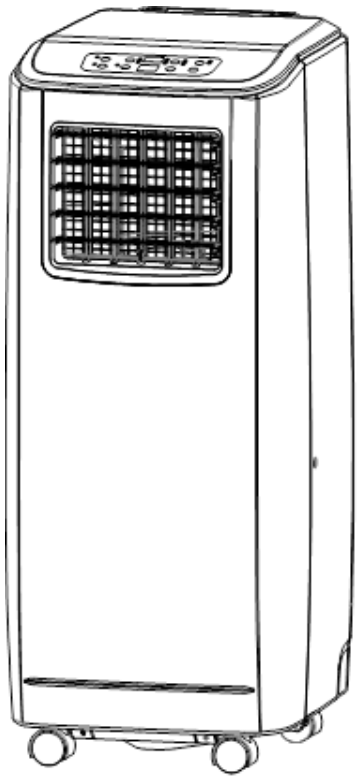
King Post Industrial Co., Ltd.

Service Manual for TC-xx75 series



Trouble Shooting

PROBLEM	POSSIBLE CAUSE	SOLUTION
Machine does not work at all.	1. Bad connection of the mains and plug. 2. PC board breaks down. 3. Bad connection of the wires.	1. Re-plug the power cord. 2. Check and repair or replace. 3. Check and repair or replace.
Compressor doesn't work, only the fan to circulate the air.	1. Voltage/Frequency is too low. 2. Wire connectors come loose. 3. Overload protector breaks down. 4. Compressor capacitor breaks down. 5. Compressor breaks down. 6. Sensor of the thermostat breaks down. 7. Room temperature is too low. 8. Water is full.	1. Check it by a voltmeter. 2. Check and reconnect. 3. Check and replace. 4. Check and replace. 5. Check and replace. 6. Check and replace. 7. It is out of the working range of the machine. 8. Drain the condensed water.
Big noise	1. Screws/nuts of the fan for evaporator/ condenser come loose. 2. Screws/nuts of the compressor come loose. 3. Fan blade is blocked by something.	1. Check and fasten. 2. Check and fasten. 3. Remove the blockade.
Big vibration	1. Screws/nuts of the compressor come loose. 2. The fan of the evaporator or condenser does not fix well or is deformed. 3. The metal tubes inside the machine hit the other parts.	1. Check and fasten. 2. Check and replace. 3. Adjust the position of the tubes.

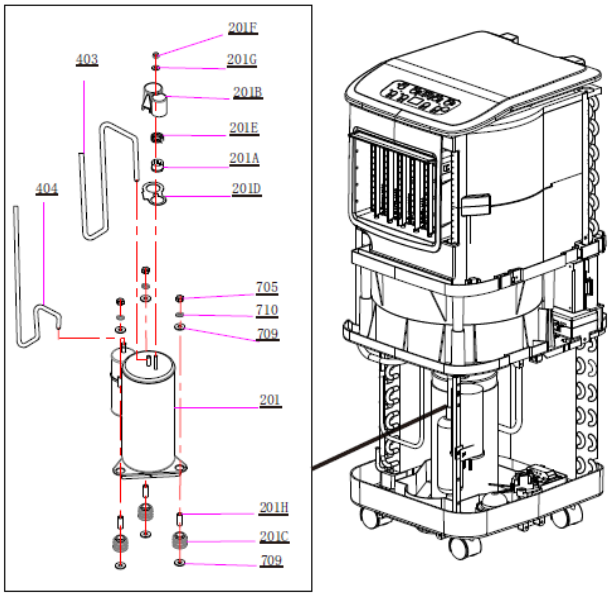
PROBLEM	POSSIBLE CAUSE	SOLUTION
Motor doesn't work.	1. Wires problem. 2. Loose terminal connection. 3. Motor breaks down. 4. Motor capacitor breaks down. 5. The fan blade is blocked.	1. Check and replace. 2. Check and fasten. 3. Check and replace. 4. Check and replace. 5. Remove the blockade.
Water leakage	1. Rubber plug at the rear plate of the machine is out of place. 2. The water tube inside the machine is not in the place or broken.	1. Put back the rubber plug. 2. Check and reinstall or replace the water tube inside the machine.
Weak cooling	1. Dusty filter 2. Dusty condenser. 3. Air vent is blocked. 4. The room temperature is too high. 5. Too many windows or doors are open. 6. Insufficient refrigerant.	1. Clean the filter. 2. Use a high pressure air spray to clean the dust. *Do not touch the condenser directly, it is very hot now. 3. Remove the blockade. 4. It's out of the working range of the machine. 5. Close the windows/doors. 6. Please check: • Is the current/power consumption decreasing? • Is the suction pressure of the machine too low? • Is the suction tube frozen during the ambient temperature?

PROBLEM	POSSIBLE CAUSE	SOLUTION
Compressor works but the fan doesn't.	1. Bad connection of the wires. 2. Fan motor breaks down. 3. Fan motor capacitor breaks down. 4. Speed switch breaks down. 5. Fan blade is blocked.	1. Check and reconnect or replace. 2. Check and replace. 3. Check and replace. 4. Check and replace. 5. Remove the blockade.
Automatic pumping system doesn't work.	1. Wires problem. 2. Water pump breaks down. 3. Bad installation of the water pump. 4. Micro switch breaks down.	1. Check and replace. 2. Check and replace. 3. Re-install. 4. Check and replace.

How to?

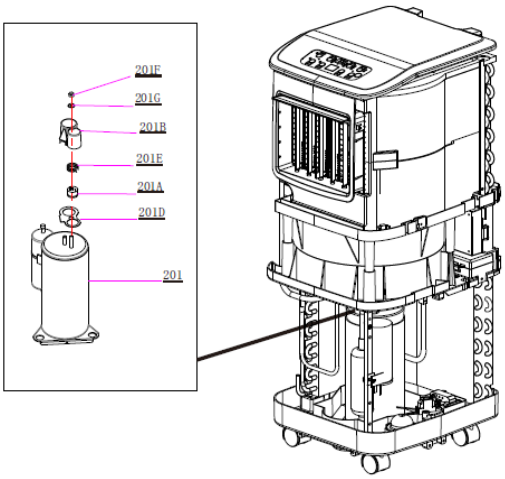
REPLACING THE COMPRESSOR

1. Take off the front panel of machine.
2. Release the overload accessory (201A-H) & relative wires.
3. Take off the suction(403) and discharging(405) tubes.
4. Unfasten the screws on the compressor.
5. Take off the accessories for the compressor.
6. Replacing the defect compressor with a new one.
7. Re-install the accessories, wires & screws in the opposite steps.



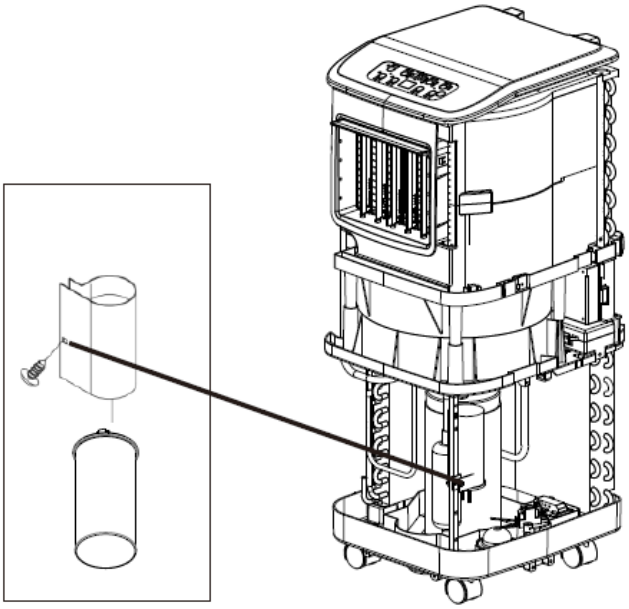
REPLACING THE OVERLOAD PROTECTOR OF THE COMPRESSOR

1. Take off the front plate.
2. Take off the accessories for the overload protector.
3. Take off the defect overload protector and replace it with a new one.
4. Replace new overload protector
5. Re-assemble the accessories for the overload protector in the opposite steps.



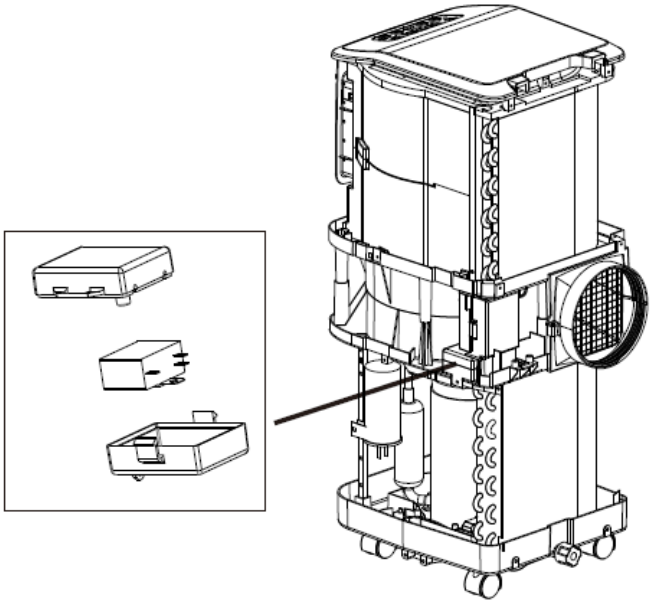
REPLACING THE COMPRESSOR CAPACITOR

1. Take off the front plate
2. Take off the wires for the compressor capacitor.
3. Take off the defect compressor capacitor and replace it with a new one.
4. Replace new compressor capacitor
5. Re-assemble in the opposite steps.



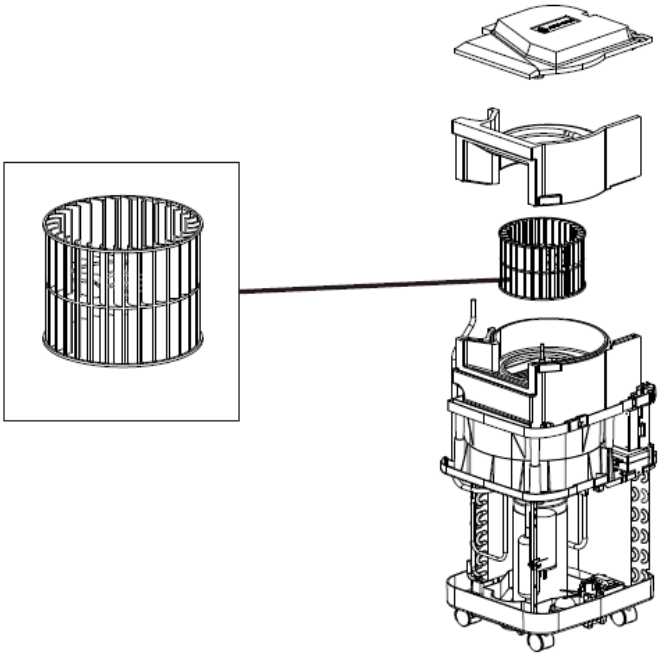
REPLACING THE MOTOR CAPACITOR

1. Take off the rear plate of the machine
2. Unscrew the capacitor box
3. Unscrew the fan motor capacitor
4. Loosen the cable tie over the wires for the fan motor
5. Replace the defect motor capacitor with the good one.
6. Reassemble in the opposite steps.



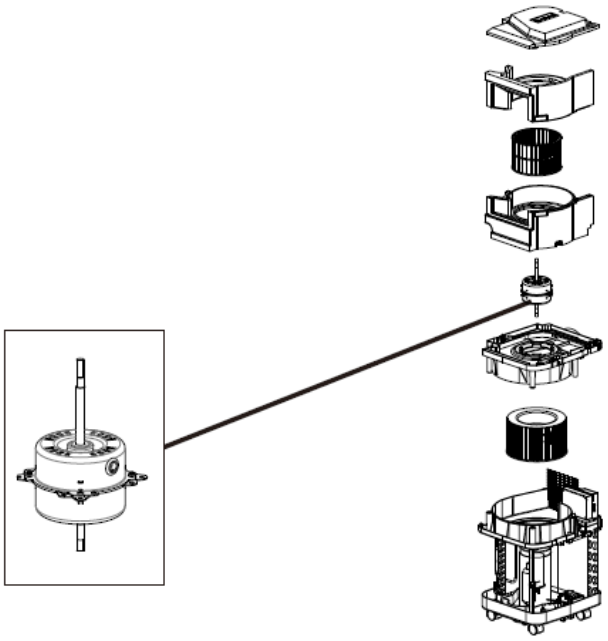
REPLACING THE FAN BLADE OF THE EVAPORATOR

1. Take off the front & rear plate
2. Take off the top cover of the fan blade
3. Take off the top funnel
4. Unscrew the fan blade
5. Replace with a new one
6. Re-assemble in the opposite steps.



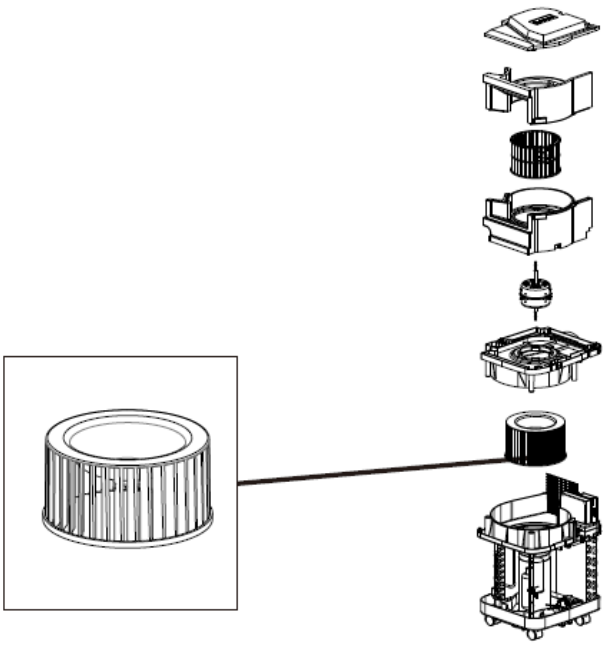
REPLACING THE MOTOR OF THE CONDENSER/EVAPORATOR

1. Take off the front & rear plate
2. Take off the top cover of the air funnel
3. Take off the top & down funnel
4. Unscrew the motor
5. Loosen the wires for the motor
6. Take off the defect motor, replace with a new one
7. Re-assemble in the opposite steps.



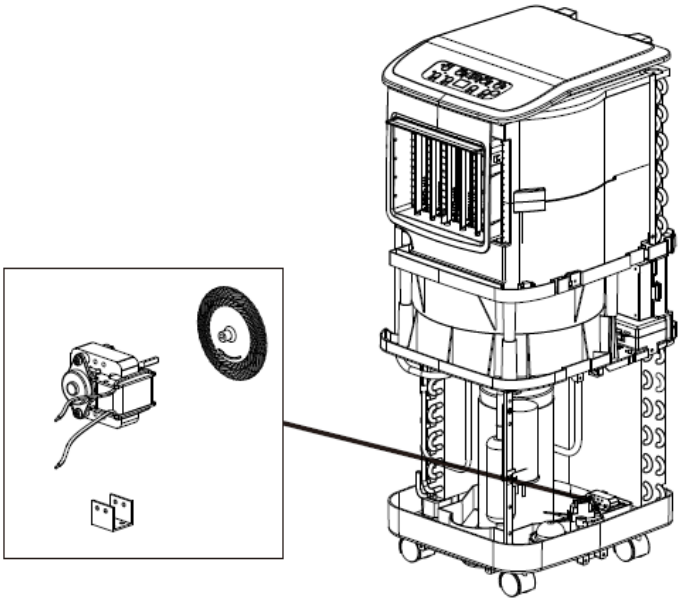
REPLACING THE FAN BLADE FOR THE CONDENSER

1. Take off the front & rear plate of the machine
2. Take off the cover for the funnel
3. Put the evaporator and the cover aside
4. Take off the top and down funnels
5. Take off the motor
6. Replace the fan blade with a good one
7. Re-assemble in the opposite steps



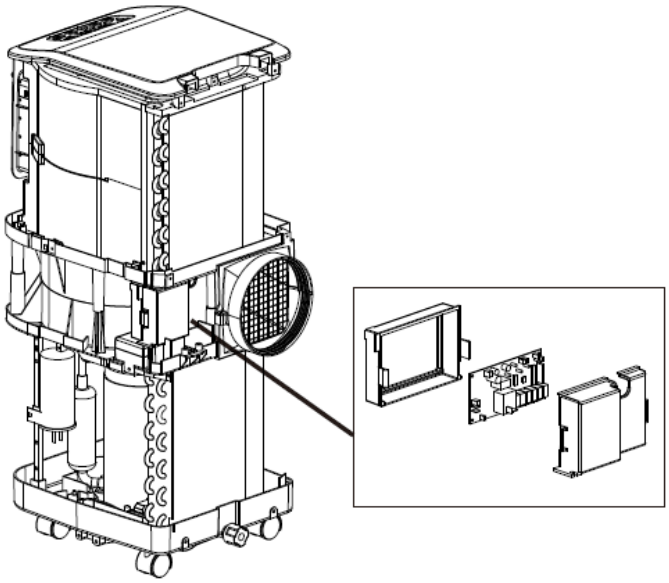
REPLACING PUMP MOTOR

1. Take off the front & rear plate of the machine
2. Unscrew the pump motor from the main fixer at the bottom of the machine
3. Unscrew the condenser from the bottom of the machine
4. Take off the wires on the pump motor
5. Lift up the condenser, take out the pump motor
6. Replace the defect pump motor with a good one
7. Re-assemble in the opposite steps



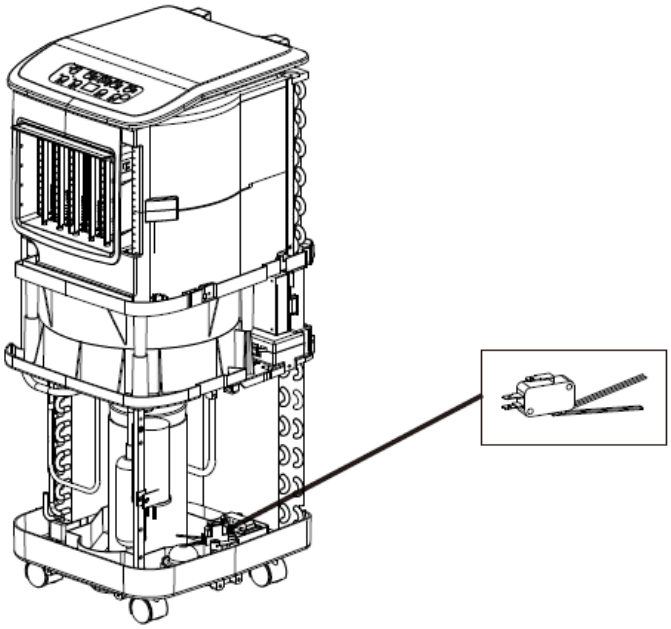
REPLACING THE MAIN P. C. BOARD

1. Take off the rear plate of the machine
2. Unscrew the top and down funnel
3. Take off the control box for the pc board, take out the main pc board from the control box
4. Take off the wire of pc board
5. Remove the wires over the pc board
6. Replace the defect pc board with a good one
7. Re-assemble in the opposite steps.



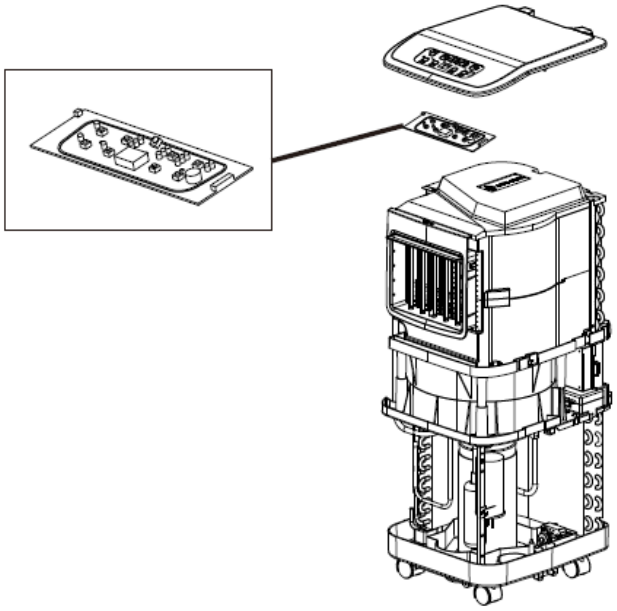
REPLACING THE MICROSWITCH

1. Take off the front & rear plates of the machine
2. Take off the micro switch, remove the wires over it.
3. Replace the defect micro switch with a good one
4. Re-assemble in the opposite steps.



REPLACING THE CONTROL P. C. BOARD

1. Take off the front & rear plates of the machine
2. Remove the polyfoam at the air vent, take off the control pc board from the front plate
3. Replace the defect control pc board with a good one
4. Re-assemble in the opposite steps.



After-Check

Please do the following checks after repair:

1. Make sure the working current is correct (the current cannot be too high).
2. Make sure the wire distribution is correct according to the supplied diagram.
3. Make sure the pipes, tubes are in the right position, do not hit with the other parts.
4. Make sure the insulation resistance between the plug and grounding is over 2MΩ.
5. Make sure the whole cooling system is of no leakage.
6. Make sure the fan can operate normally and will not hit the other parts.
7. Make sure the compressor can operate normally, without abnormal noise.
8. Set the machine to max. cooling and high ventilation, after 30 minutes, put your hand on the evaporator to check whether it is making cool or not.
9. Put the hand in front of the condensed air outlet, feel whether there is hot air from it.
10. Set the unit in cooling mode, when it starts to cool for 30 min, check whether the frost over the evaporator surface is more than 70%.
11. Measure the temperature at the air inlet and outlet, make sure the temperature difference is more than 10^{o}C.
12. Make sure the water tray, water pipe inside the machine are of no leakage and well-installed.