

## Section 9 - Water System

place a glass against the actuator and push. If there is still no water, replace the primary valve. If water is coming through, replace the water filter.

### Low/No Voltage At Coil(s)

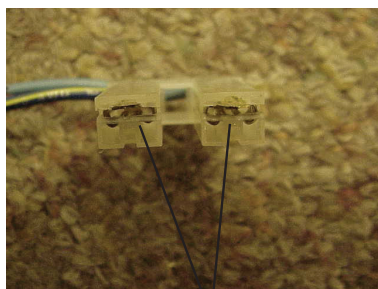
One point we need to cover in our testing is good connections at all points in the ice and water wiring. There are a number of connections in the wiring of a refrigerator. On the ice maker, the wiring runs through the plug by the condenser fan motor up to the ice maker,

back down to the same plug and into the diode harness. On the water dispenser, the wiring runs from the plug by the condenser fan motor to the plug at the bottom of the freezer door, up to the dispenser, and back down through the same plugs to the diode harness. A bad connection at any of the plugs or wire terminals can stop the valves from operating. One of the problems we have found is that the connector on the water valve coils is pushed on with the valve terminal over the top of the terminal in the plug. (See Figure H9.)

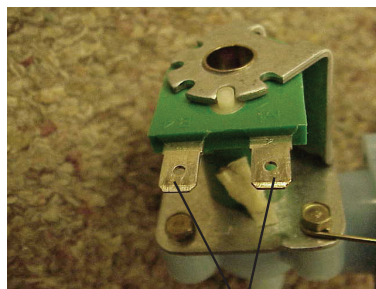
Diode Replacement Kit 5303918287 For Ice & Water Model Side by Sides With A Water Filter



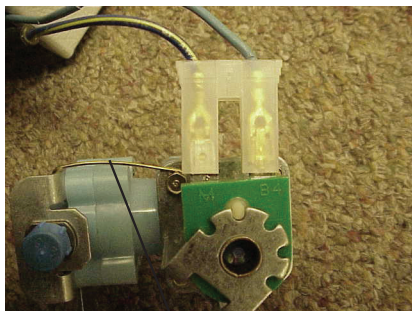
Figure H8



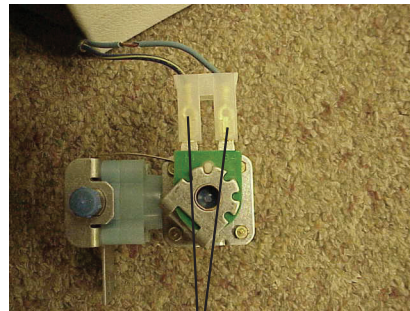
Terminals in Connector



Terminals on Coil



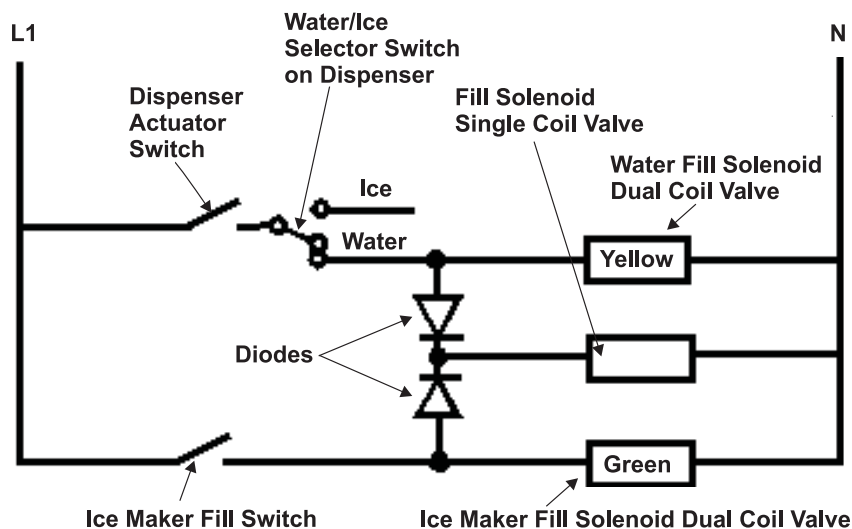
Terminal on Coil is Installed Over Top of Terminal on Left Side of Plug



Terminals and Plug Installed Correctly

Figure H9

# Section 9 - Water System



## VOLTAGE READINGS AT GREEN COIL OF SECONDARY VALVE

When Ice Maker is Filling:

Voltage at Outlet	Voltage at Coil	
120 VAC	$100 \pm 10\%$ VAC	Normal
100 VAC	$85 \pm 10\%$ VAC	Normal at 105 VAC (Will require use of 50 watt coil)
100 - 120 VAC	20 - 76 VAC	Bad connection, Fill Switch, or Heater in Ice Maker.

## VOLTAGE READING AT YELLOW COIL OF SECONDARY VALVE

When Filling A Glass With Water:

Voltage at Outlet	Voltage at Coil	
120 VAC	$119 \pm 10\%$ VAC	Normal
100 VAC	$99 \pm 10\%$ VAC	Normal
100 - 120 VAC	0 - 90 VAC	Bad connection or bad Fill Switch

## VOLTAGE READING AT COIL OF PRIMARY VALVE

When Ice Maker is filling:

Voltage at Outlet	Voltage at Coil	
120 VAC	$56 \pm 10\%$ VAC	Normal
100 VAC	$48 \pm 10\%$ VAC	Normal
100 - 120 VAC	10 - 43 VAC	Bad connection, Fill Switch, or Heater in Ice Maker
100 - 120 VAC	0 VAC	Open Diode (if current is normal at secondary coil)

**NOTE:** You must remember that with the current flowing to the Primary Valve Coil through the Diode, you are getting 30 cycle instead of 60 cycle current at the coil of the Primary Valve. Because of this, your volt meter will only read about 1/2 the voltage that is going to the coil. The change in the cycle of current does not effect the efficiency of an electromagnetic coil.

Figure H10