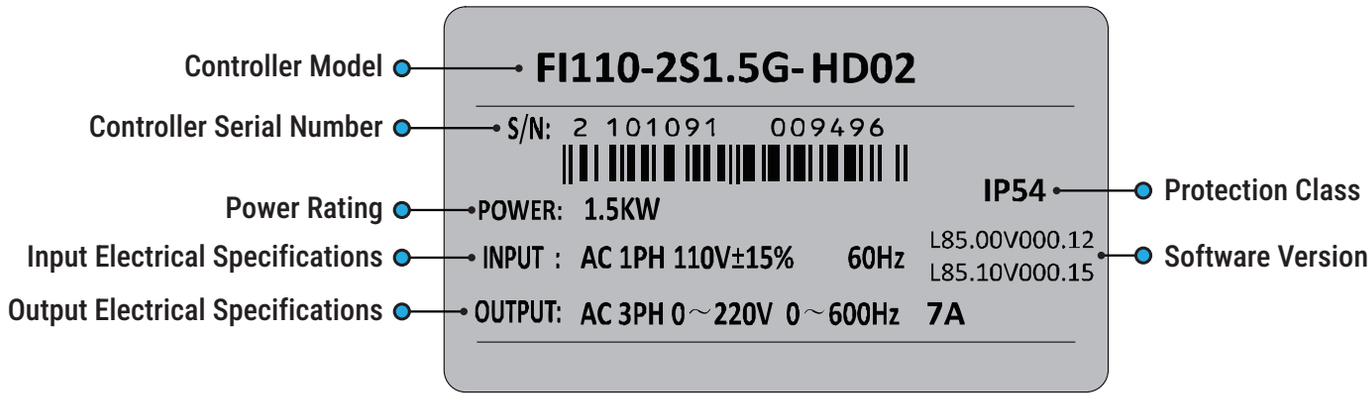
PM MOTOR MOBILE INDUSTRIAL FAN CONTROLLER INSTRUCTIONS

Save This Manual for Future Reference

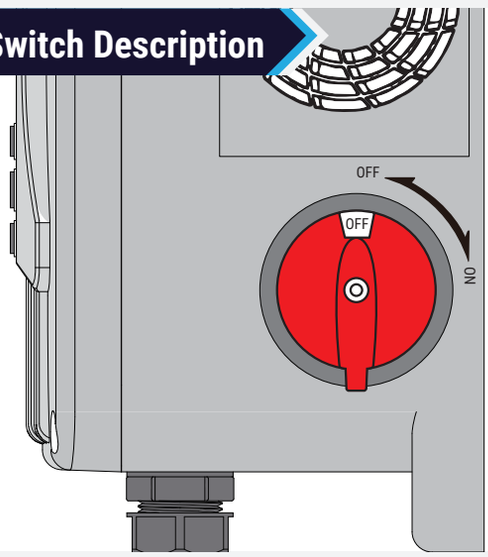


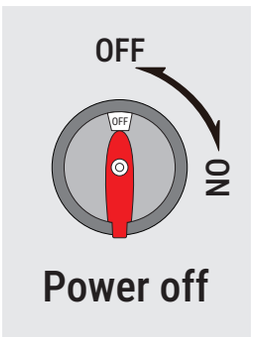
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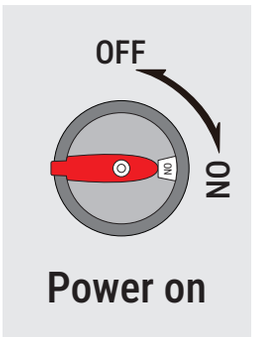
Nameplate Description



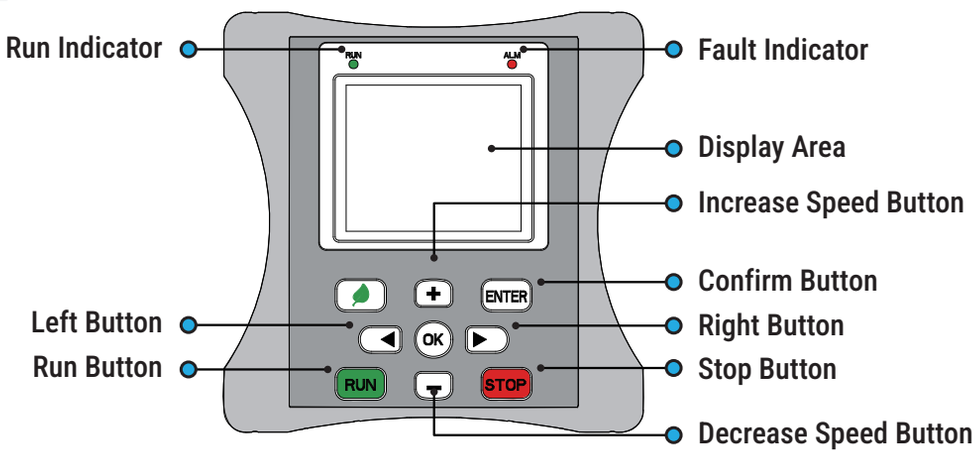
Power Switch Description







Button Functions

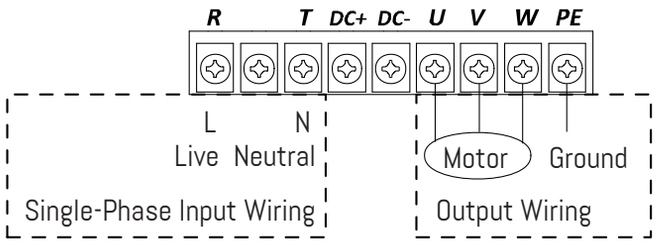


ENTER	**Confirm Button**	Used to confirm selections or enter the menu.
+	**Increase Speed Button**	Press once on the main interface to increase the speed by 30 RPM.
−	**Decrease Speed Button**	Press once on the main interface to decrease the speed by 30 RPM.
◀	**Left Shift Button**	Press and hold for 5 seconds on the main interface to switch to Timer Mode; on other interfaces it moves the cursor to the left

Right Shift Button	Press and hold for 15 seconds on the main interface to change the rotation direction; on other interfaces it moves the cursor to the right.
OK Button	Press and hold to enter Self-Learning Mode.
Run	Start the machine operation.es it moves the cursor to the right.
Stop	Stop the machine operation.

Main Circuit Wiring

Single-Phase Power Supply Wiring (Power switch included as standard)



Single-Phase AC Power Wiring Diagram

Terminal Mark	Function	Description
R T	Single-Phase AC Power Input Terminal	Connect to the single-phase AC power supply
U V W	Inverter Output Terminals	Connect to the three-phase motor
P E	Ground Terminal	Inverter Ground Terminal

Fault Code Diagnosis and Troubleshooting

Fault Code	Fault Name	Possible Cause	Solution
E001	Excessive Acceleration Current	• Acceleration time is too short • The inverter output is grounded or short-circuited • Motor parameter identification was not performed in vector control mode • Sudden load changes during acceleration • Excessive manual torque boost or improper V/F curve settings • Low voltage • Inverter size is too small for the application	• Increase the time duration for acceleration. • Inspect the insulation of the motor and cables. • Perform parameter identification on the motor. • Check the load conditions. • Reduce the torque boost value or adjust the V/F curve settings. • Verify the supply voltage or check the bus voltage levels. • Choose a frequency inverter with a higher power rating.

E002	Excessive Deceleration Current	• The deceleration time is too short. • The output of the frequency inverter is grounded or short-circuited. • Motor parameter identification has not been performed in vector control mode. • Sudden load changes during deceleration. • Manual torque boost is too high or the V/F curve is incorrectly set. • Low voltage.	• Increase the deceleration time. • Inspect the insulation of the motor and cables. • Perform motor parameter identification. • Check the load conditions. • Reduce the torque boost value or adjust the V/F curve settings. • Check the supply voltage or inspect the bus voltage levels.
E003	Excessive Constant Speed Current	• The output of the frequency inverter is grounded or short-circuited. • Motor parameter identification has not been performed in vector control mode. • Sudden load changes during operation. • Low voltage. • The selected frequency inverter is under-sized.	• Inspect the insulation of the motor and cables. • Perform motor parameter identification. • Check the load conditions. • Check the supply voltage or inspect the bus voltage. • Choose a frequency inverter with a higher power rating.
E004	Excessive Acceleration Voltage	• Input voltage is too high. • The acceleration time is too short. • External forces are dragging the motor during acceleration. • No braking unit or braking resistor is installed.	• Adjust the voltage to the normal range. • Increase the acceleration time. • Check the load conditions. • Install a braking unit and braking resistor.
E005	Excessive Deceleration Voltage	• Input voltage is too high. • The acceleration time is too short. • External forces are dragging the motor during acceleration. • No braking unit or braking resistor is installed.	• Adjust the voltage to the normal range. • Increase the acceleration time. • Check the load conditions. • Install a braking unit and braking resistor.
E006	Excessive Constant Speed Voltage	• Input voltage is too high. • External forces are dragging the motor during operation.	• Adjust the input voltage to the normal range. • Adjust the load or install a braking unit and braking resistor.
E007	Control Power Failure	• The input voltage is outside the specified range. • The relay does not activate.	• Adjust the input voltage to the normal range.
E008	Under Voltage Fault	• Input voltage is too low or there is poor contact at the contacts. • Bus voltage is abnormal. • Relay or contactor does not activate. • Control board malfunction.	• Check the input power supply voltage. • Check the bus voltage values. • Seek technical support or replace the contactor. • Seek technical support.
E011	Output Phase Loss	• The wiring from the inverter to the motor is abnormal. • The inverter output has an imbalance in the three-phase system or is missing a phase. • Drive board malfunction. • Module malfunction.	• Inspect the motor and cables. • Contact technical support.

Fault Code	Fault Name	Possible Cause	Solution
E012	Ground Short Circuit	• Motor ground short circuit. • Misoperation.	• Inspect the motor and cables. • Set PC.07 to 0 to disable the function.
E014	Inverter Overload	• Overloaded or motor is locked. • Undersized inverter selection. • Motor has not undergone self-learning.	• Check the load and mechanical conditions. • Replace with a frequency inverter of higher power rating. • Change the control mode to V/F (P0.00=1) and restart, or perform motor rotation self-learning.
E015	Motor Overload	• Incorrect protection parameter setting (PC.01). • Overloaded or motor is locked. • Undersized inverter selection.	• Correctly set the parameters. • Check the load and mechanical conditions. • Replace with a higher power-rated frequency inverter.
E016	Module Overheating	• Excessive ambient temperature. • Blocked airflow ducts. • Damaged fan. • Overheated module components.	• Improve the ambient temperature. • Clear the airflow ducts. • Replace the fan. • Contact technical support.
E021	Current Detection Fault	• Current Hall sensor damage. • Drive board failure.	• Check if the Hall sensor and connector wires are loose. • Contact technical support.
E026	Motor Identification Fault	• Incorrect motor parameter settings. • Parameter identification time is too long.	• Reset the motor parameters. • Check the connection between the inverter and the motor.
E028	Quick Current Limiting Fault	• Overloaded or motor is locked. • Undersized inverter selection. • Motor has not undergone self-learning.	• Check the motor and load. • Perform motor parameter self-identification. • Change the control mode to V/F (P0.00=1) and restart, or perform motor rotation self-learning.

Maintenance and Cleaning Instructions

- Never rely solely on the switch as the only means of disconnecting power when installing or servicing the fan. Failure to follow this precaution can lead to serious electrical shock or even fatal injury.
- Always unplug the fan from the power outlet before servicing or cleaning it.
- Routine cleaning is the only maintenance required by the user. Any other repairs or servicing should be handled by qualified professionals.
- Use a soft, damp cloth to wipe down the fan. Finish by wiping it with a dry cloth.
- Avoid using harsh cleaners that could damage the paint or plastic parts of the fan.
- Do not use gasoline, benzene, thinner, or other aggressive cleaners, as these may harm the fan and pose safety risks.
- If cleaning requires removing any guards, only remove the front guard and reinstall it in its original position after cleaning. Do not attempt to repair the propeller if it is damaged. The propeller is factory-balanced and should be replaced if it becomes damaged.
- To prevent overheating and ensure the fan operates efficiently, regularly clean the propeller, guard, and motor, as imbalanced or dirty components can lead to operational issues.

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