

COMAP CONTROLLER INTRODUCTION

Inteli Gen 500				ComAp
	AUTO [1/11] Home Generator kW 0 kW 130 102	Power Factor Frequency Gen Voltage Fuel Level Oil Pressure Coolant Temp Running Hours DEF Level DPF1 Soot Load	♪ 0.94 L 50.1 Hz 231 V 80 % 9.2 Bar 89 °C 226 h 85 % 5 %	 ▲ ₩ ₩ ₩
STATUS		Loaded Island Operation Timer	0 s	

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Reviewing the Controller Front and Back

SECTION 2

Breaking Down the Controller Front

SECTION 3

Breaking Down the Controller Back

SECTION 4

Breaking Down the Controller Screens



REVIEWING THE CONTROLLER

Inteli Gen 500			ComAp 🔈
	AUTO [1/11] Home Generator kW 0 kW 130 102	Ar Power Factor 0.94 L Frequency 50.1 Hz Gen Voltage 231 V Fuel Level 80 % Oil Pressure 9.2 Bar Coolant Temp 89 °C Running Hours 226 h DEF Level 85 % DPF1 Soot Load 5 %	
	Close MCB Open GCB	Loaded Island Operation Timer 0 s ▲ ③ ♠ ● ● ● ●	
STATUS			0

ComAp IntelGen 500 Controller – FRONT VIEW –



ComAp IntelGen 500 Controller – BACK VIEW –



Inteli Gen 500			ComAp
	AUTO [1/11] Home Generator kW 0 kW 130 102	Power Factor0.94 LFrequency50.1 HzGen Voltage231 VFuel Level80 %Oil Pressure9.2 BarCoolant Temp89 °CRunning Hours226 hDEF Level85 %	 ▲ = ↓ ←
3 4	Reference Close MCB Open GCB	DPF1 Soot Load 5 % Loaded Island Operation Timer 0 s	
STATUS			

Front Breakdown - Buttons

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



Inteli Gen 500	AUTO	[1/11] Home	_		ComAp ⊳
	Gen	kW 130	Power Factor Frequency Gen Voltage Fuel Level Oil Pressure Coolant Temp Running Hours DEF Level DPF1 Soot Load	0.94 L 50.1 Hz 231 V 80 % 9.2 Bar 89 °C 226 h 85 % 5 %	
	A	Open GCB	Loaded Island Operation Timer	0 s	
STATUS	•			•	

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



Inteli Gen 500					ComAp 🔈
	AUTO Gen 0	[1/11] Home herator kW	Power Factor Frequency Gen Voltage Fuel Level Oil Pressure Coolant Temp Running Hours	-√- 0.94 L 50.1 Hz 231 V 80 % 9.2 Bar 89 °C 226 h	
	Close MCB	102 2 -> (G) Open GCB	DEF Level DPF1 Soot Load Loaded Island Operation Timer	85 % 5 % 0 s	3 4
STATUS	•	•		·	5 6 0

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)

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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)





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



Generator kW 0.0 kW 0.0 0.0 0.0 Power Factor 0.00 0.00 0.00 0.00 0.00 Generator kVAr 0.0 kVAr 0.0 0.0 0.0 Generator kVAr 0.0 kVAr 0.0 0.0 0.0 Generator kVAr 0.0 kVAr 0.0 0.0 0.0 0.0 0.0 0.0		GENSET
0.0 0.0 0.0 Power Factor 0.00 0.00 0.00 0.00 Generator kVAr 0.0 kVAr 0.0 0.0 0.0 Generator kVA 0.0 kVA 0.0 kVA 0.0 0.0		Generator kW 0.0 kW
Power Factor 0.00 0.00 0.00 0.00 Generator kVAr 0.0 kVAr 0.0 0.0 0.0 0.0 Generator kVA 0.0 kVAr 0.0 0.0 0.0 0.0 Mark 0.0 0.0 0.0 Mark 0.0 0.0 0.0		0.0 0.0 0.1
0.00 0.00 0.00 Generator kVAr 0.0 kVAr 0.0 0.0 0.0 Generator kVAr 0.0 kVAr 0.0 0.0 0.0 Generator kVA 0.0 kVAr 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0		Power Factor 0.00
Generator kVAr 0.0 kVAr 0.0 0.0 0.0 Generator kVA 0.0 kVAr 0.0 kVAr 0.0 0.0 0.0 Generator kVA 0.0 kVAr 0.0 kVAr 0.0 0.0 0.0		0.00 0.00 0.00
0.0 0.0 0.0 Generator kVA 0.0 kVA 0.0 0.0 0.0		Generator kVAr 0.0 kVAr
Generator kVA 0.0 kVA 0.0 0.0 0.0 0.0		0.0 0.0 0.0
		Generator kVA 0.0 kVA
		0.0 0.0 0.0
🖶 Close GCB 🛕 🕥 🔒	Close GCB	

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.





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.





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.





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.





Front Breakdown - Home

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



	STOP	00	
<30	= =3		Ĩ?
DEF Level	% ####		
REG Inhibit RI	EG Force		

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.





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.



History		
Ne Date Time T=ICD CON(8315)=1	15/03/2023 08:50:45	
1st Row/Col 1x A		

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





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.



Alarm	list 1/1 - [6 / *6 / Σ6]
01 *	Wrn Battery Voltage
02 *	Fls Fuel Level
03 *	Fls Coolant Temp
04 *	Fls Oil Pressure
05 *	Wrn Default Credentials
06 *	E-STOP
	Close GCB (?) 🕚 🔒

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.





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.



Inteli Gen 500					ComAp ⊳
	MAN	[1/10] Home			
	OFF	MAN	AUTO	TEST	$\square \square$
	0	kw 250 0	Gen Frequency Gen Voltage Fuel Level Oil Pressure Coolant Temp RPM	0.0 H2 0 V #### % #### 8ar #### °C 0 RPM	
		Close GCB	NotReady BrksOff No Timer	0 s	
	•		•••	•	
STATUS					0

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.