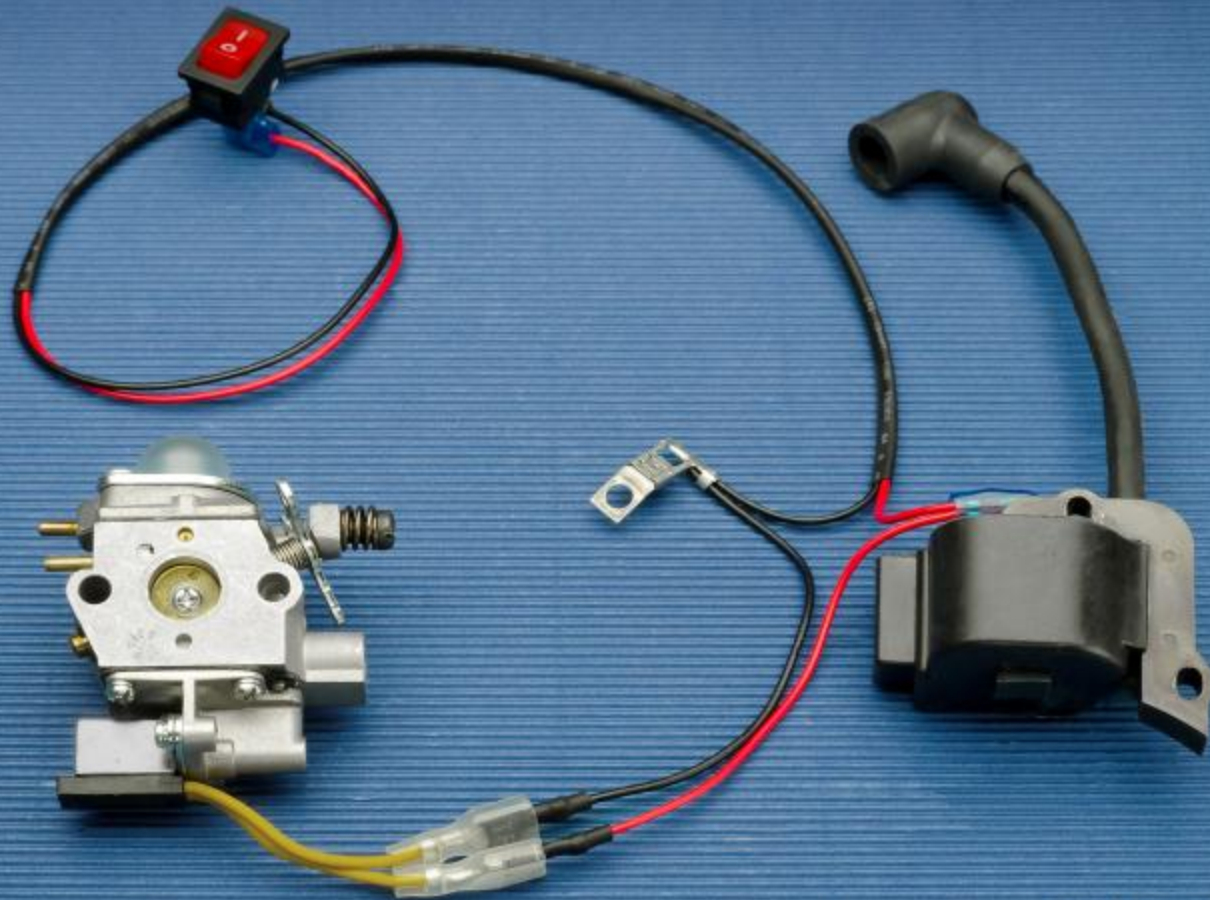




Walbro
Engine
Management

CONSUMER-FRIENDLY STARTING SYSTEM FOR HAND-HELD PRODUCTS

A Simple, Bolt-on Solution to Deliver Quick, Consistent Starts



Patent protection applied for

We Enable Machines that make life better!™

System Benefits

Enhances customer satisfaction and reduces product returns by simplifying the starting process

- No choke lever is used, so no operator-induced flooding
- Same starting procedure for cold or hot engine
- Same starting procedure in cold or hot weather
- Same starting procedure with any throttle position

Easy to add to existing products

- Minimum design or packaging changes required

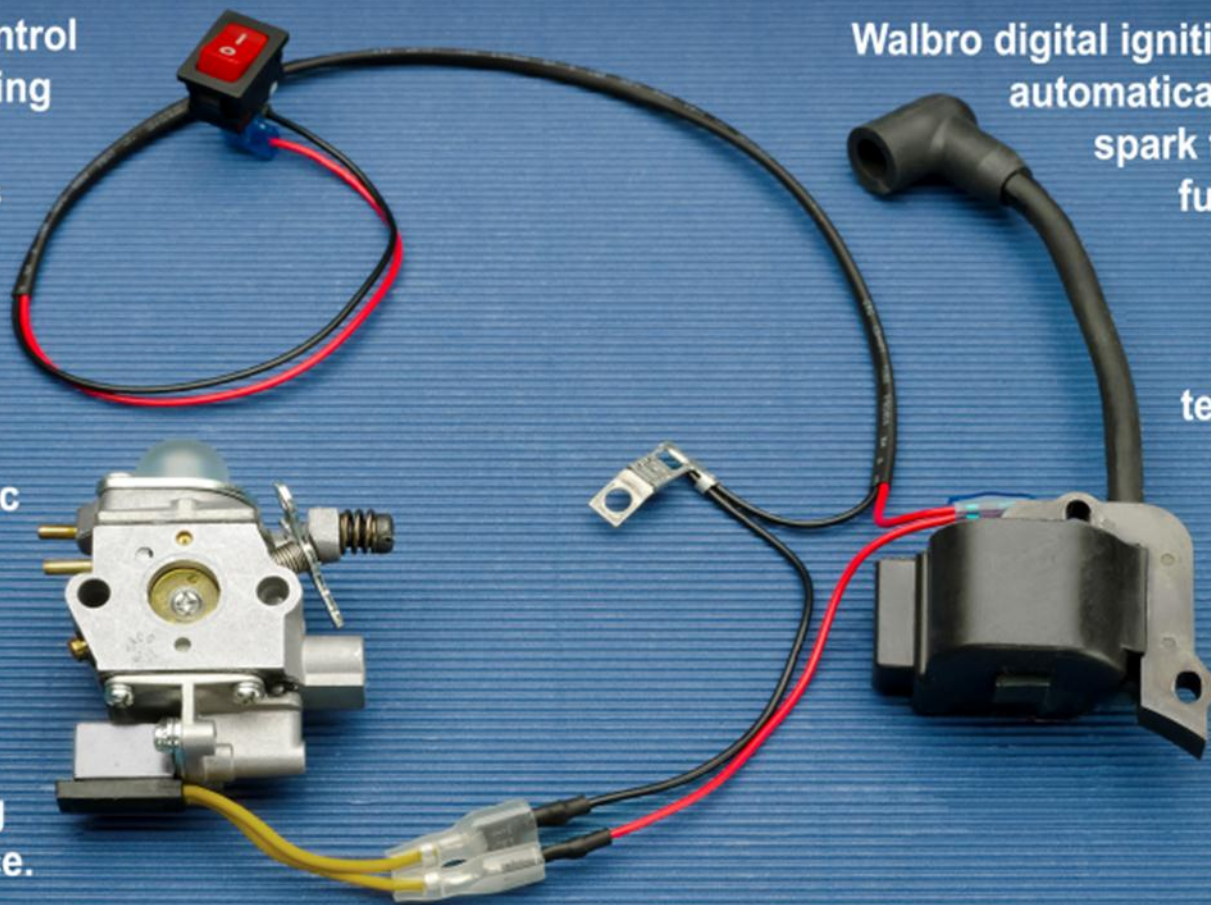
CONSUMER-FRIENDLY STARTING SYSTEM FOR HAND-HELD PRODUCTS

STARTING SYSTEM COMPONENTS

Solenoid control achieved using existing kill switch wires to minimize design changes.

Walbro cubic carburetor, with integrated solenoid, easily fits into existing design space.

Walbro digital ignition system automatically adjusts spark timing and fuel delivery based on engine speed & temperature.



Key Functions in Starting Process

Delivers “prime shot” of fuel as initial enrichment

- During the prime/purge action, a metered amount of fuel is injected into the throttle bore

Operator pulls recoil or uses battery-powered “plug-in” starting system

- Engine starts and engine speed increases toward set idle speed

Auto-adjustment of ignition timing and fuel delivery

- Adjustment methodology is based on engine speed and temperature to prevent lean-stall or high idle condition
- As “prime shot” of fuel is consumed, carburetor solenoid adjusts fuel flow as required until engine temperature stabilizes

Summary of Key Advantages

Quick and easy starting for the end-user

- Eliminates the choke lever and subsequent flooding issues
- Consistent starting procedure regardless of hot or cold engine or throttle position over a wide outside temperature range

Easy for the manufacturer to add to current products

- Fits into current product space with a minimum of changes
- No battery is required
- Flywheel changes are not needed
- Wiring harness changes are minimal