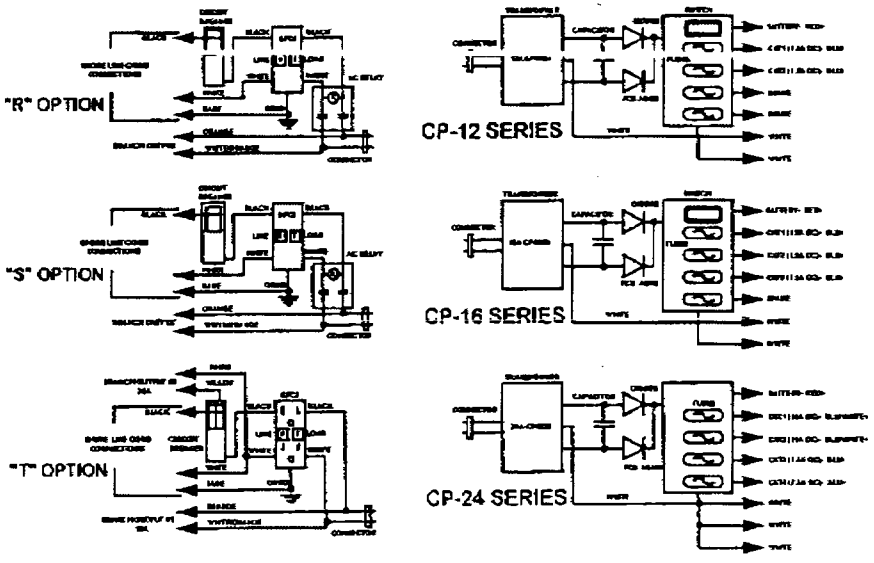
Schematic Diagrams & Parts List



CARSON PART #	DESCRIPTION
CP4006	Relay, AC power , 120 VAC 20A
CP4007	GFCI Receptacle, 120 VAC 15A
CP4008	Circuit Breaker, 120 VAC 15A
CP4009	Circuit Breaker, 120 VAC 20A
CP4010	Circuit Breaker, 120 VAC 15/20A Dual
CP4022	Diode, power, 45A 100V
CP4082	GFCI Protector, 120 VAC, 20A
ATO/ATC 15A	Fuse, automotive (SAE J1284 only)
CP4086	Capacitor, .47uf 100V

CARSON MANUFACTURING COMPANY LIMITED WARRANTY

This product is warranted against defects of material and workmanship for one (1) year from date of original purchase. Within this period Carson Manufacturing Company, Inc. ("Carson") will repair or replace, at Carson's discretion, this product without charge for parts or labor. For service send this product, freight prepaid, to Carson at 5451 N. Rural Street, Indianapolis, IN 46220. Please include description of problem, return address (must be street address), proof of original purchase, and phone number of primary contact. Product will be returned freight prepaid via normal ground transportation.

This warranty does not cover damage or failure caused by or attributable to Acts of God, abuse, misuse, improper or abnormal usage, faulty installation, improper maintenance, lightning or other incidence of excessive voltage, or any repairs or modifications not performed by the factory. This warranty does not cover fuses.

Carson is not responsible or liable for indirect, special, or consequential damage arising out of or in connection with the use or performance of the product or other damages with respect to loss of property, loss of revenues or profit, or costs of removal, installation or reinstallation.

CARSON MAKES NO WARRANTIES, EXPRESS OR IMPLIED, EXCEPT AS PROVIDED HEREIN AND REQUIRED BY STATE LAW IN STATE OF PURCHASE.

This warranty gives you specific legal rights and you may also have other legal rights which vary from state to state.

9/95

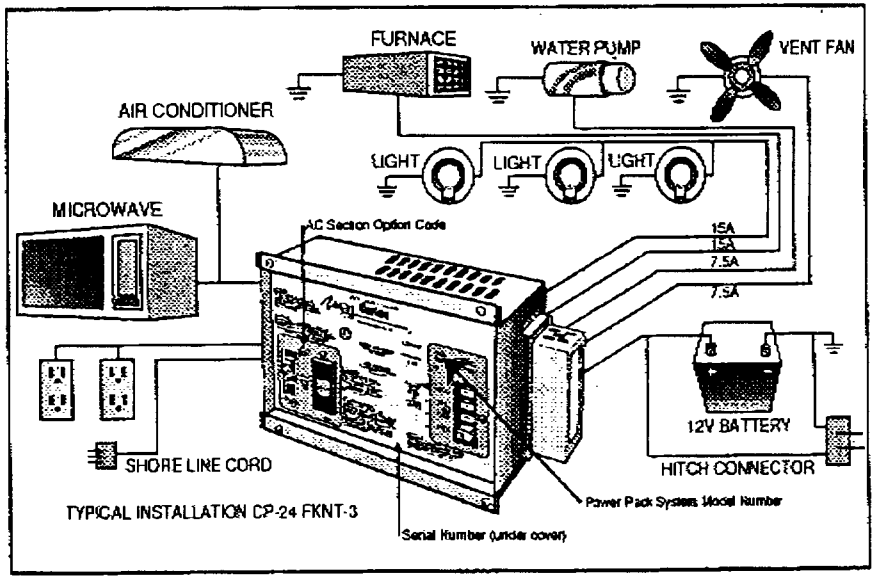
Owner's Manual

CP-12/16/24 Series

Power Pack System

120 VAC Load Center / 12 VDC Power Converter

(NOT SUITABLE FOR BATTERY CHARGING / NE CONVIENT PAS À LA RECHARGE DES BATTERIES)



Carson Mfg. Co., Inc.

Electrical and Electronic Innovations since 1946

5451 N. Rural Street / P.O. Box 20464 / Indianapolis, IN 46220-0464

Phone: (317) 257-3191 / Fax: (317) 254-2667

CP4033C

9/20/96

CP-12 Series	CP-12FKNR-3	CP-12 FKNS-3	CP-12 FKNT-3
Panel Input: 120VAC, 60HZ	15 Amps	20 Amps	30 Amps
AC Branch Protection Circuit Breaker(s)	(1) 15 Amp	(1) 20 Amp	(1) 15 Amp (1) 20 Amp
Converter Input	120VAC, 60Hz, 2.3 Amps		
Converter Output	12VDC, 12 Amps, manual selection		
DC Branch Protection	(2) Automotive fuses (15 amp max)		
Size & Weight	9"H x 13"W x 5 ½"D, 14 lbs		

CP-16 Series	CP-16FKNR-3	CP-16 FKNS-3	CP-16 FKNT-3
Panel Input: 120VAC, 60HZ	15 Amps	20 Amps	30 Amps
AC Branch Protection Circuit Breaker(s)	(1) 15 Amp	(1) 20 Amp	(1) 15 Amp (1) 20 Amp
Converter Input	120VAC, 60Hz, 2.7 Amps		
Converter Output	12VDC, 16 Amps, manual selection		
DC Branch Protection	(3) Automotive fuses (15 amp max)		
Size & Weight	9"H x 13"W x 5 ½"D, 14 lbs		

CP-24 Series	CP-24 FKNR-3	CP-24 FKNS-3	CP-24 FKNT-3
Panel Input: 120VAC, 60HZ	15 Amps	20 Amps	30 Amps
AC Branch Protection Circuit Breaker(s)	(1) 15 Amp	(1) 20 Amp	(1) 15 Amp (1) 20 Amp
Converter Input	120VAC, 60Hz, 3.7 Amps		
Converter Output	12VDC, 24 Amps, manual selection		
DC Branch Protection	(4) Automotive fuses (15 amp max)		
Size & Weight	9"H x 13"W x 5 ½"D, 14 lbs		

General Information

The CP-12/16/24 Power Pack System converts 120 volts AC line power to 12 volts DC for operation of lights, pumps, fans and other 12 volt devices. It includes AC circuit breaker(s) for appliance and receptacle overload protection and Ground Fault Circuit Interruption (GFCI) for personal protection against shock hazards. It also contains protection against DC overloads and high temperatures. A switch is provided to operate DC devices from either the converter or a standard 12-volt deep-cycle battery.

Operation: CP-12/16 Series

To operate DC devices from the converter, connect the shore-line cord to an appropriate AC source, then manually switch the unit to the "Converter" position. DC devices may also be operated from a battery, if installed, by manually switching the unit to "Battery". Manually switch the unit to "Off" when RV is not in use to prevent accidental discharge of the battery.

Operation: CP-24 Series

To operate DC devices from the converter, connect the shore-line cord to an appropriate AC source. The converter will automatically connect the devices to the converter. DC devices will operate from a battery, if installed, when AC power is not available. Disconnect the battery when the RV is not in use to prevent accidental discharge of the battery.

AC Circuit Breaker(s)

A magnetic circuit breaker is provided for AC device overload protection. If a device or appliance fails to operate, the circuit may have been overloaded. The breaker is reset by switching "off" and then back "on". If a "T" option has been installed, two circuit breakers are available – the converter is internally connected to the 15 amp breaker.

DC Circuit Fuses

Fuses are used to provide overload protection of the DC wiring system. After the cause of the overload has been corrected, replace with an automotive-style fuse of the proper rating as labeled on the front of the converter. USE ONLY PROPERLY RATED FUSES.

Ground Fault Circuit Interrupter (GFCI)

A GFCI provides protection against faulty wiring or accidental contact with AC power. If all AC and DC devices are inoperative, check the GFCI by pressing the "Reset" button on the device – it should "trip". Reset the device as described above. Test GFCI monthly. DISCONNECT SHORE-LINE CORD FROM POWER IF GFCI FAIL TEST. Use of this power pack system with faulty GFCI can lead to injury or death.

Care/Tips

Although Carson Power Pack Systems are designed for years of carefre operation with no maintenance, the following suggestions can help assu years of trouble-free service:

Turn off or unplug AC appliances before connecting shore-line cord to AC source. This can prevent excessive wear to the GFCI and power relay contacts to due power surges.

Turn off or unplug AC appliances during electrical (lightning) storms a thunderstorms. This can prevent excessive wear to the GFCI and powe relay contacts due to power surges from power interruptions. For complete protection from electrical surges, disconnect the shore-line co during these storms.

The circuit breaker(s) can be used as a switch to turn on and off AC power as well as power to the converter. The GFCI can also be "trippe by pressing the "Test" button to turn off all power output on the "R" ar "S" option Power Pack Systems.

The pulsating DC output of the Power Pack System is unfiltered and nc suitable for some 12VDC electronic devices. Stereos, LP gas detectors carbon monoxide detectors, AM/FM/TV signal amplifiers, 12-volt televisions, etc., should be connected directly to the RV battery. RV refrigerators with 12-volt elements should also be connected directly tc the RV battery.

This series of Power Pack Systems does not provide any RV (deep-cyc battery charging capabilities. If an RV battery is installed it can be charged by a commonly available battery charger or by a tow vehicle provided the vehicle and RV are appropriately wired. A charger is available to allow charging from the converter output.

If a battery is installed, it should be disconnected when the RV is not used for extended periods to prevent accidental discharge. You may al remove the DC fuses. For maximum battery life, always store the battery fully charged in a cool, dry location. Do not set on concrete, an follow the battery manufacturer's recommendations.