

TECHNICAL BULLETIN TB-217 SOLDERING PROCEDURE FOR SERIES 90 / 100 SWITCH / INDICATOR ASSEMBLY

TB-217

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PURPOSE:

THE PURPOSE OF THIS TECHNICAL BULLETIN IS TO PROVIDE NECESSARY INSTRUCTIONS TO THE CUSTOMER FOR PROPER SOLDERING OF SERIES 90 / 100 SWITCH / INDICATOR ASSEMBLY.

PREPARATION

A. REQUIRED MATERIALS:

1. DOUBLE TURRETS SWITCH / INDICATOR ASSEMBLY.
2. WIRE SIZE – AMERICAN WIRE GAUGE (AWG) #22.
3. FLUX.
4. SOLDER.
5. SOLDERING IRON TIP.
6. SOLDER HOT POT.

B. SWITCH / INDICATOR PREPARATION

1. PRIOR TO THE SOLDERING, BE SURE TO CLEAN THE TERMINATION PINS AND SURROUNDING AREA WITH NON-ABRASIVE CLEANING BRUSH AND ALCOHOL.
2. IT'S RECOMMENDED THAT THE SWITCH TO BE HELD ON THE Z-AXIS (OR VERTICALLY) OR X-AXIS (HORIZONTALLY).

C. AMERICAN WIRE GAUGE #22 PREPARATION

1. STRIP THE END OF THE 22 GAUGE WIRE TO APPROXIMATELY 0.25" [6.35MM] IN LENGTH. SEE FIGURE 1.

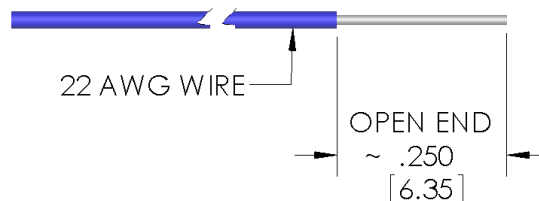
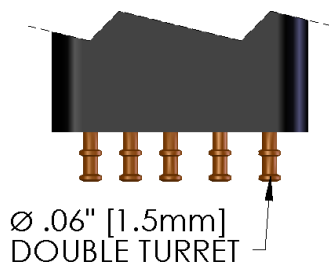


FIGURE 1

2. APPLY A DROP OF FLUX ONTO THE 'OPEN END' OF THE WIRE FROM ITEM C-1.
3. DIP THE 'OPEN END' OF THE WIRE ONTO SOLDERING HOT POT (QUICK DIP AND REMOVE IMMEDIATELY) , OR APPLY SOLDER AROUND THE 'OPEN END'SURFACE OF THE WIRE .
4. LOOP THE 'OPEN END' OF THE WIRE INTO A CIRCULAR SHAPE WITH A DIAMETER SLIGHTLY LARGER THAN THE DIAMETER OF THE SOLDER PIN.



SOLDER TERMINATION

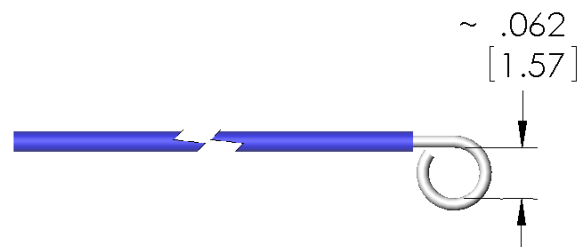


FIGURE 2

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- D. PREPARATION FOR SOLDERING IRON TIP TEMPERATURE AND SOLDERING DURATION.
1. SET SOLDERING IRON TIP TEMPERATURE TO BE APPROXIMATELY 700°F (MAX).
 2. TERMINAL CONTACT S TIME: 5 SECONDS MAX.

HAND SOLDERING PROCEDURE

1. HOLD THE CIRCULAR WIRE END FROM ITEM C-4 AROUND THE SOLDER PIN THAT NEEDS TO BE SOLDERED. SEE FIGURE 3 AND DETAIL A.

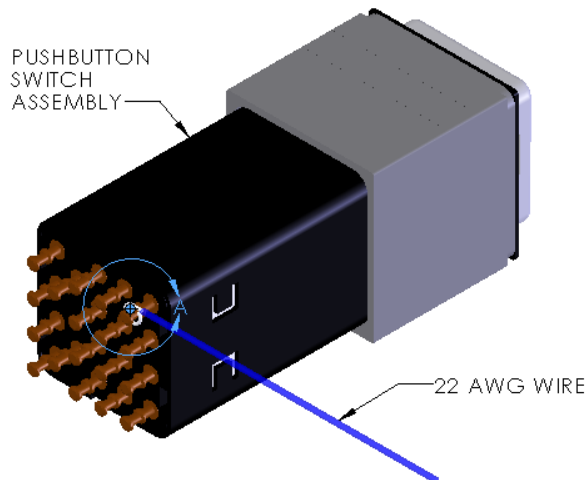
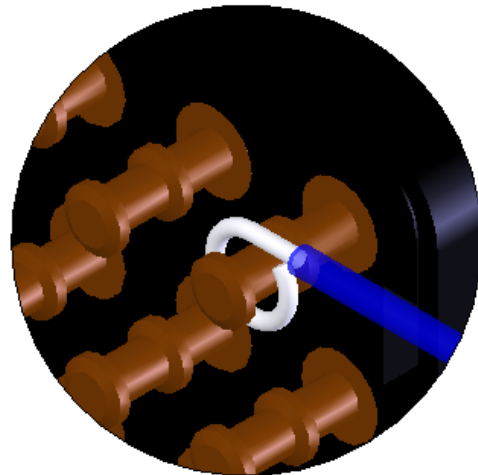
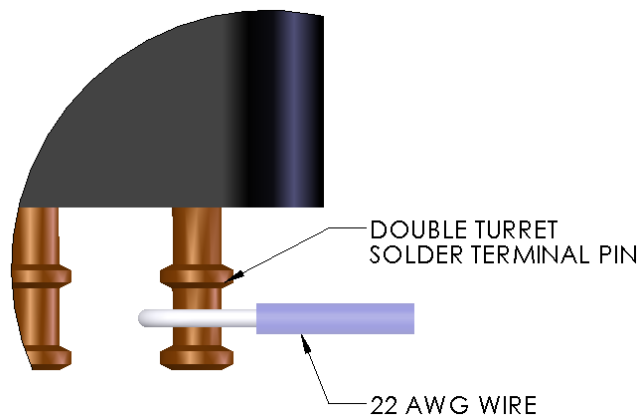


FIGURE 3



DETAIL A

2. TO PREVENT ACCIDENTAL BURNT OR OVERHEATED OF THE SWITCH INSULATION BOARD, THE WIRE SHALL BE SOLDERED BETWEEN THE TURRETS. SEE FIGURE 4.



3. PLACE THE SOLDERING IRON ON THE SOLDER TO FORM THE REQUIRED HEAT BRIDGE AND WATCH FOR THE FLUX TO BUBBLE (THIS INDICATES THE BRIDGE IS MADE).
4. APPLY LIGHT PRESSURE ON THE SOLDERING IRON TIP TO THE SWITCH TERMINAL. NOW SOLDER SHOULD FLOW AROUND THE TERMINAL.

NOTE: BE SURE CONTACT SOLDERING TIME SHALL NOT EXCEED 5 SECONDS.

5. REMOVE THE SOLDER AND THE SOLDERING IRON SIMULTANEOUSLY FROM THE TERMINAL.

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NOTE: BE SURE THAT THE TIP IS CLEAN. A DIRTY TIP MAY NOT TRANSFER HEAT EFFICIENTLY; AND MAY REQUIRE A LONG DWELL TIME, AS WELL AS INCREASE PRESSURE.

6. USE A LIGHT BRISTLE BRUSH TO SKIM AWAY ANY EXCESS FLUX, SOLDER, OR DEBRIS DURING SOLDERING PROCESS.

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