

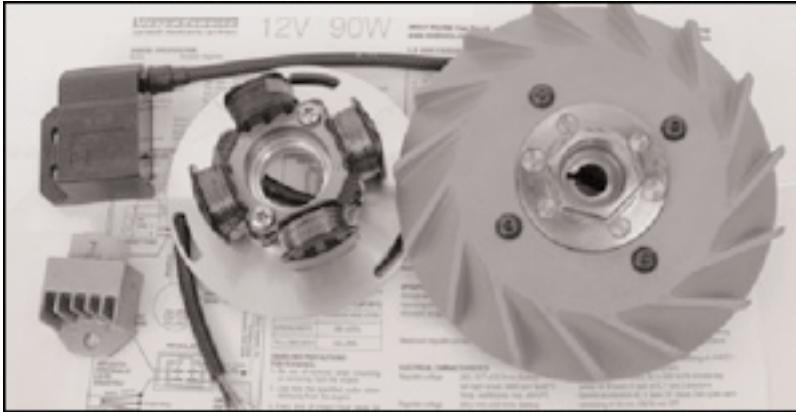
# Vespatronic

Made in Italy for Vespa

## **The unique electronic ignition system, 12v 90W with variable timing.**

Sostituendo l'albero motore del modello PX

Can be fitted in all Vespa's engine from 1958 with PX's crankshaft



The ultimate for Vespa owners who wish to use a performant and efficient scooter, bright lights during the day and night, reliable running with no moving parts.

The technical features are as follows:

- Timing adjusts automatically, with a pre programmed curve of up to 8 degrees;
- Nylon fan, light with good air flow for cooling. Can be used with the standard cowls;
- High power output, 12V 90W easy starting, greatly improved performance;
- HT coil and regulator are both efficient and compact, can easily be fixed anywhere;
- The regulator supplies a clean current assuring stable current for long life for bulbs and electrical systems;
- Regulator can be used for both AC and DC, battery charge out will even allow you to run a PC or mobile phone!;
- The power of the regulator is both powerful and strong, even at low revs there is enough power to run 35W halogen bulbs, giving safe riding night or day;
- Twin sparks on each revolution also burns the waste gasses still in the cylinder, greatly reduces pollution;
- The easy interchangeable nature of the system and its parts makes maintenance and repair very easy, without the need for specialist charges;
- The electrical components can be replaced with just two bolts, with no need to reset or adjust the timing. All parts are checked and tested by us;
- All kits supplied complete including electrical diagram securing spanner and puller;
- On demand: programmable timing CDI by PC.

### GENERAL SPECIFICATIONS

Name: Flywheel Magneto

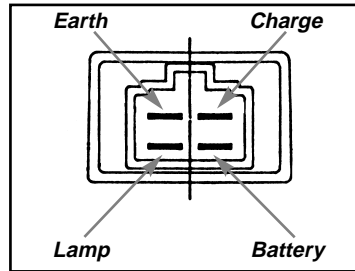
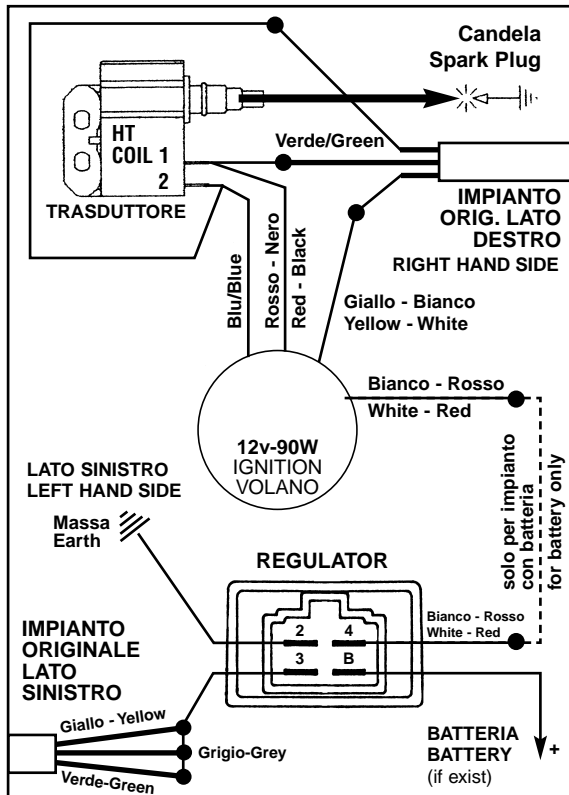
### MECHANICAL SPECIFICATIONS

Direction of rotation Counterclockwise (viewed smaller taper side)  
 Range of revolution 500 rpm ~ 12000 rpm  
 Guaranteed Revolutions The deformation of outside diameter must be 0.05 max under 14000 rpm  
 Test for 3 minutes  
 Limit of unbalance By static ballance <10 g cm or less  
 Momenti di inerzia 12 Kg cm<sup>2</sup>  
 Total weight 1566 g  
 Stator 517 g  
 Rotor 1050 g  
 Air Gap Between stator and rotor 0.55 mm Min  
 Surface treatment Yellow electroplated coating of zinc (Tmin guaranteed = 150° C)

### ELECTRICAL SPECIFICATIONS

Ignition method C.D. Ignition system (Thyristor)  
 Number of sparks 2 sparks per revolution at 180°

### ACTUAL CIRCUIT



### MEANING OF SYMBOLS

$\Rightarrow n$  Supplied power  
 $\theta$  Ignition timing before top lead dead center  
 $N$  r.p.m.  
 $V_o$  Secondary voltage 50pF loaded  
 NOTE The core of the stator must be at earth potential with the engine

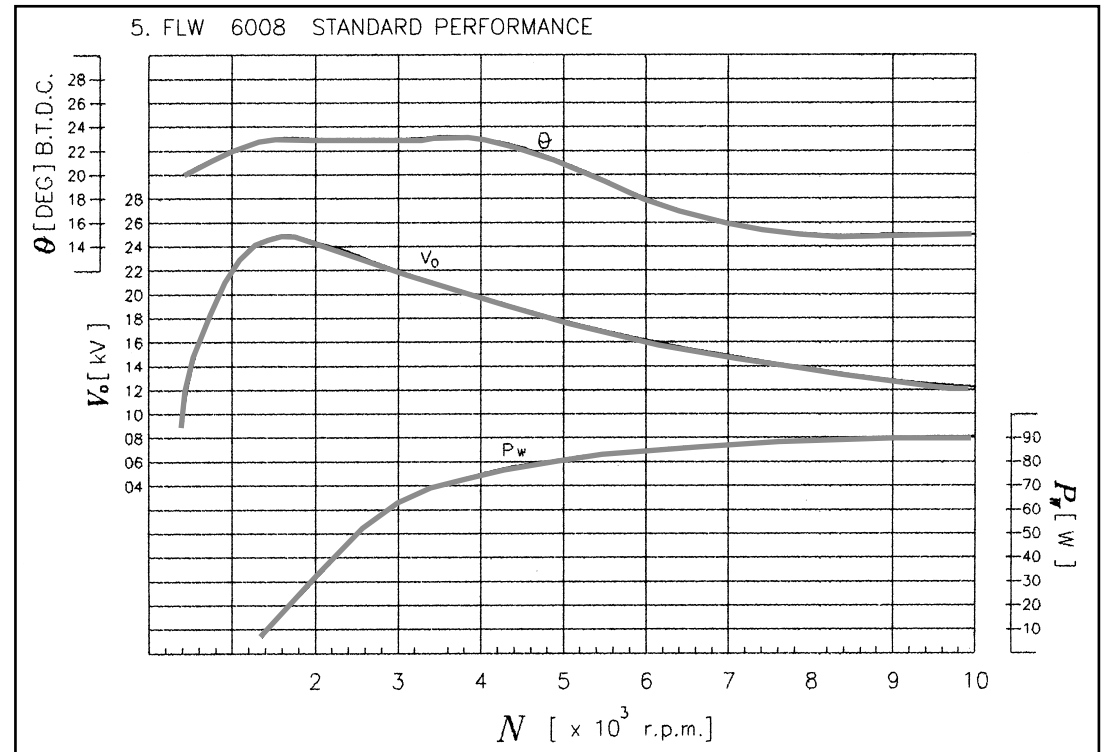
### RESISTANCE VALUES OF COILS (AT 20°C)

Measuring place	Resistance value (OHM)
GREEN/EARTH	290 ±20%
YELLOW/EARTH	0.4 ±20%

### HANDLING PRECAUTIONS FOR FLYWHEEL

- No use of hammer when mounting or removing from the engine
- Use only the specified puller when removing from the engine
- Every kind of impact must never be applied: the ferrite segments may be damaged.

### FLW 6008 STANDARD PERFORMANCE



### SPECIFICATIONS

Storage temperature -30 ~ +80°C  
 Operating temperature -10 ~ +80°C  
 Allowable temperature SCR (AC) Junction Max +125°  
 SCR (DC) Junction Max +125°  
 Condenser surface Max +105°  
 Maximum regulate current (AC) Max 9 Aave  
 (DC) Max 5 Aave

### ELECTRICAL CHARACTERISTICS

Regulate voltage (AC) 12.7 ±0.5 Vrms (Battery full night circuit, 5000 rpm Ta=25°C Temp. coefficient max ±8mV/°C)  
 Regulate voltage (DC) 14.5 ±0.5 Vrms (Battery full day circuit, 5000 rpm Ta=25°C Temp. coefficient max ±12mV/°C)

Leak current Max 0.1 mA  
 Insulating resistance Min 50MΩ

### RELIABILITY

Satisfy with the electrical characteristics each reliability testing  
 - Mechanical shock 980m/s<sup>2</sup> (100G). Shocked two times in each or X,Y and Z directions.  
 - Temperature cycling 100 cycles each consisting of +100°C 1 hour and -20°C 1 hour in atmosphere  
 - Vibration 196 m/s<sup>2</sup> (20G), 50 to 500 Hz/15 minutes log sweep for 4 hours in each of X, Y and Z directions  
 - Operate acceleration AC 5 Aave, DC 3Aave, 500 cycles each consisting of 30 min. ON/30 min OFF.  
 - Salt spray 5% salt water immersion 96 hours  
 - Weight 48 g