# **CONTACT SWITCH ASSEMBLY**

WORK-INSTRUCTION

JAY J. DAVE



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### Section 0 - Doc-Control Information

#### **Document Information**

Process Owner	Jay J. Dave
Title	Production Process Engineer
Signature	Jay J. Dave

**Purpose:** To provide a reference and training documents, for the CSA-00-0000, Contact Switch Assembly.

**Scope:** Describes assembly procedure for CSA-00-0000, Contact Switch Assembly.

**Responsibilities and Authorities:** XXX Industries owns this document and is responsible for maintaining it. Production Process Engineering and Manufacturing Operation are responsible for assuring the activities are carried out as described.

#### **Reference Documents**

DOC #	DOCUMENT DESCRIPTION
00-0000-DWG	Contact Switch Assembly, CAD Drawing
11-0000-DWG	Rotating Knob Assembly, CAD Drawing
22-0000-DWG	Housing Assembly, CAD Drawing
33-0000-DWG	Bracket PCB Assembly, CAD Drawing
00-0000-DOC	CSA - Final Assembly

#### **Revision History**

REV #	DATE	HISTORY DETAIL
А	01/01/2001	Initial Release

## Section 1 - Rotating Knob Assembly (RKA, 11-0000)

 Table 1-1: Bill-of-Material - Rotating Knob Assembly

PART #	PART DESCRIPTION	QTY	X
11-1111	Contactor A	2	
11-2222	Knob Rotator	1	
11-3333	Knob Lock	1	
WHEN COMPLETE: INITIAL & DATE			

NOTE: Refer to Figure 1-1 and Figure 1-2

- **1.1** Insert Contactor-A (11-1111, 1x), onto the Knob Rotator (11-2222, 1x). Make sure that slot of the Contactor-A is inserted over the notch of the Knob Rotator.
- **1.2** Slide the Knob Lock (11-3333, 1x) onto the Knob Rotator. Make sure that the cutout slot of the Knob Lock is aligned with the notch of the Knob Rotator.
- **1.3** Place aside the Rotating Knob Assembly; it will be used to build the Contact Switch Assembly later in the procedure.

#### Figure 1-1 Rotating Knob Assembly (View 1)



Figure 1-2 Rotating Knob Assembly (View 2)



# Section 2 - Housing Assembly (HA, 22-0000)

Table 2-1: Bill-of-Material - Housing Assembly

PART #	PART DESCRIPTION	QTY	X
22-1111	Main Housing	1	
22-2222	Top Pin	1	
22-3333	Contactor B	1	
22-4444	Tab	10	
22-5555	Resistor	9	
22-6666	Tab Screw	10	
WHEN COMPLETE: INITIAL & DATE			

**NOTE:** Refer to Figure 2-1 and Figure 2-2

- 2.1 Insert and secure the Contactor-B (22-3333, 1x) onto the Main Housing (22-1111, 1x). Make sure Contactor-B is placed in 12 o'clock position on the Main Housing.
- **2.2** Insert and secure the Stop Pin (22-2222, 1x) onto the Main Housing at 1 o'clock position.
- **2.3** Tab & Tab Screw Installation:
  - 2.3.1 Place the Tab (22-4444, 1x) into the 2 o'clock position on the Main Housing. Secure the Tab onto the Main Housing using Tab Screw (22-6666, 1x).
  - **2.3.2** Repeat Step 2.3.1, in order to install Tab and Tab Screw onto the Main Housing from 3 o'clock position to 11 o'clock position on the Main Housing.
- **2.4** Soldering Of the Resistors:
  - **2.4.1** Place the Main Housing into the Vice Clamp.
  - **2.4.2** Place the Resistor (22-5555, 1x) between the Tabs (Tab at 2 o'clock position and Tab at 3 o'clock position).
  - **2.4.3** Using Pliers, bend the leads of the Resistor at each end and pass the leads of the Resistor through the Tabs hole.
  - **2.4.4** Using Soldering Iron and Solder, solder the Resistor onto the Tabs.
  - **2.4.5** Using Wire Cutter, cutoff the excess leads of the Resistor.
  - **2.4.6** Using IPA Alcohol and Q-tip clean up the surfaces of the Tabs.
  - 2.4.7 Repeat Steps 2.4.2 through 2.4.6 , in order to solder resistors
  - **2.4.8** between Tabs (from Tabs at 3 o'clock position through Tab at 11 o'clock position).

Figure 2-1 Housing Assembly (View 1)



Figure 2-2 Housing Assembly (View 2)



### Section 3 - Bracket & PCB Assembly (BPA, 33-0000)

PART #	PART DESCRIPTION	QTY	X
33-1111	Bracket	1	
33-2222	Bracket Nut	2	
33-3333	PC Board	1	
33-4444	Resistor-1	2	
33-5555	Resistor-2	9	
33-6666	PC Board Pin	2	
WHEN COMPLETE: INITIAL & DATE			

Table 3-1: Bill-of-Material - Bracket & PCB Assembly

NOTE: Refer to Figure 3-1 and Figure 3-2 and Figure 3-3

#### **3.1** PCB Board Assembly:

- **3.1.1** Place the PCB Board (33-3333, 1x) into the Vice Clamp.
- **3.1.2** Using Soldering Iron and Solder, solder the following components onto the PCB Board:
  - Solder Resistor-1 (33-4444, 3x) onto the PCB Board
  - Solder Resistor-2 (33-5555, 2x) onto the PCB Board
- **3.1.3** Using Wire Cutter, cutoff the excess leads of the Resistor.
- **3.1.4** Using IPA Alcohol and Q-tip clean up the surfaces of the Tabs.
- **3.2** Mount the PCB Board onto the Bracket (33-1111, 1x) using PCB Board Pins (33-6666, 2x).
- **3.3** Bracket Nuts (33-2222, 2x) will be used later in the Contact Switch Assembly.

Figure 3-1 Bracket & PCB Board Assembly (View 1)



Figure 3-2 Bracket & PCB Board Assembly (View 2)



Figure 3-3 Bracket & PCB Board Assembly (View 3)



### Section 4 - Contact Switch Assembly (CSA, 00-0000)

Table 4-1: Bill-of-Material - Contact Switch Assembly

PART #	PART DESCRIPTION	QTY	X
00-1111	Rotating Knob Assembly	1	
00-2222	Housing Assembly	1	
00-3333	Bracket & PCB Assembly	1	
WHEN COMPLETE: INITIAL & DATE			

NOTE: Refer to Figure 4-1 and Figure 4-2

- **4.1** Slide the Rotating Knob Assembly (RKA, 11-0000) through the Housing Assembly (HA, 22-0000).
  - Make sure that slot of the Knob Lock (on the Rotating Knob Assembly) is aligned with the notch of the Main Housing (on the Housing Assembly).
  - Also, make sure that Contactor-A (on the Rotating Knob Assembly) is properly aligned and flushed with the Contactor- B (On the Housing Assembly).
- **4.2** Insert the Bracket Mounting Nut (33-2222, 1x) to secure the Rotating Knob Assembly onto the Housing Assembly.
- **4.3** Slide the Bracket (33-1111, 1x), of the PCB Assembly (33-0000) over the Knob Lock.
- **4.4** Secure the Bracket onto the Knob Lock using another Bracket Mounting Nut, this will hold PCB Assembly, Housing Assembly and Rotating Knob Assembly together.

Figure 4-1 Contact Switch Assembly (View 1)



Figure 4-2 Contact Switch Assembly (View 2)

