REVISION HISTORY				
REV.	**DESCRIPTION**	**ER NUMBER**	**DATE**	**APPROVAL**
1.0	INITIAL RELEASE.	ER-50354	08/06/24	D.OPPERMAN

CUSTOMER

APPROVALS	DATE
Drawn M.DAVIS	8/5/24
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DECIMALS	ANGLES	FRACTIONS
.X ± .03	± 1/2°	± 1/64
.XX ± .010		
.XXX ± .005		

TITLE
TECHNICAL BULLETIN, SOLDER AND FLUX CLEANING.
S250 SWITCHES

SIZE	CAGE CODE	DWG NO	REV
A	12522	TB-232	1.0

SCALE	WT	SHEET
NONE		SHEET 1 OF 5

1.0 Purpose

The purpose of this technical bulletin is to provide additional instructions for proper soldering of Staco S250 solder turret switches.

2.0 Safety

Follow all safety protocol and use appropriate safety equipment per local regulations and company standards.

3.0 ESD Precautions

Follow ESD protocol when handling switches. The indicator portion of the switch contains static sensitive components.

4.0 Applicable Documents

The following documents form a part of this document to the extent specified herein. Where specific paragraphs are called out, all subordinate paragraphs also apply. Where individual paragraphs are not specified, the document is applicable in its entirety.

4.1. Staco Systems Documents

Series 250 SCD	Specification Control Document, Series 250, Light-Emitting Diode (LED) Lighted Pushbutton Switches and Indicators

4.2. Industry standards

IPC J-STD-001	Requirements for Soldered Electrical and Electronic Assemblies

5.0 Key Components

5.1. S250 switch with mounting spacers

5.2. Holding fixture

5.3. Solder

5.4. Isopropyl Alcohol

6.0 Procedure

6.1. Fixturing and holding

The preferred method of holding the switch is to mount the switch in a temporary mounting plate that can be held in a circuit board clamp See Figure 1. Refer to the S250 SCD, Panel Cutout figure for the size of the mounting opening.

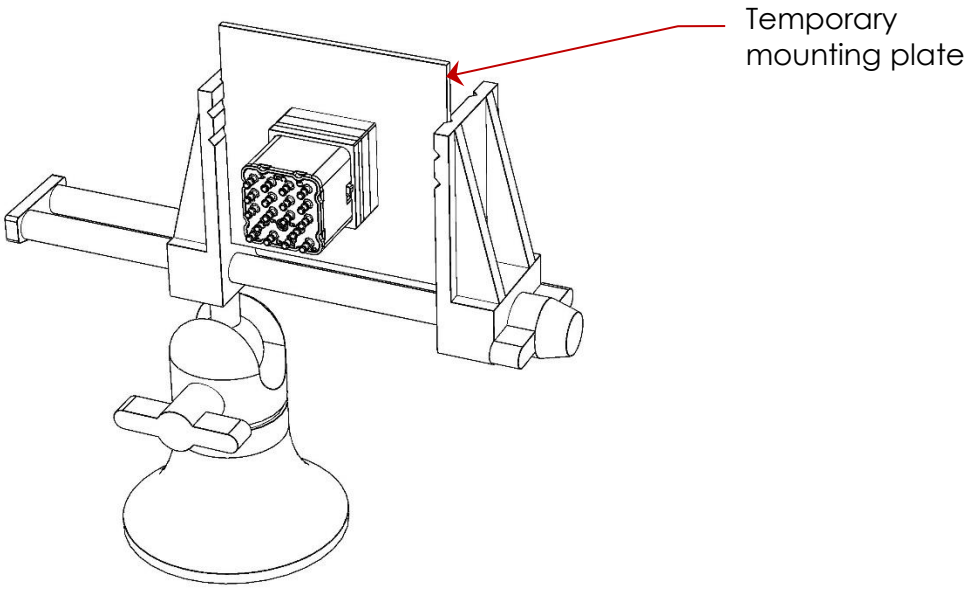

Figure 1- Holding Switch in Circuit Board Clamp

If using a vise, care must be taken to prevent internal damage to the switch. The holding fixture should only be used with the spacers in place and the switch should be held with only enough pressure to hold the switch. Only clamp in the area of the spacers and not on the body of the switch.

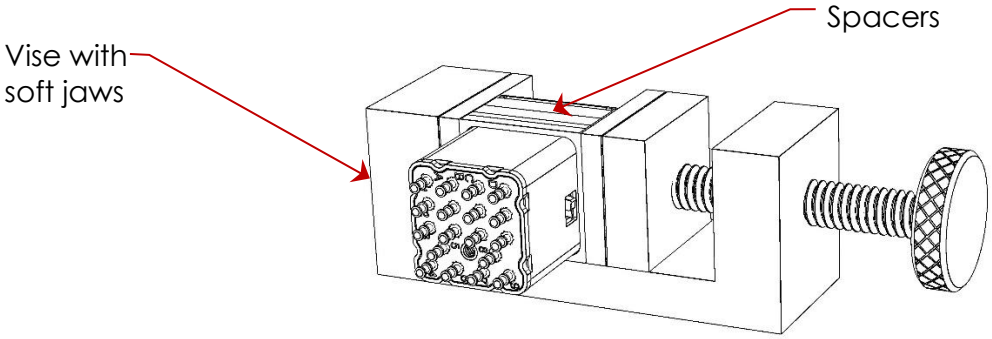

Figure 2 – Holding Switch in Vise

6.2. Soldering wires

Wrap wires around the appropriate terminals and solder per IPC J-STD-001, Section 5.4. See Figure 3. If applying liquid flux, orient the switch in the horizontal position. Do not apply excessive flux or apply with the turrets facing up. See Figure 4.

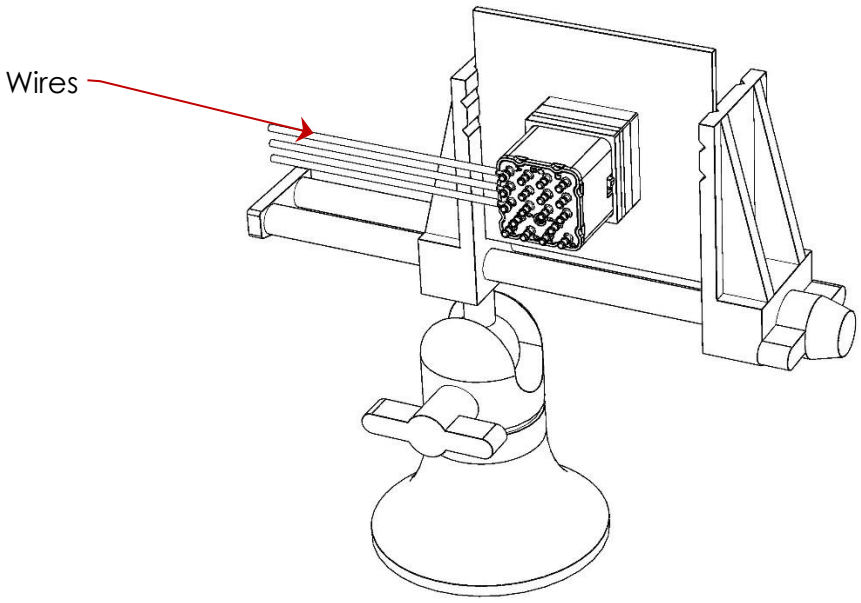

Figure 3 – Wire soldering

6.3. Flux removal

If it is necessary to remove flux from the soldered joints, it is important that the switch is oriented in the correct position to prevent flux residue from entering the switch. The switch should be held in the horizontal position or with the solder turret facing down see. Brush the solder joints with isopropyl alcohol only. **Do not use acetone or methylated ketones** for removing the flux. **Do not use compressed air to remove the cleaning solution.** Position the switches with the turrets facing down until the solvent has evaporated.

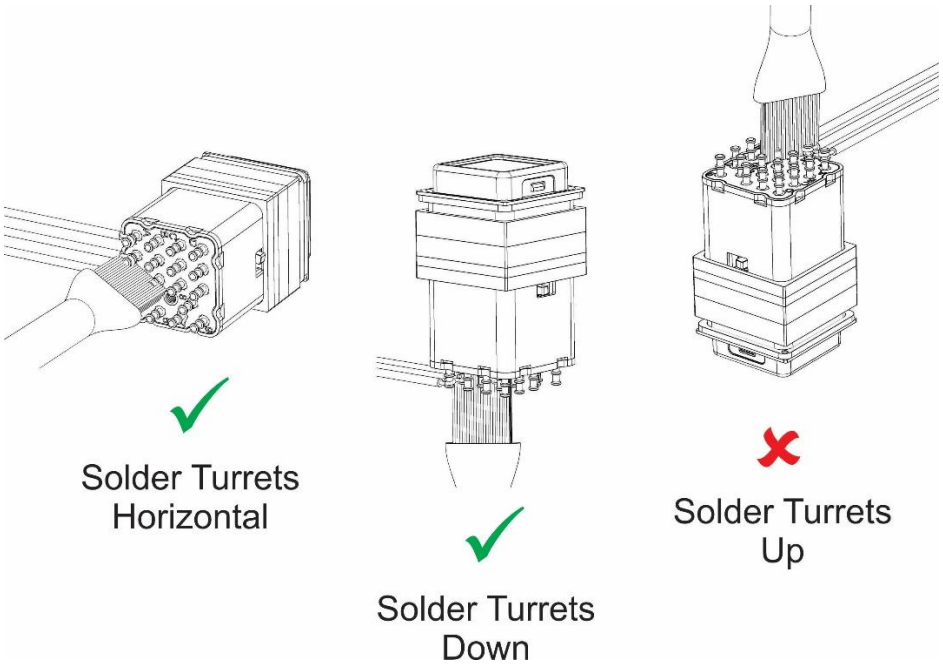

Figure 4 – Flux Application and Cleaning Switch orientation