TOUGHSeries® TG
Generator Controller

RELIABLE

TOUGH

EASY TO USE

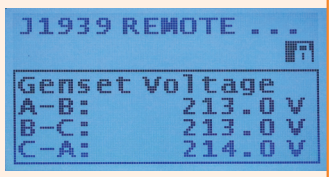
HIGHLY CONFIGURABLE

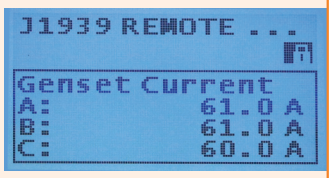
Compact Footprint
4.17" x 6.5" x 1.38"

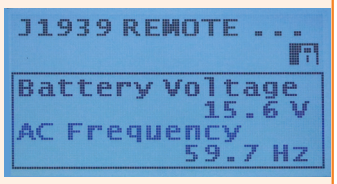
TIER4READY

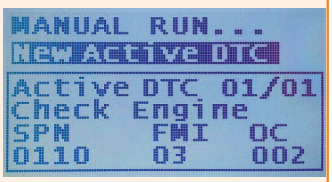
Key Features

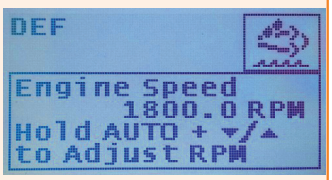
- Supports mechanical or CAN J1939 engines
- Configurable Diagnostic Trouble Code (DTC) readout
- Manual and Automatic modes
- Supports all major diesel engines including mechanical, Tier III, Tier IV Interim, and Tier IV Final
- Support for spark ignition engines across most brands.
- Displays engine values and generator 3-phase AC Volts, Amps & Hz
- RPM from generator AC, mag pickup, or tach signals
- Inverse time overload and phase imbalance protection
- Dummy load function
- Automatic idle speed on startup
- 50/60Hz input
- Fully configurable for arbitrary sensors
- Auto Start trigger on sensor value (pressure, temp, level, voltage)
- Idle/Run RPM input
- Auto selection inputs for generator voltage configuration
- Maintenance counter
- A full selection of adjustable timers
- Easy-to-use field configuration from front panel menu (pass code protected)
- Free RapidCore® configuration software
- Optional Modbus port (TG410 model)
- Optional AC current sensing for electric driven equipment (TG410 model)











Plug 'n' Play Panel Option

- Available with engine harness for mechanical or electronic J1939 engines
- Pre-programmed configuration
- Rugged, weather-resistant aluminum box with heavy-duty mounting bracket including isolation mounts
- Power on/off toggle switch
- Optional Emergency Stop button
- Available with rear or bottom mount connector
- Variable speed engine version available

Weather proof 21-pin Deutsch connector

To find out more visit www.dynagen.ca/TG

DYNAGEN
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Tel: 902-406-0133 | Fax: 902-567-0633
Toll Free: 1-888-DYNAGEN (1-888-396-2436)

Towable Power

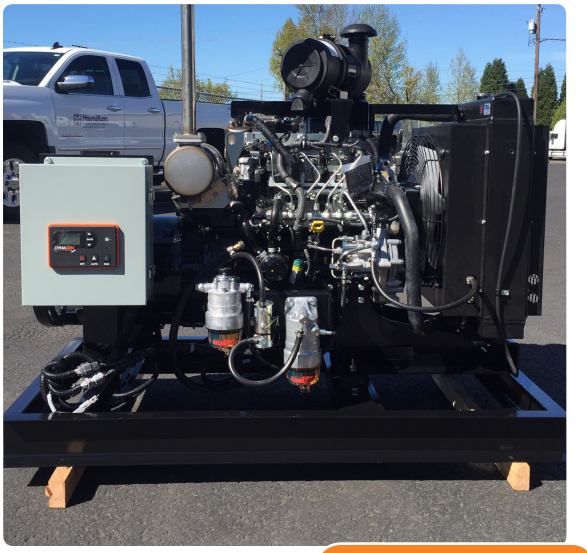
Standby Power

Vehicle Power

Mobile Lighting Power

Marine Power

Skid-Mounted Power



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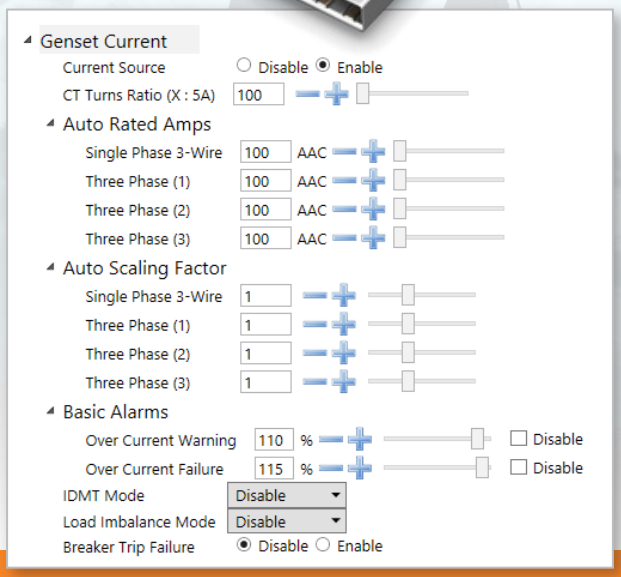
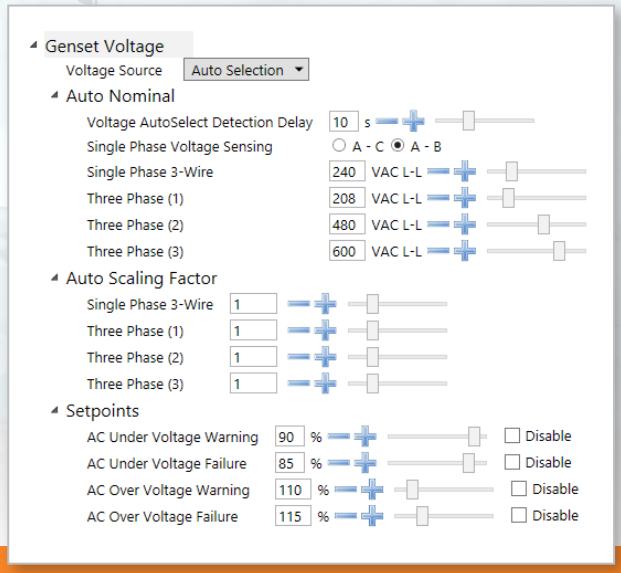
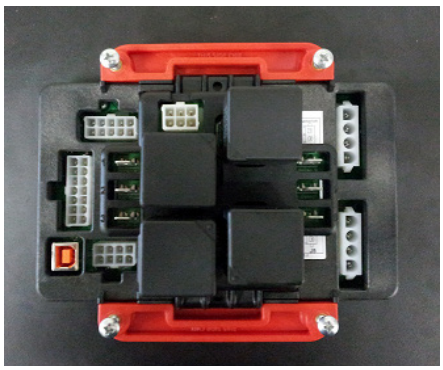
Rapid Core® CONFIGURATION SOFTWARE

Quick Configuration

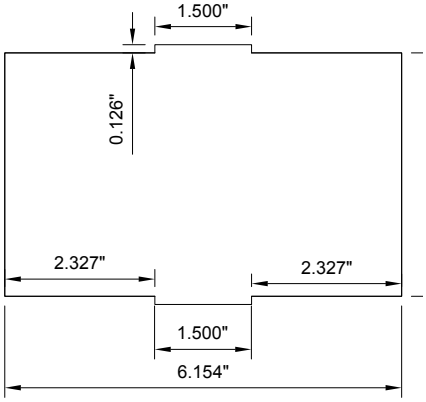




Easy Mounting



Fast and rugged installation clips



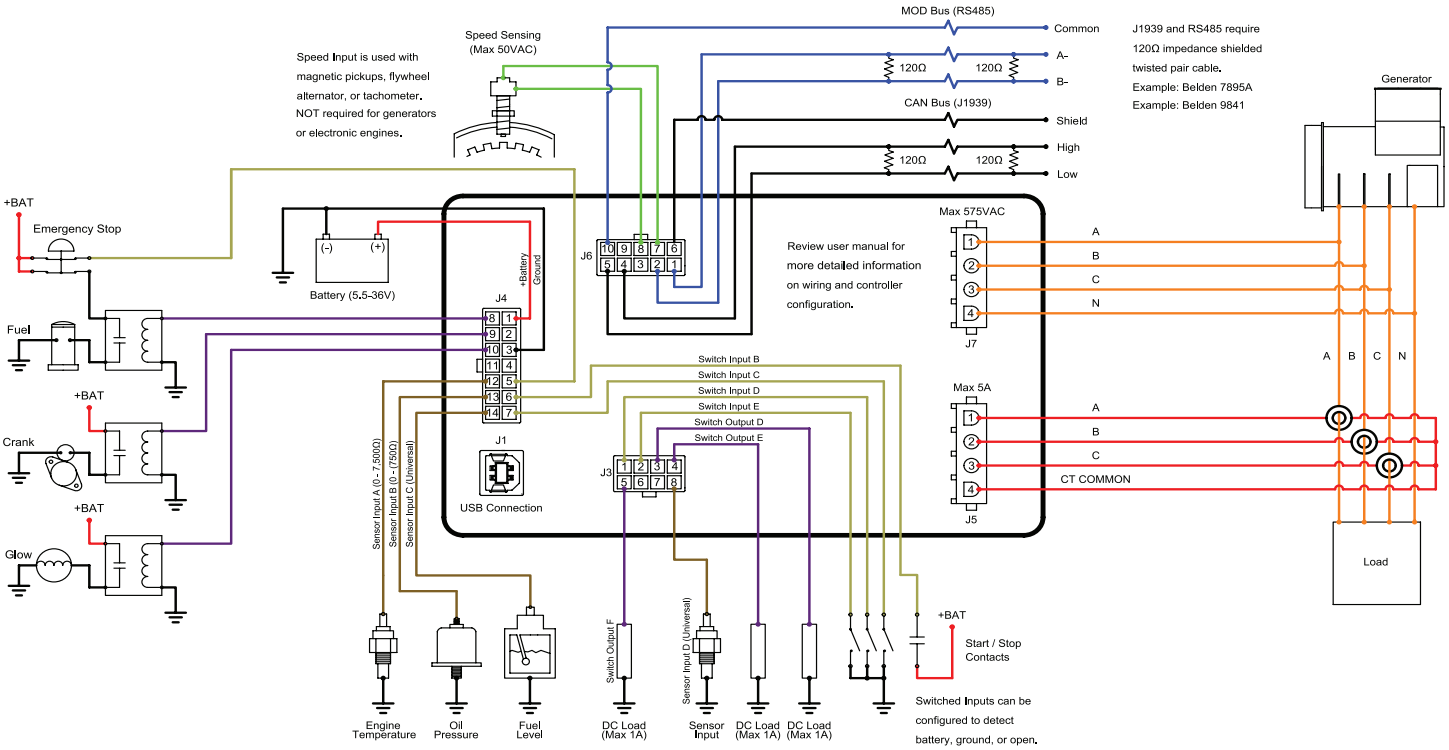
Panel Cutout Drawing
(not to scale)

Snap-on RelayPak Option

The RelayPak is socketed to accept four industry standard cube relays. When installed, the RelayPak (RP-100-VM*) eliminates the need for external slave relays for 4 circuits.

*RP-100-VM includes snap-on pack and 3 x 40A (resistive) UL pilot duty rated relays; for 24V systems, replace relays with 24V versions.

Typical Wiring Example



Inputs and Outputs	Part Number Selection TG350	TG410
J1939 CAN Bus	✔	✔
Magnetic Pick-up/Tach Input	✔	✔
Modbus Port		✔
AC Volts Measurement	3-Phase	3-Phase
AC Amps Measurement		3-Phase
Configurable Switched Inputs	5	5
Resistive Sensor Inputs	3	2
Universal Sensor Inputs (Resistive, voltage, 4-20ma)	1	2
Configurable Switched Outputs (in addition to fuel & crank)	4	4

SPECIFICATIONS

Operating Voltage

- 5.5 to 38VDC continuous. Cranking dropouts to 0VDC for 50mS, also meets SAE J1113-11
- Standby Current Draw: 60mA @ 12VDC, 38mA @ 24VDC
- Reverse battery protected
- Surge & Load Dump: SAE J1113-11

Operating Temperature

- Controller Function: -40 to +70˚C
- Display Viewing: -20 to +70˚C

Environment

- Meets or exceeds SAE J1455 for vibration & shock
- Gasket for water ingress protection
- Conformal coating protection

Electromagnetic Compatibility

- Meets or exceeds MIL-STD-461E Conducted Emissions

Physical

- Dimensions: 4.2”H x 6.5”W x 1.4”D
- Weight: 0.83 lb

Speed Sensing

- Via J1939 bus, Magnetic pick-up, Tach, or AC voltage

Inputs

- AC Sensing (for electric-drive systems)
  - Single-phase 2 and 3-wire
  - Delta 3 and 4-wire
  - Wye 2, 3, and 4-wire
  - Max 600vac* (direct connection) true RMS, +/- 1% of full scale

  AC Current Measurement (TE410 model)
  - Accepts 5A Secondary CTs
  - +/- 2% of full scale
- Fixed Sensor Inputs (e.g. VDO, Datcon):
  - 0-7500Ω Engine Temperature sender
  - 0-750Ω Senders or switches**
- Universal Sensor Inputs (Pressure, Temperature, Level, Volts or Amps.):
  - 0-7500Ω Senders, 4-20ma, 0-5V or switch**
  - 0-750Ω Senders

*For 600vac systems use a step-down transformer or centre tap.

**Failure inputs must close to ground. All failure inputs are ignored for an adjustable bypass period.

- Configurable Switched Inputs with programmable text (shutdowns & alarms)
  - Auto detect close to +Bat or Gnd

Outputs (includes fuel/crank)

- Switched Outputs - 1A Max UL pilot duty:
  - Switched to +Battery
  - Short circuit & overload protected

Memory

- 150 event history

Communications

- SAE J1939
  - Tier 2, 3, 4i, and 4f engines
  - Address settings for both the controller and the engine ECM
- USB
  - RapidCore® Configuration Software
  - High retention socket accepts standard USB cable
- Modbus (TE410 model)
  - RTU slave mode
  - RS 485 port (9600, 19200, 38400, 57600 baud)
  - Galvanic isolation

Warranty

- 5 years or 17,500 hours