



**FLIGHT SYSTEMS  
INDUSTRIAL PRODUCTS**

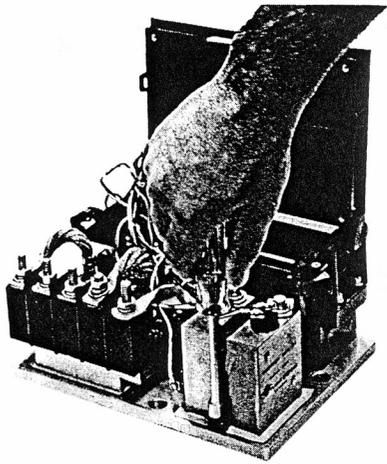


**INSTALLATION  
INSTRUCTIONS**

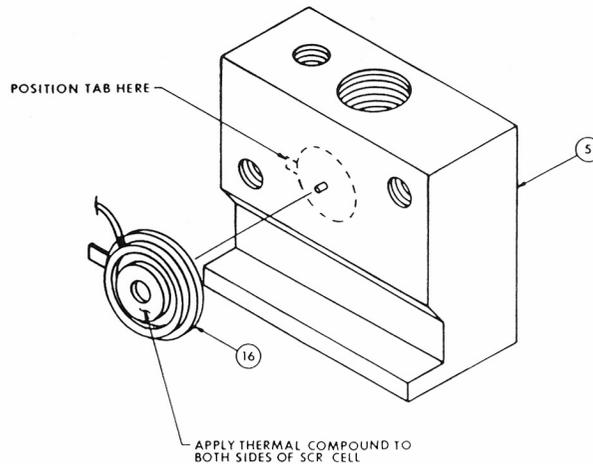
# **MODEL 364**

## **REBUILDABLE MAIN SCR ASSEMBLY**

1 REC. REPLACEMENT SCR ASSEMBLY FOR  
THE GENERAL ELECTRIC EV-1B SCR CONTROL



**FIG. 1 REMOVAL/INSTALLATION**



**FIG. 2 SCR POSITIONING**

## INSTRUCTIONS FOR REMOVAL AND INSTALLATION OF THE EV-1B REC SCR ASSEMBLY

**TOOLS REQUIRED:** 3/8" Socket or End Wrench  
 5/16" Nut Driver  
 13/16" End or Adjustable Wrench

Screwdrivers (small, medium) w/6" blade  
 Screw Starter (optional)

### REMOVAL:

1. Disconnect the battery and discharge the capacitor(s).
2. Remove the card terminal strips, unlatch card, and swing away from panel. If necessary to gain access, carefully unplug the card connector and remove the card.
3. Using the small screwdriver, disconnect the two wires from the thermal protector. Carefully unscrew (CCW) the thermal protector from the defective 1 REC assembly. Use 13/16" end or adjustable wrench.
4. Disconnect the two heavy straps at the top of the defective 1 REC assembly.
5. Disconnect the gate lead wire from its terminal on the defective 1 REC assembly.
6. Using the medium-sized screwdriver, remove the two hold down screws securing the defective 1 REC assembly to the base plate. Remove the 1 REC assembly. (Figure 1)
7. Remove the old insulator sheet and discard. Clean the base plate seating area.

### INSTALLATION:

1. Apply a thin, even coating of thermal compound (FS 43-8012-3A, DOW-CORNING 340, or equivalent) to the blue insulator sheet supplied. Position the blue insulator, compound side down, on the base plate and align the insulator holes with the mounting holes.
2. Apply a thin, even coating of thermal compound to the bottom surfaces of the Model 364 1 REC replacement assembly.
3. Connect the panel gate lead to the gate terminal and secure with screw and lock washer.
4. Position the Model 364 1 REC replacement assembly over the mounting holes in the baseplate. Align the notches in the hold down spring (4) with the mounting holes. Using the screw starter and 5/16" nut driver, install the two 10-32 x 3/4" hold down bolts (7) supplied. **DO NOT RE-USE THE OLD BOLTS:** They are too long and will not tighten properly. Tighten both bolts **alternately** and **evenly**. Tighten until torque increases sharply then an additional 1/4 to 1/2 turn. (Figure 1)
5. **CAUTION:** When reinstalling the thermal protector, use a small amount of thermal compound on the tapered portion and **DO NOT OVER TIGHTEN!** The thermal protector is fragile. Reverse Steps 1 through 4 under "Removal" section to complete the installation.

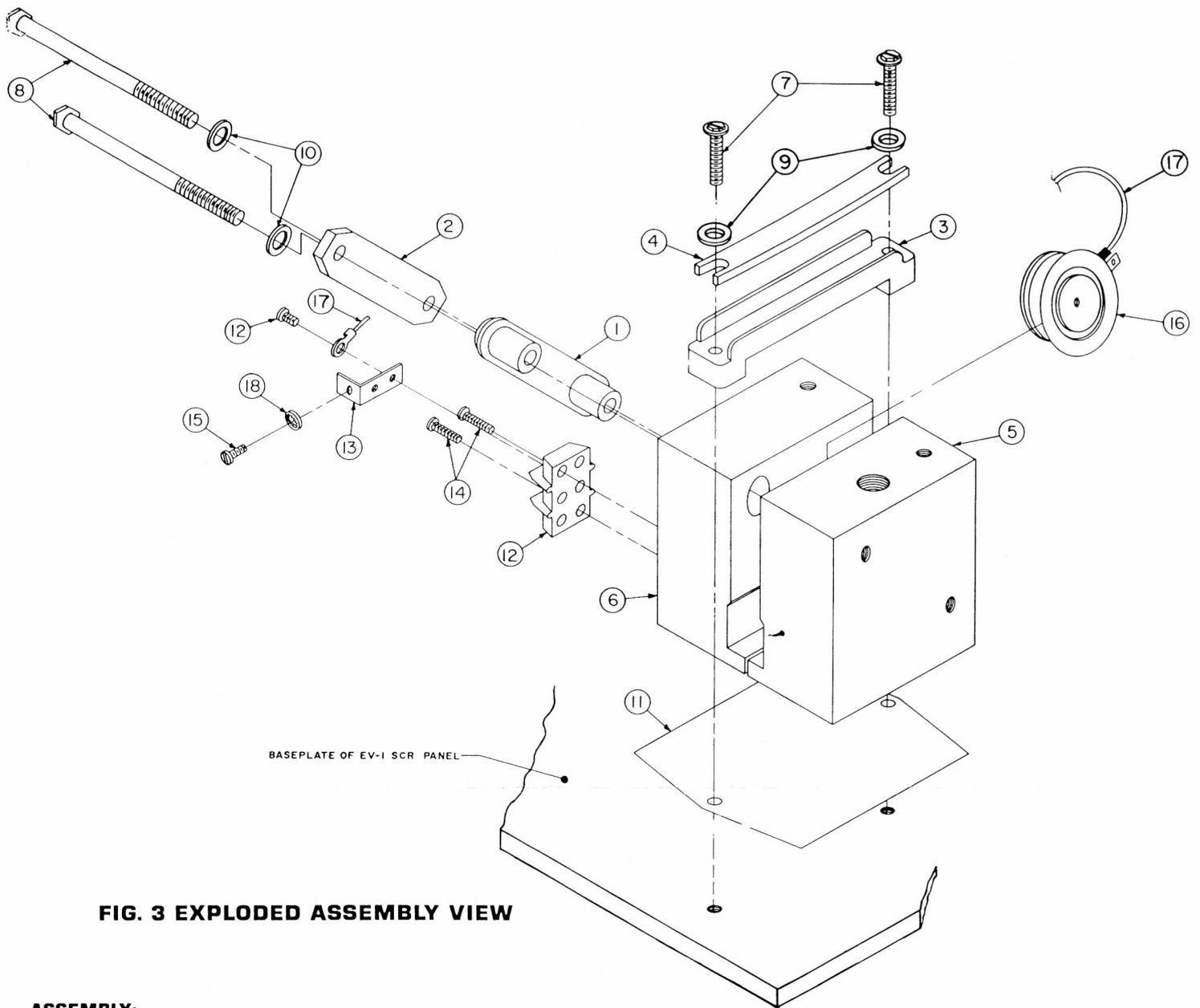
## INSTRUCTIONS FOR SCR CELL RENEWAL IN THE MODEL 364 1 REC HEAT SINK ASSEMBLY

**TOOLS REQUIRED:** 7/16" Socket or End Wrench  
 Wood Blocks

Light Hammer

### DISASSEMBLY:

1. Remove the Model 364 1 REC assembly from the vehicle per the "Removal" instructions. Note: Because of extreme space limitations on most vehicles, changing the SCR cell in position on the vehicle is **not** recommended.
2. Alternately loosen the 1/4" clamp spring bolts until the clamp spring tension is released, then remove both bolts completely.
3. Separate the heat sinks. Unplug the white gate lead from the defective SCR cell and discard cell. Inspect gate lead for damage. Replace if necessary. Heat sink block mating surfaces should be clean and free from nicks or rough spots. Plastic parts should be in good condition. Replace if damaged by excessive heat or solvents.



**FIG. 3 EXPLODED ASSEMBLY VIEW**

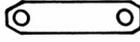
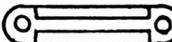
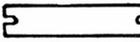
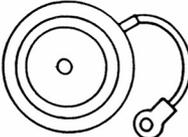
**ASSEMBLY:**

**IMPORTANT:** The following assembly steps are to be done on a hard, flat surface such as a metal plate or Formica top bench. If these are not available, use a piece of hard masonite, hardwood or particleboard (at least 1/2" thick) over work surface or concrete floor.

**CAUTION:** Assembly on a rough or soft surface will result in damage and misalignment and will VOID THE WARRANTY.

1. Refer to Figure 2. Apply a thin, but even, coating of thermal compound (supplied) to the circular area in the center of each side of the SCR cell. (See Fig. 2). Place the blocks in an upright position on the work surface.
2. Push the gate lead connector onto the small pin protruding from the side of the SCR cell. Place the SCR cell between the blocks with the large flange or tab end making contact with the block with the locating pin. See Figures 2 and 3.
3. Insert the clamp spring insulator (1) into the holes in the left hand block (6).
4. Apply a drop of oil to the threads of the two 1/4" clamp bolts (8) and insert with washers (10) through clamp spring (2) and left block (6).
5. By hand, start each bolt into the threads in the right hand block (5) until the washers are in contact with the clamp spring. From this point on, it is **imperative** that the bolts be tightened evenly so that the spring pressure is bearing on the **exact center** of the assembly. This is necessary to prevent damage to the silicon wafer inside of the SCR cell.
6. Alternately and evenly tighten the clamp bolts, while occasionally tapping the blocks down against the work surface with a hammer and a wood block. **DO NOT** directly strike the heat sink blocks. The blocks should feel solid and not have any tendency to "rock" on the flat work surface. As long as the blocks remain aligned and do not "rock", continue tightening the clamp bolts in an alternate fashion until the ends of the clamp spring are seated firmly against the plastic insulator stops (1). At this point, a sharp increase in torque will be noticed. If, at any time during tightening, the blocks start to "rock" on the flat work surface, the bolts should be loosened a few turns each, and the blocks again tapped firmly against the work surface. As a final check of alignment, visually determine that both blocks are in contact with the flat work surface around each outside edge.
7. Reinstall in the vehicle per "Installation" instructions.

## RENEWAL PARTS LIST (MODEL 364)

ITEM	OUTLINE	NO. REQ'D.	DESCRIPTION	FS PART NO.
1		1	CLAMP SPRING INSULATOR	42-8017-00
2		1	CLAMP SPRING	42-8022-50
3		1	HOLD DOWN SPRING INSULATOR	42-8017-20
4		1	HOLD DOWN SPRING	42-8017-30
5		1	HEAT SINK BLOCK, R.H.	42-8022-30
6		1	HEAT SINK BLOCK, L.H.	42-8022-40
7		2	HOLD DOWN BOLT, 10-32 X 3/4"	*
8		2	CLAMP BOLT, 1/4-28 X UNF 2 1/2" S.A.E. GRADE 5	42-8021-30
9		2	FLAT WASHER, NO. 10	*
10		2	FLAT WASHER, 1/4"	*
11		1	INSULATOR SHEET	43-N783-01
12		1	BARRIER TERMINAL BLOCK	42-8021-60
13		1	GATE LEAD TERMINAL	42-8018-00
14		2	MACHINE SCREW, 6-32 X 7/16" S.S.	*
15		1	MACHINE SCREW, 6-32 X 1/4" S.S.	*
16		1	SCR CELL (GATE LEAD INCLUDED)	26-JB60-01
17		1	GATE LEAD	42-8020-70
18		1	LOCK WASHER, NO. 6 INT. TOOTH	*
19		1	THERMAL COMPOUND, 1 OZ. JAR	43-8012-30

\* ITEM WITHOUT FS PART NO. MAY BE PURCHASED LOCALLY