REFRIGERATOR MANUFACTURER

Turbo air

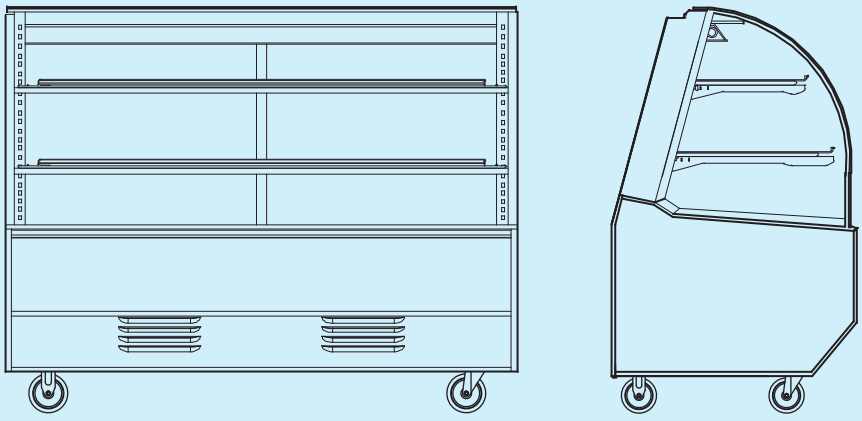
Turbo Air Speed up the Pace of Innovation

CAUTION!
PLEASE KEEP POWER
SWITCH ON BEFORE
OPERATING THIS EQUIPMENT

Display Cases
Deli Cases
Service Manual

Please read this manual completely before attempting to install or operate this equipment!

TD-4R
TD-5R



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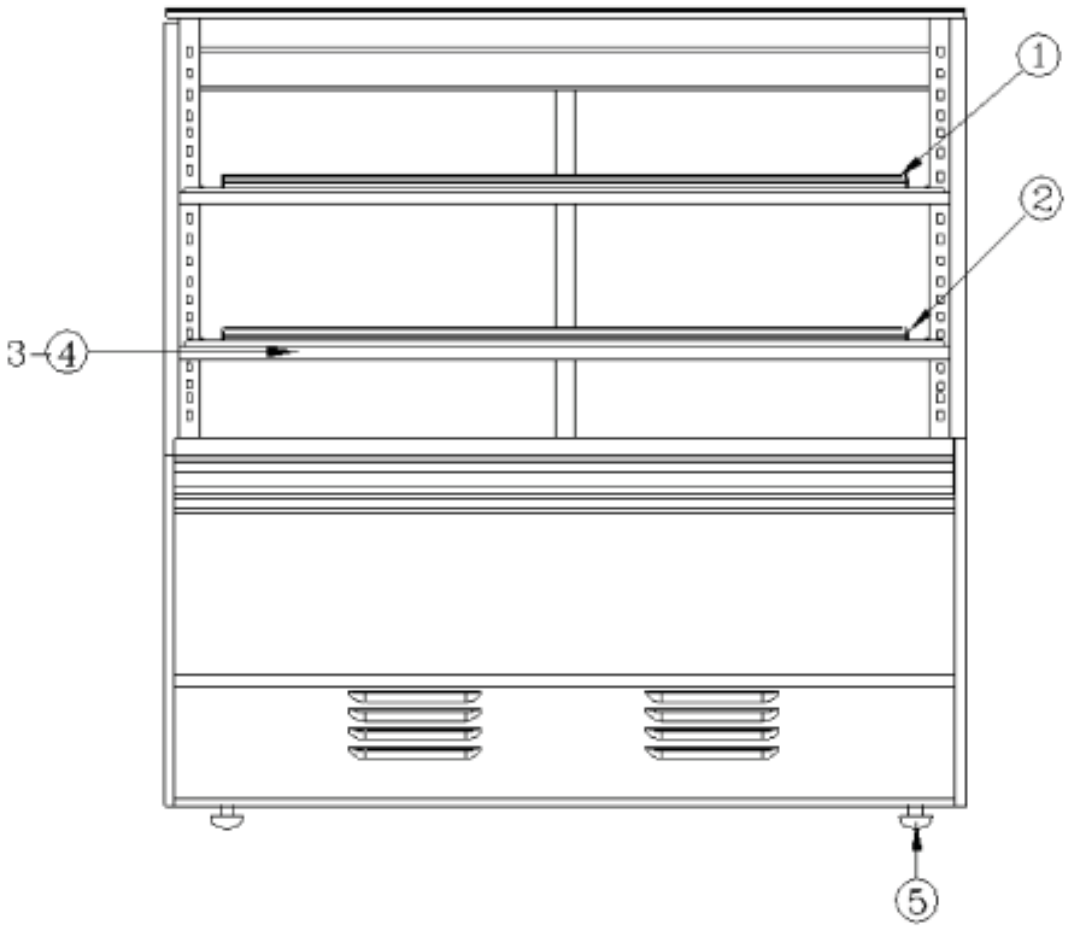
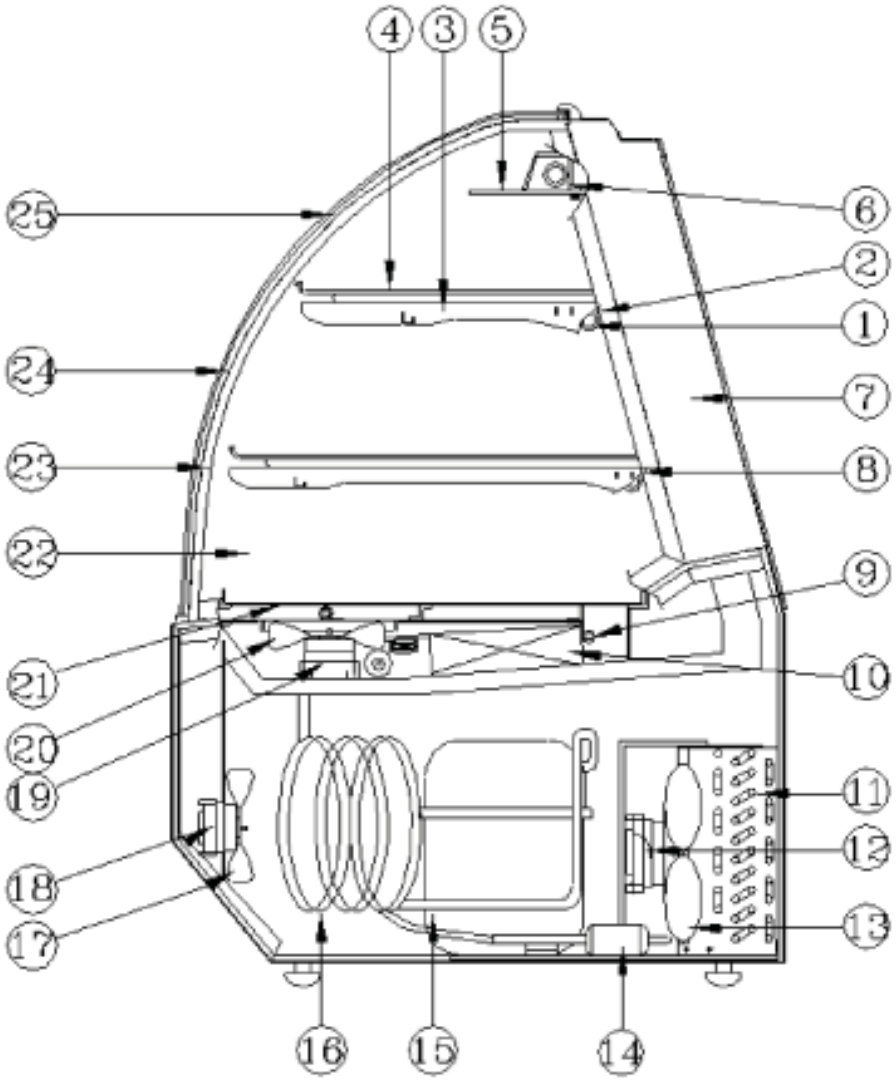


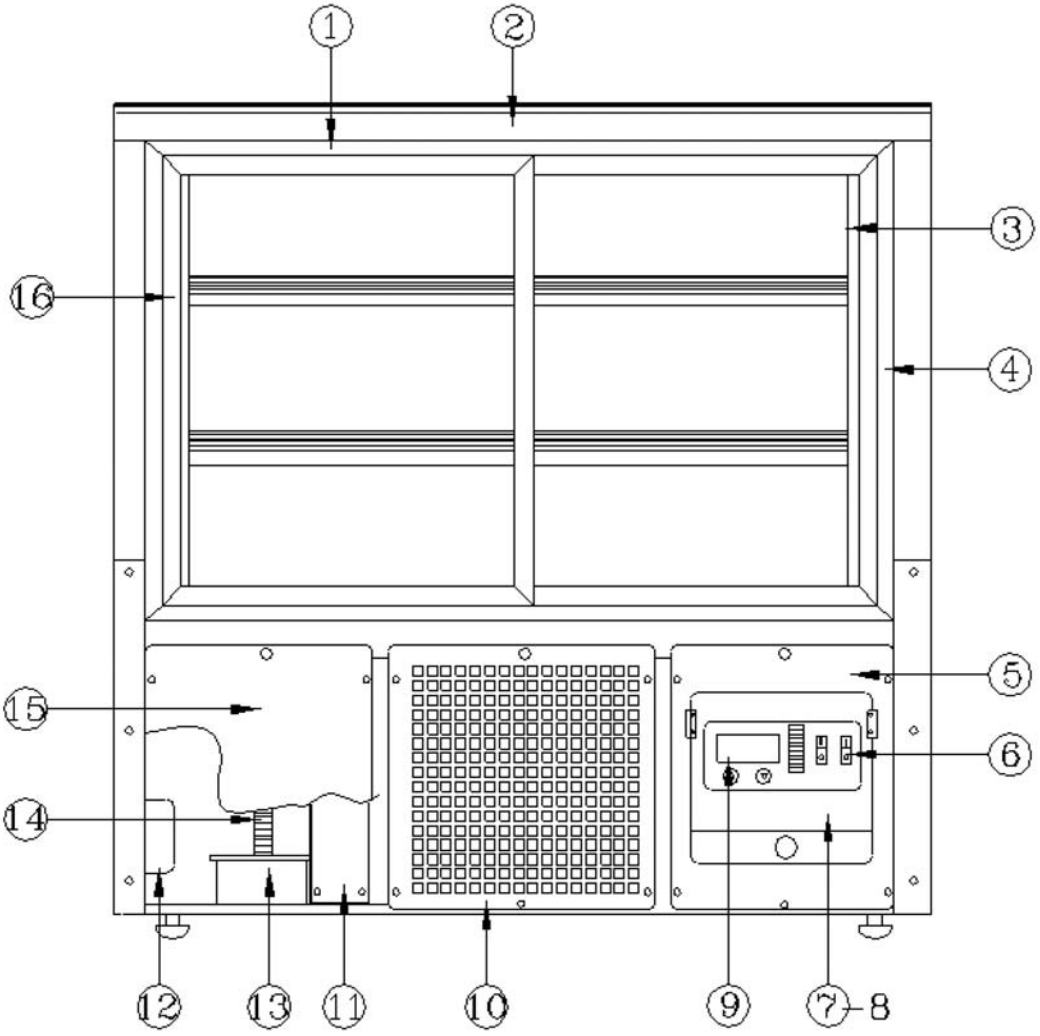
1. WIRE SHELF TOP ASSY (LAMP IS BUILT IN FOOD ZONE)
2. WIRE SHELF LOWER ASSY (LAMP IS BUILT IN FOOD ZONE)
3. FLUORESCENT TUBE
4. FLUORESCENT LAMP
5. LEG BOLT

1-2. SIDE VIEW



1. LAMP SOCKET
2. LAMP SOCKET COVER
3. WIRE SHELF LAT SHOT ASSY
4. PLATE SHELF ASSY
5. ARCYLE COVER C
6. LATHE TOP COVER ASSY
7. COVER FRAME L (R)
8. WIRE SHELF LAT LARGE ASSY
9. THERMISTER ASSY
10. EVAP COIL ASSY
11. CONDENSER ASSY
12. COND PAN MOTOR ASSY
13. COND PAN BLADE
14. LIQUID LINE FILTER
15. COMPRESSOR
16. SUCTION LINE
17. FRONT FAN BLADE
18. FRONT FAN MOTOR
19. EVAP FAN MOTOR
20. EVAP FAN BLADE
21. DISPLAY PAN
22. END GLASS
23. SIDE GLASS GASKET
24. SIDE GLASS SASH
25. FRONT GLASS

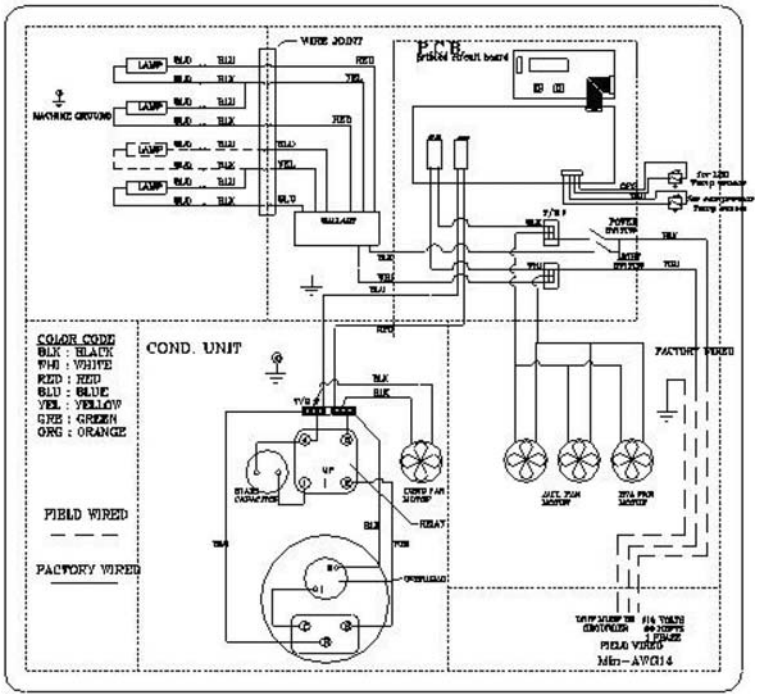
1-3. REAR VIEW



1. BACK DOOR FRAME SASH A
2. TOP COVER FRAME
3. BACK DOOR RIGHT ASSY
4. BACK DOOR FRAME SASH B
5. CONTROL AREA
6. POWER SWITCH
7. MAIN PCB ASSY
8. TRANS FORMER
9. DISPLAY PCB
10. UNIT AREA
11. COMP ELECTR BOX
12. BALLAST F LAMP
13. CONDENSER REMOVE
14. DRAIN HOSE
15. WIRE JOINT AREA
16. BACK DOOR LEFT ASSY

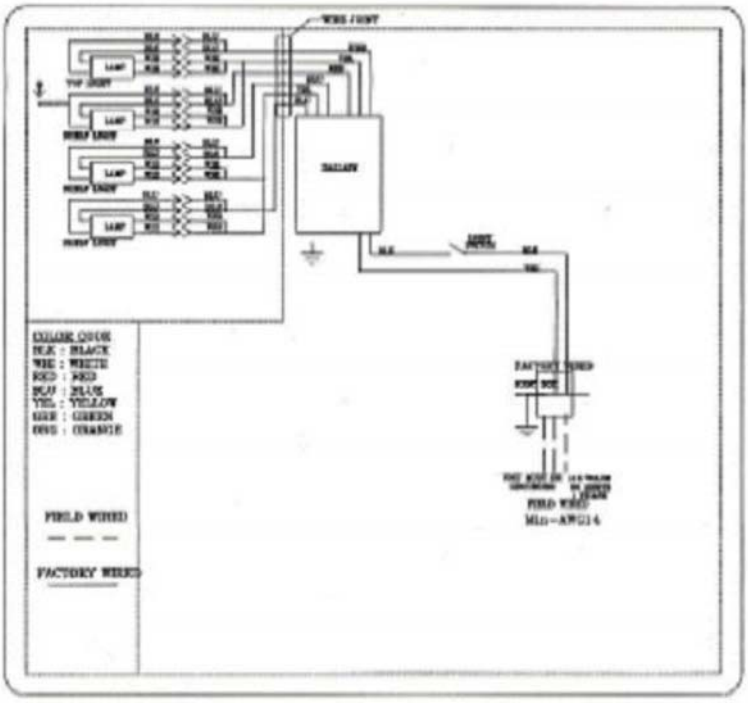
2. WIRING DIAGRAM

2-1. REFRIGERATOR



COPPER ALUMINUM CONDUCTOR ONLY

2-2. DRY CASE



COPPER ALUMINUM CONDUCTOR ONLY

3. PART DETAILS

3-1. SIDE GLASS PART

WIRE SHELF LATHE MID ASSY

END GLASS GASKET

SIDE PANEL END GLASS END GLASS SASH

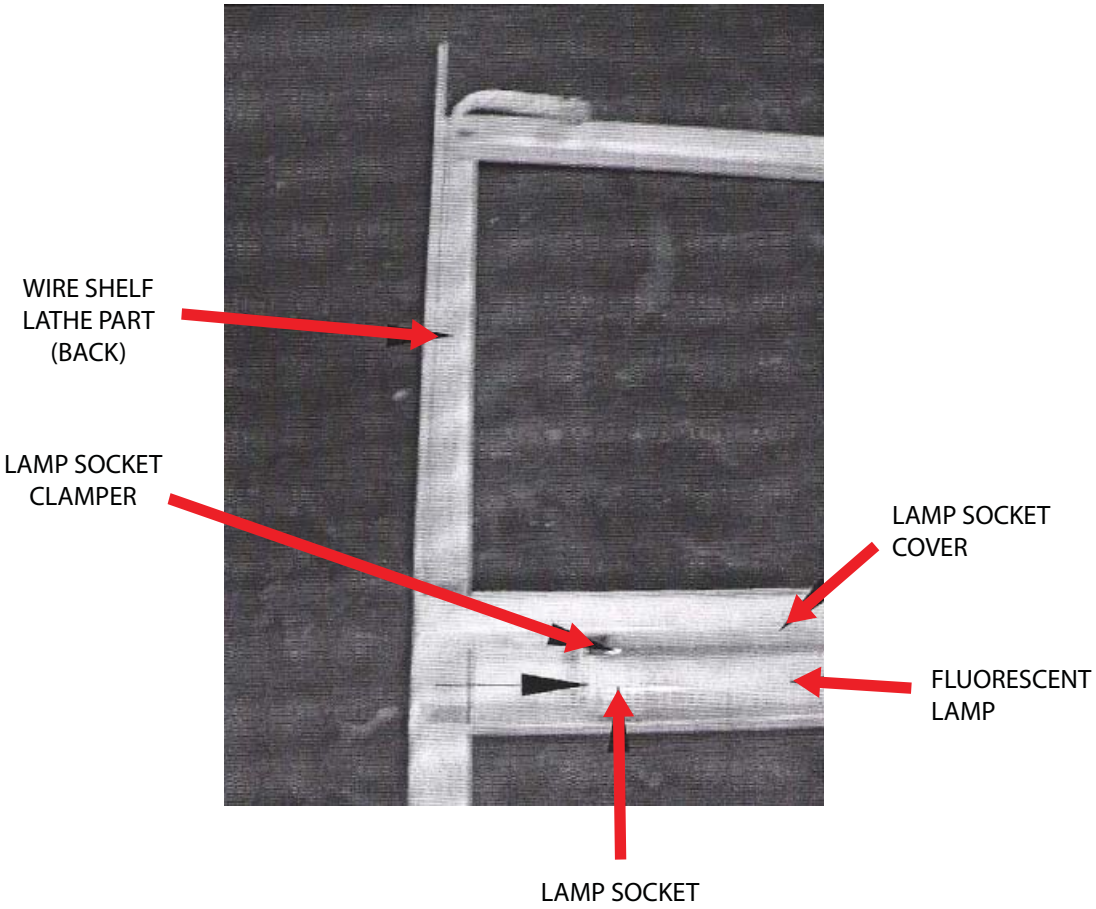
3-2. FRONT GLASS PART

TOP GLASS CLAMP A(B)

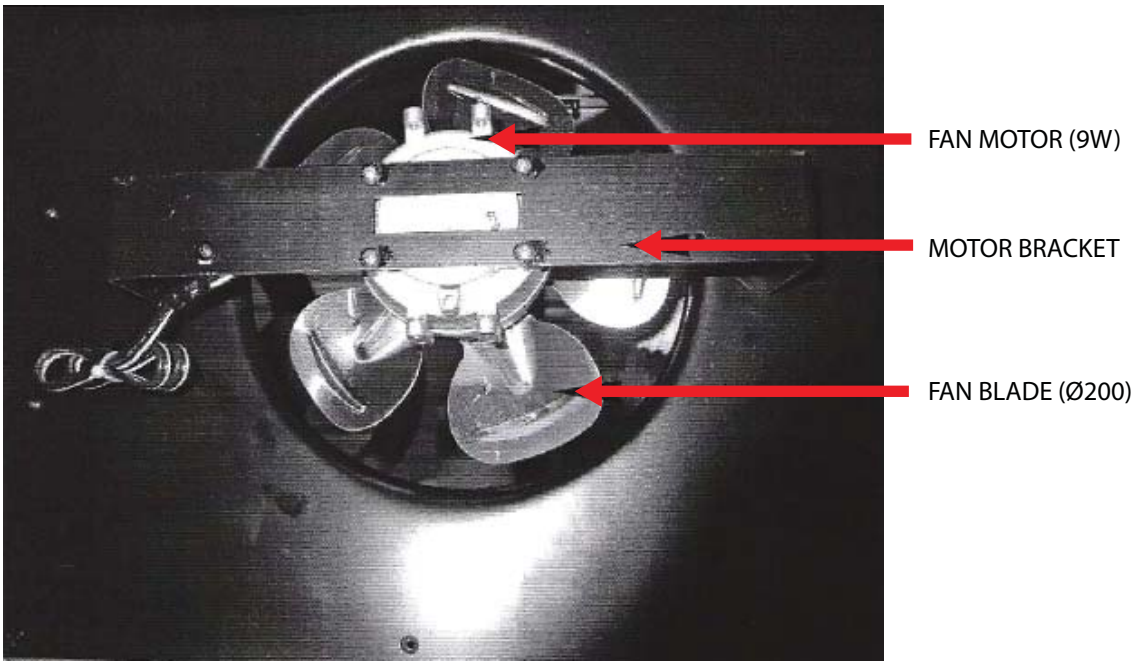
FRONT PANEL

3-3. WIRE SHELF LATHE PART

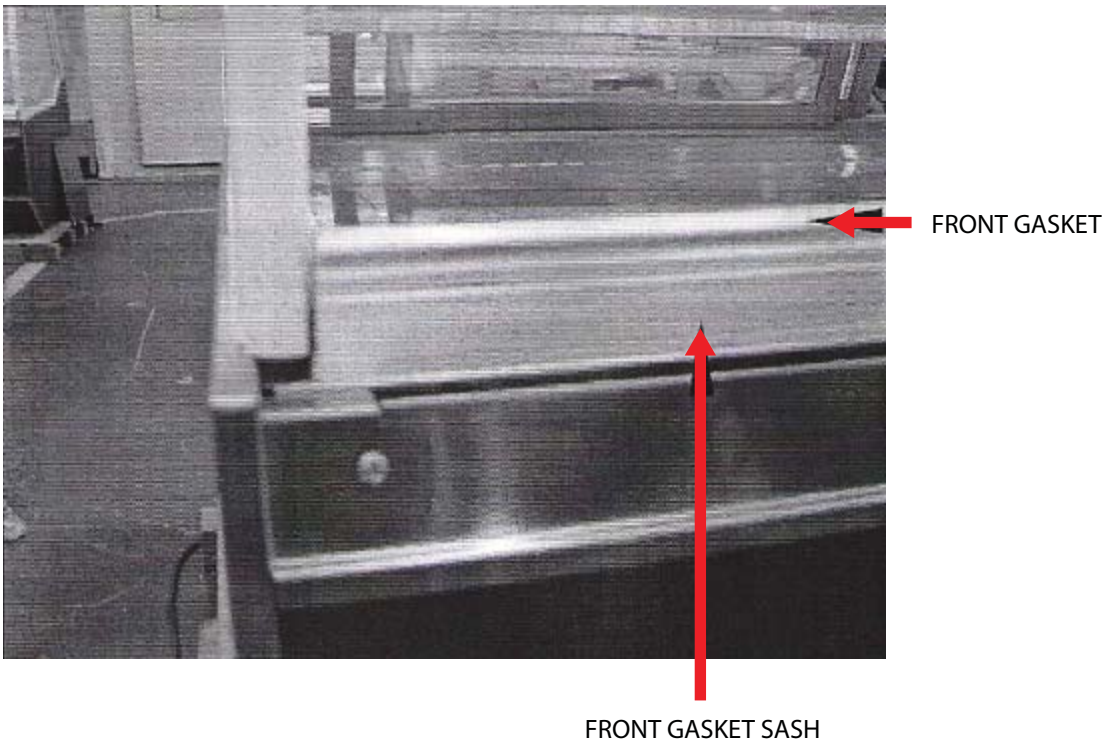
3-4. LAMP ASSY



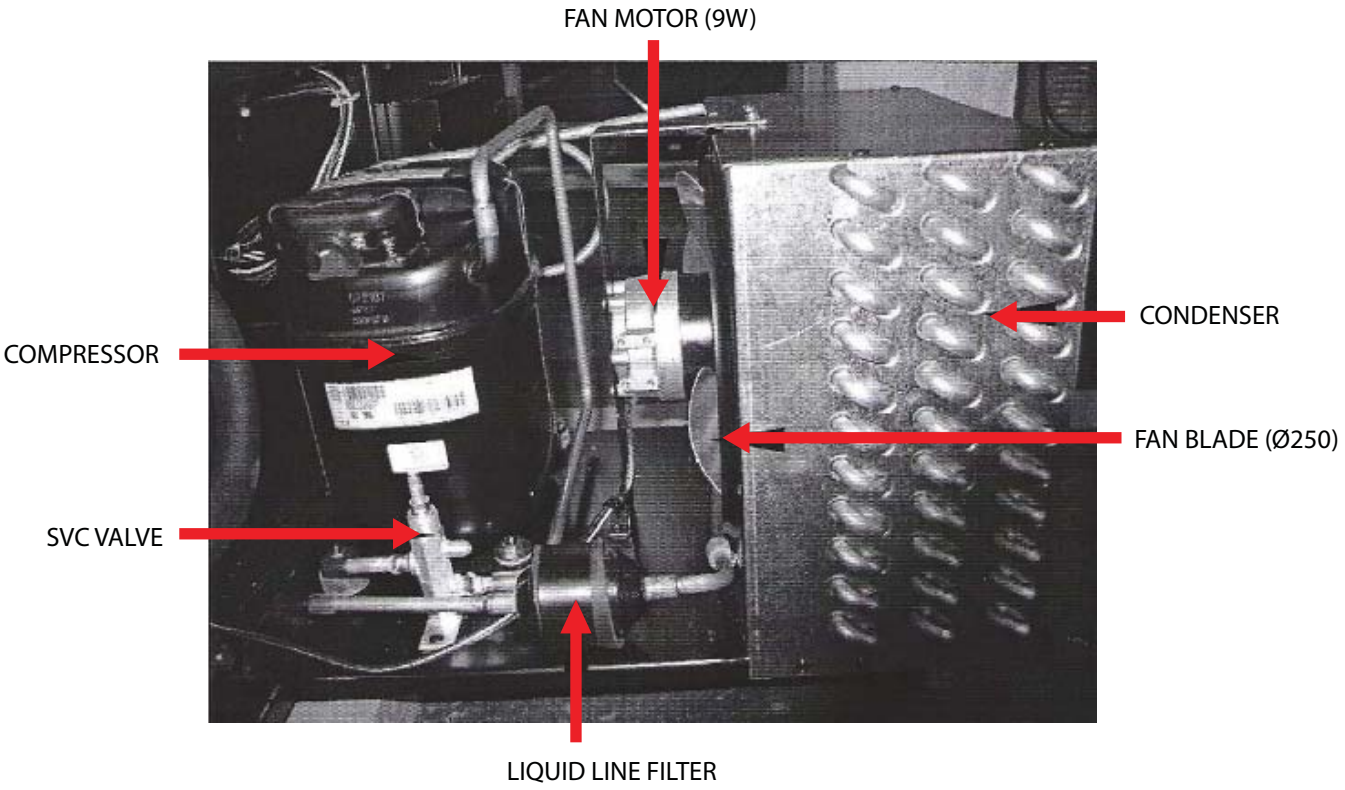
3-5. FRONT MOTOR PART



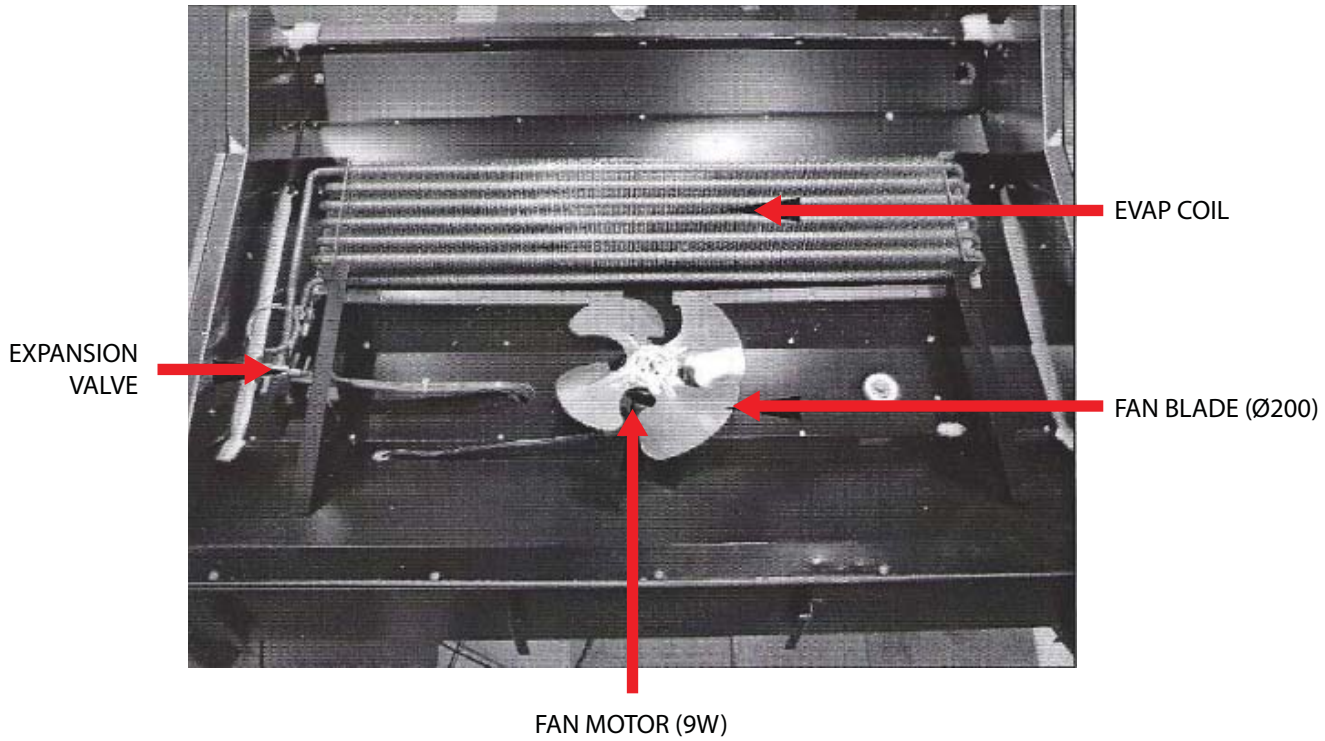
3-6. FRONT GASKET PART



3-7. REFRIGERATION COMPARTMENT CONDENSING UNIT

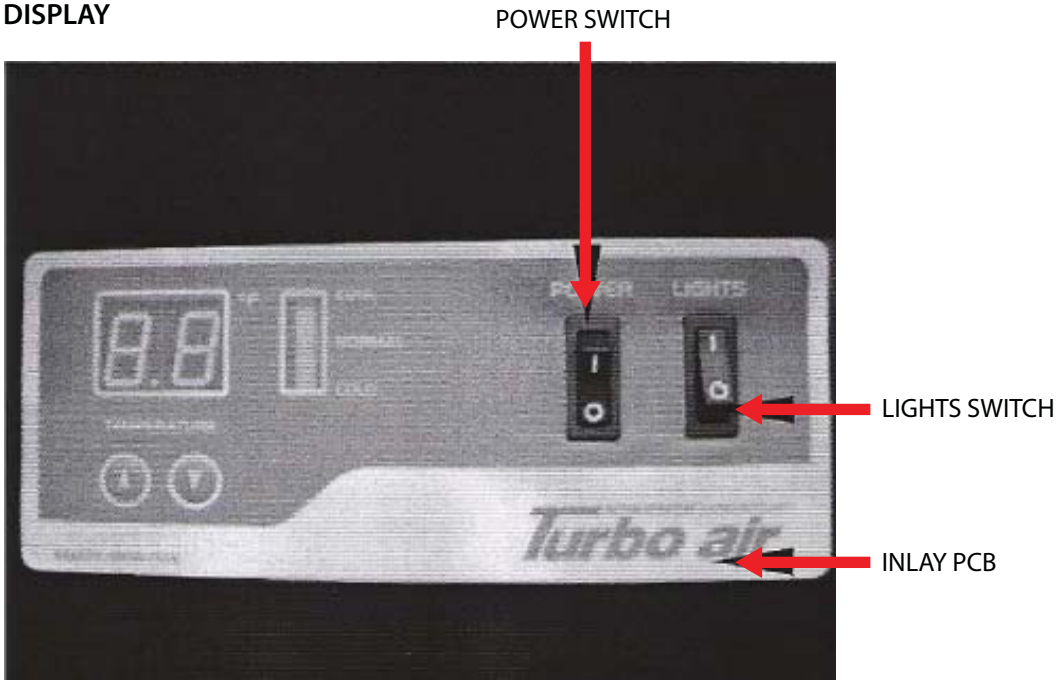


3-8. COOLING COMPARTMENT

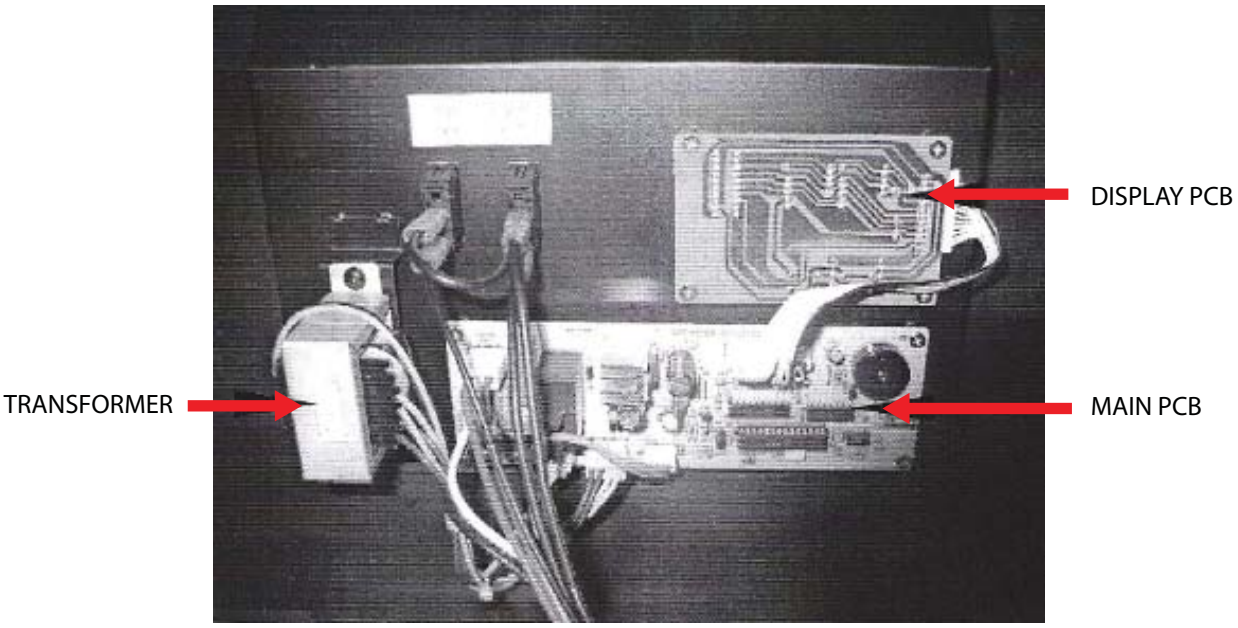


3-9. CONTROL BACK

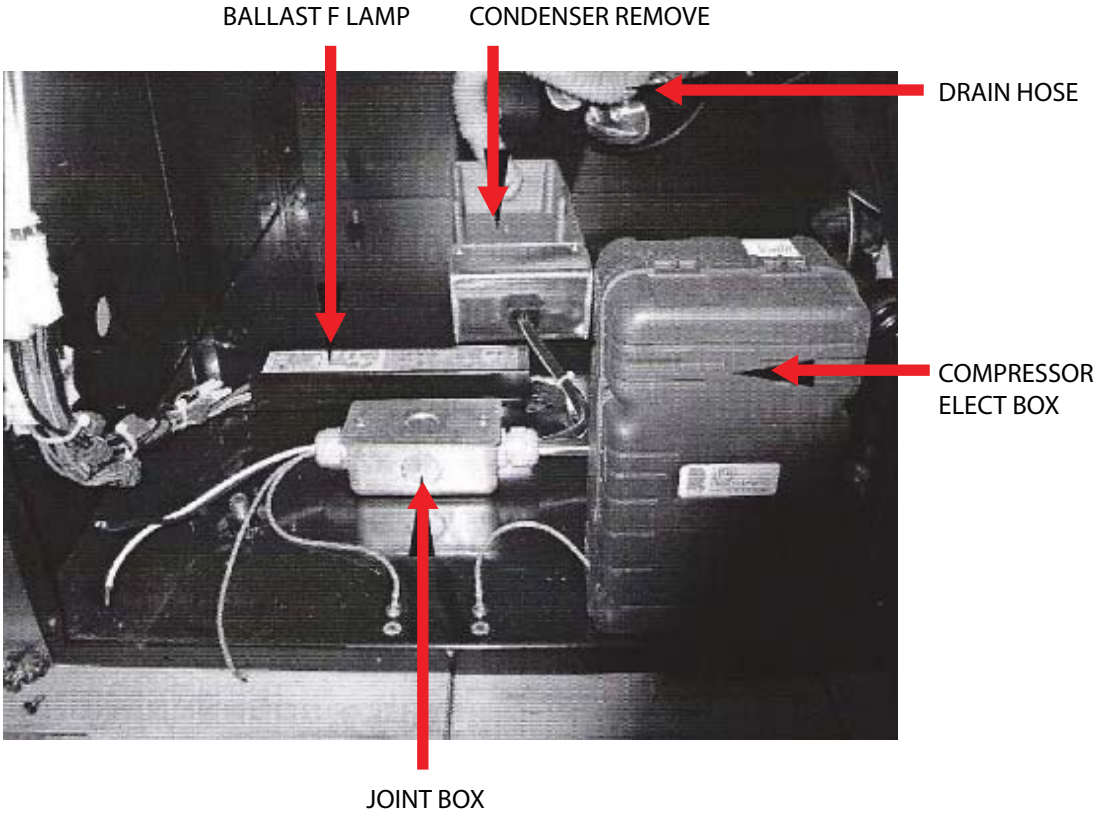
DISPLAY



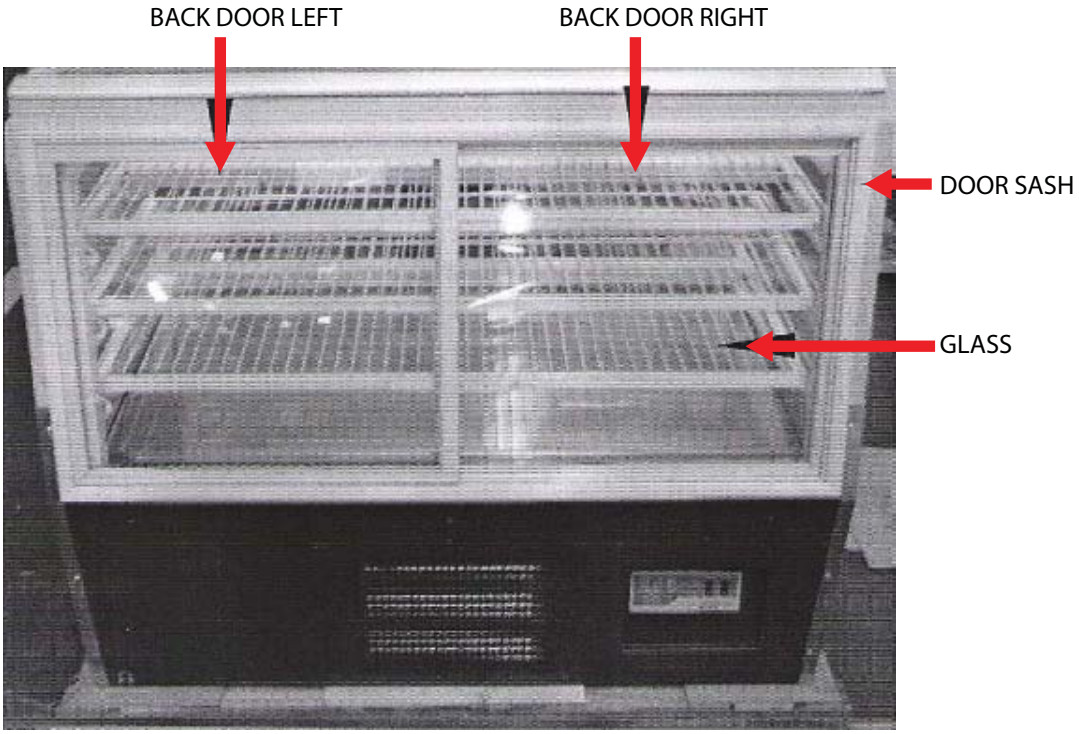
DISPLAY PCB & MAIN PCB



3-10 WIRING AREA



3-11. BACK DOOR



4. MAIN COMPONENTS

4-1. COMPRESSOR

MODEL	TD-4R	TD-5R
REFRIGERANT	R-134A	
VOLTAGE	115V / 60HZ	
COMP MODEL	CAJ4476Y (AKA4476YXA)	
PART CODE	BS1C001	
STARTING TYPE	CSIR	

4-2. LIQUID LINE FILTER

MODEL	TD-4R	TD-5R
REFRIGERANT	R-134A	
PRESSURE	MIN 610 PSIG	
MODEL	SMGT-7	
PART CODE	BS1O300	

4-3. CAPILLARY TUBE

MODEL	TD-4R	TD-5R
REFRIGERANT	R-134A	
OD,S	OD3.4XID2.2X3300MM	
MODEL		
PART CODE	BS1W115B(D)	

4-4. EVAP & CON'D FAN MOTOR

MODEL	TD-4R	TD-5R
REFRIGERANT	R-134A	
MODEL	SC-045	
PART CODE	BS1C136	
TYPE	CCW	

4-5. CONDENSER FAN BLADE

MODEL	TD-4R	TD-5R
METAL	AL	
SPEC	Ø250 4B	
PART CODE	BS1Z149	
TYPE	CCW	

4-6. EVAP FAN BLADE

MODEL	TD-4R	TD-5R
METAL	AL	
SPEC	Ø200 5B	
PART CODE	BS1Z148	
TYPE	CCW	

4-7. POWER SWITCH

MODEL	TD-4R	TD-5R
MARKED	"I" AND "O"	
RATING	125V, 20FLA, 3/4HP	
PART CODE	BS10300	

4-8. BALLAST F LAMP

MODEL	TD-4R	TD-5R
RATING	120V, 114W	
MODEL	LA432I120EN	
PART CODE	BS1C149	

4-9. FLUORESCENT LAMP

MODEL	TD-4R	TD-5R
RATING	30W	32W
MODEL	TL-D30W	FLR32SS
PART CODE	BS10303	BS10305

4-10. LAMP SOCKET

MODEL	TD-4R	TD-5R
RATING	250VAC, 2A	
PART CODE	JS-214, JS-215	

4-11. MAIN PCB

MODEL	TD-4R	TD-5R
RATING	115V, 60HZ	
PART CODE	BS1X154A	

4-12. DISPLAY PCB

MODEL	TD-4R	TD-5R
RATING	115V, 60HZ	
PART CODE	BS1X174A	

4-13. TRANS FORMER

MODEL	TD-4R	TD-5R
RATING	AC120V, DC12V	
MODEL	EP-0301D	
PART CODE	BS1R100	

4-14. GAS SPRING

MODEL	TD-4R	TD-5R
SPEC	550N	770N
PART CODE	BS10308	BS10310

4-15. SERVICE VALVE

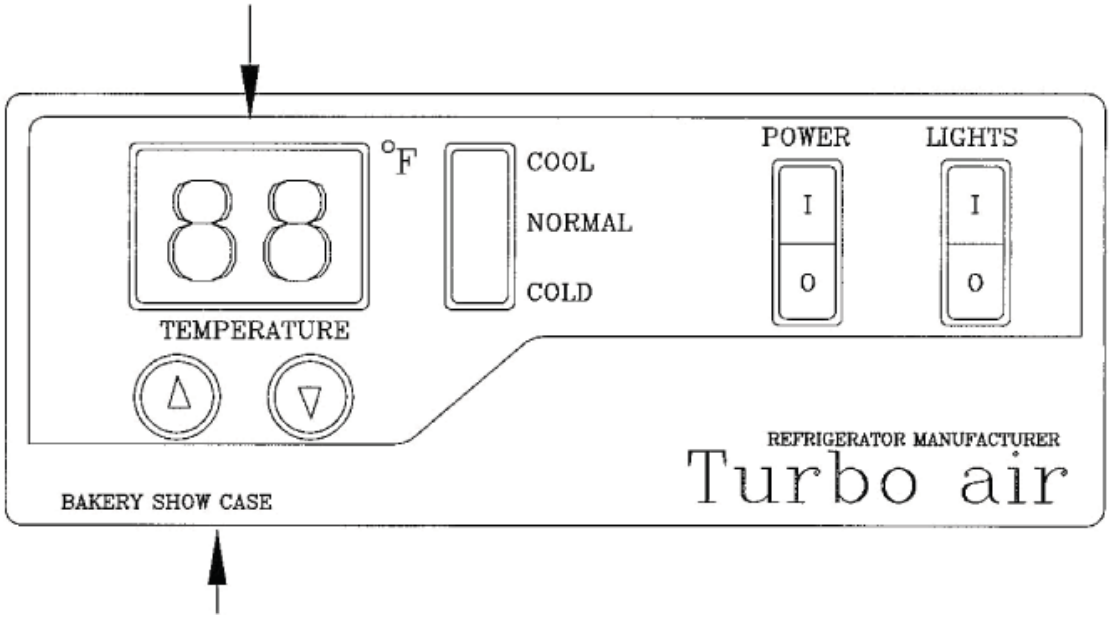
MODEL	TD-4R	TD-5R
SPEC	3/8″	
PART CODE	BS1C001	

5. ELEC'T CONTROL INSTRUCTIONS

5-1. REFRIGERATOR CONTROL

5-1-1. HOW TO USE THE DISPLAY PCB PANEL

- LED
- It indicates setting temperature.



- Temperature can be controlled by the user
- Factory setting is level "normal" setting can be changed by pressing up/down button.

5-1-2. ERROR CODE

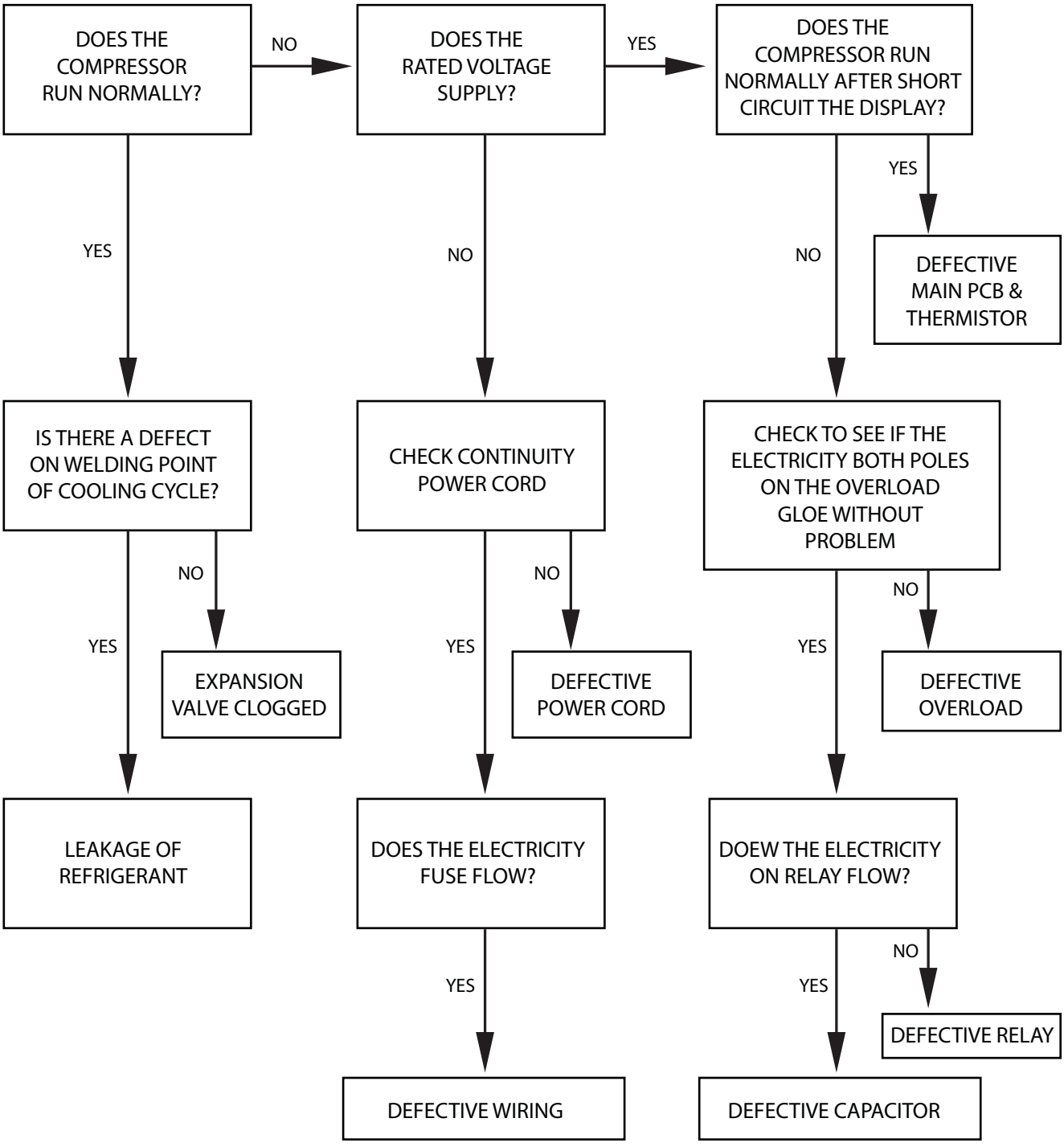
CODE	CONTENT	PERCEPTION METHOD	REFRIGERATION STATE
TE	T-SENSOR	OPEN	- NORMAL OPERATION - TIME CONTROL COMP ON : 10 MINUTES COMP OFF : 10 MINUTES
		SHORT	
CE	C-SENSOR	OPEN	- KEEP A NORMAL OPERATION
		SHORT	
CE	T-SENSOR C-SENSOR	OPEN	- NORMAL OPERATION - TIME CONTROL COMP ON : 10 MINUTES COMP OFF : 10 MINUTES
		SHORT	

5-1-3. FUNCTION TABLE

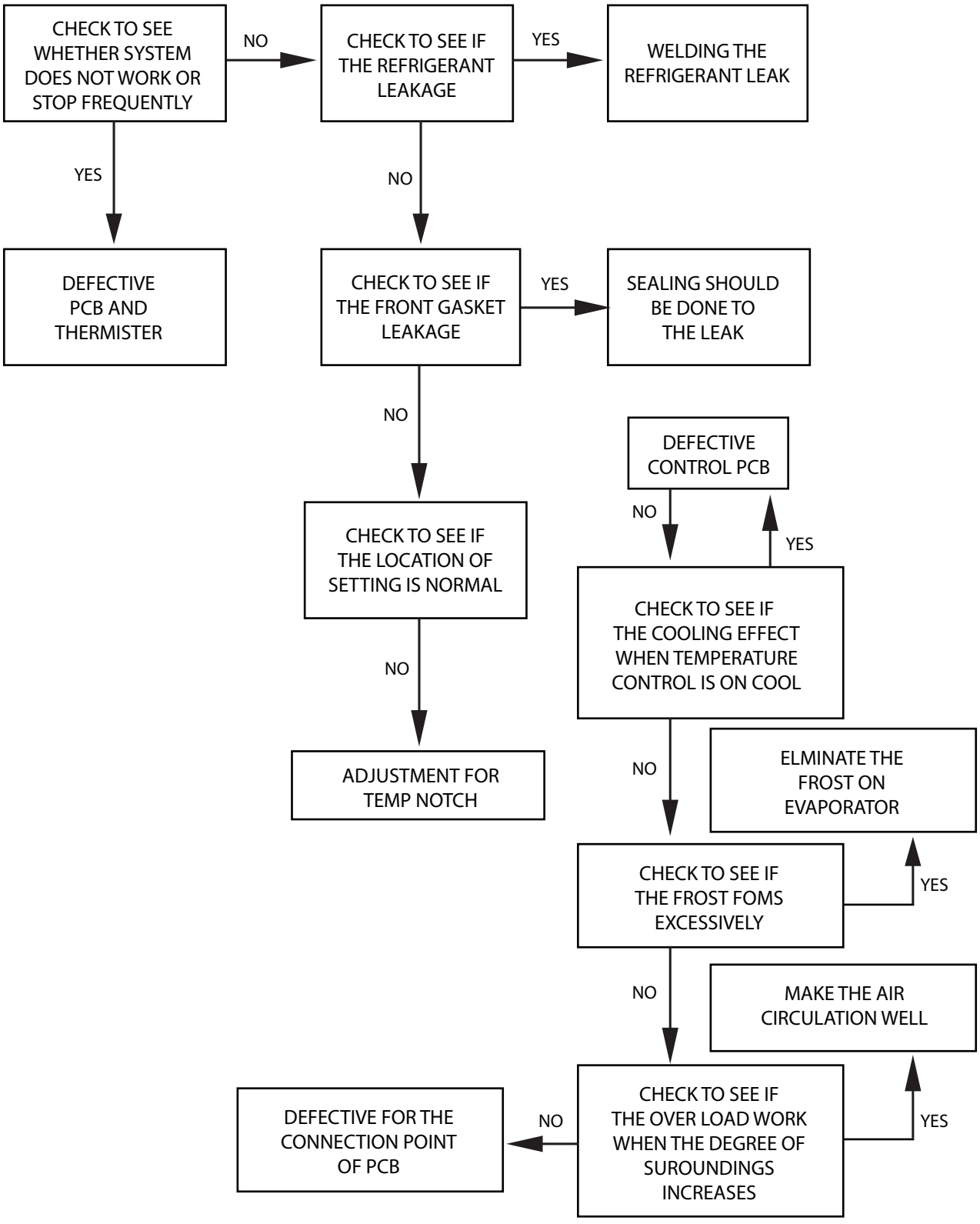
<table>
<tr><th>NO</th><th>FUNCTION</th><th>CONTROLLED PART</th><th>DESCRIPTION</th></tr>
<tr><td>1</td><td>OPERATION</td><td></td><td>1. Led displays inside temperaturer
2. Begins to run immediately if higher than 41˚F and begin to run after 5 minutes pause if lower than 41˚F</td></tr>
<tr><td>2</td><td>TEMPERATURE CONTROL</td><td>COMPRESSOR LED</td><td>1. The Temperature can be changes by pushing up/down buttons.
2. LED displays inside temperature.
3. Buzzer buzzes 1 time whenever a button is pressed.
4. Compressor automatically turns on and off by C-sensor (except error mode)
5. Comp on/off temperature (˚F)
<table>
<tr><th>NOTCH</th><th>COMP ON</th><th>COMP OFF</th><th>SETTING</th><th>BAR DISPLAY</th></tr>
<tr><td>1 (COOL)</td><td>55˚F</td><td>32˚F</td><td></td><td rowspan="5">1 (COOL)
2
3 (NORMAL)
4
5 (COLD)</td></tr>
<tr><td>2</td><td>48˚F</td><td>28˚F</td><td></td></tr>
<tr><td>3 (NORMAL)</td><td>46˚F</td><td>25˚F</td><td></td></tr>
<tr><td>4</td><td>43˚F</td><td>23˚F</td><td></td></tr>
<tr><td>5 (COLD)</td><td>39˚F</td><td>21˚F</td><td></td></tr>
</table></td></tr>
<tr><td>3</td><td>DEFROST</td><td>MICOM PROGRAM</td><td></td></tr>
</table>

6. TROUBLE SHOOTING CHART

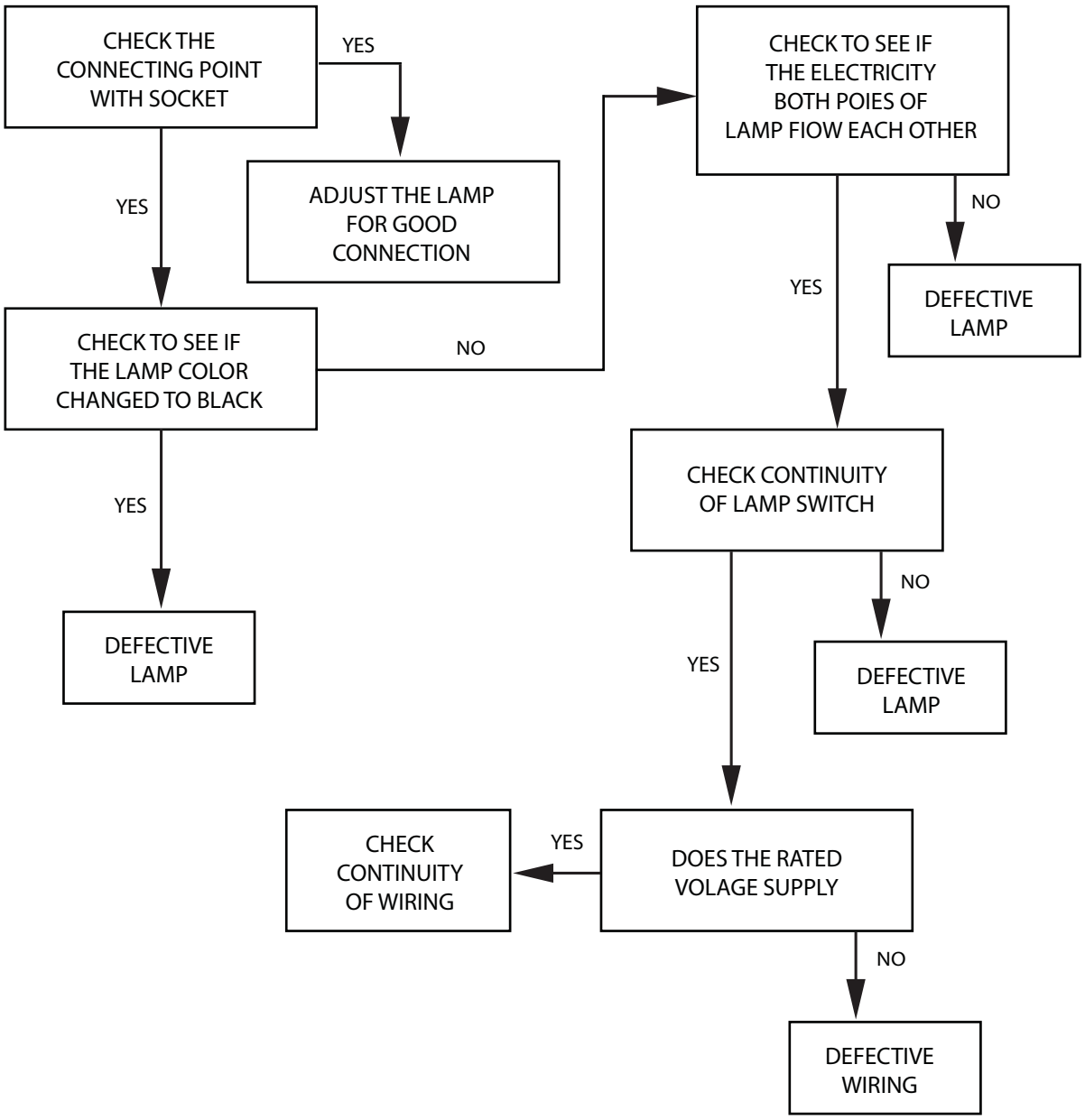
6-1. THE REFRIGERATOR DOES NOT COOLING



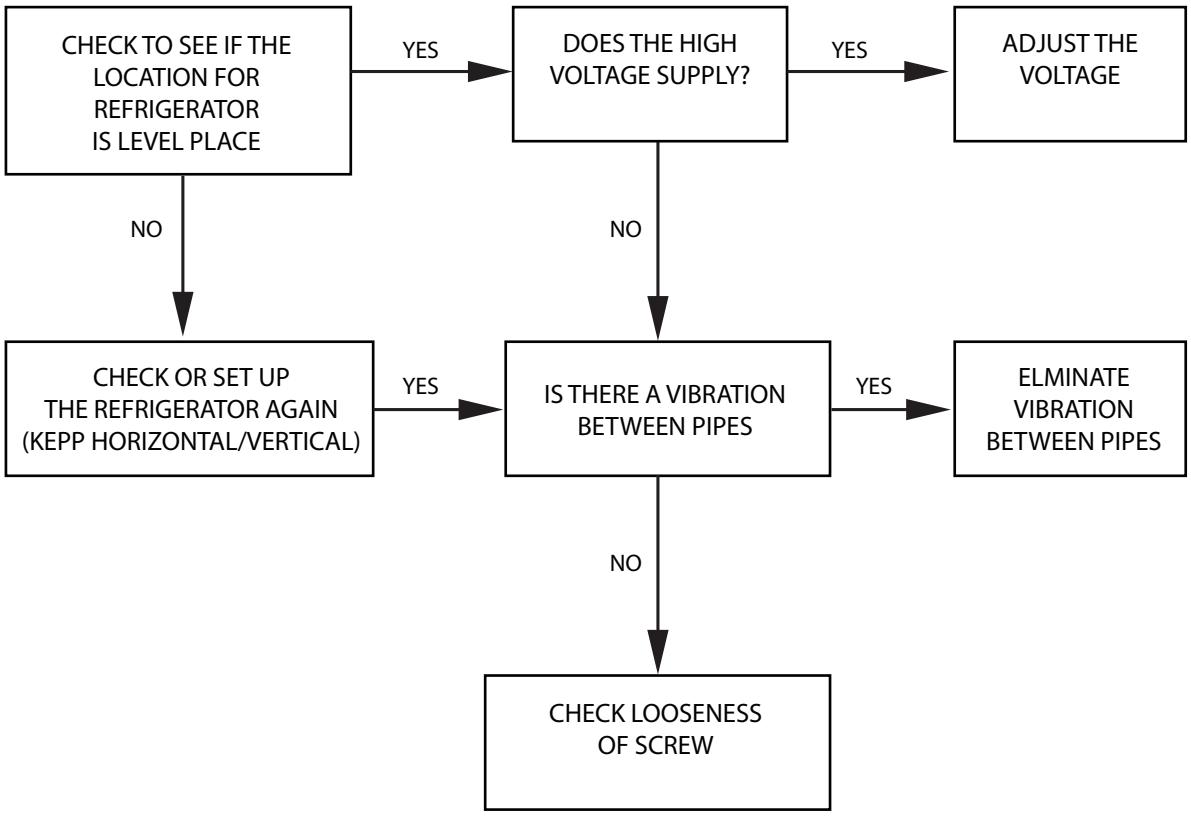
6-2. THE REFRIGERATOR DOES NOT COOLING WELL



6-3. LAMP DOES NOT LIGHT WELL



6-4. WHEN THERE IS A EXCESSIVE NOISE



7. REFRIGERANT CYCLE DIAGRAM