EMRP4™

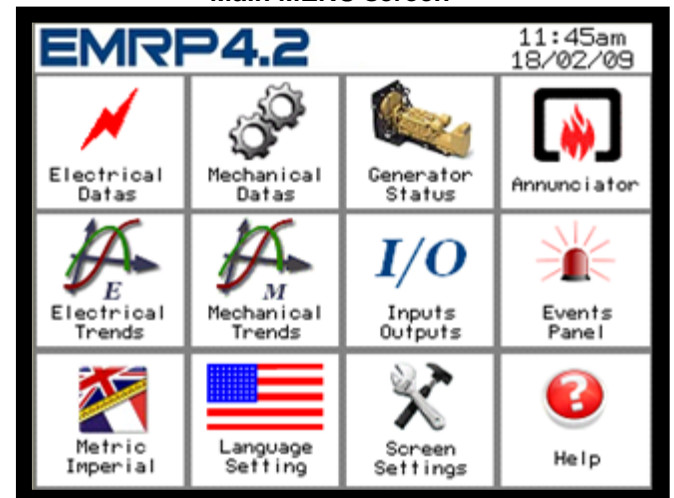## Finally, a complete remote monitoring interface for the EMCP4 ®

The **EMRP4** interface allows the user to remotely monitor all data (electrical, mechanical and events tables) available from a Caterpillar® EMCP4® generator controller and its optional modules. It also allows for easy data access and remote control of the generator via its 5.7" high-resolution TFT color touch screen. The built-in "Web Gate" function allows independent access to the **EMRP4** with a simple Internet browser no matter where the user is located in the world. The **EMRP4** module also has a Modbus slave communication port allowing the user to access the Modbus register grouped into contiguous register. Its simple system architecture makes it easy to integrate to new or existing EMCP4® controller applications. Simply configure the Modbus RS485 port on the EMCP4® controller and hook the **EMRP4** up to 4kms away using a simple twisted pair cable… The **EMRP4** connects to the controller, uploads its entire configuration, automatically recognizes installed EMCP4® options, populates all its monitoring screens and immediately starts real-time monitoring!
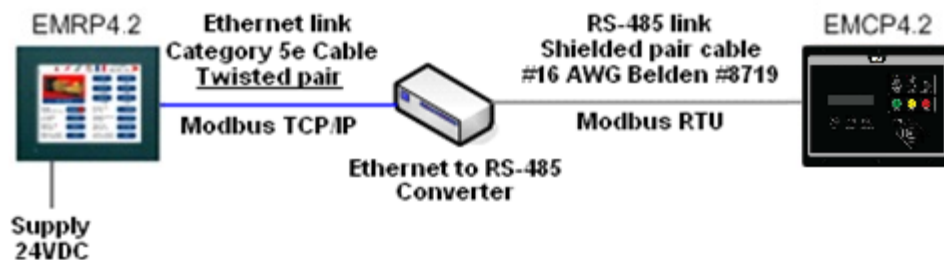
Default OVERVIEW/CONTROL screen

Main MENU screen

SYSTEM ARCHITECTURE

WEB-GATE FUCTIONALITY

With the addition of an Ethernet switch, the WEB-GATE functionality allows any user to remotely[1] connect to the **EMRP4** via standard WEB browser and access the same screens as the local operator, as if he/she were standing in front of the unit.

Available models

- **EMRP4.2855TT** – EMCP4.2® controller communication via Modbus TCP/IP Master, Modbus TCP/IP Slave
- **EMRP4.2855TR** – EMCP4.2® controller communication via Modbus TCP/IP Master, Modbus RTU Slave

DIGITAL INDICATIONS

Languages Available :
English   French

Units Indications Available :
Temperature :   Celsius   Fahrenheit
Pressure :   kPA   PSI
Volume :   Liter   US Gallon   UK Gallon

Data Generator:

AC voltage (VAC)	Frequency (Hz)	Real power (kW)	Reactive power (kVAr)
Current (A)	Power factor	Apparent power (kVA)	kW hour exported

Engine Data :

Engine revolution	Oil temperature	Genset operating mode	Crank attempt counter
Hours of operation	Oil pressure	Service maintenance interval	Successful start counter
Fuel temperature	Coolant temperature	Battery voltage	Exhaust temperature

Available With EMRP4.2 Version :

Fuel level	Exhaust temperature	Intake manifold air temperature	Atmospheric pressure
Fuel pressure	Turbo pressure	Generator bearing temperature	Cylinder temperature
Instantaneous fuel consumption	Total fuel consumption	Generator winding temperature	Battery voltage

WARNING/SHUTDOWNS INDICATION

Overcrank	Overspeed	High fuel pressure	Low oil pressure
Low coolant temperature	High battery voltage	Fuel filter restriction	Control switch not in auto
High coolant temperature	Low battery voltage	High intake manifold air temperature	Emergency stop activated
High oil temperature	Low fuel pressure	High fuel temperature	Low fuel level

EVENTS TABLES

Display the 20 latest events, warnings or faults for the following gensets equipments :

EMCP4 controller	2 X Thermocouples module	Automatic voltage regulator (CDVR)
Engine control module (ECM)	2 X Inputs/outputs module	RTD module

TRENDING

View last 30 days' electrical and mechanical data trends. Use PAN and ZOOM functions analyse recent alarms or event.

CONTROLS

Auto/Start/Stop
Time/date modification and synchronization with the EMCP4 controller
12 warning/faults/customizable events.

INPUT/OUTPUT CUSTOMIZING

Custom labels can be assigned to Inputs 3 to 8 and Outputs 2 to 8 of the EMCP4® controller.

CHARACTERISTICS

Power Supply : Voltage : 24 VDC, Limits :19 to 28,8 VCC, Voltage break : = 5 ms
Screen : LCD 5,7" Colour TFT touch screen 65 536 colours
Temperature : Operation : 0…50 °C, Storage : - 20…+ 60 °C
Degree of Protection : Front panel IP 65 conforming IEC 60529, Nema 4X, Rear panel IP 20 conforming IEC 60529
Communication Protocols : Modbus TCP/IP Master/slave // MODBUS RTU (Thru Ethernet-RS485 Converter)

[1] When an internet connection is available.
* All of the above data are displayed when available in the EMCP4 controller, depending on the model of the generator installed, options and optional modules installed on the generator (refer to the generator manufacturer for details) .
* EMRP4.X855TT and EMRP4.X855TR models require a converter (Ethernet – RS-485) to communicate with the EMCP4® and an Ethernet switch for the « Web Gate» functionality.
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