

# SELECT-Cycle® Converter Operation Manual & Parts List 20 Amp & 30 Amp Models

Read, understand and follow all of these instructions before using this equipment.

Death or severe injury could result from failure to follow the safety rules listed below.

### A DANGER A

<u>HAZARDOUS VOLTAGE:</u> This unit is designed to produce high voltage and should be operated in a dry environment. Never attempt to service while running. Many parts in this converter operate at line voltage. **DO NOT TOUCH.** Use only electrically insulated tools.

#### **SERVICING INFORMATION:**

This equipment should only be serviced by qualified electricians/personnel. Additional instructions are located in the Fincor Automation Series 5740 Manual and must be read and understood before servicing this converter. Contact Wyco Tool Company (1-800-233-9926) if the above mentioned manual was not included with the order or you can also go to <a href="www.Fincor.net">www.Fincor.net</a> and download the manual. Before servicing or removing the cover, disconnect the power supply. Wait 5 minutes before removing the cover to insure that the internal components have had time to de-energize/discharge. NOTE: Some components may remain energized/charged even after being unplugged. Check that the power LED is not lit. Also check that the output voltage is below 24 Volts before beginning. If the unit is subjected to an excessive shock by being dropped or impacted, or if the enclosure is damaged, it should be disconnected and not used until it has been inspected and repaired by qualified electricians/personnel. Check all cables, plugs, and electrical outlets to be sure that they are not damaged before connecting equipment.

## **ACAUTION A**

**POWER SOURCE:** Choose the appropriate AC power source (230 volts, single phase, 50/60 Hz) for the input power to this converter.

**ENVIRONMENT:** This converter should only be used in a well ventilated environment which will allow heat to dissipate. This will prevent potentially damaging heat build up internally. Do not use in ambient temperatures greater than 105 degrees F/40 degrees C. Keep away from external heat sources.

Keep the converter away from or do not place the converter on top of something that creates excessive vibration.

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SAVE THESE INSTRUCTIONS



# Description, Features & Operation

#### **Description & Features**

This **SELECTCycle®** converter is intended to power three phase high cycle vibrators using a standard single phase 50/60 Hz, 230 volt power source.

Internally, it uses a Variable Frequency Drive (VFD) which converts this single phase power to the required three phase 133/200 Hz power required by high cycle vibrators. The drive does this by using the single phase power to charge a DC bus. It then switches the power on an off very rapidly to simulate the sinusoidal voltage required by high cycle vibrators.

Three different models are available which plug into standard 230 Volt generators:

- Model #SC1420 has a plug suitable for a four prong, turn-locking, 20 Amp, Nema L1420R receptacle.
- Model #SC1430 has a plug suitable for a four prong, turn-locking, 20 Amp, Nema L1430R receptacle.
- Model #Sc620 has a plug suitable for a three prong, turn-locking, 20 Amp, Nema L620R receptacle.

These converters are identical except for the input power plug used. A minimum of a 15 Amp supply is required.

The wiring for the above input plugs is as follows:

Wire Color	Plug Terminal	Purpose
White	X	-115 Volts AC
Black	Υ	+115 Volts AC
Green	G	Ground
Not Used	W	Not Used

The speed of high cycle vibrators is determined by the frequency of the voltage supplied. This converter will output three different frequencies 133, 180 and 200 Hertz which corresponds to a vibration speed of 8,000, 10,800 and 12,000 VPM. This speed is selected with the **SELECTCycle®** rotary switch which can also be switched to the "Off" position.

The vibrators plug into two Hubbell (#HBL7410BG) or Leviton (#7420CR), 20 Amp, 4 pole, receptacle outlets. Two plugs that will fit these receptacles are Pass & Seymour Model #7411SS and Hubbell #7411GBC.

#### Operation Information

To start up follow the steps below in order:

- Insure that the equipment is in good safe working order. Check all cables, plugs and electrical outlets to be sure they
  are not damaged before proceeding.
- 2. Insure that the converter rotary switch is in the off position.
- 3. Insure that the vibrators are turned off.
- 4. Apply power to the converter.
- 5. Set converter to the desired speed.
- 6. Turn vibrators on and off as desired with switches on vibrators.

To shut down follow the steps below in order:

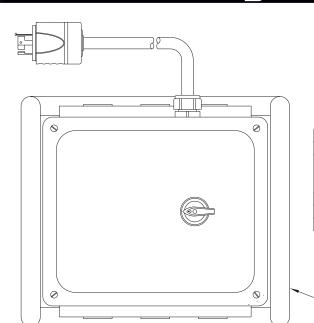
- 1. Turn off the vibrators with switches on vibrators.
- 2. Turn rotary switch on the converter to the off position.
- 3. Unplug converter or turn off the power to the converter.

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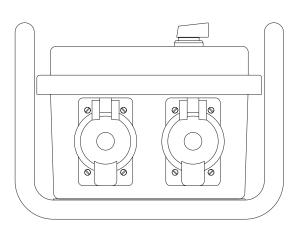
# Drawing & Parts List

(1)



## **PARTS LIST**

Item	Qty	Part No.	Description
1	1	416040	Assy, Frame; SELECTCycle®
		399408	Plug, Lock; 20A/125-250V/Gnd; L1420P
2	1	399409	Plug, Lock; 30A/125-250V/Gnd; L1430P
		399413	Plug, Lock; 20A/250V/Gnd; L620P
3	4	416060	Screw, Socket Head; #10-32 x 5/8"
4	8	416039	Washer, Flat; #10
5	4	421226	Washer, Lock; Spring; #10



Wire	Plug
Color	Terminal
White	X
Black	Y
Green	G
Not Used	W

Wire	Plug
Color	Terminal
White Black	X
Green	G
Not Used	W

Wire	Plug
Color	Terminal
White	X
Black	Y
Green	G



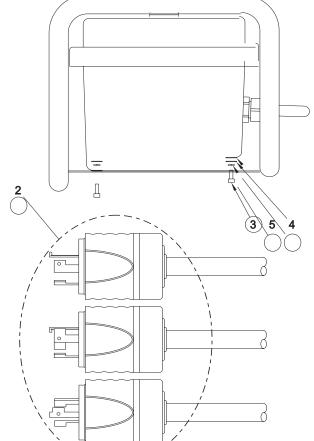
L1420P

L1430P

L620P









# Troubleshooting Information

POSSIBLE CAUSE	REMEDY
Short in wires between high cycle head and switch	Remove head and check wires for wear. Repair as required
Short in internal high cycle motor	Replace high cycle motor stator assembly
Short in high cycle cord or plug	Replace cord or plug
Internal drive has tripped	Unplug converter for two minutes and plug back in to reset. If the problem persists have error code on drive checked by a qualified electrician/personnel. Refer to drive manual for resolution
Some lower voltage power sources cannot start two vibrators at once	Follow start up procedure in order by powering drive and turning it to desired speed before turning on vibrators with the switch on the vibrators
Excess current applied to power drive	The drive will internally shut down when most problems occur. If the fuses blow it is an indication of a serious problem and the converter should be returned to the factory. The high cycle vibrators should also be thoroughly inspected
	Short in wires between high cycle head and switch  Short in internal high cycle motor  Short in high cycle cord or plug  Internal drive has tripped  Some lower voltage power sources cannot start two vibrators at once

## **Manufacturers Limited Warranty**

The WYCO Tool Company warrants that the products manufactured by it, when properly installed, used and maintained, shall be free from defects in material or workmanship, and will perform according to the manufacturer's specifications under normal conditions, subject to the limitations stated in this Manufacturer's Limited Warranty.

WYCO's obligation under this warranty shall be limited to repairing or replacing the part or parts, or, at WYCO's option, the products which prove defective upon return to the manufacturer's factory. Cost of transportation and other expenses connected with replacing parts are not covered.

WYCO's obligation under this Warranty is limited to a period of 18 months from the date of shipment, or 12 months from the date of purchase by the first user of the product, whichever is longer.

Written authorization from WYCO is required before any product can be returned for warranty consideration. WYCO is not liable for any consequential damages or any contingent liabilities arising out of the failure of product manufactured by it, or any component part or accessory.

This Manufacturer's Limited Warranty is in lieu of all other warranties. All other warranties, either express or implied, arising by operation of law, course of dealing, usage of trade or otherwise are excluded.

THERE ARE NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR PURPOSE.

No agent, representative or distributor has any authority to alter the terms of this warranty in any way.

