

Touchless Ice Module Installation for ED150, 175, 200 & 250

SAFETY OVERVIEW

- Read and follow **ALL SAFETY INSTRUCTIONS** in this manual and any warning/caution labels on the unit (decals, labels or laminated cards).

SAFETY INSTRUCTIONS



WARNING:

Before starting installation, read and understand all safety label and warnings on the machine. Also review and understand all safety instructions in the owners, installation and service manuals.

Failure to comply could result in serious injury, death or damage to the equipment.

QUALIFIED SERVICE PERSONNEL



WARNING:

Only trained and certified electrical, plumbing and refrigeration technicians should service this unit.

All wiring and plumbing must conform to national and local codes. **Failure to comply could result in serious injury, death or equipment damage.**

FUNCTION:

- The Touchless Ice Module is a sensor switch that replaces the current ice dispense lever and activation. Once installed, motion under the ice chute will activate the switch opening the ice gate and start the agitator. The green light behind the chute will light when the sensor is triggered.
- To place valve in cleaning mode, cover the sensor located behind the valve for 5 seconds. Top and bottom yellow light will flash for 60 seconds meaning valve is deactivated. Valve will return to normal operation after mode times out.

SAFETY PRECAUTIONS



WARNING ELECTRIC SHOCK:

Disconnect power to the unit before installing the Touchless Ice Module! Follow all lock out/tag out procedures established by the user. Verify all power is off to the unit before performing any work. **Failure to comply could result in serious injury, death or damage to the equipment.**

CLEANING INSTRUCTIONS:



CAUTION: If ice builds up under ice chute use a scoop to move ice into a bucket. Do not use hot water. The steam will trip the sensors and could cause valves and ice chute to dispense. Hot water can also damage the plastic drip tray.

SETUP INSTRUCTIONS (Ice Chute Flow Rate):

Before installing the hands free ice control it is advised to check the Ice Flow Rate coming out of the ice chute. In normal operation the ice coming from the ice chute should come out at a rate of 2.5oz which basically would fill a 16oz cup with ice in about 4 seconds. If the cup is filled faster the ice gate needs to be adjusted.

A second sign that the ice gate is too wide open is ice accumulated in the drip tray. If ice is coming out at too high a flow rate when the user removes there cup the large amount of ice still in the chute will accumulate in the drip tray.

ADJUSTING THE ICE CHUTE

Step 1: Remove the merchandiser

Step 2: Loosen but do not remove the nuts that mount the ice chute to the ice bin or hopper.

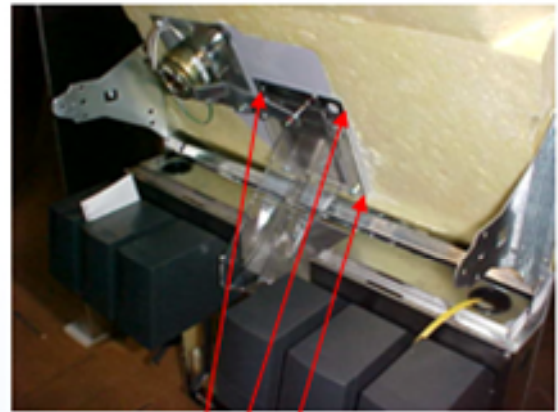
Step 3: Once loosened, move the restrictor plate up to increase ice flow or down to decrease ice flow or the size of the opening from the ice bin.

(**NOTE:** The ice gate is typically set at installation to 3/4 open)

Step 4: Retighten the nuts to 4in lbs. and reinstall the merchandiser



CAUTION: DO NOT OVERTIGHTEN!



Nuts on studs

If the ice flow rate was checked before the Ice module hands free installation, **CHECK IT AGAIN** when this installation is complete. If when the cup is removed a large portion or not enough ice exits the chute follow the procedure above and readjust accordingly.

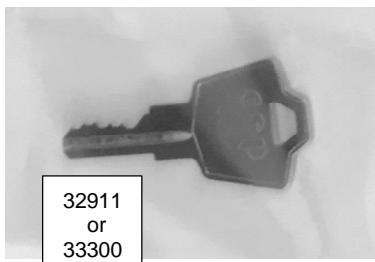
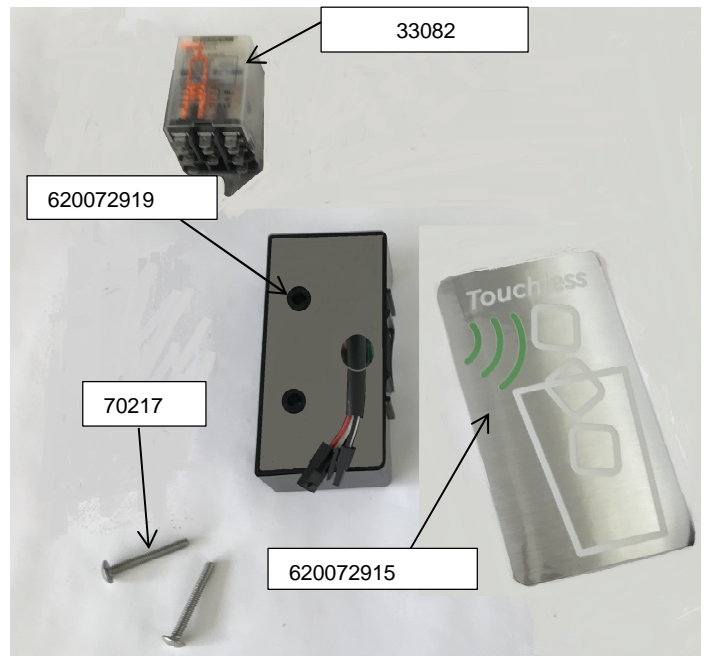
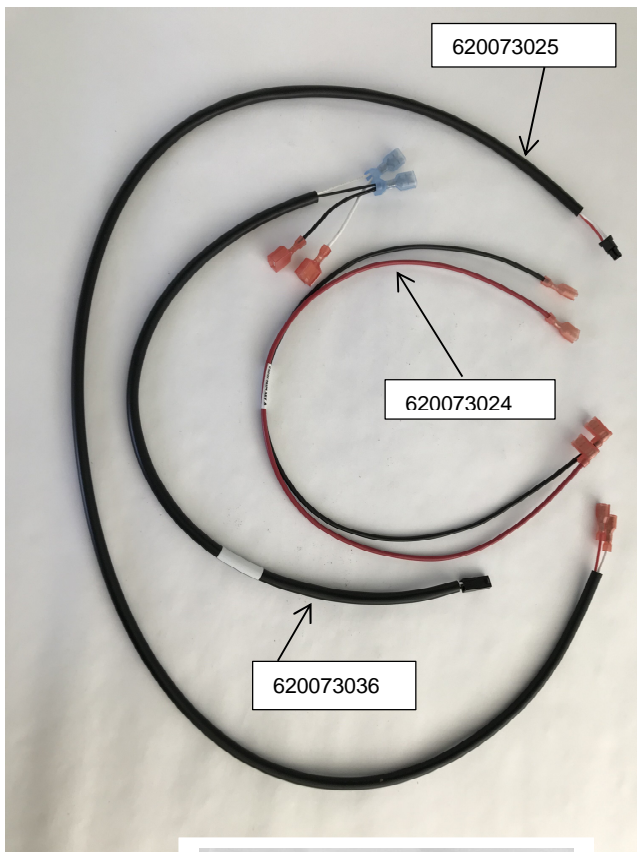
TOOLS REQUIRED

- Slotted screwdriver
- Phillips head
- Needle nose
- Adjustable wrench

STEP1: REQUIRED PARTS

KIT CONTENTS: 629097982 KIT TOUCHLESS ICE ED150, 175, 200 & 250

QTY	Part Number	Description
1	620072919	Sensor Ice Chute IR Assembly
1	620073002	Housing Rear Cover Ice (plate)
2	71085	Screw 8-32 x 1.25" long
1	620073024	HARN BARRIER STRIP TO JUMPER RELAY
1	620073025	HARN CONTROL PCBA TO 24VAC RELAY TOUCHLESS ED300
1	620073036	HARN CONTROL PCBA TO 24VAC PWR TOUCHLESS ED300
1	33082	Relay
2	70217	Screw
1	620072915	Decal Ice
2	620807202	Plastic Bags to Store Removed Components
4	36113006	Zip Tie Wraps
2	53168	Ice Chute
2	32911	ED 200 & 300 key switch spare key
2	33300	ED 150 & 175 key switch spare key



STEP2: DISASSEMBLY

The first part of the installation will focus on the disassembly to prepare for the Hands Free Ice Installation Kit. The original ice switch will need to be removed from the splash panel and wires from the switch disconnected from the terminal board. In the figures below, all wires except those involved have been removed for clarity.

(USE REFERENCE DRAWING THAT MATCHES THE MACHINE BEING CONVERTED)

TOUCHLESS ICE MODULE ED150 &175 REFERENCE DRAWING

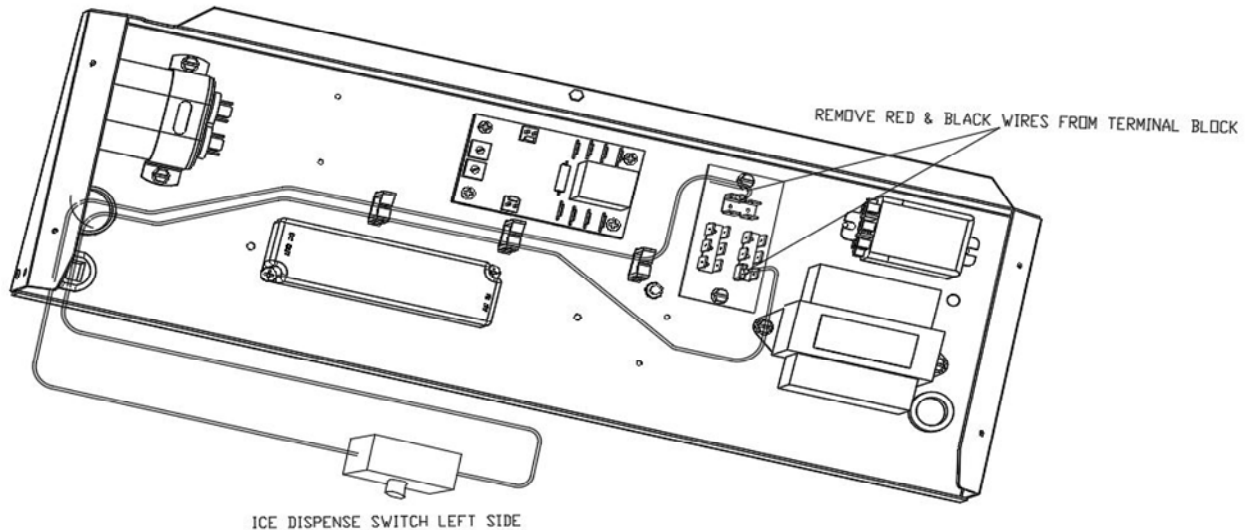


Figure 1 ED150 & 175: Original Ice Chute Switch showing Ice chute switch and wire removal.

TOUCHLESS ICE MODULE ED200 & 250 REFERENCE DRAWING

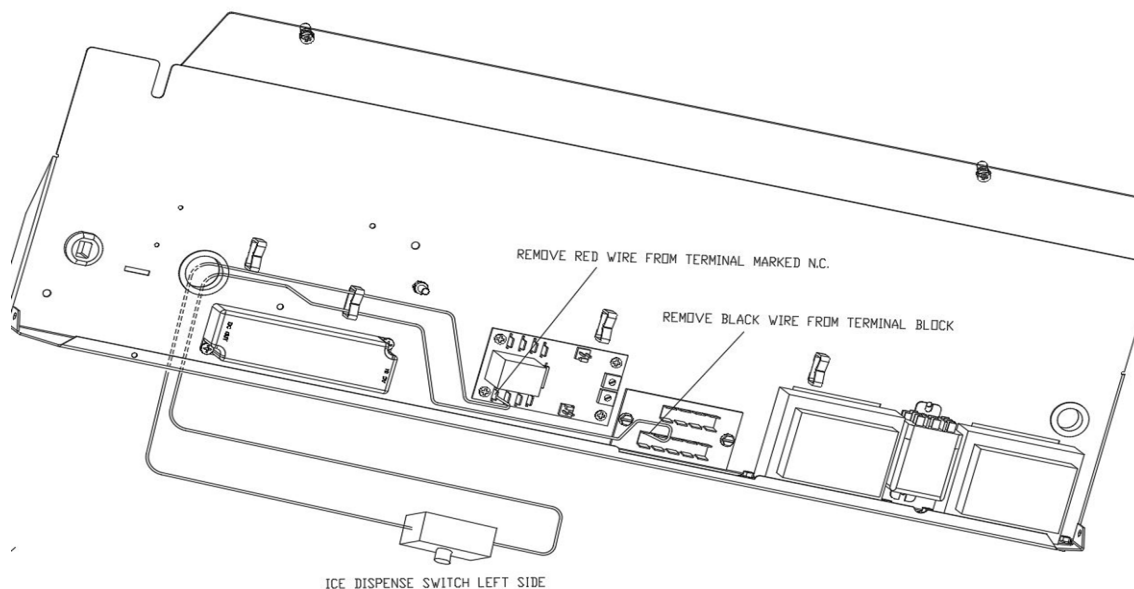

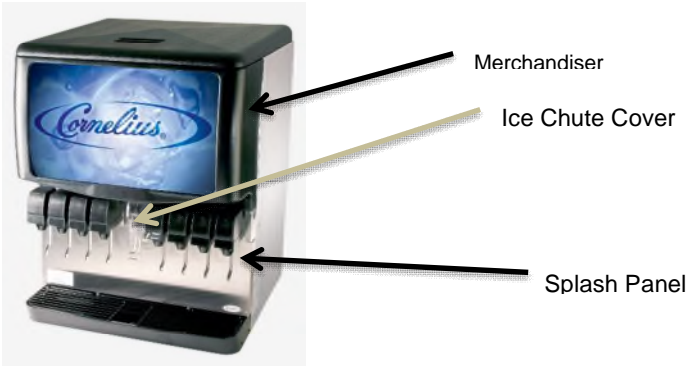





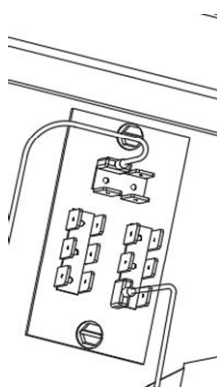


Figure 2 ED200 & 250: Original Ice Chute Switch showing Ice chute switch and wire removal.

Disassembly ALL MACHINES

Step	Action	Figures
	Before installation validate the Ice Chute gate is properly set, and all valves function.	
1	Disconnect power to the unit	WARNING: 
2	Remove Splash Panel	 <p>Merchandiser</p> <p>Ice Chute Cover</p> <p>Splash Panel</p>
3	Remove Merchandiser	
4	Remove Ice Chute Cover	
5	<p>5A) Remove Ice Lever Mechanism using a Phillips screwdriver to remove the (2) 8-32 screws holding bracket to valve panel.</p> <p>NOTE: 5B) Set aside ice lever.</p>	 <p>Fig: 5A</p>  <p>Fig: 5B</p> <p>Screws</p>

6	<p>6A) Remove ice push button boot and switch-nut on front of valve panel using an adjustable wrench.</p> <p>6B) Push switch back into dispenser and drop down through splash panel opening</p>	  <p>Fig: 6A</p> <p>Fig: 6B</p>
7	<p>Remove the 1 RED and 1 Black wires as shown in Figure 1 from the terminal blocks. Remember these locations as they will be replaced with wires from the new assembly.</p> <p>NOTE: Remove harness and set aside. .</p>	  <p>ED150 & 175 terminal block shown above. See figure 2 on page 4 for ED200</p>
	<p>This completes the disassembly phase</p>	

STEP 3: TOUCHLESS ICE MODULE ASSEMBLY

Function: The Hands Free Ice Module will require the addition of (3) harness, (1) relay board and (1) hands free sensor module per side.

1. Power for the module will come from the 24VAC yellow wires that come from the XFRMR and use the existing harnesses with the addition of a harness to tap PWR from the original yellow harness to the ice sensor module.
2. The second harness from the module that contains the RED and WHITE wires will be connected to the coil side (Terminals A & B) of the left or right relay depending on the side being assembled.
3. The last connection will be using the black and white jumper wire harness to go from the relay open contacts (9 & 6) to the left or right terminal board.

REFERENCE DRAWING THAT MATCHES THE MACHINE BEING CONVERTED
 These figures show the Hands Free Ice Module additional wiring with all other wires except those involved are removed for clarity!

TOUCHLESS ICE MODULE ED150 &175 REFERENCE DRAWING

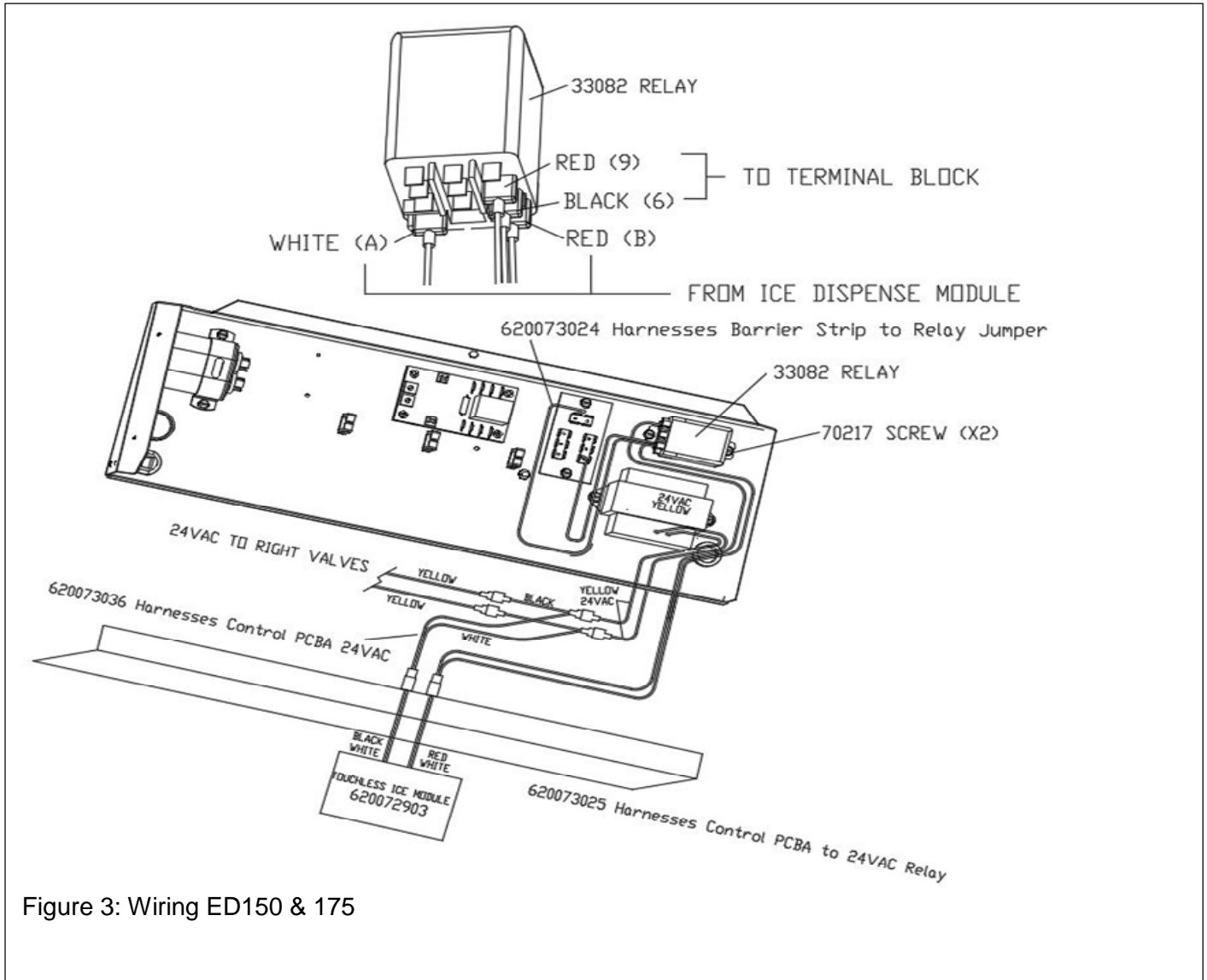


Figure 3: Wiring ED150 & 175



TOUCHLESS ICE MODULE ED200 & 250 REFERENCE DRAWING

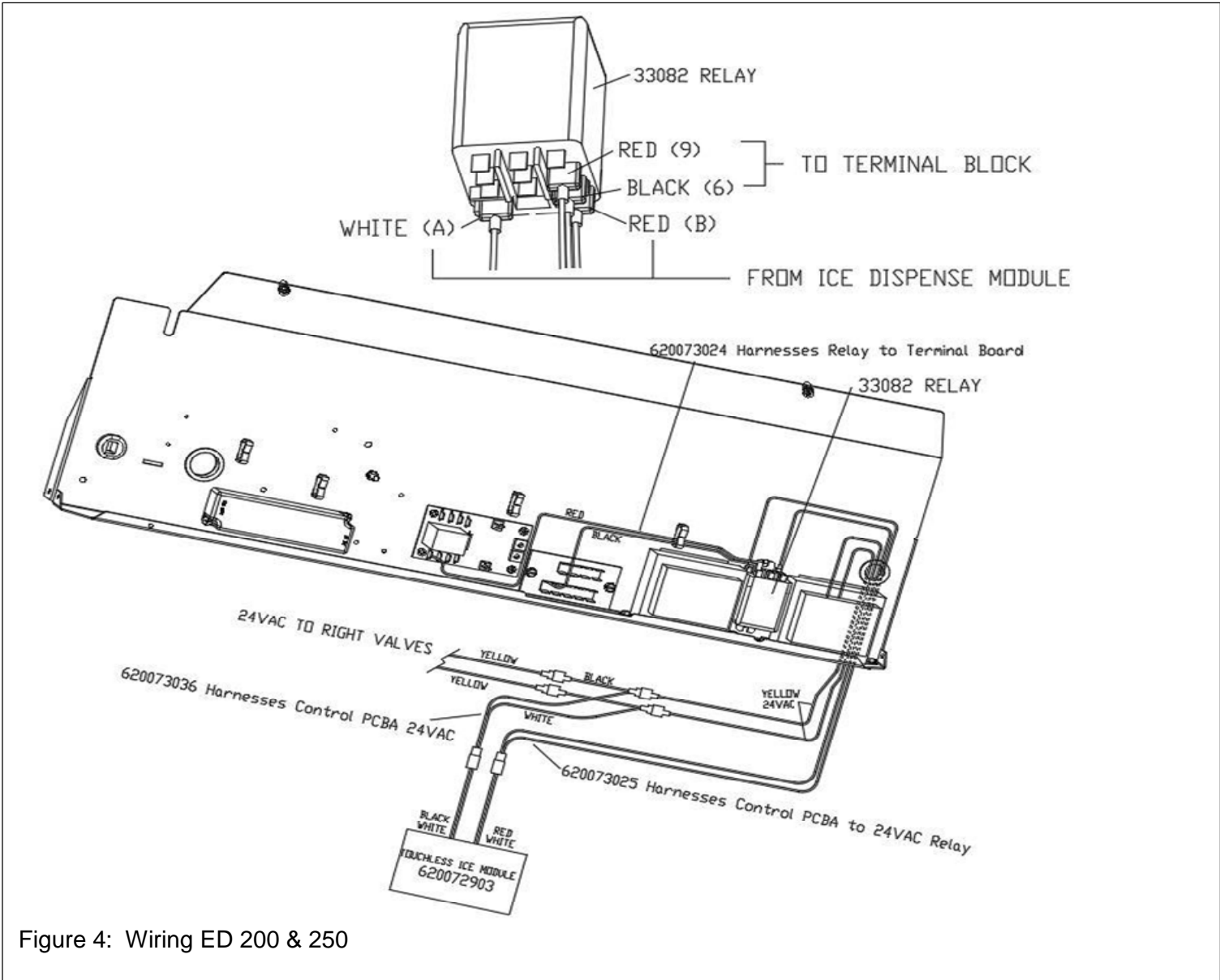
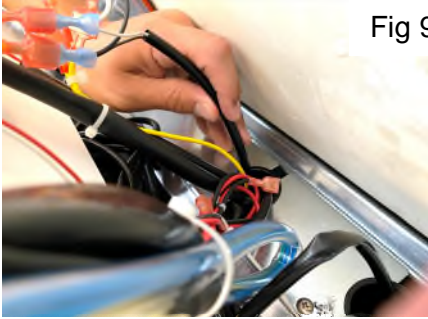
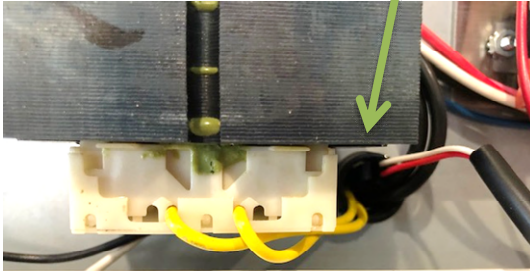
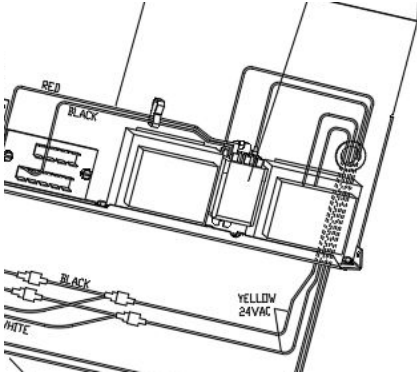
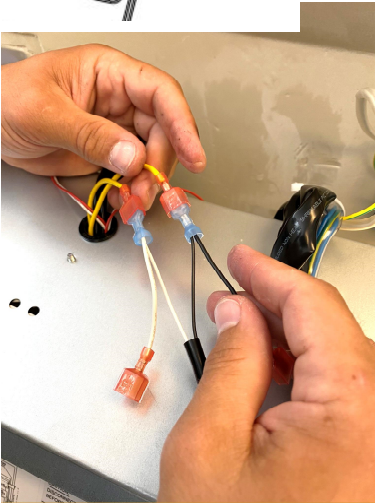






Figure 4: Wiring ED 200 & 250

STEP	ACTION	FIGURES
8	<p>Fig 9a) Locate the "Control PCBA to 24VAC PWR P/N 620073036.</p> <p>Fig 9b) Route the harness through the back of the valve panel and through the grommet on the top of the panels removed in step 7</p>	 <p>Fig 9a</p> <p>Grommet</p>  <p>Fig 9b</p>
9	<p>With the back of the E-Box still exposed disconnect the (2) Yellow 24V power wires from each other. With the harness pulled through the grommet from step 8 connect the WHITE jumper wire between one side of the yellow wires, and the BLACK between the other.</p>	 

<p>10</p>	<p>With the E-Box in the up position remove the two screws that hold the silver capacitor.</p> <p>Position the relay panel under capacitor and replace the screws removed from the step above to trap the panel under the capacitor.</p> <div data-bbox="230 556 289 619" data-label="Image"> </div> <p>WARNING! When removing the capacitor do not touch the contacts as there is high voltage and can cause injury.</p>	<div data-bbox="834 588 1156 861" data-label="Image"> </div> <div data-bbox="1192 588 1373 646" data-label="Text"> <p>WARNING:</p> </div>
<p>11</p>	<p>Connect the remaining two harnesses to the Relay.</p> <p>P/N: 620073024 Touchless Harnesses Terminal board to Relay Jumper” This harness will be connected between the relay terminals (9) red wire and terminal (6) black wire. The other end of both will be connected to the terminal block where the wires were removed in step 7.</p> <p>Reference Figure 2 for relay wiring</p> <p>For 200/250 only! P/N 620073025 Touchless Harnesses Control PCBA to 24VAC Relay” This harness will have the spade side connected to terminal (A) WHITE wire and (B) RED Wire.</p> <p>The end with the 2 pin black connect will be routed through the grommet in the back of the E-Box directly below the Relay Board Panel.</p>	<div data-bbox="756 987 1127 1213" data-label="Diagram"> </div> <div data-bbox="1159 966 1513 1230" data-label="Image"> </div> <div data-bbox="1185 1230 1489 1333" data-label="Caption"> <p>Agitator Control Board & Terminal Board for 200/250 only</p> </div> <div data-bbox="734 1507 1117 1902" data-label="Diagram"> <p>ED150/175</p> </div> <div data-bbox="1127 1507 1500 1902" data-label="Diagram"> <p>ED200/250</p> </div>

STEP	ACTION	FIGURES
12	<p>NOTE: Modules come with covers assembled, but if cover comes loose on sensor module before assembly carefully place the wires in the slot provided in the housing.</p> <p>Next locate the rear cover plate and position so that holes and cable align with each other. Be cautious not to pinch wires before mounting housing to valve panel.</p> <p>Using Phillips Screwdriver and (2) 8-32 screws (included in kit) fasten to existing nuts in valve panel. Route the wires through the original switch activation hole, align housing and secure with the screws</p> <p>Note:</p> <ol style="list-style-type: none"> Check to make sure no protective tape is covering sensor located at bottom of sensor. 	 
13	<p>. Locate the (2) black connectors from each of the previously installed harnesses and connect together. Place wires behind valve panel so they are not pinched when reinstalling the splash panel.</p>	
14	<p>Replace ice chute & plug in PWR to dispenser and test functionality. Place hand or cup in sensor path. The green light behind the chute should turn green and the agitator should turn on and ice gate open.</p> <p>If unit does not function refer to figure 3 or 4 to look for crossed or missed connections.</p>	

15	Replace upper valve panel splash panel, and replace all fasteners used to secure E-Box and reflector. Replace merchandiser	
16	Install Hands free sticker on splash panel under each ice chute in location shown.	 <p data-bbox="836 911 1084 1010">Hands Free Labels Located under Ice Chute</p>

This completes the Assembly