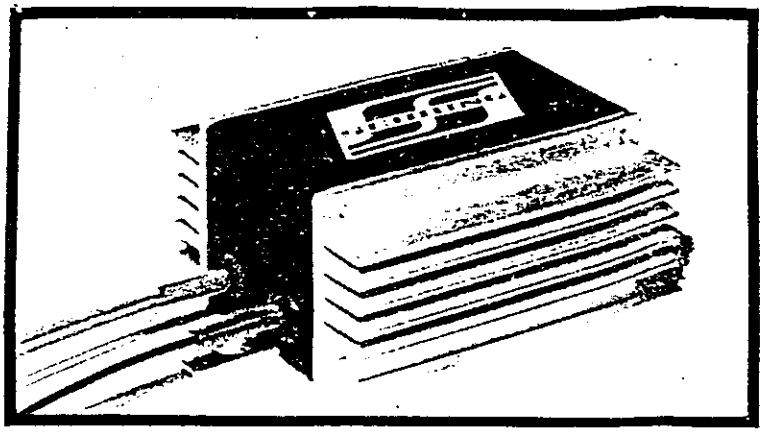

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Model PC SOLID STATE POWER UNIT $64.95

Now just One Model - One Price

FULL YEAR GUARANTEE

U.S. Patent No. 3,717,806

General Description

The PC Series Power Units are completely solid-state devices designed to convert the unregulated AC power from a motorcycle alternator to regulated 12 Volt DC power for the bike ignition and lighting systems.

The unit permits operation without a battery and replaces the rectifier assembly, voltage regulator or Zener diode, capacitor and other electrical parts conventionally used in motorcycle electrical systems. with a single, compact, lightweight unit. This substantially eliminates the troublesome and unsightly wiring harness, battery box, etc.

Two separate output wires (one for ignition and one for lighting) effectively minimize lamp flicker or dimming at low RPM.

Installation is extremely simple requiring only two mounting bolts and the connection of 5 wires.

Typical Applications

The Unit's exceptional list of features makes it ideally suited for use where reliablity, weight, simplicity, appearance, or the elimination of electrical problems is an important consideration.

Units are now available for the following. alternator equipped motorcycles:

HONDA singles & twins, 90 thru 450.
TRIUMPH, NORTON, BSA,
HARLEY DAVIDSON 74 (1970 & later)
Kick-start only.

6 Volt bikes may be converted by replacing coils, condensors, & light bulbs with 12 Volt items.

Dealer Inquiries Invited.

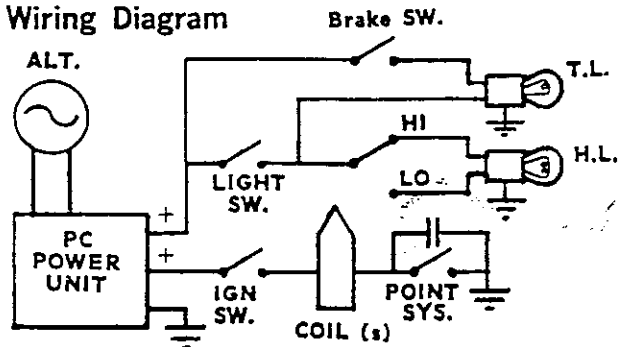
Features

- Single unit replaces most of the electrical system components
- Provides both ignition and lighting power—without a battery
- Short circuit proof — no fuses
- Highly efficient circuit provides maximum energy transfer at low RPM
- Overvoltage protection at high RPM — prolongs lamp life
- Compact, rugged, reliable
- Simple installation
- Shock and vibration resistant
- Oil, gas, waterproof sealed unit — no adjustments or maintenance
- Easier cold-weather starts, temperature compensated
- Attractive package for the show bike enthusiast

Specifications

SIZE: 3" long x 2¾" wide x 1⅝" high
WEIGHT: 10 ounces
INPUT: Motorcycle alternator — 150 Watts, maximum continuous
OUTPUT: Nominal 12 Volts DC. Two leads — each rated @ 6 Amperes. Leads may be connected in parallel.

Wiring Diagram



12 Volt - Negative Ground System

105013 B

SEBRING ELECTRONICS CORPORATION

INSTALLATION AND CHECKOUT PROCEDURES
MODEL PC POWER UNITS

FOREWORD

This is a 12 Volt, Negative ground system. It may be used as a batteryless system, or with a 12 Volt battery. The batteryless configuration will not operate turn signals or other high-current accessories.

If the alternator is in good condition, 6 Volt bikes may be converted to 12 Volts by changing ignition coils, condensers, and light bulbs to 12 Volt parts as the Power Unit is installed.

Conversion of British bikes (positive ground) to negative ground will be accomplished automatically by proper installation of the Power Unit.

If possible, check that the bike is in good operating condition before disturbing the existing wiring and installing the Power Unit. If you are not familiar with your bike's electrical system, then someone with the proper training, experience and tools should be contacted for assistance. The battery should be disconnected and removed before any connections are made to the Power Unit. The rectifier, voltage regulator, battery box (if used), and all wiring except for the ignition and lighting subsystems should be removed. If the lighting or ignition wiring is frayed or has deteriorated, it should be replaced.

A schematic diagram showing the necessary connections is given in Figure 1. All connections should either be soldered or made using suitable solderless connectors. All wiring should be #18 AWG or heavier.

MOUNTING INSTRUCTIONS - ALL MODELS

Mounting lugs, with holes on 3 1/2" centers, are provided on the unit for mounting to the bike frame. The use of 8-32 or 10-32 hardware is recommended. Remember to use lockwashers to prevent the Unit from coming loose due to vibration. Do not mount the Unit close to any part of the exhaust system. Choose a location where air can circulate freely around the Unit - do not enclose the Unit in an airtight compartment. It may be mounted in any position, vertical, horizontal, etc., without affecting performance.

ALTERNATOR WIRING - HONDA 90 thru 450 (Singles & Twins)
(formerly Power Unit Model PC3)

Honda alternators will have three wires colored as listed in the following table. Identify the color scheme used (column 1, 2, or 3) and connect the wire listed in Row A to one of the YELLOW wires of the Power Unit. Connect the two wires listed in Row B together and to the other YELLOW wire of the Power Unit.

Row	1	2	3
A	Pink	Pink	Brown
B	Yellow	Yellow	Yellow
	White	White/Yellow	Pink

INSTALLATION AND CHECKOUT PROCEDURES
MODEL PC POWER UNITS
(continued)

ALTERNATOR WIRING - TRIUMPH, BSA, NORTON, ROYAL ENFIELD
(formerly Power Unit Model PC2)

Most 1970 and later bike models will have a two-wire alternator. Connect the GREEN/YELLOW wire from the alternator to one of the YELLOW wires of the Power Unit, and connect the WHITE/GREEN wire from the alternator to the other YELLOW wire of the Power Unit.

Earlier models have three-wire alternators with wire color combinations as listed in the following table. Identify the color scheme used (column 1,2,3, or 4), and connect the wire listed in Row A to one of the YELLOW wires of the Power Unit. Connect the two wires listed in Row B together and to the other YELLOW wire of the Power Unit.

Row	1	2	3	4
A	Light Green	Light Green	Green/White	White/Green
B	Mid Green	Green/Yellow	Green/Yellow	Green/Yellow
	Dark Green	Dark Green	Green/Black	Green/Black

The PC Model Power Unit will not work with the five wire (Energy Transfer) stator. If the rotor is in good condition, only the stator need be changed to a two or three wire model to work with the Power Unit.

ALTERNATOR WIRING - HARLEY DAVIDSON (1970 & Later with Alternator)
(formerly Power Unit Model PC1)

The two WHITE wires from the alternator connect to the two YELLOW wires of the Power Unit. The RED wire and the BLUE wire from the alternator are not used. They should be well insulated, separately, and stowed to prevent shorting to each other or to ground.

12 VOLT DC OUTPUT WIRING - PC MODELS

The WHITE wire from the Power Unit provides Positive 12 Volts DC for powering the bike lighting system. It should be connected to the "Hot" side of the headlight switch and the "Hot" side of the brake light switch.

The RED wire from the Power Unit provides Positive 12 Volts DC for powering the bike ignition system. It should be connected to the "Hot" side of the bike ignition switch.

The BLACK wire from the Power Unit is the Negative return lead and should be connected to the ground wiring or frame of the bike.

OPERATION & CHECKOUT - ALL MODELS

1. The headlight should be turned off while starting the bike. With the engine warmed up and idling, and the headlight low beam turned on, apply the brakes several times at approximately five second intervals. If the engine hesitates or dies as the brake light comes on, the engine idling RPM must be increased slightly.

2. The headlight brilliancy at low or idling RPM will probably be slightly less than at higher RPM. This is normal for a non-battery system and is determined in part, by the strength of the permanent magnets in the alternator.

OPERATION & CHECKOUT - ALL MODELS (continued)

3. If trouble is experienced in getting the bike started following installation of the Power Unit, turn the ignition and lighting switches OFF and perform the following checks in order. (A small, 12 Volt, tail lamp or pilot lamp may be used for a simple check for voltage either AC or DC.)

a) Connect a small lamp or a 0 to 15 Volt AC voltmeter across the alternator wires. A series of voltage cycles should be indicated as the kick starter is actuated. If no voltage is present, the alternator must be checked.

b) If step a) is satisfactory, connect the lamp or a 0 to 15 Volt DC voltmeter between the Red (+) and Black (-) wires from the Power Unit and again check for voltage output as the kick starter is actuated.

c) Disconnect the RED wire from the Power Unit and temporarily insulate it. Connect a source of 12 Volts DC (12 Volt bike or auto battery, battery charger, etc.) to the bike ignition system. CAUTION! Use a temporary fuse in series with the Positive (+) lead to prevent burned wires in case of short. Connect the Positive lead to the same place the RED PC wire was previously connected. The temporary use of a battery will simplify checking of points, condensers, ignition coils, and associated wiring, in order to insure that the engine is in running condition.

d) While the engine is running on the battery, the PC Unit and lighting circuits can all be tested by merely operating the lighting and brake switches.

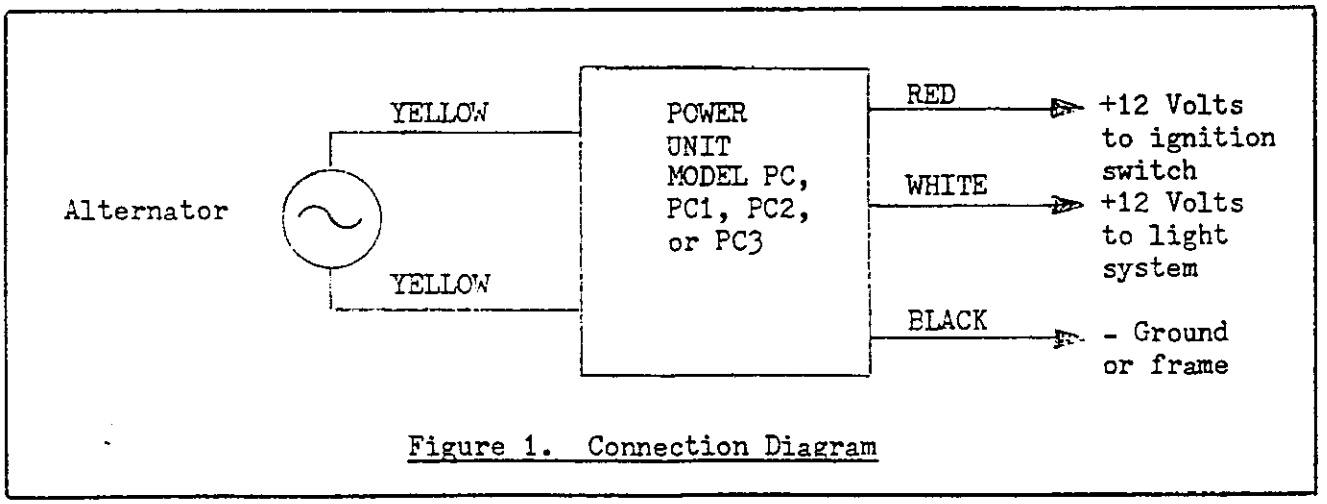


Figure 1. Connection Diagram

OPTIONAL/SPECIAL CONNECTIONS

If a battery (12 Volt) is to be used, connect the battery negative lead to frame ground with, or next to, the BLACK wire of the PC Unit. Connect the battery positive, through a 5 or 10 Ampere Fuse, to the WHITE wire of the PC Unit where it connects to the lighting system.

If a Sebring Model T1 Ignition Unit or a magneto is to be used for ignition, then the RED wire of the PC Unit is not used. It should be insulated and stowed.