

MH8000 Genset Auto Control Panel

(Minco820B Controller)

Instruction Manual



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I. Summarize

1. Characteristic and usage range:

MH8000 control panel can be constituted with the various types of generators, supporting auto emergency genset. The core of control system is Minco 820B, which has comprehensive function, display in focus, operate easily etc. Flexible setting function through software, strong anti-jamming, perfected protect function. To get back the power supply in a short time the control system will sent a generator start signal automatically when the mains is failure; After the mains in normal, the control system will unload and stop automatically. Real-time indicator, easy reading the gen-set working state and show all kinds of the fault.

2. Working environment and condition:

- 1) Height above sea level: ≤ 1000 m
- 2) Relative humidity: $\leq 95\%$ (20°C)
- 3) Environment temperature: $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$
- 4) Avoid explosive and danger medium, avoid electric dust in the medium, avoid to the place where could canker metal or destroy the insulating gas.
- 5) Hade angle during $5^{\circ}\text{C} \sim +40^{\circ}\text{C}$

II Technical Characteristics

Gen-set power: Currency

Input voltage: AC 200—240V

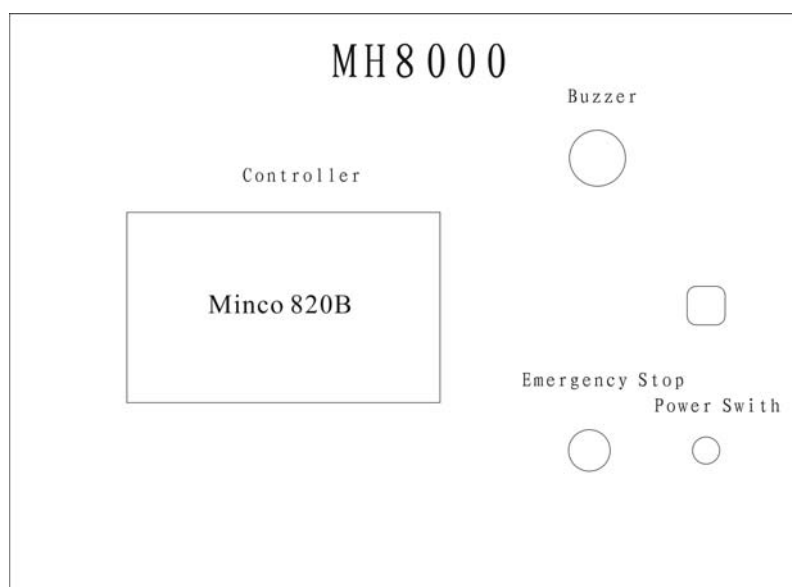
Minco 820B working voltage: DC 8-36 V

Frequency: 50—60 (Hz)

Max output current: Start 25A, Oil supply(stop supply) 25A, Generator supply: 10A Idle: 10A

III . Dimension and Weight

- 1) L*W*H: 450*267*330mm
- 2) Weight: 11.50 Kg
- 3) Panel sketch map:



IV. Usage and maintenance

1. Checking with the follow task before use the panel:

- 1) Clear up the dust and dirt in the components.
- 2) Check whether the press-keys is flexible, whether the contact terminal is all right, whether the component fixing is well, whether the shell is in good condition.
- 3) Connect the arrange line and control line from control board to generator and ATS cabinet according to the drawing.

2. Operation

Combinated the control panel and double power supply switch(ATS) to achieve the auto switch between the two way power supply.

1) Auto Start / Switch

Press **AUTO** in Minco820B, the above yellow LED keep bright, the controller work in “auto” state, then the controller received the “Remote start” switch signal, the genset is in the auto inspection state. Once the main is exceptional, the system will have a delay (default 3s) and give a start signal to start the generator; If the genset start successfully, through the idle delay (default 10s) the generator Acc to the rating speed, and after warm up (default 10s) the ATS cabinet would be switched to the emergency power and supply to load by generator; If the start failure, after a delay (default 15s) will restart the generator; If the start proceed three times failure, the system alarmed and would be auto locked up the genset, press **RESET** can remove the alarm. If the genset protected stop during the generator working, which cause by overspeed, high water temp., low oil pressure and ect also need to press **REST**. After the main get right through a delay (default 5s), the ATS cabinet would be switched to the main supply. After the Time Delay of Cool Down (default 20s) and idle delay (default 15s) the genset would be auto stopped and ready for auto controlling state. All the parameters (including system setting, delay parameters, alarm limit and etc.) can be modified freely after using the communicate line and mould connected Minco820B to the computer. (detailed function, please refer to <<Minco 820B Genset controller manual>>).

2) 、 Manual start

Press **RUN** in Minco820B, the above green LED keep bright, the controller is in “Manual” state, the generator will be start immediately and keep running, but it's not meaned on load power supply. If the main failure during the time, Minco 820B will be controlling ATS switched to emergency power supply, once the main is recover the ATS will switch it to main supply and the generator keep runing.

a. Stop/Reset

Press **Reset** in Minco820B controller, the generator would be stop immediately, the controller in the “Reset state”, press the “Emergency stop” anytime could lead the generator stop, cut off the oil (gas), locked up the controller and genset.

b. Alarm and Protection

The control system have the genset inspecting and protecting function, when checked there is low oil pressure, high temperature, overspeed, loss speed and ect. during the genset running, the control system will alarm and stop the generator, locked up the genset start loop. After remove the faults press **Reset**, the system could be restart working.

VI.Maintenance:

1. Keep cleanness,dustproof and dampproof during working.
2. Checking whether the connection in the control box is fastness in regular,once finding it's heating or loosing please solve it in time.
3. Checking the DC battery voltage in regular,once find the voltage lower than 10V,please charging the battery.Please pay attention that do not reverse the connection of the positive pole and the negative pole.
4. Reading the relative technical details seriously,familiar with the Gen-set operation and usage.
5. To sure the gen-set ready to start,it requires the generator oil and water in normal and the start voltage is larger than 10V.Please attention whether the battery liquid level is in the normal range,otherwise please add distilled water or battery compensated liquid.Please check the oil and water when starting the gen-set every time,Gen-set would start one time a week,runtime will keep 30 minute.
6. The control cabinet should be checking by the professional one time half a year.Unprofessional person please do not action.If the fault can't be solved,please ask the professional or enquiry to the manufacturer and advise the type,serial number,the date out factory and the circuit diagram No. to us.

VII.Delivery and Storage:

1. Lifting and delivery attentions:

Please avoid the instrument collided with hard matter and strongly shock.

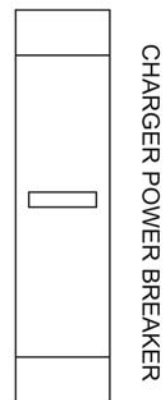
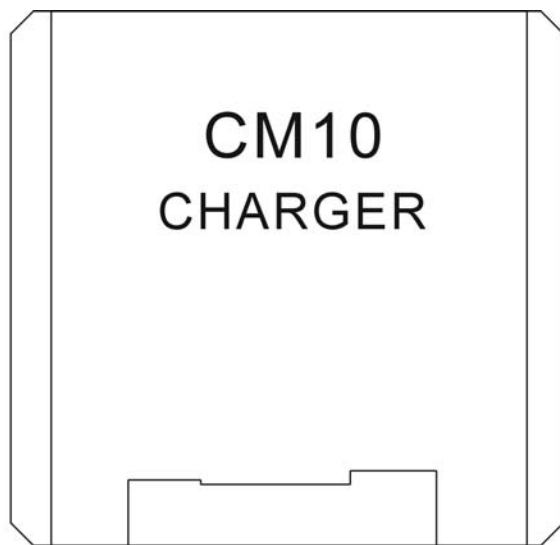
2. Storage condition and attentions:

Please against damp,against rat,antisepsis,against exploder,against dust,fire and etc.

VIII.Wiring diagram(See Appendix):

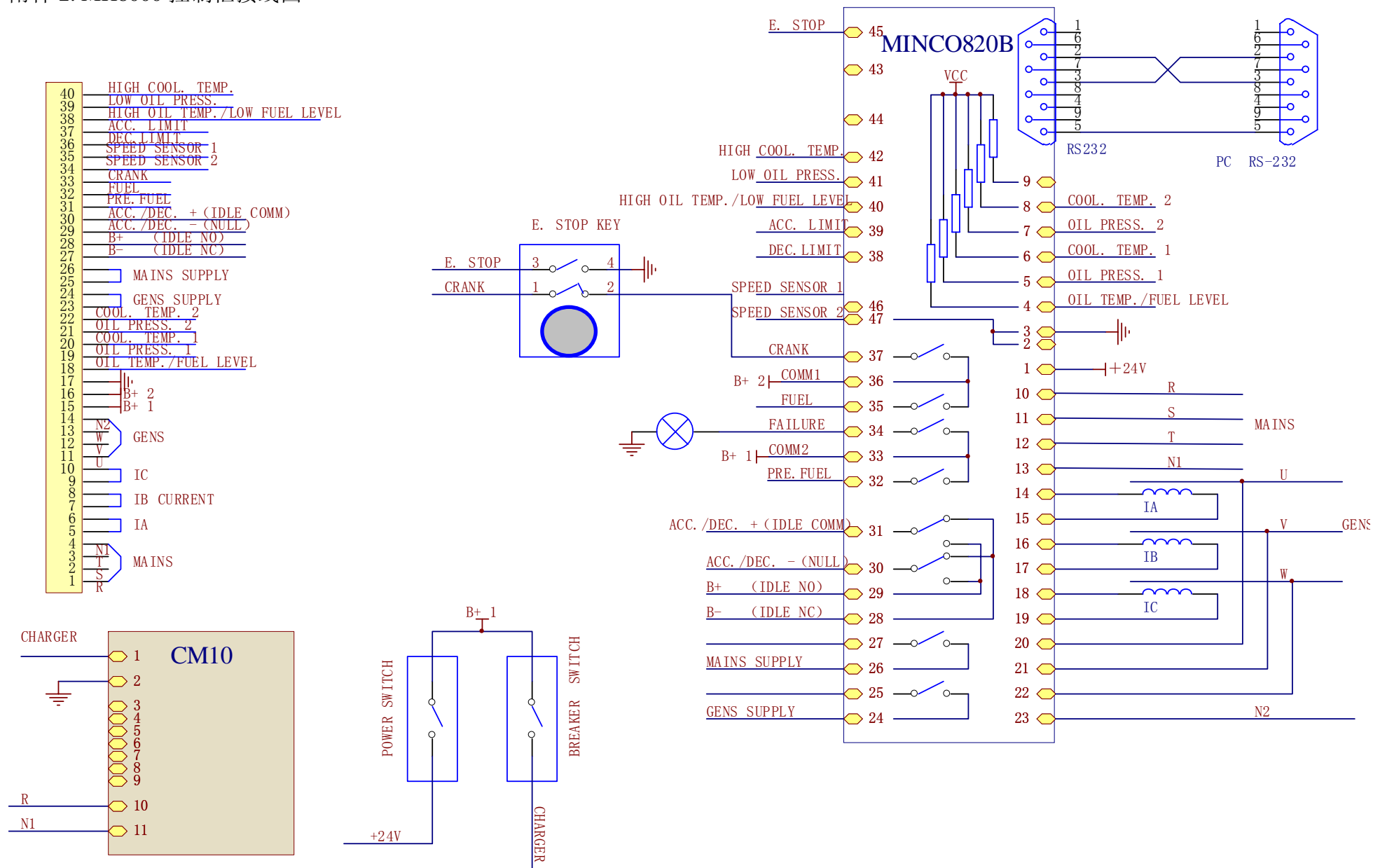
- 1) Inner configuration layout of MH8000 CONTROL PANEL
- 2) Inner wiring diagram of MH8000 CONTROL PANEL

1、 Configuration layout of MH8000 CONTROL PANEL



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40			
R	S	T	N1	IA	IB	IC	U	V	W	N2	B+1B+2	GND	OIL TEMP./FUEL LEVEL	OIL PRESS.1	COOL TEMP.1	OIL PRESS.2	COOL TEMP.2	GENS SUPPLY	GENS SUPPLY	MAINS SUPPLY	B-(IDLE NC)	B+(IDLE NO)	ACC./DEC.-(NULL)	ACC./DEC.+(IDLE COMM)	PRE. FUEL	FUEL	CRANK	SPEED SENSOR	DEC. LIMIT	ACC.LIMIT	LOW FUEL LEVEL	HIGH OIL TEMP./	LOW OIL PRESS.	HIGH COOL.TEMP.								
MAINS VOLTAGE				CURRENT			GENS VOLTAGE																																			

附件 2. MH8000 控制柜接线图



- 40 HIGH COOL. TEMP.
- 39 LOW OIL PRESS.
- 38 HIGH OIL TEMP./LOW FUEL LEVEL
- 37 ACC. LIMIT
- 36 DEC. LIMIT
- 35 SPEED SENSOR 1
- 34 SPEED SENSOR 2
- 33 CRANK
- 32 FUEL
- 31 PRE. FUEL
- 30 ACC./DEC. + (IDLE COMM)
- 29 ACC./DEC. - (NULL)
- 28 B+ (IDLE NO)
- 27 B- (IDLE NC)
- 26 MAINS SUPPLY
- 25 GENS SUPPLY
- 24 IB CURRENT
- 23 IA
- 22 COOL. TEMP. 2
- 21 OIL PRESS. 2
- 20 COOL. TEMP. 1
- 19 OIL PRESS. 1
- 18 OIL TEMP./FUEL LEVEL
- 17 B+ 2
- 16 B+ 1
- 15 GENS
- 14 N2
- 13 W
- 12 V
- 11 U
- 10 IC
- 9 IB CURRENT
- 8 IA
- 7 MAINS
- 6 N1
- 5 S
- 4 R

