

What to consider if I want to upgrade obsolete GCP-3x controls to easYgen-3000XT controls

Justin Schneider - 2026-07-27 - [GCP-3x](#)

Upgrading old obsolete GCP-31/32 to easYgen-3000XT controls



The obsolete GCP-30 Line was defined in different packages:

- GCP-31 was serving only a Generator breaker paralleled to bus or grid
- GCP-32 was serving Generator and Mains Breaker supporting AMF/ATS and Island paralleling
- Base Package BPD/BPQ to be replaced with easYgen-3200XT 8440-2082 optional an IKD1M 8440-2116 digital I/O card is required if all digital inputs were used in GCP-3x.
- GCP-31/32 xxD (D for Digital) interfaced with pot free contacts / raise and lower to AVR and Speed Governor
- GCP-31/32 xxQ, Q was the option for flexible configurable PIDs +/-20mA +/-10V and PWM speed and voltage bias, via Logic Manager it was possible to configure as well pot.-free contacts for up & down relays. In older GCP-3x Packages called A, R or X the speed bias was fixed to +/-3V and the AVR bias was fixed to +/-5V
- GCP-31/32 Packages with Option +Scxx offered external I/Os (IKD1M) and ECU communication
- Advanced Packages GCP-31/32 XPD/XPQ+ Sxxx to be replaced with easYgen-3500XT-P1/P2 Package having additional analogous I/Os on board and LS-4 Breaker Controls support.
- There was as well a GCP-3145B-RPQ-Sc09 Rental package which can be replaced with easYgen3500XT-P2-LT-Rental 8440-2291

- There were as well plenty of customized version with order options available.

Please provide picture of individual type sticker to be able to track back what you have on site Provide this information Industrial.support@woodward.com

Upgrade Limitations:

- Flush mounting easYgen-3000XT cut out form factor is bigger. So back panel easYgen3100/3400XT together with a Touch Remote panel easYview could be as well an option
- The GCP-3x Line was configured with LeoPC1 Software, easYgen-3000XT is using ToolKit. It is not possible to convert LeoPC configuration files into ToolKit files.
- GCP-3x required a DPC-1 5417-557 or DPC-USB 5417-1251 configuration cable. easYgen-3000XT requires a standard E-Net Patch cable or USB cable only. For IKD1M configuration a software tool 9927-2094_A is offered
- GCP-3x controls used CAN Cal 2.0b communication for kW and kVAr sharing. if you want to operate GCP3-x and easYgen-3x00XT controls together a Loadshare Gateway LSG is required. Keep in mind that LDSS between GCP-3X and easYgen is not supported
- Same GCP-3x CAN Bus was used to connect external Gateway GW4 to connect GCP-3x via e.g. 485 Modbus or ProfibusDP to upper Controls Systems like PMS or PLCs

There is for all easYgen-3x000XT a software licensing P/N 10-030-825
SOFTWARE LEGACY CAN SUPPORT PACKAGE to let easYgen-3x000XT
communicate with old GW4 Gateway

- GCP-3x connected via Gateway GW4 ProfibusDP can be replaced with Woodward ESEPRO 5446-1046 Rev D. This ESEPRO emulates the old GCP-3x and MFR2& 3 and LS4 Protocols.
- GCP-3x and easYgen communication protocols are not same, so doing an upgrade requires as well a change in upper Control System easYgen is connected to. easYgen's Modbus Telegram Mapper assists to create own Modbus tables similar to GCP-3x communication protocols.
- GCP-3x SB03 packages connected to CAT CCM module via RS232 datalink is not supported in easYgen.
- GCP-3xSC0x MTU MDEC communication will be available only in easYgen-3500XT-P2, There will be a a licensing option you can flash into an easYgen-3500XT-P2 Package (Software License Partnumber P/N 10-030-826 SOFTWARE LEGACY CAN AND MDEC SUPPORT PACKAGE

<https://support.easygen.org/en-US/kb/articles/mtu-mdec-can-bus-communication-in-easygen-3500xt-p2-2>

- GCP-31 XPD and XPQ Packages as well supported LS-4 breaker controls, paralleling T-couplers and incoming mains feeders. LS-4 communication is not supported by easYgen controls. Upgrading multiple breaker application using GCP-31 XPx and LS-4s recommendation is to look into easYgen-3500XT and LS-5 (CAN Network) or LS-6XT (redundant hot swap E-Net communication)
- ESEPRO CAN ProfibusDP gateway is emulating old MFR2/3 GCP-31/32 and LS4 protocols see article <https://support.easygen.org/en-US/kb/articles/how-can-i-get-ls5-dtsc-200-easygens-on-profibusb-dp-e-sepro>

Benefit of easYgen upgrade

- Many different GCP-31/32 variants can be replaced with only few part numbers of easYgen controls offering direct 100/480V (3400XT/3500XT Versions up to 690VAC) and $\pm 1A$ & $\pm 5A$ sensing at class 1 accuracy for kW
- No need for external gateways as Modbus TCP and RS485 Modbus communication are integral.
- easYgen-3400XT/3500XT version having integral voltage regulation to bias an Exciter-10
- Galvanic isolated interfaces and analog inputs reducing need for external galvanic isolation

14 languages in build plus Localization Tool to generate other languages

Supporting Documents:

<https://www.easygen.org/accessories> Information about IKD1M, LSG, ESEPRO, ...

- Supporting Doc terminal comparison GCP-3x easYgen-3000
<https://wss.woodward.com/manuals/Legacy/GCP-30/37554%20Terminal%20mapping%20GCP-3x%20MFR3%20easYgen-3000.pdf>
- Supporting Doc N° 37635 Wiring Terminal comparison - Exchange current easYgen-3000 with an equivalent easYgen-3000XT control
<https://www.woodward.com/en/search#e=0&q=37635&o=Title,Ascending>
- <https://wss.woodward.com/manuals/PGC/Forms/AllItems.aspx>
- https://wss.woodward.com/manuals/PGC/SW_Tools

- <http://www.easYgen.org/configuration>
- <https://easygen.eu/legacy-product-replacement/> Replacement P/N Finder data base
- Legacy product doc server <https://wss.woodward.com/manuals/Legacy/Forms/AllItems.aspx>

GCP-30 Series Genset Control					GCP-31 Genset Control				GCP32 Genset Control				GCP-31 RPQ+SC09 Genset Control	
Package					BPQ	XPQ	XPQ+SB03	XPQ+SC10	BPQ	XPQ	XPQ+SB03	XPQ+SC10		
Control													Control	
Breaker control logic		1	1	1	1	2	2	2	2	2	2	2	2	2
Synchronization		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Isolated single-unit operation		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
AMF (auto mains failure operation)		✓	✓ #1	✓ #1	✓ #1	✓	✓	✓	✓	✓	✓	✓	✓	✓
Stand-by operation		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Peak load op. (auto start/stop)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mains parallel operation		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Open transition (break-before-make)						✓	✓	✓	✓	✓	✓	✓	✓	✓
Closed transition (make-before-break)						✓	✓	✓	✓	✓	✓	✓	✓	✓
Softloading		✓ #2	✓ #2	✓ #2	✓ #2	✓	✓	✓	✓	✓	✓	✓	✓	✓
Accessories													Accessories	
Start/stop logic for Diesel/Gas engines		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Start/stop logic for Diesel/Gas engines	✓
kWh counter		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	kWh counter	✓
Operating hours/start/maintenance counter		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Operating hours/start/maintenance counter	✓
Configuration via PC #3		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Configuration via PC #3	✓
Event recorder, real time clock			50	50	50				50	50	50	50	Event recorder, real time clock	50
Language manager (English/German)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Language manager (English/German)	✓
Protection													Protection	
Generator: voltage/frequency		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Generator: voltage/frequency	✓
Mains: volt./freq./phase shift		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Mains: volt./freq./phase shift	✓
Generator: overload/unbalanced load		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Generator: overload/unbalanced load	✓
Generator: reverse/reduced power		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Generator: reverse/reduced power	✓
Generator: time-overcurrent (TOC)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Generator: time-overcurrent (TOC)	✓
Controller													Controller	
Discrete raise/lower: n/f & P #4		✓ #5	✓ #5	✓ #5	✓ #5	✓ #5	✓ #5	✓ #5	✓ #5	✓ #5	✓ #5	✓ #5	Discrete raise/lower: n/f & P	✓ #5
Discrete raise/lower: V & Q #4		✓ #5	✓ #5	✓ #5	✓ #5	✓ #5	✓ #5	✓ #5	✓ #5	✓ #5	✓ #5	✓ #5	Discrete raise/lower: V & power factor	✓ #5
Analog raise/lower: n/f & P #4 #5		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Analog raise/lower: n/f & P #5	✓
Analog raise/lower: V & Q #4 #5		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Analog raise/lower: V & Q #5	✓
PWM raise/lower: n/f & P #4 #5		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	PWM raise/lower: n/f & P #5	✓
Mains import/export power via 20 mA		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	TV droop via DI	✓
Mains import/export power control		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Mains import/export power via 20 mA	✓
Load-dependent start/stop		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Mains import/export power control	✓
Active power setpoint 0/4 to 20 mA #6		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Load-dependent start/stop	✓
Load/var sharing for 14 generators		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Active power setpoint 0/4 to 20 mA #6	✓
I/O's													Load/var sharing for 8 generators	✓
Magnetic/switching Pickup		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	I/O's	
Discrete alarm inputs (configurable)		16	16	16	16	16	16	16	16	16	16	16	Selectable frequencies via discrete input	2
Relay outputs (configurable)		7	7	7	7	7	7	7	7	7	7	7	Selectable voltages via discrete inputs	4
Analog inputs (configurable) #6			7	7	7				7	7	7	7	Magnetic/switching Pickup	✓
Analog outputs 0/4 to 20 mA (configurable)			2	2	2				2	2	2	2	Discrete alarm inputs (configurable)	12
External operation mode selection via DI			✓	✓	✓				✓	✓	✓	✓	Relay outputs (configurable)	7
CAN bus comm., Guidance level #7		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Analog inputs (configurable) #3	7
CAN bus comm., Engine level #8					✓								Analog outputs 0/4 to 20 mA (config.)	2
RS-232 comm., Engine level #9				✓									External operation mode selection via DI	✓
LS 4 - Circuit Breaker Control #10			✓	✓	✓								CAN bus comm., Guidance level #4	✓
Listings/Approvals													CAN bus comm., Engine level #5	✓
CE Marked		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Listings/Approvals	
UL/cUL Listed		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	CE Marked	✓
Part numbers P/N													UL/cUL Listed	✓
Measuring inputs 100 Vac, .../1 A (8440-)		-	-1556	-	-1806	-	-1572	-	-	-	-	-	Part numbers P/N	
Measuring inputs 100 Vac, .../5 A (8440-)		-1609	-1558	-1562	-1560	-	-1574	-1578	-1576	-	-	-	Measuring inputs 400 Vac, .../5 A (8440-1764)	
Measuring inputs 400 Vac, .../1 A (8440-)		-	-	-	-1716	-1612	-1573	-	-1664	-	-	-		
Measuring inputs 400 Vac, .../5 A (8440-)		-1610	-1559	-1563	-1561	-1614	-1575	-1579	-1577	-	-	-		