

HYUNDAI DHY14000RVi User Manual

HYUNDAI

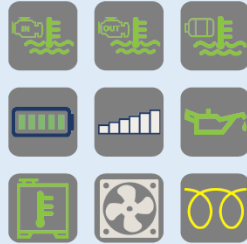
AC ON

AC Voltage 230V

AC Hz 50Hz

Load 12000VA

Timer 9999H:59M



HYUNDAI Diesel Digital Inverter RV Generator

Dear Customer,

Thank you for purchasing a HYUNDAI Generator as your partner for mobile power. With your generator, you can enjoy the high performance independence. You also have worldwide support from the HYUNDAI Team. Please take the time to read this and find how we can support you further.

Installation Approval and Warranty

Every generator has a worldwide warranty. You can apply for this warranty through your dealer when the installation is approved. If you have purchased an extended warranty, please ensure that it is kept in a safe place and that the dealer has your current address. Consult your dealer about warranty options.

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Service and Support

To ensure that your generator operates reliably, regular maintenance checks and tasks as specified in this manual must be carried out. HYUNDAI can supply Service Kits which are ideal for regular servicing tasks. We only supply the highest quality components which are guaranteed to be the RIGHT parts for your generator.

If you require assistance – please contact your HYUNDAI Dealer. Please do not attempt to undertake any repair work yourself, as this may affect your generator warranty. Your dealer will also be able to assist in finding your nearest HYUNDAI service station.

Thank you for purchasing a HYUNDAI Generator.

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1. General Instructions and Regulations

1.1 Safety first!

These symbols are used throughout this manual and on labels on the machine itself to warn of the possibility of personal injury or lethal danger during certain maintenance work or operations. Read these instructions carefully.

Can cause acute or chronic health impairments or death even in very small quantities if inhaled, swallowed, or absorbed through the skin.

WARNING: Hazardous materials



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This warning symbol draws attention to special warnings, instructions or procedures which, if not strictly observed, may result in damage or destruction of equipment.

Warning of materials that may ignite in the presence of an ignition source (cigarettes, hot surfaces, sparks, etc.).

In the environment described / during the work specified, smoking is prohibited.

WARNING: Important information!



WARNING: Fire hazard



PROHIBITED: No smoking



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Fire and naked light are ignition sources that must be avoided.

PROHIBITED: No fire or naked light



The equipment shall not be activated or started up while work is in progress.

PROHIBITED: Do not activate/start up



Touching of the corresponding parts and systems is prohibited.

PROHIBITED: Do not touch



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Danger for life! Working at a running generator can result in severe personal injury.

The generator can be equipped with a automatic start device. This means, an external signal may trigger an automatic start-up. To avoid an unexpected starting of the generator, the starter battery must be disconnected before working at the generator.

This danger symbol refers to the danger of electric shock and draws attention to special warnings, instructions or procedures which, if not strictly observed, may result in severe personal injury or loss of life due to electric shock.

General warning of a hazard area

DANGER: Automatic start-up



WARNING: Hazardous electric voltage



WARNING: General warning



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Can cause acute or chronic health impairments or death even in very small quantities if inhaled or ingested.

Warning of live parts that may cause electric shock upon contact. Especially dangerous for persons with heart problems or pacemakers.

Danger of injury due to being pulled into equipment. Bruising and torn off body parts possible. Risk of being pulled in when touching with body part, loose-fitting clothing, scarf, tie, etc.

WARNING:

Danger due to inhalation and/or ingestion



WARNING:

Risk of electric shock upon contact



WARNING: Danger due to rotating parts



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Warning of substances that may cause an explosion under certain conditions, e.g. presence of heat or ignition sources.

WARNING: Explosion hazard



Warning of hot surfaces and liquids. Burn/scalding hazard.

WARNING: Hot surface



Warning of substances that cause chemical burns upon contact. These substances can act as contaminants if introduced into the body.

WARNING: Danger due to corrosive substances, potential contamination of person



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When the system is opened, the pressure can be relieved abruptly and expel hot gases and fluids. Risk of injury due to parts flying about, burn hazard due to liquids and gases.

WARNING: System may be pressurized!



Warning of hearing damages

WARNING: Hearing damage



Warning of magnetic field.

WARNING: Magnetic field



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Warning of overpressure.

Wearing the applicable snugly fitting protective clothing provides protection from hazards and can prevent damage to your health.

Wearing hearing protection provides protection from acute and gradual hearing loss.

WARNING: Overpressure



MANDATORY INSTRUCTION: Wear snugly fitting protective clothing (PPE).



MANDATORY INSTRUCTION: Wear hearing protection (PPE).



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Wearing safety goggles protects the eyes from damage. Optical spectacles are not a replacement for the corresponding safety goggles.

Wearing protective gloves provides the hands from hazards like friction, graze, punctures or deep cuts and protects them from contact with hot surfaces.

Compliance with the instructions in the manual can avert danger and prevent accidents. This will protect you and the generator.

MANDATORY INSTRUCTION: Wear safety goggles (PPE).



MANDATORY INSTRUCTION: Wear protective gloves (PPE).



MANDATORY INSTRUCTION: Observe the instructions in the manual.



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Environmental protection saves our living environment.
For you and for your children.

**MANDATORY INSTRUCTION: Comply with
environmental protection requirements.**



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Spanners
W.A.F X = width across flats of X mm



Hook wrench for oil filter



Screw driver, for slotted head screws and for Phillips head screws



Multimeter, multimeter with capacitor measuring unit

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Socket wrench set



Hexagon socket wrench set



Clamp-on ammeter (DC for synchronous generators; AC for asynchronous generators)



Torque wrench

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Safety instructions concerning cables

Cable types

It is recommended to use cables that are in compliance with the standard UL 1426

Cable cross-section

The cable shall be selected taking into account the amperage, cable type, and conductor length **(from the positive power source connection to the electrical device and back to the negative power source connection)**.

Cable installation

It is recommended to install a self-draining cable conduit classified as V-2 or higher in compliance with UL 94 in the area of the cable guide inside the capsule. It must be ensured that the cable guide is not routed along hot surfaces such as the exhaust manifold or the engine oil drain screw but instead is installed free from any influence due to friction and crushing.

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Recommended starter battery sizes

- Use only batteries approved by the manufacturer as starter batteries.
- Use the battery capacity recommended by the engine manufacturer.

ATTENTION!

Prior to installation, verify that the voltage of the starter battery complies with the start-up system voltage.
e.g. 12 V starter battery for 12 V start-up system



ATTENTION!!!

Installation of battery connection lines.
Observe the instructions installation guidelines of the battery manufacturer.

The battery compartment and the corresponding installation shall be dimensioned adequately.

The batteries can be separated mechanically or with an adequate power relay.



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Observe the applicable instructions concerning fire and explosion protection of the battery manufacturer.

Install a fuse of appropriate size in the positive connection of the starter battery. Install as close to the battery as possible but with a max. distance of 300 mm (12 in) from the battery.

The cable from the battery to the fuse shall be protected with a conduit/protective sleeve against fraying.

Use self-extinguishing and fire-protected cables for installation that are designed for max. temperatures of 90 °C, 195 °F.

Install the battery cables in such a way that the insulation cannot be removed by chafing or other mechanical stresses.

The battery terminals must be protected against accidental short-circuiting.

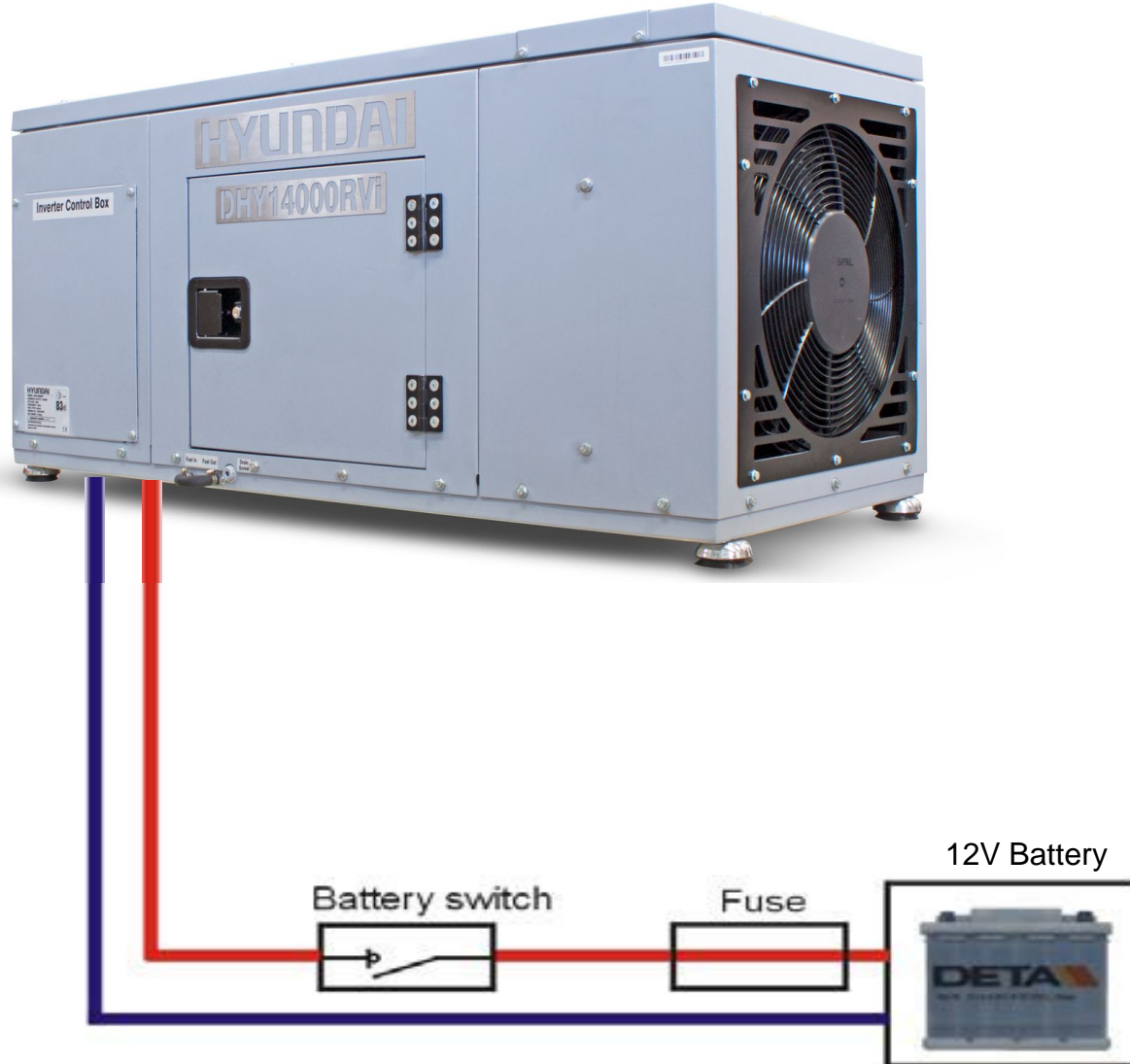
Inside the Fischer Panda generator capsule, the positive battery cable must be routed so that it is protected from heat and vibrations by means of an adequate conduit/protective sleeve. It must be installed so that it does not come into contact with rotating parts or such that heat up during operation such as pulley, exhaust manifold, exhaust pipe,

and motor itself. Do not overtighten the cable, as it may be damaged otherwise.

After completing the installation, perform a test run of the generator and check the battery cable installation during and after the test run. Implement corrections as necessary.

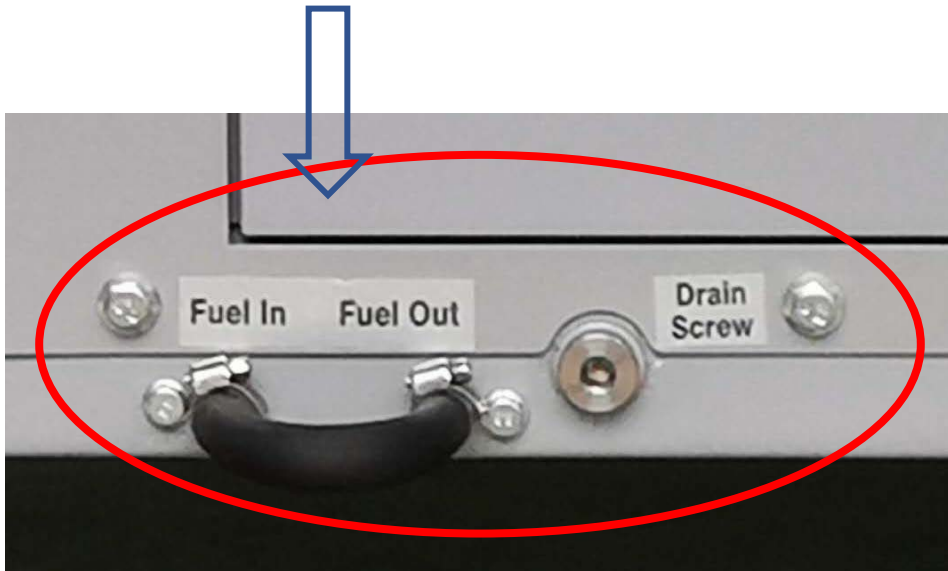
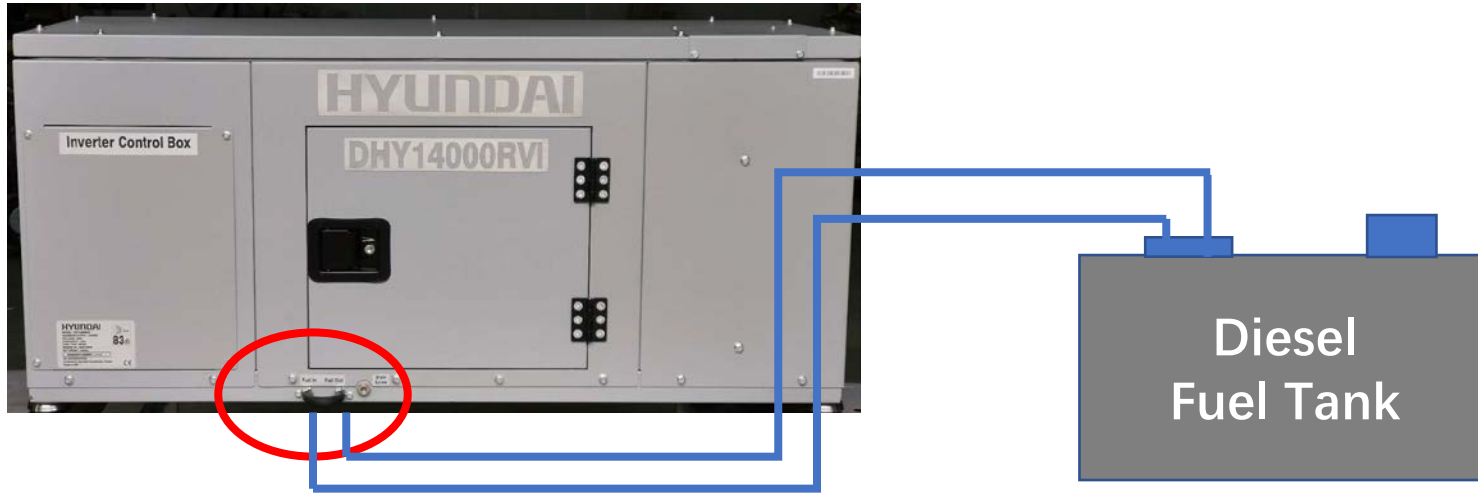
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Sample Diagram for Starter Battery Installation



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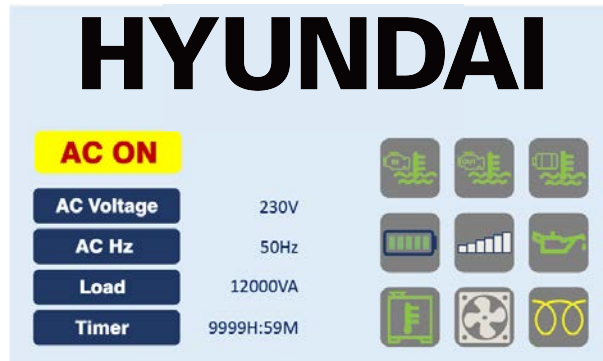
Sample Diagram for Fuel Tube Installation



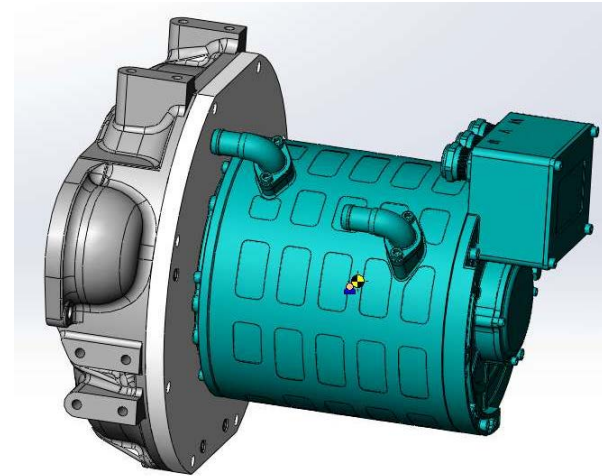
1. There are 2 hose clips on the bottom of front side, one is fuel in, another is fuel out.
2. Open the two hose clips, pull out the fuel tube.
3. The fuel tube should be inner diameter 8mm, external diameter 14mm
4. Fuel pipe union external diameter 10mm
5. Extend the fuel tube to the diesel fuel tank directly.

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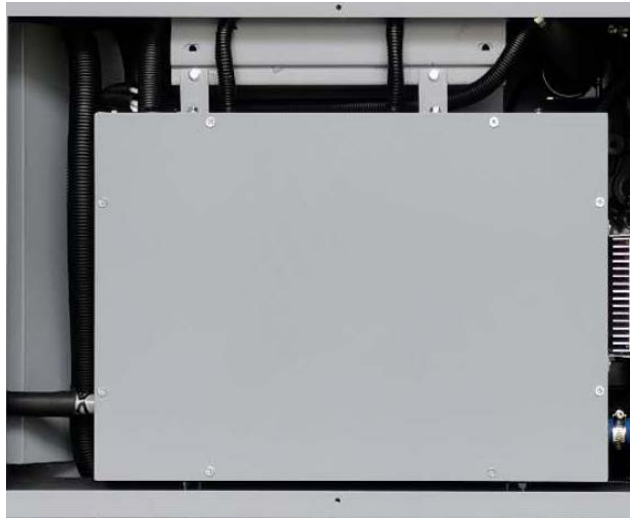
Components Of The System



Remote Control Panel



Water Cooled PMG Alternator

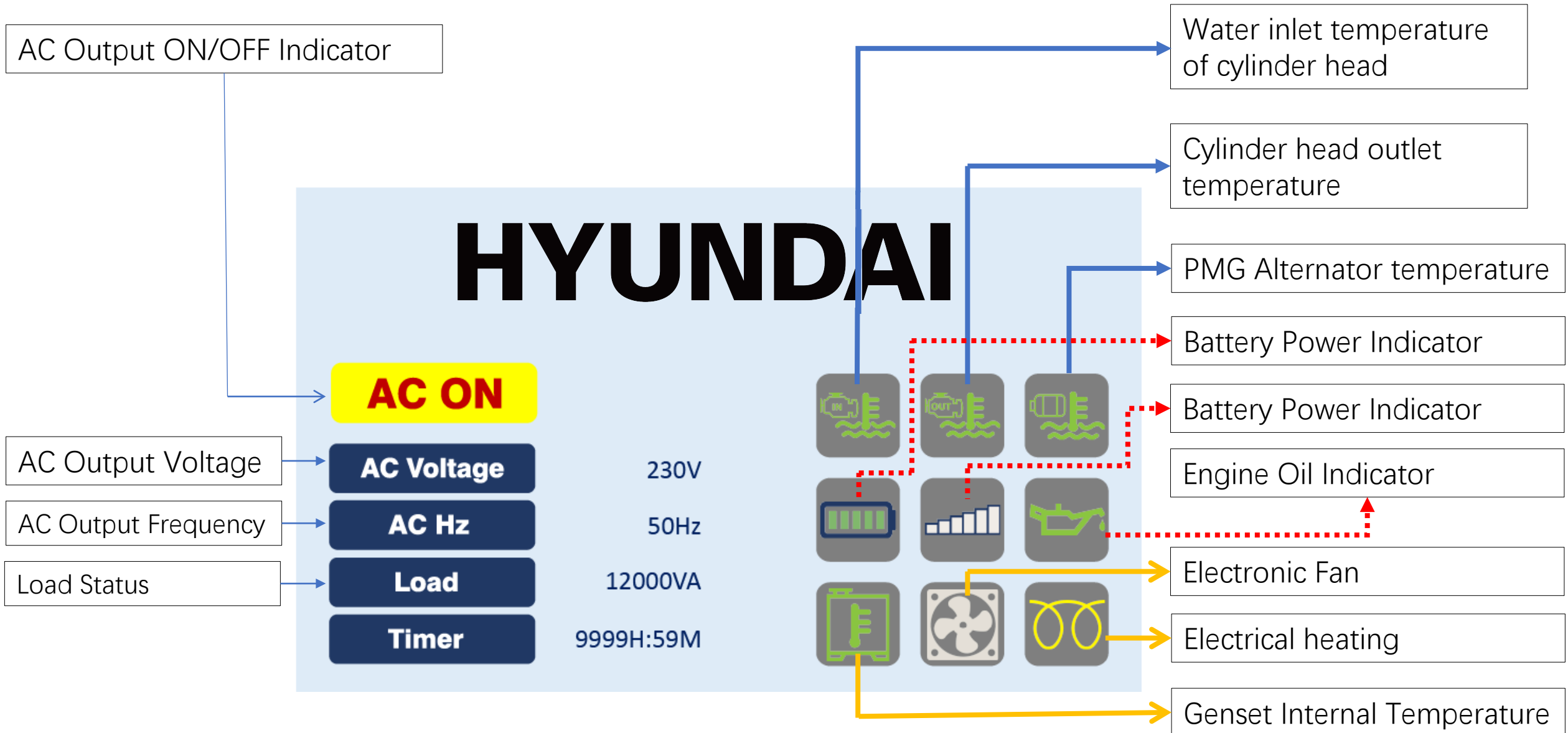


Water Cooled Inverter Control System

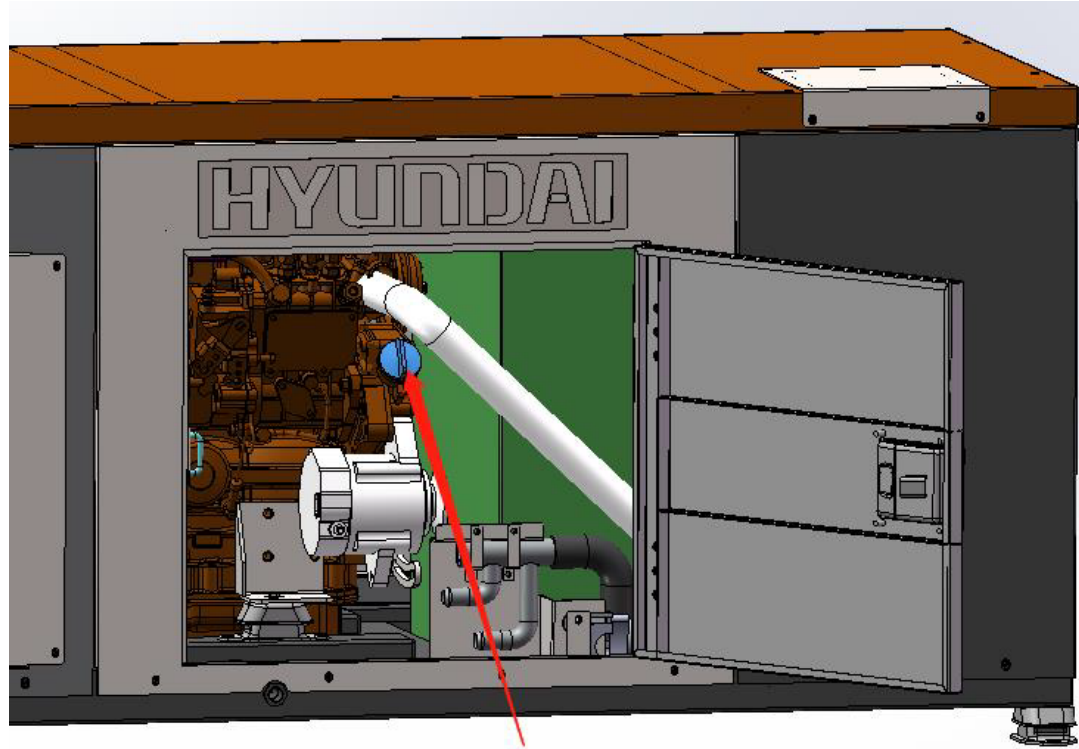


Inverter Control Cooling Fan

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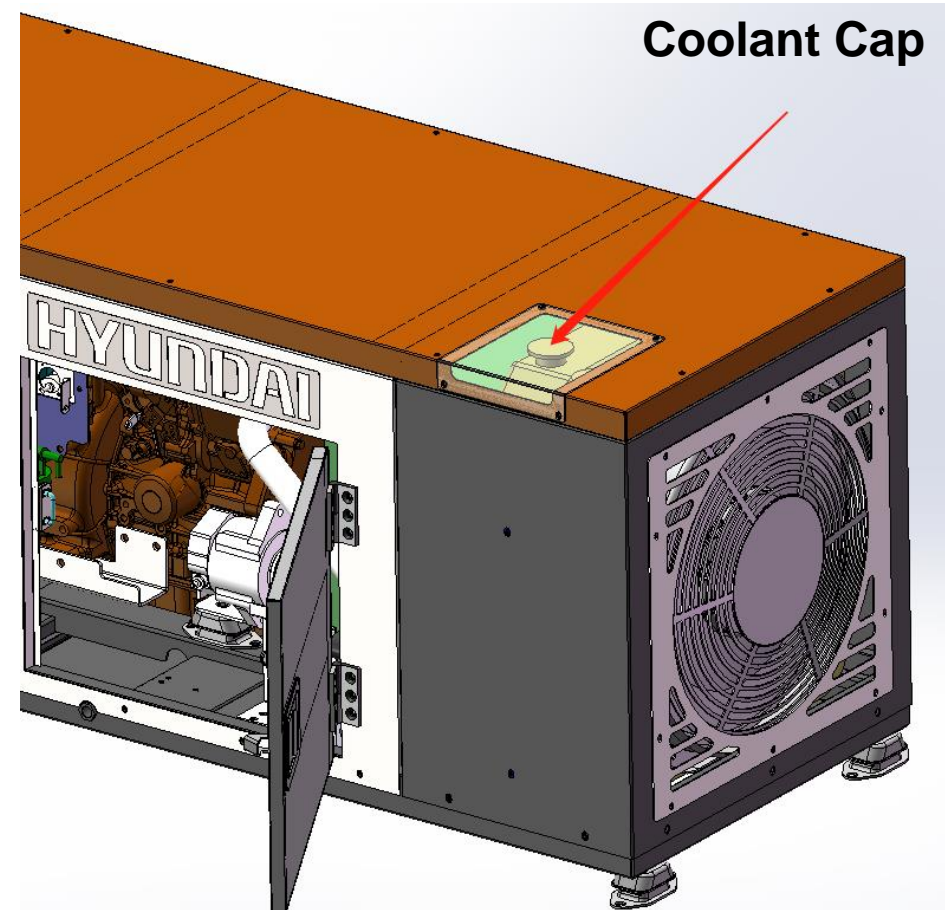


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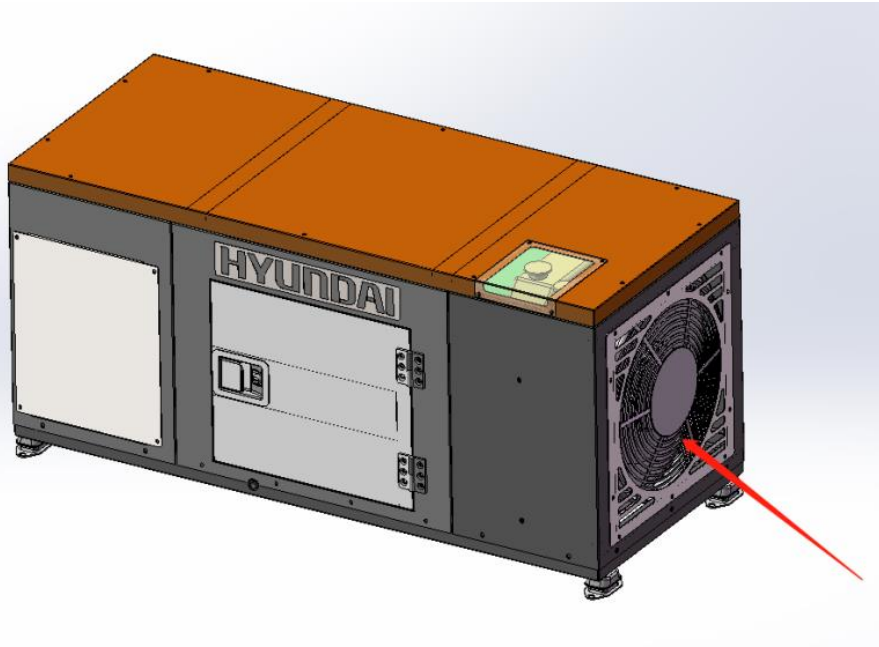
Oil Filler Port

Notice: The radiator has 2 separate caps, both need to add coolant.



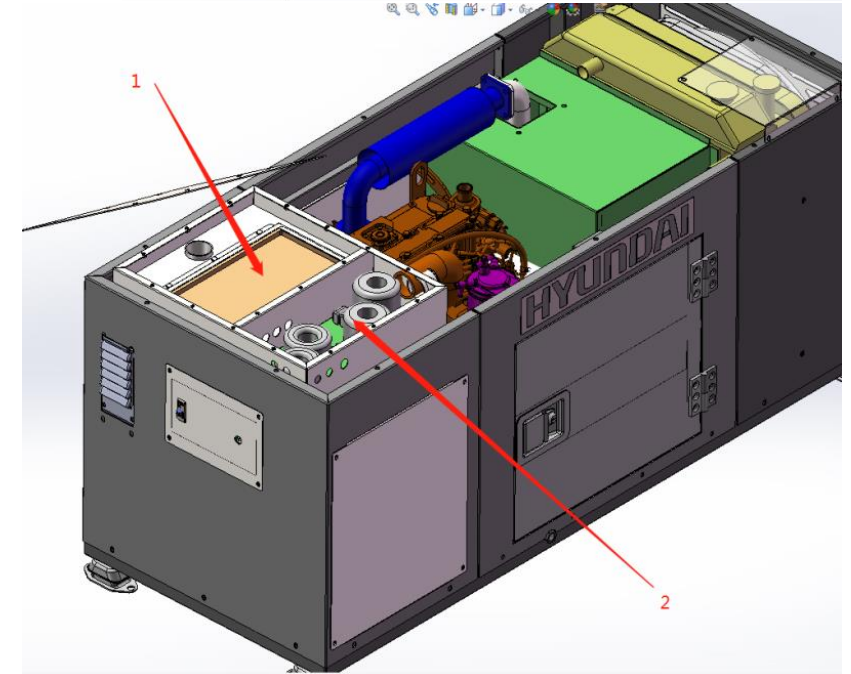
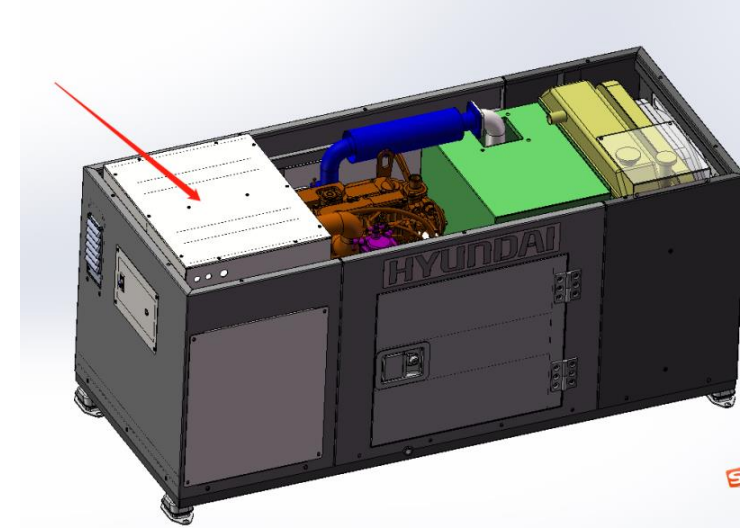
Coolant Cap

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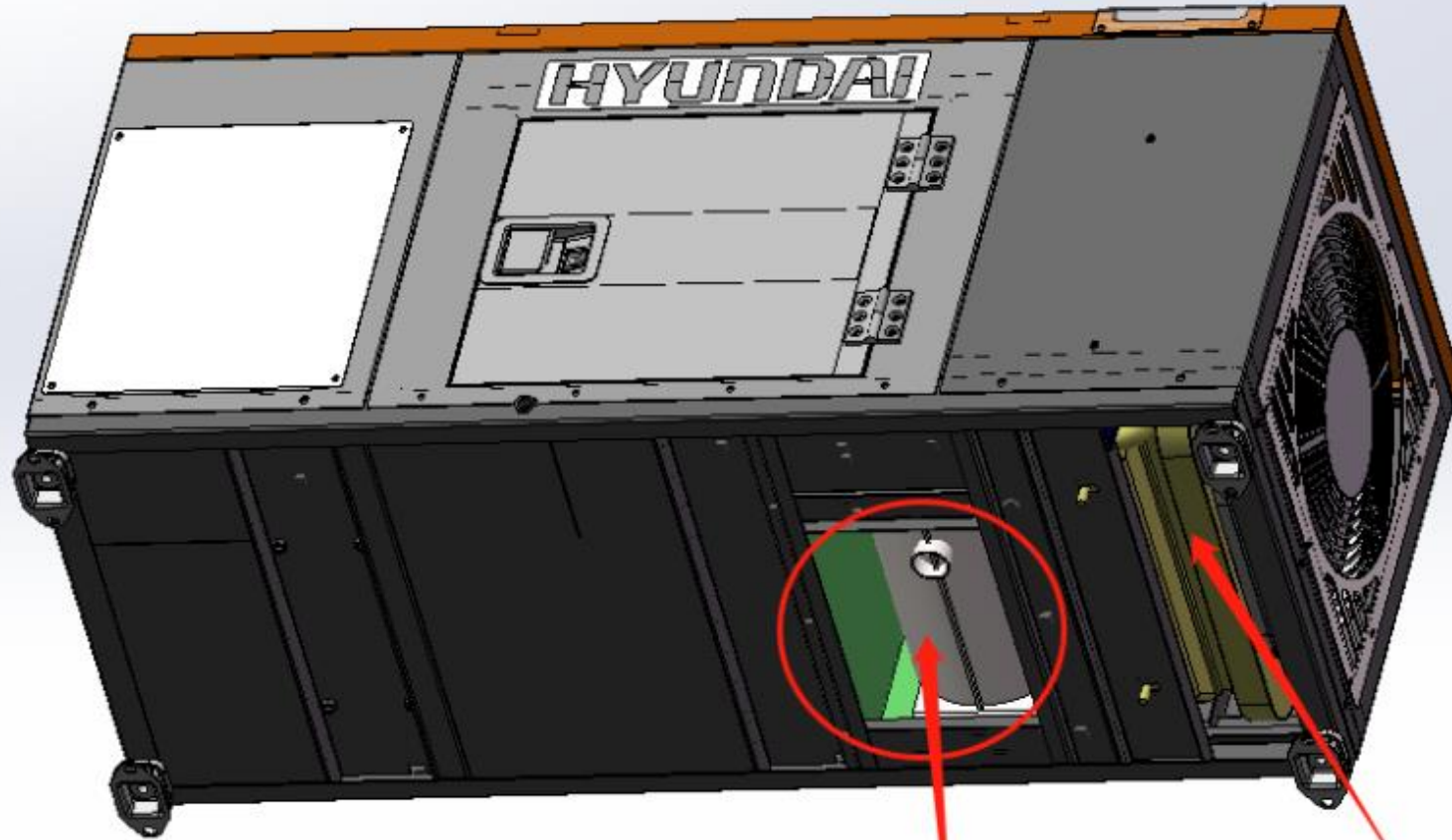


Air Cooling Fan

Air Filter &
Inverter Filter



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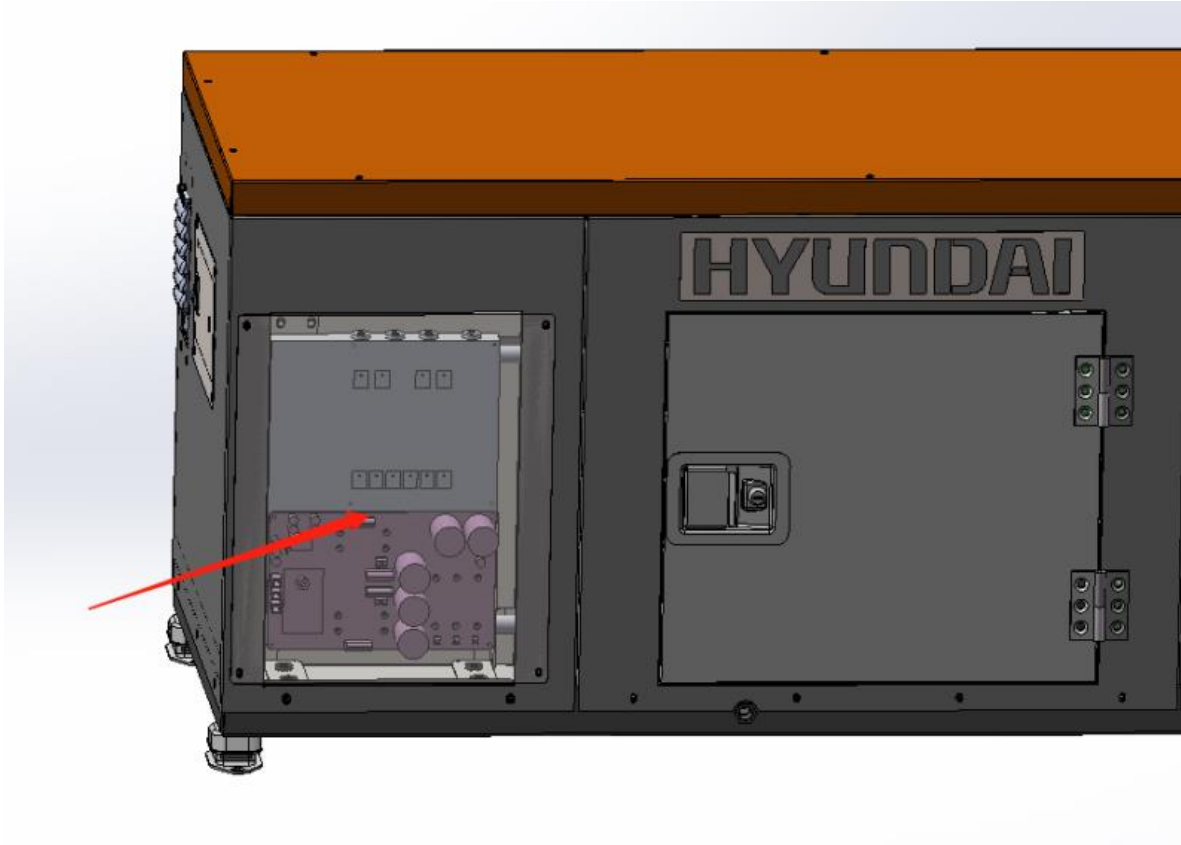
Exhaust Vents and
Muffler Exhaust Vents

1

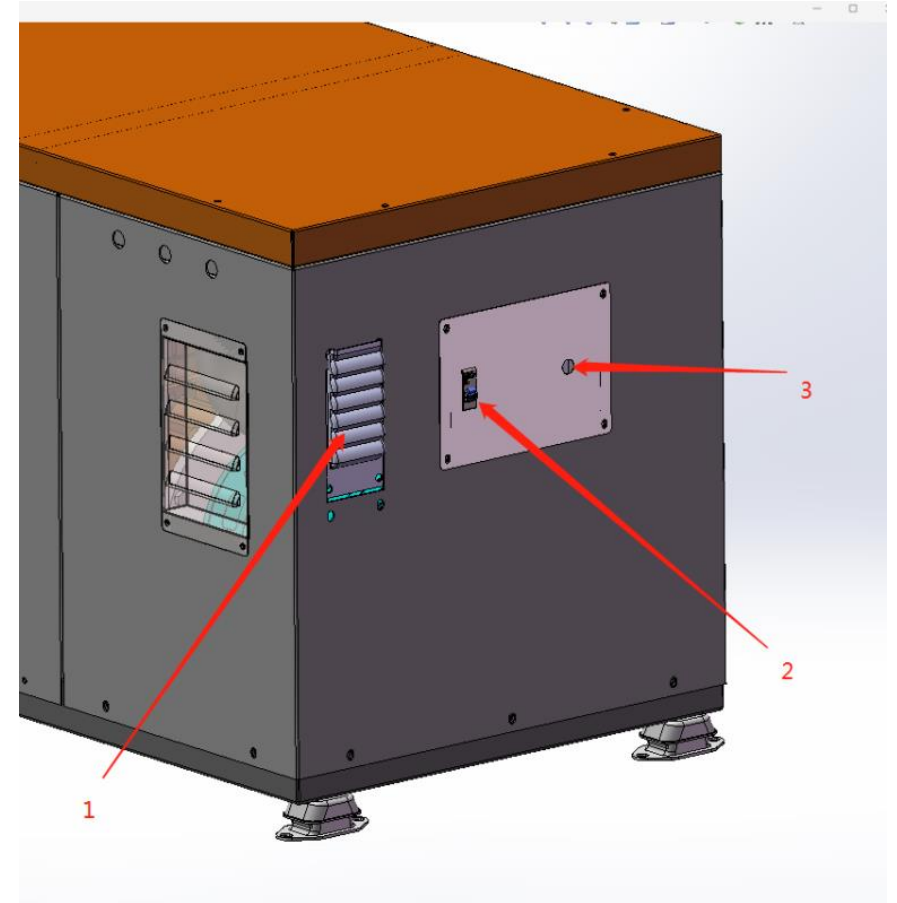
Radiator Drain Valve

2

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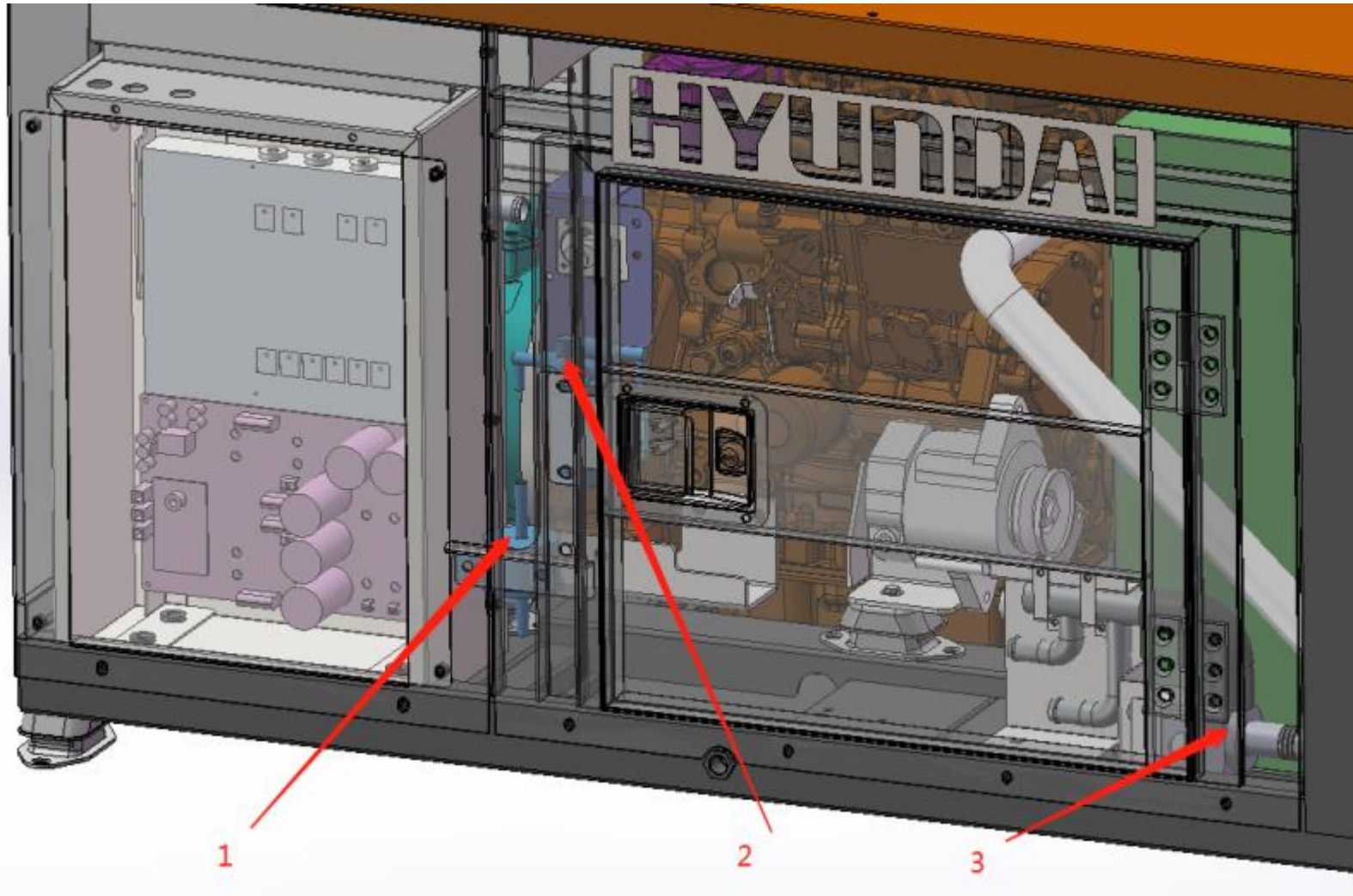


Water Cooled Vector Control Board
& Inverter Control Board



1. Air Filter Inlet
2. ECU Power Switch
3. ECU Board

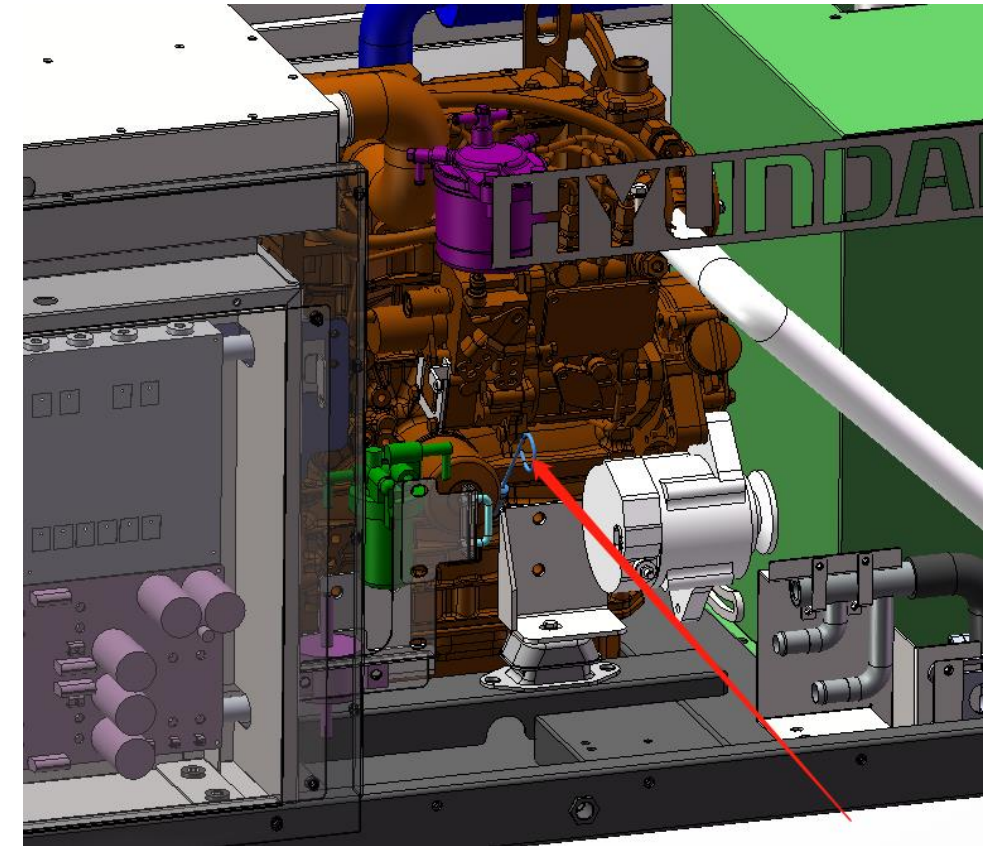
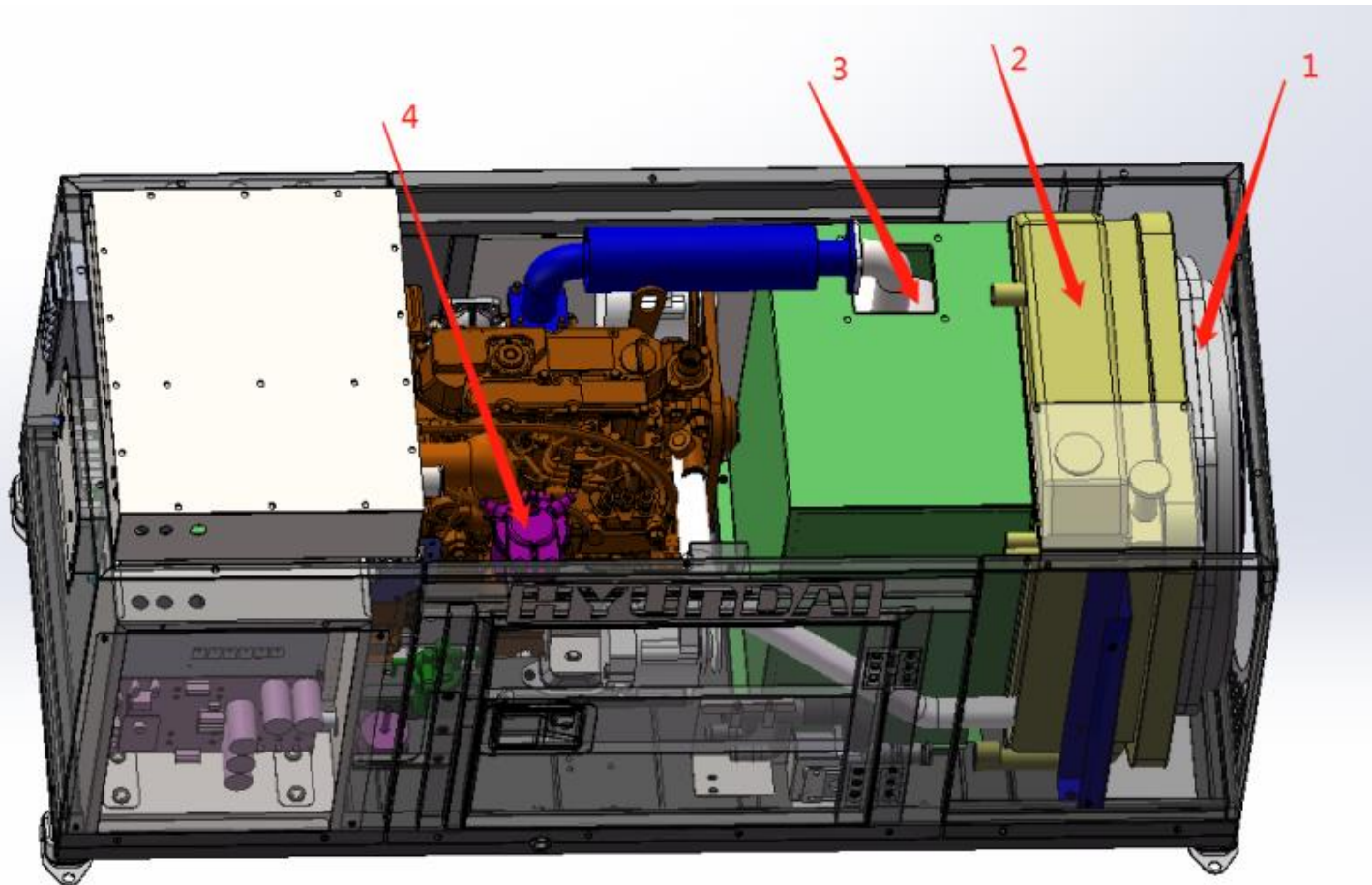
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1. Diesel Fuel Pump
2. Oil-Water Separator
3. Water Pump for PMG Alternator and Inverter Cooling System

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1. DC Inverter Cooling Fan
2. Radiator
3. Muffler
4. Fuel Filter



Oil Scale

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Start Procedure

1. Verify that the voltage of the starter battery no less than 12.6V at least
2. The starter battery capacity should at least 60Ah
3. The cable to battery has been right connected.
4. Check the coolant has been added to the radiator, the radiator has two separate caps, each cap need to add coolant. Turn on the battery switch, the water pump will run, after 5 seconds, check again whether the coolant level is enough, if lack of coolant, add coolant to cap level again.
5. Check the engine oil has been added, check the oil level is in the right level.
6. Check the fuel tank whether has adequate diesel fuel.
7. Check the AC output connector has been connected to the right place.

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Warning

Make sure the engine has been added the oil and cooling liquid.

Warning Low Temperature!

Electric heating operation

Warning Satrt Run!

The generator is running at idle status, pls. wait to normal status

1. Check the above preparation works are all ready

2. Turn on the battery switch, the remote control panel will show the warning, DO NOT WORRY! it was the double check notice.

3. The genset ECU control system will check the environment temperature and Cylinder head temperature then make decision the cylinder preheat time.

4. When preheat finished, press POWER ON switch on the control panel, the system will show **START RUN warning!** This is main for engine preheat before take loading, the whole period will last 90 seconds. After this, the LCM will back to the normal interface

5. When interface back to normal, press AC ON/OFF switch.

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AC ON

AC Voltage

230V

AC Hz

50Hz

Load

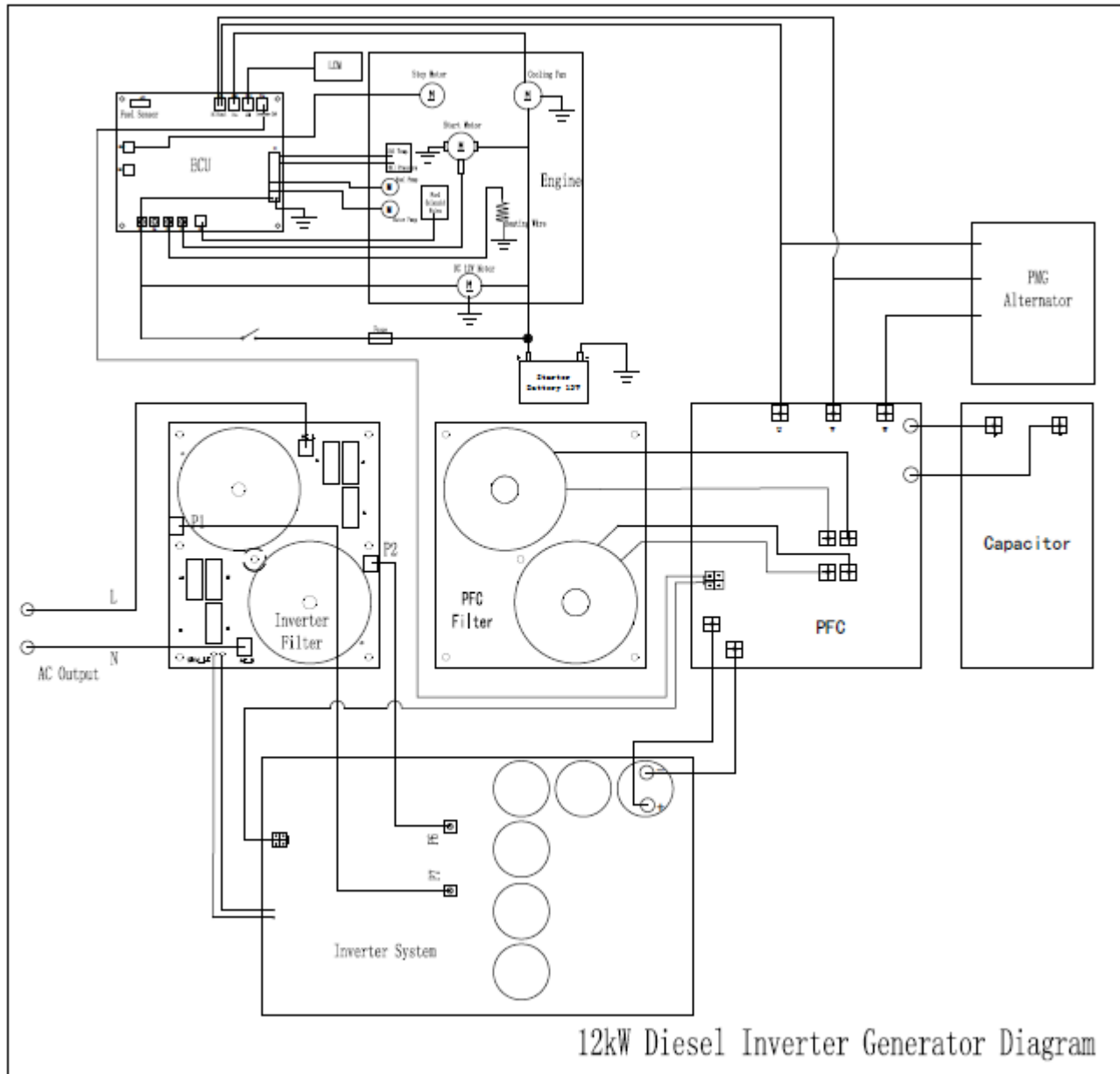
12000VA

Timer

9999H:59M



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12KW Diesel Inverter
Generator Diagram