TECHNICAL SERVICE BULLETIN

5/30/95

merit industries, inc.

Problem: Prevent CPU board malfunctions caused by electrostatic discharge.

Games affected: All Megatouch II countertop games with CRT-260 CPU board and PCB mounted touchscreen controller. Effects model number G20-100-001, serial numbers 348702 through 350000 and 380001 through 381750.

Symptoms: Game locks up, or does not power up at all. *NOTE: If game does not power up at all, damage may have already occurred. Call Merit Technical Service (1-800-445-9353).*

Cause: The touchscreen controller board is not adequately grounded to dissipate electrostatic discharges. Additionally, the CPU's reset signal is unnecessarily connected to the controller and may provide a path for a static shock to damage the reset circuitry.

Solution: Cut the reset line to the TTL controller board and attach extra ground braids to the chassis.

Tools:

Screwdriver
Wire cutter
Pliers or crimper

Materials:

(2) - 7” 14 (or 16) AWG insulated wire
(1) -11” 14 (or 16) AWG insulated wire
(1) - #6-32 x 3/8” machine screw
(4) - #6-32 x 1/2” machine screw
(1) - #4 external tooth lock washer
(4) - #6 external tooth lock washers
(2) - #6-32 kepnut
(6) - #6 or #10 ring lugs

Instructions

1. If you have ring lugs, attach one to each end of the three pieces of wire. If you do not have ring lugs, simply wrap the wire around the screw when you see the term “ring lugs” used in this bulletin.

2. Open the rear door and slide the CRT-260 into its service position.

3. Remove the ribbon cable attached to header J6 (2 x 7) on the CRT-260 board and cut Pin 7 on J6. Header J6 can be seen in Figure 1.

   Reattach the ribbon cable to header J6. Make sure that the blue edge of the ribbon cable is on the left, corresponding to Pin 1.

4. Untie the green, gray and orange wires tie-wrapped to the touchscreen cable connector. Retie the orange cable to the touchscreen cable connector.

   Strip the insulation from the gray and green wires to reveal 1/2” bare wire and twist them together.

   Connect them to the “ground” on the power supply.

5. Remove the TTL controller board from the three standoffs holding it above the CRT-260 board.

   Using a #6-32 x 3/8” screw and a #6-32 kepnut, attach one end of the 11” wire to the unused, plated-through hole on the TTL controller board. Make sure to put the ring lug on the bottom of the board and screw from the top.

   Attach the other end to the chassis as shown in Figure 1. Use a #6-32 x 1/2” and a #6 lock washer. Make sure that the washer is between the ring lug and the chassis.

   Replace the TTL controller board by carefully pressing the board back onto the standoffs.

6. Remove the thumbscrew securing the power entry/fan/speaker assembly and pull out the assembly.

   Attach the ring lug on one of the 7” wires to one of the studs that mounts the line filter. Put the #4 lock washer between the lug and filter. This can be seen in Figure 1, detail C.

   Using a #6-32 x 1/2” screw and a #6 lock washer to connect the free end of the wire to the chassis as shown in Figure 1.

7. Referring to Figure 1, detail B, remove the screw securing the left-hand side of the lid hinge to the chassis. Use a #6-32 x 1/2” machine screw, a #6 external tooth lock washer and a #6-32 kepnut. Be sure to attach the ring lug on the underneath side of the lid.

8. Slide the CRT-260 back into the cabinet and close the rear service door.

9. All parts mentioned in this bulletin are available in a kit from Merit Industries. Call your distributor for details.

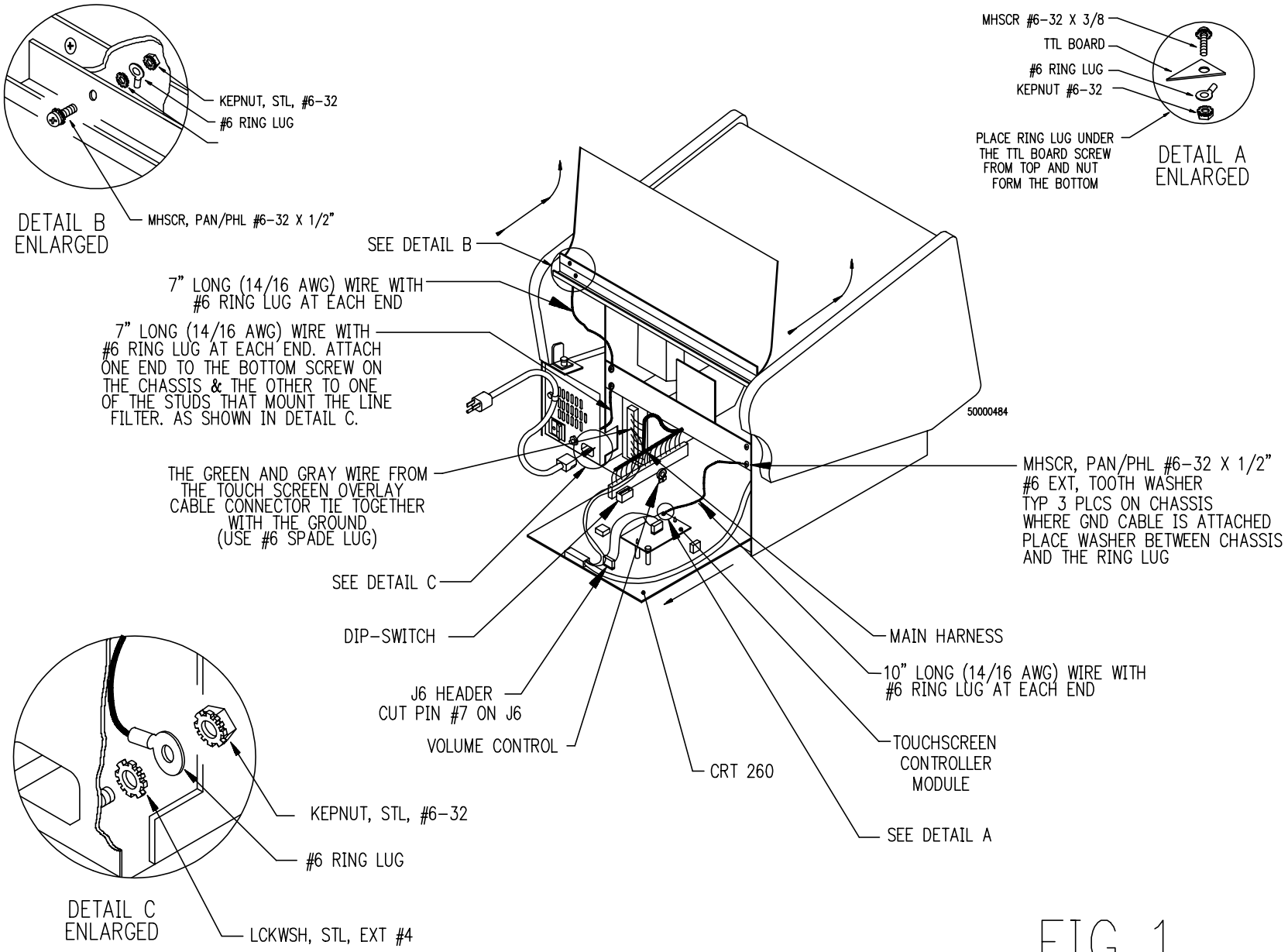

FIG 1