Can/Bottle Satellite
Model 3505
GVC1/GVC2
Manual Addendum

IMPORTANT NOTE!

This Satellite Machine must be attached to a host machine that has one of the following 2 control boards installed.

1 - GVC 1 with blue credit display.
2 - GVC 2 with two line credit display.

It <u>will not</u> function with a GVC1 control board that has the Red Credit Display.

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SPECIFICATIONS

ELECTRICAL			
Model	**3505**	REFRIGERATION	
Voltage	120 VAC	**Unit Size**	1/3+ HP Hermetically Sealed
Frequency	60 Hz	**Refrigerant**	R-134a
Current	8 Amps	**Charge**	5.1 Oz.
SIZE		CAPACITY	
Height	72 In (183 cm)	**Selections**	6
Width	21 In (53 cm)	**Columns**	6
Depth	33.5 In (85 cm)	**12 Oz. Cans**	52 per column, 312 total
Weight	360 Lbs. (163.3 kg)	**20 Oz. Bottles**	23 per column, 138 total

INSTALLATION

1. INSTALL DROP SENSOR EXTENSION HARNESS

Open the host vending machine door. Find the umbilical box located on the bottom right towards the back of the cabinet. See Figure 1.

Plug the end with the panel mount connector of the drop sensor extension harness to the cutout hole. Attach with wire ties to the motor harness only and not to the power cable. See Figure 1.

Route the harness through the large hole on the partition, otherwise route under the partition.

Route the drop sensor extension harness alongside the existing door harness. See Figure 1.

Plug the other end of the harness to the drop sensor harness from the controller. Use wire ties provided to secure the new harness to the existing door harnesses. Use wire cutters to trim excess wire ties.

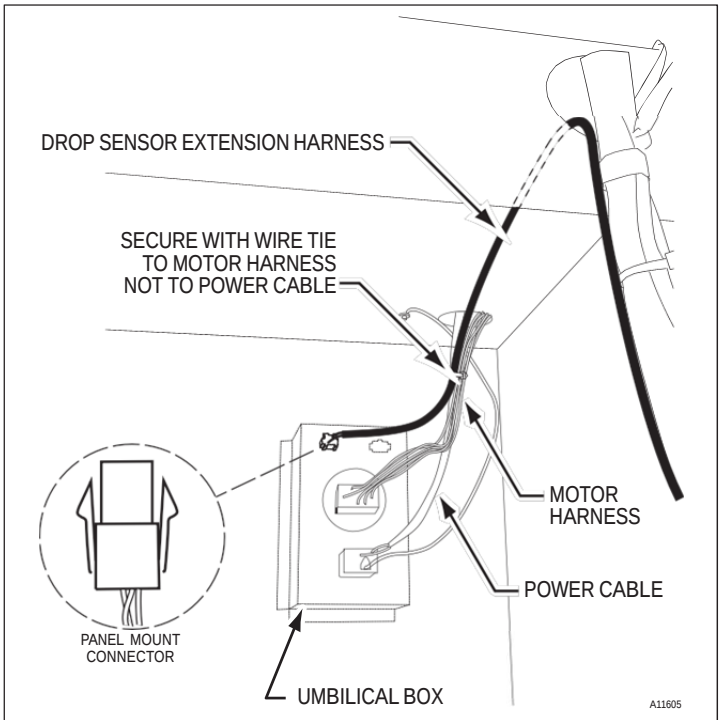

Figure 1. Install Drop Sensor Extension Harness to Umbilical Box

2. CONNECT UMBILICAL CORD & DROP SENSOR/TEMPERATRUE CORD

Go to the back of the host cabinet and loosen the four (4) screws holding the umbilical cover. Remove the umbilical cover. See Figure 2.

Locate the umbilical harness and drop sensor cord (from inside the service pack envelope). Plug both the umbilical harness and drop sensor/temperature harness in. See Figure 3.

Install the umbilical cover so that the cords are routed though the side of the umbilical cover. Use wire ties to keep umbilical cords from the floor.

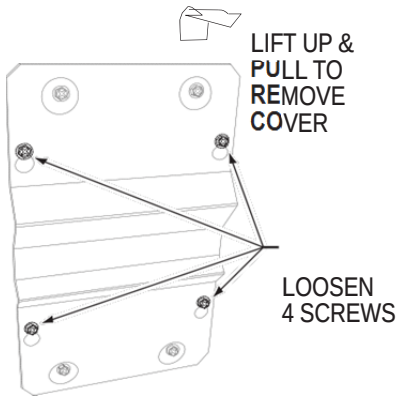

Figure 2. Remove Cover

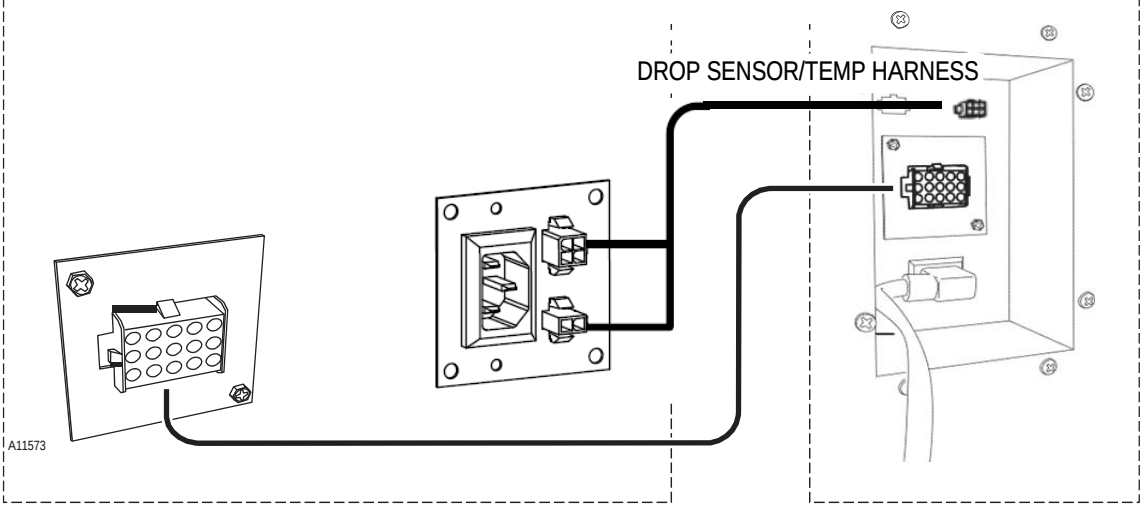

Figure 3. Connect Satellite to Host

PROGRAMMING

3. SET REFRIGERATION MODE

This menu allows the board in the host machine to electronically control the refrigeration system.

	STEP	DISPLAY
1.	Press Service Mode Button.	(number of motors)
2.	Press 4.	CBS
3.	Press 0 to enter the password.	PASS
4.	Enter Password (default 2314).	ACFG
5.	Press 7 to view the current setting. Default is Snack.	SNAC
6.	Press 7 until Cold is displayed.	COLD
4.	Press # to save.	(CHOICE)
5.	Press * 4 times to exit.	0.00

4. SET TEMPERATURE

This menu allows you to set the target temperature for the Satellite Drink Machine.

	STEP	DISPLAY
1.	Press Service Mode Button.	(number of motors)
2.	Press 3.	OPtn
3.	Press 8 to view the current temperature setting.	36
4.	Press 8 repeatedly to adjust the temperature. Note: max is 62°F then it will roll back to 34°F.	37
5.	Press # to save.	(CHOICE)
6.	Press * 2 times to exit.	0.00

5. DROP SENSOR

A drop (vibration) sensor on the delivery chute is your assurance that a product has been vended after a selection is made.

This menu allows you to adjust the Drop Sensor sensitivity.

1 is most sensitive;
9 is the least sensitive.
Factory Default is 3.

The drop sensor is factory calibrated for most can and bottle products and should not need adjustment.

	STEP	DISPLAY
1.	Press Service Mode Button.	(number of motors)
2.	Press 3.	OPtn
3.	Press 0 to view the current setting.	drP3
4.	Press 0 to toggle for settings 1-9.	drP6
5.	Press # to save.	drP6
6.	Press * 3 times to exit.	0.00

REFRIGERATION TROUBLESHOOTING

WARNING: A colder setting does not cool drinks faster but may cause drinks to freeze.

Know and understand how to service the unit and how it operates. Units may vary, but the operation is basically the same. Never guess at the problem; find the symptom before attempting any repair.

NOTE: 90% of refrigeration problems are electrical.

The sealed hermetic system was not meant to be worked on outside the Factory Service Center. The three things that can go wrong with a sealed system and should be repaired at the Factory Service Center are:

1. Low Charge - usually caused by leaks; look for oil around seals and welds. Unit will not cool properly. The capillary tube will be frosted before it enters the evaporator inlet tube.
2. Restriction in Systems (unit frosts, then melts) - not cooling properly.
3. Bad valves - unit does not cool properly; noisy compressor.

COMPRESSOR WILL NOT START		
	Problem	Possible Causes/Actions
1.	Machine not plugged in.	
2.	Tripped breaker or blown fuse.	
3.	Faulty wall outlet	
4.	Short or tear in power cord.	
5.	Improper wiring.	
6.	Low voltage	Should not be more than 5% of machines rated voltage. Check power source with a multi-meter.
7.	Overload defective	Overload is tripping to fast. Check overload with a Multi-Meter
8.	Start Relay Defective	Check start relay with a Multi-Meter
9.	Compressor has open windings	Check compressor windings with a Multi-Meter
COMPRESSOR TRIPS ON OVERLOAD		
1.	Improper voltage	Check voltage for 5-10% above or 5% below machines rated voltage. Check power source with a Multi-Meter
2.	Overload defective	Overload tripping to vast. Check overload with a Multi-Meter
3.	Relay defective	Relay Won't open after starting. Check relay with a Multi-Meter
4.	Compressor has shorted winding	Check compressor windings with a Multi-Meter
NOISY OR VIBRATING UNIT		
1.	Components rubbing or touching each other	• Check fan blades and motor • Loose shrouds and harness • Copper tubing rubbing • Loose or unsecured parts
2.	Worn or aged grommets	Check grommets
3.	Compressor	• Bad valves • Slugging • Bad windings (see Figure 13. Compressor Schematic) • Low voltage
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UNIT SHORT CYCLES		
1.	Temperature setting to warm	See Refrigeration Setting instructions in host machines manual
UNIT OPERATES LONG OR CONTINUOUSLY		
1.	Air flow restricted	• Faulty evaporator motor or blades causing coils to ice over • Loose connections on evaporator motor (motor not running) • Air flow blocked by product placed in front of evaporator or air duct openings
2.	Gasket leak around door	
3.	Excessive load	After loading, the unit will run longer to pull out excessive heat from product
4.	Refrigerant low or restriction in system	
REFREGERATED SPACE TO COLD		
1.	Refrigeration setting to cold	See Refrigeration Setting instructions in host machines manual
REFRIGERATED SPACE TOO WARM		
1.	Refrigeration setting to warm	See Refrigeration Setting instructions in host machines manual
2.	Air flow restricted	• Faulty evaporator motor or blades causing coils to ice over • Loose connections on evaporator motor (motor not running)
3.	Condenser air flow restricted	• Plugged or dirty condenser • Condenser motor or blades bad • Condenser fan blade stuck
4.	Condensing space restricted	Unit placed too close to a wall. Should be 4 to 6 inches of space between machine and the wall
5.	Compressor	Bad valves • Cap tube will start frosting 8 to 10 inches past evaporator connection tube • Check for oil around brazed connections

TROUBLESHOOTING CIRCUTS WITH MULTI-METER

A. Check the power source. Use voltage section of the Multi-Meter. Should measure within 5-10% above, 5% below.
B. Check overload

CAUTION: Power must be off and fan circuit open.

Using the resistance section of the Multi-Meter, remove overload and check continuity across terminals. If no continuity is measured (infinity), overload may be tripped. Wait 10 minutes and try again. If still no continuity, overload is defective.

C. Check relay. See FIGURE 4 shown below. Remove lead terminals and remove relay from compressor. Keep relay upright.
D. Check terminals 10 and 11 with the Multi-Meter. Replace relay if continuity exists.
E. Check compressor windings. See FIGURE 4 shown below.
F. Check winding resistance with the Multi-Meter. If readings are not within 2 Ohms the compressor is faulty.

WARNING: Wiring diagram must be followed as shown. Wrong wiring can cause serious electrical hazard and potential damage or rupture component electrical parts.

WINDING RESISTANCE

Approximate resistance reading across terminals - use RXI scale.	
COMMON to START:	4.5 Ohms
COMMON to RUN:	1.1 Ohms
RUN to START:	5.6 Ohms
COMMON to SHELL:	No Continuity

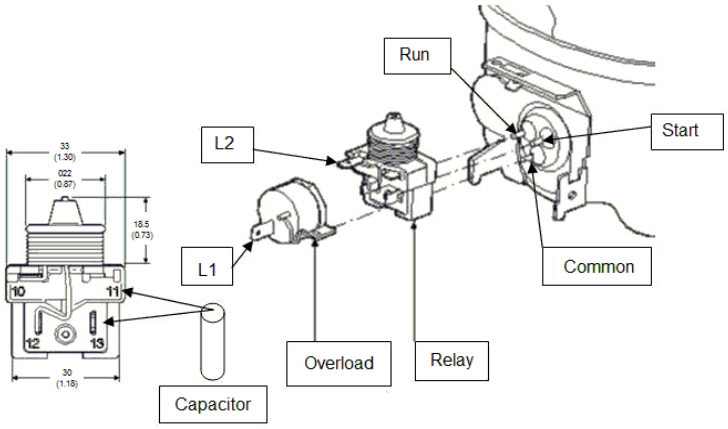

FIGURE 4. COMPRESSOR START COMPNENTS

WARNING: Do not place any object in the evaporator assembly area or inside the cabinet area that will block the airflow, because this may damage the refrigeration system, which may void the refrigeration warranty.

WARNING: Do not use extension cords. Extension cords cause problems.

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