HTP Arctic Chill 5460 Series Water-Cooler

Owner's Manual

FOR MODEL NUMBERS:

- AC5460-110
- AC5460-220
- AC5460-221
- AC5460-DV

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General Information

Thank you and congratulations on purchasing an HTP Arctic Chill Water-Cooler. With a multitude of welding equipment options available on the market today, we appreciate your purchase, as well as the confidence you put into HTP through purchasing one of our products.

HTP Arctic Chill Water-Coolers come standard with the following features, which provide ease of operation, exceptional service, and outstanding value:

- 18-Gauge, powder-coated steel cabinets, which provide durability and an attractive finish
- Convenient, large diameter coolant screw-on cap featuring a 2-3/16" fill opening, which makes adding coolant easy
- Bottom tank drain, which makes coolant changes easy
- A rust-proof, molded Polyethylene coolant tank
- 1/2 HP electric motor—sealed to keep dirt out
- Copper-tubed heat exchanger for superior heat dissipation
- Folding handle for easy transport
- Long-lasting, stainless steel pump housing
- Large, 2.2-gallon capacity coolant reservoir
- Convenient, front-mounted liquid level gauge
- Standard 5/8-18 LH female water connections
- Clearly marked coolant 'in' and coolant 'out' lines
- A flow switch and alarm that alerts you to liquid flow restrictions within the cool water out or hot water in lines
- Convenient, front-mounted On/Off switch

Warranty

Your HTP Arctic Chill Water-Cooler comes standard with an 18-month warranty, provided you use a suitable coolant. Suitable coolant, such as our HTP Coolant, contains an ethylene glycol base with an additive lubricating agent.

Please note:

WE DO NOT CONSIDER AUTOMOTIVE ANTI-FREEZE A SUITABLE COOLANT; THEREFORE, USING AUTOMOTIVE ANTI-FREEZE VOIDS THE WARRANTY.

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General Precautions & Safety Suggestions

HTP America values your safety, as well as the safety of those around you. Please read, follow, and save the following safety precautions and operating instructions in order to maintain a safe work environment and to ensure proper handling of all equipment.

On Reading the Owner's Manual and Operating Instructions

- Thoroughly read the Owner's Manual and Operating Instructions before installing, operating, or servicing equipment.

Water-Cooler Specific Hazards

- Inspect input power cord for damage or exposed wiring. If you detect damage or exposed wiring, replace cord promptly. Exposed wiring can cause electric shock, which results in serious injury or even death.
- Maintain a dry working environment—protect all cords from water, oil, and grease.
- In order to reduce the risk of cord damage and electric shock, protect all cords from hot metal and sparks.
- When not operating equipment, disengage power—turn equipment off or unplug equipment.
- Do not operate equipment with damaged parts. Rather, repair or replace damaged parts immediately.
- Do not operate equipment without all protective panels and covers in place. In fact, do not ever remove panels with equipment on and/or connected to a power supply.

Risk of Electric Shock

- Avoid touching live electrical parts—live electrical parts can cause electric shock, which results in serious injury, such as severe burns, or even death.
- Be sure to properly ground all equipment.
- When you power the equipment on, all circuits—including the input power circuit and equipment internal circuits—become live.
- Turn equipment off and disconnect from the power source before servicing.

General Precautions & Safety Suggestions Cont.

Hot Parts

- Avoid touching hot parts with bare skin—hot parts can cause burns.
- Always allow equipment to cool before servicing.
- Wear protective clothing and insulated welding gloves, or use proper tools, if you find handling hot parts necessary.

Moving Parts

- Use caution when working near moving parts—moving parts can cause injury.
- To avoid injury from moving parts, only operate equipment with panels and covers securely in place.

Danger of Debris Entering the Eyes

- Always wear safety glasses or goggles, along with a welding helmet, when cutting and/or welding.

Danger of Falling Equipment

- Falling equipment can cause injury—properly secure all equipment and equipment cables when working in an elevated location or when moving equipment via forklift, truck, etc.

On Overuse and Overheating

- Always follow rated duty cycle of equipment and allow sufficient periods of cooling.
- Ensure adequate airflow to all equipment to avoid overheating.

Specifications

110V Water-Cooler

HTP Arctic Chill 5460 P/N AC5460-110		
Input Voltage/Amperage	U1=110 Volts 50/60Hz	I1max=1.8 amps 60Hz
Maximum Cooling Capacity 12830 BTU/Hr @ 1.8 Qt/Min	Rated Cooling Capacity 5460 BTU/Hr @ 1.1 Qt/Min	Outlet Pressure Max=43 PSI

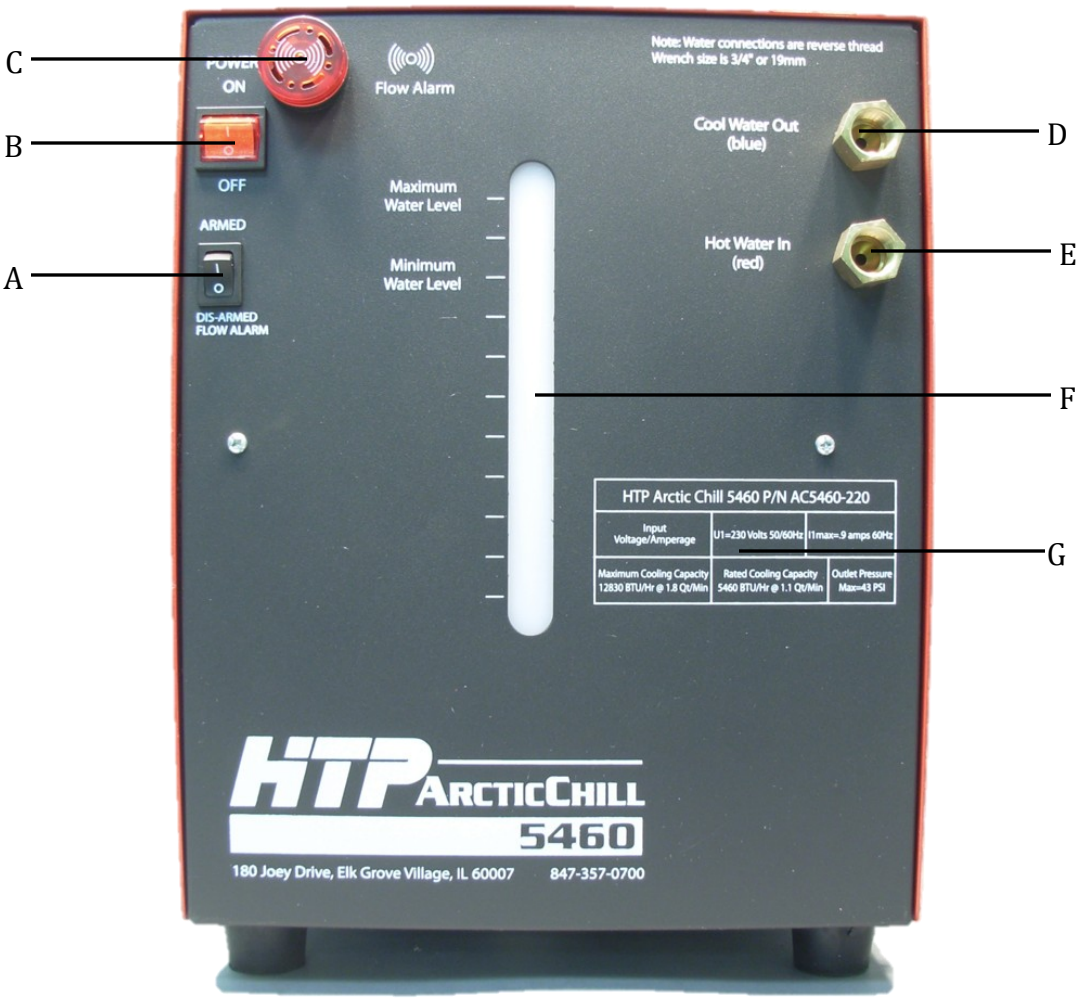
220V Water-Cooler

HTP Arctic Chill 5460 P/N AC5460-220		
Input Voltage/Amperage	U1=230 Volts 50/60Hz	I1max=.9 amps 60Hz
Maximum Cooling Capacity 12830 BTU/Hr @ 1.8 Qt/Min	Rated Cooling Capacity 5460 BTU/Hr @ 1.1 Qt/Min	Outlet Pressure Max=43PSI

Dual Voltage Water-Cooler

HTP Arctic Chill 5460DV P/N AC5460-DV		
Input Voltage/Amperage	U1=110 Volts 50/60Hz	I1max=1.8 amps 60Hz
	U1=230 Volts 50/60Hz	I2max=.9 amps 60Hz
Maximum Cooling Capacity 12830 BTU/Hr @ 1.8 Qt/Min	Rated Cooling Capacity 5460 BTU/Hr @ 1.1 Qt/Min	Outlet Pressure Max=43 PSI

Front Panel Connections and Controls



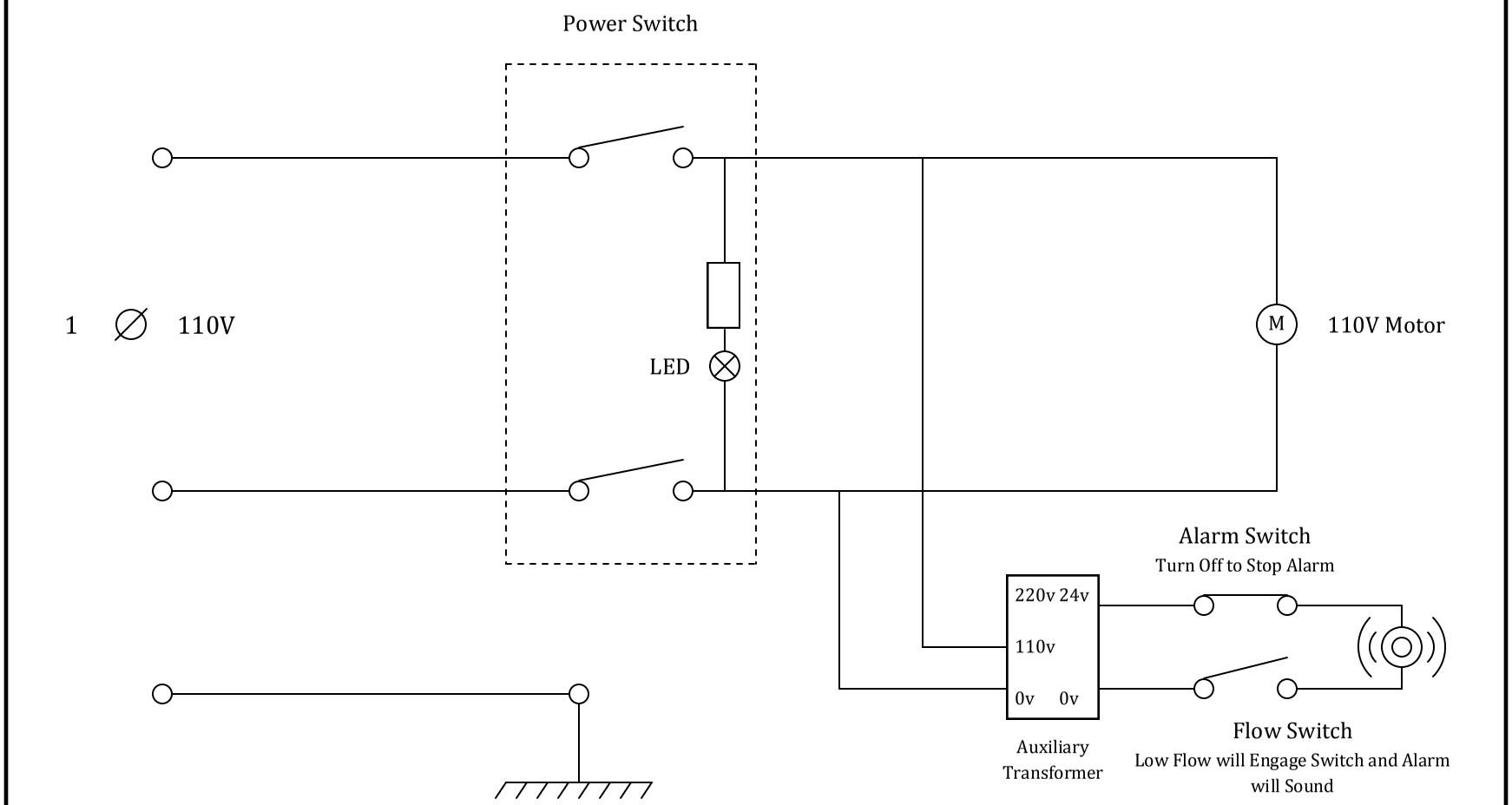
A. **Flow Alarm Switch**—Arms or disarms the flow alarm.
B. **Power Switch**—Powers on or shuts down the Arctic Chill Water-Cooler.
C. **Flow Alarm**—Alerts you to liquid flow restrictions within the Cool Water Out or Hot Water In lines.
D. **Cool Water Out Connection**—Connects the line that carries cooled water back to the torch head.
E. **Hot Water In Connection**—Connects the line that carries heated water from the torch head to the water-cooler.
F. **Liquid Level Gauge**—Allows you to regularly gauge current coolant levels and maintain necessary coolant levels.
G. **Specifications Table**—Displays the specifications of the water-cooler.

Parts Not Pictured:
1. **Coolant Reservoir Fill Access**—Allows you to add coolant (located on the top panel of the water-cooler).
2. **Coolant Reservoir Drain Access**—Allows you to drain coolant (located on the bottom panel of the water-cooler).

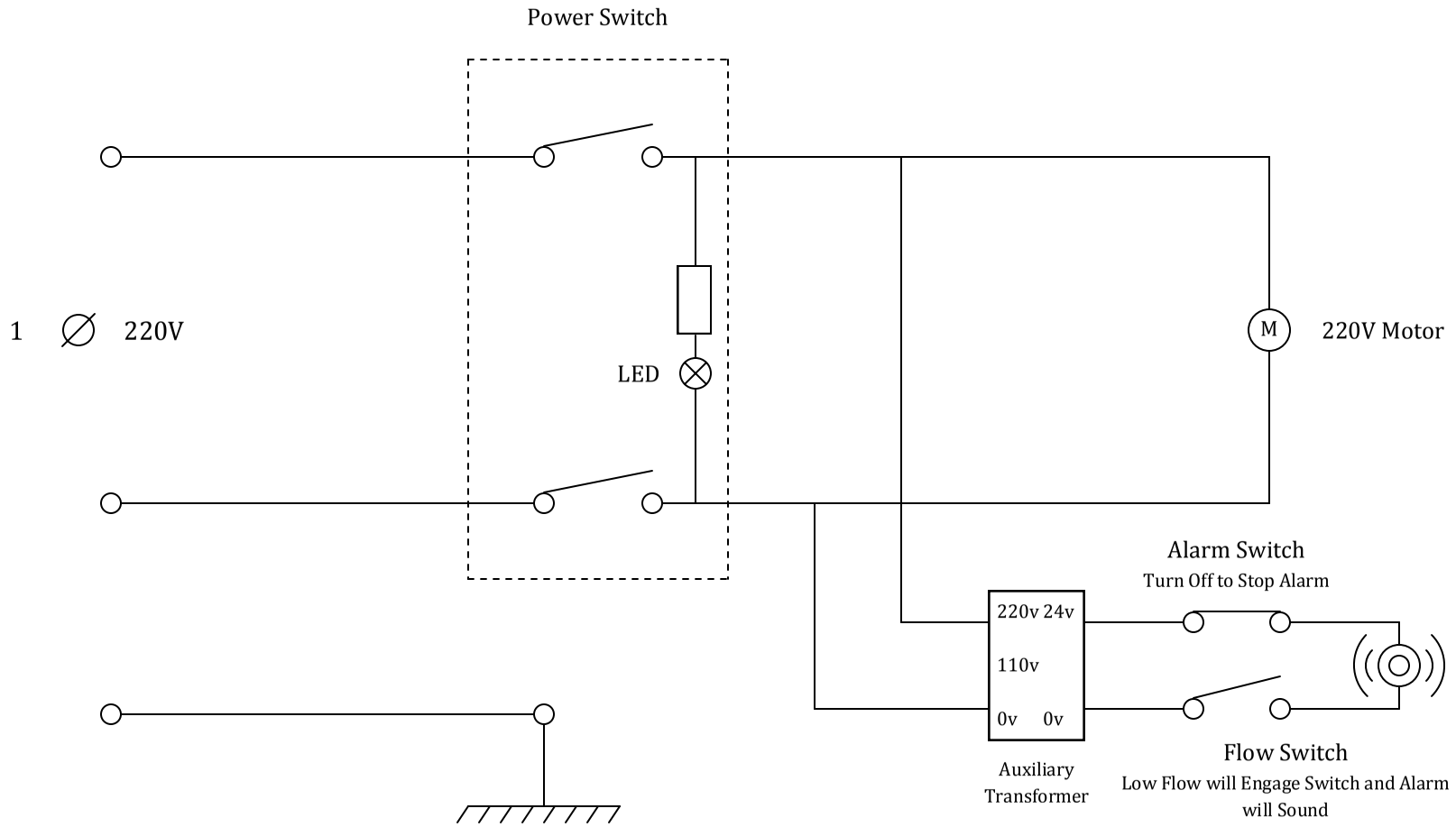
Operating Instructions

1. Confirm the input voltage necessary for equipment operation. To confirm the input voltage required for equipment operation, please refer to the Specifications Table on the front panel of your water-cooler (See Front Panel Connections and Controls diagram on Page 7). Operating the water-cooler on the incorrect input voltage can damage your equipment.
2. Connect the red line from your water-cooled Tig welding torch to the Hot Water In connection located on the front panel of the water-cooler. If your torch is not color coded, you want the water return line or, in other words, the power cable.
3. Connect the blue line from your water-cooled Tig welding torch to the Cool Water Out connection located on the front panel of the water cooler. If your torch is not color coded, you want the water supply line.
4. Check the coolant reservoir to confirm that you filled the reservoir with the correct amount of coolant. **Important**: You must use a coolant specifically designed for welding applications. Automotive anti-freeze will ruin the pump and void your warranty
5. Connect the water-cooler to the appropriate power supply, i.e., to a 110V outlet, a 220V outlet, or to the power connector at the back of your Invertig 200, 201, or 221 welder.
6. Power all equipment on.
7. Arm the flow alarm (the flow alarm alerts you to liquid flow restrictions within the Cool Water Out or Hot Water In lines).

Remember to inspect your water-cooler and all water-cooler components regularly to ensure ease of operation and to maintain safety. HTP recommends annual coolant changes and prompt maintenance when necessary.

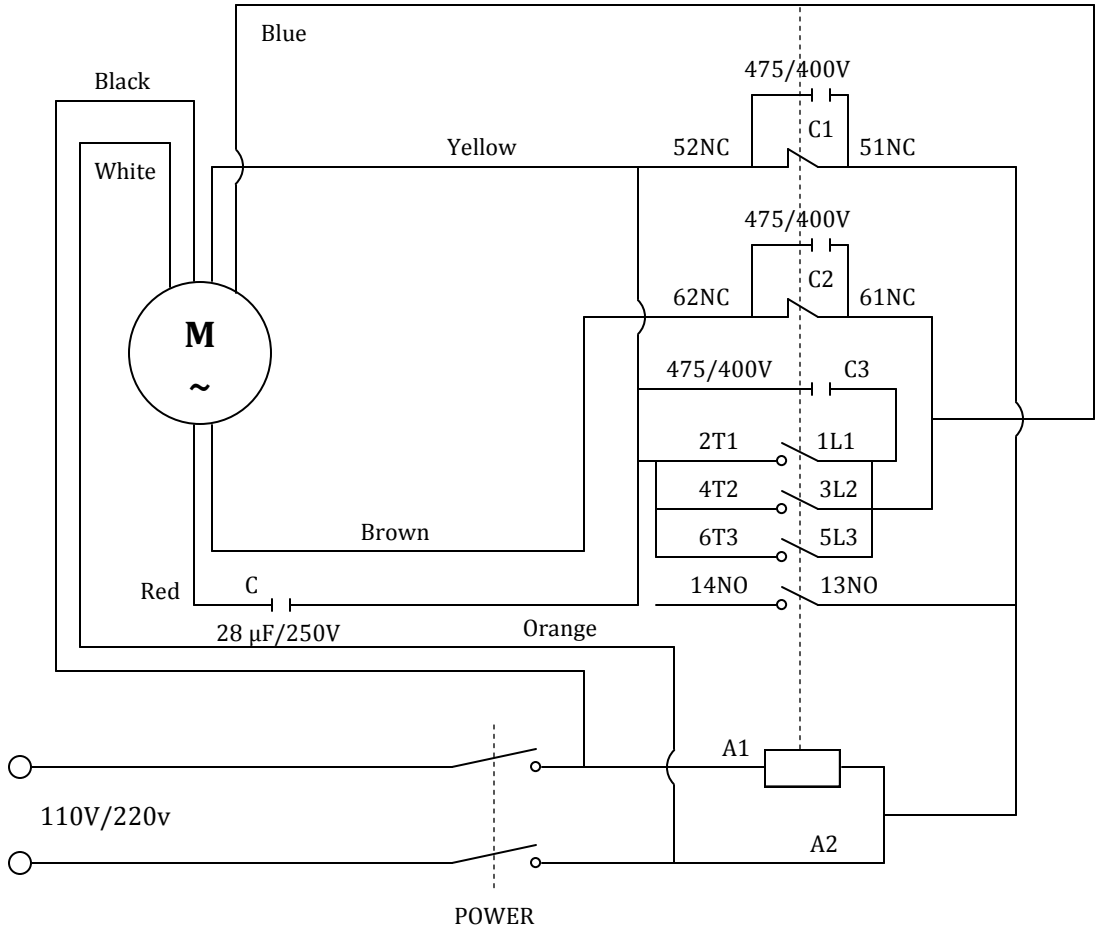


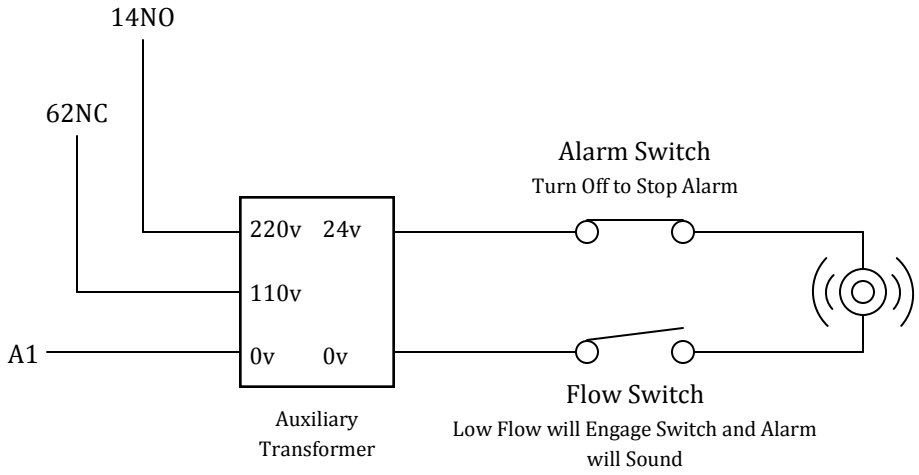
AC5460-110 Wiring Diagram



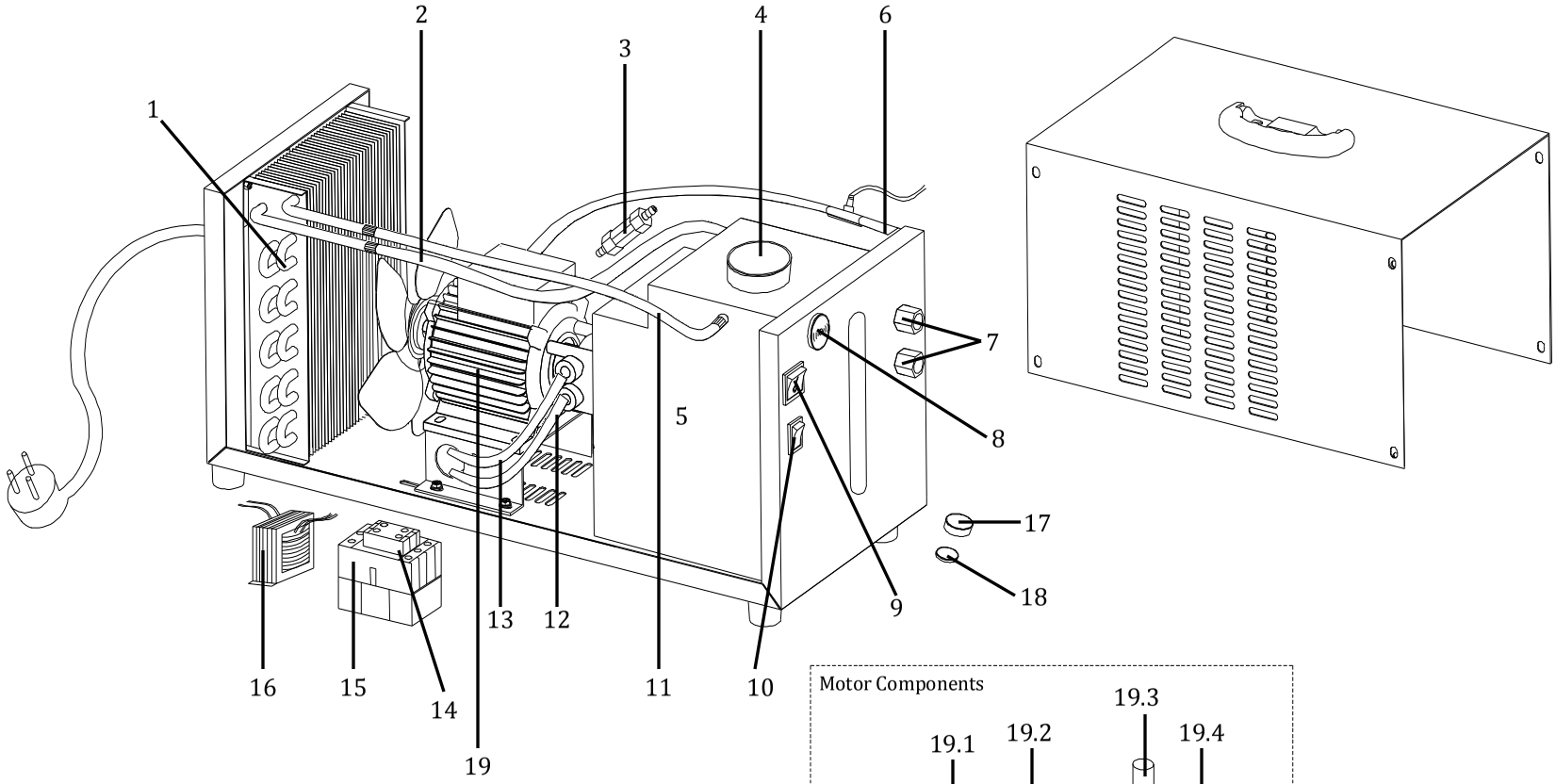
AC5460-220 Wiring Diagram

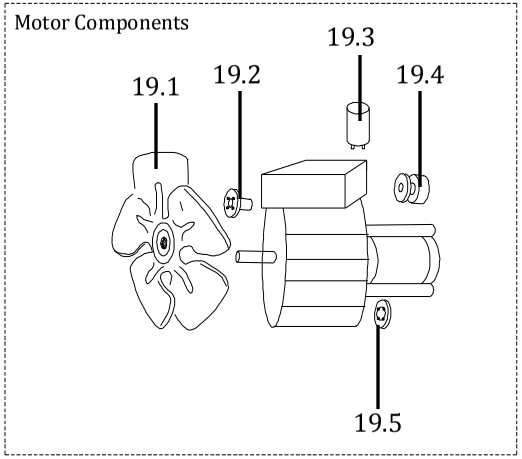
AC5460-DV Wiring Diagram





Parts Diagram





1	Radiator	10	Flow Alarm Switch (to Arm or Dis-	19	Motor
2	Hose w/Clamp (from Input Connector to Radiator)	11	Hose w/Clamp (from Radiator to Coolant Reservoir)	19.1	Fan
3	Flow Switch	12	Hose w/Clamp (from Coolant Reservoir to Motor)	19.2	Fan Socket
4	Coolant Reservoir Access	13	Hose w/Clamp (from Motor to Output Connector)	19.3	Drive Capacitor
5	Coolant Reservoir	14	Contactor	19.4	Pump Head
6	Hose w/Clamp (from Motor to Output Connector)	15	Auxiliary Contactor	19.5	Pump Seal Ring
7	Torch Line Connections (f/Hot Water In & Cool Water Out Lines)	16	Control Transformer		
8	Flow Alarm	17	Coolant Reservoir Drain Cap (Coolant Reservoir Drain Access Located on Bottom Panel)		
9	Power Switch	18	Coolant Reservoir Drain Washer (Coolant Reservoir Drain Access Located on Bottom Panel)		

Parts List