

INSTALLATION INSTRUCTIONS FOR CHARGER REPLACEMENT KIT No. 600-104

This kit contains parts needed to replace a charger with a smart charger on the machine listed above. Please follow step-by-step instructions.

PREPARATION:

(Refer to Figures 1 and 2)

FOR SAFETY: Before leaving or servicing machine, stop on level surface and set parking brake (if equipped on machine). Then turn off machine and remove key.

1. Disconnect battery cables from machine.

⚠ WARNING: Always disconnect battery cables from machine before working on electrical components.

2. Remove existing timer and ammeter, then discard.
3. Remove charger from machine. Retain hardware and AC cord for installation of new parts.
4. Drill two 7/32" dia. holes in machine frame. Refer to FIG. 2 for hole locations.

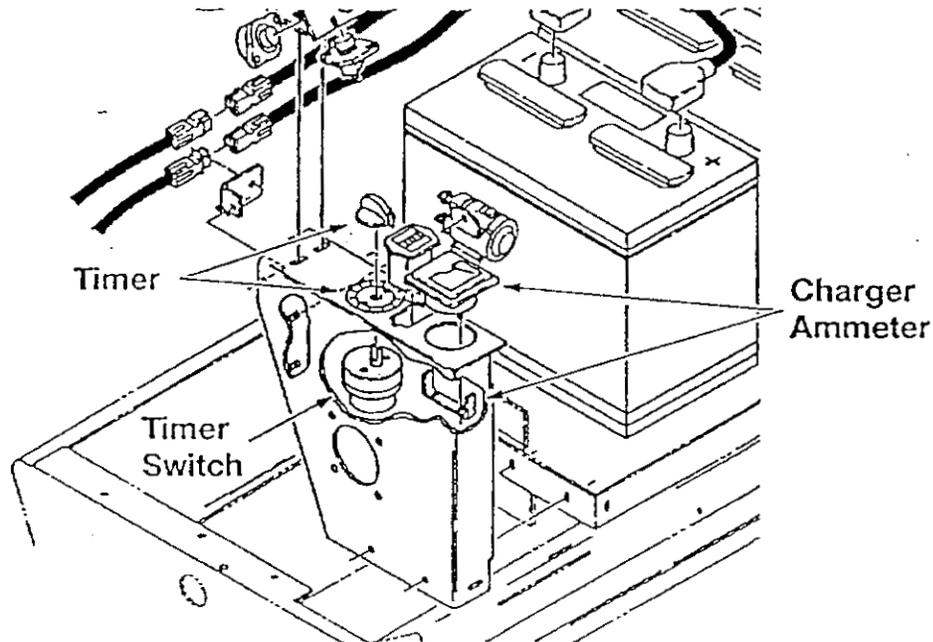


FIG. 1 - Timer and Ammeter Assembly

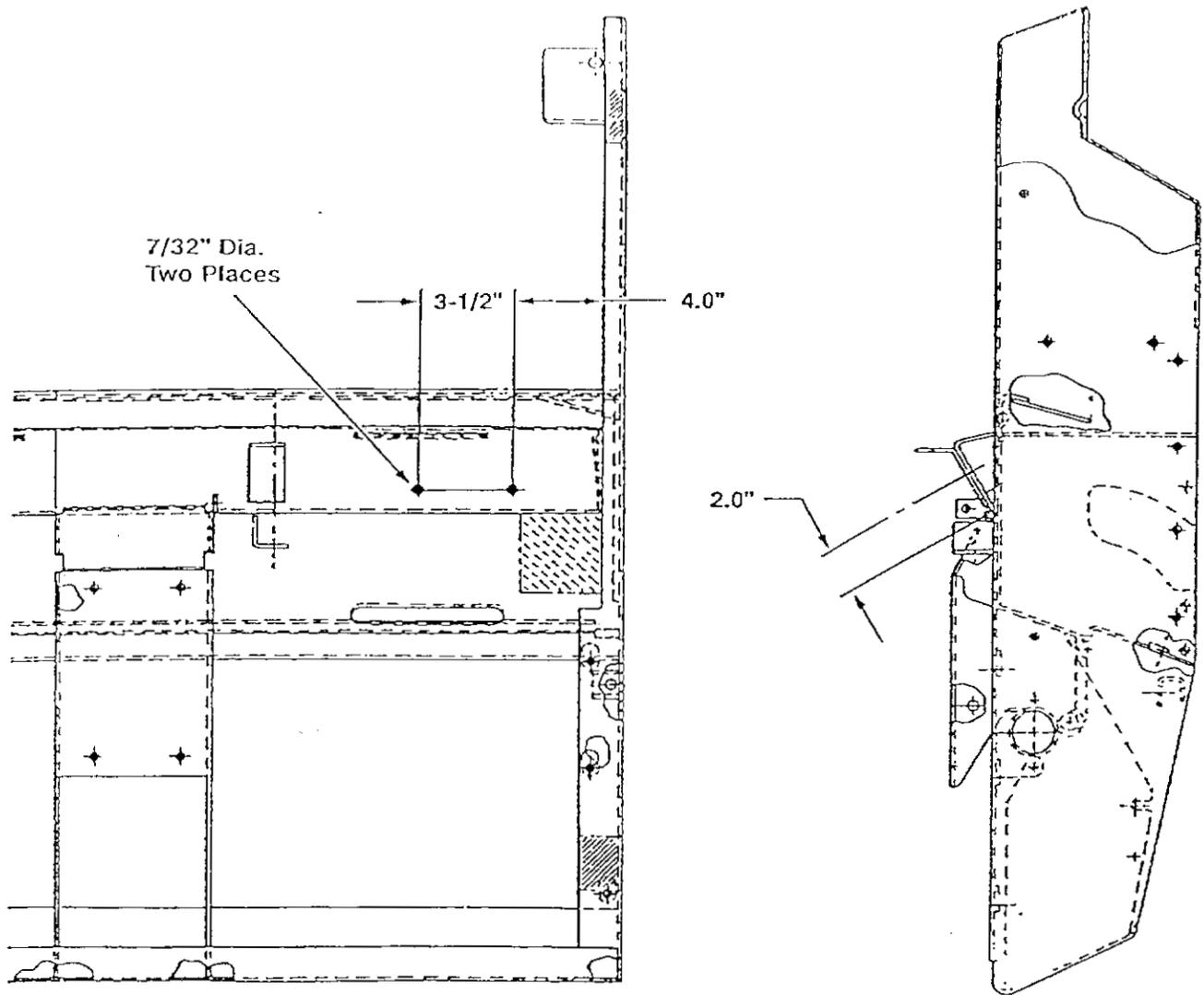


FIG. 2 – Machine Frame Hole Location

INSTALLATION:

(Refer to Figures 2, 3

1. Install new mounting bracket (2) on control panel with two new hex screws (3) and two new flat washers (4).
2. Install new charger control box (5) on new mounting bracket (2) with two new pan screws (6) and two new flat washers (7).
3. Trim #10 and #11 wires, from harness on instrument panel, to two inches in length. Then strip both wires back 1/4".
4. Install new connector (9) and new heat shrink tube (10) between existing wires #10 and #11. Then trim #12, #13, #14 and #15 wires back to harness on instrument panel.
5. Trim #9 and #11 wires, from harness at charger end, to three inches in length. Then strip both wires back 1/4".
6. Trim #12, #13, #14 and #15 wires back to harness at charger end.

7. Install new charger (1) with existing hardware. Then connect DC wires #9 and #11 to new charger (1) with new connectors (11). (Connect red wires to red and black to black.)
8. Connect new charger harness (8) to new charger (1). Then install new charger harness (8), on machine, following same path as existing wire harness to control panel and connect new charger harness (8).
9. Secure new charger harness (8) to existing wire harness with new cable ties (12).
10. Connect AC cord to new charger harness (8). (Connect white wire to white and black to black. Then connect green wire to ground.)
11. Check all connections and make sure they are secure and tight.
12. Connect battery cables to machine and check operation.

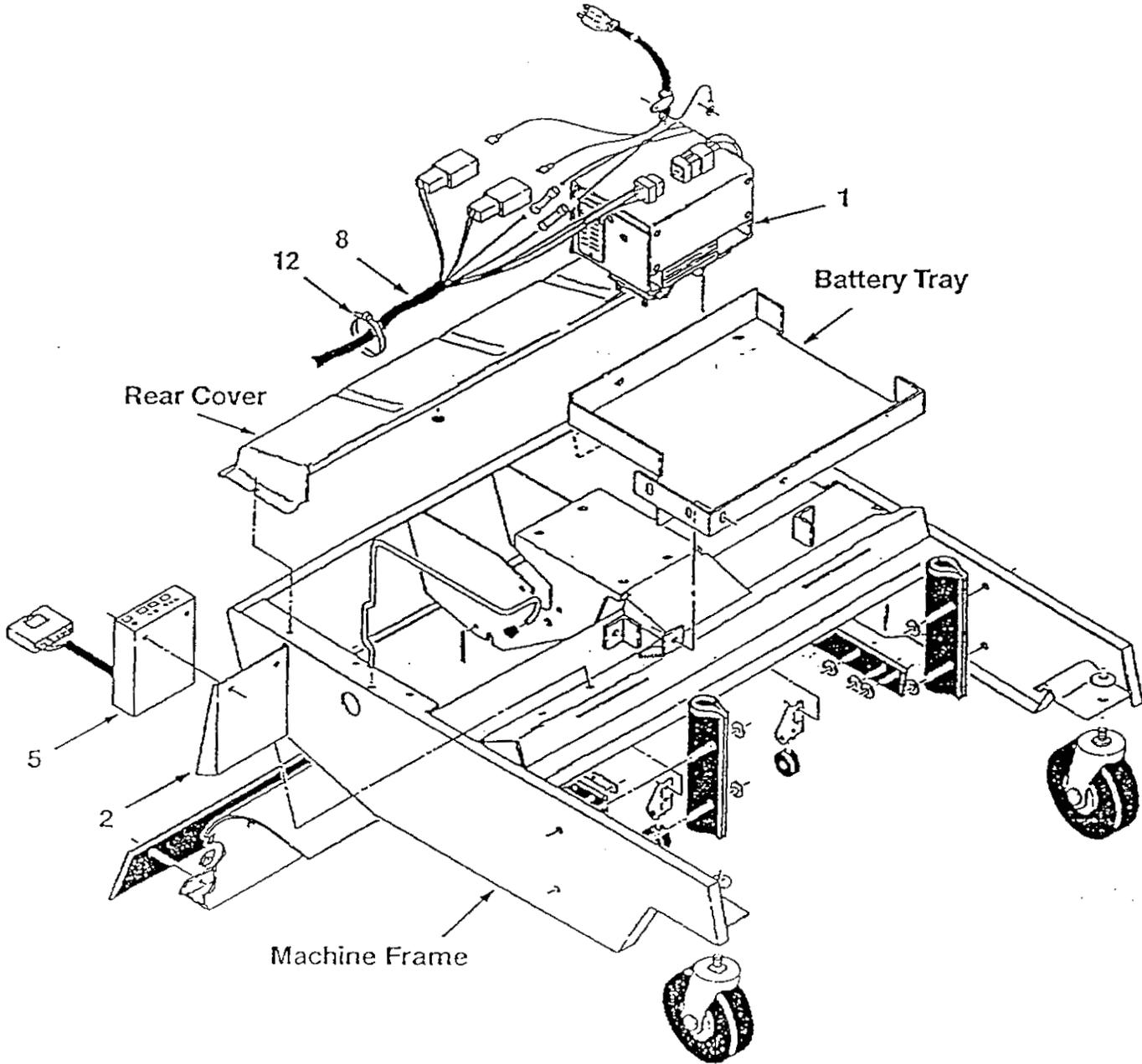


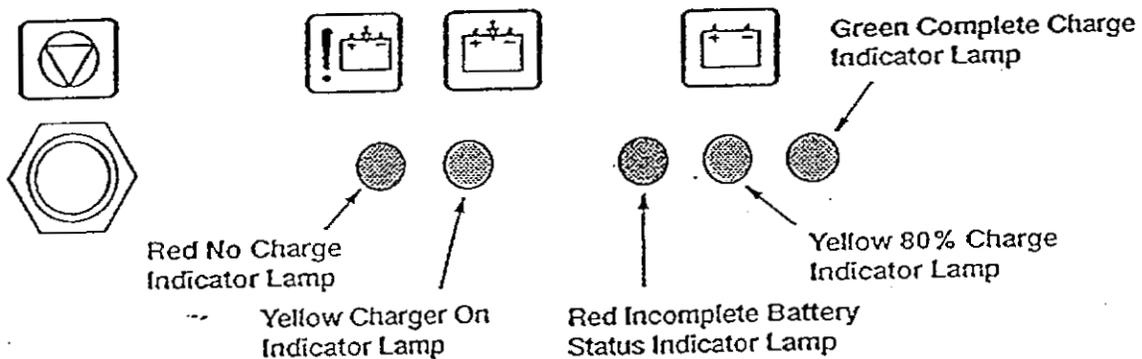
FIG. 3 – Machine Frame and Charger Assembly

BILL OF MATERIAL FOR 60 HZ CHARGER KIT

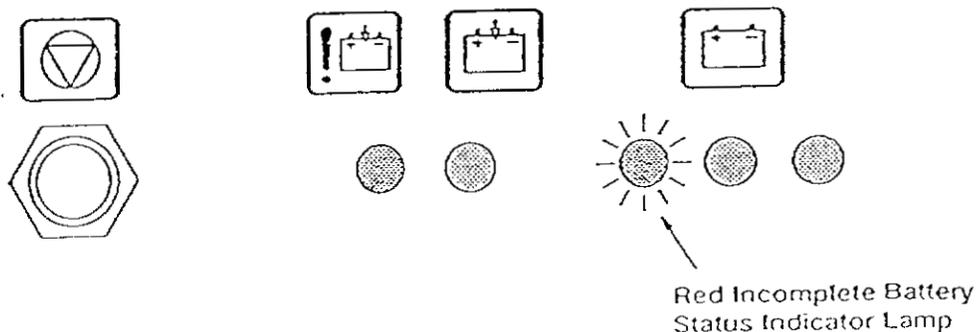
| Key | Part No. | Description | Qty. |
|-----|-------------|---------------------------------------|------|
| 1 | 600-095 | Charger, 24V, 60 hz, 120 V AC | 1 |
| 2 | 600-096 | Control panel mounting bracket | 1 |
| 3 | 069-762-115 | Hex screw, 1/4" - 20 x 1/2" | 2 |
| 4 | 069-760-082 | Flat washer, 1/4" | 2 |
| 5 | 600-098 | Charger control box, 24V | 1 |
| 6 | 186-002-082 | Pan screw, 10 - 32 x 3/8" | 2 |
| 7 | 069-762-056 | Flat washer, 10 | 2 |
| 8 | 600-099 | Charger harness | 1 |
| 9 | 600-100 | Parallel connector, 16 and 14 ga. | 1 |
| 10 | 600-101 | Heat shrink tube, 1/4" ID x 2-3/4" Lg | 1 |
| 11 | 600-102 | Butt connector terminal, 12 - 10 ga. | 2 |
| 12 | 600-088 | Cable tie, 1-3/4" Dia, 7-1/2" Lg | 4 |

CHARGING BATTERIES

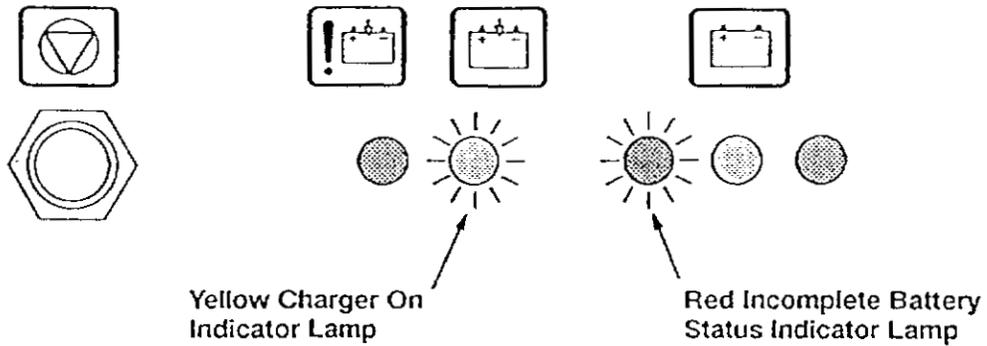
The charger goes through a self diagnostic check when first plugged into to an AC wall outlet. All the indicator lamps will flash showing the self diagnostic check is in progress.



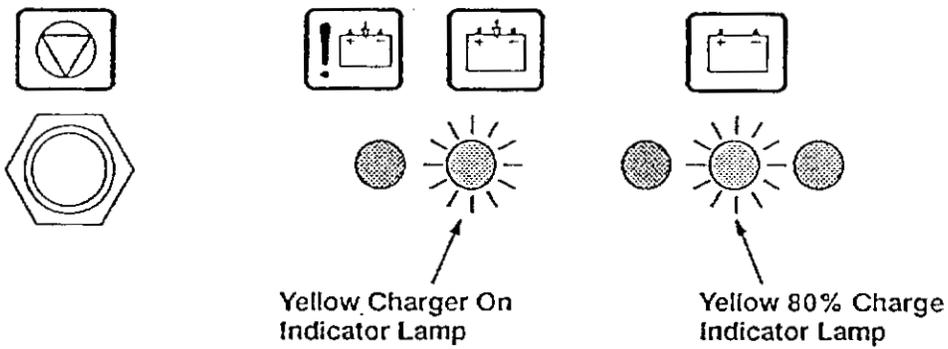
When the lamps stop flashing, the red incomplete battery status indicator lamp lights.



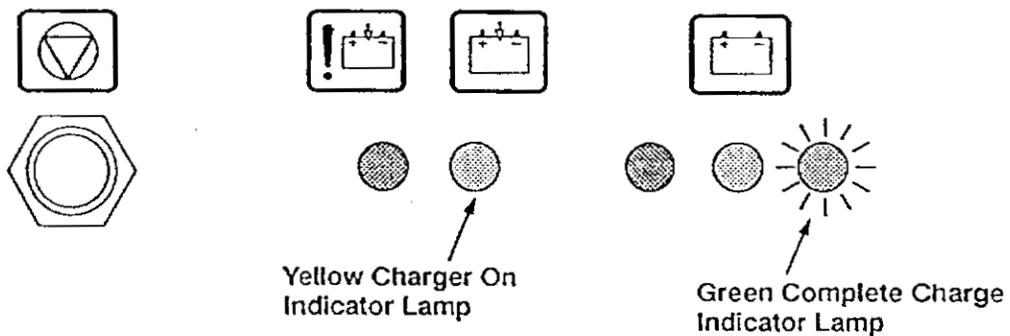
After a short delay, yellow charger on indicator lamp lights showing charger has turned on.



As the battery charges, the red incomplete battery status indicator lamp goes out and the yellow 80% charge indicator lamp lights.

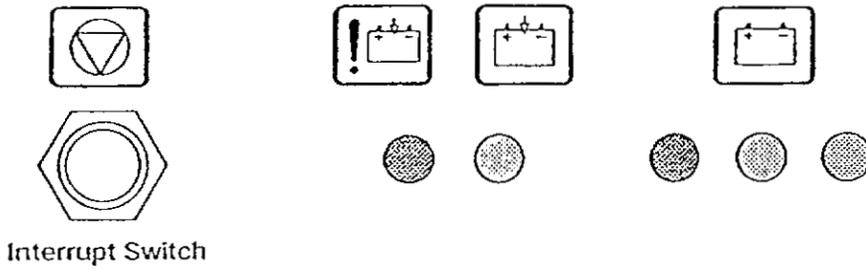


Finally the yellow 80% charge indicator lamp goes out and the green complete charge indicator lamp lights showing the battery is completely charged. After a short time, the yellow charger on indicator lamp goes out showing the charger has turned off.



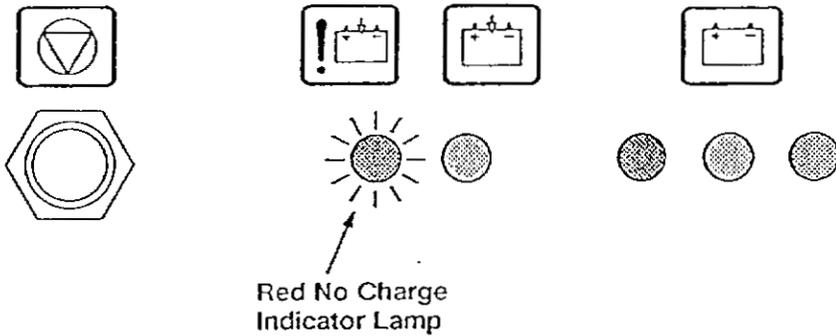
The green complete charge indicator lamp will remain on until the charger is unplugged from the wall outlet.

NOTE: If the charge cycle has to be stopped, press the interrupt switch while unplugging the charger from the wall outlet.



Interrupt Switch

NOTE: If the red no charge indicator lamp lights when the charger is plugged into a wall outlet, the charger can not charge the battery, meaning there is something wrong with the battery.



Red No Charge Indicator Lamp