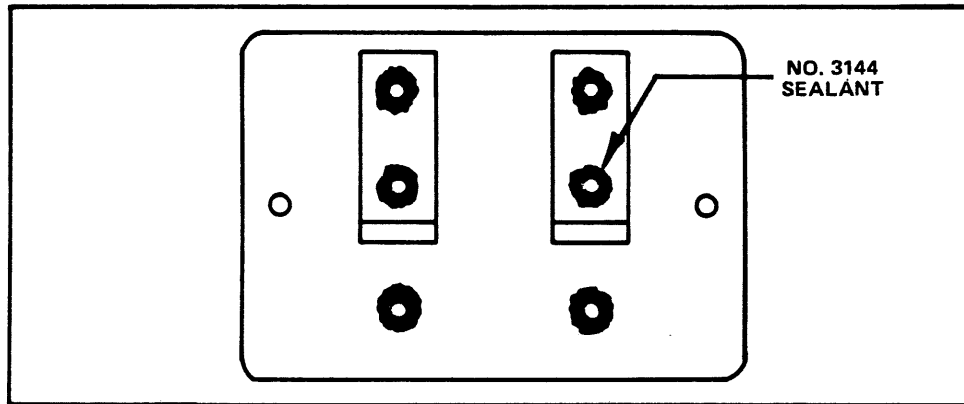


Figure 31. Sealing of Battery Pack screwholes.

STEP 30. Watertight sealing procedures for the Battery Pack (see Figures 31 and 32)

A. BATTERY PACK

- (1) 1502 TPN 016-0595-00, MPL Item 2-37.
- (2) 1503 TPN 016-0595-00, MPL Item 2-30.

B. PANEL

- (1) TPN 333-1990-00, not shown in MPL.

C. HEAT SINKS

- (1) Upper, TPN 214-2343-00, not shown in MPL.
- (2) Lower, TPN 214-2344-00, not shown in MPL.

D. GASKET

- (1) TPN 348-0432-00, not shown in MPL.

E. Procedure.

- (1) Clean Panel with isopropyl alcohol.
- (2) Form a bead of No. 3144 sealant in and around each of the six screw holes in the Panel. See Figure 31.
- (3) Apply a film of Dow Corning No. 4. Compound to the mating surfaces of the heat sinks and the Panel and join as shown in Figure 32.
- (4) Clean the gasket with acetone.
- (5) Apply a bead of G-661 silicone grease on and around the gasket and attach it to the Panel as shown in Figure 32.

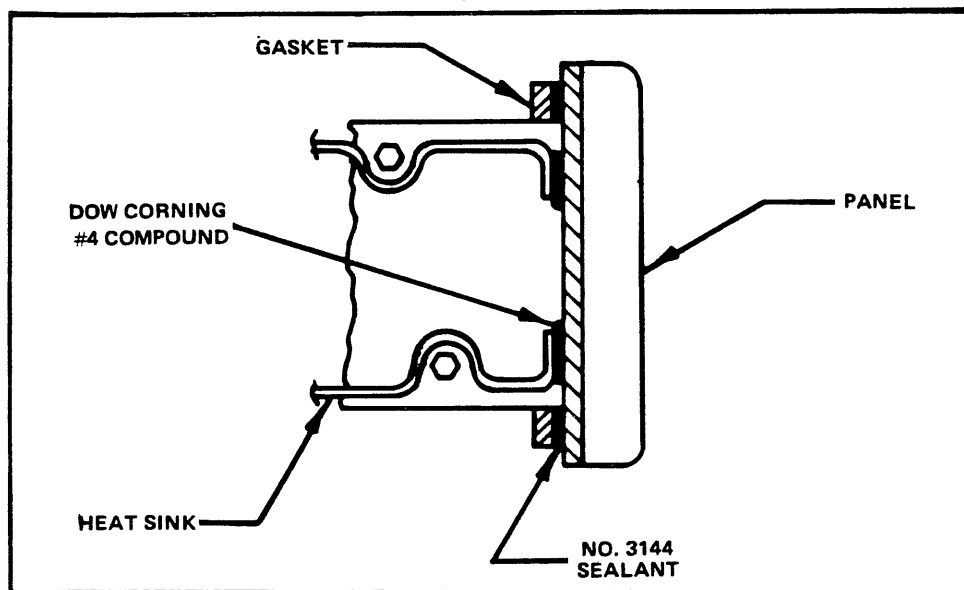


Figure 32. Application of dielectric type compound.

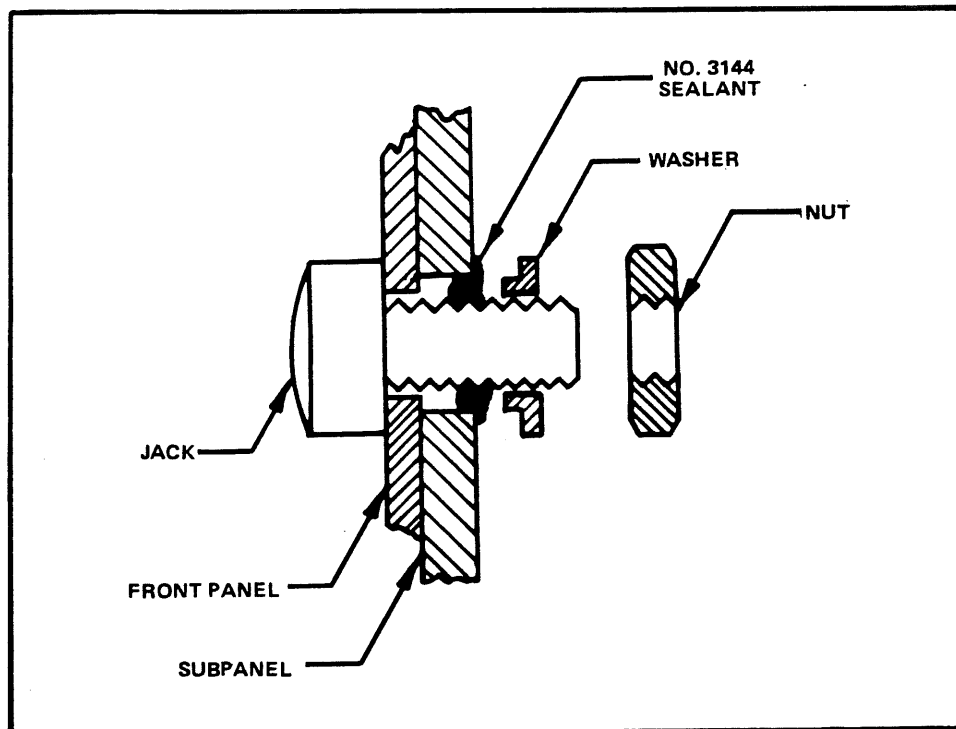


Figure 33. Detail of front panel jacks.

STEP 31. Watertight sealing procedures for the Front Panel jacks of the X-Y Output Module, 016-0606-00, (see Figure 33)

A. FRONT PANEL

- (1) TPN 333-2021-00, MPL Item 3-13.

B. SUB PANEL

- (1) TPN 386-3229-00, MPL Item 3-14.

C. JACK, TIP: BLACK

- (1) TPN 131-1726-00, MPL Item 3-5.

D. JACK, TIP: RED

- (1) TPN 131-1726-01, MPL Item 3-6.

E. Procedure.

- (1) Clean the mating surface of the Subpanel with isopropyl alcohol.
- (2) Align the Front Panel over the Subpanel and insert one of the jacks in its respective position.
- (3) Form a bead of No. 3144 Sealant around the Jack/Subpanel interface as shown in Figure 33.
- (4) Use the supplied washer and nut to secure the jack in position.
- (5) Repeat Steps (3) and (4) for the remaining five jacks.

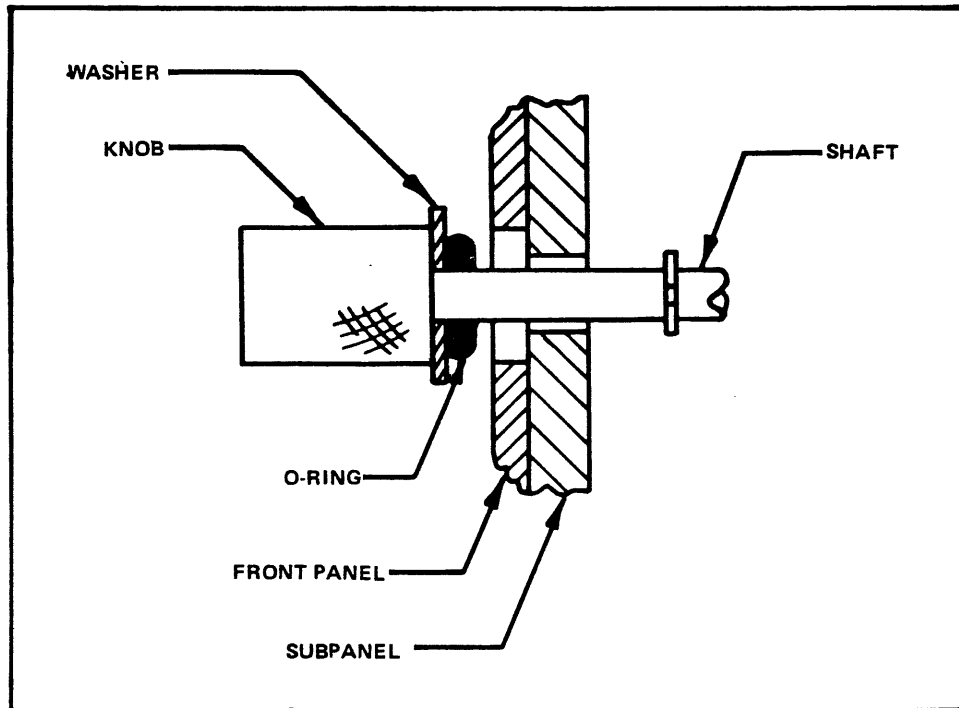


Figure. 34. Detail of X-Y Module thumbscrews.

STEP 32. Preparation of the Thumbscrews that are used for securing the X-Y Output Module (see Figure 34)

A. PACKING (O-ring)

- (1) 1502 TPN 354-0538-00, MPL Item 3-11.
- (2) 1503 TPN 354-0538-00, MPL Item 3-10.

B. PIN, (shaft)

- (1) TPN 381-1349-00, MPL Item 3-8.

C. KNOB

- (1) TPN 366-1368-00, MPL Item 3-7.

D. Procedure.

- (1) Insert one of the Pins (shaft) through the Front Panel and Subpanel.
- (2) Apply G-661 lubricant to the O-ring.
- (3) Position the O-ring on the shaft as shown in Figure 34.
- (4) Place the knob on the shaft and tighten the setscrew.
- (5) Repeat procedure for the second thumbscrew.

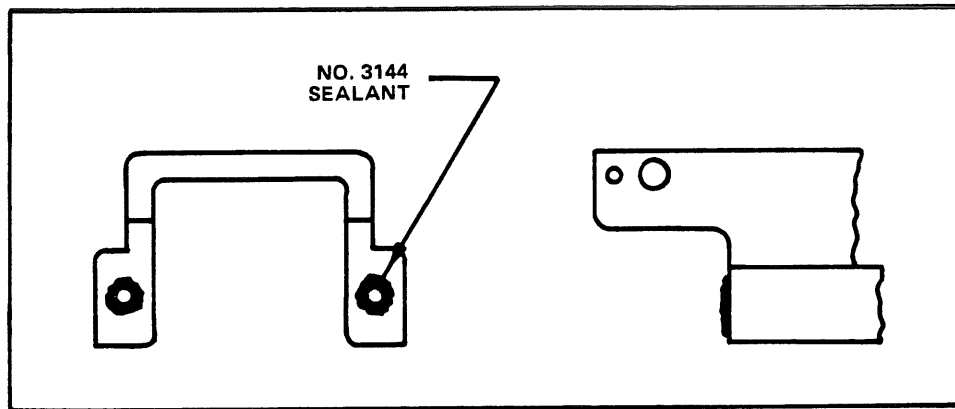


Figure 35. Sealing of latch assembly screwholes.

STEP 33. Attach Latch Assemblies (2 ea.) to the Front Cover (see Figure 35)

A. COVER, FRONT

(1) TPN 200-1759-00, MPL Item 1-29.

B. LATCH ASSY.

(1) TPN 105-0684-00, MPL Item 1-0.

C. Procedure.

- (1) Clean mating surfaces of Front Cover and Latch Assembly with isopropyl alcohol.
- (2) Apply No. 3144 sealant to the two screw-holes in each Latch Assembly as shown in Figure 35.
- (3) Attach the two Latch Assemblies to the Front Cover.

NOTE

For cabinet sealing information see Tek Dwg 437-0188-00.

REMINDER: Don't forget to lubricate surface of rubber seals around edge of subpanel with G-661 lubricant before installing instrument in cabinet and attaching front cover.

MANUAL CHANGE INFORMATION

At Tektronix, we continually strive to keep up with latest electronic developments by adding circuit and component improvements to our instruments as soon as they are developed and tested.

Sometimes, due to printing and shipping requirements, we can't get these changes immediately into printed manuals. Hence, your manual may contain new change information on following pages.

A single change may affect several sections. Since the change information sheets are carried in the manual until all changes are permanently entered, some duplication may occur. If no such change pages appear following this page, your manual is correct as printed.

TEKTRONIX MANUALS CHANGE INFORMATION

Date: Feb 8, 1984

Product: 1502/1503 Service/1500 Sealing Manual Procedures	Product Group <u>22</u>
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Manual Part Number: 070-1792-01 / 070-1865-01 / 070-2178-00

Change Reference: CNA 0178

DESCRIPTION

Change:

All references to RTV sealant 3144 should be RTV 3145.

Part number 006-2302-00 is valid now for RTV 3145, clear silicone sealant (remove 3144 entirely).

