



BG3K - GUI Parameter Explanation

Standard Configuration

Low Voltage Threshold (LVT)

When the battery voltage is lower than this value, it will initiate a timer within the batteryguard to enter the low voltage shut down. If the voltage remains below this value for the “**Isolation Delay**” the batteryguard will disconnect the relay. If the battery voltage rises above this value the timer will reset and no disconnect will occur.

12v / 24v Voltage Selector

This check box will toggle between 12 & 24v configurations.

Reconnect Threshold

With the “**Auto Reconnect**” check box - checked and the intellitec relay is disconnected when the battery voltage senses above this value the intellitec relay will automatically reconnect.

Isolation Delay

This is the total length of time the battery guard will take to disconnect upon sensing below the low voltage threshold (LVT). The allowable range can be anything from 1 to 8 minutes.

File

A previously saved file can be opened or a configuration can be saved via this drop down box.

Read Configuration

A previously saved file can be opened or a configuration can be saved via this drop down box.

Send Configuration

A previously saved file can be opened or a configuration can be saved via this drop down box.

Check Firmware Revision

In order to program a batteryguard the “**Check Firmware Revision**” tab must be selected first. This allow the batteryguard to check what firmware is loaded prior to sending a new program into the unit.

Project Title

This is a description field of what the batteryguard file (BGC) can be called.

Configuration Number

When any value or parameter is changed via the GUI, this will populate a unique configuration number. A configuration number can be entered to populate the required parameters or opening a previously saved file. The manual serial edit enable must be selected in order to do this.

Com Setup

Depending on which com port is used on the PC the applicable port must also be selected via here. Please ensure all other equipment requiring com ports are removed and all other software is shut down to avoid conflict of com ports.

Intellitec Logo

Selecting this logo will direct the user to Intellitec USA website. Please note Intellitec UK website is www.intellitecmv.com.

The screenshot shows the '58-01013-120/240 GUI' for the BATTERY GUARD 3000. The interface includes a 'File' menu, 'Read Configuration', 'Send Configuration', and 'Check Firmware Revision' buttons. The 'Threshold and Delay Configurations' section has fields for 'Low Voltage Threshold' (12.1 V), 'Reconnect Threshold' (13.3 V), 'Isolation Delay' (4 Min), and 'Inhibit Disconnect Delay' (30 Sec). The 'Alarm1' and 'Alarm2' sections show delay and mode settings. The 'BD Relay Feedback Polarity' section has 'Positive Leg' and 'Positive On' options. The 'Low Voltage Threshold Buzzer Frequency' is set to 1Hz. The 'Aux Input Configuration' is set to 'Mute Buzzer'. The 'GUI Version' is Rev K.3 - 03/03/2015 and the 'Firmware Version' is Rev H - 2/24/2015. The 'Features' section on the right has several checkboxes, including 'Aux Input Polarity' (checked), 'Manual Disconnect' (checked), 'Time Controlled Disconnect' (checked), 'External LED' (checked), 'Auto Reconnect' (checked), '50% Buzzer Intensity' (checked), 'Low Voltage Buzzer Mute' (checked), 'Alarm Modes Active With Inhibit' (checked), 'Aux Out Disconnect' (checked), 'Alarms Reset on Reconnect Threshold' (unchecked), and 'Extended Feedback Delay' (unchecked).

Inhibit Disconnect Delay

This parameter value will inhibit the manual disconnect function when the ignition is turned off. This will the allow the engine ECU's to power down correctly. The parameter is for vehicles in which have ad blue or any other type of special equipment.

Automatic Disconnect

The automatic disconnect counter will increment for every successful automatic disconnect. This is monitored via the red / black wire on the battery guard. The counter can be read or reset via the tabs below.

Failed Disconnect

A failed disconnect count will increment when the relay does not disconnect successfully. The counter can be read or reset via the tabs below.

Manual Disconnect

A manual disconnect count will increment when the relay is manually disconnect via the battery guard switch. The counter can be read or reset via the tabs below.

Aux Input Polarity / Aux Input Configuration

With this box checked the auxiliary input is required to read a positive signal, with the box unchecked the auxiliary input is required to read a negative input. The configuration can be chosen by the “**Aux Input Configuration**” drop down box.

Manual Disconnect

With this box checked, press and hold the battery guard reset switch for 3 seconds. After the 3 second hold, the battery guard will disconnect the Intellitec relay. If the ignition has been turned off and the inhibit disconnect delay is true, the manual disconnect will be inhibited for this period of time.

Time Controlled Disconnect

With this box checked, press and hold the battery guard reset switch for 3 seconds. After the 3 second hold, the buzzer and reset switch LED will flash quickly to indicate the time controlled disconnect phase has been entered. The Intellitec relay will then disconnect after the inhibit disconnect value has been completed and the buzzer and switch LED will stop flashing.

External LED

With this box checked the batteryguard switch LED will follow the buzzer frequency.

Auto Reconnect

With the “**Auto Reconnect**” check box - checked and the intellitec relay is disconnected when the battery voltage senses above this value the intellitec relay will automatically reconnect.

50% Buzzer Intensity

This check box will reduce the buzzer's audible intensity to 50%.

Low Voltage Buzzer Mute

This check box will mute the buzzer if the inhibit wire is given a positive whilst the voltage is below the LVT.

Alarm Modes Active With Inhibit

The alarm modes will still become active if the inhibit wire is given a positive whilst the voltage is below the LVT.

Alarm 1 and Alarm 2, BD Relay Feedback Polarity, Inhibit Disconnect Setting, Low Voltage Threshold Buzzer Frequency & Aux Input Configuration are explained overleaf.

Aux Out Disconnect

This check box will disconnect the auxiliary output when a manual or automaticisolation has occurred.

Alarms Reset On Reconnect Threshold

With the “**Alarm 1 and Alarm 2 Latch Mode**” box checked. Both alarms will come on during their pre determined set value. They will stay on once a disconnect occurs and will only reset when the LVT is met.

Extend Feedback Delay

When an inverter is used on the battery out side of the Intellitec relay please check this box. When the battery guard performs a disconnect the feedback wire is monitored to read whether the relay has successfully disconnect and no voltage is read. At times an inverter may still hold capacitance and trick the batteryguard into thinking the relay has failed to disconnect. This box extends the timer in which the batteryguard checks the battery out side to allow the inverter capacitance to discharge. This delay is normally approximately 10 seconds.

Standard Configuration Extended

Alarm 1 Delay

Alarm 1 delay will enable the alarm 1 output on the battery guard. This will become active after the parameter value is true. For this example the alarm 1 output will become active after 2 minutes of the battery voltage sensing below 12.1 volts. If the battery voltage rises above this voltage the alarm 1 will turn off. The value for this alarm can be entered from 0 to 8 minutes dependant on the total isolation delay and what alarm 2 is set to.

The battery guard also has an audible alarm in which can be sounded to warn of low battery voltage. The frequency of this buzzer can be selected during alarm 1.

The alarm 1 can be programmed to continuously active during the alarm 1 period, flashing, trigger once "One Shot" or flash 5 times only. The alarm 1 can also be disabled and not operate at all.

The polarity of the output is determined via whether the alarm common (Slate Wire) is wired to a negative or positive. The slate wire acts as a common contact to a relay.

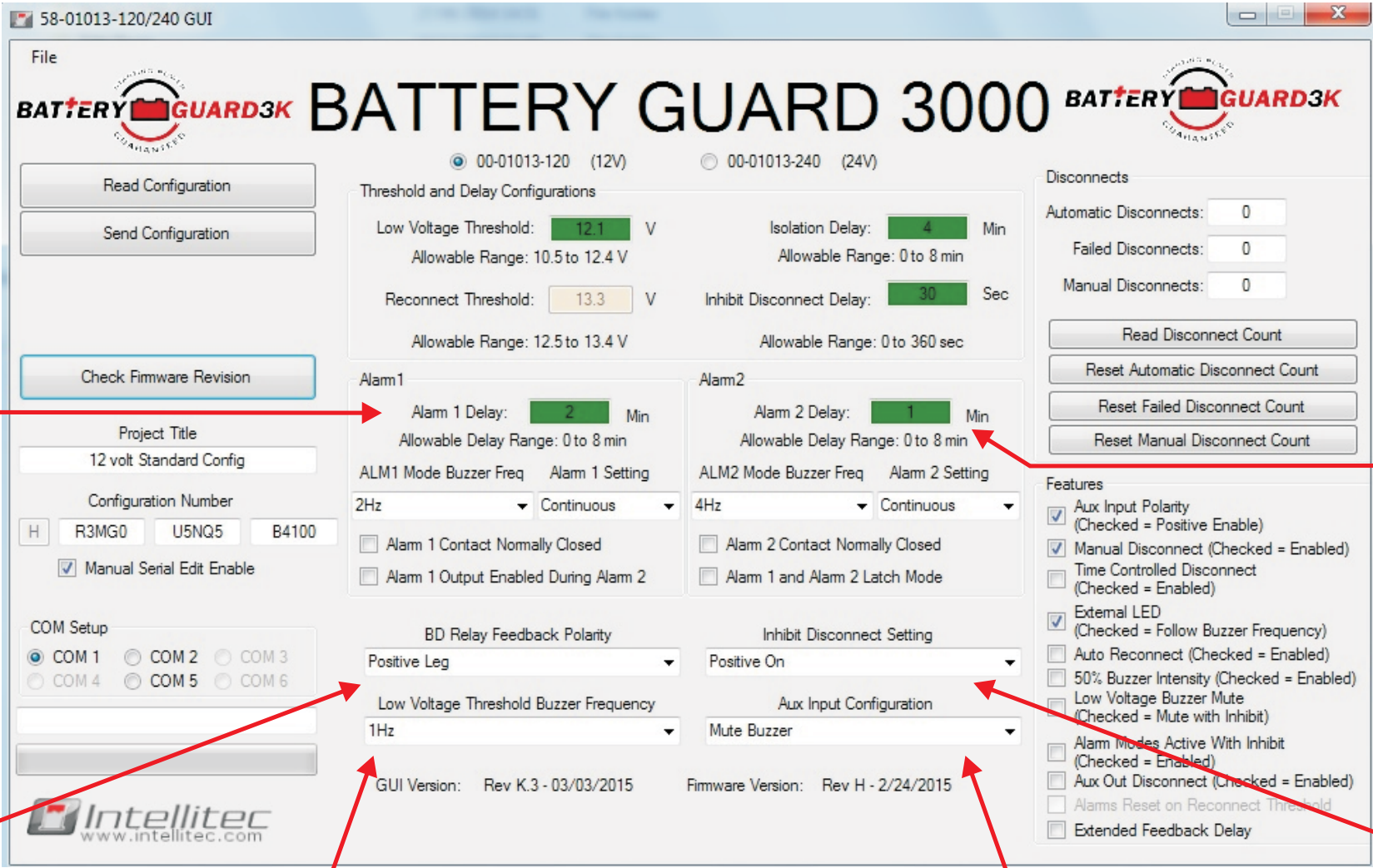
The alarm 1 can be operated as normally closed via the check box.

The alarm 1 output can be also enabled during the alarm 2 phase via the check box.

BD Relay Feedback Polarity

The BD relay feedback polarity is required to be set positive when isolating a positive side of the battery through the Intellitec relay.

The BD relay feedback polarity is required to be set negative when isolating a negative side of the battery through the Intellitec relay.



Low Voltage Threshold Buzzer Frequency

When a buzzer frequency is set the audible buzzer will sound upon sensing below the LVT. This will continue to sound throughout the isolation delay unless the voltage climbs above the LVT or alarm 1 is used and the conditions are met.

Aux Input Configuration

The aux input blue wire can be programmed to several features.

1. Alarm 1

If the aux input configuration is set to alarm 1 once the aux input wire is triggered, positive or negative (**See page 1 for polarity details**) then the battery guard will force alarm 1 mode regardless of battery voltage.

2. Alarm 2

If the aux input configuration is set to alarm 2 once the aux input wire is triggered, positive or negative (**See page 1 for polarity details**) then the battery guard will force alarm 2 mode regardless of battery voltage.

3. Disconnect

If the aux input configuration is set to disconnect, once the aux input wire is triggered, positive or negative (**See page 1 for polarity details**) then the battery guard will force a disconnect if the inhibit wire is not overridden, regardless of battery voltage.

4. Mute Buzzer

If the aux input configuration is set to mute buzzer, once the aux input wire is triggered, positive or negative (**See page 1 for polarity details**) then the battery guard will mute the audible buzzer, regardless of battery voltage.

Alarm 2 Delay

Alarm 2 delay will enable the alarm 2 output on the battery guard. This will become active after the parameter value is true. For this example the alarm 2 output will become active after a total of 3 minutes of the battery voltage sensing below 12.1 volts. If the battery voltage rises above this voltage the alarm 2 will turn off. This is achieved by adding the alarm 1 delay to alarm 2 delay. The value for this alarm can be entered from 0 to 8 minutes dependant on the total isolation delay and what alarm 1 is set to.

The battery guard also has an audible alarm in which can be sounded to warn of low battery voltage. The frequency of this buzzer can be selected during alarm 2.

The alarm 2 can be programmed to continuously active during the alarm 2 period, flashing, trigger once "One Shot" or flash 5 times only. The alarm 2 can also be disabled and not operate at all.

The polarity of the output is determined via whether the alarm common (Slate Wire) is wired to a negative or positive. The slate wire acts as a common contact to a relay.

The alarm 2 can be operated as normally closed via the check box.

If the alarm 1 and alarm 2 latch mode check box is selected both outputs will latch and stay on once both alarm 1 and alarm 2 conditions are met.

Inhibit Disconnect Setting

The inhibit disconnect setting determines whether the inhibit wire; - Requires a positive to be active to inhibit the unit from disconnecting. - Requires a positive to not be active to inhibit the unit from disconnecting. - Requires a negative to be active to inhibit the unit from disconnecting. - Requires a negative to not be active to inhibit the unit from disconnecting.

5. Split Charge Positive Sense

If the aux input configuration is set to split charge positive sense the aux input wire must be wired to the primary battery of the two battery banks.

With this feature selected, alarm 2 is no longer used and the green wire is now used to energise a relay to join two different battery banks together for split charging.

The parameters in which are required to be met to engage split charging are as follows;

- 1. The inhibit orange wire must be live.
- 2. The aux input blue wire must see above the split charge threshold value.
- 3. The split charge delay value must be met.

6. Force Threshold

If the aux input configuration is set to force threshold, once the aux input wire is triggered, positive or negative (**See page 1 for polarity details**) then the battery guard will be forced into low voltage threshold condition. If the inhibit orange wire is active the battery guard will not be able to disconnect.



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