

# Application Guide

## ComAp InteliNano NT<sup>®</sup> Standby Generator Control Board

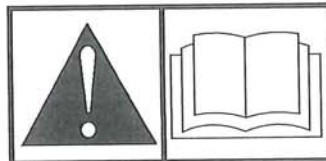
**Questions?**

**Help is just a moment away!**

**Call: Technical Services**

**800-743-4115**

**Monday-Friday 8:00 AM to 5:00 PM Central Time**



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Briggs & Stratton Power Products Group, LLC  
P.O. Box 702  
Milwaukee, WI 53201-0702

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# Save These Instructions

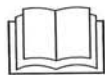
## Important Safety Instructions

**SAVE THESE INSTRUCTIONS** - This manual contains important instructions that should be followed during installation of the equipment.

### Safety Symbols and Meanings



Electrical Shock



Read Manual

▲ The safety alert symbol indicates a potential personal injury hazard. A signal word (DANGER, WARNING, or CAUTION) is used with the alert symbol to designate a degree or level of hazard seriousness. A safety symbol may be used to represent the type of hazard. The signal word NOTICE is used to address practices not related to personal injury.

▲ DANGER indicates a hazard which, if not avoided, will result in death or serious injury.

▲ WARNING indicates a hazard which, if not avoided, could result in death or serious injury.

▲ CAUTION indicates a hazard which, if not avoided, could result in minor or moderate injury.

NOTICE addresses practices not related to personal injury.

The manufacturer cannot possibly anticipate every possible circumstance that might involve a hazard. The warnings in this manual, and the tags and decals affixed to the unit are, therefore, not all-inclusive. If you use a procedure, work method or operating technique that the manufacturer does not specifically recommend, you must satisfy yourself that it is safe for you and others. You must also make sure that the procedure, work method or operating technique that you choose does not render the equipment unsafe.

▲ **WARNING** Certain components in this product and related accessories contain chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm. Wash hands after handling.

**NOTICE** Only qualified, licensed electricians should attempt installation of this equipment, which must strictly comply with applicable codes, standards and regulations.

▲ **WARNING** Failure to properly ground equipment could cause electrocution resulting in death or serious injury.



- Do not touch bare wires.
- Do not use equipment with worn, frayed, bare or otherwise damaged wiring.
- Do not handle electrical cords while standing in water, while barefoot, or while hands or feet are wet.
- If you must work around a unit while it is operating, stand on an insulated dry surface to reduce shock hazard.
- Do not allow unqualified persons or children to operate or service equipment.
- In case of an accident caused by electrical shock, immediately shut down all sources of electrical power and contact local authorities. Avoid direct contact with the victim.

**NOTICE** Improper treatment of equipment could damage it and shorten its life.

- Use equipment only for intended uses.
- If you have questions about intended use, ask dealer or contact Briggs & Stratton Power Products.
- Do not expose equipment to excessive moisture, dust, dirt, or corrosive vapors.
- Remain alert at all times while working on this equipment. Never work on the equipment when you are physically or mentally fatigued.

# Alarms, Events and History

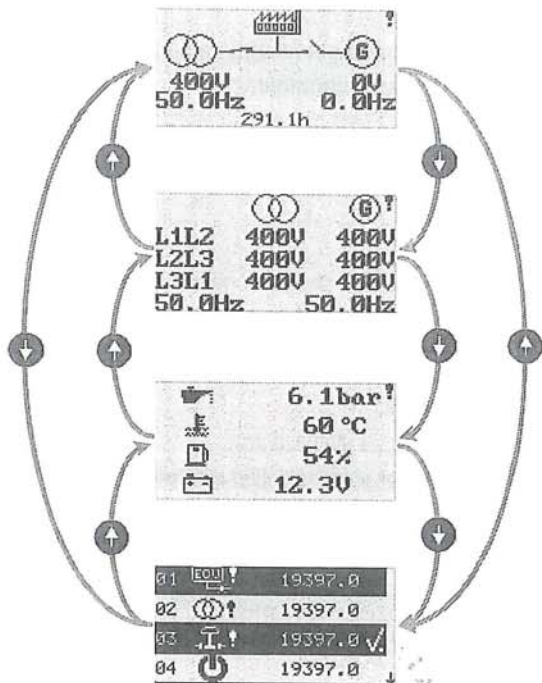
The following alarms and records are available:

- Events
- Warnings
- Shutdowns
- ECU Messages

Four records can be displayed simultaneously on the LCD screen. Total capacity is 10 records.

To view further history records you have to wait 3 second till the down arrow stops blinking.

For alarm (shutdown) confirmation press Stop button.



## Events

Every event is saved in history with running hours.



## Warnings

**Active Warning:** When a warning occurs, 004 Alarm output will close and the red LED above the stop button will blink. Warning symbol will blink in the upper-right corner of the LCD and the proper warning symbol will be displayed in the history with running hours stamp. *Active warning cannot be confirmed.*



**Inactive Warning:** When a warning becomes inactive, 004 Alarm output will open, the red LED above the stop button will stop blinking, and the warning symbol on the main screen will go out.



## Shutdowns

**Shutdown procedure:** The InteliNano® controller opens outputs 005 GCB Close/Open, 001 Starter, 008 Prestart and 002 Fuel Solenoid and closes 003 Stop Solenoid to stop the engine immediately. 004 Alarm output is closed. Active or not confirmed protection disables start.

**Active unconfirmed shutdown:** When a shutdown occurs, the Shutdown procedure will start, the red LED above Stop button blinks, the shutdown symbol will blink in the upper right corner of LCD, and the proper shutdown symbol is displayed in history with running hours stamp. The record in history is negative. For shutdown alarm confirmation press Stop button.



**Active confirmed shutdown:** When an active shutdown is confirmed the red LED above the Stop button stops blinking. The record in history stays negative with confirmation symbol at the end. 004 Alarm output is open.



**Inactive unconfirmed shutdown:** 004 Alarm output is closed, red LED above Stop button blinks. Shutdown symbol is displayed in upper-right corner of the LCD, and proper warning symbol is displayed in history with running hours stamp. For shutdown alarm confirmation press Stop button



**Inactive confirmed shutdown:** 004 Alarm output is opened. It is possible to start engine when all shutdowns are inactive and confirmed.



### ECU Messages

Diagnostic messages are read and displayed in the history behind the ECU Warning symbol. For Standard J1939 SPN (Suspect Parameter Number) and FMI (Failure Mode Identifier) are shown. A complete list of text diagnostic messages for each ECU can be found on *The Power Portal*.



## Start and Stop Engine

### Manual Mode

Green LED above **Auto** button is off (controller is in MANUAL mode). When there is no active shut down alarm you can start the engine by pressing **Start** button. Green LED above button will blink. LED is blinking during starting, cooling or stopping procedure. When the engine is already started, the green LED will stop blinking and will light steadily. The generator is ready to load.

Press **Stop** button to stop the engine. First press will open the GCB and next press start cooling and stopping procedure. When you press this button again the controller will stop the engine immediately. For fast engine stop press and hold **Stop** button till engine stops.

### Auto Mode

Green LED above **Auto** button is on (controller is in AUTO mode). You can't start the engine or connect the load by pressing **Start** button. The controller will start automatically when all conditions for start and load connection will be reached.

**NOTICE** The engine in AUTO mode CANNOT be stopped by pressing Stop button.

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# Application Guide

## ComAp IntelliLite NT®

Standby Generator Control Board

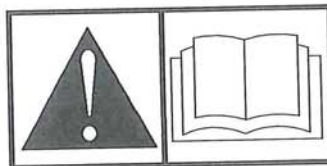
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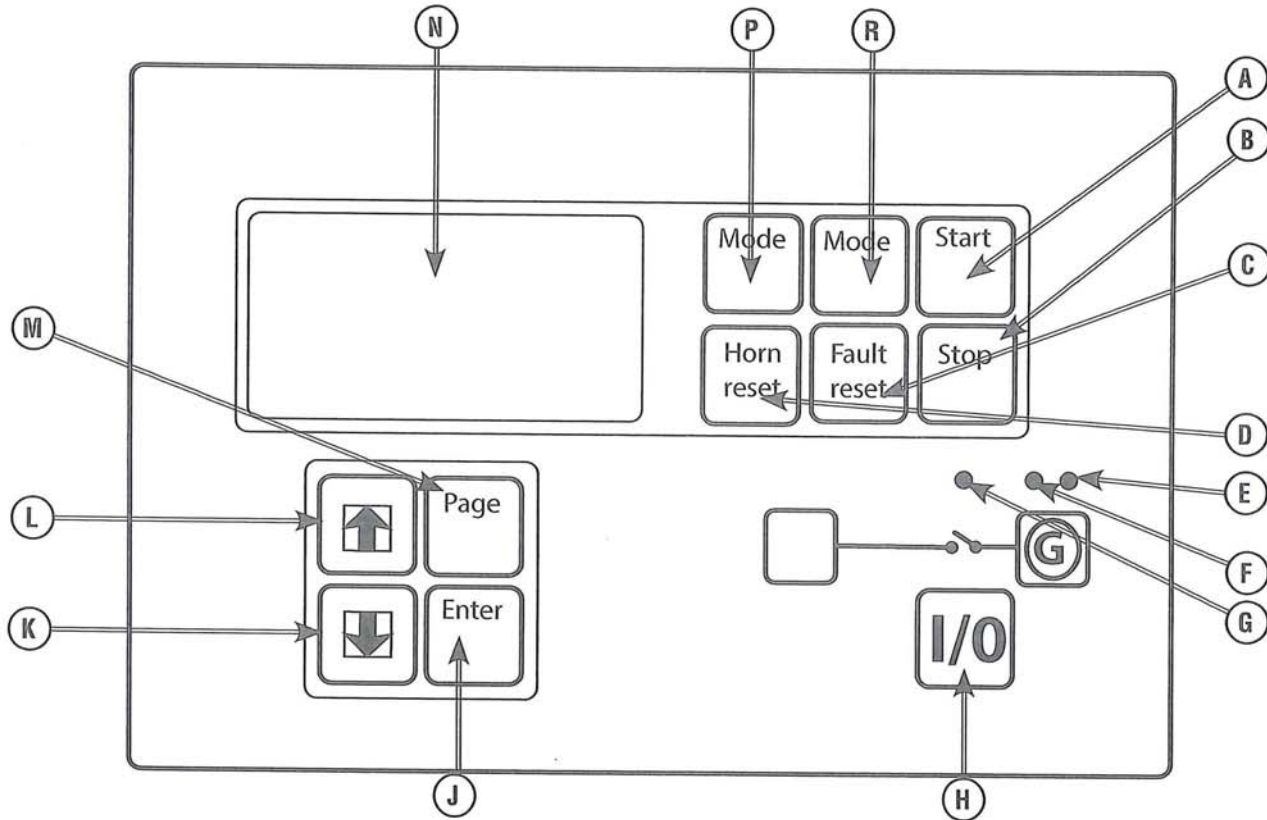


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# Operator Interface



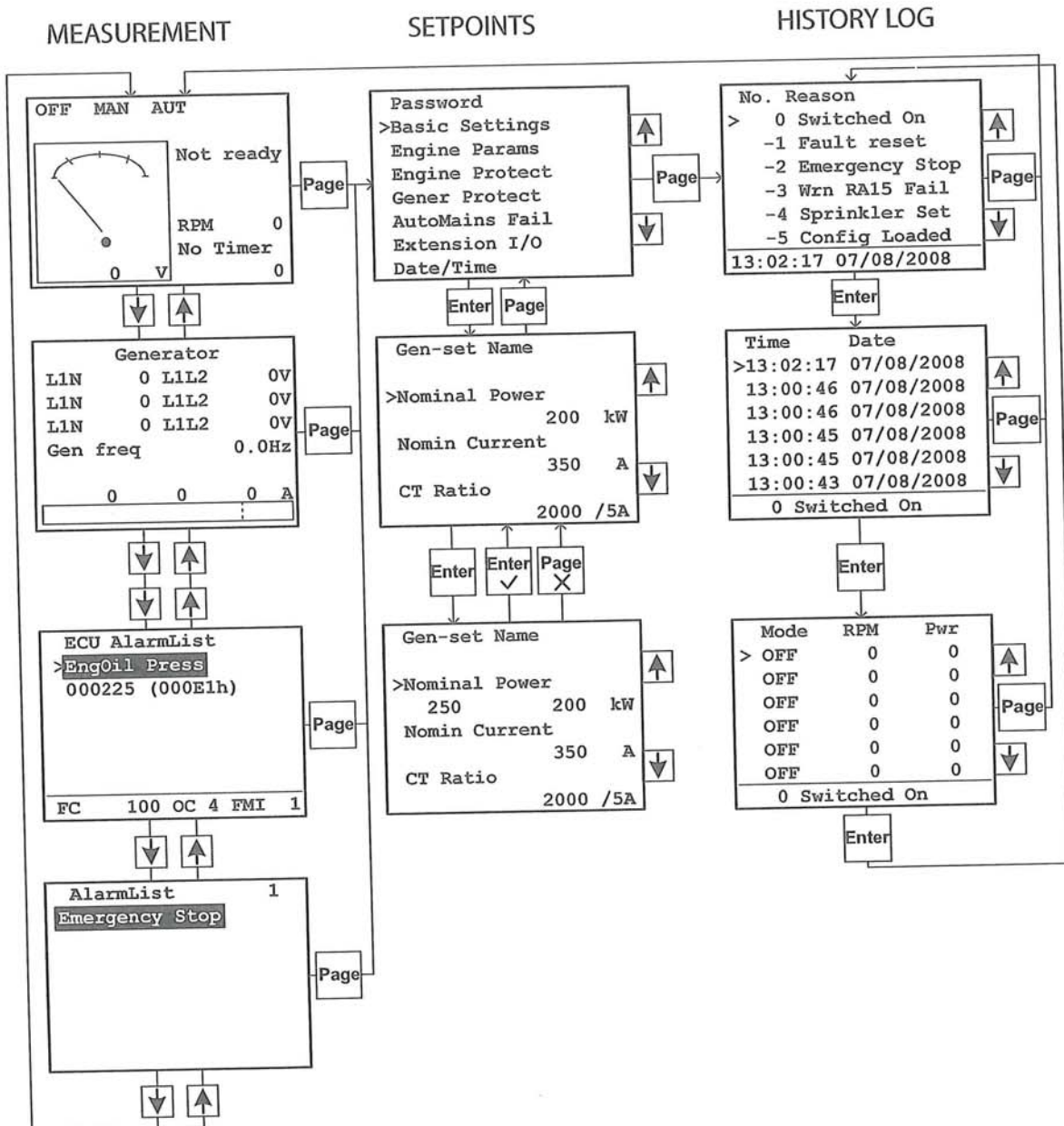
Control Buttons		
Position	Button	Description
A	Start Button	Works in MANUAL MODE only. Press this button to initiate the start sequence of the engine.
B	Stop Button	Works in MANUAL MODE only. Press this button to initiate the stop sequence of the generator. Repeated pressing or holding the button for more than 2 seconds will cancel current phase of stop sequence (like ramping the power down or cooling) and next phase will continue.
C	Fault Reset	Use this button to acknowledge alarms and deactivate the horn output. Inactive alarms will disappear immediately and status of active alarms will be changed to "confirmed" so they will disappear.
D	Horn Reset	Use this button to deactivate the horn output without acknowledging the alarms.
E	Gen-set Failure	RED LED starts flashing when generator failure occurs. After Fault Reset button is pressed, LED becomes steady (if active alarm) or off (no active alarm).
F	Gen-set Voltage OK	GREEN LED is on if the generator voltage is present and within limits.
G	Generator Circuit Breaker ON	GREEN LED is on if GCB is closed.
H	Generator Circuit Breaker Button	Works in MANUAL MODE only. Press this button to open or close the GCB manually.
J	Enter Button	Use this button to finish editing a setpoint or moving 'right' in the history page.
K	Down Button	Use this button to switch over display pages.
L	Up Button	Use this button to move up or increase a value.
M	Page Button	Use this button to switch over display pages.
N	LCD Display	Black/White Display screen. 128 X 64 pixels
P	Mode Left	Use this button to change the mode. The button works only if the main screen with the indicator of currently selected mode is displayed.
R	Mode Right	Use this button to change the mode. The button works only if the main screen with the indicator of currently selected mode is displayed.

# Display Screen Structure

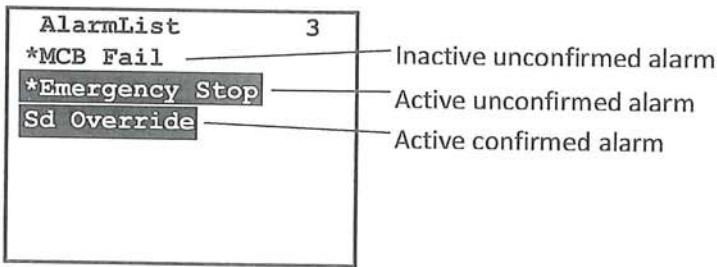
The displayed information is structured into pages and screens.

Use the PAGE button to switch over the pages.

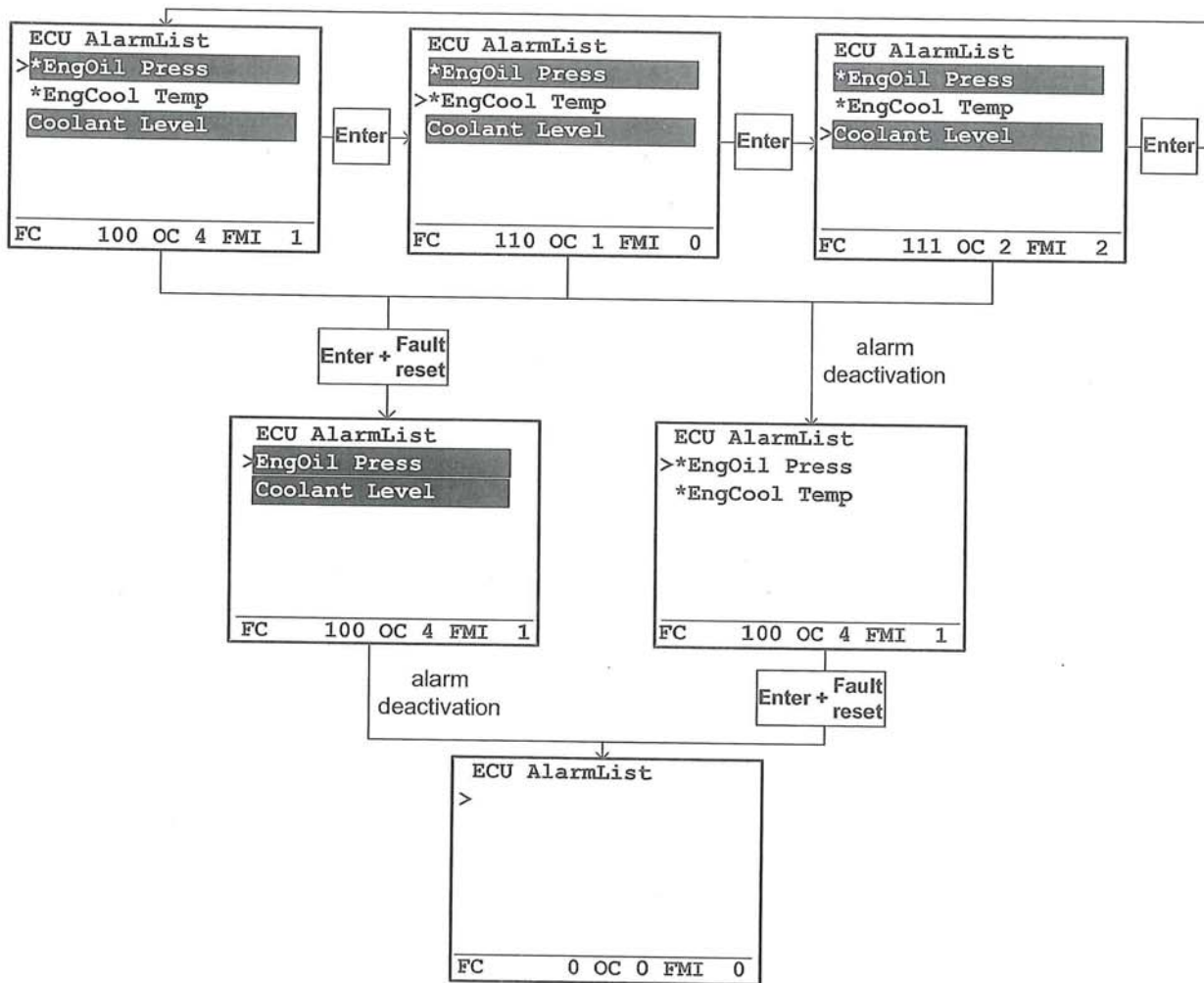
1. The page Measurement consists of screens which display measured values like voltages, current, oil pressure etc., computed values like i.e. gen-set power, statistic data and the alarm list on the last screen.
2. The page Setpoints contains all setpoints organized to groups and also a special group for entering password.
3. The page History log shows the history log in the order that the last record is displayed first.



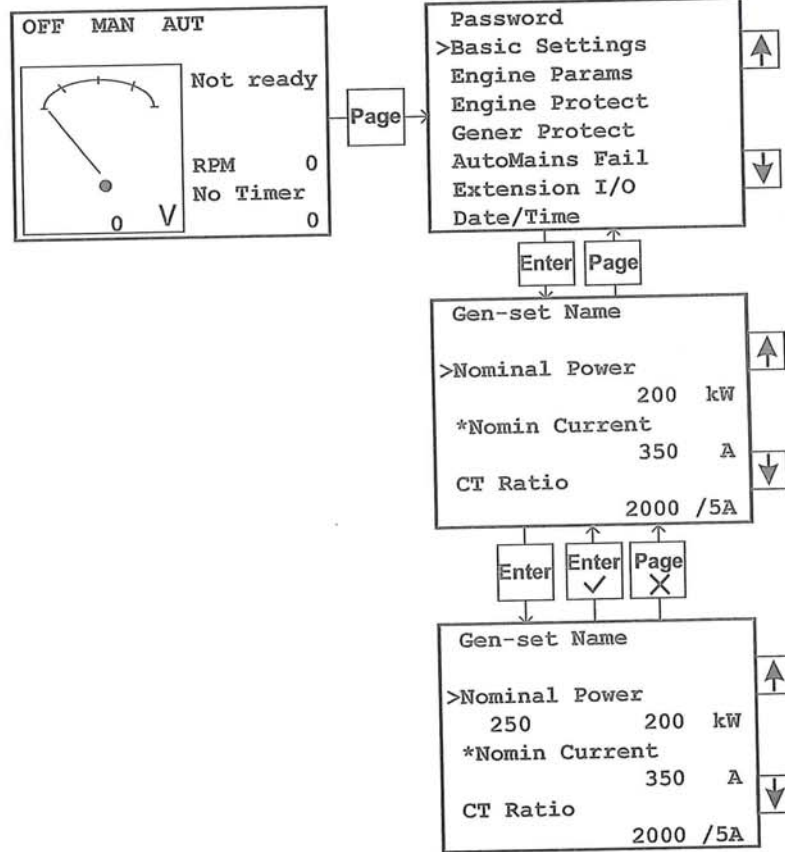
# Alarms



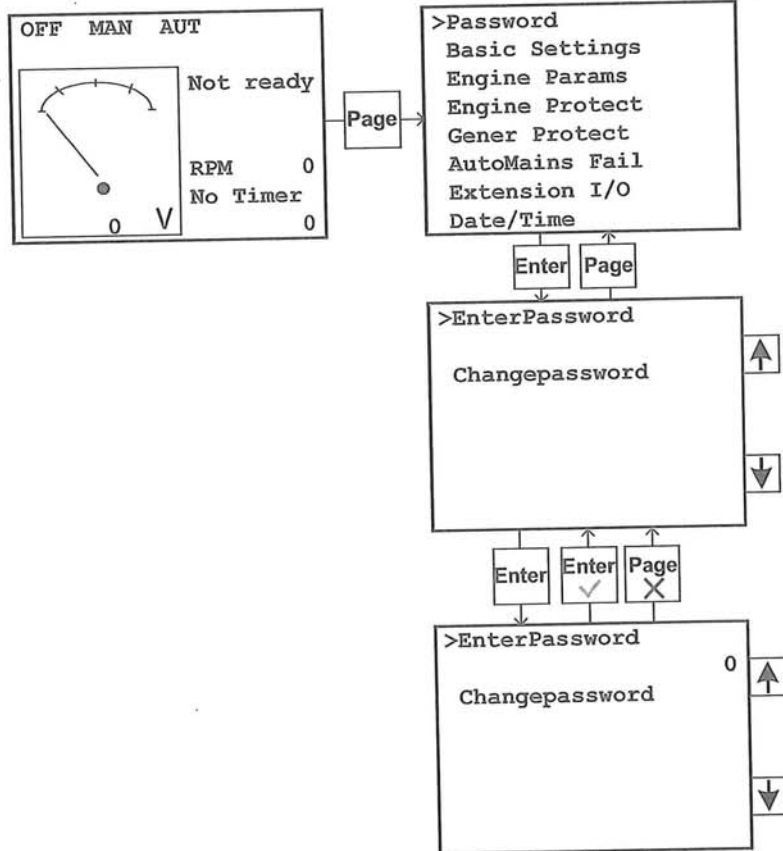
## Browsing ECU Alarm Examples



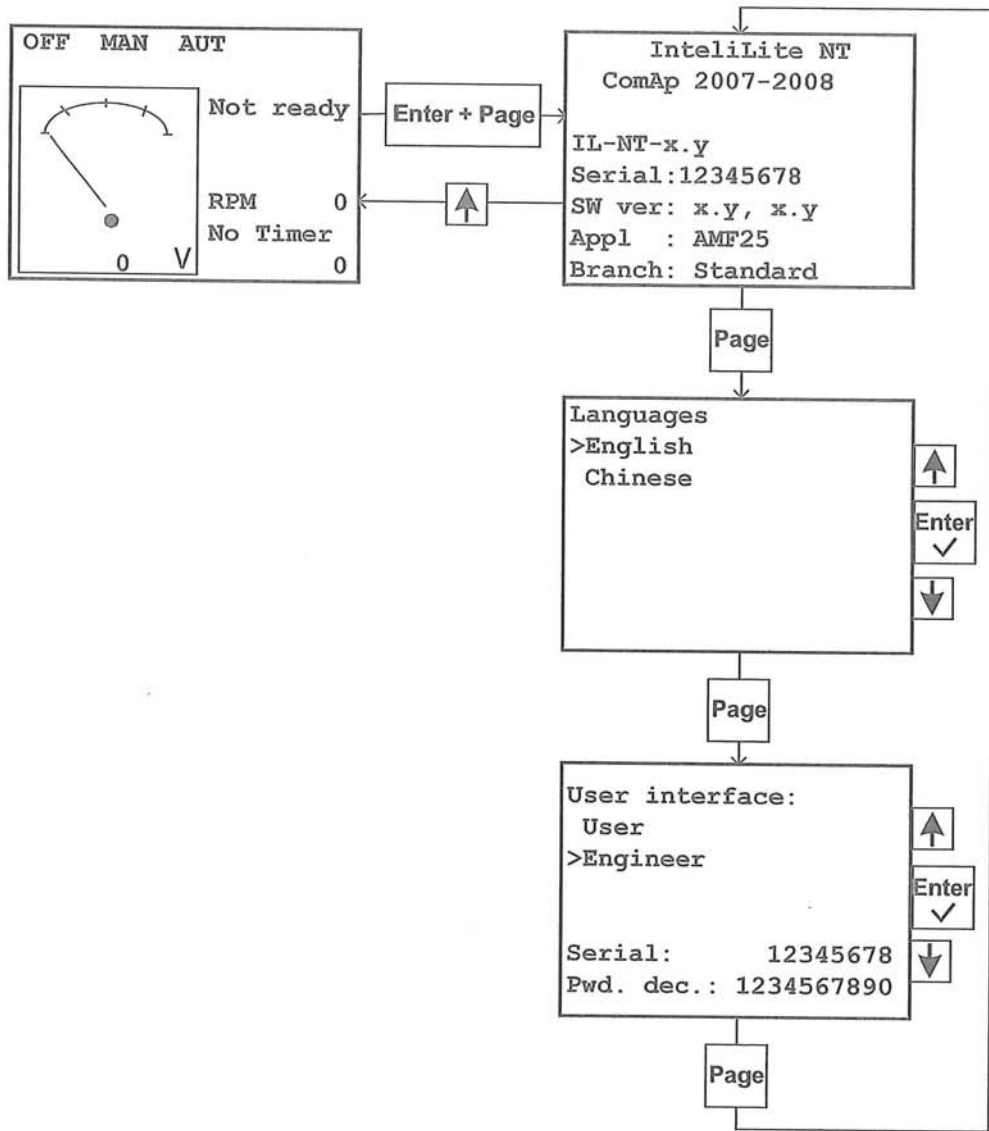
# SETPOINT CHANGE



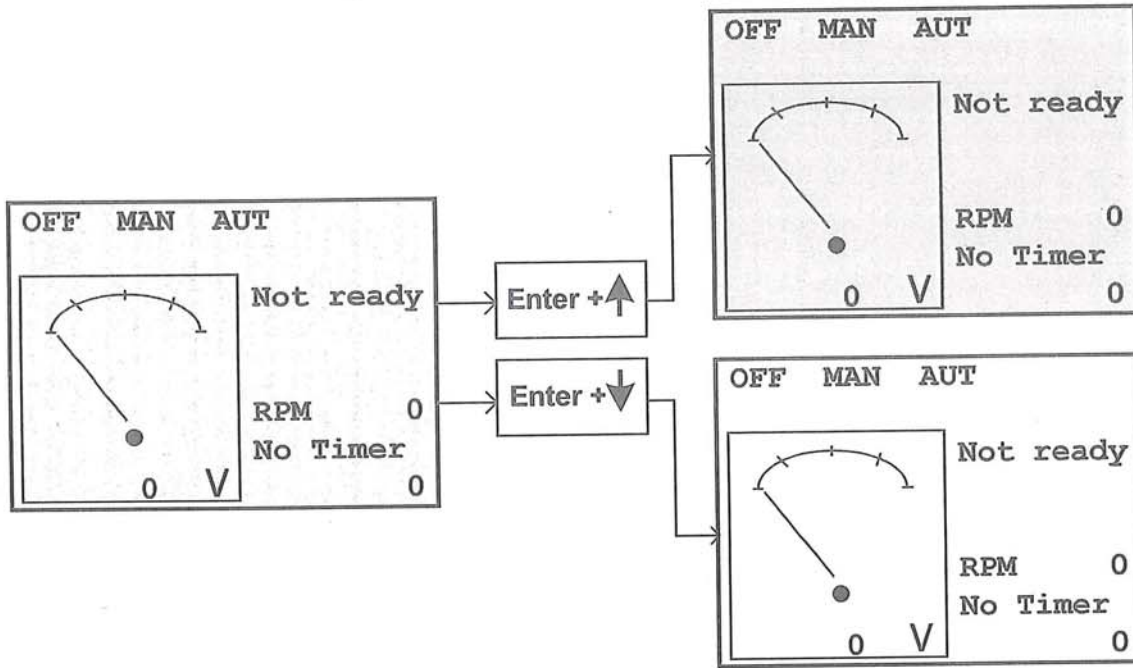
# ENTERING PASSWORD



# CONTROLLER INFORMATION SCREEN



# DISPLAY CONTRAST ADJUST



# NOTES