

**Trevor-Martin
Corporation**

Hot Water Generator

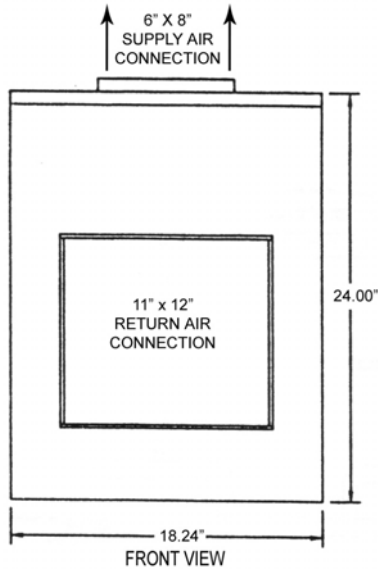
**Model
WCC12**

SPECIFICATION SHEET

RESIDENTIAL WATER HEATING USING A WATER COOLED CONDENSER

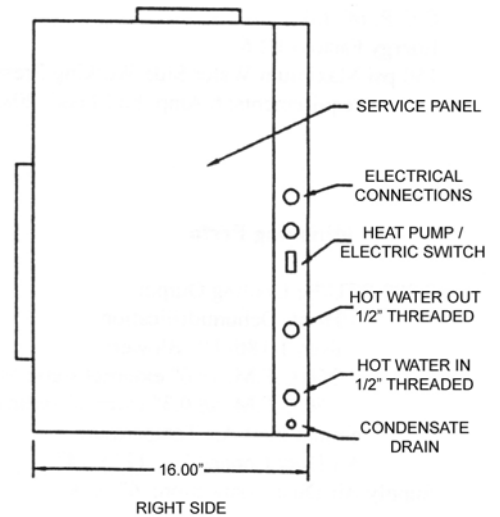
DESCRIPTION:

The Hot Water Generator is a high efficiency appliance that heats domestic hot water by cooling the surrounding air. It is designed to work in conjunction with a conventional electric water heater; switching seamlessly back and forth between compressor and resistance heat as required by operating conditions. Unlike other water heaters, the Hot Water Generator is able to deliver cool, dehumidified air to the living space while providing water heating. It uses the conventional electric water heater as a storage tank. Both supply and return air may be ducted to maximize the heating performance and cooling utilization.



FEATURE HIGHLIGHTS

- 230 volt wiring for easy connection to water heater circuit
- Factory wired and preset controls
- Fully automatic operation
- High Efficiency Vented Double-Wall Heat Exchanger
- 2 Speed High Static Blower
- Water lubricated low wattage Circulator
- Grounded electrical circuit
- Sturdy Aluminum Cabinet with baked enamel finish for indoor use
- Integral mounting bracket
- ARL listed Appliance, with UL approved components
- Freezestat option available

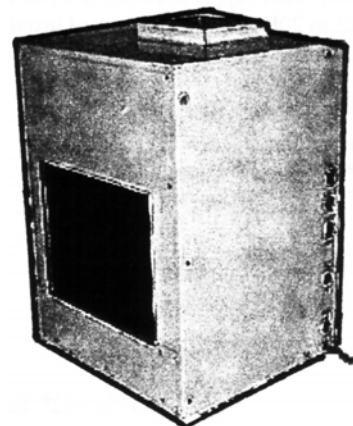


APPLICATION:

The Hot Water Generator is intended to be installed indoors, or outdoors under cover, in a non-corrosive environment, with ambient temperatures between 50°F and 110°F. Higher or lower ambients will cause the unit to switch to electric resistance water heating. Adequate airflow must be supplied by free airflow or by duct connections. The Hot Water Generator is designed to be installed in conjunction with a tank type electric water heater. It should be installed as close to the tank as possible, with a maximum of 25 feet between the two units. A drain pan may be required by code. Care should be taken in site selection to minimize potential water damage, should a leak occur. Condensate must be drained during normal operation. A condensate pump is required if a free flowing gravity drain is not available.

WARRANTY:

The Hot Water Generator has a multi-level Limited Parts Warranty, as follows: Heat Exchanger-5 years; Compressor-3 years; Circulator-3 years; All Other Components-1 year.



SPECIFICATIONS AND INFORMATION

THESE SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

MOUNTING / LOCATION:

Hot Water Generators may be mounted indoors or outdoors undercover where there is adequate air flow or ducted connections: and where the ambient temperature runs between 50°F and 110°F. Do not install a unit in a closet without ducting and avoid cold areas.

CONTROLS:

All Hot Water Generators contain both a water high limit control and a low ambient control. The WCC12 will automatically switch to resistance heat and then return to compressor mode at the next call for water heating. Freeze-protected models are also equipped with a water low limit. It is factory set to 50°F and is designed to operate when water temperatures of 40°F or less are detected, in the event of freezing ambients.

HEAT EXCHANGER:

Hot Water Generators contain a corrosion resistant double wall heat exchanger of counterflow design for high thermal efficiency. Continuously vented along its entire length. the WCC Heat Exchanger meets strict IAPMO safety criteria. and exceeds UL requirements

CIRCULATOR PUMP:

Hot Water Generators contain a low wattage direct drive single stage circulator. Standard Models use a Taco 006 series circulator. This pump is water lubricated, water-cooled, 3250RPM, 1/40 HP, .38 amps, 230/60/1. UL listed impedance protected motor delivers flow to 12 GPM and head to 10 feet. Patented dirt barrier and replaceable cartridge.

TYPICAL OPERATING PARAMETERS

WATER HEATING PERFORMANCE:

12,000 BTU/Hr Water Heating Output
 Delivery: 28 Gallons/Hr @ 70°F to 120°F Rise
 Maximum Tank Temperature: 130°F
 C.O.P. of 3.0
 Energy Factor of 2.6
 150psi Maximum Water Side Working Pressure
 Power Requirements: 6Amp. Full Load; 208/230VAC
 60Hz., 1 Phase

AIR CONDITIONING PERFORMANCE

9,000 BTU/Hr Cooling Output
 2.2 Pints/Hr of Dehumidification
 Air Flow from 1/18th HP Blower:
 350 C.F.M. @ 0" external static on low speed
 350 C.F.M. @ 0.3" external static on high speed
 50°F Minimum Inlet Air Temperatures
 Return Air Duct Connection: 12" x 14"
 Supply Air Duct Connection: 6" x 8"

NORMAL OPERATING PARAMETERS

These units will produce 28 gallons per hour of hot water (heated 50°F temperature rise), based on 80°F dry bulk/ 67°F wet bulb inlet air temperature. Water temperature rise across the unit is 15°F to 20°F. Air temperature drop from supply to return is 10°F to 15°F with no duct connections and 15°F to 20°F on a duct connected installation. Current draw runs from 4.0 to 5.5 amps @ 230 VAC.

STANDARD UNITS:

Model	Feature
WCC12	Base Model
WCC12F	Freeze protected

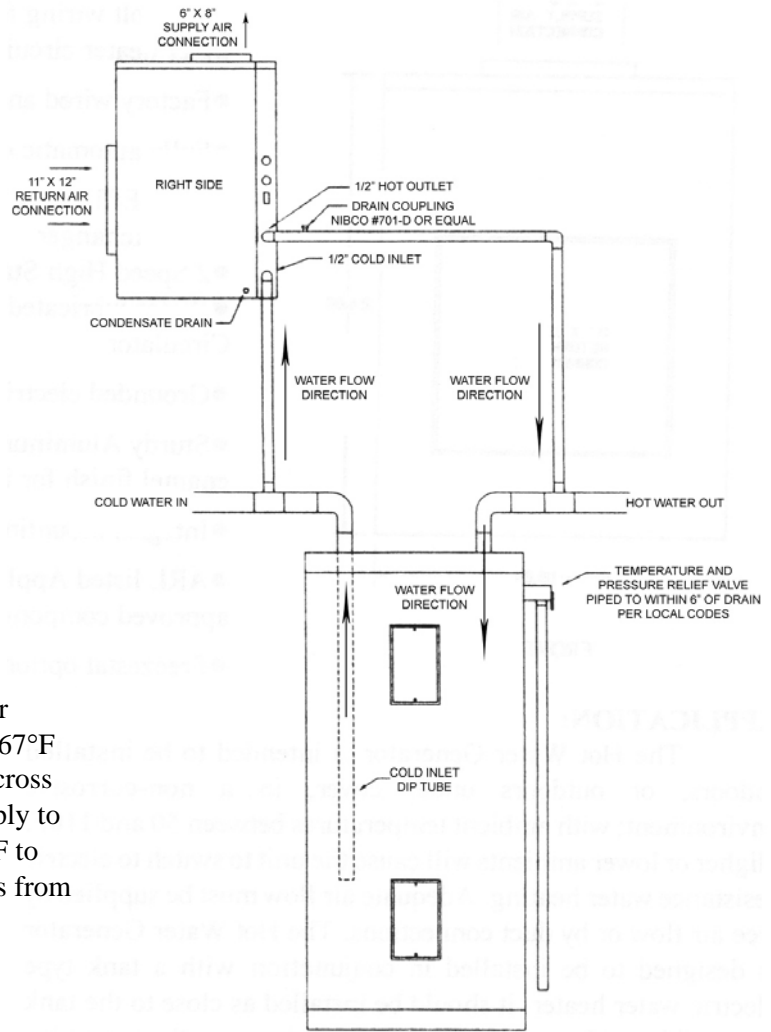


FIGURE 2 - PLUMBING SCHEMATIC