SERVICE AND WIRING SHEET

W10738165 B

⚠WARNING

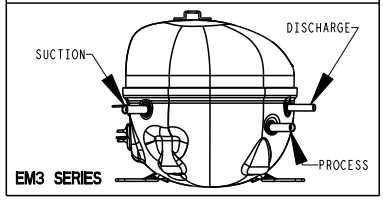
Electrical Shock Hazard
Disconnect power before servicing.
Replace all parts and panels before operating.
Failure to do so can result in death or electrical shock.

* Normal operating conditions are viewed when the air and temperature controls are at mid-sitting, freezer section O to -5°F and unit is cycling.

NOTE: Watt and pressure readings will vary and are influenced by the existing condition of the appliance, such as iced-up evaporator, condition of condenser, defrost cycle, pull-down time and customer use.

PERFORMANCE DATA *(NORMAL OPERATING CONDITIONS)			
AMB	WATTS	SYSTEM PRESSURE (PSIG) HIGH SIDE	SYSTEM PRESSURE (PSIG) LOW SIDE
70°	95±20	105 ± 20	-4 TO 6
90°	100±20	150 ± 20	0 TO 7
110°	110±20	200 ± 20	2 TO 8

(OIL COOLER IS OPTIONAL)
EMBRACO



SERVICE INFORMATION (W10738166 B)

1. COMPRESSOR SUCTION AND PROCESS STUBS MAY NOT BE INTERCHANGED UNLESS INDICATED BY **.
2. REFRIGERANT CHARGE MUST BE APPLIED TO HIGH SIDE ONLY.
3. ICE MAKER AND WATER VALVE NOT ORIGINAL EQUIPTMENT ON ALL MODELS.
4. NOTE: ICE MAKER CYCLE MUST BE INITIATED ELECTRICALLY. DO NOT TRY TO MANUALLY START CYCLE.
5. SERVICE DEFROST BI-METALS -50°F OPEN.
6. DEFROST TIMER MAY CONTAIN A CAPACITOR IN SERIES WITH MOTOR. DO NOT CONTINUITY TEST WHEN CHECKING FOR FAILED TIMER MOTOR. INSTEAD, ENERGIZE TIMER AND LISTEN FOR GEAR MOVEMENT.

SERVICEABLE ELECTRICAL PARTS MATRIX (COMPONENTS BY CUBIC FOOT SIZE)

SERVICEABLE PARTS	11 CUBIC FOOT 115V				WATTAGE 120V	RESISTANCE 120V
COMPRESSOR	EM3D60HLP/W10720863					
RUN WINDINGS	*					1-6
START WINDINGS	*					5-13
RELAY STARTING	TSD					
OVERLOAD	W10448874					
RUN CAPACITOR (IF EQUIPPED)	W10662129					
THERMOSTAT	W10273879					
BAFFLE MODULE (OPT)						
DEFROST TIMER (OPT)						
ADAPTIVE DEFROST ** (OPT)	2303825					
ADC/FILTER INDICATOR (OPT)						
DEFROST HEATER	W10331598				300±5%	36-48
WIRE ASSY FREZZER COMP.	W10687946					
DEFROST BI-METAL						
EVAPORATOR FAN	W10253821				5±15%	
CONDENSER FAN						

** PRIMARY SOURCE PART NUMBER

STEPS TO ENTER ELECTRONIC DEFROST CONTROL TEST MODE (IF APPLICABLE)

OPTION #1 (BI-METAL CLOSED)
STEPS
#1 - POWER OFF TO REFRIGERATOR FOR AT LEAST 30 SECONDS
#2 - THERMOSTAT OFF
#3 - POWER ON TO REFRIGERATOR

OPTION #2 (BI-METAL CLOSED)
STEPS
#1 - THERMOSTAT OFF 15 SECONDS
#2 - THERMOSTAT ON 5 SECONDS
(REPEAT STEPS 1 AND 2 TWO MORE TIMES)
#3 - THERMOSTAT OFF

ENTER TEST MODE

IN 3-8 SECONDS, CONTROL WILL TURN ON DEFROST HEATER. DEFROST HEATER WILL TURN ON FOR 21 MINUTES OR UNTIL BI-METAL OPENS. TO TERMINATE TEST EARLY, REMOVE POWER FROM REFRIGERATOR.
NOTE: IF OPTION #2 DOES NOT WORK, TRY OPTION #1 BEFORE REPLACING CONTROL. ALWAYS CHECK CONNECTIONS BEFORE REPLACING CONTROL.
HELPFUL HINT: UPON ENTERING TEST MODE, A RELAY TURNS OFF THE COMPRESSOR AND TURNS ON THE DEFROST HEATER. LISTEN FOR THE RELAY TO CLICK. IF RELAY CLICKS ONCE UPON ENTERING TEST MODE, CHECK FOR DEFROST HEAT. IF RELAY CLICKS TWICE (ALLOW UP TO 30 SEC BETWEEN CLICKS), CHECK FOR BI-METAL OPEN.

ATTENTION: IF BI-METAL IS BY-PASSED FOR TESTING (IF APPLICABLE), DO NOT OVERHEAT EVAPORATOR AREA.

BAFFLE MODULE DIAGNOSTIC TEST (IF APPLICABLE)

The diagnostic steps given below are for evaluating the Baffle Module. Steps 4 and 5 include the settings and results. If the results listed do not occur after putting the controls in the given settings, then further in-depth diagnosis of the product is required. Possible areas to evaluate include wiring connections to all electrical components, freezer thermostat, defrost timer, baffle module, evaporator fan, condenser fan, and compressor.

STEP
1. VERIFY THAT THE PRODUCT IS NOT IN DEFROST.
2. OPEN THE REFRIGERATOR AND FREEZER DOORS SO THAT THE PRODUCT WARMS UP ENOUGH TO TRIP THE THERMOSTATS.
3. NOTE THE THERMOSTAT SETTINGS AND **REMOVE THE CONTROL BOX FRONT COVER.**
4. SET BOTH CONTROLS IN THE FOLLOWING MANNER, THEN CHECK FOR THE GIVEN RESULTS:

CONTROL	SETTING
FREEZER THERMOSTAT	COLDER (FAR RIGHT)
REFRIGERATOR THERMOSTAT	OFF (FAR LEFT)

→

COMPONENT	RESULTS
BAFFLE DOOR	10 SECONDS-CLOSED
COMPRESSOR	ON
CONDENSER FAN	ON
EVAPORATOR FAN	ON

5. SET BOTH CONTROLS IN THE FOLLOWING MANNER, THEN CHECK FOR THE GIVEN RESULTS:

CONTROL	SETTING
FREEZER THERMOSTAT	COLDER (FAR RIGHT)
REFRIGERATOR THERMOSTAT	COLDER (FAR RIGHT)

→

COMPONENT	RESULTS
BAFFLE DOOR	10 SECONDS-OPEN
COMPRESSOR	ON
CONDENSER FAN	ON
EVAPORATOR FAN	ON

6. TEST COMPLETE - BAFFLE MODULE GOOD. SET CONTROLS AT MID SETTINGS AND REPLACE CONTROL BOX FRONT COVER.

WIRING DIAGRAM

NOTES:

1. COMPRESSOR GROUNDED THROUGH CONDENSER.
2. I.M. SOLENOID VALVE GROUNDED THROUGH MOUNTING.



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WIRE COLOR CODE

WH - WHITE
YL - YELLOW
RD - RED
BU - BLUE
BK - BLACK
OR - ORANGE
BR - BROWN
GY - GRAY
PK - PINK
TN - TAN

WIRE COLOR CODE

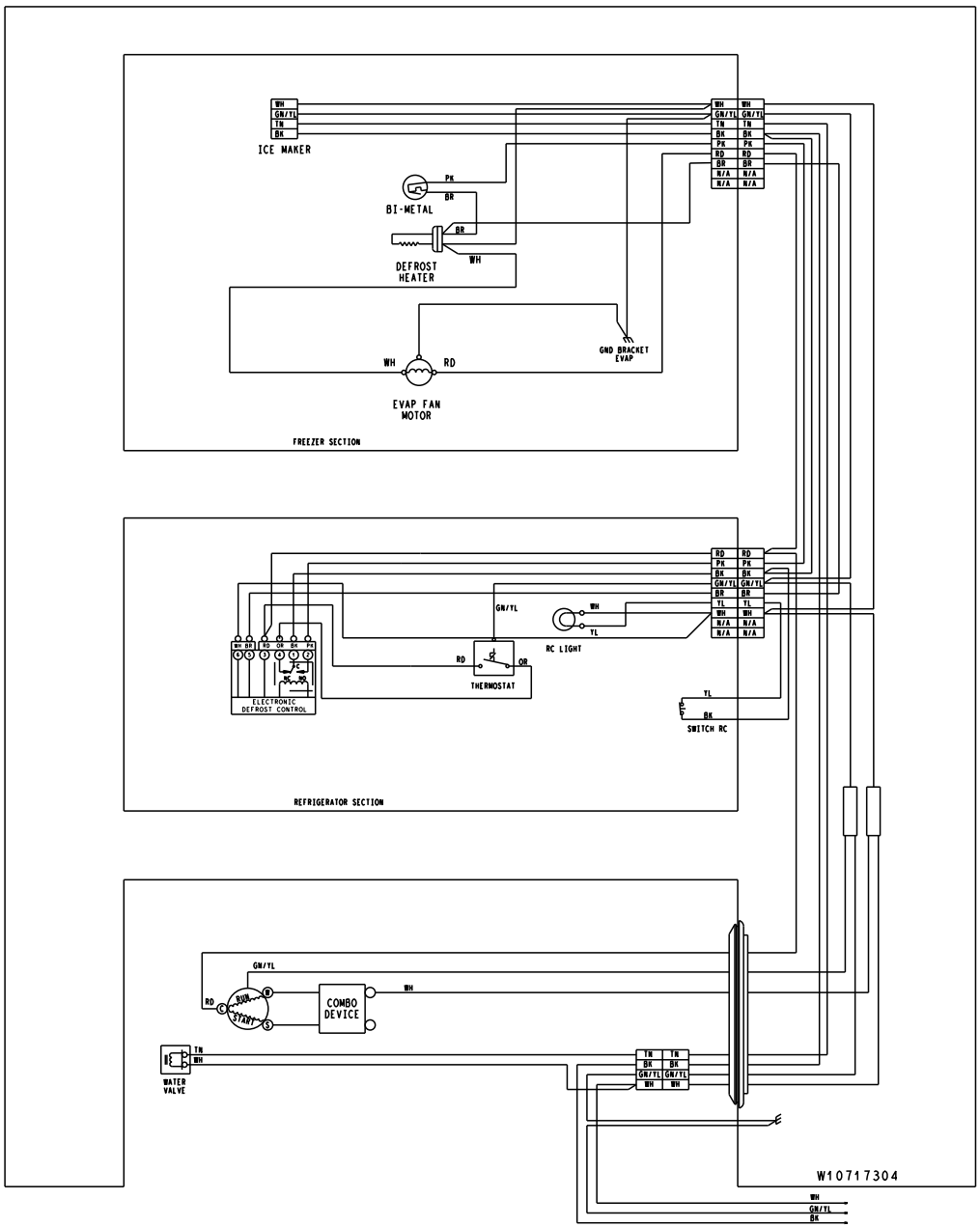
RD/YL - RED/YELLOW TRACER
BU/YL - BLUE/YELLOW TRACER
BK/YL - BLACK/YELLOW TRACER

SYMBOL CODE

- CONNECTOR - SCREW ON
- CONNECTOR - CLOSED END
- PERMANENT CONNECTION
- DISCONNECT TERMINAL
- PLUG CONNECTOR
- GROUND (CHASSIS)

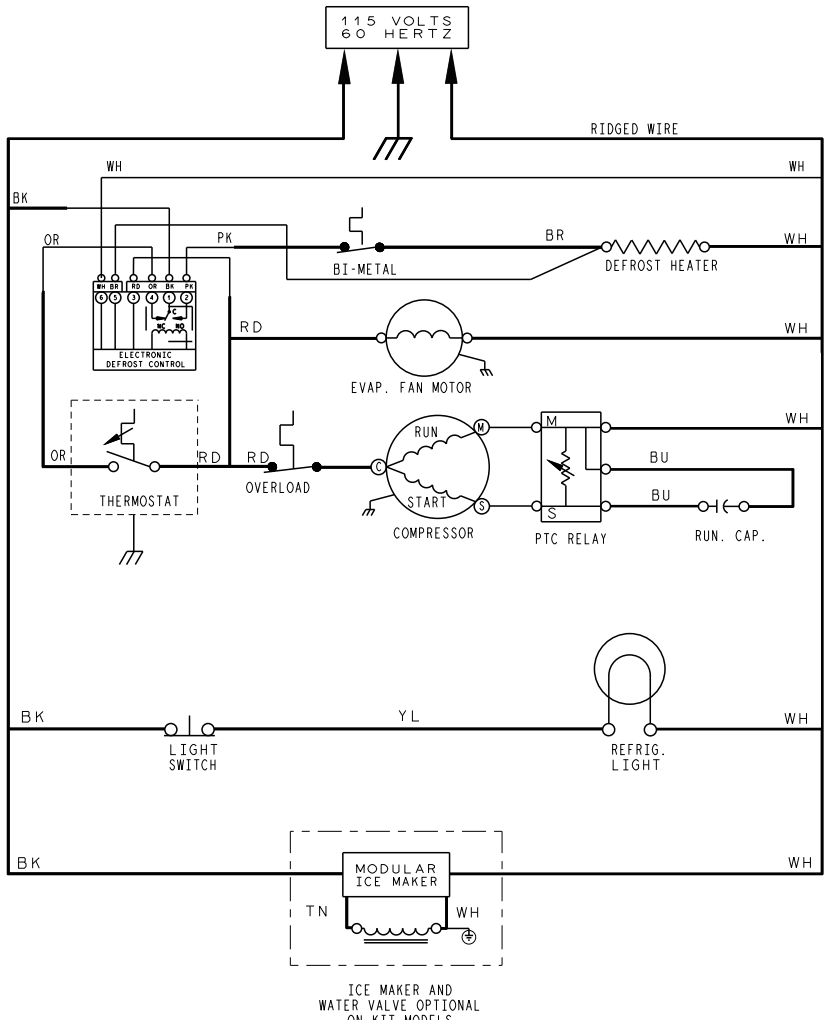
W10738165 B

SERVICE & WIRING SHEET NO. W10738165 B



MANUFACTURED UNDER ONE OR MORE OF THE FOLLOWING UNITED STATES PATENTS

3,960,631 4,659,157 4,765,696 4,908,544 5,011,101
4,084,725 4,665,708 4,767,896 4,911,508 5,033,182
4,090,641 4,694,553 4,768,353 4,914,928 5,033,273
4,102,660 4,706,169 4,776,178 4,920,758 5,042,398
4,327,557 4,707,401 4,787,216 4,924,680 5,044,704
4,330,310 4,709,556 4,799,362 4,934,541 5,050,777
4,640,432 4,715,512 4,800,935 4,936,641 5,070,708
4,649,712 4,728,759 4,801,181 4,944,566 5,077,985
4,649,717 4,745,656 4,833,894 4,958,890 D309,461
4,649,718 4,745,775 4,862,577 4,996,848



ICE MAKER AND WATER VALVE OPTIONAL ON KIT MODELS

part code