IMI CORNELIUS INC ■ One Cornelius Place ■ Anoka, MN 55303-6234

Telephone (800) 238-3600 Facsimile (800) 535–4231

INSTALLATION INSTRUCTIONS

ICE BANK CONTROL KIT (P/N 569000255)
ON
UNIVERSAL C–750 PRE–MIX DISPENSERS
KIT FITS MODELS 2849959200 and 2849959020

Read and understand these instructions thoroughly before installing this kit. Retain these instructions as part of your equipment manual.

Table 1. Loose-Shipped Parts

Item No.	Part No.	Name	Qty.
1	440000902	Ice Bank Control Module (see **NOTE 1**)	1
2	560003999	Mounting Bracket, Ice Bank Control Module (see **NOTE 1**)	1
3	440000903	Probe, Ice Bank Control (see **NOTE 2**)	1
4	560003612	Jumper Wire “A”, Main	1
5	560003613	Jumper Wire “B”, Agitator Motor	1
6	560003614	Jumper Wire “C”, Compressor	1
7	325282000	Screw, Self Drilling	6
8	313457000	Label, Hazard Shock	1
9	569000256INS	Installation Instructions	1
10	163506001	Wire Tie	3
11	560003615	Bracket, Probe (see **NOTE 2**)	1
12	560004144	Cover, Electrical Box	1
13	163506000	Cable Tie, 3–in. Long (see **NOTE 2**)	2

NOTE 1: Items 1 and 2 are assembled at the Factory to form the ICE BANK CONTROL MODULE ASSEMBLY.

NOTE: Items 3, 11, and 13 are assembled at the factory.

PREPARING DISPENSER FOR KIT INSTALLATION

WARNING: To avoid possible fatal electrical shock or serious injury to Installer, make sure Dispenser is disconnected from power source before attempting to install this kit.

NOTE: Only qualified Personnel should install this Kit.

1. Disconnect Unit product inlet lines from product tanks, then open dispensing valves to relieve systems pressures.

2. Disconnect electrical power from the Unit, open hinged top cover, then drain Unit water tank.

CAUTION: Never use an ice pick or other instrument to remove ice from the refrigeration system evaporator coils. Such practice can result in a punctured refrigeration circuit.

3. Allow ice to melt from the evaporator coils. Hot water may be used to speed up melting. ***All ice must be melted from the evaporator coils.***
4. Remove screws securing handle on the Unit, then remove handle.
5. Remove screws securing the ice bank control to the agitator motor assembly bracket. Turn the control up side down, then disconnect Unit wiring harness electrical wires connectors from mating connectors inside the ice bank control..
6. Remove screw securing the Unit wiring harness ground wire to the ice bank control.
7. Disconnect product source product inlet lines from fittings on top of the agitator motor assembly bracket (see Figure 3).
8. Remove hex nuts and white plastic washers securing Unit product inlet lines fittings in the agitator motor assembly bracket.
9. Remove and retain six screws securing the agitator motor assembly bracket to the Unit, then remove agitator motor assembly bracket from the Unit.
10. Disconnect product tubes from backs of the dispensing valves, then lift product coils assembly up and out of the Unit.
11. Remove old ice bank control probe bulb and holder from the evaporator coil. Pull old control probe and capillary tube up out of the Unit, then discard the old ice bank control.

INSTALLING ICE BANK CONTROL KIT

1. Remove both the back and right side (facing front of the Unit) lower access grilles for access to the lower electrical control box.
2. Place wood block under front of unit, then remove right front wheel as shown in Figure 1.

NOTE: The ice bank control probe end of PROBE, ICE BANK CONTROL (item 3) must be routed from the top down through right corner (facing front of unit) of the unit to the vicinity of the compressor located in lower part of the unit.

3. Remove six screws securing right corner of the unit together (see Figure 1).
4. Loosen, but do not remove, the large coupling nuts on backs of the dispensing valves sleeves (see Figure 3).
5. Remove four screws below the drip tray that secure front panel to the unit.
6. Open corner of the unit just far enough to allow routing the large connector labeled “D” end of the PROBE, ICE BANK CONTROL (item 3) cable from the top down through corner of the unit and into lower commitment of the unit.
7. Close corner of the unit up and secure with screws removed in step 3 preceding.
8. Re–install four screws below the drip tray that secure front panel to the unit.
9. Tighten coupling nuts securing dispensing valve sleeves in the unit.
10. Install ice bank control probe assembly on the evaporator coils as shown in Figure 2.
11. Place product coils assembly back in position inside the Unit.

12. Connect product tubes, connected to the product coils, to backs of the dispensing valves.

13. Place Unit product inlet fittings up through holes in the agitator motor assembly bracket and secure with white plastic washers and hex nuts.

14. Place the agitator motor assembly bracket back into position on the Unit. Secure agitator motor assembly bracket with six screws retained in step 9 of PREPARING DISPENSER FOR KIT INSTALLATION.

15. Connect product source product inlet lines to Unit product inlet lines fittings on the agitator motor assembly bracket

16. Connect black and white electrical wires connectors of the unit wiring harness cable to agitator motor electrical wires mating connectors.

17. Connect unit wiring harness green ground wire to agitator motor assembly bracket and secure with SCREW, SELF–DRILLING (item 7). ***The unit wiring harness cable red electrical wire with connector on it's end will not be used.***

18. Install handle on the Unit and secure with screws.

19. Install LABEL, HAZARD SHOCK (item 8) on the agitator motor assembly bracket.

20. Remove two screws securing the lower electrical control box to the Unit. Loosen, but do not remove, one screw securing the electrical control box cover, then remove the cover.

21. Disconnect all electrical wiring inside the electrical control box, then discard the electrical box and it's cover.

NOTE: Refer to WIRING DIAGRAM (see Figure 5) when making wiring electrical connections. Note that the large black electrical connectors on the loose-shipped wiring harnesses are labeled "A", "B", and "C" and large connector on end of the ice bank control probe is labeled "D". Also note that the terminals on the new ice bank control module are labeled "A", "B", "C" and "D".

22. Refer to wiring diagram (see Figure 5) and make all of the electrical wire connections.

23. Plug ice bank control probe black electrical connector labeled "D" into mating connector labeled "D" on the new ICE BANK CONTROL MODULE (item 1).

24. Make all of the wiring connections to the large black electrical connectors labeled "A", "B", and "C" and the unit power switch as indicated in wiring diagram (see Figure 5).

25. Plug the large black electrical connectors labeled "A", "B", and "C" into mating connectors on the ice bank control module (see Figure 4).

26. Route green electrical ground wire from large electrical connectors labeled "A" connected to the Ice Bank Control Module and the green electrical ground wire protruding out of the Unit wiring harness to a location away from where the Ice Bank Control Module will be located. Drill a .140 diameter hole in the unit base where the two green ground wires will be connected. Connect the two green ground wires and secure with SCREW, SELF DRILLING (item 7).

27. Install COVER, ELECTRICAL BOX (item 12) on the ice bank control module and secure with SCREW, SELF DRILLING (item 7).

28. Hold the new ice bank control module in approximate location (see Figure 1) where it will be secured to the bottom panel of the unit.

29. Mark location of the four ice bank control module mounting bracket holes in bottom panel of the unit, then remove the module.

30. Drill four .140 diameter holes where indicated on the unit bottom panel.

31. Place ice bank control module over holes drilled in unit floor panel, then secure control module to floor panel with four SCREWS, SELF DRILLING (item 7).

32. Using WIRE TIES (item 10), bundle and tie electrical wires together to prevent wires from interfering with the unit compressor or any other moving parts.

33. Install both the back and right side lower access grilles on the unit.

RESTORING UNIT TO OPERATION

1. Fill water tank with water as instructed in manual provided with your Dispenser. *USE LOW-MINERAL-CONTENT WATER WHERE A LOCAL WATER PROBLEM EXIST.*

2. The Unit product systems should be sanitized at this time. Refer to manual provided with your Dispenser for sanitizing instructions.

3. Connect electrical power to the Unit

4. Connect Unit product inlet lines to product tanks, then open each dispensing valve to bleed air from the systems and until product is dispensed.

5. Check the Unit for product leaks and repair if evident.

6. Check Unit for proper operation, then close hinged top cover.

GLOBAL ICE BANK CONTROL (GIBC) THEORY OF OPERATION

Once electrical power is supplied to the Unit, the agitator motor will start. There will be a three-minute time delay before the refrigeration compressor and the condenser fan motor will start. This three-minute time delay will take place each time electrical power to the Unit is interrupted.

The Unit will continue to operate until ice covers all three stainless-steel pins on the ice bank control probe. The ice bank control module senses this by measuring the difference in electrical resistance between the water and the ice. When the ice on the evaporator coil becomes thick enough, it covers the three stainless-steel pins on the ice bank control probe. The control module senses there is enough ice and turns the refrigeration compressor and the condenser fan motor off.

The Unit remains turned off until the the ice bank control three stainless-steel pins are free of ice. Once this happens, the ice bank control module starts the refrigeration compressor and the condenser fan motor.

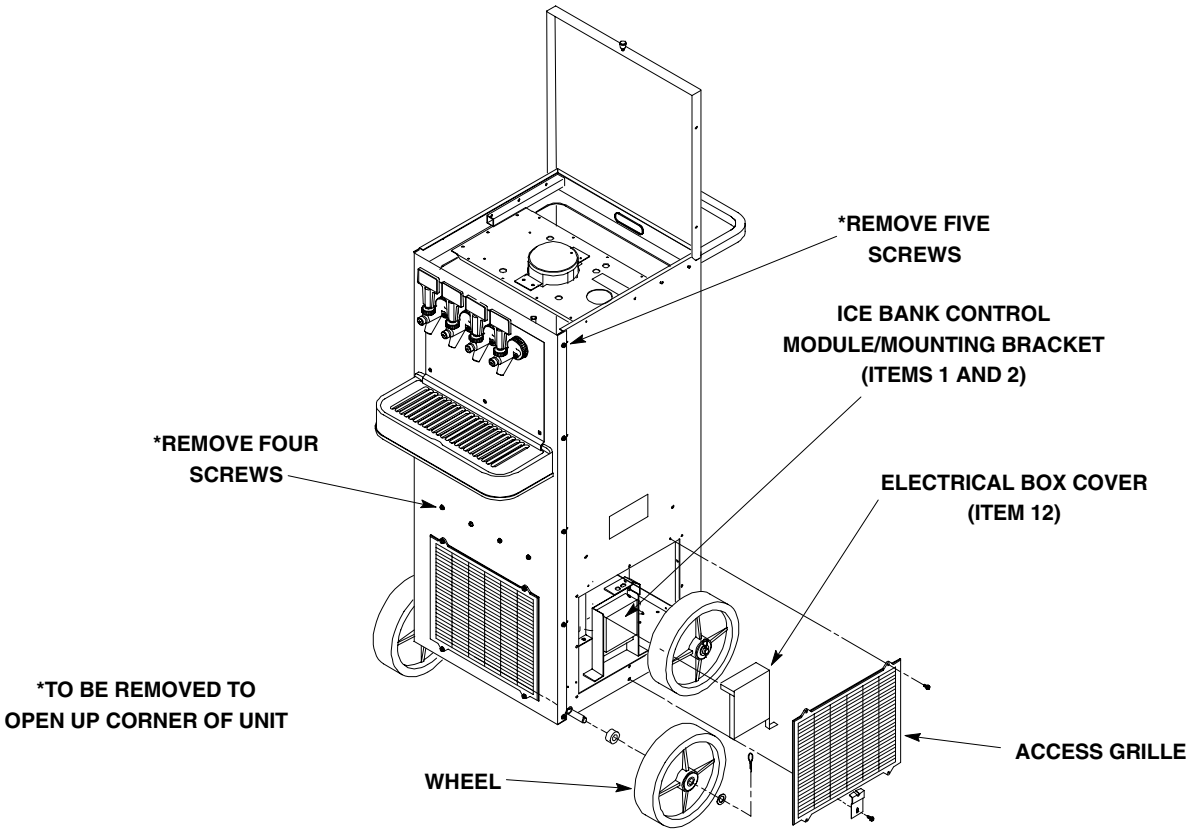
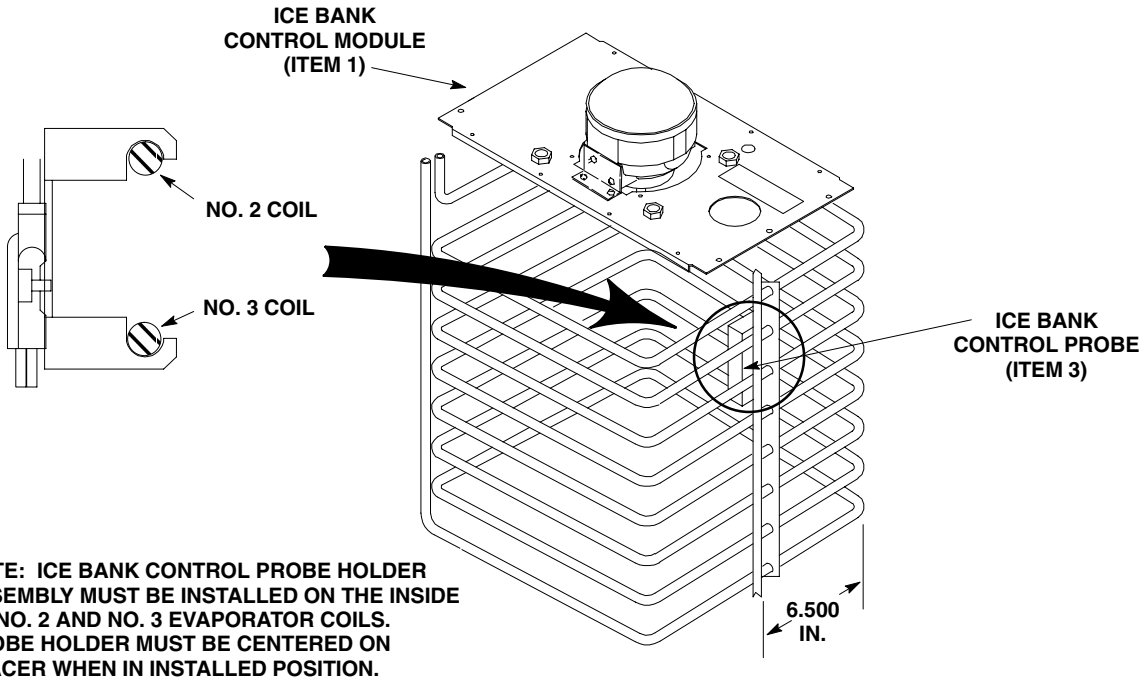


FIGURE 1. UNIVERSAL C-750



NOTE: ICE BANK CONTROL PROBE HOLDER ASSEMBLY MUST BE INSTALLED ON THE INSIDE OF NO. 2 AND NO. 3 EVAPORATOR COILS. PROBE HOLDER MUST BE CENTERED ON SPACER WHEN IN INSTALLED POSITION.

FIGURE 2. PROBE LOCATION

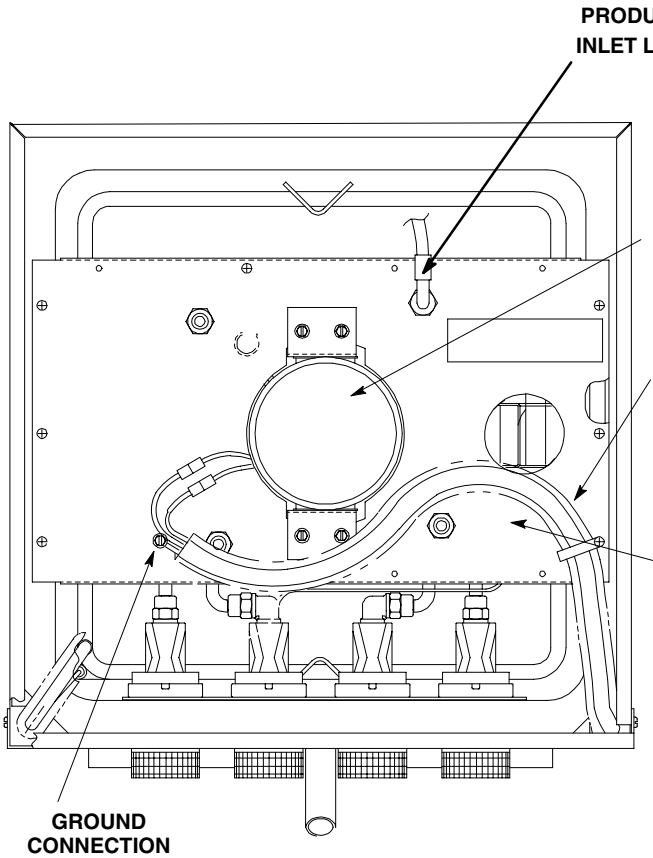


FIGURE 3. ICE BANK CONTROL LOCATION

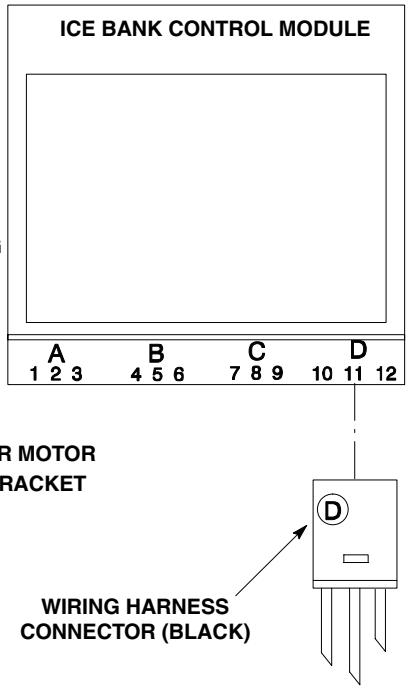


FIGURE 4. ICE BANK CONTROL MODULE

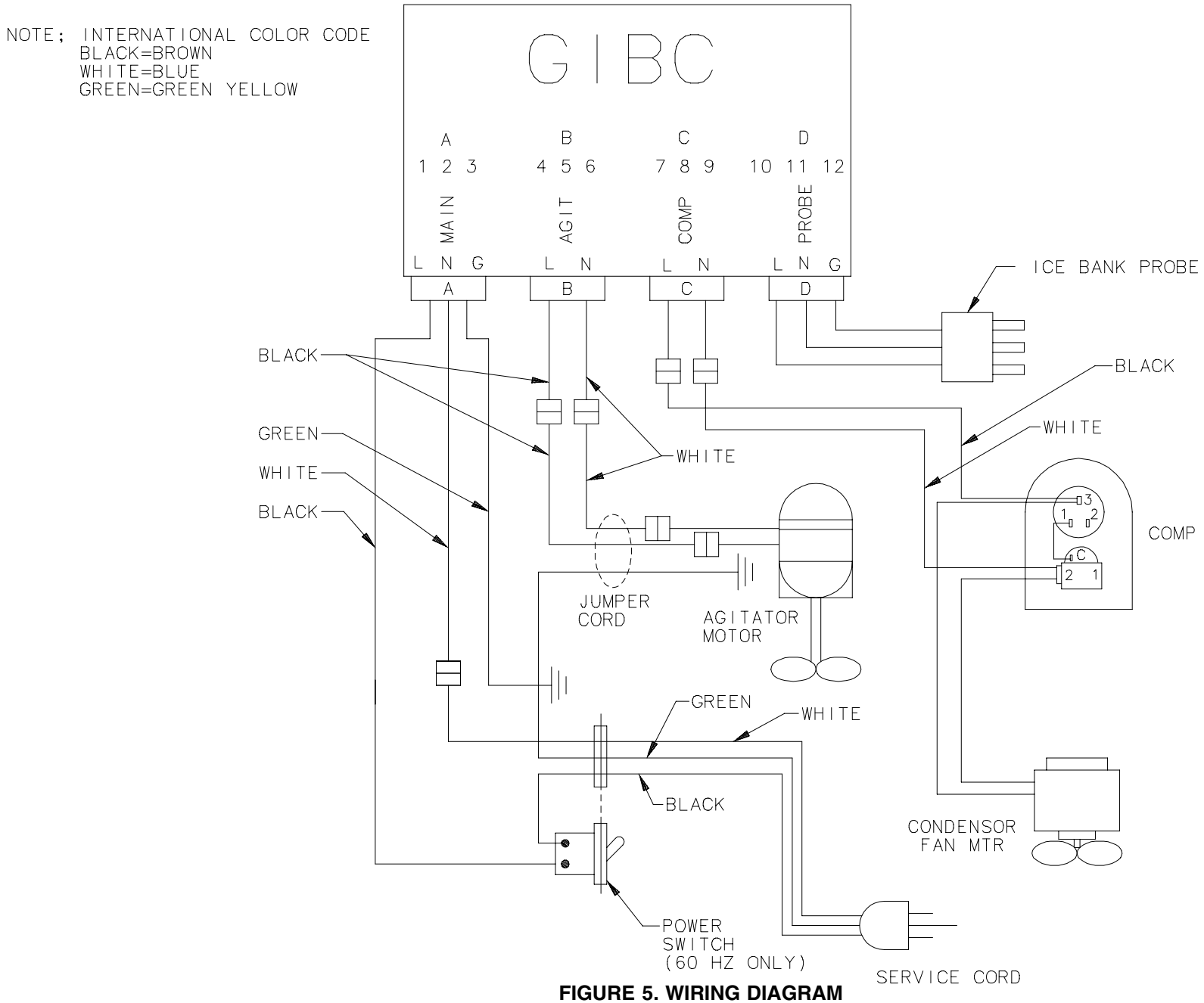


FIGURE 5. WIRING DIAGRAM