

**ADEMCO**

# INSTALLATION INSTRUCTIONS

**No. 685SK**  
**SPARE PARTS KIT**

for No. 685 Digital Alarm Receiver

**CONTENTS OF KIT:**

<u>Quantity</u>	<u>Part No.</u>	<u>Description</u>
1	P8138	CPU board
1	SA685-2	Display driver board
1	SA685-3	Memory board
1	SA685-5	Display board-left
1	SA685-10	Display board-right
1	SA685-7	Power supply board
2	No. 90-10	3 amp fuse
2	No. 90-15	15 amp fuse
1	P2724	NPN power transistor
2	P8034	Pushbutton switch
4	P8035	Pushbutton, key top
2	P8036	Momentary pushbutton switch
2	P8040GR	LED, green
2	P8040RD	LED, red
2	P8040YE	LED, yellow
3	P8160	Socket type shorting jumper

**REPLACEMENT PROCEDURES:****IMPORTANT**

Before changing any parts in the No. 685, remove all power, AC and battery.

The CPU, display driver and memory boards can be removed and reinserted using the plastic tabs. When reinserting the boards, make sure you press in the tabs until the boards snap into place.

Please refer to Diagram 3 of the No. 685's Installation Instructions for location of the boards.

**A. Memory Board Replacement (Slot J3):**

1. Set blue jumper plugs (see Diagram 4 in No. 685's instructions).
2. Make sure that 4-EPROMS are inserted.
3. Insert programmed No. 691 Chip from old card into new card.
4. Attach the 4 keyed cables as shown in Diagram 1 herein.

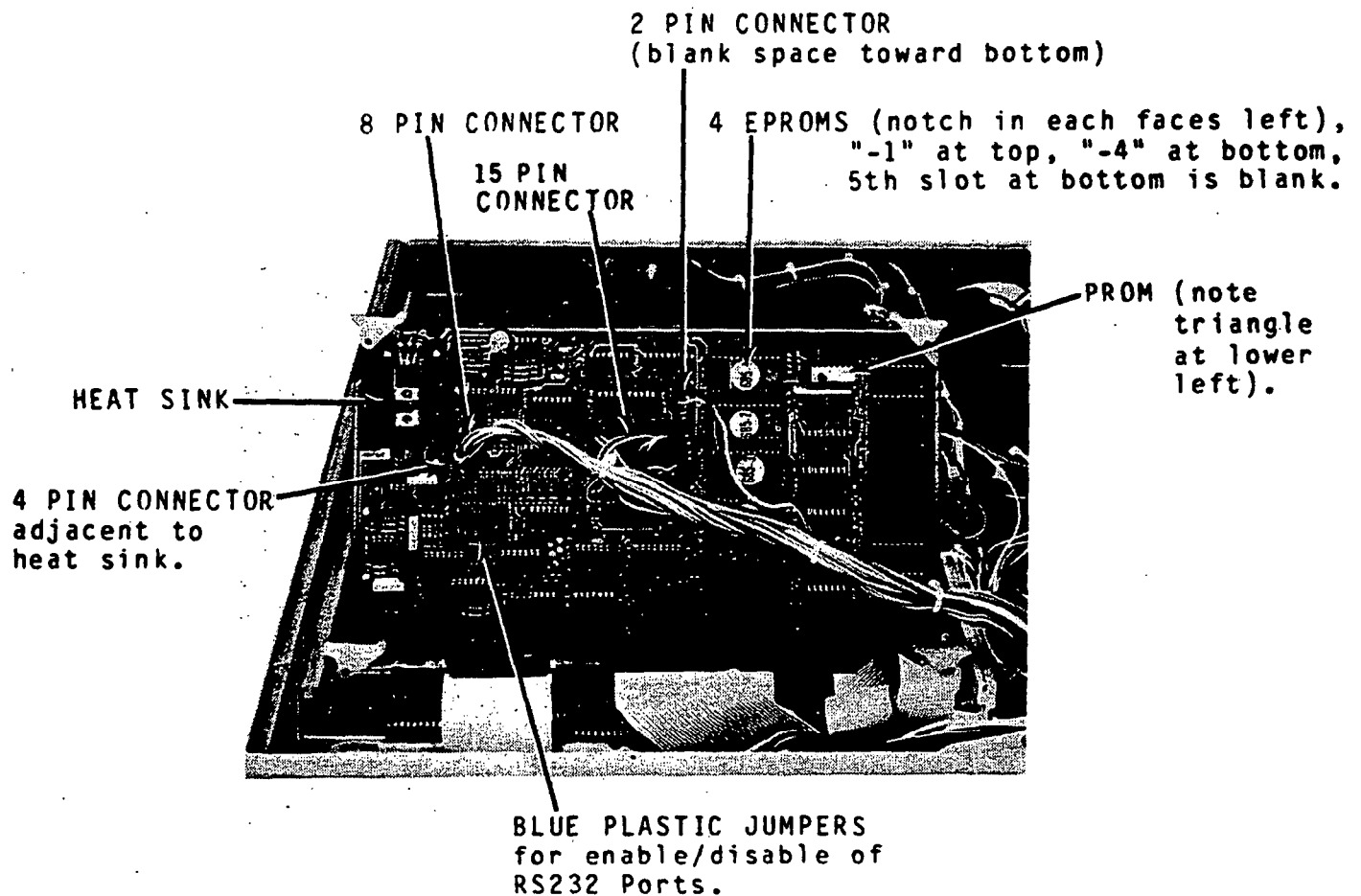


Diagram 1: MEMORY BOARD

**B. CPU Board Replacement (Slot J4):**

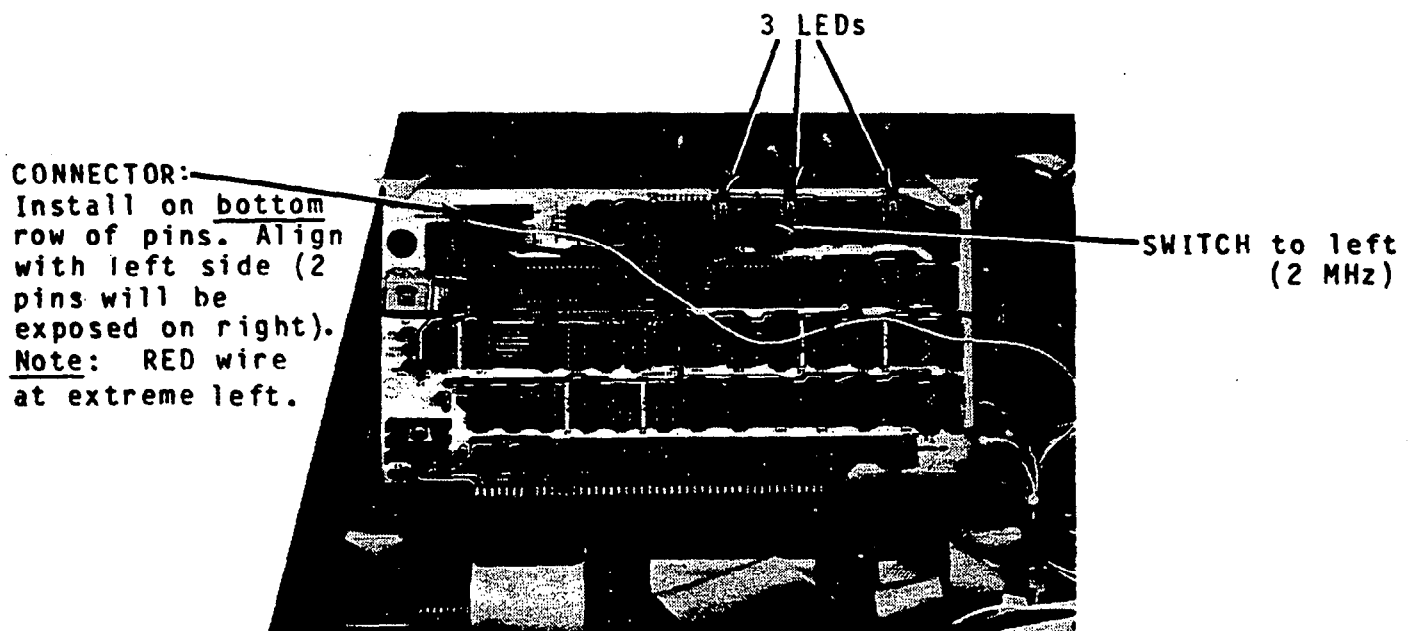
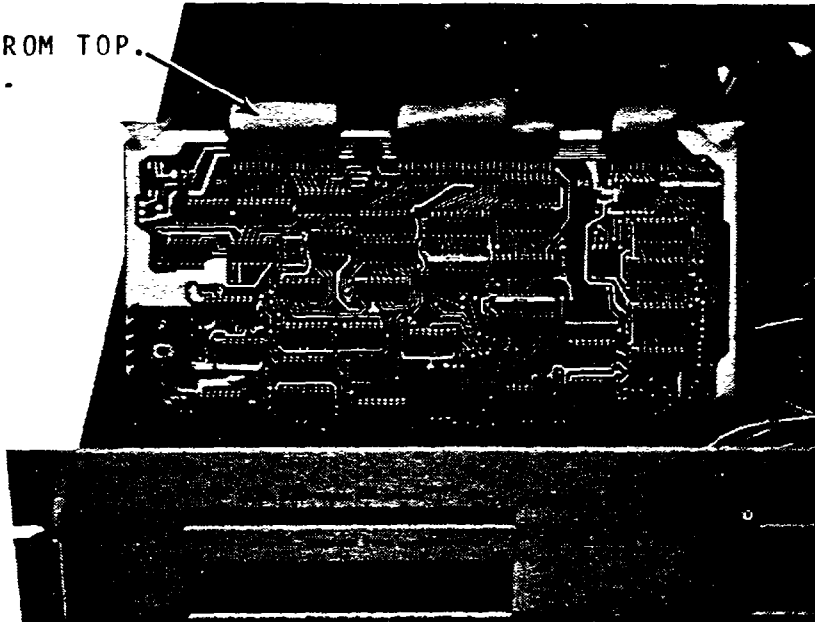


Diagram 2: CPU BOARD

**C. Display Driver Board Replacement (Slot J1):**

1. Remove 3 cables.
2. Remove old board.
3. Install new board and attach cables (see Diagram 3).

INSERT CABLES FROM TOP.  
Align with pins.

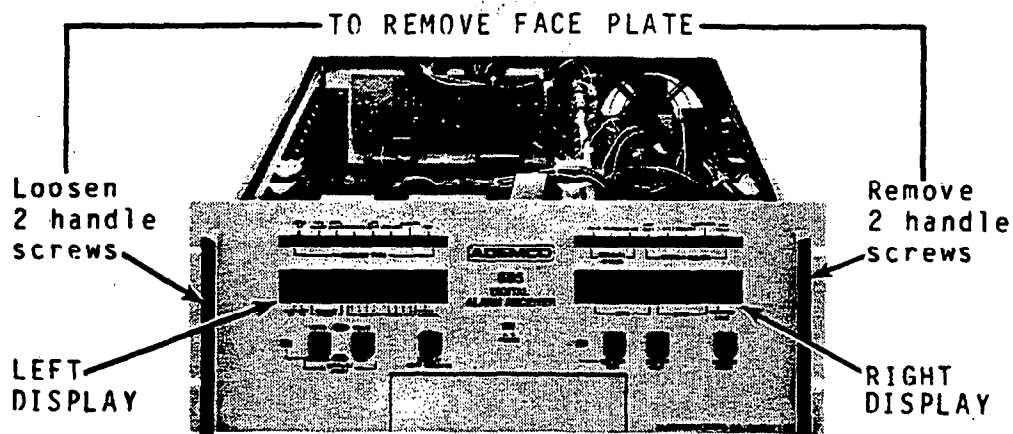


**Diagram 3: DISPLAY DRIVER BOARD**

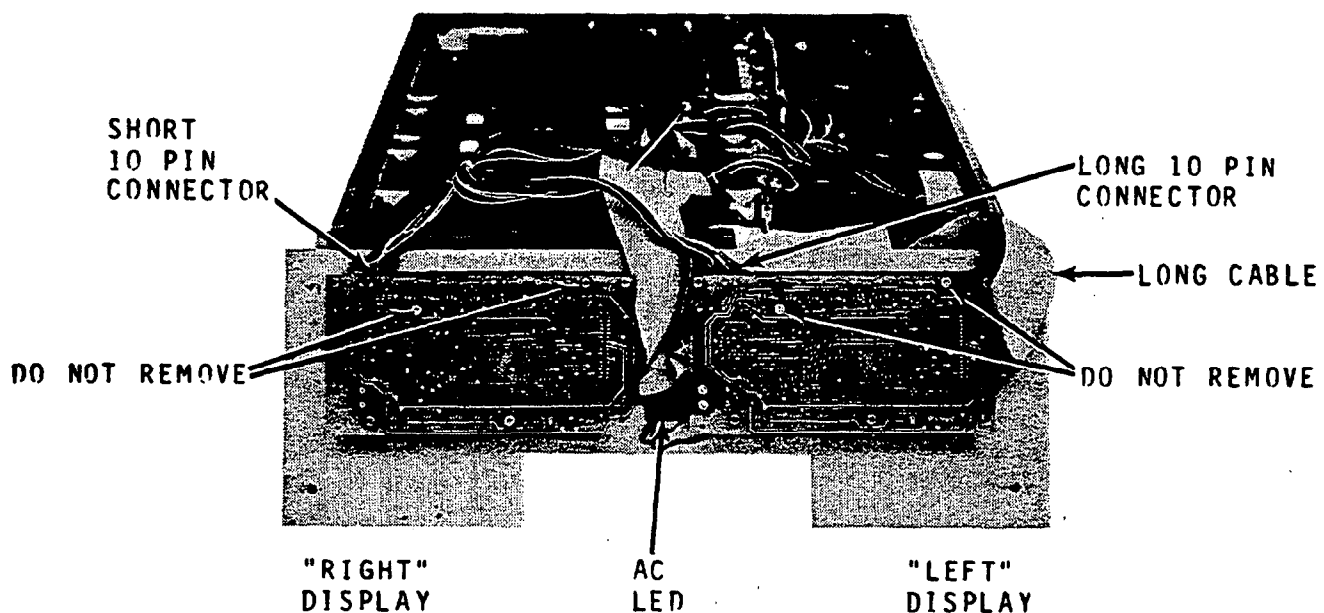
**D. Display Board Replacement:**

Left Side: Alarm Information  
Right Side: Date and Time

1. Remove top cover from No. 685.
2. Remove 3 cables attached to Display Driver Board in Slot J1.
3. Using a 1/8" allen wrench, remove 2 screws from rear of handle on right side. Loosen 2 screws in back of left handle and remove face plate.
4. Remove long 10 pin connector from top of left display board or short 10 pin connector from top of right board.



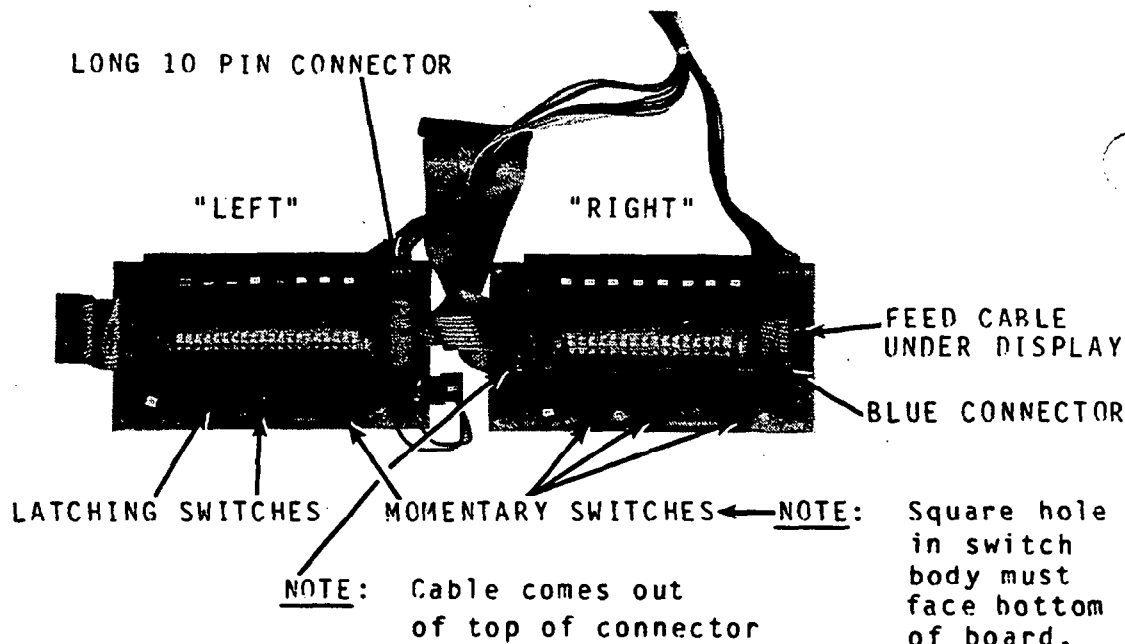
a. Front View



b. Rear View

**Diagram 4: FACE PLATE**

5. Remove 4 screws from left or right display board, as shown in Diagram 4 and remove board from face plate.
6. Remove 2 cables from display board.
7. Connect cables to new board as shown in Diagram 5.
8. Attach 10 pin connector to board (short cable - right, long cable - left).
9. Attach board to face plate using 4 screws.
10. Reconnect cables to Display Driver Board in Slot J1.



**Diagram 5: LEFT AND RIGHT DISPLAY BOARDS - COMPONENT SIDE**

#### **E. Replacing LEDs in Display Boards:**

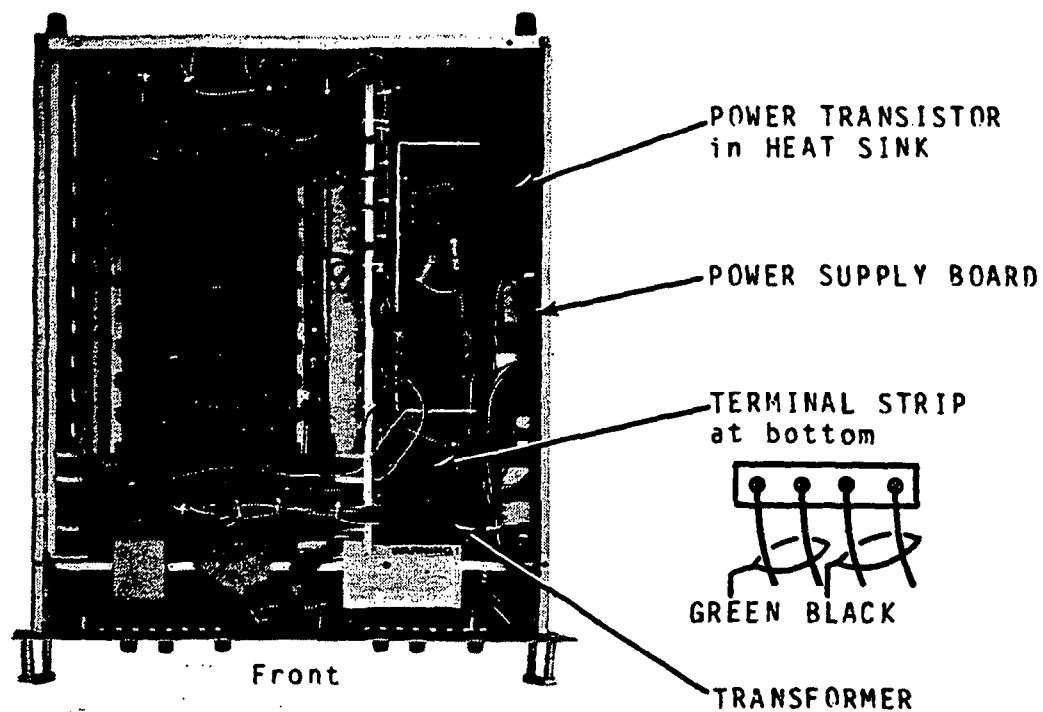
1. Remove display board as in step D.
2. Remove the LED using a low power soldering iron, such as Ademco No. 7500.
3. Replace with the same color LED using rosin core solder and a low power soldering iron. Observe polarity. The notched lead is on the right as you face the component side of the board.

#### **F. Replacing Switches on Display Board:**

1. Remove the board as in step D.
2. Remove the defective switch using a low power soldering iron.
3. Replace with the appropriate switch (momentary or latching). Use rosin core solder. Make sure the switch is seated flat against the board. The square hole in the switch body must be facing the bottom of the board.
4. Glue a plastic button onto the switch stem.

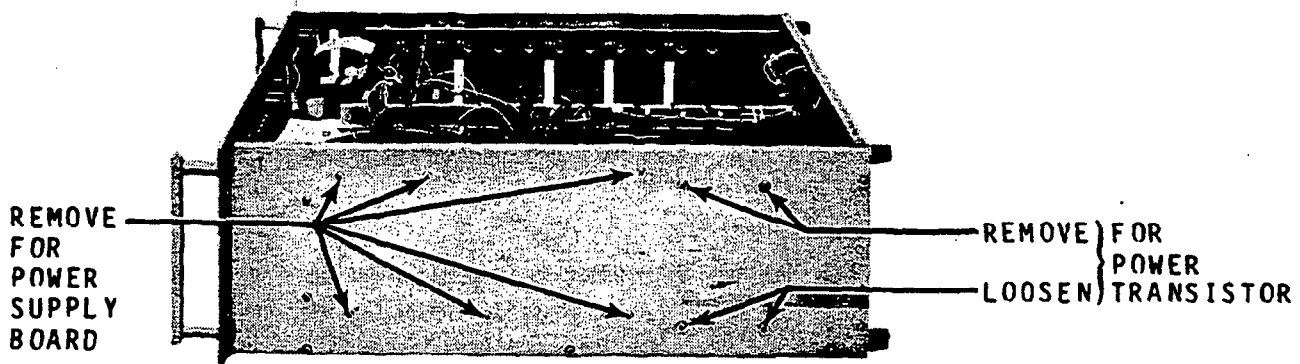
#### **G. Power Supply Board and Power Transistor Replacement.**

1. Locate and identify the board or transistor as shown in Diagram 6.



**Diagram 6: TOP VIEW OF 685 (COVER REMOVED)**

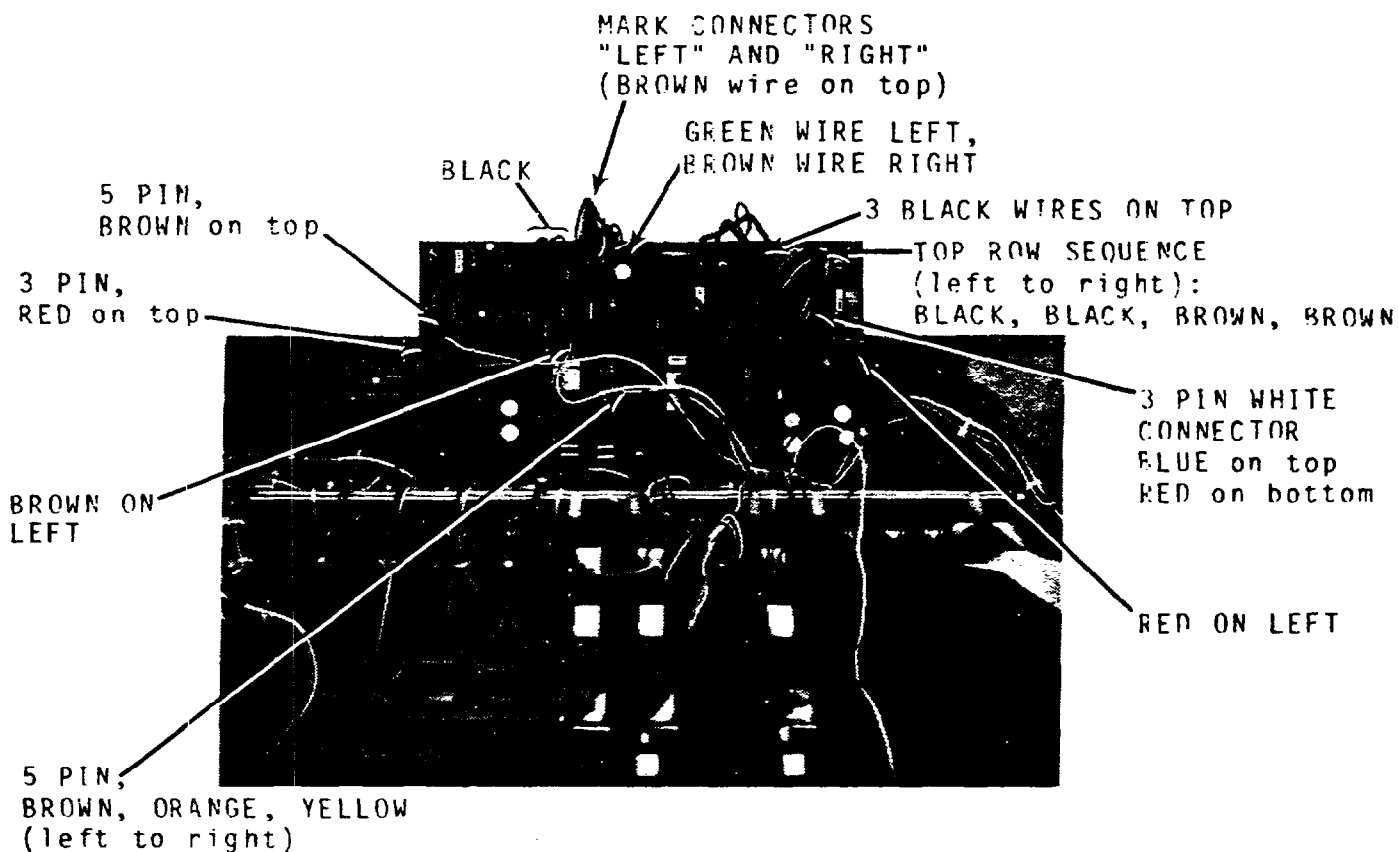
2. a. For the power supply board, remove the 6 screws as shown in Diagram 7.
- b. For the power transistor loosen the 2 lower screws (do not remove) and remove the 2 upper screws.



**Diagram 7: RIGHT SIDE OF 685**

### 3. Power Supply Board:

- a. Remove the 11 cables. Please refer to Diagram 8 and mark 2 of the cables "left" and "right" as shown.
- b. Lift the board and disconnect the 2 green and 2 black wires from the terminal strip in the chassis, as shown in the top view of the 685, above. Remove the board.

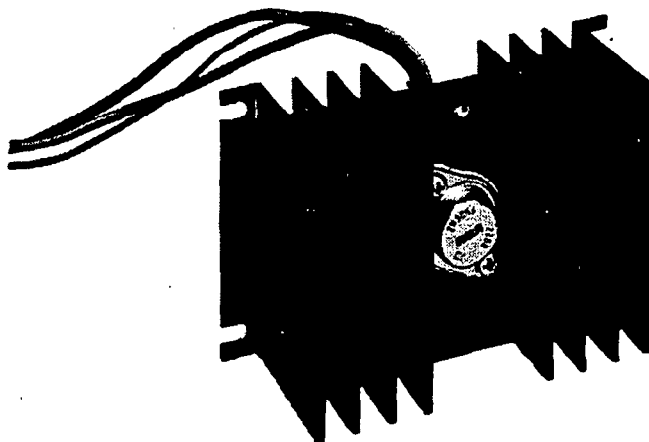


**Diagram 8: POWER SUPPLY BOARD**

- c. **Connect the green and black wires from the new board to the terminal strip. Connect the 11 cables and secure the board with 6 screws.**

#### **4. Power Transistor:**

- a. **Remove the heat sink assembly (do not remove 2 lower screws as shown in Diagram 7 of right side of 685).**
- b. **Remove the 2 screws holding the transistor to the assembly. Carefully remove the mica insulator from the old transistor. Scrape the heat sink compound from the underside of the old transistor and apply to the new transistor. Install the mica insulator on the new transistor.**
- c. **Connect the new transistor to the heat sink and reinstall the assembly. Tighten all 4 screws.**



**Diagram 9: HEAT SINK**

**TO THE INSTALLER**

Regular maintenance and inspection (at least annually) by the installer and frequent testing by the user is vital to continuous satisfactory operation of any alarm system.

The installer should assume the responsibility of developing and offering a regular maintenance program to the user as well as acquainting the user with the proper operation and limitations of the alarm system and its component parts. Recommendations must be included for a specific program of frequent testing (at least annually) to insure the system's proper operation at all times.

**ADEMCO**

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