

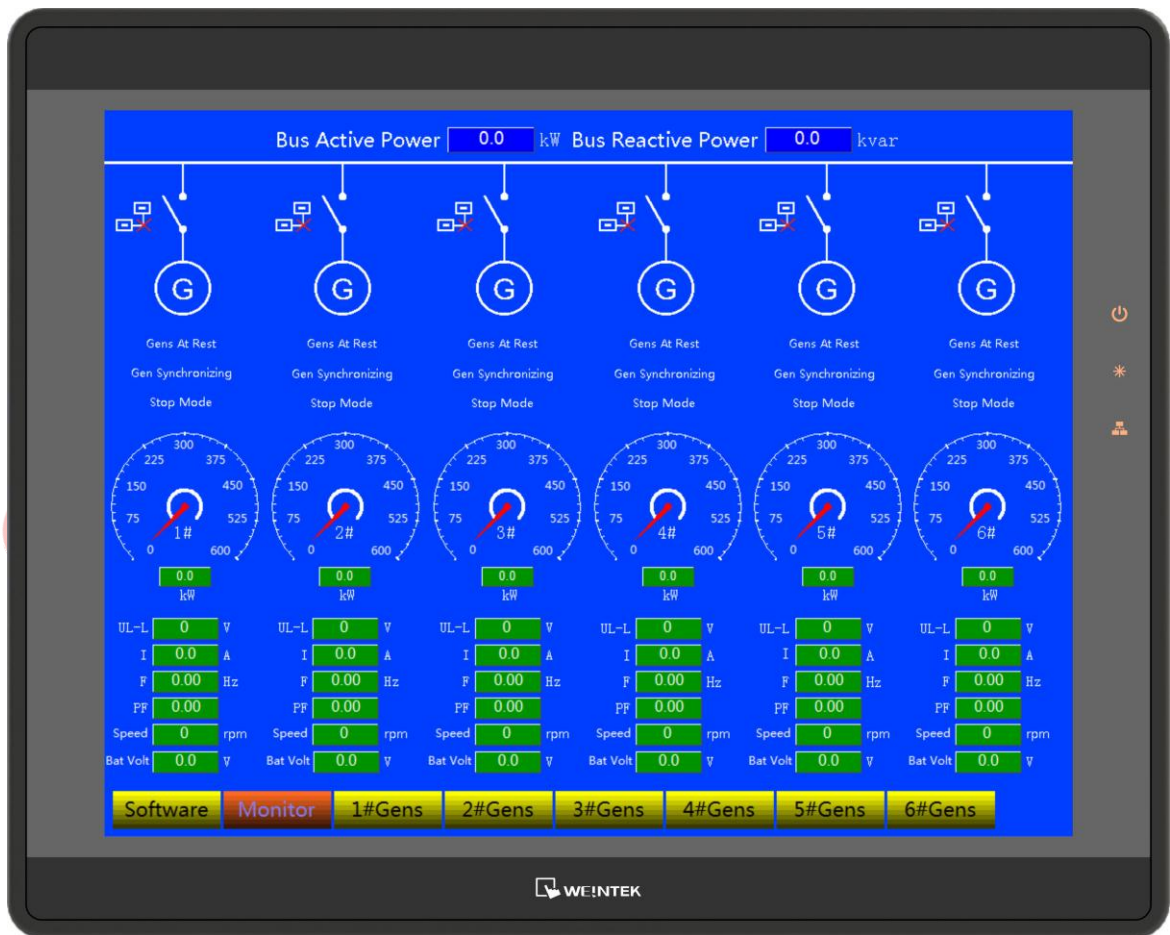


SmartGen
ideas for power

HMU15

GENSET REMOTE MONITORING CONTROLLER

USER MANUAL



SMARTGEN (ZHENGZHOU) TECHNOLOGY CO., LTD.



Chinese trademark

SmartGen English trademark

SmartGen – make your generator *smart*

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Table 1 – Software Version

Date	Version	Note
2018-03-30	1.0	Original release.
2018-06-30	1.1	Modify details.
2021-06-05	1.2	Add wiring diagram.



This manual is suitable for HMU15 controller only.

Table 2 – Notation Clarification

Sign	Instruction
 NOTE	Highlights an essential element of a procedure to ensure correctness.
 CAUTION!	Indicates a procedure or practice, which, if not strictly observed, could result in damage or destruction of equipment.

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1 OVERVIEW

HMU15 genset controller is suitable for remote monitoring single/multi HGM9510 genset controllers, which can realize auto start/stop genset, data measurement, alarms display and “Three Remote” functions (remote control, remote measurement and remote communication). It fits with LCD display, multi-level operation authorities and touch screen, so as to make this module reliable and easy to use.

With high-end microprocessor design, HMU15 controller can communicate with HGM9510 genset controller via RS485. Then parameters of genset can be read directly through communication ports and displayed on the HMU15 screen.

2 PERFORMANCE AND CHARACTERISTICS

- One or up to six HGM9510 genset controllers can be monitored remotely;
- High-end ARM microprocessor as the core, LCD with backlit, HMI display and touch screen operation;
- Real-time display genset parameters and alarms information that detected by the HGM9510 controller;
- HMU15 is able to control detailed parameters and keys operation of HGM9510 genset controller;
- Operation authorities can be configured to prevent misoperation from non-professionals resulting in abnormal operation of gensets and unnecessary accidents;
- High accuracy time display, and “engineer” or “technician” level authority can set current time of system;
- Modular design, pluggable wiring terminals, built-in mounting, compact structure with easy installation.



3 LCD DISPLAY OPERATION

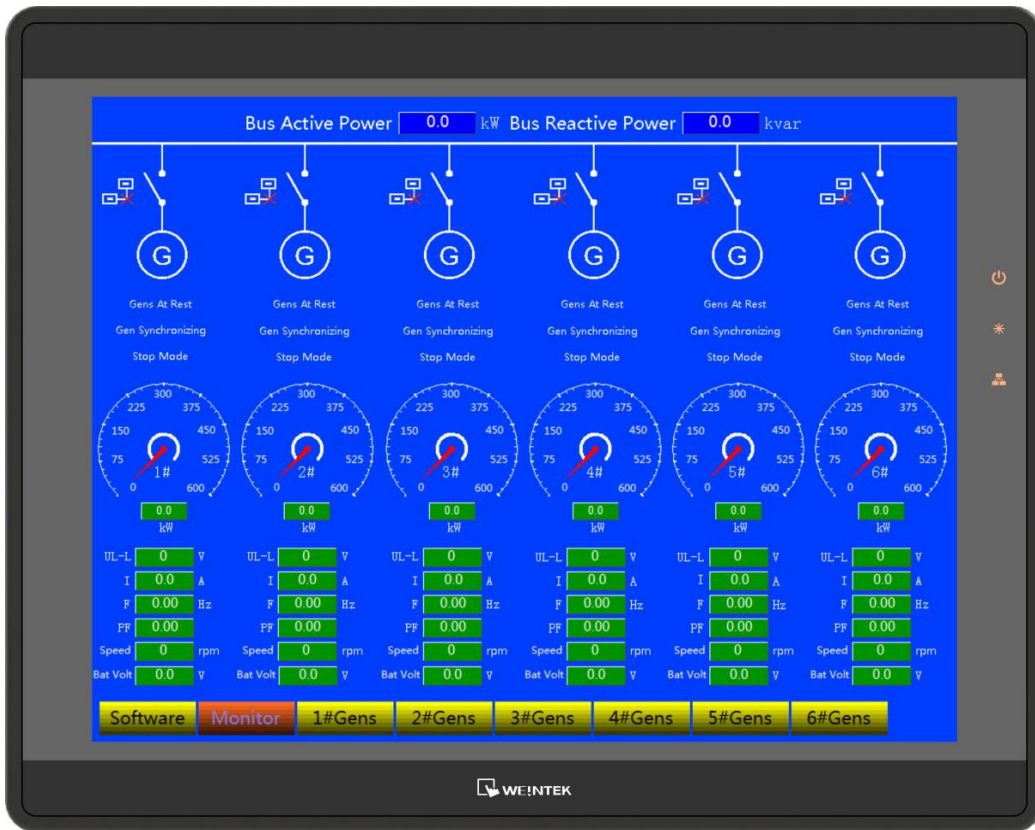


Fig.1 – System Integrated Display Interface



Fig.2 – Single Unit Display Interface



NOTE: Keys operation permission is restricted to “Technician” and “Engineer” authorities.

NOTE: “Engineer” password is default as 0; “Technician” password is default as 1; and “Operator” password is default as 2.









Fig. 3 – Software Setting Display Interface

NOTE: Users can change genset information, regulate brightness, select language (Chinese and English), and setting system time (limited in “Engineer” authority).

4 KEY FUNCTION DESCRIPTION

Table 3 – Buttons Function Description

Icon	Function	Description
	Stop	Stop running genset in auto/manual mode; Reset alarms in stop mode; Press it again in stopping process can make genset stop quickly.
	Start	Start genset in manual mode.
	Manual Mode	Press this key to configure controller as manual mode.
	Auto Mode	Press this key to configure controller as auto mode.
	Gen. Open	Press this key to control generator breaker open.
	Gen. Close	Press this key to control generator breaker close.

5 WIRE CONNECTION

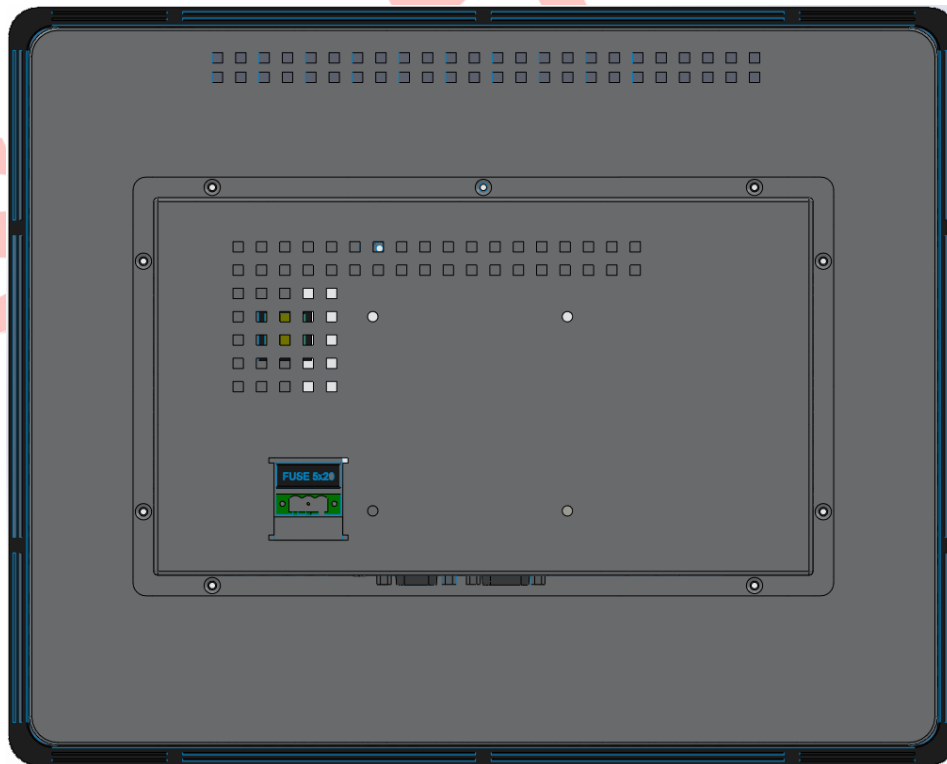


Fig.4 – Rear Panel Diagram

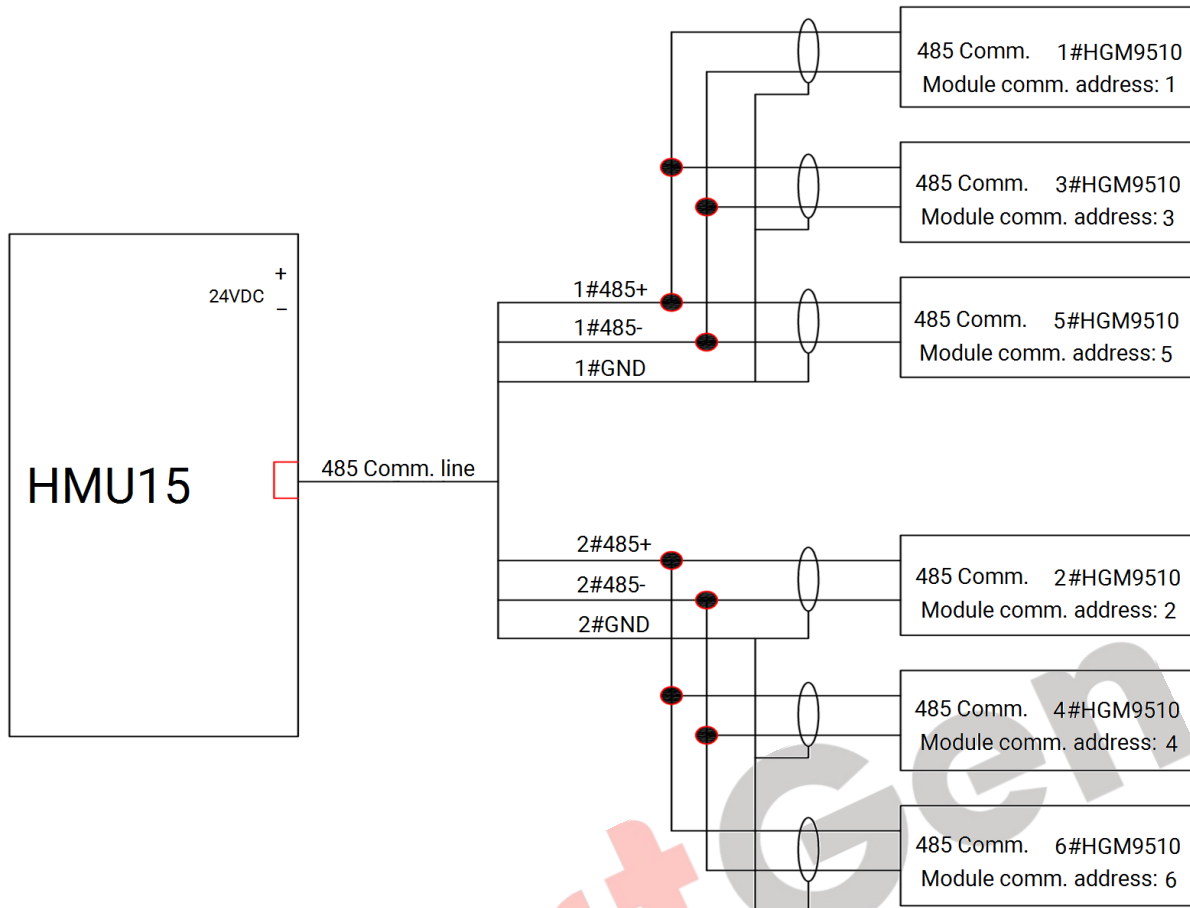


Fig.5 – Wiring Diagram

▲ **NOTE:** Communication line need use shielded line, if the distance is close, 1#GND and 2#GND not need to be connected to the shielded layer.

▲ **NOTE:** Please unplug HMU15 power cable before wiring to avoid electric shock or accident.

▲ **NOTE:** HMU15 communicates with HGM9510 via RS485 communication port, using the matched communication line, one end (DB9) connects with HMU15, and the other end, which has 6 lines (two communication ports). 1#485+ and 1#485- are one communication port, which can connect with three HGM9510 controllers (communication address can be set as 1, 3, 5); 2#485+ and 2#485- are the other communication port, which can connect with three HGM9510 controllers (communication address can be set as 2, 4, 6).



6 OVERALL AND CUTOUT DIMENSIONS

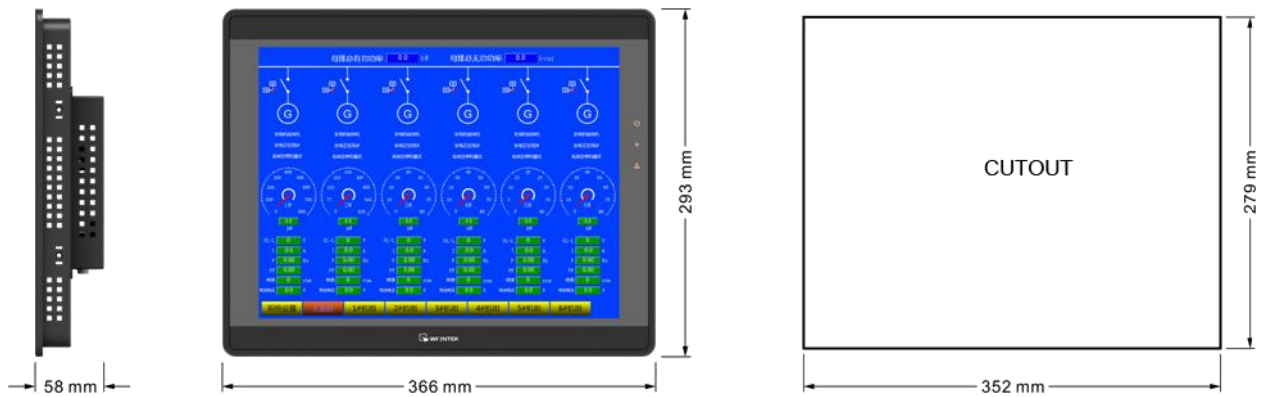


Fig.5 – Overall and Cutout Dimensions

7 TROUBLESHOOTING

Please make sure all cable connectors are securely connected to the HMU15;

Please make sure that the ground cable of the HMU15 is grounded separately from the other equipment. Additionally, cable with below 100Ω grounding resistance and above 1mm^2 cross sectional area is recommended or choose the cable according to the applicable standards in your country.

Do not push hard or use hard objects to press the HMU15's display screen.