

The contents are intended for quick guidance and supplement to the user who is using GU641B controller.
Please read the standard manual for more details.

I . Controller Dimension

Model dimension	Mounting cutout dimension
W192mm×H144mm×D56mm	W174mm×H126mm

II . Configure running parameters

1. Main buttons' instruction



AUTO Mode Button/LED/ "+" Value Increase



MAN Mode Button/LED/ "-" Value Decrease



TEST Mode Button/LED/ "√" Confirm
Parameters Configure



Start Button/LED/Return



Stop/Reset Button/ "→" Move Setting



Mute/Lamp Test Button



Scroll Button/Exit or Enter into Parameters Setting

2. Parameters setting (For example: setting controller crank attempt at 2)

Operation	Description
Press and hold "▶" 2sec, enter into parameters setting menu, then LCD displays:	
Press "+" 36 times and then press "√", then LCD displays:	
Press "+" or "-" button, prompted enter password (2213), press "→" button to move to next digital,press "√" button to confirm after entering password.	
Press "+" or "-" to change parameters after password was correct, change at 2.	
Press "√" button to confirm and then press "⬆" for exiting parameters setting:	

III. Parameters setting

1. SYSTEM

NO.	Items	Preset	NO.	Items	Preset
1.1	CT Ratio	200	1.7	Comm. Address	1
1.2	VT Ratio	1.0	1.8	Startup mode	0 (MAN)
1.3	Rated ph-voltage	220	1.9	Auto scroll time	0s
1.4	Rated current	1000	1.10	Default settings	
1.5	Rated active power	500	1.11	Password	Initial password is 2213.
1.6	Voltage Type	1	1.12	Firmware update	

2. GENERATOR

NO.	Items	Preset	NO.	Items	Preset
2.1	GEN-V under preALM	90%	2.9	Overcurrent delay	1s
2.2	GEN- V under Alarm	0	2.10	Overcurrent action	0(pre-alarm)
2.3	GEN-V over preALM	115%	2.11	Loading Voltage	95%
2.4	GEN-V over Alarm	999	2.12	Loading Frequency	48.0Hz
2.5	KW Overload preALM	999	2.13	GEN. ON delay	5s
2.6	KW Overload Alarm	100%	2.14	GCB closing time	5s
2.7	Alarm delay	5s	2.15	Test mode	1 (with load)
2.8	Overcurrent level	100%			

3. ENGINE

NO.	Items	Preset	NO.	Items	Preset
3.1	Rated speed	1500RPM	3.20	Pre-heat mode	1
3.2	MPU input	0(NO)	3.21	Pre-heat time	3s
3.3	Fly wheel teeth	120	3.22	Safety-on delay	10s
3.4	Set pickup now		3.23	Cool down mode	0(full speed)
3.5	Pair of Poles	2	3.24	Cool down time	300s
3.6	Fuel mode	0(N.C. type)	3.25	Stop delay	20s
3.7	T-sensor type	3	3.26	Under SP preALM	1440RPM
3.8	P-sensor type	4	3.27	Under SP Alarm	0
3.9	Start delay	10s	3.28	Over SP preALM	1600RPM
3.10	Crank attempt	3 times	3.29	Over SP Alarm	1710RPM
3.11	Crank time	5s	3.30	Oil-P low preALM	1.4Bar
3.12	Crank time add	0	3.31	Oil-P low Alarm	1.1Bar
3.13	Crank rest	10s	3.32	Coolant preALM	92℃
3.14	Crank cutout RPM	300RPM	3.33	Coolant Alarm	100℃
3.15	Crank cutout volt	85%	3.34	Batt. Undervolt	8.0V
3.16	Crank cutout ALT-V	99.9	3.35	Batt. overvolt	28.0V
3.17	Crank cutout Oil-P	1.0Bar	3.36	ALT. low preALM	8.0V
3.18	Cutout P-delay	0	3.37	EX. Crank permit	0(NO)
3.19	Idle time	0			

4. CONFIGURE INPUT/OUTPUT

NO.	Items	Preset	NO.	Items	Preset
4.1	D-Input 1	5	4.8	D-Input 3 delay	0s
4.2	D-Input 2	6	4.9	D-Input 4 delay	0s
4.3	D-Input 3	7	4.10	D-Input 5 delay	0s
4.4	D-Input 4	9	4.11	User relay 1	20
4.5	D-Input 5	11	4.12	User relay 2	19
4.6	D-Input 1 delay	0s	4.13	User relay 3	2
4.7	D-Input 2 delay	0s	4.14	User relay 4	3

5. ATS CONTROL

NO.	Items	Preset	NO.	Items	Preset
5.1	Mains-V low Alarm	90%	5.5	Mains Alarm Delay	5s
5.2	Mains-V High Alarm	115%	5.6	Mains ON Delay	5s
5.3	Mains-Hz low Alarm	45.0Hz	5.7	MCB closing time	5s
5.4	Mains-Hz High Alarm	57.0Hz			

Menu notes

● VOLTAGE TYPES

Code	voltage input type	Code	voltage input type	Code	voltage input type
1	3 phases 4 wires star	2	3 phrases 4 wires angle	3	3 phases 3 wires
4	Single phase 3 wires	5	Single phase 2 wires		

● TYPES OF SENSORS

Code	T-sensor type	P-sensor type
1	close for high temperature (D-input)	close for low oil pressure (D-input)
2	open for high temperature (D-input)	open for low oil pressure (D-input)
3	VDO 120°C	VDO 5 bar
4	VDO 150°C	VDO 10 bar
5	Datcon	Datcon 7 bar
6	Murphy	Murphy 7 bar
7	Pt100	
8	Note: 8~12 are defined by user. More details are in Operation Manual.	Note: 7~11 are defined by user. More details are in Operation Manual.

● D-INPUT

Code	Optional Functions	Code	Optional Functions	Code	Optional Functions	Code	Optional Functions
0	not used	5	LOP switch	10	Mains Aux. Switch closed	15	Reserved
1	Pre-alarm (warning)	6	HET switch	11	Gen Aux. Switch closed	16	Airflap Aux. Switch closed
2	Alarm	7	Emergency stop(N.O. type)	12	Low fuel level switch	17	Preheat
3	Pre-alarm 1	8	Emergency stop(N.C. type)	13	Lamp test	18	Crisis mode
4	Alarm 1	9	Remote start signal	14	Reserved		

● USER RELAY

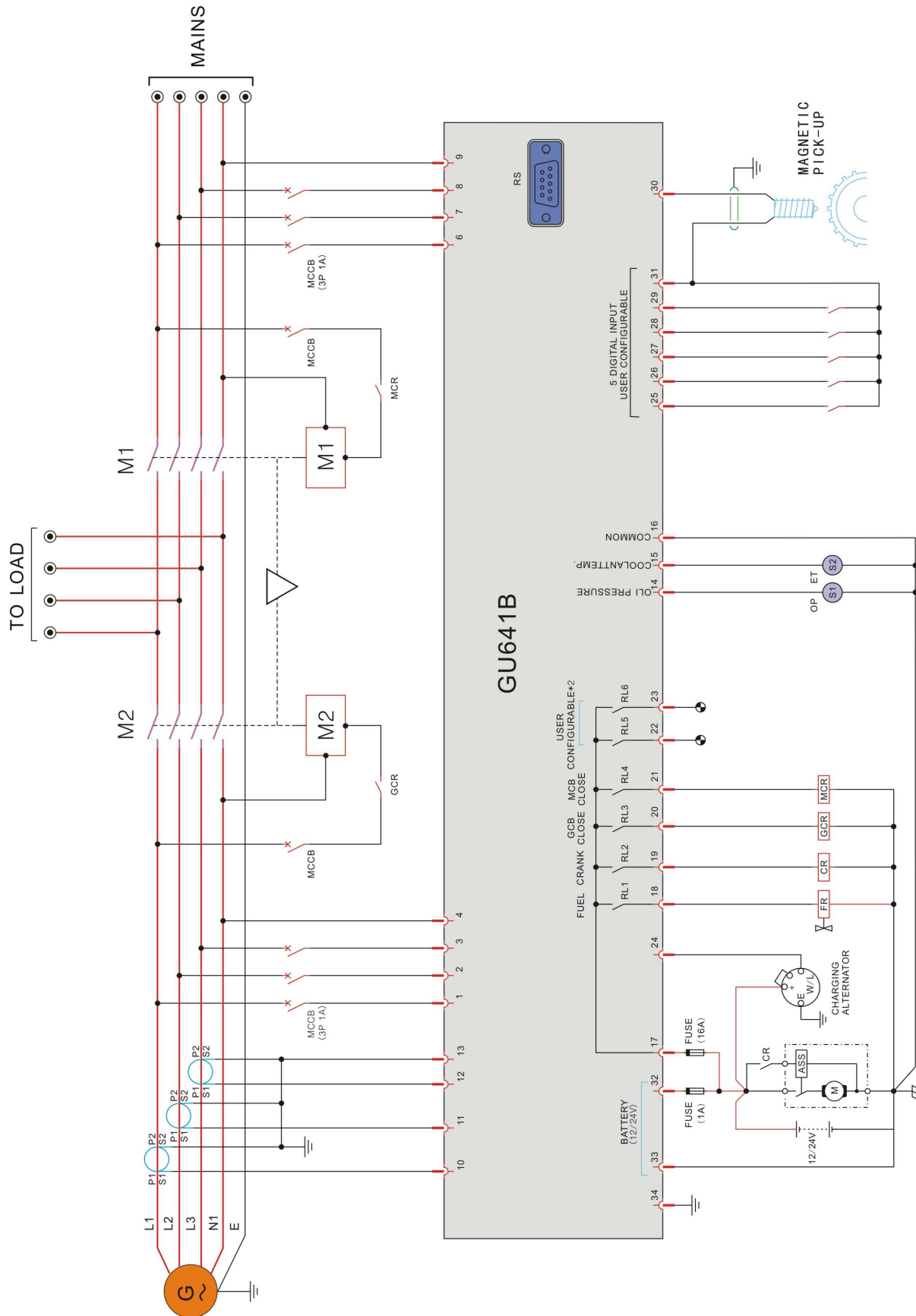
Code	Output mode defined	Code	Output mode defined	Code	Output mode defined	Code	Output mode defined
0	not used	17	Start failure	34	Reserved	51	LOP-Sensor open alarm
1	Over current trip	18	Stop failure	35	Reserved	52	Config. D-input1 active
2	Common alarm	19	MCB close/open	36	Reserved	53	Config. D-input2 active
3	Common pre-alarm(warning)	20	GCB close/open	37	Reserved	54	Config. D-input3 active
4	Idle relay N.C.	21	KW overload pre-alarm	38	Reserved	55	Config. D-input4 active
5	Preheat relay	22	Charge failure	39	Reserved	56	Config. D-input5 active
6	Reserved	23	Over current pre-alarm	40	Over current alarm	57	Reserved
7	Reserved	24	Battery under voltage	41	Reserved	58	Reserved
8	Reserved	25	Battery over voltage	42	Low oil press. alarm	59	Buzzer sounds alarm
9	GEN. running	26	Reserved	43	High engine temperature alarm	60	Air flap control
10	Auto mode	27	Reserved	44	Under speed alarm	61	Reserved
11	Test mode	28	Low oil press pre-alarm	45	Over speed alarm	62	Test without load mode
12	Manual mode	29	High engine temperature pre-alarm	46	Reserved	63	Test with load mode
13	Reserved	30	Under speed pre-alarm	47	Reserved	64	Emergency stop
14	Idle relay N.O.	31	Over speed pre-alarm	48	GEN. under voltage alarm	65	Mains failure
15	MCB failure	32	GEN. under voltage pre-alarm	49	GEN. over voltage alarm	66	Cooling down
16	GCB failure	33	GEN. over voltage pre-alarm	50	KW overload alarm		

● LIST OF FAULT CODES

Name	Code
LOSS OF PICKUP	8888
CHARGE FAILURE	8888
BATT. UNDER VOLT	8888
BATT. OVER VOLT	8888
START FAILURE	8888
STOP FAILURE	8888
EMERGENCY STOP	8888
LOW OIL PRESS	8888
ENGINE HIGH TEMP.	8888
OVER SPEED	8888

Name	Code
UNDER SPEED	8888
OVER CURRENT	8888
GEN. OVER VOLT	8888
GEN. UNDER VOLT	8888
OVERLOAD	8888
P-SENSOR OPEN	8888
D-INPUT *	8888*
GCB FAILURE	8888
MCB FAILURE	8888

IV.TYPICAL WIRING DIAGRAM:



Note: Terminal #34 of controller must be electrically connected with system’s FGND very well; in addition the cross section area of the connected wire should not be less than 2.5mm². Otherwise it will impact the correctness of electrical measuring, even damage the controller.

If you want more technical support, please call Service Hotline: 400 888 3388.