

# Remko K101 Engine Controller

## Intelligent Diesel Engine Asset Management System

easy to use, safe, reliable, reduces running costs

9-30VDC compatible	pump pressure protection input	RPM reading overspeed shutdown	100 hour run timer	engine hours run count	battery voltage monitor/display
Load and Save Profiles	low oil gauge & shutdown	high coolant temp gauge & shutdown	J1939 CANBUS ready	configurable digital input	IP66 control module UV stable
pump flow protection input	loss of prime protection input	GSM,MODBUS Telemetry Ready	J1939 CANBUS fault decoding	fault history logger	Low Radiator Level Shutdown

- \* Engine Start and Stop on local keypad or via Text /Web Modem or Telemetry commands, via PLCs and RTUs
- \* Bi-directional remote telemetry connection to a PLC and SCADA networks and to a website via Satellite or GSM modem.
- \* Bright graphical display showing all engine/equipment data and warning/faults.
- \* Complete asset protection on all sensors with built in 'Failsafe' protection. Includes low radiator coolant level detection.
- \* Connects to various analogue sensors, ie: 4-20mA pressure or flow sensors, including resistive sensors.
- \* Multiple sensor readout, with built in separate adjustable bypass timers and slush timers.
- \* Robust IP66 control module in a powder coated enclosure with tempered see through glass. Will not yellow in exposed sunlight. \*
- \* Automatic engine speed control to fixed speed, via CANBUS J1939 or MODBUS. Can also be controlled remotely.
- \* Save on fuel, running and maintenance costs.
- \* Built in warmup and cooldown timers for J1939 ECU engines
- \* Programmable 100hour run timer.
- \* One panel to suit mechanical engines or electronic CANBUS J1939 engines.
- \* Programmable Digital input for remote shutdowns, flow switch, switch gauges etc.

- \* In built data logging on all equipment faults.
- \* Easy to set up and program.

Will permit future software upgrades via a compute and Settings upload and download.

Sturdy enclosure with die cast hinges and latch.



Easy to read display, large icons and characters. The LCD can be viewed in direct sunlight.

### Product Description

#### Reduce your operating costs and increase the engine's life cycle.

The Remko K101 engine auto-start controller is designed for the off-road stationary diesel engine market. The software is application driver. The controller's primary function is the management of your diesel engine and the equipment it is driving. The software and hardware are designed to lower the cost of running and owning your asset. It will reduce your fuel and maintenance costs but most of all increase the engine's life cycle. The Remko K101 is used in the following applications: waste water de-watering, irrigation pumping, power generation, air compressors, high pressure cleaners, lighting towers, dust suppression pumping, tank filling, sewer bypass, frost control and fire pumps.

#### Telemetry will keep you connected to your asset. (Via Satellite/GSM/GPS)

The controller's telemetry capabilities make certain you will always be connected to your asset via a smart phone, tablet or computer. You have the option of sending data to a 4G LTE network or the option of a go-anywhere satellite network. Just choose the right modem/data package to suit your budget. PLC, RTU or SCADA users can also connect to the K101. The control panel has inbuilt data logging capabilities and captures all shutdown messages.

#### Works with a wide range of diesel engines.

Automatic engine speed control is offered on all J1939 ECC engines. This feature can adjust the engine speed to a set speed point or via MODBUS Communications. All automatic throttling options come with adjustable engine warm up, cool down and line fill timers. This controller is suitable for use on the following engine brands: Caterpillar, Cummins, MTU, Detroit, Perkins, Deutz, Hatz, Scania, Kubota, Yanmar, JCB, Lister and various engines from Asia.

#### Multiple engine start/stop methods

Featuring both manual and automatic start modes, the Remko K101 offers great flexibility of use at the touch of a button. In automatic mode, the K101 is able to start and stop your engine based on a number of triggers such as: Telemetry/PLC module, Web Modem and basic Text modem commands.

**Can be customized to your application. Save time and value add.**

The K101 can be supplied in its current form (as shown in this brochure), or customized to suit your application. Just tell us what it is you want to achieve and we will make it happen. We can supply the engine module or produce a controller specific to your application in an enclosure you want.

**Engine Wiring and Panel Kits to suit your build.**

The controller is normally supplied in kit form. This kit includes the controller in an enclosure, an engine wiring loom, a throttle actuator, secondary solenoids, mounting brackets and any other components your build will require. Just mention what you need and we will supply.

**Software features**

<ul style="list-style-type: none"> <li>* Engine Hours display (Hour Meter)</li> <li>* Engine RPM display and Overspeed protection</li> <li>* Accepts tachometer RPM signal from:                             <ul style="list-style-type: none"> <li>Alternator W+</li> <li>J1939 CANBUS ECU</li> <li>Magnetic Pick Up on Fly Wheel</li> </ul> </li> <li>* Automatic Engine Speed control from:                             <ul style="list-style-type: none"> <li>Go To Fixed RPM set point (CAN J1939 only)</li> <li>MODBUS throttle commands</li> </ul> </li> <li>* Automatic Start and Stop on:                             <ul style="list-style-type: none"> <li>MODBUS Command</li> <li>Text Modem Command</li> </ul> </li> <li>* Engine Oil Pressure display and engine shut down *</li> <li>Engine Temperature display and engine shut down * Low radiator coolant level shutdown</li> </ul>	<ul style="list-style-type: none"> <li>* Data logs all equipment fault messages</li> <li>* Displays all equipment fault messages (J1939 included)</li> <li>* MODBUS (RS232/485) Communication</li> <li>* Battery Voltage VDC display</li> <li>* Low Battery Warning</li> <li>* Loss of RPM Engine Shut Down</li> <li>* Programmable Digital Input (switch required)</li> <li>* 99 hour programmable Stop Timer</li> <li>* Pump Flow rate control, protection and reading (sensor required) * Pump Pressure control, protection and reading (sensor required) * Glow Plug Excitation (requires high Current Relay)</li> <li>* Can Start/Stop and control engine speed via Website **</li> <li>All sensors/inputs include bypass and slush timers.</li> </ul>
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**Hardware features**

<p>3" Graphical monochrome display (visible in direct sunlight)</p> <p>9-30VDC Input Voltage</p> <p>&lt;40mA Current Consumption in Sleep Mode</p> <p>-40 to 85°C Storage Temperature</p>	<p>IP65 Enclosure Powder Coated 250tall x 200wide x 150deep IP66 control module water ingress protection</p> <p>-20 to 75°C Operating Temperature</p> <p>Reverse polarity protection</p>																														
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