



The ES51/52 provides automatic start/stop and protection control for all types of engine-driven equipment. Smarts and rock-solid performance make the ES51/52 the leader in it's class, providing the most cost-effective and reliable solution available to date. All this in an ultra-compact, epoxy sealed enclosure, 3.3"x3.3"x1.84", backed by a 3 year warranty.

Reliable

Rest easy knowing the ES51/52 will operate normally every time, all the time, in the harshest of conditions. Unrivaled electronic noise immunity ensures optimum reliability. Operation is sustained during extreme battery voltage dips due to heavy starter draw. True differential speed sensing minimizes interference; 8' of twisted-pair cable is provided. Socketed high power relay outputs, replaceable with standard automotive parts, will make service calls rare. An auto-reset fuse protects the annunciator outputs and never needs replacement. No wonder the ES51/52 is supported by the longest warranty in the business, 3 years!

Compatible

If you're acquainted with other major engine controllers, then you already know how to connect an ES51/52. The unit has all the common features available with other controllers and can replace them easily with minimal rewiring.

DYNAGEN SYSTEMS INC.

An ISO-9001 registered company

Engine Control So Smart, It's Simple

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ES51/52

AutoStart™ Engine Controllers



Integrated

Tight integration reduces external components: Reversed polarity protection and a replaceable 10A automotive fuse are built-in. An auxiliary failure input and lamp indication is provided standard. The ES52 model also includes a multi-function timer output which can be configured for one of the following: Glowplug, SmartChoke™, Airgate, or Slow, which eliminates the need for an external timer!

Smart

These smart EngineSaver™ features can be invaluable: 1:Zero Speed Recrank - no starter engagement until 0 rpm is reached; you'll never worry about damage to the starter mechanism. 2:Loss of Speed Failure - avoids starter or overspeed damage due to a lost signal. 3:Oil Verification - checks the integrity of the oil circuit prior to starting the engine. The oil bypass time is "self-calibrating" based on engine revolutions with no need for potentiometer setup.

Versatile

Magnetic pickups are often too costly or difficult to install; Universal Speed Sensing additionally accepts signals such as belt alternator, flywheel alternator, and generator AC output in 2 selectable frequency ranges. Whether you're faced with a 12 or 24 V system, or with switched-to-gnd or switched-to-bat(+) failure inputs, the ES51/52 is ready. For effortless installation and servicing, all wiring connections are made via plug-in connectors with screw terminals which accept stranded wire directly. Even after your purchase you can upgrade to a remote annunciation strip with a simple plug-in. Custom programming for special OEM requirements is available.

Operating Voltage

3.5 to 30VDC continuous

Operating Temperature

-40 to +85°C

Physical Attributes

Enclosure: 3.3" wide, 3.3" high, 0.57" deep (1.84" to deepest component)

Weight: 0.65 lbs

Aluminum case, epoxy sealed (black)

Lamps

5 LEDs (extra "Timer" LED for ES52)

High intensity, regulated brightness

Adjustments

Crank disconnect: 12-4156 Hz (2 ranges)

Overspeed: 44-8492 Hz (2 ranges)

Crank tries: 1 to 7 times

Crank/Rest time: 3 to 35 secs

Single long crank attempt: up to 256 secs

Speed Sensing

Differential input, 8' of twisted pair cable provided with a weather-proof CSA/UL certified plug-in connector

Input voltage range: 0.1-300 Vrms

Frequency drift: < 1% over entire temperature and voltage range

Protection

Outputs: Main 10 A fuse provided in accessible socket

Reversed polarity: no damage, normal operation when normal polarity restored

Annunciator outputs: auto reset fuse

Inputs: electrostatic discharge protection

Surge withstand: 4500 W for 0.002 sec.

Outputs

All outputs are sourcing i.e. Switched-to-+Vbat when energized

Fuel & Starter: Replaceable relay outputs rated 5A each, continuous

Annunciator outputs: 300 ma per output

Inputs

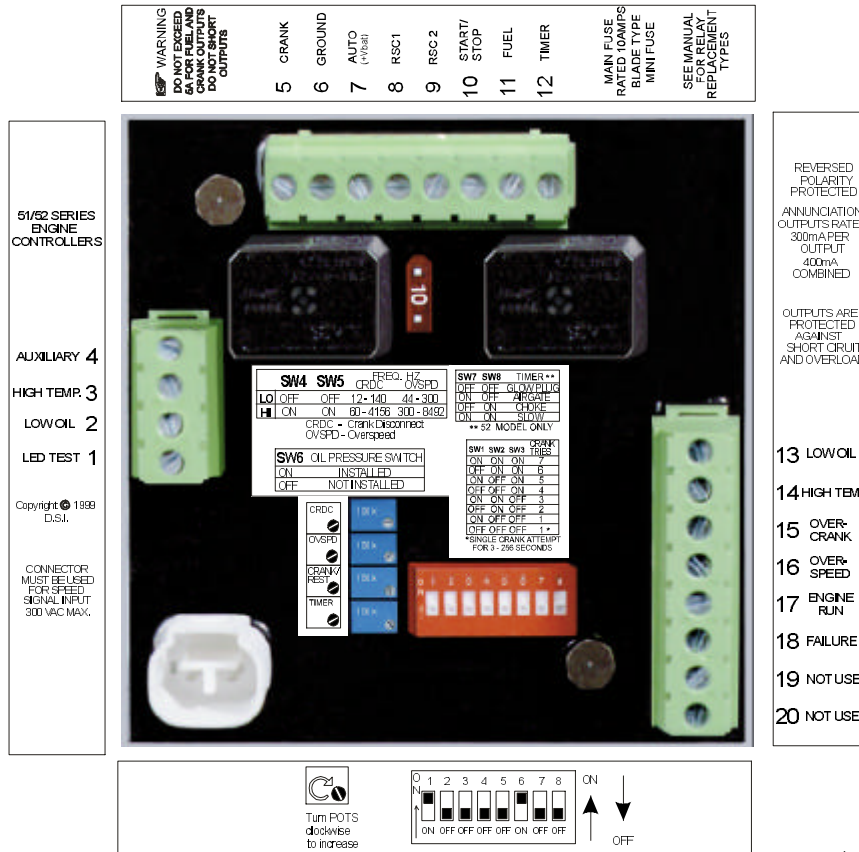
Failure inputs: low oil, high temp, auxiliary input - switched-to-ground or switched-to-Bat(+); close-to-fail

Lamp test: activates all LEDs (sourcing)

Timers (ES52 only)

One multifunction timer output (300 ma sourcing)

One of 4 selectable modes: Glowplug (0-32 secs), SmartChoke™, Air Gate (10 secs), or Slow (0-256 secs)



Actual size photo (rear) shown with side labeling