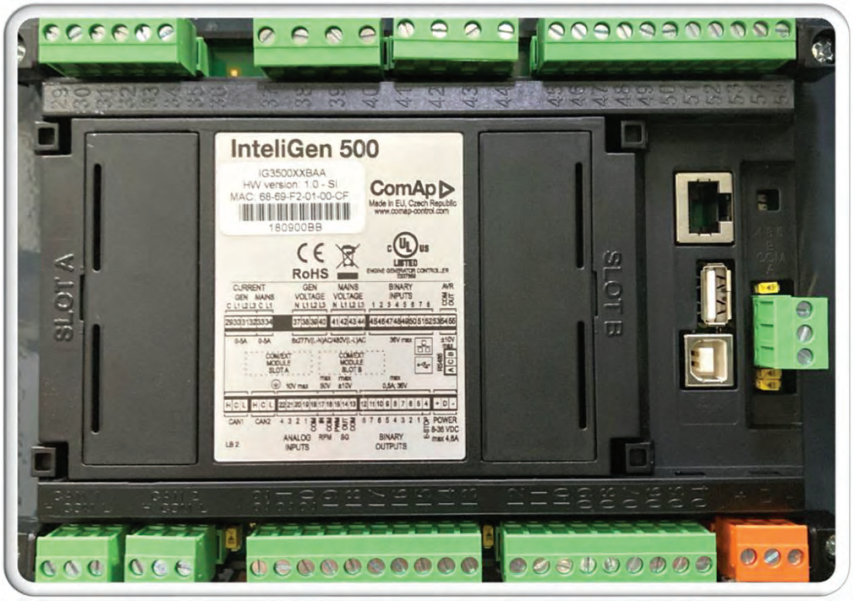
# COMAP CONTROLLER INTRODUCTION


## CLICK SECTION TITLE BELOW TO JUMP TO SECTION

# REVIEWING THE CONTROLLER


**ComAp**
**IntelGen 500 Controller**
– FRONT VIEW –




**ComAp**
**IntelGen 500 Controller**
– BACK VIEW –

# BREAKING DOWN THE CONTROLLER FRONT


## Front Breakdown - Buttons

1. Page Left
2. Page Right
3. Horn Reset / Silent
4. Fault Reset / Alarm Reset

# BREAKING DOWN THE CONTROLLER FRONT


## Front Breakdown - Buttons

### Status Indicator (1)

- Red Flashing - Level 2 Shutdown
- Red Solid - Display is in Booting Procedure
- Teal Solid - Controller Housing Temps Exceed 185˚F
- Yellow Solid - Level 1 Alarms / Failures
- Green Solid - Unit is Running Without Errors

# BREAKING DOWN THE CONTROLLER FRONT


## Front Breakdown - Buttons

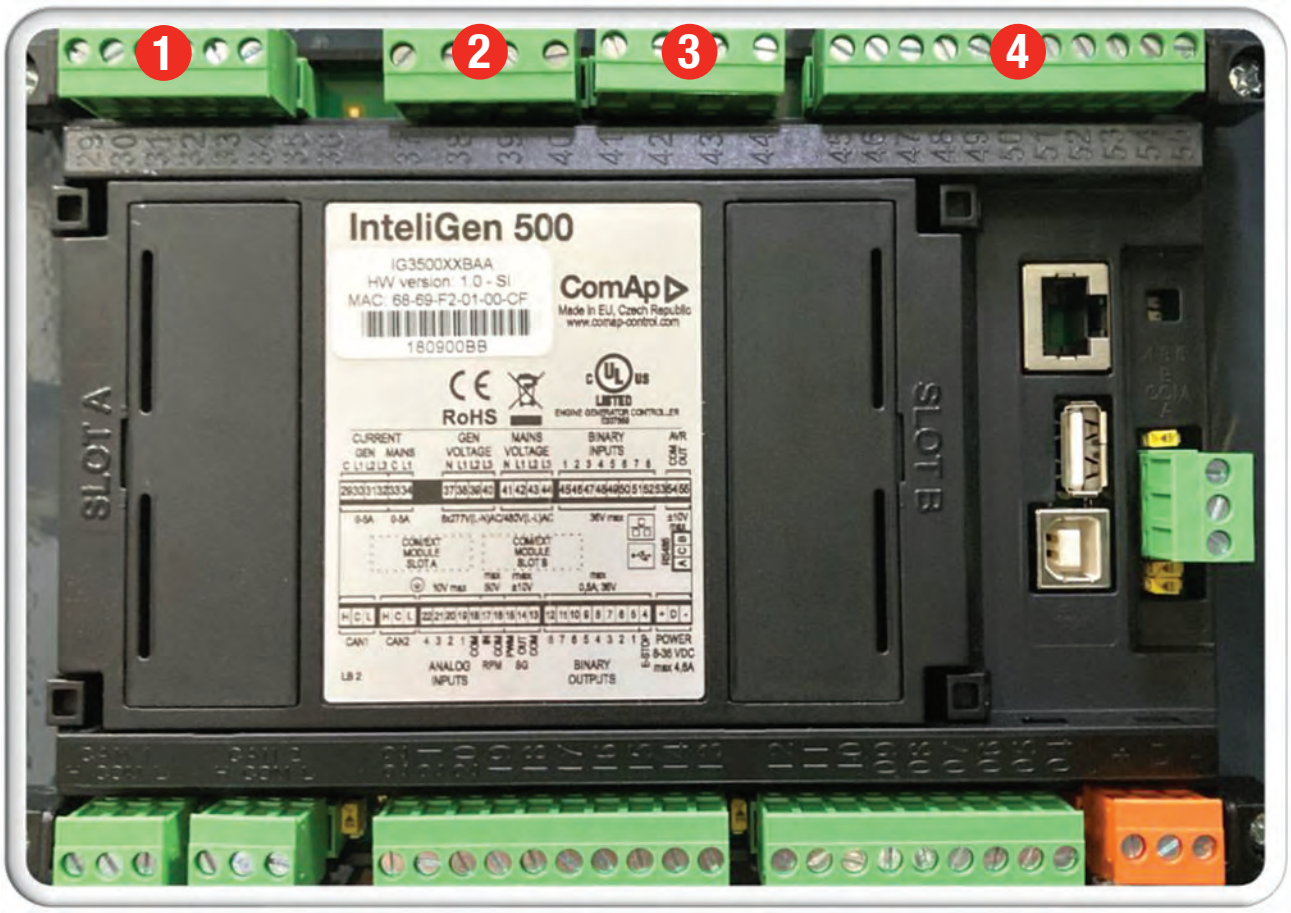
1. Page Up
2. Page Cycle
3. Page Right
4. Enter Button
5. Start Button
   (Works Only in Manual Mode)
6. Stop Button
   (Works Only in Manual Mode)

# BREAKING DOWN THE CONTROLLER FRONT


## Front Breakdown - Buttons

1. Forced Regen Button
2. Close/Open Main Breaker Command
3. Alarm/Warning List
4. Historical Event Log
5. Home Button

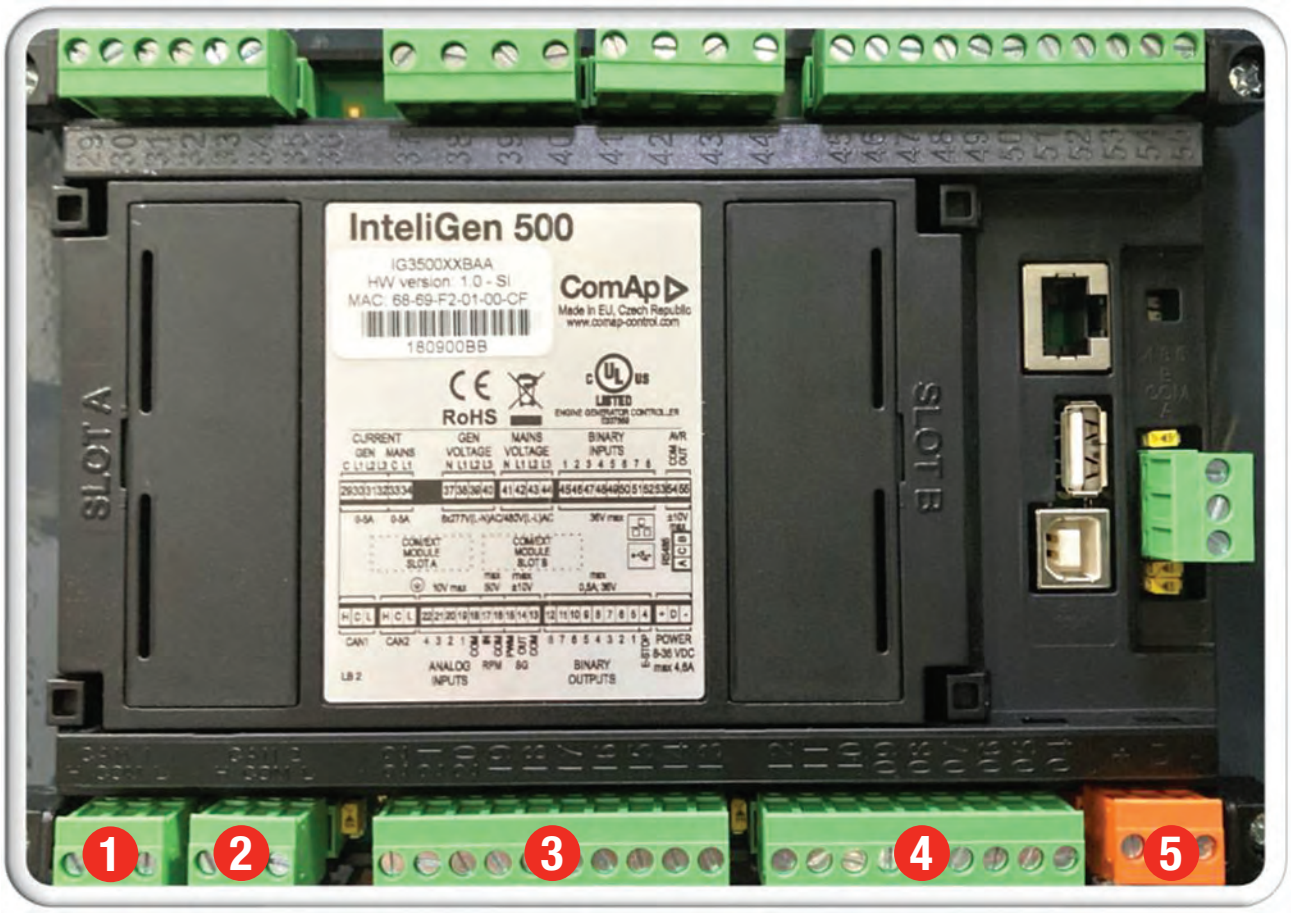
# BREAKING DOWN THE CONTROLLER BACK




## Back Breakdown - Wire Ports

1. Current Inputs (Gen Voltage Measurement)
2. Main Voltage Inputs (Voltage Measurement)
3. BUS Voltage Inputs (Voltage Measurement)
4. Binary Inputs (Breaker Feedback, Controller Switch, AVR, etc.)

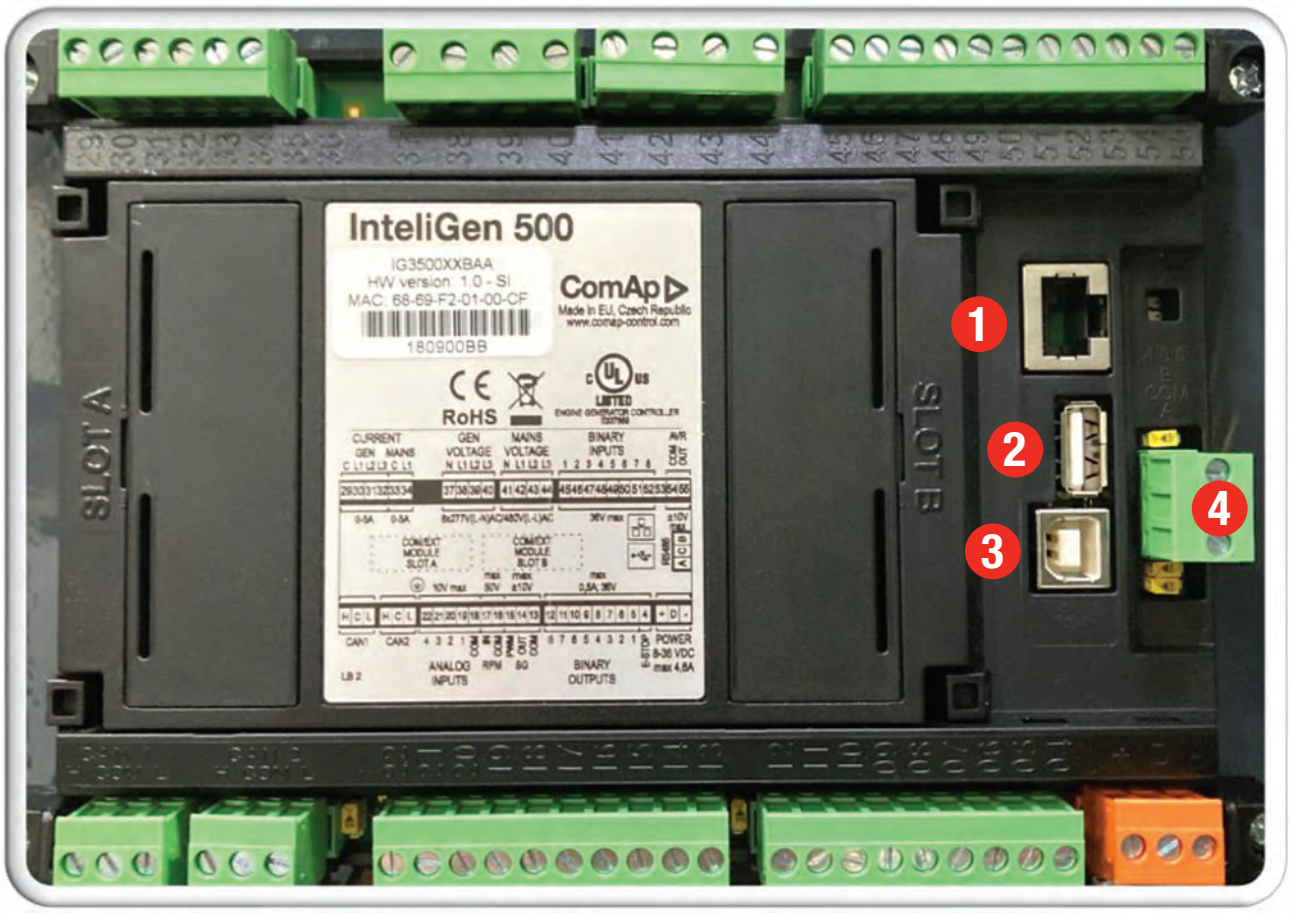
# BREAKING DOWN THE CONTROLLER BACK




## Back Breakdown - Wire Ports

1. CAN1 (CAN BUS)
2. CAN2 (CAN BUS)
3. Analog Inputs (Speed, Governor, Oil Pressure, Coolant Temp, etc.)
4. Binary Outputs (Breaker State, Stater Motor Control, Fuel Solenoid Valve, etc.)
5. Power Supply ( + / – )

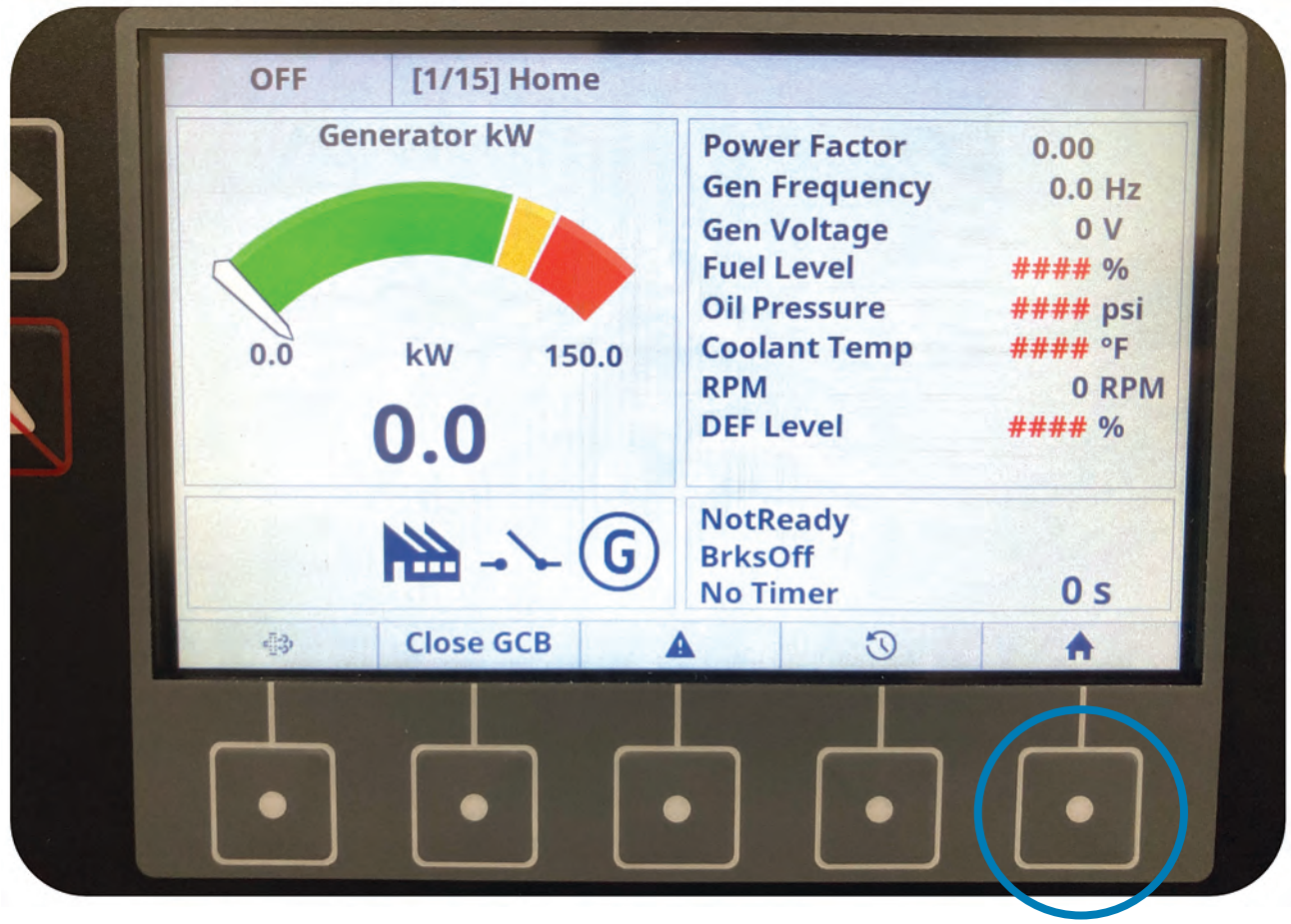
# BREAKING DOWN THE CONTROLLER BACK




## Back Breakdown - Wire Ports

1. Ethernet Port (RJ45)
2. USB A Port
3. USB B Port
4. CAN A / CAN B (RS485)

# BREAKING DOWN THE CONTROLLER SCREENS



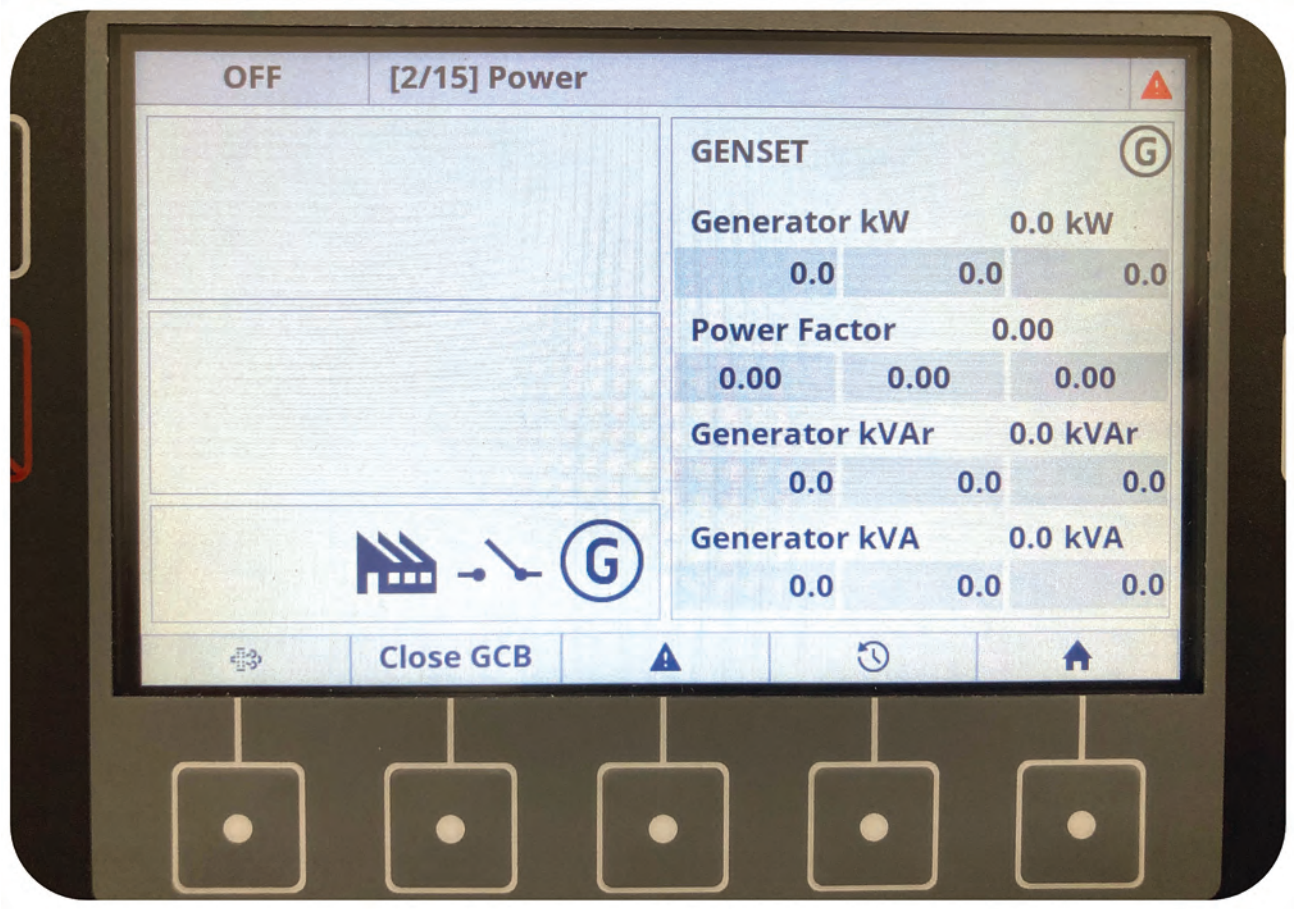

## Front Breakdown - Home

**Home Screen** – This screen provides you with a snapshot of what is currently going on with your generator. The following Home sub screens will have more detailed information.

The Generator kW color guage on the screen has the following indications:

Green = Safe Operation
Yellow = Warning Zone
Red = Load is Too Large

# BREAKING DOWN THE CONTROLLER SCREENS

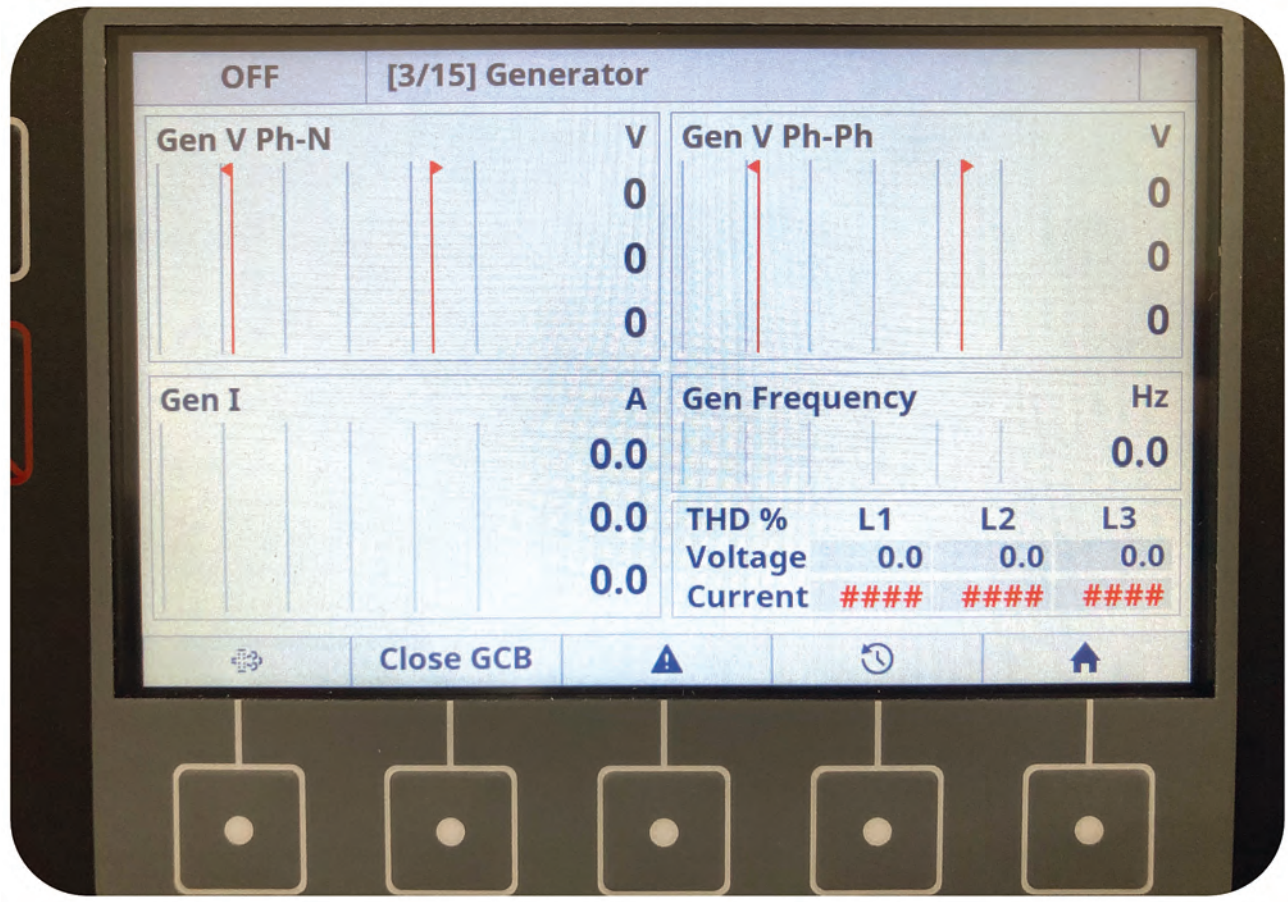



## Front Breakdown - Home

**Power Factor** – This screen gives us the Power Factor breakdown. It measures the overall kW, Generator Power Factor, and the units kVAr and kVA.

The "G" shown on the lower middle half of the screen will be **green** when the generator is producing power.

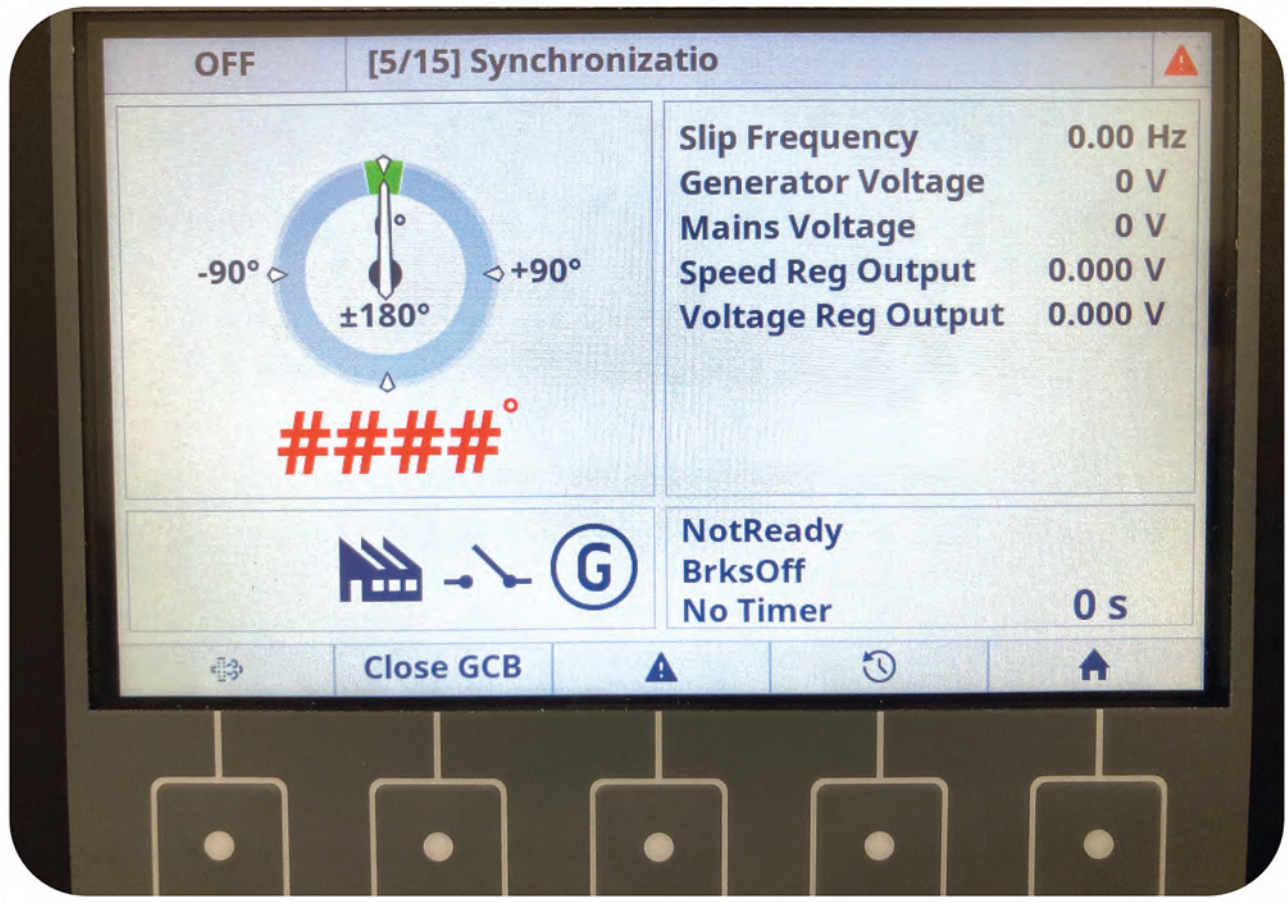
# BREAKING DOWN THE CONTROLLER SCREENS




## Front Breakdown - Home

**Generator Load** – This screen shows a breakdown of the Generator Load Line to Neutral, Line to Line, Generator Frequency, and the current Amperage that is being drawn from the unit.

# BREAKING DOWN THE CONTROLLER SCREENS




## Front Breakdown - Home

**Synchronization** – This displays the balance of the load on the generator that it is displaying for. The **GREEN ZONE** is equal to 1/2 degree (0.5) and is what will be shown if the load is balanced correctly.

If the load becomes unbalanced, the main breaker will trip. The load will then need to be corrected.

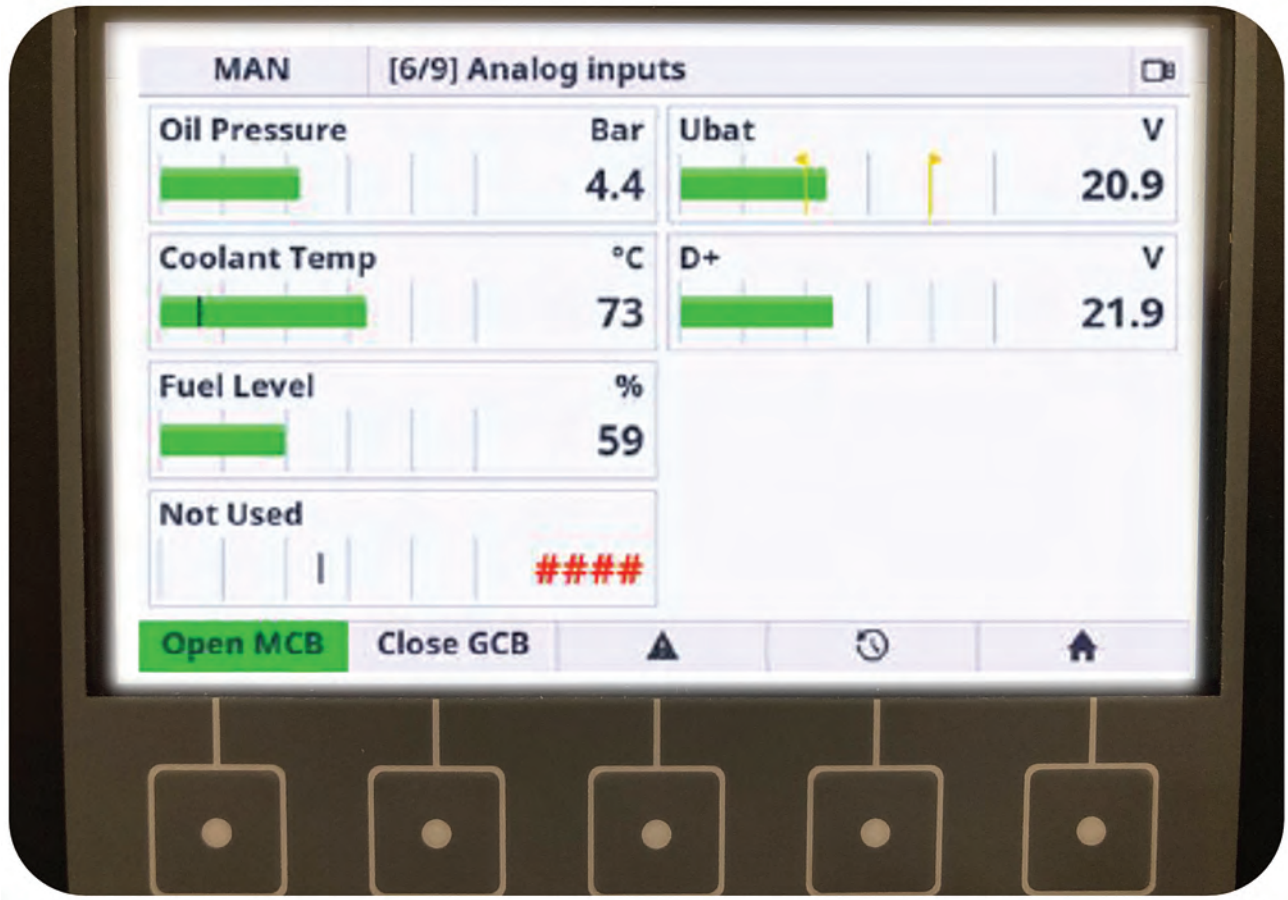
# BREAKING DOWN THE CONTROLLER SCREENS


## Front Breakdown - Home

**Power Management** – This will show if there are any connections on the CAN system. This CAN system display is for all the parallel units that are paired together.

CAN16 is the first 16 units and CAN32 will be the last 16 units. A number "1" shown indicates that the signal is being picked up.

# BREAKING DOWN THE CONTROLLER SCREENS




## Front Breakdown - Home

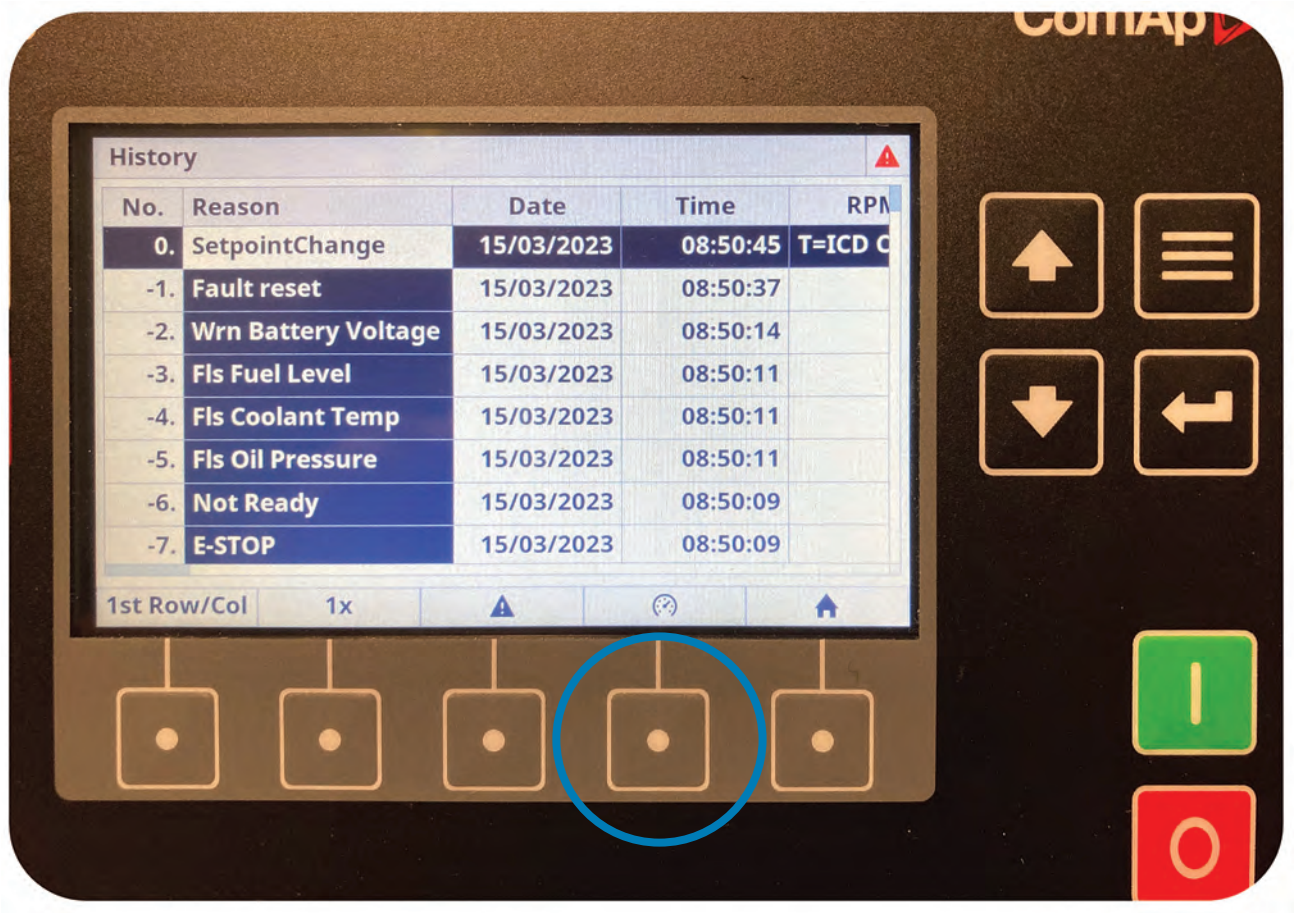
**Analog Input** – This screen displays Engine Analog Input signals such as Fuel Level, Coolant Temp, Battery Voltage and Oil Pressure.

# BREAKING DOWN THE CONTROLLER SCREENS


## Front Breakdown - Home

**Aftertreatment** – This screen displays everything that is related to the SCR System. It shows you the DEF Level %, any SCR alarm/warning indicators and Regeneration alarms or warnings.

# BREAKING DOWN THE CONTROLLER SCREENS

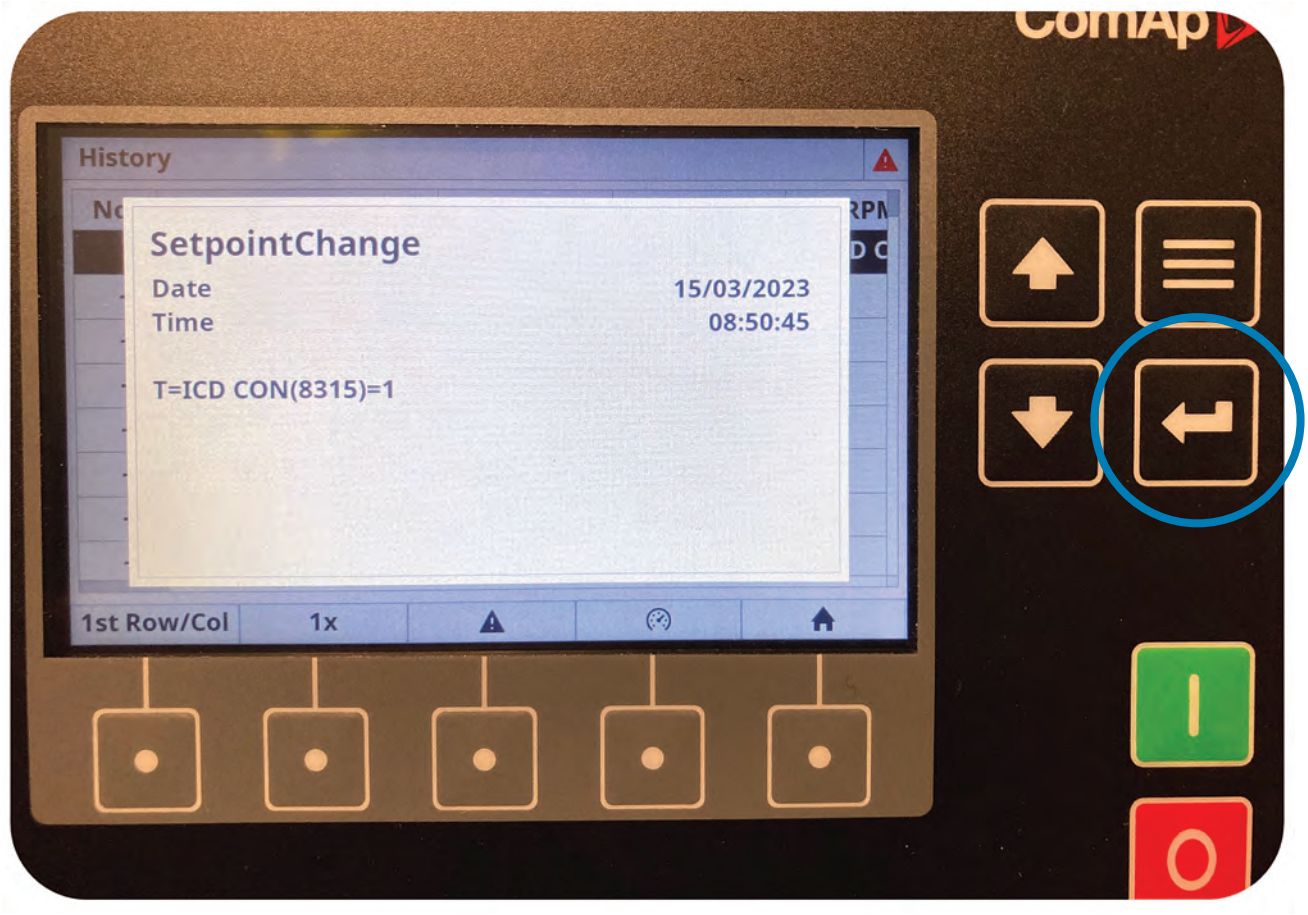



## Front Breakdown - Historical Data Log

This will store all events of any faults or alarms. It will also provide time stamps of when the occurrence happened and a brief description.

Press the **ENTER** button for a description of any highlighted event.

# BREAKING DOWN THE CONTROLLER SCREENS



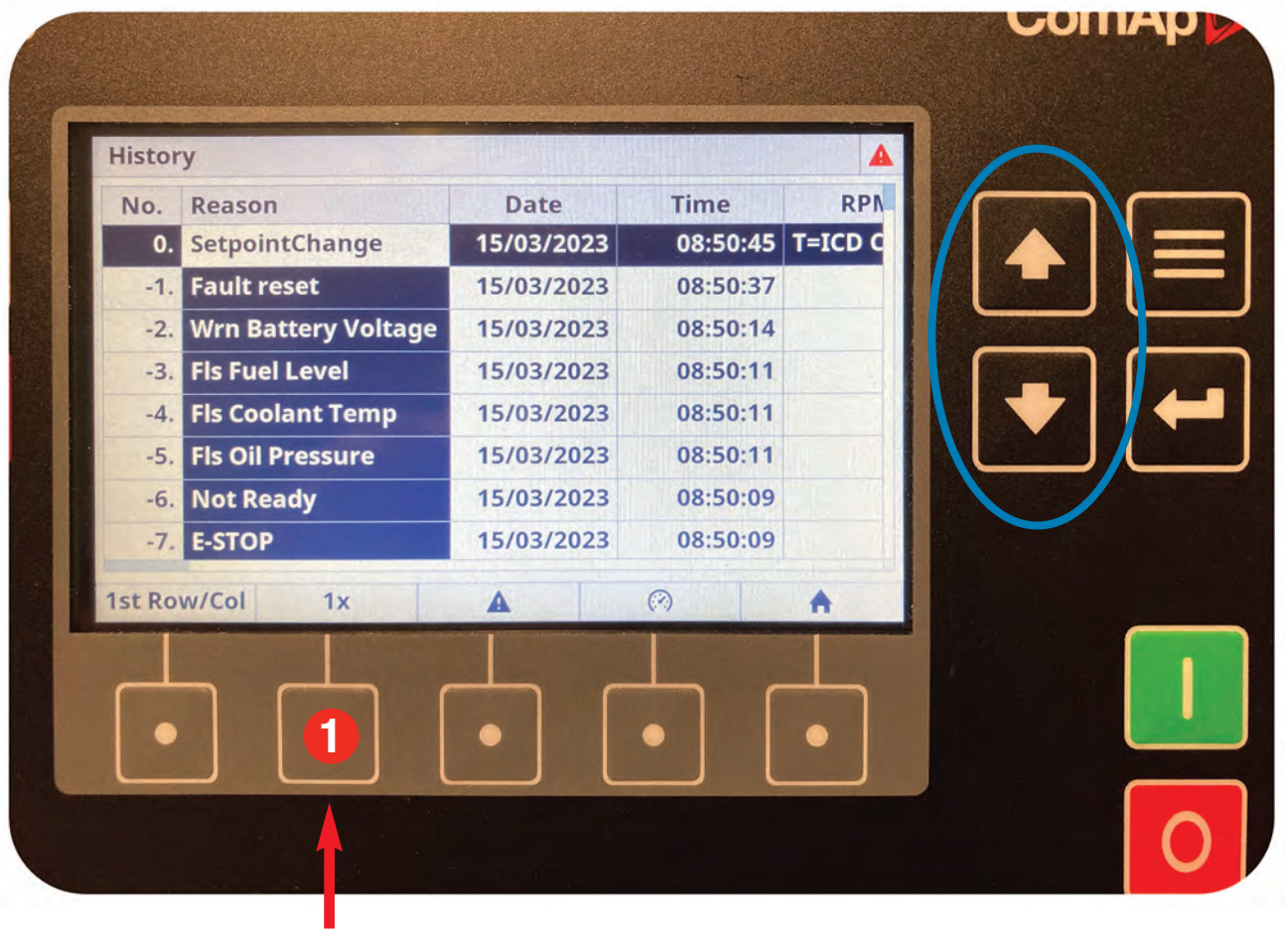

## Front Breakdown - Historical Data Log

Once you have pressed the **ENTER** button on any selected event, a pop-up window will show you the full description and all of the unit's information that was present at the time of the event.

Information will include:

- Runtime
- Controller Command
- Voltage Draw
- Amp Load

# BREAKING DOWN THE CONTROLLER SCREENS

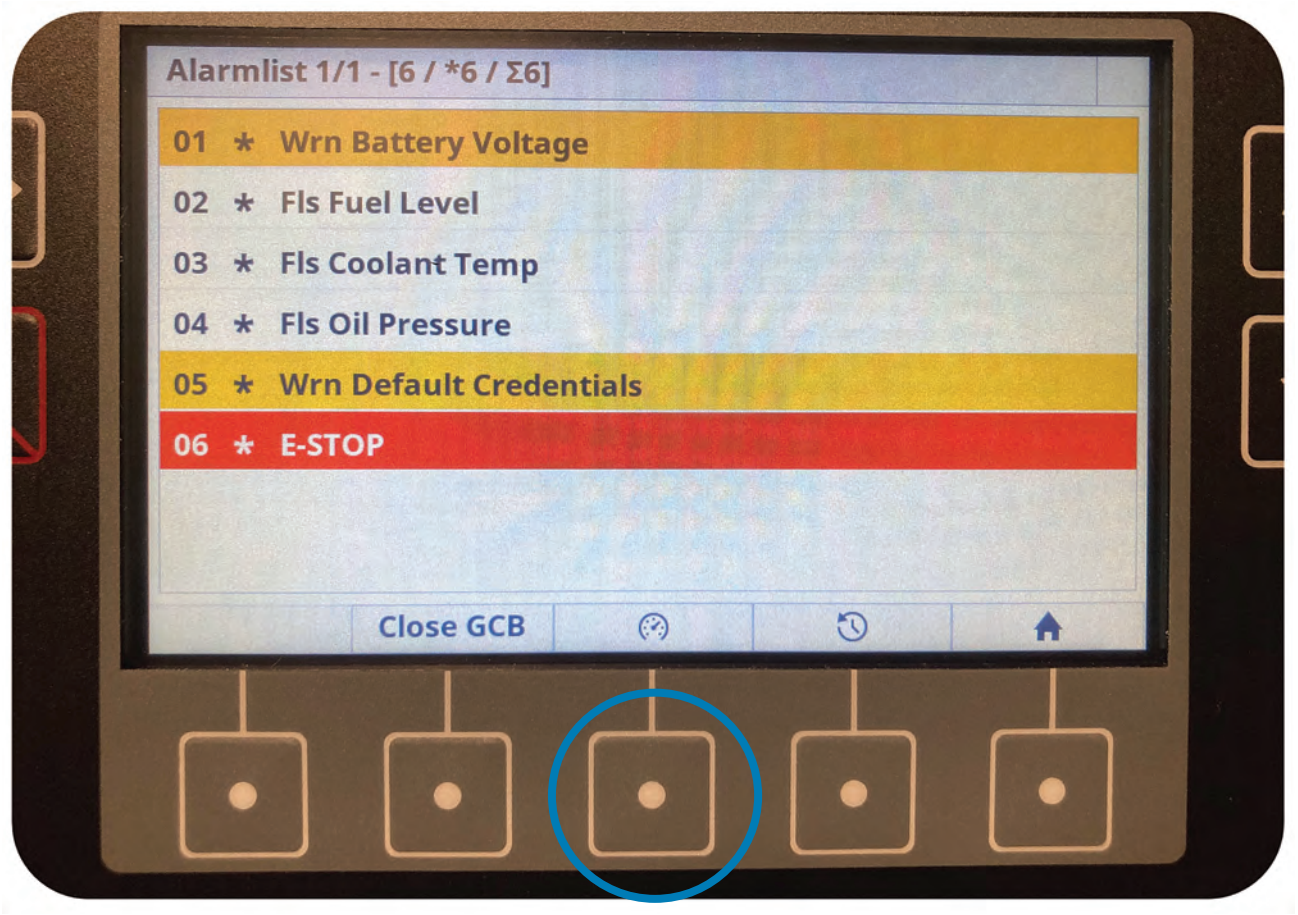



## Front Breakdown - Historical Data Log

You will be able to circle the events by pressing the **PAGE UP** and **PAGE DOWN** buttons on the controller.

You also have the option of increasing the number of events you Page Up or Page Down by. Select the **1X OPTION** button (1) shown above.

# BREAKING DOWN THE CONTROLLER SCREENS

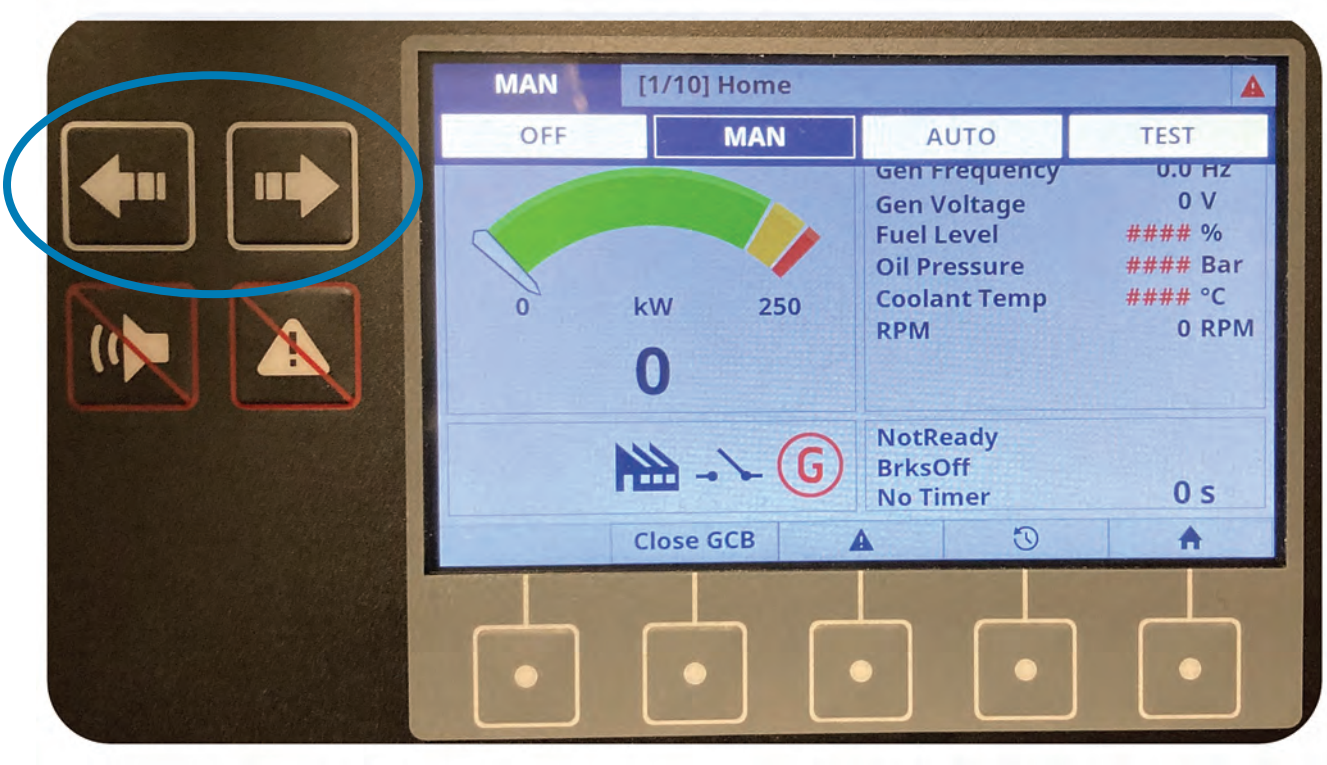



## Front Breakdown - Alarm / Warning List

This screen will provide you with a full list of all the stored events that have taken place with this unit's controller.

This will be an extremely useful screen when a unit comes back from rent.

# BREAKING DOWN THE CONTROLLER SCREENS




## Front Breakdown - Start Mode

By using the **PAGE LEFT** and **PAGE RIGHT** buttons, you can choose to put the unit in either Manual Mode or Auto Mode.

The Test Mode option will only be used for Diagnostic Services and is not advised for use unless properly trained.

# BREAKING DOWN THE CONTROLLER SCREENS


## Front Breakdown - Start Mode

Once you have selected Start Mode for your application, proceed to start the unit by pressing the **GREEN START** button on the ComAp controller.

Once you have your unit warmed up and ready to provide power, you can close the main breaker by pressing the **CLOSE COMMAND** button (1) and power will be available.