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**KIT PART NUMBER 1670011**  
**INSTRUCTIONS FOR INSTALLING AN INFRARED DISPLAY KIT**  
**IN A SNACK CENTER OR REFRESHMENT CENTER**

CHECK THE PARTS RECEIVED IN THE KIT WITH THE PARTS LIST IN THESE INSTRUCTIONS. IF ANY PARTS ARE MISSING, CONTACT THE NATIONAL VENDORS PARTS DEPARTMENT IMMEDIATELY.

Read these instructions carefully before installing the kit.  
Keep these instructions for part numbers and for future reference.

This kit contains the following :

PART NUMBER	DESCRIPTION	QUANTITY
1575104	LENS DISPLAY-DATA CENTER	1
1586022	IC ASSY-VERSION 158.IR1	1
1670013	DISPLAY W/BRACKET ASSY	1
1689094	HARNESS-IR DATA TO CONTROL	1

**WARNING**

*Observe proper electrostatic discharge precautions while performing this procedure.*

**Part I. Gain access:**

1. Turn the machine power OFF.
2. Remove the control/interface board cover.
3. Remove the magnet mounting plate (the display board cover is attached, and will be removed at the same time).

*Note how all four wire harnesses are connected to the old display board so you will be able to properly connect them to the new display board.*



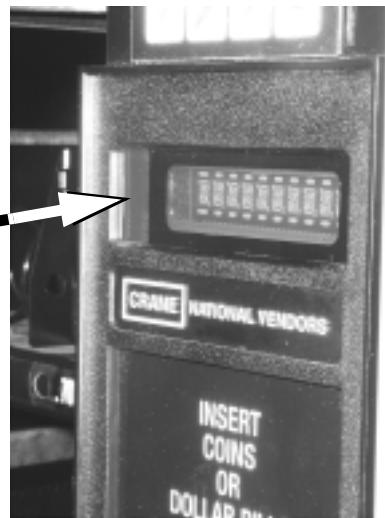
Removing the magnet mounting plate.

**Part II. Remove old parts:**

1. Disconnect the wiring harnesses from the old display board. Remove the display board.
2. After the display board is removed, you will be able to pull the face plate out enough to remove the old lens.

3. Peel the protective mylar covering from the new lens. Install the new lens in place of the old one in the following orientation: As you are looking at the face plate from the outside of the machine, the red portion of the lens is on your left, and the smooth side (the side that was covered by the mylar) is facing you.

**RED PORTION OF LENS**

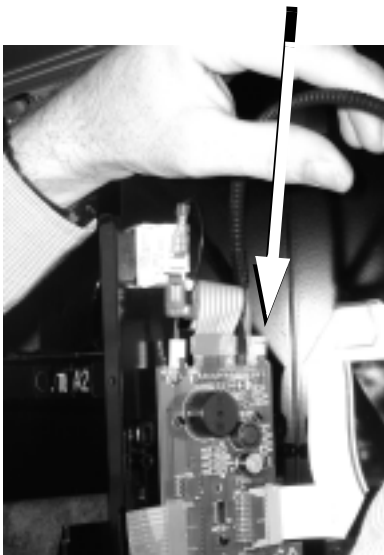


Proper installation  
of lens

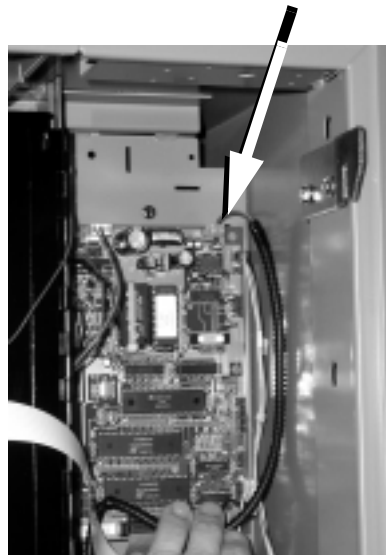
4. Install the new display board. While tightening the mounting screws, look into the lens to make sure the display board is lined up properly.

5. Re-connect the four wiring harnesses you previously removed.
6. Connect the new wiring harness between J50 on the display board to J36 on the controller board as shown. Remove the mounting nut in the location shown, attach the ground lug, and replace the nut.

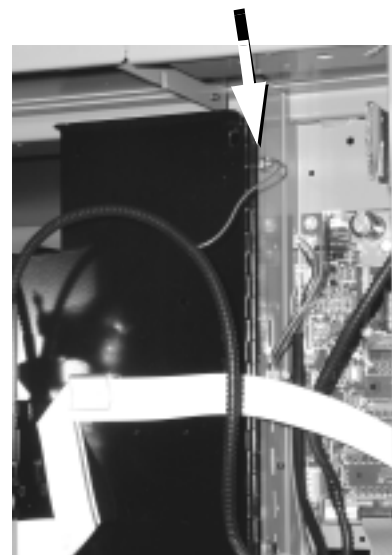
**CONNECTING TO J50  
ON THE DISPLAY BOARD**



**CONNECTING TO J36  
ON THE CONTROLLER BOARD**



**CONNECTING  
GROUND WIRE**





# CAUTION



## PREVENTING CIRCUIT DAMAGE FROM ELECTROSTATIC DISCHARGE

Electronic printed circuit board assemblies are susceptible to physical damage, for example, broken components due to rough handling. In addition, printed circuit board assemblies (and their components, such as EPROMs) are subject to damage by various types of static electricity. Damage of this type is called **ELECTROSTATIC DISCHARGE (ESD)**. ESD can cause immediate damage to components on a circuit board assembly, or it can weaken them to the point where the damage will show up days, weeks, or months later.

### PRECAUTIONS TO TAKE WHEN HANDLING PCB ASSEMBLIES

1. The PCB assembly is usually shipped in a cardboard shipping carton to prevent physical damage. Inside the carton, the PCB was placed in 1 of 3 types of closed protective bags: black translucent, smoked gray transparent, or pink transparent.
2. For storage, the best protection for the assembly is to leave it in its shipping carton. If it is removed from the carton, leave the assembly in its **CLOSED storage bag while transporting, or until it is ready to be installed in a machine.**
3. Before handling the PCB assembly, be sure you are wearing a conductive wrist strap or other suitable ESD protective device. The conductive wrist strap should be connected to ground in the machine. This can be any **PLATED exposed metal part. DO NOT CONNECT YOUR WRIST STRAP TO A PAINTED PART.**
4. Remove the new PCB assembly from its bag. Set the PCB assembly on top of the bag on a flat surface while you remove the old PCB assembly from the machine.
5. Pick up the new PCB assembly and set the old one down on the protective bag. Install the new PCB assembly in the machine.
6. Insert the old PCB assembly into the protective bag. Seal the bag.
7. If the old PCB assembly is to be returned to National Vendors, it is best to ship it in the same shipping carton you received with the new PCB assembly.

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### Part III. Replacing the EPROM:

#### CAUTION

*Do not remove the new EPROM from its shipping carton until you are ready to use it.*

#### CAUTION

*Observe electrostatic discharge precautions to protect the electronics from damage while they are being handled. Wear a grounded wrist strap connected to any unpainted metal part of the machine. If a wrist strap is not available, remove any electrostatic charge (static electricity) from yourself by touching any unpainted metal part of the machine before handling any electronic component. Do this often during the removal and installation process.*

1. On the figure, see the shaded area representing EPROM U4. These devices have various means of showing how they are to be oriented on the circuit board. Some EPROMs will have a small notch which matches the notch printed on the controller board. Other EPROMs may have a small dimple as shown, others may have a painted stripe. Take note of where the locating mark is on the EPROM currently mounted on the controller board. Your new EPROM will be placed in that same orientation. Some EPROMs have 28 pins, so it does not use the entire socket. The shaded area on the figure is where the new EPROM will go, leaving the four holes at the bottom of the socket empty.
2. Carefully remove the old EPROM from the controller board. Use an EPROM removal tool or a thin tool such as a small screwdriver or knife blade to gently rock the EPROM from its socket.
3. Carefully insert the new EPROM in the controller board. **MAKE SURE THE LOCATING MARK (NOTCH, DIMPLE, STRIPE) ON THE EPROM IS FACING THE SAME WAY AS ON THE OLD EPROM!** Make sure each of the pins is in its respective hole in the socket before pushing the EPROM into place.
4. Carefully seat the EPROM into place using uniform pressure all around.

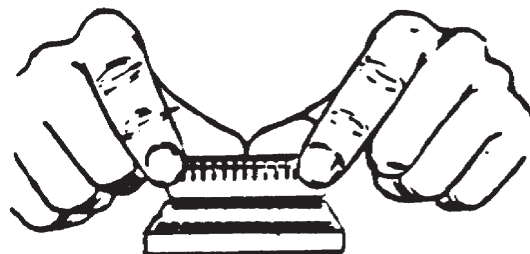
MAKE SURE THE  
NOTCH ON THE EPROM  
LINES UP WITH THE NOTCH  
ON THE SOCKET

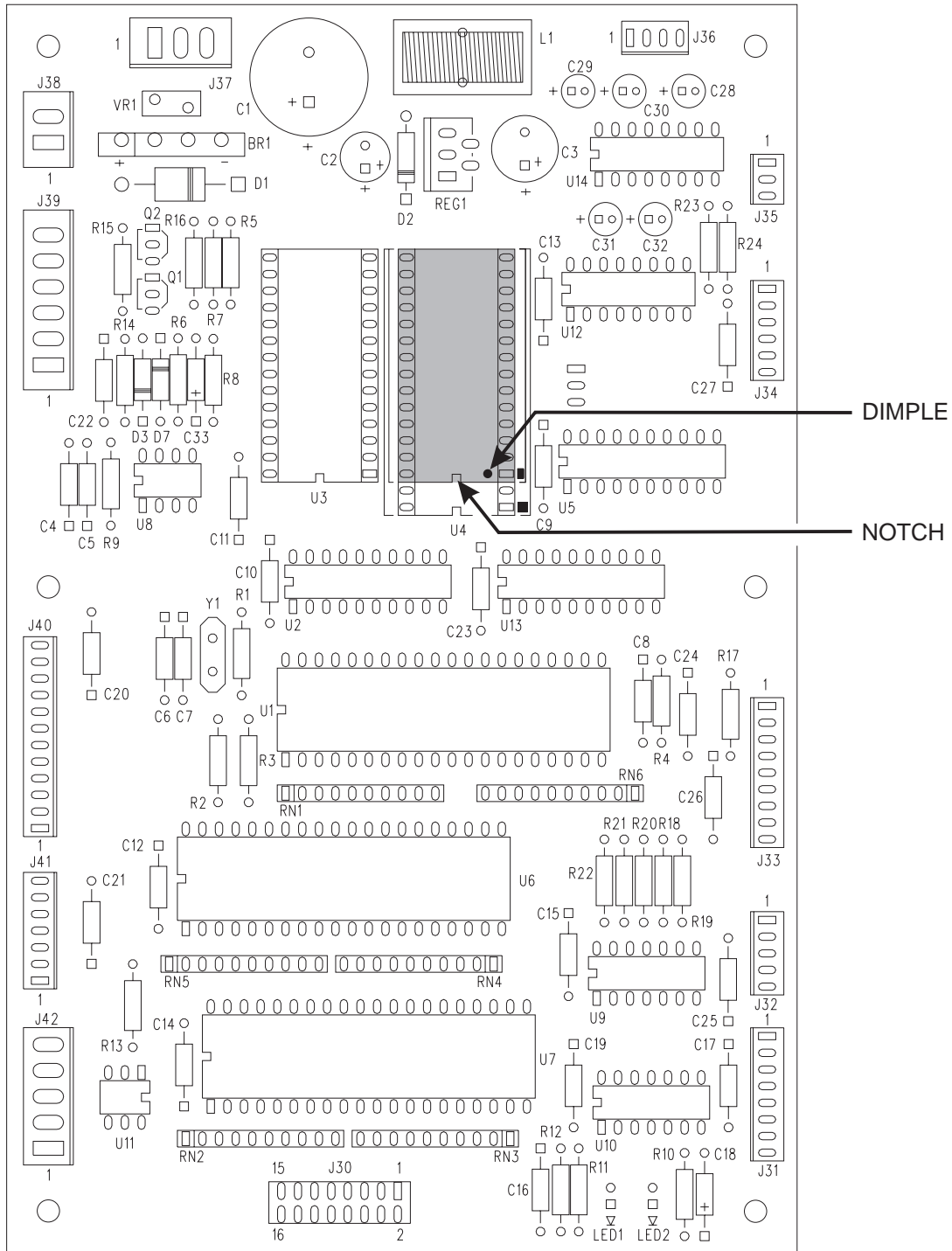


USE AN IC PULLER  
OR A SMALL SCREWDRIVER  
TO REMOVE THE EPROM



CAREFULLY PLACE THE NEW  
EPROM IN THE SOCKET, MAKING  
SURE ALL THE PINS ARE IN THEIR HOLES.





**Controller Card Showing the Location of EPROM U4**

**Part IV. Finish the installation:**

1. Replace all items you removed.
2. Turn the machine power ON.