

PL Energy System Manager Menü Structure in Program 4 (⇒ long push)

				Setup function	Setup -range	
BATV ⇒	BOST ⇒	EQUŁ ⇒	ABSB ⇒	FLOT	Change charging state	-
↓	↓	↓	↓	↓		
CHRG ⇒	CINT ⇒	GSET	Generator toggle on/off			-
↓	↓	GMOD	Generator mode			0 ... 6 (see table 1)
		0 or 4	1 or 5	2 or 6	3	
		G ON	G ON	G ON		Voltage / SOC generator start
		↓	↓	GOVR		SOC generator stop
		G OFF	G OFF			Voltage generator stop
		GDEL	GDEL			Gen. On/off delay
		↓	SOC	SOC		Set SOC to 100
		GEXD	GEXD	GEXD	↓	Days between generator exercise
		GRUN	GRUN	GRUN	GRUN	Min. length of generator exercise
		GDAY	GDAY	GDAY	↓	Days since last generator exercise
		↓	↓	↓		
	CEXT ⇒	See CINT				
LOAD ⇒	LINT ⇒	LSET	Toggle low batt status on/off			
↓	↓	LOFF	Low battery disconnect voltage			11,0 ... 16,0 V
		L ON	Low battery reconnect voltage			10,0 ... 12,5 V
		LDEL	Low battery on/off delay			0 ... 15 min
		↓				
	LEXT ⇒	see LINT				
IN ⇒	INT	Set Ah to 0				-
↓	EXT	Set Ah to 0				-
OUT ⇒	INT	Set Ah to 0				-
↓	EXT	Set Ah to 0				-
DATA ⇒	VMAX	Max. batt voltage since midnight				-
	VMIN	Min. batt voltage since midnight				-
	FTIM	Time when float started				-
	SOC	Batt state of charge				-
	TEMP	Temperature				-
	SOLV	Open circuit voltage Solarpanel				-
	HIST ⇒	DAY1 ⇒	DAY2 ⇒ ⇒	DAY30	
	↓	IN ⇒	IN ⇒	⇒	IN	Ah collected
		OUT ⇒	OUT ⇒	⇒	OUT	Ah used
		VMAX ⇒	VMAX ⇒	⇒	VMAX	Max batt voltage
		VMIN ⇒	VMIN ⇒	⇒	VMIN	Min batt voltage
		FTIM ⇒	FTIM ⇒	⇒	FTIM	Time when float started
		SOC ⇒	SOC ⇒	⇒	SOC	Batt state of charge
		NEXT	NEXT	NEXT		Next day
		BACK	BACK	BACK		Previous day
		EXIT	EXIT	EXIT		Back to main menu
		↑	↑	↑		
SET ⇒	TIME	Time				0,0 ... 23,9 h
↑	VOLT	System voltage				12, 24, 32, 36, 48 V
	PROG	Program				0 ... 4 (see table 2)
	REG ⇒	BMAX	Boost voltage			13,5 ... 16,5 V
		EMAX	Equalization voltage			14,0 ... 17,0 V
		ETIM	Equalization time			0,0 ... 2,0 h
		EFRQ	Days between equalization			20 ... 150 days
		ABSV	Absorption voltage			13,5 ... 15,5 V
		ATIM	Absorption time			0,0 ... 4,0 h
		FLTV	Flaot voltage			13,5 ... 15,0 V
		HYST	Hysterisis of PWM is off			0,1 ... 1,0 V
		BRTN	Boost return voltage			11,0 ... 13,0 V
		CHRG	Charge current limit			1 ... 20 (40, 60) A
		BFRQ	Max. days between boost cycles			1 ... 20 Tage
		TCMP	Temperature compenation profile			0 ... 8 (see table 3)
		↓				
	MODE ⇒	LSET	Function of LOAD terminal			0 ... 11 (see table 4)
		GSET	Function G-terminal			0 ... 11 (see table 4)
		BSET	Function B-terminal			0 ... 2 (see table 5)
		BAT2	Regulation voltage 2nd battery			13,0 ... 16,0 V
		PWM	PWM function of terminals			0 ... 3 (see table 6)
		BCAP	Battery capacity			20 ... 20.000 Ah
		ALRM	Alarm voltage			10,0 ... 18,0 V
		RSET	Reset system			-
		↓				
	EVNT ⇒	STRT	Event-start-condition			0 ... 15 (see table 7)
		Setting	Start value			
		STOP	Event-stop-condition			0 ... 15 (see table 8)
		Setting	Stop value			
		EMOD	EMOD condition			0 ... 11 (see table 9)
		TMOD	TMOD condition			0 ... 14 (see table 10)
		Setting	TMOD-value			
		EOFF ON	Display event status			-
		↓				

Please keep in mind that large portions of the menu are not available in Pograms 0-3

Table 1: GMOD

Value	Function
0	Turn on when battery voltage falls to G ON for GDEL minutes. Turn off when the voltage rises to GOFF for GDEL minutes.
1	Turn on when the State of Charge (SOC%) falls to G ON % of the battery capacity. Turn off when the voltage rises to GOFF for GDEL minutes.
2	Turn on when SOC % falls to G ON%. Turn off when SOC% rises to GOFF%. (GOFF% can be greater than 100% to allow some overcharge.)
3	Manual start. When started (in the GSET screen) the generator will run for GRUN hours..
4	Like 0 without quiet time
5	Like 1 without quiet time
6	Like 2 without quiet time

Table 2: PROG

0	Use with liquid electrolyte lead acid batteries. The LOAD- terminal is set to turn off when the bat-tery is low.
1	Use with sealed gel lead acid batteries. The LOAD- terminal is set to turn off when the bat-tery is low.
2	Use with liquid electrolyte lead acid batteries. The LOAD- terminal is set to turn on at night and can be used for night lighting.
3	Use with sealed gel lead acid batteries. The LOAD- terminal is set to turn on at night and can be used for night lighting.
4	Program 4 enables customised adjustment of all settings.

Table 3: TCMP

Wert	Funktion
0	-5mV/°C linear, auto sense
1	gentle curve auto sense
2	steeper curve auto sense
3	limited range curve auto sense
4	-5mV/°C linear non auto sense
5	gentle curve non auto sense
6	steeper curve non auto sense
7	limited range curve non auto sense
8	no temperature sensor

Table 4: LSET und GSET

Value	Function	Terminal is
0	Low battery disconnect	on when function wants to disconnect battery
1	Low battery disconnect	off when function wants to disconnect battery
2	Generator control	on when function wants to run generator
3	Generator control	off when function wants to run generator
4	Event control	on when event is on
5	Event control	off when event is on
6	2nd battery charge control	on when battery 2 should charge
7	2nd battery charge control	off when battery 2 should charge
8	Alarm output	off when battery voltage < alarm setting
9	Alarm output	on when battery voltage < alarm setting
10	Shunt control	off when function wants to disconnect shunt load
11	Shunt control (not available if PWM= 2 or 3)	on when function wants to disconnect shunt load

Table 5: BSET

Value	Function
0	B- input used for battery negative voltage sensing
1	2nd battery voltage sensing
2	external input VEXT, used by event controller

Table 6: PWM

Value	Function
0	No PWM used
1	PWM on SOL- terminal only
2	PWM on LOAD- terminal only
3	PWM on both

Table 7: EVNT Start

STRT	Event starts when	Value to set
0	Solar panel voltage (open circuit) > setting	SOLV
1	Solar panel voltage (open circuit) < setting	SOLV
2	External voltage VEXT > setting	VEXT
3	External voltage VEXT < setting	VEXT
4	PB* is on and time > setting	TIME
5	PB* is off and time > setting	TIME
6	PBext* is on and time > setting	TIME
7	PBext* is off and time > setting	TIME
8	Repeat start at 10 min intervals if time > setting	TIME
9	Repeat start at 30 min intervals if time > setting	TIME
10	Repeat start at 1hr intervals if time > setting	TIME
11	Repeat start at 2hr intervals if time > setting	TIME
12	Time > setting	TIME
13	ExtD* is active and time > setting	TIME
14	Repeat start at a set rate (1-240 min)	RATE
15	Repeat start at a set rate (0.1-25.5h)	RATE

Table 8: EVNT Stop

STOP	Event stops when	Value to set
0	Solar panel voltage (open circuit) > setting	SOLV
1	Solar panel voltage (open circuit) < setting	SOLV
2	External voltage VEXT > setting	VEXT
3	External voltage VEXT < setting	VEXT
4	PB* is off and time > setting	TIME
5	PB* is on and time > setting	TIME
6	PBext* is on and time > setting	TIME
7	PBext* is off and time > setting	TIME
8	Repeat start at 1 min intervals if time > setting	TIME
9	Repeat start at 3 min intervals if time > setting	TIME
10	Repeat start at 6 min intervals if time > setting	TIME
11	Repeat start at 12 min intervals if time > setting	TIME
12	Time > setting	TIME
13	ExtD is active and time > setting	TIME
14	Stop after a set run time (1-240min)	RUN
15	Stop after a set run time (0.1-25.5h)	RUN

Table 9: EMOD

EMOD	EMOD is active when:
0	Always active (i.e. EMOD condition is irrelevant)
1	PL is in Float mode
2	its night
3	it's day
4	ExtD is active
5	PL is in Float and it's night
6	PL is in Float and it's day
7	PL is in Float and ExtD is active
8	it's night and ExtD is active
9	it's day and ExtD is active
10	PL is in Float and it's night and ExtD is active
11	PL is in Float and it's day and ExtD is active

Table 10: TMOD

TMOD	TMOD is active when	Value to set	LBD
0	Always active (TMOD irrelevant)	None	Y
1	temperature > setting	TEMP	Y
2	temperature < setting	TEMP	Y
3	VEXT > setting	VEXT	Y
4	VEXT < setting	VEXT	Y
5	Time > setting	TIME	Y
6	Time < setting	TIME	Y
7	Do not use		
8	Always active (TMOD irrelevant)	None	
9	temperature > setting	TEMP	N
10	temperature < setting	TEMP	N
11	VEXT > setting	VEXT	N
12	VEXT < setting	VEXT	N
13	Time > setting	TIME	N

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