

Shore power capable Auxiliary Power Units (APUs)

- **Centramatic**
<http://www.centramatic.com/Page.aspx?page=APU/HVAC> (800) 523-8473
Prime Power. Centramatic's APU's, air conditioning and heating systems are specifically designed for use in the trucking industry. Use of such systems for cab comfort and convenience comply with anti-idling laws and use roughly 75% less fuel as compared to idling the truck's primary engine. Increasing air quality legislation and local enforcement, coupled with soaring fuel costs have greatly increased APU demand. **Shore power**: Allows full function of cab conveniences even in California.
- **Carrier Transicold**
www.trucktrailer.carrier.com (706) 357-7223
The ComfortPro™ APU provides heating and air conditioning for the sleeper cab, 60 amps of truck battery charging, 110/120V household electrical power for appliances, and truck-engine warming. Key features include start/stop operation and Winterwatch™ protection to keep the engine warm during extreme cold when the cabin is unoccupied. Options include automatic low-battery-voltage protection and **shore power**, which allows for heating and air conditioning by running an extension cord to the truck without operating the generator. The ComfortPro APU directly powers its cooling and heating system and all household appliances from its 4,000 watt generator driven by the unit's Kubota diesel engine. For air conditioning, the unit employs a sealed electric-powered compressor for increased reliability and uses industry-standard R-134a. Regular maintenance is recommended every 1,000 hours. It consumes about 0.2 gph under full-load. It takes approximately 16 hours to install and has a 2-year warranty (all parts and labor) through Carrier's North American sales and service dealer network.
- **Comfort Master**
www.comfortmaster.com (866) 610-8890
The Comfort Master APU of 2007 provides heating and air conditioning both at 31,000 BTU's, using an Isuzu 3 cylinder diesel engine. The electrical power is 3,000 watts, and 120 Volt for accessories. The unit also provides **shore power** capability (it will power all 120 volt accessories and battery charging will be functional). The unit comes complete with an inverter with built-in high-amp 3-stage battery charger and conditioner/maintainer for longer battery life. The APU is a stand-alone system. It will only connect to the truck's fuel and battery source. The system has an exclusive engine computer with auto start (for low battery recovery), lifetime air cleaner, and electric fan for faster warm-up and cooling. The radiator and condenser are incorporated into the unit. The unit includes bulkhead fittings for faster connection and installation. It has a low 1800 rpm for more efficient fuel consumption. Over 2,000 service and repair facilities exist. The unit has a super quiet enclosure (63 dB at 21 ft under full load), and the dimensions are 24" x 29" X 24" off the railing of the truck. The under-bunk evaporator measures 16"W x 16"L x 6"H. Weight is 400 LBS. Average fuel consumption is 1/4 gallon per hour at full load. It takes an average of 5-8 hours for install and has a 2-year warranty (parts and labor). Cost: \$7,200 without inverter; \$8,100 with an inverter.
- **Diamond Power Systems, LLC**
www.diamondpowersystems.com, (888) 988-2299
The Diamond Power Systems APU is powered by a quiet 14-horsepower, 2-cylinder diesel engine and provides 14,500 BTU's of heating and air conditioning for year-round sleeper comfort. It also produces 6500-peak watts of 120-volt AC power to operate appliances,

electronics, and engine block heaters. The 12-volt DC output charges the truck's batteries. The fuel consumption under full load is about 0.26 gallons per hour. The standard features include battery monitoring; auto-start features based on time, temperature, or low-battery condition; password protection at the driver's control panel to allow a fleet manager to set the parameters of APU usage by the driver; overheat or low-oil auto-shutdown; and the air-conditioner uses industry-standard R-134a refrigerant. Available options include auto-shutoff (unit automatically shuts down when truck engine is running) and **Shore-Power** (includes auto-shutoff, and provides heat, air conditioning, battery charging, and 120-volts AC power in the sleeper when plugged into 120-volts AC) The APU can be plumbed into the standard truck cooling system to circulate warm coolant or can operate independently through its own self-contained radiator which is included. The standard warranty is 2-years or 2000-hours (whichever occurs first) on all parts and labor. Extended warranties for parts and labor or parts only are available for 4 years or 4000 hours or 4 years, unlimited hours. Standard installation is approximately 5 ~ 8 hours. Warranty service and installation is available through their nationwide service center network. MSRP: \$6,500.00 plus installation.

- **Enertek.**

<http://www.enerteksolutions.com/infini-gen.htm>

The InfiniGen® has been specifically designed to provide all the power you will need in the cab while using significantly less fuel than idling the truck engine would use. The InfiniGen® is one of the most versatile units on the market. The "Mobile Comfort System" has been specifically designed to provide heat and air conditioning to the cab without idling the truck engine and does not tap into the truck systems – giving you a complete stand-alone system. It is one of the most versatile units on the market today. It delivers over 500+ CFM which circulates the air in the cab every 90 seconds. The power generator runs on diesel fuel from the truck fuel tank, charging the truck's batteries and providing electricity to the cab for heating, cooling and other power needs. **Shore power standard.**

- **Flying J Inc.**

www.fjesolutions.com, (800) 501-7279

Cab Comfort System "CCS", offered by Flying J Inc., is a result of over 15 years of APU design and manufacturing in military and industrial industries. It is powered by a rugged Kubota 2-cylinder liquid-cooled diesel engine directly driving a 6kW generator, producing electric air conditioning and heating with 115 VAC receptacle outlets inside and outside the sleeper. The system can be independent of temperature or integrated with the truck engine cooling system while monitoring battery voltage and engine coolant to ensure ultimate system performance and cold weather starting. The programmable self-monitoring system cycles on only when needed for conservation of diesel fuel and driver comfort. CCS is quiet and comes with a 2-year system warranty (3-year for major engine components). Options include high performance cooling, **shore power**, and keyless remote start. Complete basic unit price is \$6,999 and financing is available. The system measures 21" (L) x 28.8" (H) x 28.8" (W) and weighs 425 lbs.

- **Hodyon**

<http://www.hancockindustries.com/auxiliarypower.aspx> (800) 289.8282

Dynasys APU: diesel; electric heat and AC; truck independent; 6 kW, 120 VAC generator; **Shore Power** as option. Idling a Class 8 truck engine for in-cab comfort is extremely costly. It increases fuel costs, engine hours and overall truck wear. This leads to an increase in service cost and engine maintenance. With Dynasys auxiliary power, you can shut down your engine and maintain your comfort while reducing operating costs. Externally mounted on the truck rail, Dynasys is protected in its own weatherproof enclosure and operates using the truck's fuel supply. This diesel-electric system provides dependable comfort for the driver during down times, reduces emissions and dramatically lowers fuel costs during idling.

- **Idlebuster**

www.idlebuster.com (727) 569-6000

The Idlebuster provides cab heating and air conditioning, truck engine block heating, truck battery charging, and internal/external 110V on-board power. Standard features include an independent starting battery, double vibratory shock mounts, **shore power receptacle** and an automated fire suppression system. The Idlebuster can be equipped with autostart technology for unattended maintenance of battery charge and/or cab temperature. The included Dometic HVAC system is independent from the truck system and is mounted under the bunk. The APU mounts to the frame rail, and installation time is 5-6 hours on a clean rail at an Idlebuster Factory Installation Center. The unit weighs between 435 and 450 pounds depending on configuration. The unit sells for \$6,900.00 USD, \$7,750.00 USD installed (24" clean rail). Lease programs are available, as is a 36 month extended warranty that also includes oil and filter changes.

- **Kool-Gen**

www.kool-gen.com (979) 849-3773

Kool-Gen offers a model KG 1000 Universal Mount APU Unit that attaches to the truck frame. The manufacturer claims it will fit 90% of trucks. The model uses a Yanmar 2-Cyl Diesel water cooled engine which powers a 134A Freon A/C Compressor system. Their units come with A/C Compressor, 17,000 BTU Evaporator, remote mount A/C Condenser, A/C Hoses, A/C Fittings, Control Panel, wiring harnesses, and provide 3000 Watts 115V AC Current while using the A/C. It also has its own radiator to cool the engine. They also offer an optional 15 - 20,000 BTU for Heat. KG 1000 Cost: \$6,295.00.

- **Star Class, Inc.**

www.starclassinc.com (724) 654-4665

Star Class manufactures two APU units: GEN-STAR 4500 and GEN-STAR 6000. Both are stand-alone, independent systems. The 4500 model contains a Perkins engine, 1950 RPM, 6.5 KW Peak, 4.3 KW A.C., 45 AMPS D.C., and a 2-year limited warranty. It weighs 287 lbs, and costs \$5995, excluding installation costs. The 6000 model contains a Lombardini industrial engine, 1800 RPM, 7.8 KW Peak, 5.5 KW A.C., 65 amps D.C, and a limited 3-year warranty. It weighs 335 lbs, and costs \$6500, excluding installation costs.

- **Thermo King Corporation**

www.thermoking.com (952) 887-2200

Thermo King offers a TriPac APU that provides cab heating and air conditioning, truck engine block heating, truck battery charging, 12V on-board power, and optional 120V household electrical power. The system is powered by a diesel engine, which runs an automotive style 12V alternator and belt-driven air conditioning compressor. The APU HVAC system, rated at 13,000 Btu/hr air conditioning capacity using ARI Standard 310/380, is independent from the truck system. Cab heat is provided by a fuel-fired heater, and engine block heat is provided by exchanging coolant between the APU engine and the truck engine. The unit's 120V accessory power is provided by inverting the 12V truck batteries and the truck batteries are charged with the automotive style 12V alternator. In addition, a CARB approved Diesel Particulate Filter (DPF) option is available with an installed price of approximately \$3000. The system incorporates start/stop technology and a programmable microprocessor, to enable the system to turn off when all parameters are satisfied. The evaporator and heating system are mounted under the bunk, the condenser is on the rear cab wall exterior, and the APU is on the frame rail. Regular maintenance is required every 1000 hours. The system consumes between 0.04-0.14 gal/hr, depending on operating conditions, and weighs about 430 pounds. It sells from \$8,000- \$10,000 USD (installed).

- **Teleflex**
<http://www.proheat.com/> (604) 270-6899
Proheat.
- **TRIDAKO Energy Systems**
www.TRIDAKO.com (866) 526-7109
Tridako Energy Systems manufactures the PowerCube™ Model HC6000. The PowerCube™ is an isolated, non-integrated truck gen-set. This 2 cylinder diesel APU provides 30,000 Btu of in-cab heating, 24,000 Btu air conditioning, and 60 amp electricity which powers the engine block heater. The 2" tube frame chassis supports a radiator /condenser inside the main unit, allowing for a less cumbersome install. The PowerCube™ is SAE J-1503 certified and consumes .4 gal/hr. of fuel in powering a 6 kw generator at 3600 rpm. The main case has removable side panels, measures 30"x 23.5"x24", and mounts to the truck frame rail. Weight is 500 lbs. The MSRP is \$8,499 with quantity discounts available. Lease financing packages are available.
- **Truck Gen**
(904) 642-0836
They have three units: 3.5 kW, 5.5 kW, and the APU. The first two are true generator systems which are stand-alone with no integration into the truck's systems. Each generator package provides 120V AC power to run any AC appliances as well as factory block heaters. Air conditioning and heat are provided with one of 2 installations of electrically driven air/heat units: rooftop, or under the bunk. The generator systems are small enough to fit into many battery or tool boxes, thereby reducing the weight from any enclosure. Also, **generator sets can be plugged into shore power**. Installation involves bolting the generator to the frame, connecting a battery positive cable from the generator to the battery; wiring a harness to the sleeper to connect to the control panel, and wiring a second wire to run 120V power to the cab. The "APU" is a concept using a small diesel engine to belt drive an alternator and refrigerant compressor. In addition a separate dedicated evaporator and condenser is installed. This device charges the OEM batteries with 12V DC while supplying air conditioning independent to that of the truck. (120 volt power is not available unless an inverter is used.) A fourth system called a "Hybrid" utilizes a 3.5 kw generator with belt driven compressor with flexible add-on choices of remote condenser and evaporator combinations. 1-2 days to install. Units consume 0.2 gph. One year warranty. Cost: \$6,000-\$7,700.

Battery Powered

- **Bergstrom Inc.**
www.nitesystem.com (866) 204-8570
This company manufacture the No-Idle Thermal Environment (NITE) system which provides air conditioning and heat, but uses a battery pack to supply the power (it uses two deep cycle 6V batteries connected in series to provide 12V). The NITE system combines a fully independent air-conditioning system and a compact air-heating system with a smart control system and a self-contained power source. Both are installed under the bunk bed in the sleeper compartment. When fully charged, the batteries provide 10 hours of full operational use. It takes 4-6 hours to recharge. Total weight 210 lb (including the two batteries). It does not require major maintenance and installs within 7-9 hours. Cost: \$3,495

- **Driver Comfort System**

www.drivercomfort.com (479) 409-4651

The Driver Comfort System provides air conditioning and heat for the entire cab, and power for on-board appliances. The device also incorporates a **shore power** connection that can be used at electrified parking spaces and to recharge the system batteries. The system includes 6-8 AGM VRLA (Absorbed Glass Mat Valve Regulated Lead Acid) batteries, one 3000 watt inverter/charger, one 270 amp alternator, one advanced system voltage management controller, one battery separator switch, and one cab thermostat. The evaporator fits securely inside the cab under the bunk. Conditioned air is directed via ducts to ensure even distribution throughout the cab. Heat is provided by a fuel operated heater or an optional electric heater. The condenser/compressor is mounted on the cab back wall. Compressor options allow for 9,200 to 15,000 Btu, and electric heat up to 8,000 Btu is also available. The system measures 26" (L) x 24" (H) x 11" (W). It weighs 520 lbs and costs \$6895.00.

- **Idle Free Systems, LLC**

www.idlefree.net (920) 210-5467

Idle Free Systems, LLC manufactures the Reefer Link System which connects the truck and trailer together electrically to provide the driver multiple options for power (truck engine, transportation refrigerator unit, or both). While driving, this Reefer Link System stores the truck's 12 volt battery energy in an AGM (Absorbed Glass Mat) battery bank located under the bunk. When the truck is not moving, the driver has the option of using the stored AGM battery power or the transportation refrigerator unit, if available and upgraded to 120 amps, as a power source. Either the AGM battery or the transportation refrigerator unit supplies power to operate a heating system (e.g., Espar heater) and air conditioning system (e.g., Dometic unit). This energy transfer is controlled and regulated using a Xantrex Prosine 2.0 inverter/charger. This inverter/charger has a built-in battery charger, as well as an **automatic shore power transfer switch to utilize electricity**. The Xantrex inverter/charger can be used to charge the AGM battery bank, the truck's batteries, and the transportation refrigerator unit battery when electricity (shore power) is available. The Reefer Link System weighs 200 lbs. and costs \$7995. The entire system consists of the following: 10,000 BTU Dometic Air conditioner; Espar D-5 Hydronic Heater; Xantrex Prosine 2.0 Inverter/Charger; cab power/shore power kit Reefer Link System with reefer alternator upgrade; and bunk mounted display panel with digital LED volt meter.

- **Kenworth Truck Company**

www.kenworth.com (425) 828-5000

The Kenworth Clean Power® no-idle system is a comprehensive battery-based solution that provides engine off heating and air conditioning, 120 Volt AC power for hotel loads, low power interior lighting, enhanced sleeper insulation and a **shore power connection**. The system operates at ambient noise levels with only pumps and fans running during no-idle. While the truck is driving down the road, a high-powered alternator charges the power pack and the starting batteries. In hot weather, the power pack runs an electric refrigerant compressor in the AC charge unit. This compressor, in turn, charges the storage cooler. This provides the thermal storage capacity for providing air conditioning. The cooler has a thermal capacity of 21,000 BTUs and requires only 4 to 6 hours of charging to provide up to 10 hours of cooling in a 95 degree, low-solar load environment. Conversely, in cold weather electrical loads are once again supported by the power pack and sleeper heat is provided by the diesel-fired heater. The heater is capable of maintaining a comfortable environment down to 20 degrees F. Their system measures (LHW) 38-3/4" x 35" x 14" (storage cooler), and weighs 550 lbs (net weight gain). For cost, (Kenworth factory installed only), see Kenworth Dealer for pricing.

- **Safer Corporation**

www.saferco.com (877) 777-2337

This company distributes a product called "Viesa," an Evaporative Cooling System for trucks, buses, RVs and vans. The device uses the vehicle's 12 or 24 volt battery and water to cool the cab without the use of the vehicle's engine. No fuel is consumed. The device does not provide heat or electrical power and operates best in hot, dry climates, under 60% humidity. Viesa uses a maximum draw of 8 amps per hour in a 12-volt system and can operate for up to 8 hours without idling. Water consumption averages 1/2 gallon per hour and the tank will hold 32 liters (8 1/2 gallons). Total weight is 126 lbs with a full water tank. System comes with a 2-year warranty. Cost \$1,600 Installed.