

TEMPERATURES PLUNGE NOT PRODUCTIVITY

Introducing a more efficient auxiliary heating system



CNG, LNG, LPG and DIESEL POWERED

Every truck is a job site. **Improve your conditions.**

Cold weather increases stress conditions on the equipment and the workers. Your winterization strategies need to include adding warmth.

The Aqua-Hot technical services team can help you get it right. For a single vehicle or a mixed fleet of medium and heavy-duty vehicles, there's a single or multi-circuit heater that puts heat where you need it. And it's powered from the vehicle's fuel.

Engine preheating: Each *WORK READY* unit heats engine coolant and circulates it through the vehicle's engine. Engine on. Engine off. With the timer or the automatic-on temperature setting, the engine is at operating temperature when you need it.

Depending on ambient temperature and engine size, fully preheated engines take less than 30 minutes.

Oil pan heating: If your situation requires, a dedicated oil pan heater can be added in the heating loop.

Hydraulics heating: Cold hydraulic fluid is sluggish and prone to pressure drops, with 80% of pump wear occurring when the unit is started cold. Use the *Work Ready* heating loop to bring hydraulic fluid to operating temperature.

Natural gas fuel pressure regulator warming: Heat the fuel pressure regulator in the same coolant-heating loop to maintain rated temperature ranges.

Auxiliary vehicle heating that meets your needs

Aqua-Hot WORK READY heating is based on a heating configuration specific to your application.
Our factory-based team will work with you on the optimum configuration for your fleet needs.



Medium and heavy-duty mixed-fuel fleets – from a CNG sidearm refuse hauler to a 20-ft. field truck with a machine shop in the cargo box – can be more productive 24/7 with an Aqua-Hot WORK READY heating system.

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Aqua-Hot.

WORK READY

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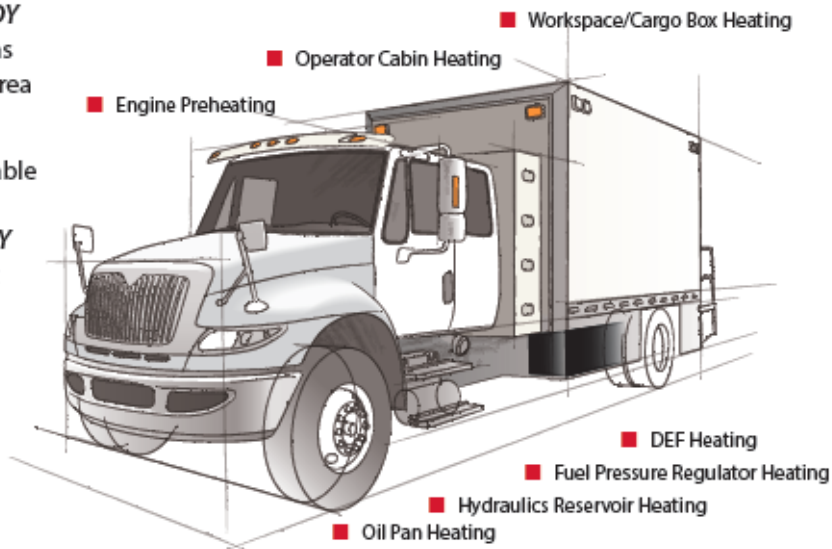
Natural gas fuel pressure regulator warming: Heat the fuel pressure regulator in the same coolant-heating loop to maintain rated temperature ranges.

Cabin heating: For standard cab trucks, an Aqua-Hot Cabin Heater added in the loop increases the speed of heat availability to supplement the OE truck heater. For larger passenger cabins, an Aqua-Hot fluid-to-air heat exchanger offers higher capacity with selectable heat ranges.

Cargo box/work area heating: With *WORK READY* Multi-Circuit heating units, field service operations can direct as much as 65,000 Btu/h into the box area to keep workers productively warm.

Water/Fluid Tank: If having on-demand hot potable water or warmed fluid tanks is important, like in medical and field lodging trailers, a *WORK READY* heater is able to deliver an instantly hot supply at a continuous 1.5GPM and 110° F/ 43° C.

Diesel Exhaust Fluid (DEF) heating: The DEF solution of 32.5% high purity urea and 67.5% DI water starts to freeze at 12°F/ -11°C. In the *Work Ready* heat loop, DEF is liquid and ready for start-up.



CONTROL YOUR ENVIRONMENT

Aqua-Hot.

WORK READY

Three WORK READY primary heating solutions

Aqua-Hot designed three fundamental ways to give upfitters and operations the most versatility to address each situation. Each is available in CNG, LNG, LPG and Diesel.



**Single Closed-Circuit
Heating System**



**Dual Closed-Circuit
Heating System**



**Triple Closed-Circuit
Heating System**

Three fuel-fired sources.



Natural Gas

The California Air Resources Board approved the single circuit and dual circuit natural gas vehicle coolant heaters for installation and operation on all heavy-duty natural gas vehicles with a GVWR over 14,000 pounds and all natural gas commercial vehicles over 10,000 pounds. [CIHD-2013-040]

Autogas

Using the vehicle's fuel source, the Aqua-Hot propane systems are ETL certified for mobile home and on-road recreational vehicle use for vibrations, durability and safety.

Diesel

Aqua-Hot diesel powered systems are the hydronic heating system standard bearer for recreational vehicles. These systems are ETL certified for RV and mobile home use in the US and Canada



ONE UNIT. ALL YOU NEED.



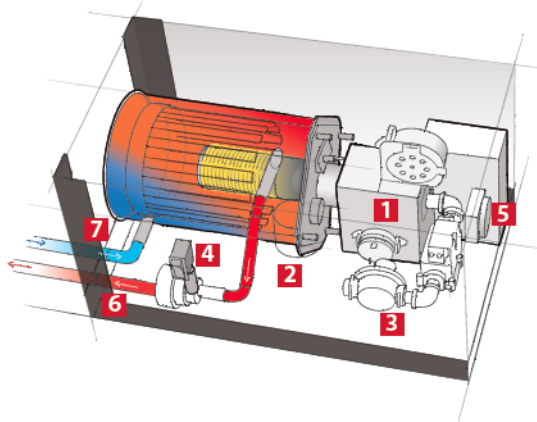
WORK READY

Single Closed-Circuit heating

The primary purpose of the *WORK READY* single closed-circuit coolant-based heating system is to deliver engine-off preheating.

Simple operation, automatic timers

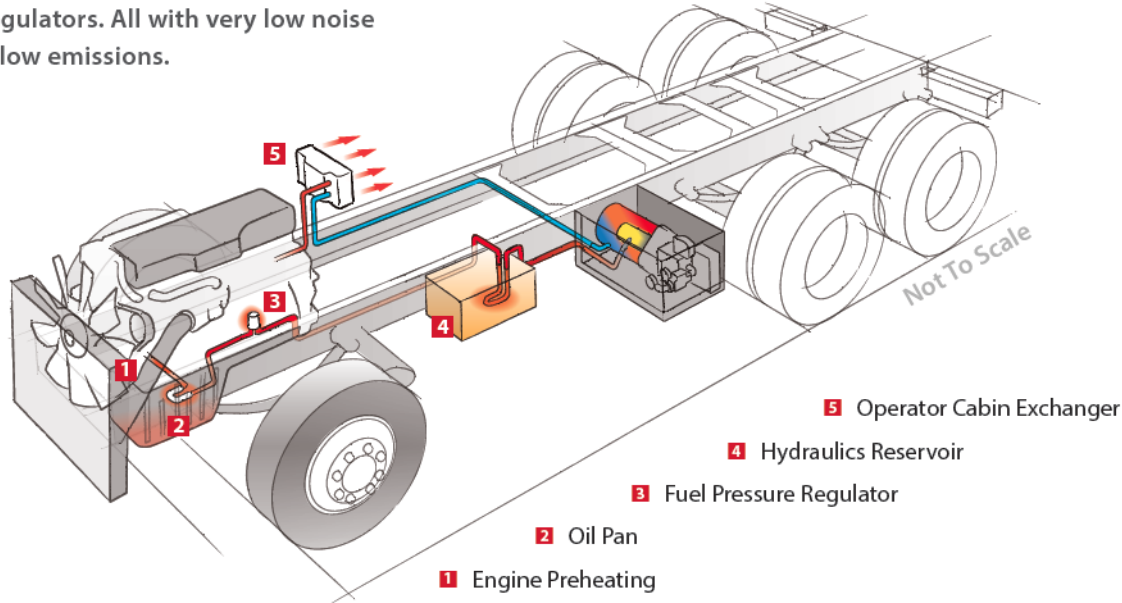
A three position (ON/OFF/TIMER) manual control comes standard. Fleet maintenance personnel are able to set the seven-day timer control for operating stop/start times. In *TIMER* mode, the thermostat allows operation only when the temperature is below 45°F/7.2°C, with no operator interaction.



1. Burner Assembly
2. Exhaust
3. Gas Regulator
4. On/Off/Time 3-Position Switch
5. 7-Day Timer
6. Coolant Outlet
7. Coolant Inlet

Dimensions: 23.75" L x 11" W x 11.5" H (L603mm x W279mm x H292mm)

Powerful enough to provide hydraulic fluid heating and supplemental cabin heat for the front passengers with the optional Aqua-Hot Cabin Heater. With Natural Gas vehicles, it also capable of warming fuel pressure regulators. All with very low noise levels and low emissions.



HIGHLY PRODUCTIVE



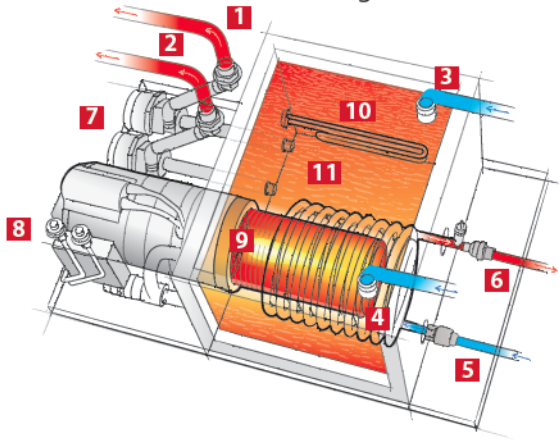
WORK READY

Dual Closed-Circuit heating

The Dual Circuit WORK READY coolant-based heating system uses one circuit for the engine preheating loop and the other for up to three thermostatically controlled temperature zones off two primary heating loops.

Aqua-Hot TribriidHot™ technology

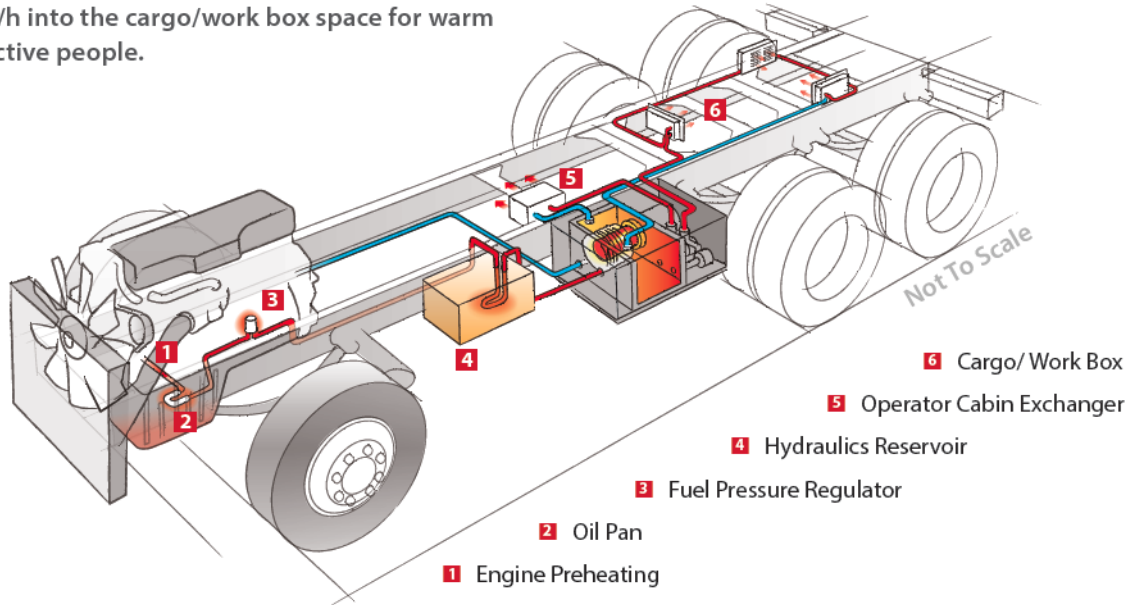
Not only can your trucks use on-board fuel, with TribriidHot as standard, they can also pull heat from the engine while on the road or plug into AC power at the shop.



- | | |
|---------------------------|------------------------------|
| 1. Heat Zone Outlets 1 | 8. Fuel Inlet Outlet |
| 2. Heat Zone Outlet 2 | 9. Burn Chamber |
| 3. Heat Zone 1 Return | 10. Electric Heating Element |
| 4. Heat Zone 2 Return | 11. Thermal Storage Tank |
| 5. Engine Preheat Inlet | |
| 6. Engine Preheat Outlet | |
| 7. Zone Circulation Pumps | |

Dimensions: 29.5"Lx18.5"Wx12"H (L749mmxW469mmxH304mm)

With a Dual Circuit, dedicate one circuit for the engine and fluids preheating. Use the second circuit to put as much as 65,000 Btu/h into the cargo/work box space for warm and productive people.



SIMPLY EFFECTIVE



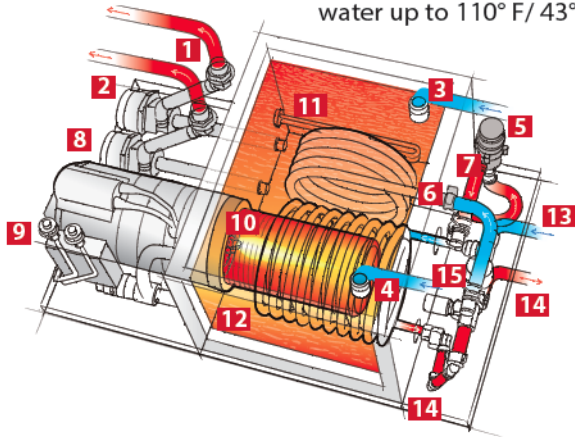
WORK READY

Triple Closed-Circuit heating

The Triple Circuit WORK READY coolant-based heating system adds a closed circuit that can be dedicated to heat potable water or other fluids, without concern of mixing with the glycol solutions in the other two heating circuits.

Just add water.

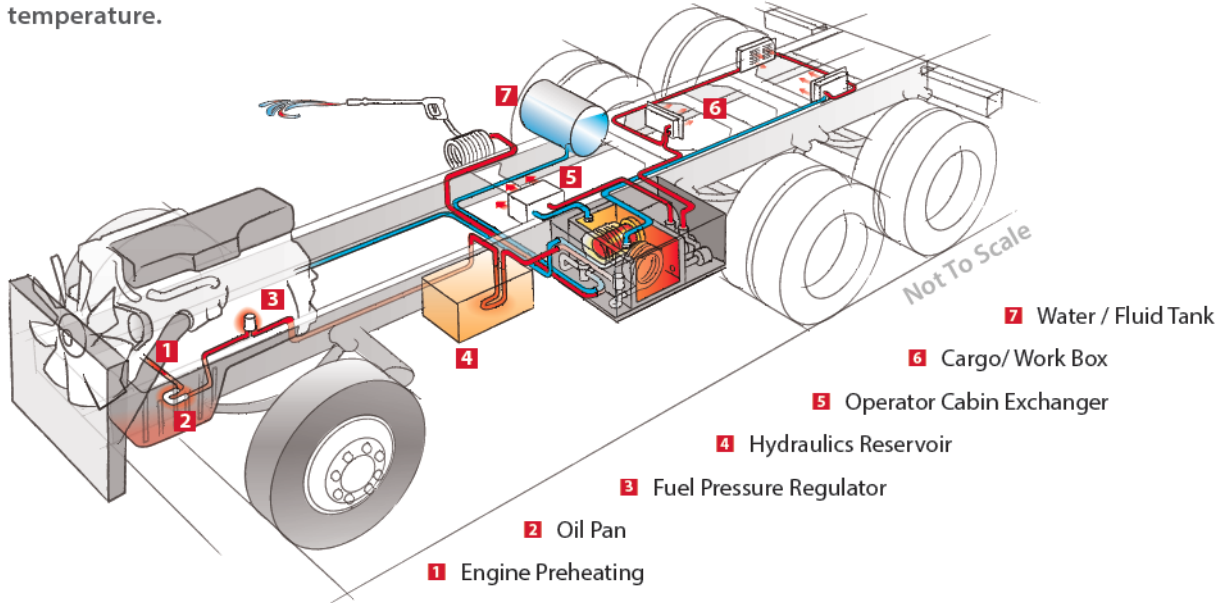
Some applications just need hot water or fluid. Delivery trucks required to have spill clean up materials. Medical trailers. Portable lodging units. With this circuit, the temperature can be set to deliver a continuous supply of water up to 110° F/ 43° C with zero recovery time.



- | | |
|------------------------------------|------------------------------|
| 1. Heat Zone Outlets 1 | 9. Fuel Inlet Outlet |
| 2. Heat Zone Outlet 2 | 10. Burn Chamber |
| 3. Heat Zone 1 Return | 11. Electric Heating Element |
| 4. Heat Zone 2 Return | 12. Thermal Storage Tank |
| 5. Engine Preheat Circulation Pump | 13. Cold Water In |
| 6. Engine Preheat Inlet | 14. Hot Water Out |
| 7. Engine Preheat Outlet | 15. Water Tempering Valve |
| 8. Zone Circulation Pumps | |

Dimensions: 29.5"Lx18.5"Wx12"H (L749mmxW469mmxH304mm)

The multi-circuit thermal storage tank lets the burner run less and require less fuel to maintain operating temperature.



DON'T IDLE. GET PRODUCTIVE.



Heat Exchangers



Whisper Heater/Cover

A single radial fan moves 4,000 Btu/h to heat small spaces and equipment bays.



Cabin Heater

Supplements OE heater with up to 4,000Btu/h controlled by variable speed fan and mounted on an adjustable bracket.



Cozy Plenum

Attaches to Cozy heat exchanger for ducting applications.



Cozy Heater

Polycarbonate housing, with finned heater core and axial fans, quietly circulate 8,000 Btu/h in worker spaces. Grilles are available.



Komfort Defroster


For ducted high volume applications with Btu/h ranging from 23,000 to 38,000. L/M/H switch and cover available.

Accessories



Switches

Two and three position switches are available so operators can manually control the heating combinations.

 Aqua-Hot.

WORK READY



7-Day Timer

Operations can program 24-hour, 7-day on/off operations with up to 56 switching cycles and skip-a-day programming.



Mounting Brackets

Designed to securely hold the Single Circuit heating system to the vehicle frame. Powder-coated for durability.

Specifications

	Single Circuit	Dual Circuit	Triple Circuit
PRIMARY FUEL TYPE/FUEL CONSUMED PER HOUR			
Natural Gas (CNG/LNG) LP DIESEL	0.13GGE/0.47GLE .23GPH/0.87LPH .10GPH/0.38LPH	0.13GGE/0.47GLE .23GPH/0.87LPH .10GPH/0.38LPH	0.13GGE/0.47GLE .23GPH/0.87LPH .10GPH/0.38LPH
SECONDARY FUEL TYPE			
Electric Heating Elements	NA	1@120VAC/ 1500W	1@120VAC/ 1650W
SYSTEM DESCRIPTION			
Closed-Circuits	1	2	3
Maximum Thermostatically Controlled Zones	1	3	5
Primary Zone Heating Loops	1	2	2
Maximum Heat Exchangers	4	8	8
Btu/h Rating	40,000	65,000	65,000
Flow Rate/ Temperature for Hot Water Allocated Circuit	NA	NA	1.5GPM/110° F/43° C
7-day Timer	Standard	Option	Option
Instant-ON Switch	Option	Option	Option
SYSTEM PERFORMANCE/EFFICIENCY			
Engine Preheating Loop Btu/h	40,000	40,000	10,000
Interior Heating: Minimum Btu/h Output	4,000	8,200	8,200
Interior Heating: Maximum Btu/h Output	40,000	65,000	65,000
DC Operating Amps	3.4	5.3	7.68
AC Element Btu/h Output	NA	5,118	5,630
AC Power Circuit Amp Requirement	NA	20	20
SINGLE UNIT ZONE & LOOP HEATING CONFIGURATION POSSIBILITY EXAMPLES			
Engine Preheating	•	•	•
Hydraulics Reservoir	•	•	•
Oil Warming	•	•	•
Fuel Pressure Regulator	•	•	•
Operator's Cabin	•	•	•
Cargo Box/Work Area	•	•	•
Water/Fluid Circuit	NA	NA	•



**FLEET READY.
WEATHER READY.
WORK READY.**



 Aqua-Hot.

WORK READY

**SINGLE AND MULTI-CIRCUIT HEATING
SYSTEMS THAT SUPPORT CLEAN AIR**

MADE IN U.S.A.

CNG, LNG, LPG and DIESEL POWERED



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