



## Dukers Worktop Instruction Manual



**Customer Service: 1- (800) 931-8628**

**IMPORTANT:**

Please read this manual carefully before installing and operating the display refrigerator. Keep this manual handy for further reference.

***The DSP series and DSP series equipment is intended for use in rooms where the environmental conditions are controlled and maintained such that the ambient temperature typically does not exceed 86 °F***

Esteemed user,

Thanks for your choice!

In order to ensure your safety and achieve the best using effect, please read these instructions carefully.

#### **I. Introduction:**

1. Using hermetic compressor of high quality and efficient with a wide work range. The whole refrigerates system mate well, high refrigerate speed and low energy consumption.
2. The frame net can be adopted willfully.
3. Goods stored can be displayed clearly through the door made from luxurious hollow glass.
4. The inner box made of figured stainless steel ensures conducting cold quickly.
5. At the top front of the cabinet, there is a light box for convenience

#### **II. main technical data:**

|                     |                                           |
|---------------------|-------------------------------------------|
| RATED VOLTAGE (V)   | 115                                       |
| RATED FREQUENCY(Hz) | 60                                        |
| TEMP RANGE          | Refrigerator: 34~47 °F ; Freezer: 0~-8 °F |

#### **III. CAUTION FOR SAFETY.**

1. Leave enough space from the wall to the cabinet and the ceiling; do not be sealed completely in the back part of the cabinet, prepare an air vent to the outside.

**Caution: It needs more than 20 cm from the cabinet to wall.**

2. Please move away all out-package for bottom heat radiation to avoid fire.
3. It's prohibited to store flammable and volatile chemical, or leading to exploding.
4. individual single-phase socket must be used. It should be reliably connected to a grounding wire.

**Caution: Do not connect grounding wire to a water or gas pipe.**

5. Do not be hard collided or fiercely vibrated when in transportation; it is not larger than 45°for the inclination of the cabinet.
6. Please refer to the Trouble Shooting references when the unit is facing some problems. Do not attempt to solve the problem on your own, please refer to certified technician only.

7. **DANGER** - Risk of fire or explosion. Flammable refrigerant used. Do not use mechanical devices to defrost refrigerator. Do not puncture refrigerant tubing.

**DANGER** - Risk of fire or explosion. Flammable refrigerant used. To be repaired only by trained service personnel. Do not puncture refrigerant tubing.

**CAUTION** - Risk of fire or explosion. Flammable refrigerant used. Consult repair manual/owner's guide before attempting to service this product. All safety precautions must be followed.

**CAUTION** - Risk of fire or explosion. Dispose of properly in accordance with federal or local regulations. Flammable refrigerant used.

**CAUTION** - Risk of fire or explosion due to puncture of refrigerant tubing; follow handling instructions carefully. Flammable refrigerant used.

**CAUTION** - Keep clear of obstruction all ventilation openings in the appliance enclosure or in the structure for building-in.

**CAUTION** -servicing shall be done by factory authorized service personnel, so as to minimize the risk of possible ignition due to incorrect parts or improper service.

**CAUTION** -flammable refrigerant used! When handling, moving and use of the refrigerator, make sure to avoid either damaging the refrigerant tubing, or increasing the risk of a leak.

#### IV · USAGE NOTICE.

**1. Start up:** Before operating your unit, please be sure that all casters are properly installed. The unit must be level after it is positioned in its permanent location. This ensures proper door alignment on all cabinet, adequate condensate water drainage, and proper overall refrigeration system operation. Electrical power to the unit is generated immediately after plugging the power cord into an adequate outlet.

**2. Set Temperature:** Push the SET key for more than 2 seconds to change the Set point value; The value of the set point will be displayed and the “°C” or “°F” LED starts blinking; To change the Set value push the o or n arrows within 10s. To memorize the new set point value push the SET key again or wait 10s.

**3 · Temperature controller:** After turning on for the delay time (2 minute), the compressor starts when cold room temperature  $\geq$  set temperature + hysteresis, and will be off when cold room temperature  $\leq$  set temperature. To protect the compressor, it can re-start unless the time when the compressor stops every time is longer than the delay time. (2 minute)

**CAUTION**—Setting the temperature control to the coldest setting may cause the eventually result in a warmer cabinet temperature.

**4. Transportation:** Do not be hard collided or fiercely vibrated when in transportation; it is not larger than 45° for the inclination of the chest. When it is on working, do not re-move frequently.

**5. Storage:** Do not flap foods or cans into the cabinet, or it will damage the glass sides/door. In order to avoid bad smell or taste, keep space between each food and do not store the foods too long time.

**6. Maintenance:** Please clean the cabinet with soft clothes timely. Before cleaning, **MUST pull out the power plug**. When the cabinet will not be used for a long time, disconnect the power cord then clean it. Please examine the wiring circuit before reusing it.

**Restart:** Please wait 5 minutes to restart the refrigerator after the plug pulled down or short sudden-cut, or it will reduce the sever life of the compressor. To save energy, the refrigerator door should not be frequently opened or left open for a long time.

**7. Defrosting:** Timing of defrosting: The electronic control panel is preset to automatically execute four defrosting cycles within twenty four hours. Its timer will reset to the time or the initial first start-up. In order to modify the start time for the defrost cycle to the desired time, it is sufficient to follow these directions, press the defrosting button for six seconds, the unit will start defrosting at the time, and another cycle will follow six hours later.

**Manual defrosting:** Press the button on the top right of the display of the electronic thermostat for six seconds. The defrosting will start only if the sensor reveals a temperature that is inferior to a pre-set value. In that phase, the defrosting pilot light and defrost LED switch on. Refrigerator coils are defrosted by compressor stopping. Freezer coils are defrosted electrically.

**Caution:** Do not remove ice with a sharp metal instrument.

#### V. REGULAR MAINTENANCE

##### **Cleaning the condenser coil**

For efficient operation, it is important that the condenser surface be kept free of dust, dirt, and lint. Dukers recommends cleaning the condenser coil and fins at least once per month. clean with a commercial condenser coil cleaner, available from any kitchen equipment retailer. Brush the condenser fins from top to bottom, not side to side. After cleaning, straighten any bent condenser fins with a fin comb.

### Cleaning the fan blades and motor

If necessary, clean the fan blades and motor with a soft cloth. If it is necessary to wash the fan blades, cover the fan motor to prevent moisture damage.

### Cleaning the interior of unit

When cleaning the cabinet interior, use a solvent of warm water and mild soap. Do not use steel wool, caustic soap, abrasive cleaners, or bleach that may damage the stainless-steel surface.

### Cleaning the back panel:

1.Take down the setscrews of back panel one by one manually, and then take down the back panel.

2.Clean the backboard behind the panel by scour, pay attention to keep the safety of the heat preservation material covered by the cupreous tube, clean the parts around the motherboard holes, clean the back of the panel, dry the cleaning parts by soft cloth.

3.Fix the back panel on the cabinet after clean work.

Wash door gaskets on a regular basis, preferably weekly. Simply remove door gasket from the frame of the door, soak in warm water and soap for thirty (30) minutes, dry with soft cloth, and replace. Check door gaskets for proper seal after they are replaced.

**WARNING**—Disconnect power cord before cleaning any parts of the unit.

### Replace the fluorescent lamp (if it exists)

If replacement of the fluorescent lamp is required, disconnect the appliance from the power supply, take the lamp holder away from the socket, replace with a new and correct fluorescent lamp which specification is marked on the it from the plastic pipe. refit the fluorescent lamp with the plastic pipe and lamp holder into the socket. then connect up to power supply.

## VI: TROUBLESHOOTING GUIDE

When you find that the refrigerator appears not to be functioning correctly, please check the unit according to the following form.

| Troubles                   |               | Reasons                                                 | How to deal with                 |
|----------------------------|---------------|---------------------------------------------------------|----------------------------------|
| No indicator light         | Unit Not work | Is not connected with the power                         | Connecting the plug to the power |
|                            |               | Plug and outlet contacting failure                      | Replace plug and outlet          |
|                            |               | Failing input of control circuit                        | Checking and repairing           |
|                            | Unit off      | Base of light not welded                                | Weld and secure the base         |
|                            |               | Indicator light burned out                              | Replacing the light              |
| Compressor running failure |               | Low power                                               | Equipping with a manostat        |
|                            |               | Power failure                                           | Replacement                      |
|                            |               | Temperature controller failure                          | Replacement                      |
|                            |               | Heating protector burning out                           | Replacement                      |
|                            |               | Starter failure                                         | Replacement                      |
|                            |               | Compressor electric burned out                          | Replacement                      |
|                            |               | Compressor fan being blocked                            | Replacement                      |
| Compressor working nonstop |               | Misplacement of the probe of the temperature controller | Set probe in proper place        |

|                             |                                                                            |                                                                                                     |
|-----------------------------|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
|                             | Damaged of controller                                                      | Replacement                                                                                         |
|                             | Insufficiency or leakage of the refrigerant                                | Contact manufacturer to locate a certified refrigeration technician to find the leakage and repair. |
|                             | Heavy frosting of the evaporator                                           | Select defrost on digital controller                                                                |
|                             | Circulation failure for entrance of uncongealed liquid                     | Vacuum the system and add refrigerant                                                               |
|                             | Refrigeration pipe blockage                                                | Replace the filter and add refrigerant                                                              |
|                             | Failure of condenser fan                                                   | Replace the fan and check the circuit                                                               |
|                             | Low efficiency or no exhaust of compressor                                 | Replacement                                                                                         |
|                             | Opening the door too often                                                 | Reducing the frequency of opening door                                                              |
|                             | Clogged condenser and filter                                               | Clean the condenser and filter                                                                      |
|                             | Overfilling the refrigerator causing bad ventilation                       | Reduce the food storage and redistribute the interior space                                         |
|                             | Cold air leaking from door seal                                            | Replacement                                                                                         |
| Ceaselessness of compressor | High ambient temperature                                                   | Improve the ventilation to lower the ambient temperature                                            |
|                             | Low presetting temperature                                                 | Reset                                                                                               |
| Unit noisy                  | Uneven placement of the refrigerator                                       | Find leveled floor space to place unit                                                              |
|                             | Impacting of capillary, other pipeline and accessories for no firm fitting | Clean the pipes                                                                                     |
|                             | Damaged fan                                                                | Replacement                                                                                         |
|                             | Condenser fan blocked                                                      | Clean perform maintenance on condenser fan                                                          |
|                             | Loose welding on compressor connections                                    | Replacement and reweld                                                                              |
|                             | Lose bolt on compressor, fan and condenser                                 | Tightening the bolt                                                                                 |
|                             | Damage or off                                                              | Turn on or replacement                                                                              |
| No interior light           | Light burned out                                                           | Replacement                                                                                         |
|                             | Damaged ballast                                                            | Replacement                                                                                         |
|                             | Non-functioning circuit                                                    | Perform circuit check                                                                               |

Please ask qualified personnel to service.

### **ATTENTION!**

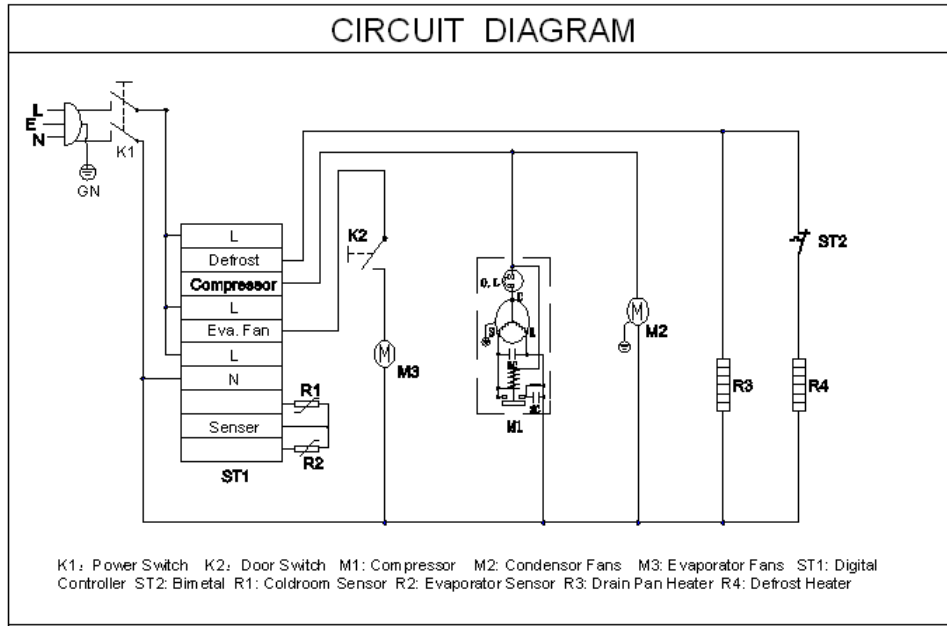
The following phenomenon is normal, not trouble:

- A light sound of water flow in the cabinet.
- Heat from the compressor or condenser.
- If the ambient humidity is high, it is easy to cause water drops outside the doors, please sweep them off with towel in time.

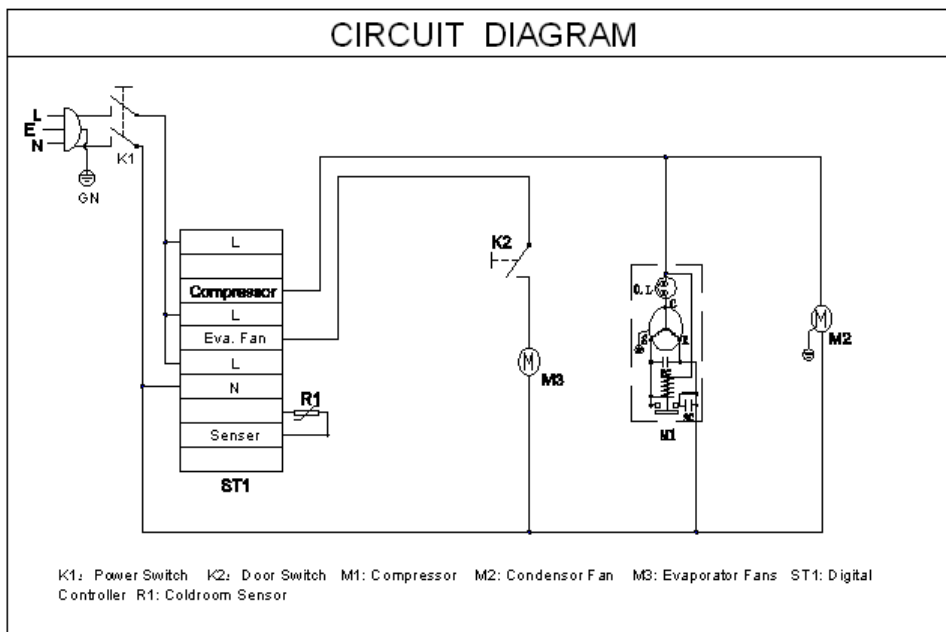
## Technical parameters :

| Model  | Temp.   | Climatic Category: | Refrigerant | Net Weight<br>kg/lb | Rate<br>Current<br>A | Input<br>Power<br>W | Energy<br>Consumption<br>kWh/24h |
|--------|---------|--------------------|-------------|---------------------|----------------------|---------------------|----------------------------------|
| DUC29R | 34~47°F | 4/5                | R290        | 72/158              | 2                    | 225                 | 1.14                             |
| DUC48R | 34~47°F | 4/5                | R290        | 96/211              | 2.4                  | 280                 | 1.6                              |
| DUC60R | 34~47°F | 4/5                | R290        | 105/231             | 2.4                  | 280                 | 1.8                              |
| DUC72R | 34~47°F | 4/5                | R290        | 110/242             | 3.4                  | 380                 | 2                                |
| DSP29  | 34~47°F | 4/5                | R290        | 92/202              | 2                    | 225                 | 1.6                              |
| DSP48  | 34~47°F | 4/5                | R290        | 105/231             | 2.4                  | 280                 | 1.8                              |
| DSP60  | 34~47°F | 4/5                | R290        | 125/341             | 2.4                  | 280                 | 2                                |
| DSP72  | 34~47°F | 4/5                | R290        | 155/341             | 3.4                  | 380                 | 2.3                              |
| DUC29F | 0~-8°F  | 4/5                | R290        | 72/158              | 2.3                  | 560                 | 3.2                              |
| DUC48F | 0~-8°F  | 4/5                | R290        | 96/211              | 8                    | 660                 | 4.5                              |
| DUC60F | 0~-8°F  | 4/5                | R290        | 105/231             | 8                    | 900                 | 5.3                              |
| DUC72F | 0~-8°F  | 4/5                | R290        | 110/242             | 12.4                 | 1050                | 6.1                              |
| DPP44  | 34~47°F | 4/5                | R290        | 102/224             | 2.2                  | 250                 | 2.57                             |
| DPP70  | 34~47°F | 4/5                | R290        | 135/297             | 2.8                  | 308                 | 5.1                              |
| DPP90  | 34~47°F | 4/5                | R290        | 192/423             | 8.5                  | 613                 | 6.04                             |

## CIRCUIT DIAGRAM FOR DUC29F/DUC48F/DUC60F/DUC72F



## CIRCUIT DIAGRAM FOR DPP44/DPP70/DPP90/DSP29/DSP48/DSP60/DSP72/DUC29R/DUC48R/DUC60R/DUC72R



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