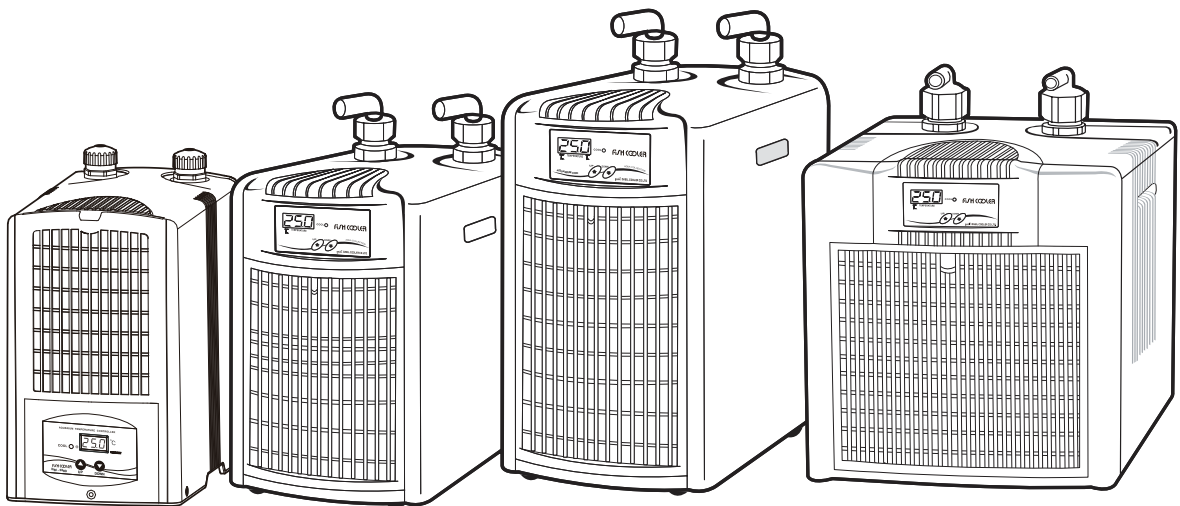


OWNER'S MANUAL

DAEIL FISH COOLER

TITANIUM CHILLER



SPECIFICATIONS

Power Supply: 220V 50Hz
IC Electronic Temperature Controller
Ozone Friendly Refrigerant (R-134a)

Distributed by: Extra Bright Lighting & Electric Co., Ltd.
Rm 1703, 40 Sha Tsui Road, Tsuen Wan
<http://www.solarmax.com.hk>

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1 SAFETY

The coolers are designed and built with safety as a prime consideration; industry-accepted safety factors have been used in the design. Each cooler is checked at the factory for safety and operation. All necessary adjustments are made before shipment.

Follow the maintenance schedules outlined in this manual for good performance and safe operation. Maintenance should be done only by qualified person with proper tools.

Carefully read the following safety rules before proceeding with installation, operation or maintenance. The rules are essential to ensure safe cooler operation. Failure to follow these rules void the warranty or results in cooler damage or personal injury.

1. Do not install or try to repair a cooler that has been damaged in shipment. See RECEIVING AND INSPECTION for instructions.
2. Electricity has the potential to cause personal injury or equipment damage. Before doing any work on the cooler, be sure the electrical supply has been locked.
3. Do not operate the cooler at the temperature above the maximum conditions (see table 1).
4. Always supply electrical power that complies with the voltage shown on the data label.
5. Work in the refrigeration system must be done only by a competent refrigeration mechanic.
6. Use only manufacturer's genuine replacement parts. The manufacturer bears no responsibility for hazards caused by the use of unauthorized parts.

1-1. Safety Instructions

Warning Icons in this manual are boldfaced for emphasis. The signal words **DANGER**, **WARNING** and **CAUTION** are used to indicate hazard seriousness levels as follow:



DANGER - Immediate hazard which WILL result in severe injury or death.



WARNING - Hazard or unsafe practice which COULD result in severe injury or death

1-2. Data Label

The cooler data label contains identification information. If the data label is missing or damaged, contact your local distributor and request a replacement.

DAEIL FISH COOLER	
Model	DBI-030
Power Supply	220V-1PH-50Hz
Compressor	1/20HP
Refrigerant	R-134a
Heat Exchanger	Titanium
Serial No.	

DAEIL FISH COOLER	
Model	DBI-050D
Power Supply	220V-1PH-50Hz
Compressor	1/15HP
Refrigerant	R-134a
Heat Exchanger	Titanium
Serial No.	

DAEIL FISH COOLER	
Model	DBA-075
Power Supply	220V-1PH-50Hz
Compressor	1/10HP
Refrigerant	R-134a
Heat Exchanger	Titanium
Serial No.	

DAEIL FISH COOLER	
Model	DBA-150
Power Supply	220V-1PH-50Hz
Compressor	1/5HP
Refrigerant	R-134a
Heat Exchanger	Titanium
Serial No.	

DAEIL FISH COOLER	
Model	DBA-200
Power Supply	220V-1PH-50Hz
Compressor	1/4HP
Refrigerant	R-134a
Heat Exchanger	Titanium
Serial No.	

DAEIL FISH COOLER	
Model	DBM-250
Power Supply	220V-1PH-50Hz
Compressor	1/3HP
Refrigerant	R-134a
Heat Exchanger	Titanium
Serial No.	

2. INTRODUCTION

Aquarium Fish Coolers use mechanical refrigeration to cool water in the aquarium. See Table 1 for rated capacity and other cooler specifications.

Throughout this manual, the word "cooler" is used to refer to the Aquarium Fish Coolers. To ensure continuing good performance and safe operation, everyone who installs, users or maintains the cooler must read and carefully follow the instruction in this manual.

3. RECEIVING AND INSPECTION

Inspect the cooler closely when it is received. Record any indication of damage on the delivery receipt, especially if the cooler will not be immediately uncrated. Obtain the delivery person's signed agreement to recorded damages to facilitate future insurance claims.

Since the cooler is shipped F.O.B. Factory, the manufacturer's responsibility for the shipment cases when the carrier signs the bill of lading.

If goods are received short or damaged condition, notify the carrier and insist on a notation of the loss or damage across the face of the freight bill. Otherwise no claim can be enforced against the carrier.

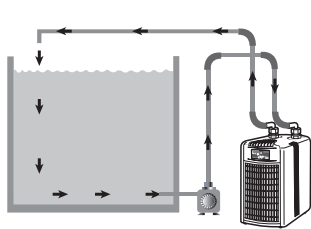
If concealed loss or damage is discovered, notify your carrier at once and request an inspection. This is absolutely necessary. Unless you do this, the carrier will not consider any claim for loss of damage. The carrier will make an inspection and may grant a concealed damage notation. If you give the carrier a clear receipt for the goods that have been damaged or lost in transit, you do so at your own risk and expense.

The manufacturer is willing to assist you in collecting claims for loss or damage. Willingness does not make the manufacturer responsible for collecting claims or replacing material. Claim filling and processing is your responsibility.

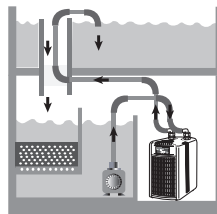
4. INSTALLATION

Place the cooler in a ventilated place and away from sources of heat, taking care that the evacuation holes, indispensable for taking in air, are not less than 30cm from any obstacle. The chiller must have proper air flow to function correctly. **DO NOT PLACE INSIDE AQUARIUM STANDS THAT ARE ENCLOSED!**

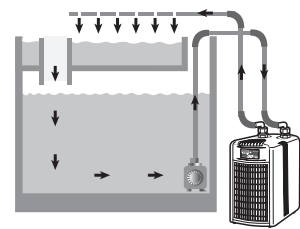
4-1. Installation to Aquarium (or Tank)



1. Connection of outside circulation pump



2. Connection of circulation pump in the filter



3. Connection of inside circulation pump

4-2. How to Connect Hose

1.) method of connecting hose to **chiller**.

- ① Unscrew hose nut and remove rubber gasket.
- ② Pull out cork stopper (not needed to run **chiller**)-Discard.
- ③ Insert hose elbow into hose nut.
- ④ Insert hose elbow into rubber tighten.
- ⑤ Screw onto **chiller** and hand tighten.
- ⑥ Connect rubber tubing over threaded portion of hose elbow.
- ⑦ Fasten hose clamp to secure hold.

2.) Checking equipment connection.

Checking connections between parts

Hose Elbow		
Large	3/4"	2PCS
Medium	5/8"	2PCS
Small	1/2"	2PCS

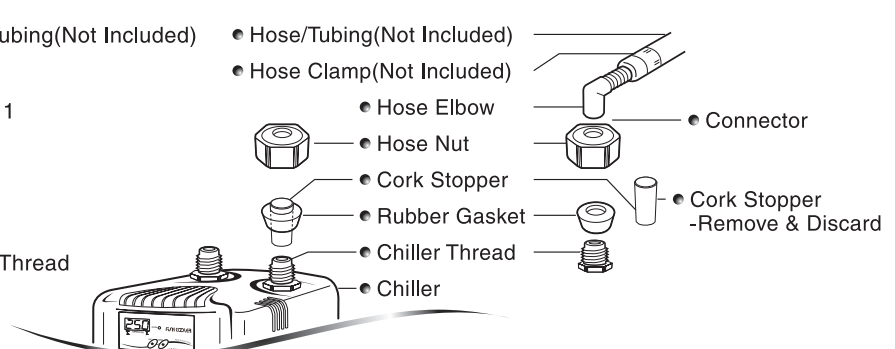
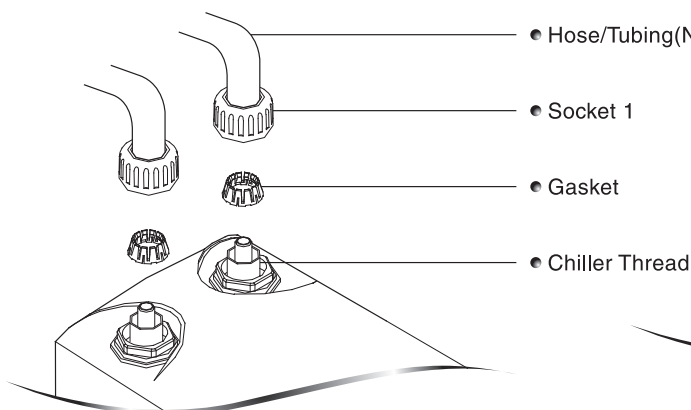


These units have been performance tested and may contain moisture in the heat exchange chamber.

Remove and discard cork stopper before connecting pipe/hose to the cooler.

DBI-030 / DBI-050

DBA-075/DBA-150/DBA-200/DBM-250

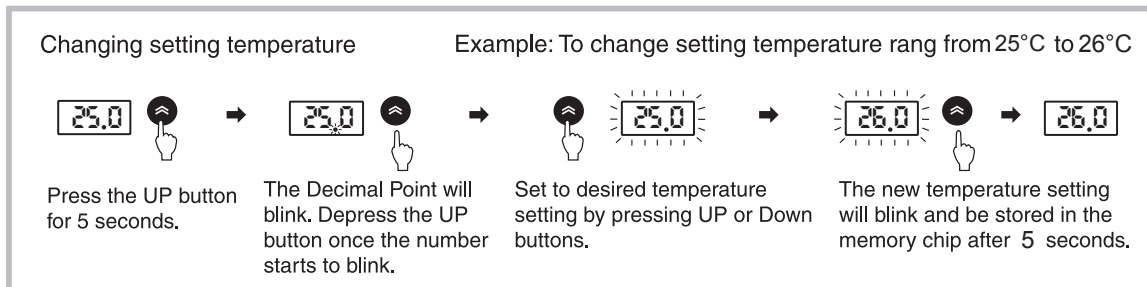


5. INSTRUCTION FOR USE

5-1. Start Up

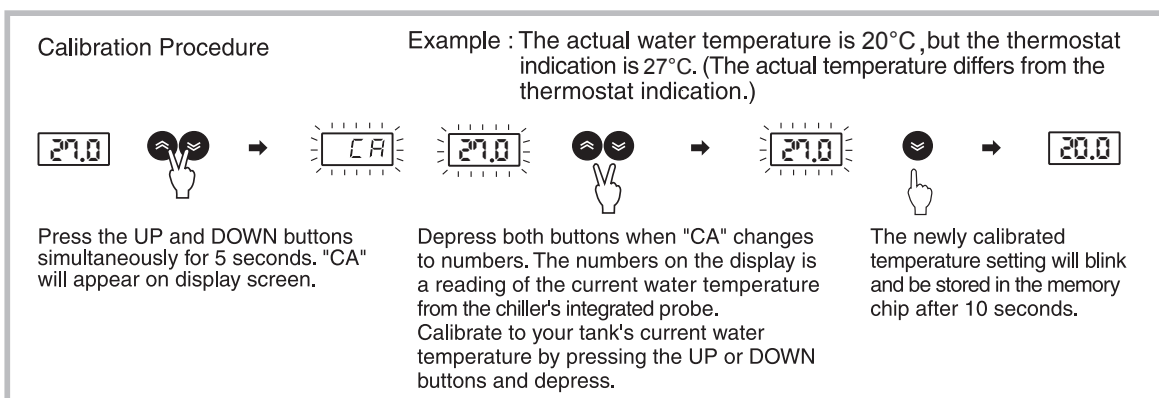
- 1.) Once all connections are made, circulate water through chiller before turning on the unit.
- 2.) Check all connections for leaks.
- 3.) Verify electricity rating, and then plug power cord into a dedicated electrical outlet.
- 4.) This unit has been factory-set at 25 °C
- 5.) The Digital Display will read the current water temperature.
- 6.) The light indicator will begin to blink.
- 7.) Chiller will automatically turn on within 3 minutes.
- 8.) Your chiller has now been activated.

* This unit contains an Auto Digital Temperature Control System. This built-in thermostat will turn itself on/off within +/- 0.3 °C according to the desired set temperature.



* Troubleshooting Error Messages Display Messages

Indication	Descriptions	Please try to check and repair it following instructions below. Otherwise, contact us for warranty service.
	Abnormal signal of sensor	Please check it if there is any damage to the sensor wiring, or water soaked into the joints before repairing.
	Overcooling	Please check it if the water temperature is below -5°C (celsius degree) the sensor is out of order, or there is bad connetion before repairing.
	Short circuit	Please check it if there is short circuit due to pressed or torn sensor wire before repairing.
	Short circuit	Please check it if the sensor wire is disconnected before repairing.



6. MAINTENANCE

WARNING

Always unplug the chiller from the electrical outlet when performing maintenance procedures

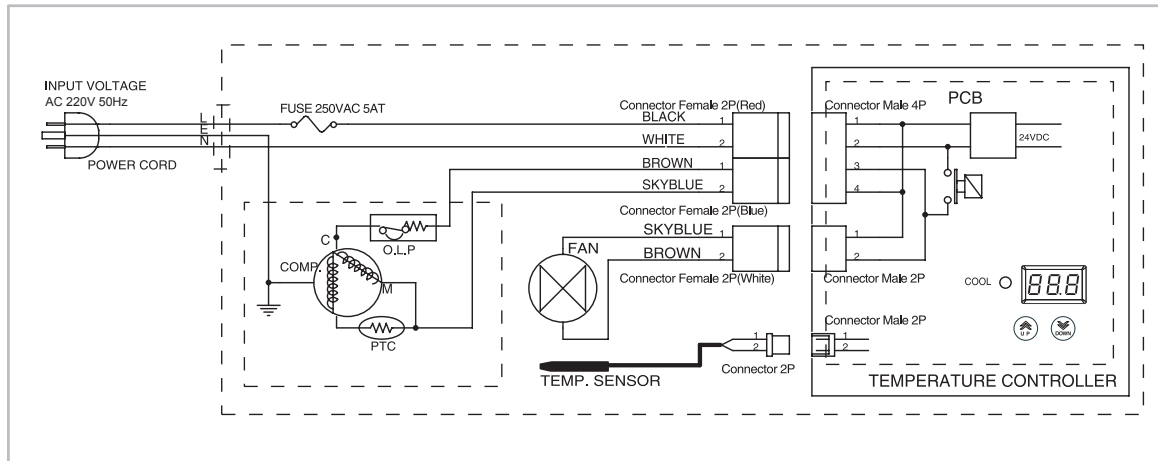
6-1. Operations To Be Carried Out Every 6 Months

- **Cleaning of the condenser**
Remove the suction grill and clean the ribbed condenser fins with a vacuum cleaner or jet of air to clean dust and debris from impeding air flow.
- **Cleaning of the Heat exchanger**
The elimination of deposits of impurities, bacteria, or metabolic waste not captured by the pre-filter are vital for the performance of this chiller. Circulate clean water in the opposite direction through heat exchange chamber for 30 minutes.

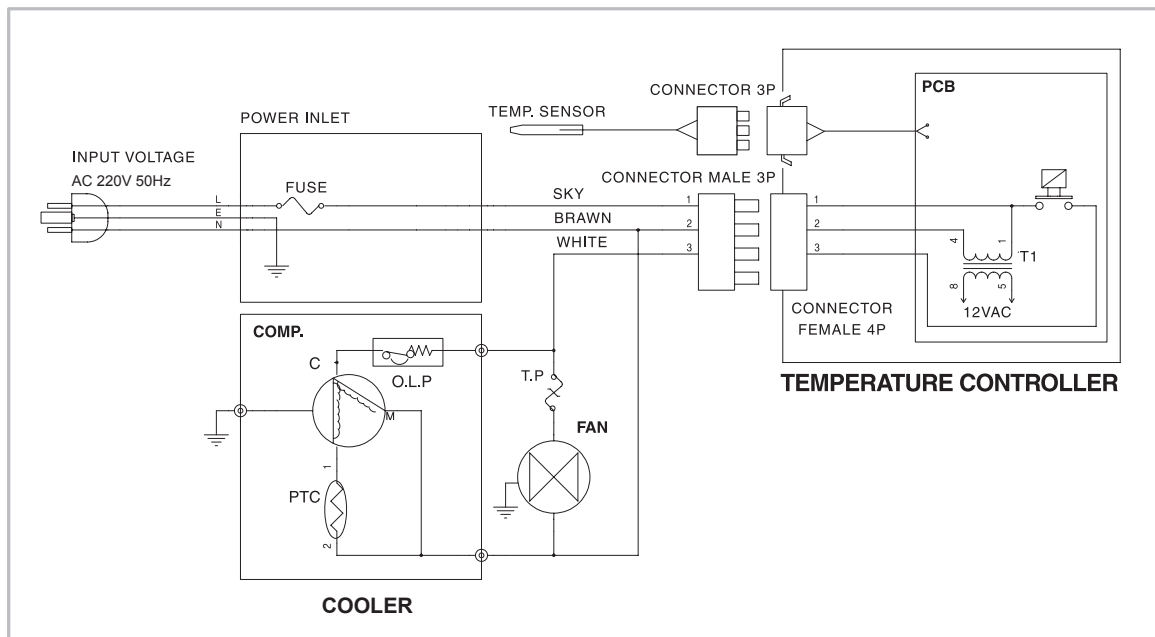
Table 1 **Cooler Specifications**

MODEL	DBI-030	DBI-050	DBA-075	DBA-150	DBA-200	DBM-250
AQUARIUM CAPACITY	150L	300L	490L	680L	980L	1280L
POWER SUPPLY	220V 50Hz					
COMPRESSOR	1/20 Hp	1/15 Hp	1/10 Hp	1/5 Hp	1/4 Hp	1/3 Hp
AMBIENT TEMPERATURE RANGE	Ambient Temperature should be kept under 35°C					
FLOW RATE in GPH (Min./Max.)	1.85/2.64	1.85/2.64	15/60	30/80	30/120	30/150
REFRIGERANT TYPE	Ozone Friendly R-134a					
WEIGHT	10kg	12kg	20kg	22kg	23kg	28kg
INLET/OUTLET	12.7mm		3/4", 5/8", 1/2"			

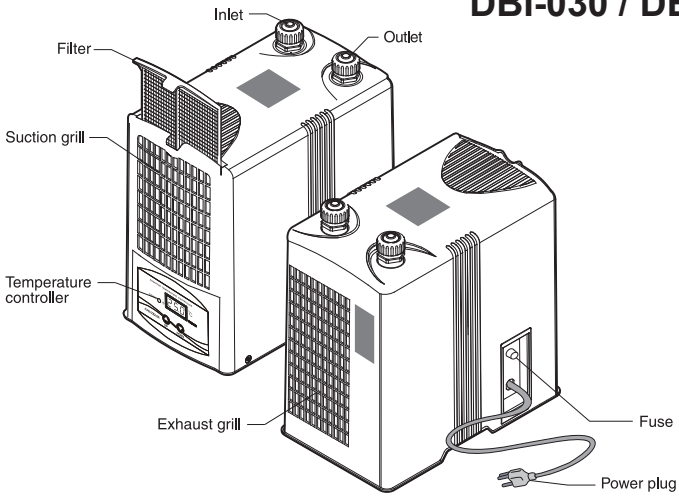
**Figure 1. ELECTRIC WIRING DIAGRAM OF FISH COOLER
MODEL: DBI-030 / DBI-050**



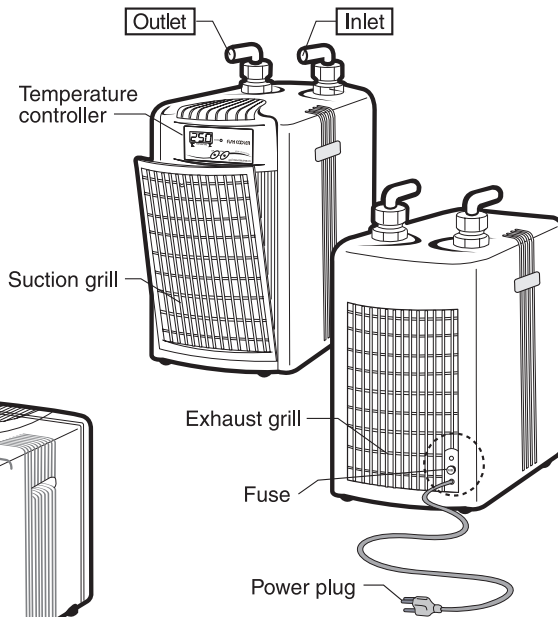
**Figure 2. ELECTRIC WIRING DIAGRAM OF FISH COOLER
MODEL: DBA-075 / DBA-150 / DBA-200 / DBM-250**



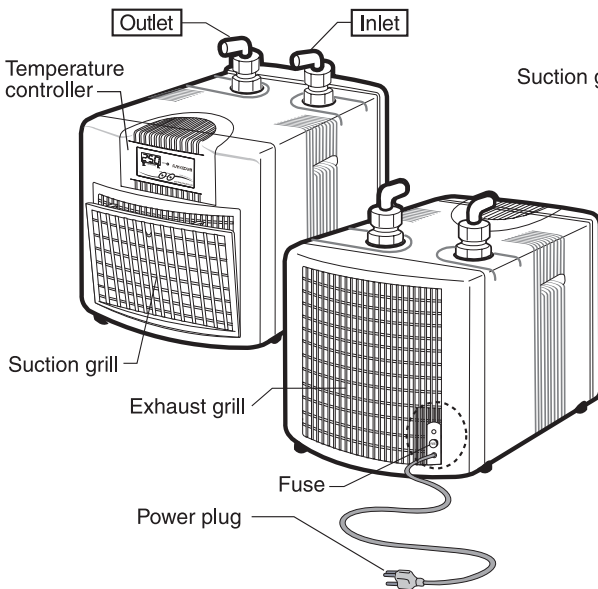
DBI-030 / DBI-050



DBA-075 / DBA-150 / DBA-200



DBM-250



● TEMPERATURE CONTROLLER

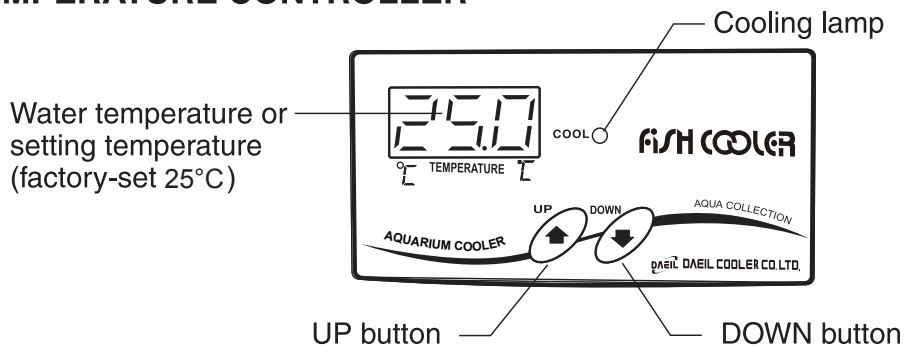


Figure 3
Part Name for Fish Cooler

DBI-030 / DBI-050

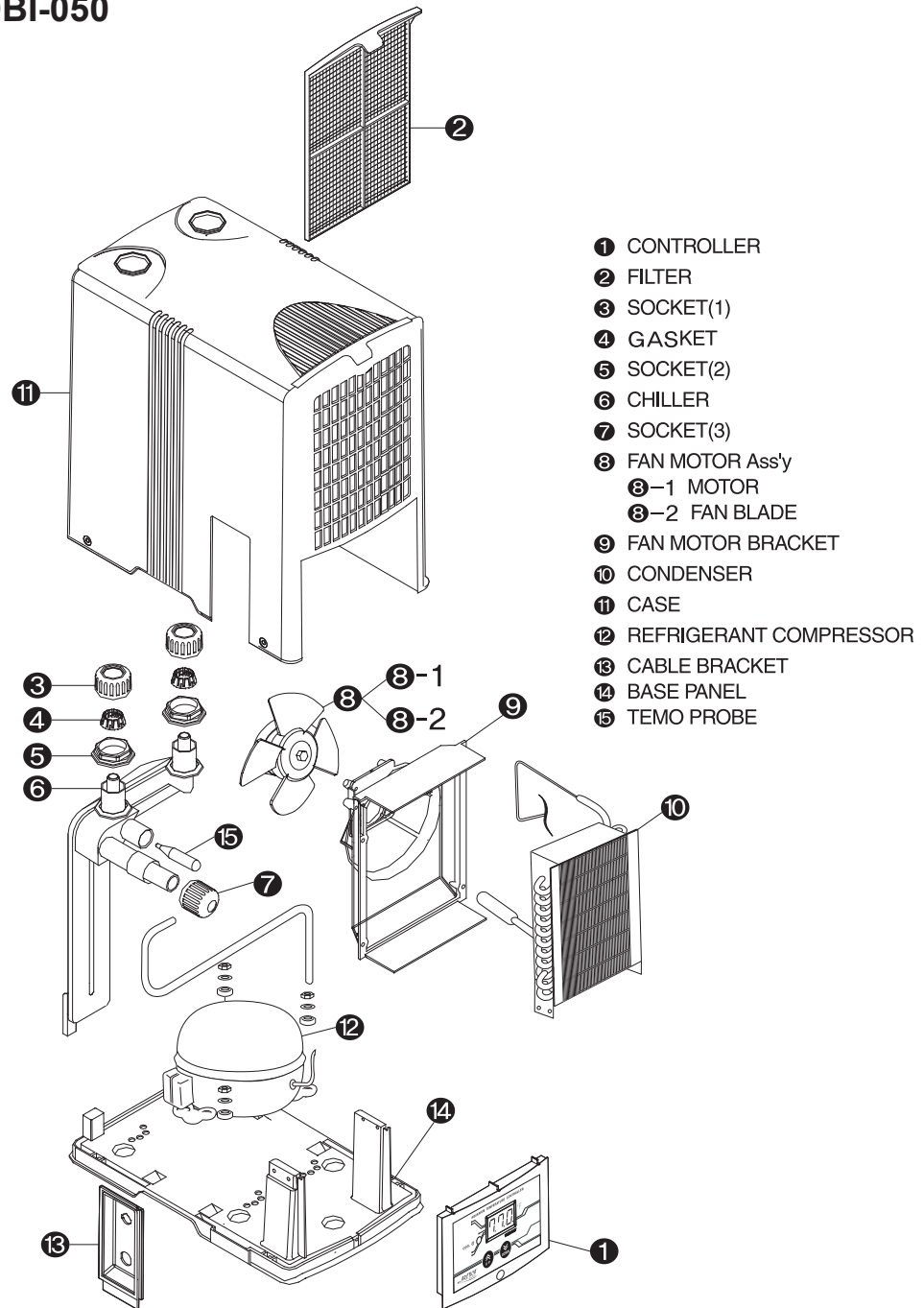
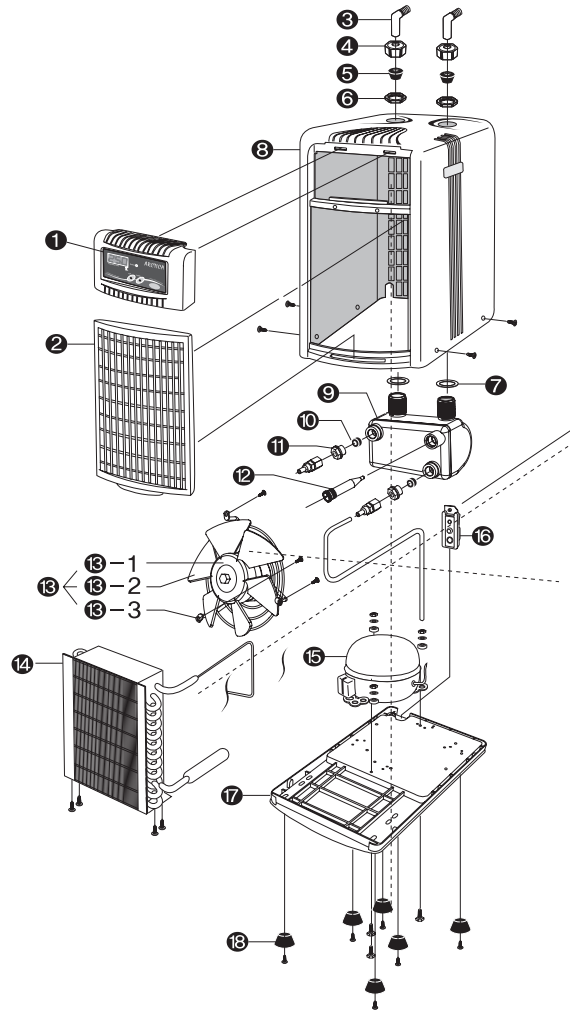


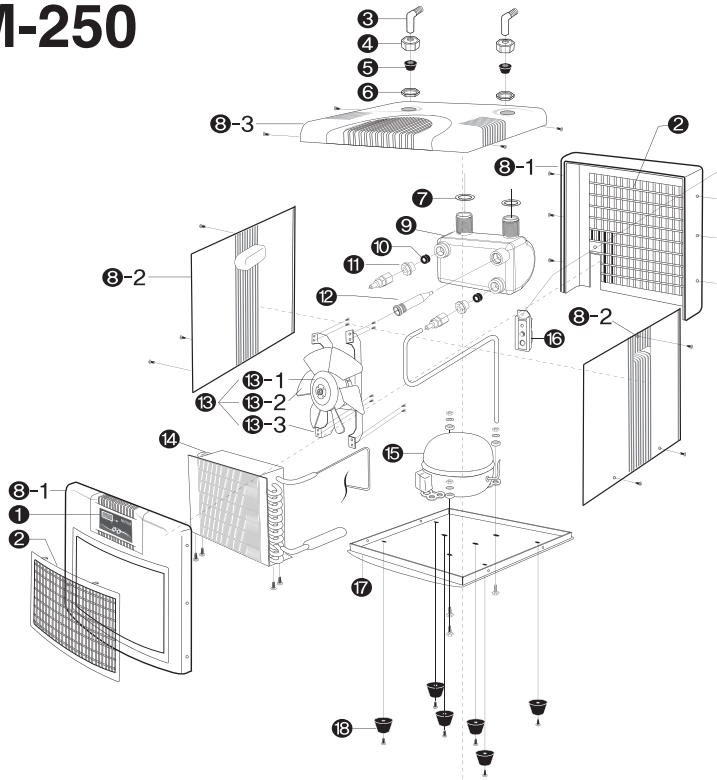
Figure 4
 Explosive View and Parts Name

● DBA-075
DBA-150
DBA-200



- ① TEMPERATURE CONTROLLER
- ② GRILL
- ③ HOSE ELBOW
- ④ SOCKET(1)
- ⑤ RUBBER GASKET(1)
- ⑥ SOCKET(2)
- ⑦ RUBBER GASKET(2)
- ⑧ CASE
- ⑨ CHILLER
- ⑩ RUBBER GASKET
- ⑪ SOCKET(3)
- ⑫ TEMP PROBE
- ⑬ FAN MOTOR ASS'Y
 - ⑬-1 MOTOR
 - ⑬-2 BLADE
 - ⑬-3 BRACKET
- ⑭ CONDENSER
- ⑮ REFRIGERANT COMPRESSOR
- ⑯ CABLE BRACKET
- ⑰ BASE PANEL
- ⑱ MOUNTING GROMMET

● DBM-250



- ① TEMPERATURE CONTROLLER
- ② GRILL
- ③ HOSE ELBOW
- ④ SOCKET(1)
- ⑤ RUBBER GASKET(1)
- ⑥ SOCKET(2)
- ⑦ RUBBER GASKET(2)
- ⑧-1 CASE(1)
- ⑧-2 CASE(2)
- ⑧-3 CASE(3)
- ⑨ CHILLER
- ⑩ RUBBER GASKET
- ⑪ SOCKET(3)
- ⑫ TEMP PROBE
- ⑬ FAN MOTOR ASS'Y
 - ⑬-1 MOTOR
 - ⑬-2 FAN BLADE
 - ⑬-3 BRACKET
- ⑭ CONDENSER
- ⑮ REFRIGERANT COMPRESSOR
- ⑯ CABLE BRACKET
- ⑰ BASE PANEL
- ⑱ MOUNTING GROMMET

Figure 5
Exploded View and Part Name