

Output Voltage Adjustment Mode:

Move the generator set master switch to the RUN position. The generator set engine starts and the controller display shows the engine runtime hours.

Display :*

X X X X

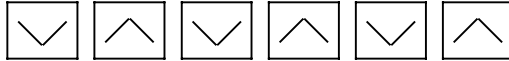
Hold:



Wait about 5 sec. until the display changes from runtime hours to the program version number.

X.XX

Press the down arrow key and then the up arrow key 3 times to enter the adjustment mode. (This is the controller "password.")



1 P X X

The controller is now in the voltage coarse adjustment mode.

Press:



or



To raise or lower the voltage in large increments (approximately 5-7 volts per step).

1 P X X



To enter fine voltage adjustment mode.

1 P X X



or



To raise or lower the voltage in smaller increments (approximately 0.5-0.7 volts per step).

2 P X X



To enter coarse voltage stability (gain) adjustment mode.



or



To raise or lower the voltage stability (gain) in large increments.

2 P X X



To enter fine voltage stability (gain) adjustment mode.



or



To raise or lower the voltage stability (gain) in smaller increments.

3 P 0 X



To enter volts/Hz adjustment mode.



or



To raise or lower the volts/Hz: 0.5% per step 00=0; 09 = 4.5%

Continued on Figure 4-14.

* Shaded boxes show which character in the controller display changes for each adjustment. X in the examples above denotes any number from 0 to 9. The actual values may vary from model-to-model.

TP6196

Figure 4-13 Output Voltage Adjustments

Continued from Figure 4-13:

Display : *



To enter SAVE mode.

S A V E

Note: Be sure to save your settings before exiting the configuration mode. The controller reverts to the last saved settings when the master switch is moved to the OFF/RESET position.

**There are 3 options when the display says SAVE:
Press:**

S A V E



To return to the first parameter, coarse voltage adjustment, to check or change settings before saving. See Figure 4-13.

1 P x x

or



To save changes.

Y E S

or



To discard changes without saving.

n o

“Yes” or “no” flashes when the up or down arrow is pressed and then the controller exits the configuration mode. The display returns to the runtime hours.

X X X X

Now move the master switch to OFF/RESET.

* X in the examples above denotes any number from 0 to 9. The actual values may vary from model-to-model.

Figure 4-14 Output Voltage Adjustments, Continued

4.9.2 Controller Configuration

The controller configuration for each generator model is set at the factory and should not normally require changes. The controller's configuration mode allows adjustment of the system parameters listed in this section. Use the instructions in this section to check the configuration after installation and change them to match the settings shown in Figure 4-15, if necessary.

Parameter	Setting	Definition
Unit's system voltage and frequency	Uu01	Single phase, 60 Hz, 120/240 VAC
	Uu04	Three phase, 60 Hz, 138/277 or 240/480 VAC
Unit configuration	Uc01 *	Standby
Engine type	Ec03 *	15RYG/RES
	Ec06 *	30RYG/RES
Engine data input types See Figure 4-16.	Ed01 *	15/30RYG/RES
	Ed02	15/30RYG/RES with Remote Digital Gauge
Battery voltage	Bt12 *	Battery voltage 12 VDC
	Bt24	Battery voltage 24 VDC
Communications	Cn00 *	No CAN communications
	Cn01	J1939 (use for Remote Digital Gauge)
* Factory settings.		

Figure 4-15 Configuration Parameters

Parameter	Low Coolant Level Sensor	Pressure Sensor	Temperature Sensor	Magnetic Pickup
Ed00	Digital Switch	Digital Switch	Digital Switch	No
Ed01	Digital Switch	Digital Switch	Analog Sender	No
Ed02	Digital Switch	Analog Sender	Digital Switch	No
Ed03	Digital Switch	Analog Sender	Analog Sender	No
Ed04	Digital Switch	Digital Switch	Digital Switch	Yes
Ed05 *	Digital Switch	Digital Switch	Analog Sender	Yes
Ed06	Digital Switch	Analog Sender	Digital Switch	Yes
Ed07	Digital Switch	Analog Sender	Analog Sender	Yes
Ed08	Analog Sender	Digital Switch	Digital Switch	No
Ed09	Analog Sender	Digital Switch	Analog Sender	No
Ed10	Analog Sender	Analog Sender	Digital Switch	No
Ed11	Analog Sender	Analog Sender	Analog Sender	No
Ed12	Analog Sender	Digital Switch	Digital Switch	Yes
Ed13	Analog Sender	Digital Switch	Analog Sender	Yes
Ed14	Analog Sender	Analog Sender	Digital Switch	Yes
Ed15	Analog Sender	Analog Sender	Analog Sender	Yes
* Factory setting for replacement controllers. See Figure 4-15 for the default settings for certain models. The installation of optional sender kits (available for some models) may require a different Ed setting.				

Figure 4-16 Engine Data Input Types, Parameter Ed

The controller will automatically exit the configuration mode without saving any changes after about 1 minute if no buttons are pressed. Start the configuration procedure over again from the beginning if the controller exits the configuration mode before the settings have been saved.

Follow the instructions in Figure 4-17 to enter the configuration mode while the engine is not running and then step through the following parameters. Use the up (Λ) and down (∇) arrow buttons to select the appropriate setting for the application.

Voltage/frequency setting (Uu). Select the system voltage and frequency from the table in Figure 4-15. For system voltages not listed in the table, select the setting closest to the system voltage and then adjust the output voltage to the desired level using the instructions in Section 4.9.1.

Note: This parameter sets the nominal system voltage and frequency. To adjust the output (measured) voltage, see Section 4.9.

Unit configuration (Uc). This parameter sets the generator set type: marine, standby, or mobile.

Engine configuration (Ec). The engine configuration must match the generator set engine type.

Advanced configuration mode (Adnc). The data input types, battery voltage, and communications setting can be changed in the advanced configuration mode. Press the up arrow button when *Adnc* is displayed to enter the advanced configuration mode.

Engine data input types (Ed). This setting defines the type of senders used on the generator set engine. Use Ed01 for the 15/30RYG/RES.

The remote digital gauge requires the optional analog oil pressure sender. Install the optional sender and change the Ed parameter to Ed02.

Battery voltage (Bt). This setting toggles between 12 and 24 VDC for the engine starting battery voltage.

Communications setting (Cn). This setting allows the user to set the controller for communication with optional meters. The 15/30RYG/RES is factory-set for no CAN communications, Cn00. Change this setting to Cn01 if the optional Remote Digital Gauge is used.

Note: Be sure to save your settings before exiting the configuration mode. The controller reverts to the last saved settings when the master switch is moved to the OFF/RESET position.

Controller Configuration Mode:

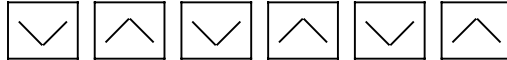
Hold the Select button:



Move the generator set master switch to the RUN position. (The generator set engine will not start.)

Wait about 5 sec. until the display shows the program version number. (The number may be different than the one shown here.)

Press the down arrow key and then the up arrow key 3 times to enter the configuration mode. (This is the controller "password.")



Display:

Now release the Select button.

Press:



or



To set the voltage/frequency setting. See Figure 4-15.



To step to the next parameter, unit configuration Uc.



or



To set the unit configuration setting to Uc01, if necessary.



To step to the next parameter, engine type Ec.



or



To set the engine type, if necessary. See Figure 4-15.



To step to the next parameter, advanced configuration mode or save mode selection.

Now either save your settings or enter the Advanced Configuration Mode to set the engine data inputs, battery voltage, and communications.

Press:



To enter advanced configuration mode. Go to Figure 4-18.

or



or












To proceed to the save mode without entering the advanced configuration mode. Go to Figure 4-19.

Note: Shaded boxes show which number in the controller display changes when the up or down arrow key is pressed.

Figure 4-17 Configuration Mode (system voltage/frequency, unit configuration, and engine type parameters)

Pressing the up arrow key at the Adnc display (See Figure 4-17) puts you into the Advanced Configuration Mode.

Press:


-  or  To set the engine data input type to Ed01. See Figure 4-15. **E d 0 1**
-  To enter battery voltage selection mode.
-  or  To toggle between 12 and 24 VDC. Set this parameter to 12 VDC. **B t 1 2**
-  To enter communications selection mode.
-  or  To set the communications parameter to Cn00 or Cn01. See Figure 4-15. **C n 0 0**
-  To enter SAVE mode. Go to Figure 4-19. **S A V E**


Note: Be sure to save your settings before exiting the configuration mode. The controller reverts to the last saved settings when the master switch is moved to the OFF/RESET position.


Figure 4-18 Advanced Configuration Mode (engine data input types, battery voltage, and engine communications)

There are 3 options when the display says SAVE:

Press:

-  To return to the first parameter, system voltage/frequency Uu, to check or change settings before saving. See Figure 4-17. **U u 0 1**
- or**

 To save changes. **Y E S**
- or**

 To discard changes without saving. **n o**

“Yes” or “no” flashes when the up or down arrow is pressed and then the controller exits the configuration mode. The display returns to the runtime hours.

X X X X

Now move the master switch to OFF/RESET.

* X in the runtime hours display above denotes any number from 0 to 9.

Figure 4-19 Save Mode (after configuring generator set parameters)