

REFRIGERATOR MANUFACTURER
Turbo air

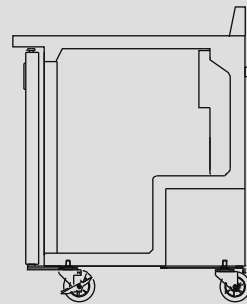
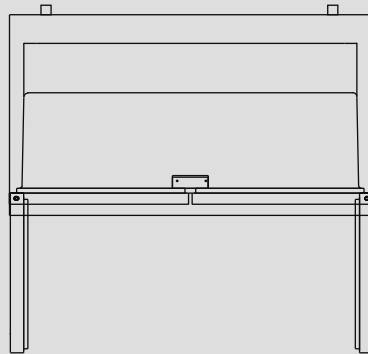
Turbo Air Speed up the Pace of Innovation

CAUTION!
PLEASE KEEP POWER
SWITCH ON BEFORE
OPERATING THIS EQUIPMENT

Worktop Freezers Service Manual

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

TWF-28SD
TWF-48SD
TWF-60SD



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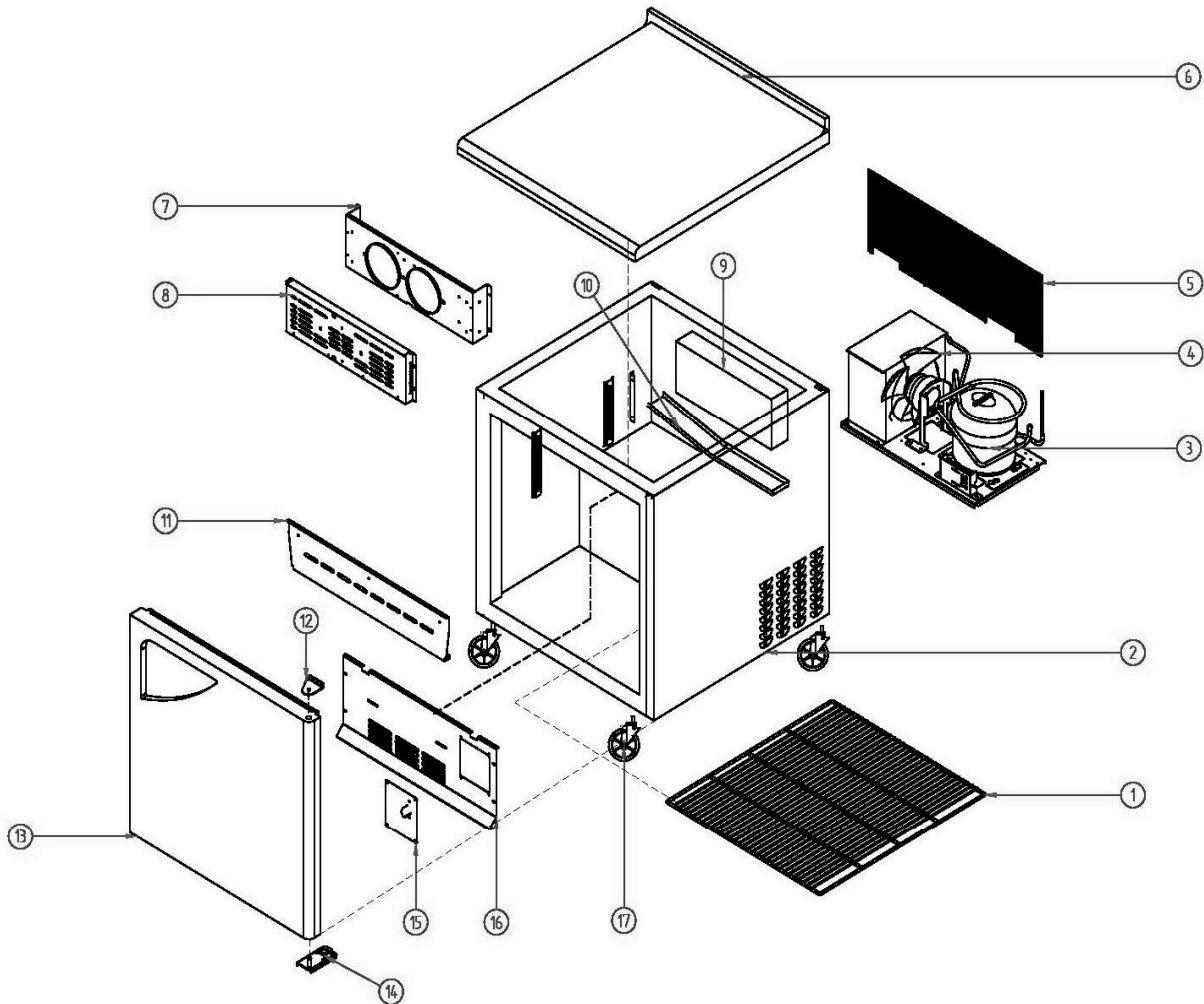
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1. EXPLODED VIEW

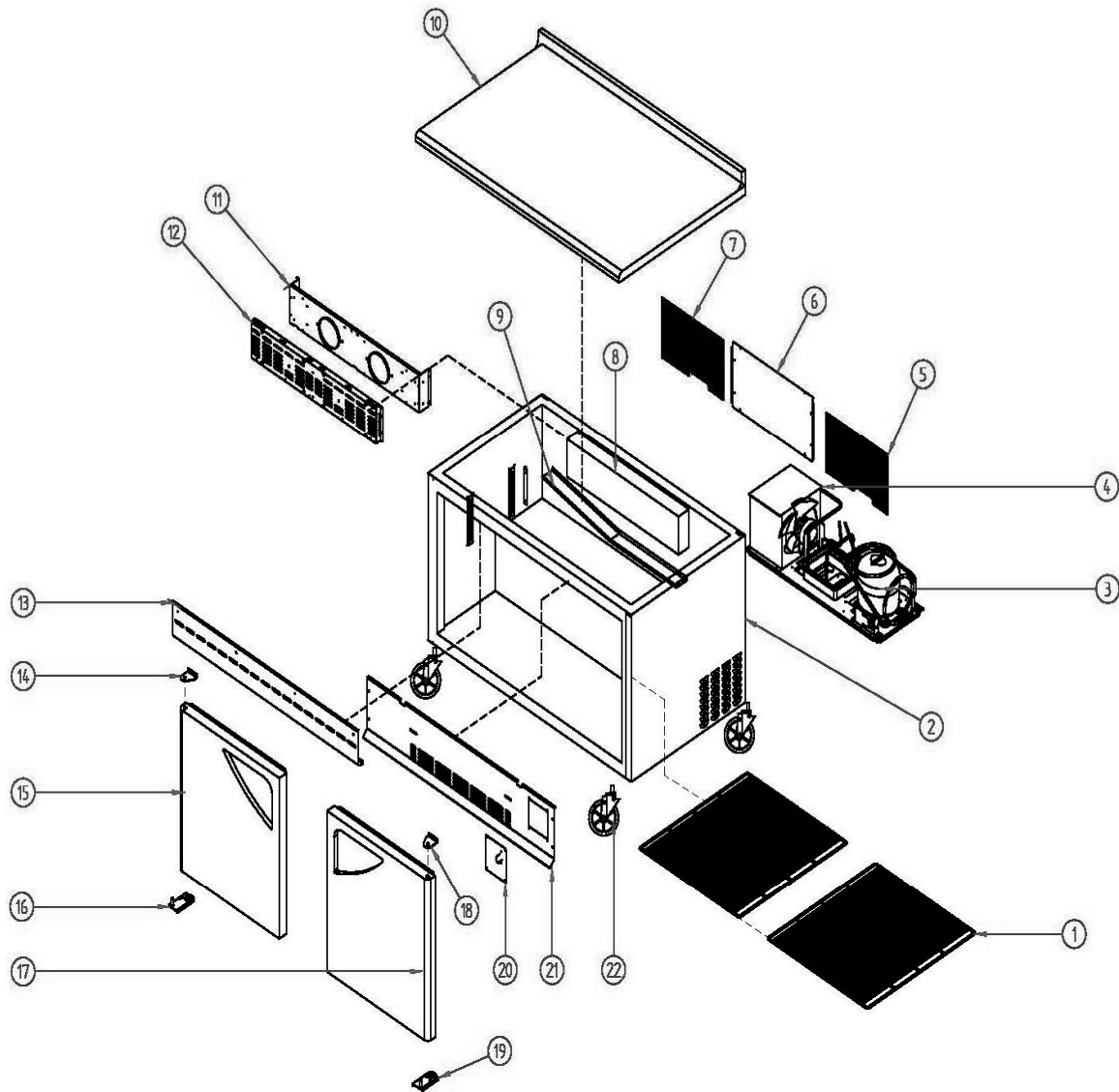
1-1. TWF-28SD EXPLODED VIEW



© Part Name

| | | | | | |
|----|------------------------|----|---------------------|--|--|
| 1 | SHELF | 11 | PAN DUCT FRONT | | |
| 2 | CABINET ASSEMBLY | 12 | TOP HINGE | | |
| 3 | COMPRESSOR | 13 | DOOR ASSEMBLY | | |
| 4 | CONDENSER ASSEMBLY | 14 | BOTTOM HINGE | | |
| 5 | MECH COVER | 15 | TAMPERATURE CONTROL | | |
| 6 | COUNTER TOP | 16 | EVAPORATOR DUCT | | |
| 7 | EVAPORATOR FAN DUCT | 17 | CASTER | | |
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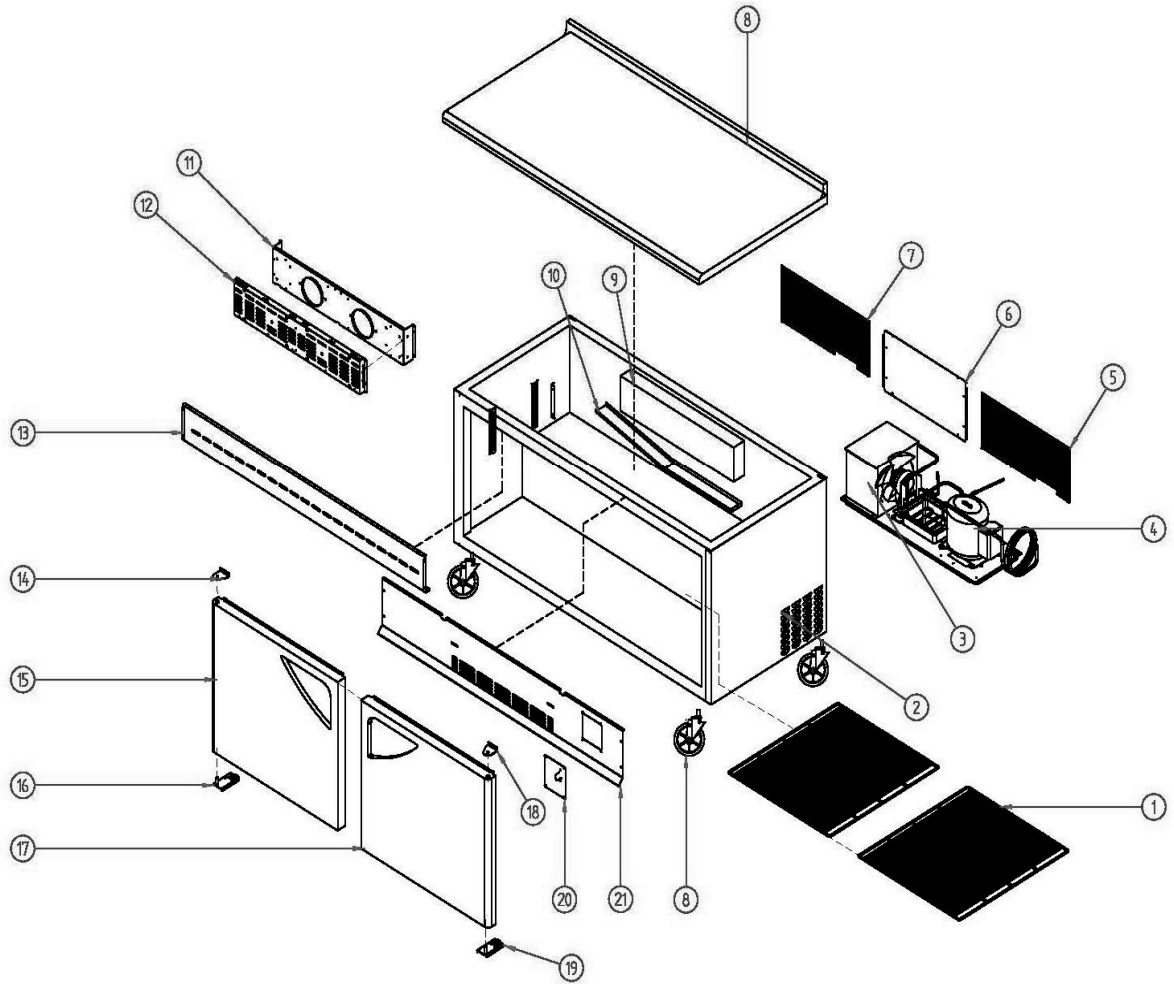
1-2. TWF-48SD EXPLODED VIEW



© Part Name

| | | | | | |
|----|----------------------|----|-------------------|--|--|
| 1 | SHELF | 13 | PAN DUCT FRONT | | |
| 2 | CABINET ASSEMBLY | 14 | TOP HINGE(LF) | | |
| 3 | COMPRESSOR | 15 | DOOR ASSEMBLY(LF) | | |
| 4 | CONDENSER ASSEMBLY | 16 | BOTTOM HINGE(LF) | | |
| 5 | MECH COVER(RH) | 17 | DOOR ASSEMBLY(RH) | | |
| 6 | UNIT COVER | 18 | TOP HINGE(RH) | | |
| 7 | MECH COVER(LF) | 19 | BOTTOM HINGE(RH) | | |
| 8 | EVAPORATOR ASSEMBLY | 20 | TAMPERATURE CONTR | | |
| 9 | EVAPORATOR DRAIN GUI | 21 | EVAPORATOR DUCT | | |
| 10 | COUNTER TOP ASSEMBL | 22 | CASTER | | |
| 11 | EVAPORATOR FAN DUCT | 23 | | | |
| 12 | LOUVER | 24 | | | |

1-3. TWF-60SD EXPLODED VIEW

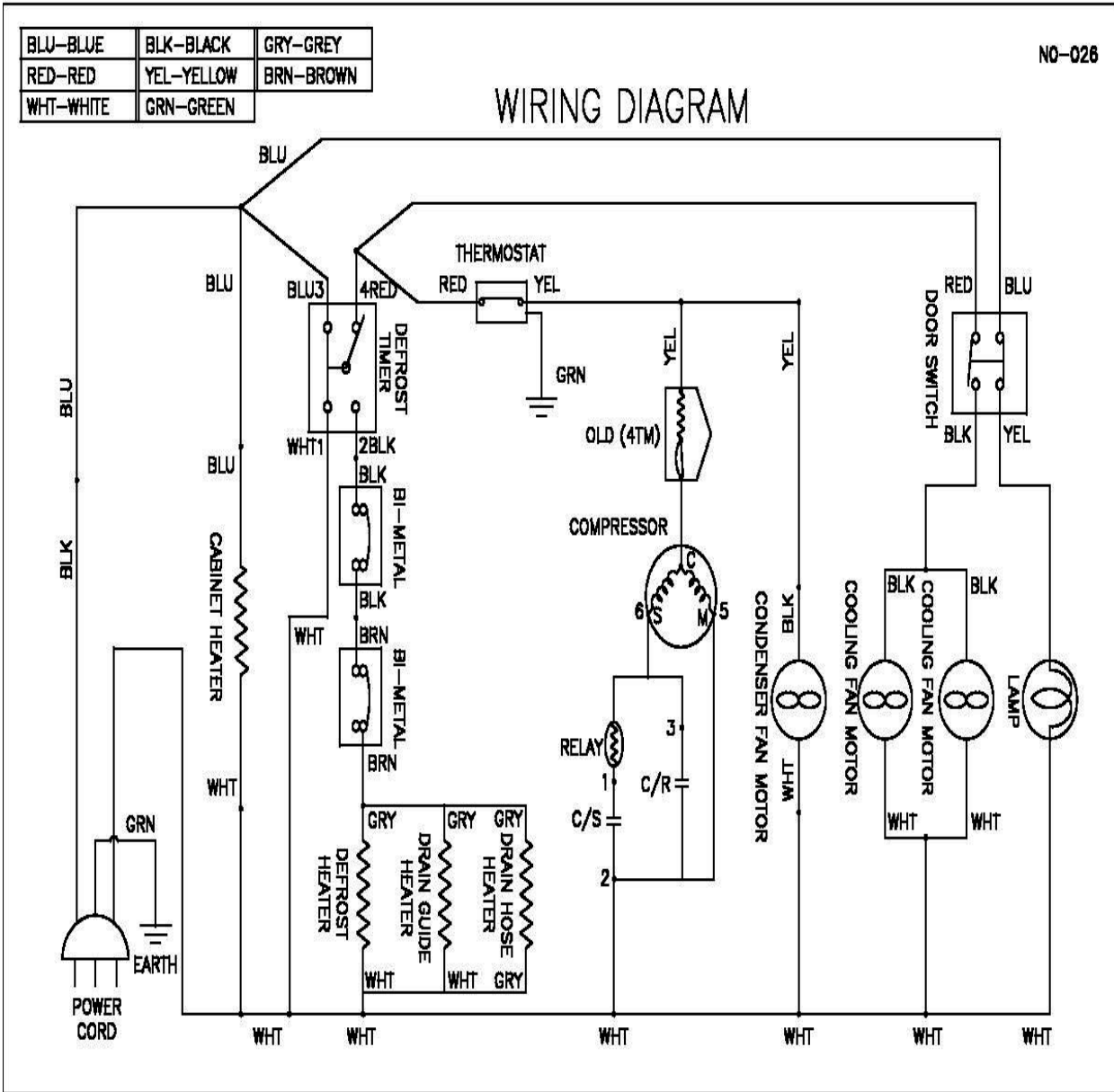


© Part Name

| | | | | | |
|----|----------------------|----|---------------------|--|--|
| 1 | SHELF | 14 | TOP HINGE(LF) | | |
| 2 | CABINET ASSEMBLY | 15 | DOOR ASSEMBLY(LF) | | |
| 3 | CONDENSER ASSEMBLY | 16 | BOTTOM HINGE(LF) | | |
| 4 | COMPRESSOR | 17 | DOOR ASSEMBLY(RH) | | |
| 5 | MECH COVER(RH) | 18 | TOP HINGE(RH) | | |
| 6 | UNIT COVER | 19 | BOTTOM HINGE(RH) | | |
| 7 | MECH COVER(LF) | 20 | TAMPERATURE CONTROL | | |
| 8 | COUNTER TOP ASSEMBL | 21 | EVAPORATOR DUCT | | |
| 9 | EVAPORATOR ASSEMBLY | 22 | CASTER | | |
| 10 | EVAPORATOR DRAIN GUI | 23 | | | |
| 11 | EVAPORATOR FAN DUCT | 24 | | | |
| 12 | LOUVER | 25 | | | |
| 13 | PAN DUCT FRONT | 26 | | | |

2. WIRING DIAGRAMS

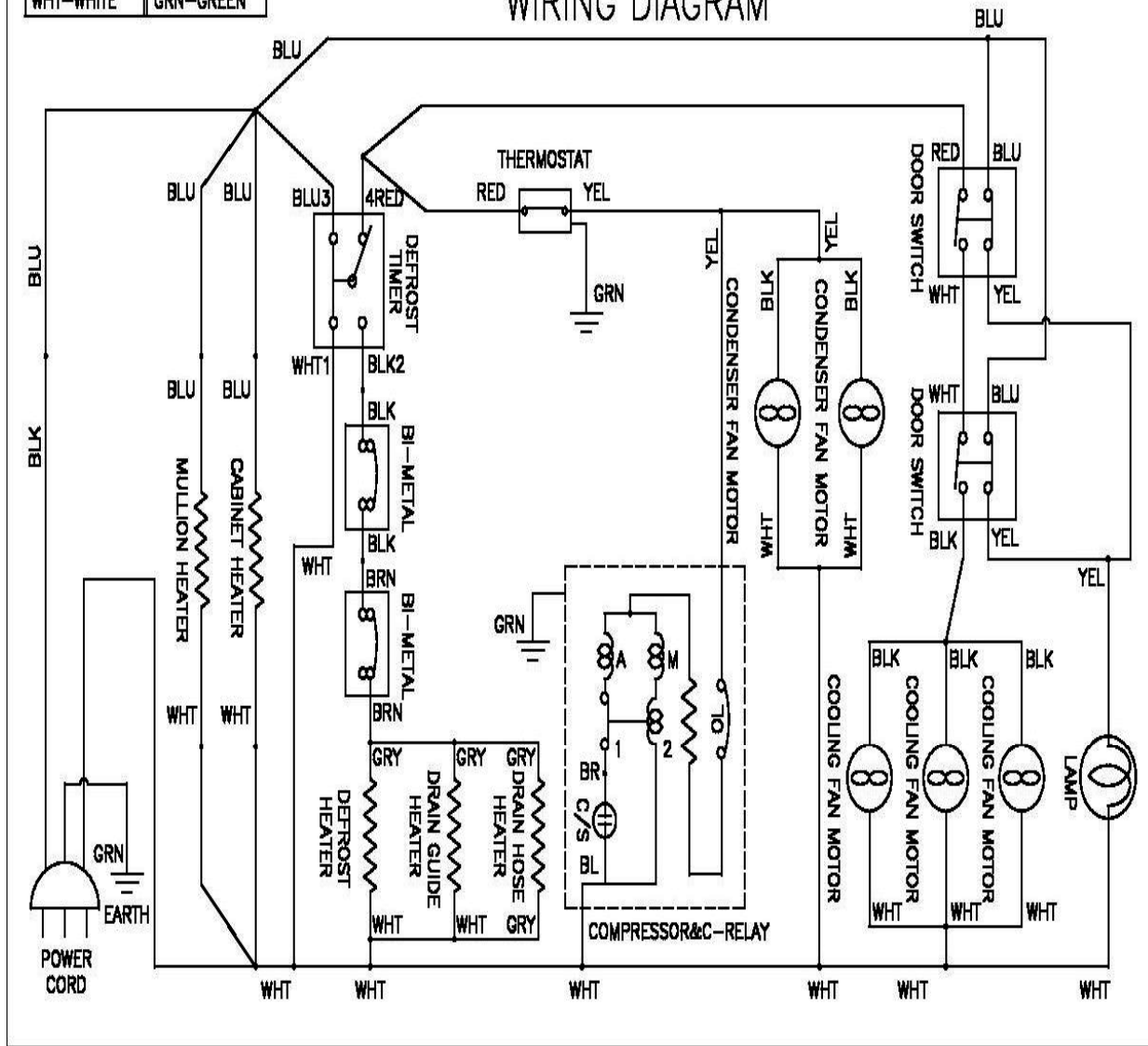
2-1. TWF-28SD



| | | |
|-----------|------------|-----------|
| BLU-BLUE | BLK-BLACK | GRY-GREY |
| RED-RED | YEL-YELLOW | BRN-BROWN |
| WHT-WHITE | GRN-GREEN | |

NO-027

WIRING DIAGRAM



3.MAIN COMPONENTS

1.COMPRESSOR

| MODEL | PART NAME | PART NO. | HORSE | CAPACITY | TYPE OF | INPUT | MAKER |
|----------|------------|------------|-------|----------|---------|---------------|----------|
| TWF-28SD | HBL-27YE-1 | M369700100 | 1/4HP | ~ | CSIR | 110-115V 60Hz | DAEWOO |
| TWF-48SD | SK1A1C-L2W | M609700100 | 1/4HP | ~ | CSIR | 115V 60Hz | SAMSUNG |
| TWF-60SD | CAE2420Z | G2F5700100 | ~ | ~ | CSIR | 115V 60Hz | TECUMSEH |

2.COMPRESSOR RELAY ,OVERLOAD

| MODEL | RELAY | OVERLOAD | MAKER | NOTE |
|----------|----------------------|---------------|----------|------|
| TWF-28SD | GSR SO68 E03 03 | 783RHBZZ-52 | DAEWOO | ~ |
| TWF-48SD | J531Q34E220M3503 | 795TFBZZ-53 | SAMSUNG | ~ |
| TWF-60SD | KPT 483 3ARR12 07 07 | MST16AHN-3240 | TECUMSEH | ~ |

3.COMPRESSOR CAPACITOR

| MODEL | STARTING | PART NO. | UNNIN | PART NO. | MAKER | NOTE |
|----------|------------|----------|--------|----------|-------|------|
| TWF-36SD | 200V/100uF | ~ | 50V/10 | ~ | ~ | ~ |
| TWF-48SD | 125V/125uF | ~ | 50V/12 | ~ | ~ | ~ |
| TWF-60SD | 125V/125uF | ~ | 50V/12 | ~ | ~ | ~ |

4.CONDENSER FAN MOTOR

| MODEL | PART NAME | PART NO. | INPUT | TYPE | BLADE | MAKER |
|----------|----------------|------------|-----------|--------------------------|-------|----------|
| TWF-28SD | IS-4420DWSN-2A | 3963328120 | 15V, 60Hz | SHADED POLE INDUCTION | AL 5 | SUNGSHIN |
| TWF-48SD | IS-4420DWSN-2A | 3963328120 | | | | |
| TWF-60SD | IS-4420DWSN-2A | 3963328120 | | | | |

5.EVAPORATOR FAN MOTOR

| MODEL | PART NAME | PART NO. | POLE | INPUT | TYPE | BLADE (NUMBER) | NO |
|----------|--------------|------------|------|-----------|-----------------------------|-------------------|--------|
| TWF-28SD | DAI-6202DEUA | M729900200 | 2P | 115V,60Hz | SHADED POLE INDUCTION | ZYTEL 4 | JUNGSH |
| TWF-48SD | DAI-6202DEUA | | | | | | |
| TWF-60SD | DAI-6202DEUA | | | | | | |

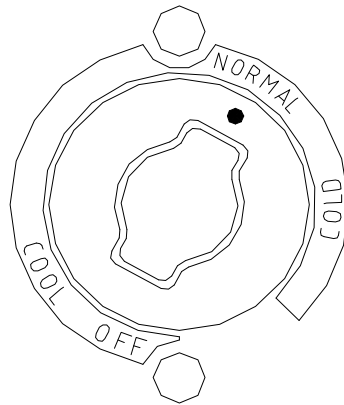
6.THERMOSTAT

| PART NAME | PART NO. | RATING | MAKER |
|------------|------------|----------------------------|-------|
| THERMOSTAT | UF48300200 | GNF-106D-06A-2 | RANCO |
| | | TWF-28SD,TWF-48SD,TWF-60SD | |

4. TEMPERATURE CONTROL INSTRUCTION

- Temperature can be controlled by the user.
- Factory setting is at "NORMAL" Settings can be changed by Dial Knob.

◎ Indicates temperature level setting.



TEMPERATURE
CONTROLLER

- *If thermostat knob is pointing at OFF, compressor and condenser fan motor would not run.*
- *Keep unit unplugged, if not in use for a long period of time.*

5. PARTS LIST

| Part Name | Part Code | Description | Model | | | | | Remarks |
|---------------------------|------------|------------------|-------|----|----|----|----|---------|
| | | | 28 | 36 | 48 | 60 | 72 | |
| 1. DOOR | | | | | | | | |
| DOOR ASSEMBLY (L) | M600001000 | | | | | 1 | | |
| DOOR ASSEMBLY (L) | M720001100 | | | | 1 | | 1 | |
| DOOR ASSEMBLY (L) | M361800200 | | | 1 | | | | |
| DOOR ASSEMBLY (M) | M720001000 | | | | | | 1 | |
| DOOR ASSEMBLY (R) | M270000900 | | 1 | | | | | |
| DOOR ASSEMBLY (R) | M361800100 | | | 1 | | | | |
| DOOR ASSEMBLY (R) | M600000900 | | | | | 1 | | |
| DOOR ASSEMBLY (R) | M720000900 | | | | 1 | | 1 | |
| DOOR BUSHING | M720700100 | PA-66 | 1 | 2 | 2 | 2 | 3 | |
| DOOR BUSHING | M729200100 | PA-66 | 1 | 2 | 2 | 2 | 3 | |
| DOOR GASKET | M272300100 | PVC | 1 | | | | | |
| DOOR GASKET | M362300100 | PVC | | 2 | | | | |
| DOOR GASKET | M602300100 | PVC | | | | 2 | | |
| DOOR GASKET | M722300100 | PVC | | | 2 | | 3 | |
| TOP HINGE (R) | M722900100 | SUS304,SM45C | 1 | 1 | 1 | 1 | 2 | |
| TOP HINGE (L) | M722900200 | SUS304,SM45C | | 1 | 1 | 1 | 1 | |
| TOP HINGE SPACER | M725000100 | SUS439-2B | 1 | 2 | 2 | 2 | 3 | |
| BOTTOM HINGE (U)(R) | 30229M0400 | SUS304,SM45C | 1 | 1 | 1 | 1 | 2 | |
| BOTTOM HINGE (U)(L) | 30229M0300 | SUS304,SM45C | | 1 | 1 | 1 | 1 | |
| SPRING BAR | | | 1 | 2 | 2 | 2 | 3 | |
| 2. COUNTER TOP | | | | | | | | |
| COUNTER TOP ASSEMBLY | UW29500100 | | 1 | | | | | |
| COUNTER TOP ASSEMBLY | UW39500100 | | | 1 | | | | |
| COUNTER TOP ASSEMBLY | UW49500100 | | | | 1 | | | |
| COUNTER TOP ASSEMBLY | UW69500100 | | | | | 1 | | |
| COUNTER TOP ASSEMBLY | UW79500100 | | | | | | 1 | |
| CASTER | M726500100 | 5' MOVING | 2 | 2 | 2 | 2 | 2 | |
| CASTER | M726500200 | ' MOVING STOPPIN | 2 | 2 | 2 | 2 | 2 | |
| 3. COMPRESSOR COMPARTMENT | | | | | | | | |
| COMPRESSOR | M369700100 | SH43C56B | 1 | 1 | | | | |
| COMPRESSOR | M609700100 | HBL 27YE-1 | | | 1 | 1 | 1 | |
| SUCTION PIPE(B) | U284200200 | CU | 1 | | | | | |
| SUCTION PIPE(B) | U354200100 | CU | | 1 | | | | |
| SUCTION PIPE(B) | S604400200 | CU | | | 1 | 1 | | |
| SUCTION PIPE(B) | U724400200 | CU | | | | | 1 | |
| SUCTION PIPE(A) | M274400100 | CU | 1 | | | | | |
| SUCTION PIPE(A) | M364400300 | CU | | 1 | | | | |
| SUCTION PIPE(A) | M604400400 | CU | | | 1 | 1 | | |
| SUCTION PIPE(A) | U724400100 | CU | | | | | 1 | |
| COMP BASE | M270300100 | GI | 1 | | | | | |
| COMP BASE | M360300100 | GI | | 1 | | | | |
| COMP BASE | M600300100 | GI | | | 1 | | | |
| COMP BASE | M600300300 | GI | | | | 1 | 1 | |

| Part Name | Part Code | Description | Model | | | | | Remarks |
|------------------------|------------|----------------|-------|----|----|----|----|---------|
| | | | 28 | 36 | 48 | 60 | 72 | |
| CONDENSER FAN MOTOR | 3963328120 | S-4420DWSN-2 | 1 | 1 | 1 | 1 | 2 | |
| POWER CORD | M721300100 | KKP-30(9.85FT) | 1 | 1 | 1 | 1 | 1 | |
| CONDENSER FAN AIR GUID | M722500900 | GI | | | | | 1 | |
| DRAIN PAN | 30211A0200 | PP | 1 | | | | | |
| DRAIN PAN | M729300100 | PP | | 1 | 1 | 1 | 1 | |
| DRAIN PIPE | M364400100 | Φ8X0.8T | | 1 | | | | |
| DRAIN PIPE | M484400100 | Φ8X0.8T | | | 1 | 1 | 1 | |
| CONDENSER MOTOR BRAC | 3020602200 | GI | 1 | 1 | 1 | 1 | 2 | |
| CONDENSER FAN BLADE | M729800100 | AL | 1 | 1 | 1 | 1 | 2 | |

| Part Name | Part Code | Description | Model | | | | | Remarks |
|------------------------------|------------|---------------------|-------|----|----|----|----|---------|
| | | | 28 | 36 | 48 | 60 | 72 | |
| 4. REFRIGERATION COMPARTMENT | | | | | | | | |
| LOUVER | M275800100 | SUS439-2B | 1 | 1 | | | | |
| LOUVER | M485800100 | SUS439-2B | | | 1 | | | |
| LOUVER | M605800100 | SUS439-2B | | | | 1 | | |
| LOUVER | M725800100 | SUS439-2B | | | | | 1 | |
| SHELF | M277800100 | STS304 | 1 | | | | | |
| SHELF | M367800100 | STS304 | | 2 | | | | |
| SHELF | M607800100 | STS304 | | | | 2 | | |
| SHELF | M727800100 | STS304 | | | 2 | | 2 | |
| SHELF MID | M727800300 | STS304 | | | | | 1 | |
| FIXTURE SHELF CLIP | 30220L0900 | PA-66 | 4 | 8 | 8 | 8 | 12 | |
| SHELF MID BRACKET | M720600100 | SUS304 | 2 | 1 | 1 | 1 | | |
| SHELF STANDARD | M725300200 | SUS304 | 4 | 8 | 8 | 8 | 12 | |
| DRAIN PAN GUIDE(R) | M272500100 | GI | 1 | | | | | |
| DRAIN PAN GUIDE(L) | M272500200 | GI | 1 | | | | | |
| EVAPORATOR AS | M367000100 | CU,SPG,AL | 1 | 1 | | | | |
| EVAPORATOR AS | M487000200 | CU,SPG,AL | | | 1 | 1 | 1 | |
| THERMOSTAT | 30283L0100 | 250V,16A K55Q -5607 | 1 | 1 | 1 | 1 | 1 | |
| EVAPOVATOR FAN DUCT | M276900200 | SUS439-2B | 1 | 1 | | | | |
| EVAPOVATOR FAN DUCT | M486900200 | SUS439-2B | | | 1 | | | |
| EVAPOVATOR FAN DUCT | M606900200 | SUS439-2B | | | | 1 | | |
| EVAPOVATOR FAN DUCT | M726900200 | SUS439-2B | | | | | 1 | |
| EVAPOVATOR DUCT | M276900300 | SUS439-2B | 1 | | | | | |
| EVAPOVATOR DUCT | U366900300 | SUS439-2B | | 1 | | | | |
| EVAPOVATOR DUCT | M486900300 | SUS439-2B | | | 1 | | | |
| EVAPOVATOR DUCT | M606900300 | SUS439-2B | | | | 1 | | |
| EVAPOVATOR DUCT | M726900300 | SUS439-2B | | | | | 1 | |
| FIXTURE EVAP DUCT BRACKET | M720601000 | SUS439-2B | 2 | 2 | 2 | 2 | 2 | |
| MULLION FRAME | M722200400 | PVC | | 1 | 1 | 1 | 2 | |
| MULLION BACK FRAME | M722200200 | SUS304-2B | | 1 | 1 | 1 | 2 | |
| MULLION FRAME INSULATION | M723300100 | F-PS | | 1 | 1 | 1 | 2 | |
| CONDENSER AS | M365900100 | CU,SPG,AL | 1 | 1 | | | | |
| CONDENSER AS | M605900100 | CU,SPG,AL | | | 1 | 1 | 1 | |
| BRACKET MOTOR | 30220T0300 | SUS304 | 2 | 2 | 2 | 2 | 3 | |
| FAN COOLING BLADE | 3011802210 | ZYTEL | 1 | 1 | 1 | 1 | 1 | |
| EVAP FAN MOTOR | CM25000100 | IS-3220QTBD | 2 | 2 | 2 | 2 | 2 | |

6. REPLACEMENT OF MAIN COMPONENTS

6-1. REPLACING DOOR

A. Unscrew the top hinge



B. Lift the door



6-2. REFRIGERATION COMPARTMENT PARTS

A. Disassemble the evaporator fan duct assembly



B. Disassemble the evaporator duct

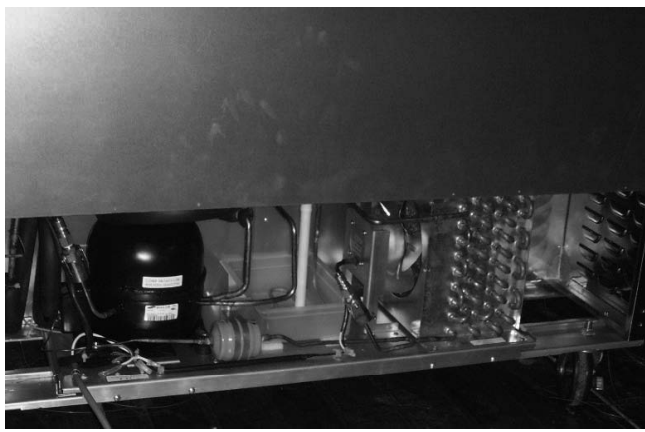
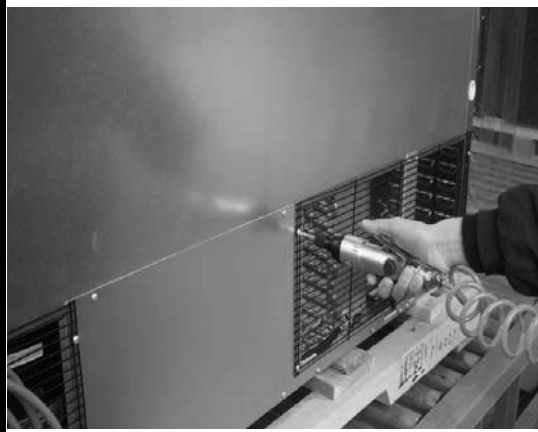


C.Remove the temperature & sensor

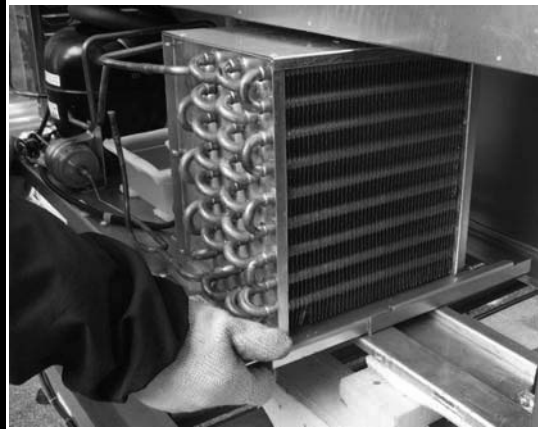


6-3. COMPRESSOR COMPARTMENT PARTS

A.Disassembly the rear grill



B.Disassembly the condensing unit



6-4. REPLACING THE EVAPORATOR & EVAPORATOR FAN MOTOR

A.Remove the evaporator coil



B.Remove the evaporator fan motor

