

The contents are intended for quick guidance and supplement to the user who is using GU641CC 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 ModeButton / 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 settings menu, then LCD displays:	[SETTING] 0. QUIT 1. SYSTEM 2. GENERATOR 3. ENGINE
Press "+" 2 times and then press "√", then LCD displays:	[ENGINE] 0. QUIT 1. Rated speed 2. MPU input 3. Fly wheel teeth
Press "+" 9 times and then press "√", then LCD displays:	[Crank attempt] 3
Press "+" or "-" button, prompted enter password (2213), press "→" button to move to next digital,press "√" button to confirm after entering password.	[Crank attempt] Password: 0000
Press "+" or "-" to change parameters, change at 2.	[Crank attempt] 2
Press "√" button to confirm, and then press "↕" or press and hold "▶" 2sec will quit parameter settings menu.	Ready

III. Parameters setting

1. SYSTEM

NO.	Items	Preset	NO.	Items	Preset
1.1	CT Ratio	1000:5	1.11	Send SMS count	not used
1.2	VT Ratio	1.0:1	1.12	Telephone 1 NO.	0000000000
1.3	Rated ph-voltage	220	1.13	Telephone 2 NO.	0000000000
1.4	Rated current	1000	1.14	Telephone 3 NO.	0000000000
1.5	Rated active power	500	1.15	Engine ECU type	not used
1.6	Voltage Type	1	1.16	Default settings	
1.7	Comm. Address	1	1.17	Language	
1.8	Startup mode	0 (MAN)	1.18	Password	Initial password is 2213.
1.9	Press Unit	0(Bar)	1.19	Display contrast	5
1.10	Temperature Unit	0(°C)	1.20	Auto scroll time	not used

2. GENERATOR

NO.	Items	Preset	NO.	Items	Preset
2.1	GEN-V under preALM	90%	2.11	Alarm delay	5s
2.2	GEN- V under Alarm	not used	2.12	Overcurrent level	100%
2.3	GEN-V over preALM	115%	2.13	Overcurrent delay	1s
2.4	GEN-V over Alarm	not used	2.14	Overcurrent action	0(warning)
2.5	GEN-Hz under preALM	48.0Hz	2.15	Loading Voltage	95%
2.6	GEN-Hz under Alarm	not used	2.16	Loading Frequency	48.0Hz
2.7	GEN-Hz over preALM	55.0Hz	2.17	GEN. ON delay	5s
2.8	GEN-Hz over Alarm	57.0Hz	2.18	GCB closing time	5s
2.9	KW Overload preALM	not used	2.19	Test mode	1 (with load)
2.10	KW Overload Alarm	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	not used
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	1.4 Bar
3.12	Crank time add	not used	3.31	Oil-P low Alarm	1.1Bar
3.13	Crank rest	10s	3.32	Coolant preALM	92°C
3.14	Crank cutout RPM	300RPM	3.33	Coolant Alarm	100°C
3.15	Crank cutout volt	85%	3.34	Batt. Undervolt	8.0V
3.16	Crank cutout ALT-V	not used	3.35	Batt. overvolt	28.0V
3.17	Crank cutout Oil-P	1.0 Bar	3.36	ALT. low preALM	8.0V
3.18	Cutout P-delay	not used	3.37	EX. Crank permit	0(NO)
3.19	Idle time	not used			

4. CONFIGURE INPUT/OUTPUT

NO.	Items	Preset	NO.	Items	Preset
4.1	D-Input 1	not used	4.22	A-sen1 over act.	0
4.2	D-Input 2	not used	4.23	A-sensor 2 use	not used
4.3	D-Input 3	5	4.24	A-sensor 2 type	3
4.4	D-Input 4	6	4.25	Pre-heat ON	20°C
4.5	D-Input 5	7	4.26	Pre-heat OFF	70°C
4.6	D-Input 6	9	4.27	A-sen2 under level	not used
4.7	D-Input 7	11	4.28	A-sen2 under act.	0
4.8	D-Input 1 delay	0	4.29	A-sen2 over level	not used
4.9	D-Input 2 delay	0	4.30	A-sen2 over act.	0
4.10	D-Input 3 delay	0	4.31	User relay 1	20
4.11	D-Input 4 delay	0	4.32	User relay 2	19
4.12	D-Input 5 delay	0	4.33	User relay 3	2
4.13	D-Input 6 delay	0	4.34	User relay 4	3
4.14	D-Input 7 delay	0	4.35	User relay 5	not used

4.15	A-sensor 1 use	1	4.36	Expansion Relay 1	not used
4.16	A-sensor 1 type	1	4.37	Expansion Relay 2	not used
4.17	Fuel pump ON	20%	4.38	Expansion Relay 3	not used
4.18	Fuel pump OFF	70%	4.39	Expansion Relay 4	not used
4.19	A-sen1 under level	not used	4.40	Expansion Relay 5	not used
4.20	A-sen1 under act.	0	4.41	Oil -P Stop	1
4.21	A-sen1 over level	not used	4.42	Coolant Stop	1

6. ATS CONTROL

NO.	Items	Preset	NO.	Items	Preset
6.1	Mains-V low Alarm	90%	6.5	Mains Alarm Delay	5
6.2	Mains-V High Alarm	115%	6.6	Mains ON Delay	5
6.3	Mains-Hz low Alarm	45.0Hz	6.7	MCB closing time	5
6.4	Mains-Hz High Alarm	57.0Hz	6.8	Current type	0(GEN)

7. SPEED CONTROL

NO.	Items	Preset	NO.	Items	Preset	NO.	Items	Preset
7.1	Proportional gain	10.0	7.4	Deadband	0.2Hz	7.7	Lower rate	5% / s
7.2	Integral gain	1.0s	7.5	Time pulse minimum	0.2s			
7.3	Derivative	1.0s	7.6	Raise rate	5% / s			

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: 8~14 are defined by user. More details are in Operation Manual.	Note: 7~13 are defined by user. More details are in Operation Manual.

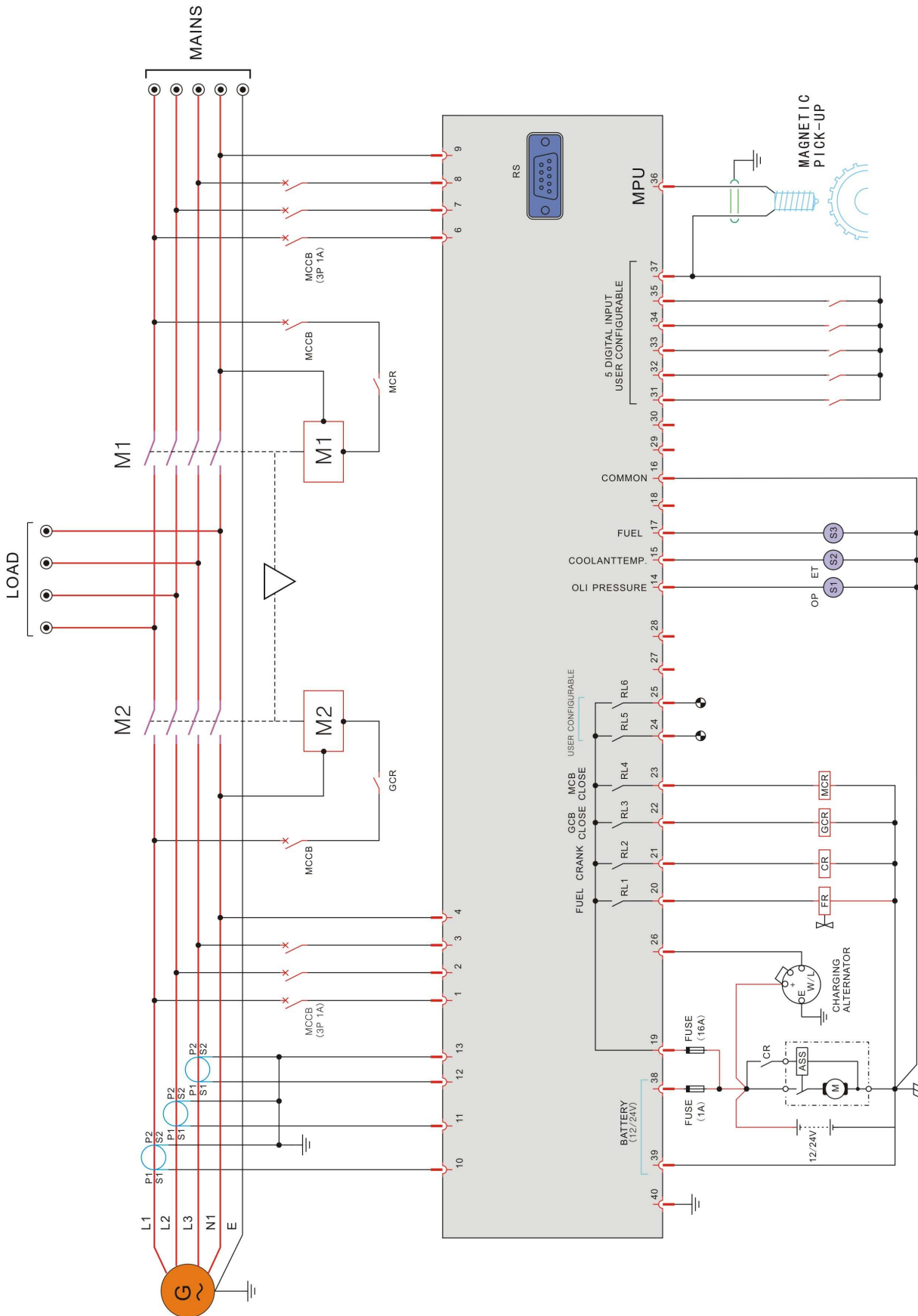
● D-INPUT

Code	Optional Functions	Code	Optional Functions	Code	Optional Functions	Code	Optional Functions
1	Pre-alarm (warning)	6	HET switch	11	Gen Aux. Switch closed	16	Air flap 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	Under speed limit		
5	LOP switch	10	Mains Aux. Switch closed	15	Over speed limit		

● USER RELAY

Code	Output mode defined	Code	Output mode defined	Code	Output mode defined	Code	Output mode
0	not used	17	Start failure	34	A-sen1 under level	51	LOP-Sensor open alarm
1	Over current trip	18	Stop failure	35	A-sen1 over level	52	Reserved
2	Common alarm	19	MCB close/open	36	Reserved	53	Reserved
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	ECU pre-alarm	55	Config. D-input4 active
5	Preheat relay	22	Charge failure	39	ECU alarm shutdown	56	Config. D-input5 active
6	Speed up	23	Over current pre-alarm	40	Over current alarm	57	Config. D-input6 active
7	Speed down	24	Battery under voltage	41	ECU data fail	58	Config. D-input7 active
8	Fuel pump control	25	Battery over voltage	42	Low oil press. alarm	59	Buzzer sounds alarm
9	GEN. running	26	Under frequency pre-alarm	43	High engine temperature alarm	60	Air flap control
10	Auto mode	27	Over frequency pre-alarm	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	Under frequency alarm	63	Test with load mode
13	Reserved	30	Under speed pre-alarm	47	Over frequency alarm	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		

IV.TYPICAL WIRING DIAGRAM



Note: Terminal #40 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.