ROOF MOUNTED AIR COOLER

Installation, Maintenance Instruction, and Parts Catalogue

WORLD PART SUPPLIER Inc.

Model Number: WPS-0005000
ACU-MI-001 (Without Event Logger) Rev. C.

https://www.WPSupplier.com | info@WPSupplier.com
Proudly **CANADIAN** Production (2017)

Contents

Preface

In alignment with World Part Supplier's mission to enhance its service capabilities in supplying parts and equipment—particularly to railway organizations—a development initiative was undertaken to design and manufacture a locomotive cab air conditioning system. The system addressed in this manual is one of the key comfort needs of locomotive operators.

We are pleased to announce that following extensive research and around-the-clock efforts by our dedicated engineers and technical staff, the locomotive cab A/C unit has been successfully developed and is now ready for deployment.

This system has been specifically designed to achieve standardization across all locomotive cab cooling systems. Additionally, the components utilized in this unit have been selected to allow compatibility with the maintenance requirements of similar cooling systems, particularly those manufactured in the United States.

Purpose of This Manual

This manual has been compiled as a comprehensive guide for end users and technical personnel. It includes clear instructions for the installation, commissioning, troubleshooting, and servicing of the unit. At the end of this manual, a complete parts list and corresponding technical reference numbers are provided to facilitate easy parts ordering.

We strongly recommend that users carefully review this guide, especially considering the unique design characteristics of this system.

Feedback and Contact

World Part Supplier (@WPSupplier) welcomes any feedback, suggestions, or concerns you may have regarding this product. Please get in touch with us via email at **info@WPSupplier.com** or by phone at **+1(647) 969-1386**.

We sincerely hope that the tireless dedication of our team will translate into valuable service for our esteemed clients and users of industrial equipment.

General Specifications of the Unit

Electrical and Environmental Specifications

Parameter	Specification
Input Voltage Range:	64–85 VDC
Maximum Input Current Consumption:	100 A
Electrical Type for System Components:	Three-phase AC
Operating Ambient Temperature Range:	+10°C to +60°C
Critical Temperature Tolerance:	Up to +65°C
Humidity Tolerance Range:	0% to 100% RH

Cooling System Performance

Parameter	Specification
Cooling Modes:	Fan: Low & High Speed Cooler: Low & High Speed
Cooling Capacity:	30,000 BTU/h
Optimal Cooling Performance Condition:	30°C dry bulb temperature at evaporator inlet
Cabin Blower Fan Output:	25.4 m^3/min
Refrigerant Type:	R-134a
Refrigerant Charge:	5.5 kg
Audiometry Level:	Max. 79 dB

Operating Principle of Air Conditioning Systems

In any air conditioning system, the refrigerant gas or fluid passes through the evaporator coil, absorbing heat from the air as it flows through the evaporator fins. By extracting thermal energy from the surrounding air, the refrigerant simultaneously releases its cooling effect into the environment. This process operates following the fundamental laws of heat transfer.

The cooled air is then delivered to the surrounding space employing airflow generated by the system's blower fan(s). For this reason, the design of HVAC systems requires detailed calculations based on factors such as target cooling volume, ambient temperature, humidity levels, and other influential variables.

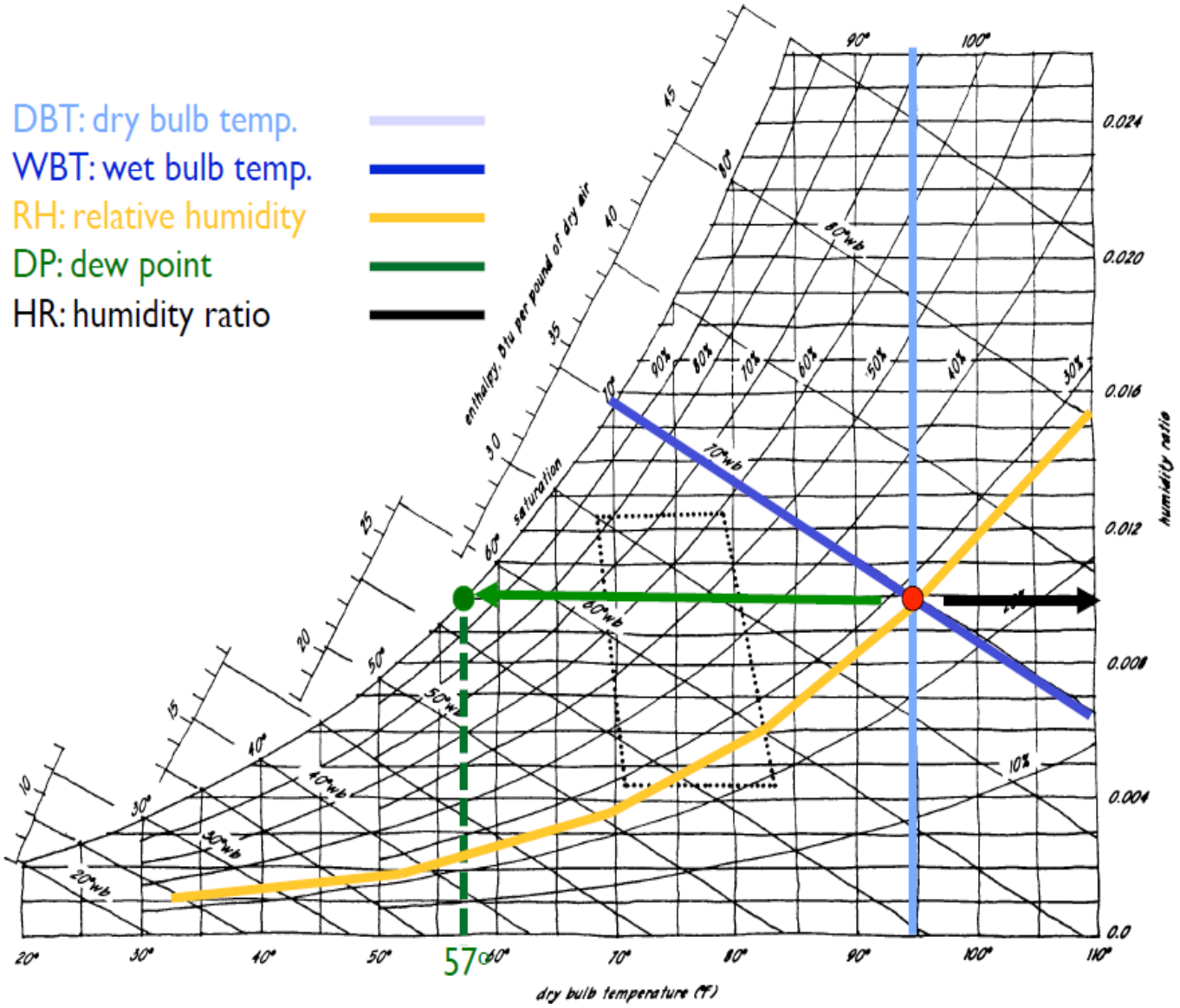


Figure 1. Psychrometric Chart

In direct expansion systems, such as air conditioners, maintaining an enclosed and sealed environment is crucial for achieving optimal cooling efficiency. For example, imagine a locomotive cabin exposed to sunlight with doors and windows closed, reaching internal temperatures of approximately 45°C due to poor ventilation.

Under such conditions, when the air conditioner is activated, the refrigerant begins circulating within the cooling circuit, initiating a continuous heat exchange cycle between two thermal phases. Upon compressor startup, the refrigerant absorbs heat from the environment and releases the transported coolness into the cabin. This cycle of thermal exchange continues uninterrupted until the system reaches the desired cooling setpoint.

Naturally, this exchange process is slower at startup when the internal cabin temperature is high, and it becomes more efficient as the temperature differential between the environment and refrigerant stabilizes.

Certainly, Shahram! Here's a professional English translation tailored for use in a technical operation or maintenance manual. It's organized for clarity and precision:

Overview of World Part Supplier's Locomotive Cab Air Conditioner

The **World Part Supplier A/C unit**, categorized as a gas-based air conditioning system, operates using a closed-loop refrigerant circuit. The unit is composed of the following main components:

Key Components

1. **Three-Phase Compressor (55V)**
The compressor operates on 55V for enhanced safety and environmental protection, minimizing the risk of electrical shock or grounding faults.
2. **Condenser Blower Fan**
Powered by a three-phase, 55V motor, this fan increases airflow through the condenser fins, expelling heat absorbed by the refrigerant.
3. **Condenser**
Facilitates heat exchange between the refrigerant and ambient air, enabling the release of thermal energy collected from the cabin.
4. **Accumulator**
5. **Receiver Dryer (Liquid Reservoir)**
6. **Evaporator**
Absorbs ambient heat and delivers cooling into the cabin via the refrigerant.
7. **Cabin Blower Fan**
Draws warm cabin air through the evaporator coil, where the refrigerant absorbs heat and returns cool air into the cabin space.
8. **Function Selector Switch**
The World Part Supplier's A/C offers five operating modes:
    A. OFF
    B. Cooling – Low Speed
    C. Cooling – High Speed
    D. Fan Only – Low Speed
    E. Fan Only – High Speed
9. **Thermostats (x2)**
Two mechanical thermostats monitor and regulate external and cabin temperatures within predefined limits.
10. **Inverter Module**
Supplies regulated power to all system components.

Air Distribution & Moisture Control

- The unit also acts as a **dehumidifier**, collecting excess moisture through a drainage system routed outside the cabin.
- Air is distributed via **eight adjustable air vents**[1], allowing users to control direction and intensity by rotating or opening/closing each vent.

[1] Depending on the upgrade, we may make changes in the design to increase the air flow. "Eight adjustable air vents" is used for the basic design.

Filtration & Maintenance

To prevent dust buildup on the evaporator fins, an **air intake filter** is installed. The filter should be replaced based on the maintenance schedule outlined later in the manual (refer to the "Troubleshooting and Repairs" section for details).

Refrigeration Cycle

- Heat extracted from the cabin is carried by R-134a refrigerant to the **semi-hermetic compressor**, which compresses and directs it to the **condenser** for heat rejection.
- The cooling fan draws air through the condenser fins, reducing refrigerant temperature and increasing its pressure before recirculation.

Features

- **Compressor, motors, and fans** are ISO 9001:2000 quality-certified[2].
- The **semi-hermetic compressor** delivers high efficiency, low noise, and reduced weight.

Thermal Protection

The compressor oil operates optimally at ~40°C above ambient. If system temperatures exceed design limits (mechanical overload), an **internal thermal switch** automatically cuts power. Power is only restored once the oil temperature returns to the safe range.

NOTE: A schematic illustrating the high- and low-pressure circuits and heat exchange cycle is provided in Figure 2.

Temperature Control and Operating Modes of the Locomotive Cab A/C System

The cooling performance and operating temperature range of the World Part Supplier (WPSupplier) (WPS) locomotive cab air conditioning unit are regulated via onboard thermostats. These thermostats continuously monitor both ambient and internal temperatures to control system activity.

The default functional temperature thresholds have been defined as follows:

- **Minimum Ambient Temperature**: 18°C
  The A/C unit will not activate if the outdoor temperature falls below this threshold.
- **Minimum Cabin Temperature**: 15°C
  Once the cabin temperature reaches or drops below this level, the A/C will automatically shut off.

These thresholds are adjustable and can be customized upon request by World Part Supplier to meet specific client requirements.

Selector Switch Functionality

The system offers flexible operation using the built-in **function selector switch**, allowing the user to toggle between:

- **Cooling Mode** (Compressor ON)
- **Ventilation Mode** (Compressor OFF / Blower Only)

[2] Condenser and Evaporator fans are designed and manufactured by World Part Supplier Inc. The semi-hermetic compressor is supplied from known and certified industrial cooling system manufacturers.

In both modes, users can define the desired operating **speed level**—either **low** or **high**—by sending commands from the selector switch to the inverter module.

Important Operating Condition
The system will operate only when both internal and external temperatures fall within the defined operating window. Outside this range, the unit will remain in standby to ensure efficiency and system protection.

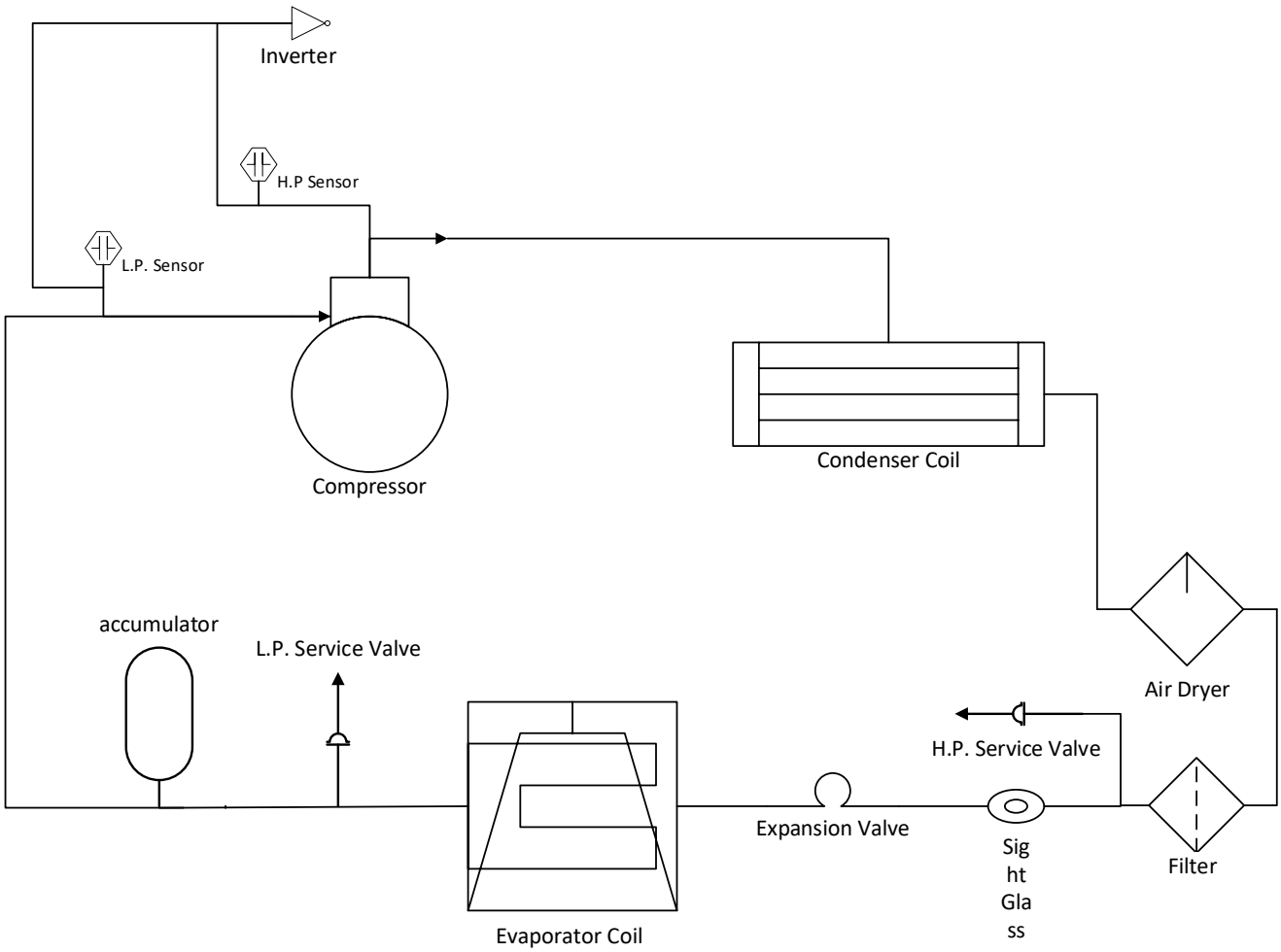


Figure 2. Cooling Schematics of WPS-0005000

Unit Installation Instructions

Mechanical Installation

- Based on the locomotive models, cut an opening in the locomotive cab roof according to drawing **WPS-ACU-MountingFrame-001**.
- Weld the mounting frame, designed per drawing **WPS-ACU-MountingFrame-002**, securely to the cutout area.
- Before positioning the A/C unit on the frame, apply **gasket WPS-0005044** between the unit and the frame to ensure proper sealing. Use **RTV silicone sealant** to affix the gasket.

- For older systems using a flat mounting frame (drawing **WPS-ACU-MountingFrame-003**), install an adapter bracket per **drawing WPS-ACU-MountingFrame-004**, or the available drawing from the locomotive manufacturer.
- Secure the A/C unit to the frame using **M10 bolts and nuts**, with appropriate washers.

1. Transport Guidelines

- Four lifting points are provided on the unit for hoisting. *Use nylon straps* to avoid scratching the painted surfaces.
- Remove the **selector switch knob** during transport to prevent accidental damage.
- After positioning the unit, tighten all fasteners and apply RTV silicone to ensure final weather sealing.

2. Electrical Connection

- Open the **cable access cover** on the left side of the unit.
- Connect power cables as per markings: **(+) Positive** and **(–) Negative**.
- The unit is equipped with **reverse-polarity protection diodes**—incorrect wiring will prevent startup.
- Use cable glands to route power cables into the enclosure and secure them.
- Apply **round cable lugs** with both flat and spring washers when mounting to terminals.
- Ensure the power supply originates from either the **auxiliary generator or heater circuit**, not the battery.
- Protect the input with a **100 A circuit breaker**—this is a mandatory safety requirement.

Operating Instructions for Locomotive A/C Unit

1. Cooling Mode

- Rotate the **selector switch** to the cooling position.
- The system runs **self-check diagnostics** before startup.
- If ambient temperature is within operational range:
  - The **condenser fan** runs for ~3 minutes before the **compressor starts**.
- All motors start using **soft-start logic** from low to maximum speed.
- Based on the user-selected fan speed (low/high), the cabin cooling begins.

Ensure that **all windows and doors are closed** to maintain a sealed environment and improve system efficiency.

- The circulation loop continues until the **cabin temperature** reaches the predefined lower threshold. The compressor will then turn off automatically.
- It will reactivate when the temperature rises again.
- In case of abnormal pressure or voltage, the system shuts down to protect internal components.
  - A simple **power cycle** using the selector switch can reset the system.
  - After 3 consecutive faults, the system locks out and requires diagnostics.

2. Ventilation-Only Mode

- Rotate the selector to **fan mode** for operation without cooling.
  - Two speeds available: **Low** and **High**.

- Only blower motors run—no compressor activity occurs.
- The inverter continuously monitors voltage and current levels.
- Faults result in automatic shutdown and require a power cycle to reset.
    - After 3 repeated faults, the system locks out until inspection is performed.

Critical Operating Notes

1. **Adjustable Diffuser Vents**
   Open or closed vents won't affect airflow rate—just airflow **velocity** and **direction**.
2. **Dehumidification**
   Moisture is extracted via the **evaporator** and drains through side outlets. Ensure all **drain paths remain unobstructed** to prevent overflow onto critical components.
3. **Proper Drainage**
   Condensate from the **compressor housing** must also drain properly—proper installation and regular maintenance are essential.
4. **Refrigerant Level Check**
   Observe the **sight glass** after 3 minutes of high-speed operation:
    - **Continuous, bubble-free flow** = proper charge
    - **Bubbles present** = low refrigerant; inspect for leakage.
5. **Noise Awareness**
   The unit features **low-noise electric motors**. If abnormal noise is detected, contact technical support immediately.
6. **Electrical Isolation**
   The A/C system is fully **electrically isolated** from the locomotive—its function doesn't interfere with locomotive power systems.
7. **Startup Restrictions**
   The unit will **not operate** if the outdoor temperature is outside the defined range.
8. **Warning Signs**
   Shut down the system immediately if unusual compressor noise or vibration occurs.
9. **Shutdown Delay**
   After turning the selector to OFF, the system may remain on for a few seconds as part of its programmed shutdown sequence.
10. **Pre-Use Recommendation**
    For operator comfort, switch on the unit **30 minutes before cab handover** with all doors and windows closed.
11. **Sealing the Cabin**
    Always operate with windows and doors **closed**.
12. **Wiring Diagram**
    See Figure 3 for a full schematic of the unit's electrical layout and system logic.

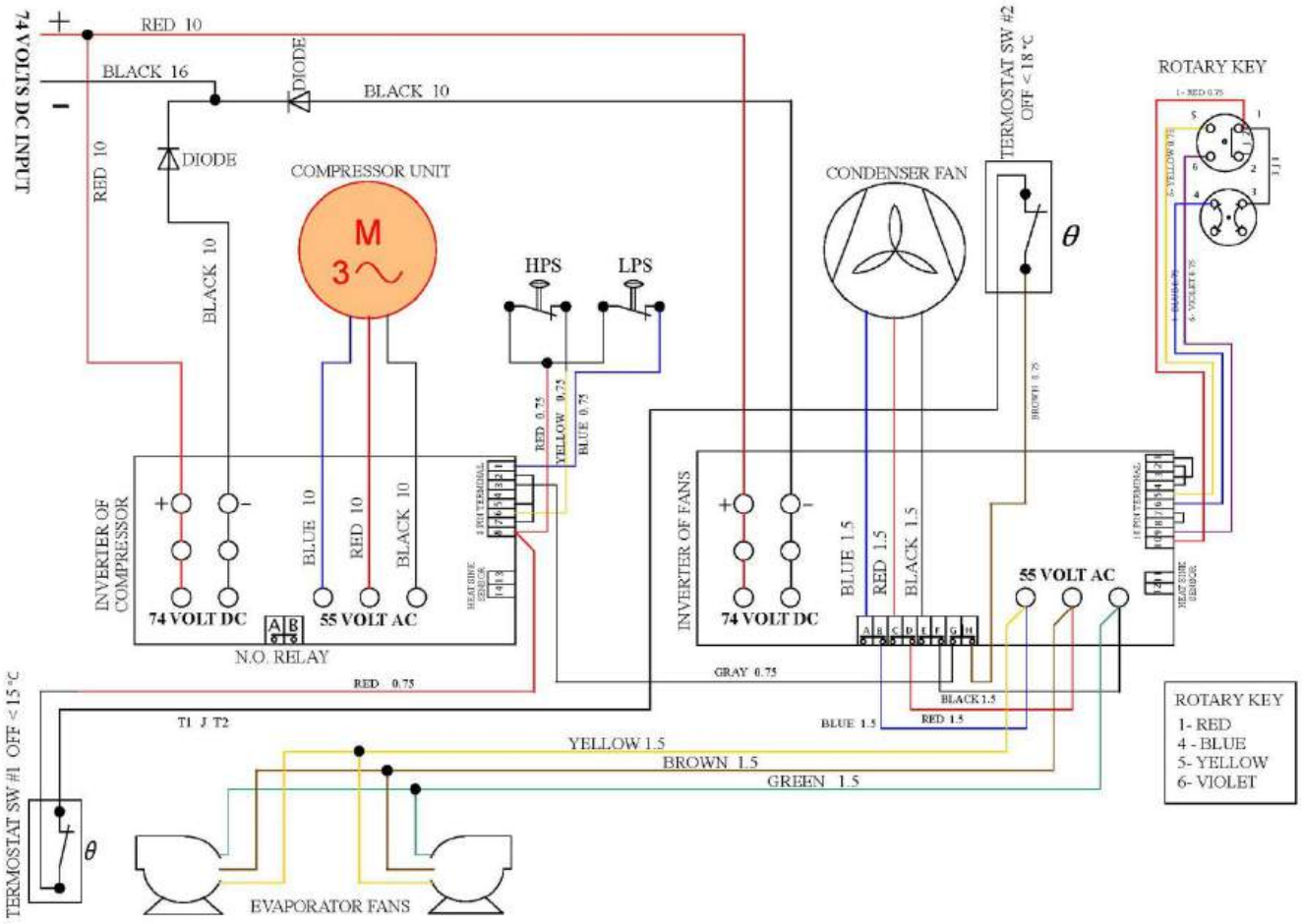


Figure 3. WPS-0005000 Wiring Schematics

Periodic Maintenance Instructions

To ensure consistent, reliable performance, the air conditioning system must undergo regular inspections and servicing. The following procedures are categorized based on recommended maintenance intervals:

Every 90 Days of Operation

1. **Replace Air Intake Filters**
   Replace a total of **four filters** as follows:
   - **Three external filters** for the left, right, and front panels
     - *Part Number*: **WPS-0005018**
     - *Quantity*: 1 per location (3 total)
   - **One evaporator intake filter**
     - *Part Number*: **WPS-0005019**
2. **Functional Check**
   Verify that the A/C system operates correctly and without fault in all selectable modes:
   - Cooling (compressor ON): High and Low speed

- Ventilation (fan only): High and Low speed

Annual Inspection

1. **Compressor Housing Inspection**
   - Visually inspect the **compressor housing** for any signs of **oil leakage**.
   - Clean the exterior of the compressor using **low-pressure water** and a mild detergent.
2. **Refrigerant Charge Verification**
   - Start the A/C unit and allow the **compressor to run at high speed for 3 minutes**.
   - Observe the **sight glass**:
     - A **continuous, bubble-free flow** indicates adequate refrigerant.
     - The presence of **bubbles or foam-like turbulence** suggests a low refrigerant level or possible system leakage.
     - Refer to **Figure 3** in the manual for the sight glass location.

If bubbles persist after recharging the refrigerant circuit, disassemble the unit for a **comprehensive leak inspection and repair** at all fittings and joints.

Figure 4. Sight Glass Location

3. **Ventilation Mode Check**
   - Operate the A/C unit in **fan-only mode** and inspect both **low-speed** and **high-speed** fan performance.
   - If abnormal noise is detected, **replace any faulty fan** with a new, approved unit.
4. **Condenser Fan Check**
   - Remove the upper cover of the unit with caution and observe the **condenser fan's operation**.
   - With the unit turned **OFF**, manually rotate the **fan hub** to inspect for free movement.
   - Any **abnormal noise or shaft play** indicates a faulty fan, which must be replaced.
5. **Service Valve Inspection**
   - Inspect the **high-pressure and low-pressure service valves** for potential leaks.
   - Ensure all connections are secure and leak-free.

Five-Year Overhaul

- Completely **remove the A/C unit** from its installed position.
- Perform a thorough **component-level inspection and service**.

- If faults occur **outside scheduled maintenance intervals**, refer to the **Troubleshooting** section in this manual.

If the observed fault is not listed, please report it to the manufacturer via email at **info@WPSupplier.com** for further assistance.

Air Cooler Troubleshooting

Fault Type	Possible Causes	Recommended Corrective Actions
A/C unit does not operate in cooling mode	1. Ambient temperature is below the system's activation threshold. 2. Cabin temperature is below the minimum defined setpoint. 3. Refrigerant pressure is outside the allowable range. 4. The compressor fails to start normally.	- Allow ambient temperature to rise above the minimum threshold. - Ensure cabin temperature exceeds the activation setpoint. - Refer to the section on low refrigerant pressure faults. - Check the compressor for wear or faulty start-up. See compressor repair procedures.
Refrigerant pressure fault	1. Blocked condenser air filters. 2. Condenser fan not operating.	- Replace clogged filters. - Refer to section "Condenser fan malfunction." 💡 *Note*: If refrigerant pressure is too high or too low, a corresponding LED will light up on the inverter. Power must be cycled off and on after resolving the issue.
Condenser fan not working	1. Cooling efficiency is low in low-speed mode. 2. The return air filter to the evaporator is dirty. 3. The refrigerant level is insufficient	- Switch to high-speed mode. - Replace evaporator air filter. - Check refrigerant level using the **sight glass**. 💡 If bubbles are visible, the system may require leak inspection and recharging.
The system does not power on at all	1. No input power to the unit. 2. Inverter heat sink over-temperature fault. 3. Internal system fault.	- Confirm input voltage is within the specified range. - Toggle the circuit breaker. - Allow the system to complete internal diagnostics. - Read the inverter LED indicators and follow fault-specific repair instructions.
The compressor powers on, then immediately shuts down	1. Phase voltage imbalance. 2. Faulty compressor pressure sensors. 3. Low suction pressure.	- Measure the inverter output voltage per phase. If the phase difference >5V, replace the inverter.

	4. Low oil level in crankcase triggering oil pressure relay.	- Bypass each pressure sensor individually; a faulty sensor will allow the compressor to stay on. - Inspect and recharge refrigerant circuit as needed. - Check and refill the oil to the proper level.

Inverter Status Indicators and Diagnostic LEDs

The World Part Supplier air conditioning system uses an inverter with **two separate boards**—one for the **compressor** and one for the **fans**.

LED Indicators Overview

- **Red LED**: Indicates general system status and any fault conditions
- **Green LED**: Signals the operational status of specific components or sensors

Start-up Sequence

1. When the **function selector** is turned to cooling mode:
    - **Red LEDs on both inverter boards flash simultaneously**.
    - After **3 seconds**, the fan inverter completes internal diagnostics:
        - Its **red LED turns solid,** and the fans start.
        - Based on the selected fan speed (low or high), the corresponding **green LED illuminates** on the relevant terminal (fan inverter board).
2. After approximately **2 minutes**, the **compressor inverter activates**:
    - The compressor starts if no faults are detected.
    - In case of a system error:
        - The respective **green status LED turns on**
        - The **red LED flashes slowly** (with extended pauses) to indicate a fault.

Fault Indications and Sensor Monitoring

- **Low-Pressure Sensor Activation**
    - Compressor shuts down
    - **LED 1 (green)** turns on
    - **Red LED flashes**
- **High-Pressure Sensor Activation**
    - Compressor shuts down
    - **LED 6 (green)** turns on
    - **Red LED flashes**
- **Sensor Power Supply**
  Both pressure sensors and thermostats draw power from **Terminal 8**.

- **Heat Sink Temperature Sensors**
  - Connected to pins **12 & 11** (fan inverter) and **13 & 14** (compressor inverter)
  - If abnormal temperature is detected:
    - The power to the inverter is cut
    - The corresponding **green sensor LED turns on**
    - **Red LED flashes** on the affected board
- **System-Wide Electrical Faults**
  - **Overcurrent**, **undercurrent**, or **overvoltage** conditions trigger:
    - **Flashing red LEDs** on both inverter boards

Thermostat Functions and Indicators

- The **internal and external cabin thermostats** share a power source.
  - **Internal thermostat** → Connected to **Terminal 8** on compressor board → *Shuts down the compressor only*
  - **External thermostat** → Connected to fan inverter → *Shuts down the entire system*
- Each thermostat activation is indicated by the **green LED located next to its input terminal**.

Reset and Safety Protocols

- In case of any abnormal condition, the inverter enters **fault mode,** and **auto-restart is disabled**.
  - The user must **reset the system via the function selector** by turning it off and back on.
- If the system enters fault mode **three times consecutively**, **disconnect power from the main fuse** and contact authorized service personnel for further diagnostics.

Spare Parts Procurement – World Part Supplier's A/C Systems

To streamline logistics and improve serviceability, this A/C system is designed with **interchangeable components** compatible with **Dayton Phoenix (USA)** systems.

Ordering Procedure

1. Refer to the **A/C Spare Parts List** section of this manual.
2. Identify the **Part Number** and **quantity required**.
3. Place an order via:
   - **Fax**: +1 647 969 1386
   - **Email**: info@WPSupplier.com

A quotation will be provided promptly upon receiving your request.

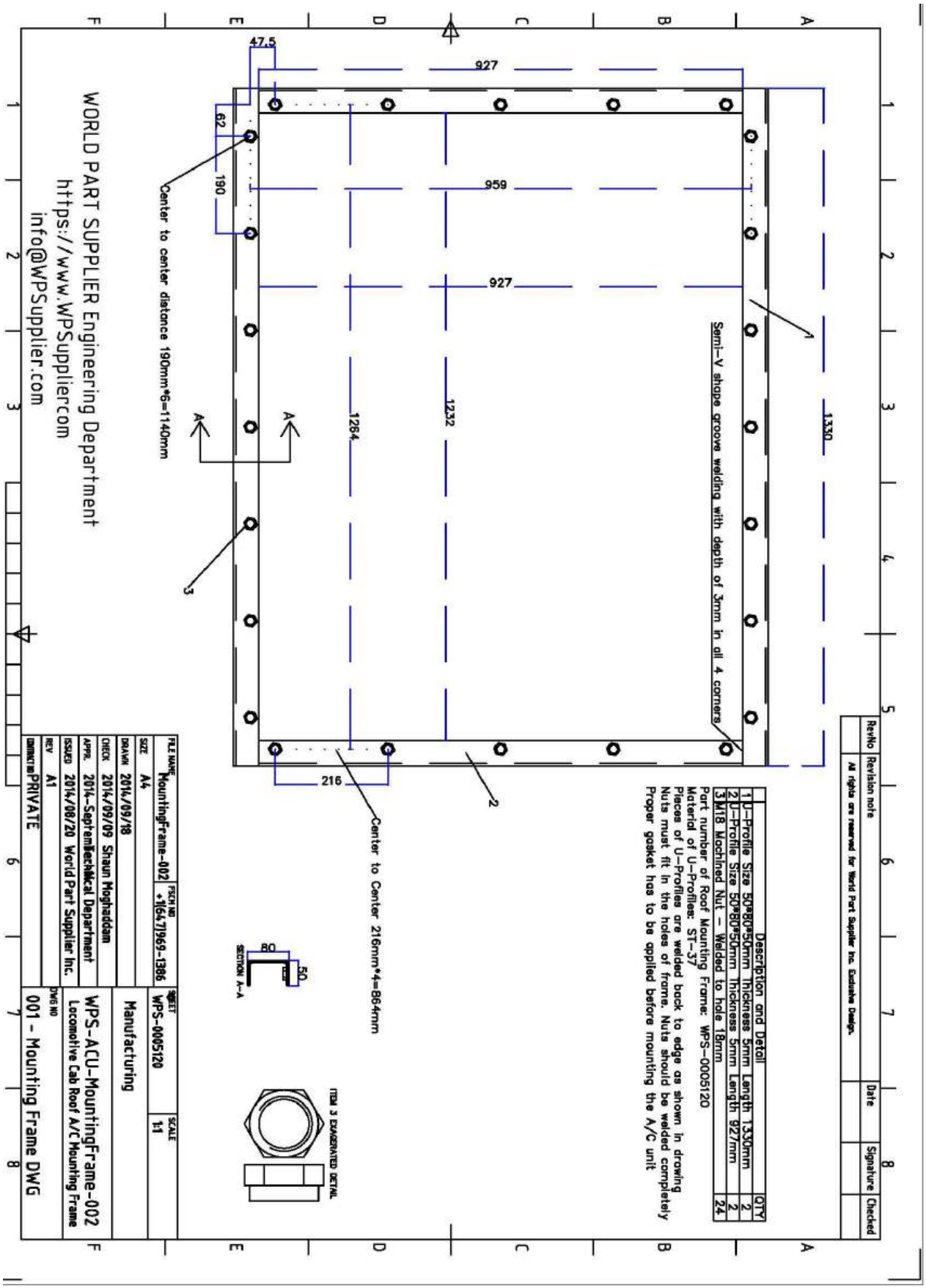


Figure 5. U-Profile Mounting Frame

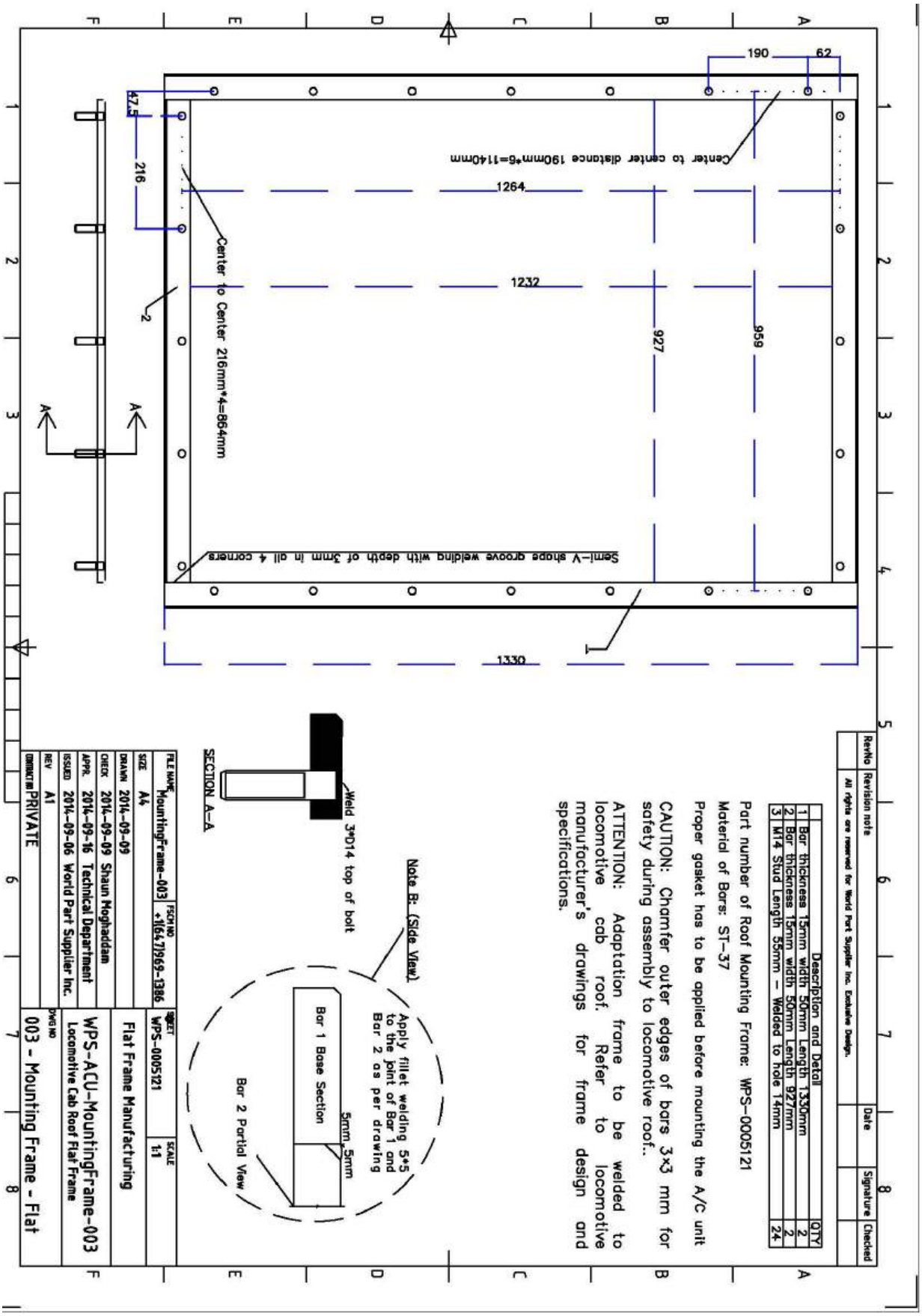
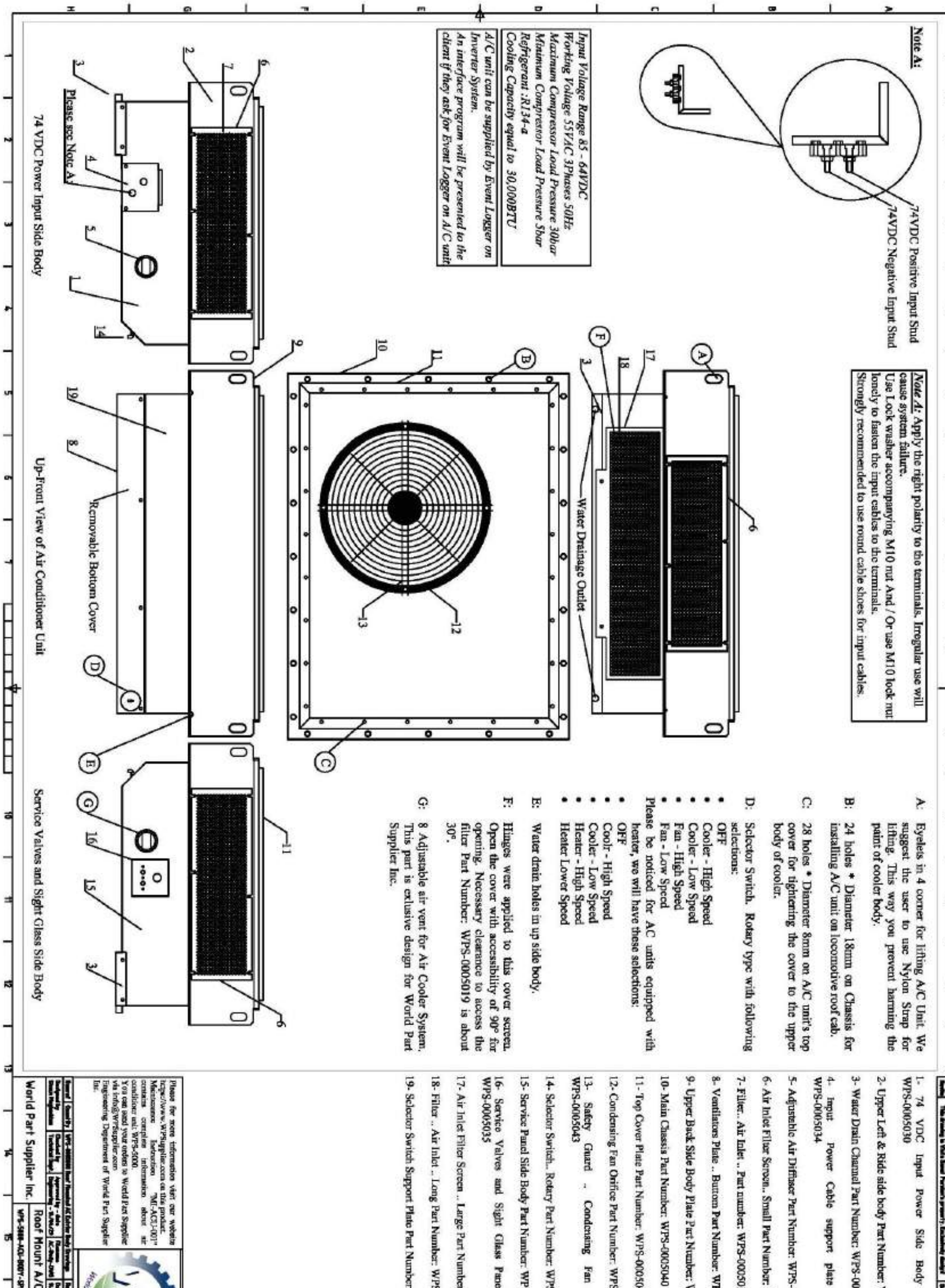


Figure 6. Flat Steel Mounting Frame


Note A:
74VDC Positive Input Stud
74VDC Negative Input Stud
Note A: Apply the right polarity to the terminals. Irregular use will cause system failure.
Use Lock washer accompanying M10 nut And / Or use M10 lock nut lonely to fasten the input cables to the terminals.
Strongly recommended to use round cable shoes for input cables.
Input Voltage Range 85 - 64VDC
Working Voltage 55VAC 3Phases 50Hz
Maximum Compressor Load Pressure 30bar
Minimum Compressor Load Pressure 5bar
Refrigerant :R134-a
Cooling Capacity equal to 30,000BTU
A/C unit can be supplied by Event Logger on Inverter System.
An interface program will be presented to the client if they ask for Event Logger on A/C unit
Water Drainage Outlet
Removable Bottom Cover
Please see Note A
74 VDC Power Input Side Body
Up-Front View of Air Conditioner Unit
Service Valves and Sight Glass Side Body
A: Eyelets in 4 corner for lifting A/C Unit. We suggest the user to use Nylon Strap for lifting. This way you prevent harming the paint of cooler body.
B: 24 holes * Diameter 18mm on Chassis for installing A/C unit on locomotive roof cab.
C: 28 holes * Diameter 8mm on A/C unit's top cover for tightening the cover to the upper body of cooler.
D: Selector Switch. Rotary type with following selections:
• OFF
• Cooler - High Speed
• Cooler - Low Speed
• Fan - High Speed
• Fan - Low Speed
Please be noticed for AC units equipped with heater, we will have these selections:
• OFF
• Coolr - High Speed
• Cooler - Low Speed
• Heater - High Speed
• Heater Lower Speed
E: Water drain holes in up side body.
F: Hinges were applied to this cover screen. Open the cover with accessibility of 90° for opening. Necessary clearance to access the filter Part Number: WPS-0005019 is about 30°.
G: 8 Adjustable air vent for Air Cooler System. This part is exlusive design for World Part Supplier Inc.
1- 74 VDC Input Power Side Body Part Number WPS-0005030
2- Upper Left & Ride side body Part Number: WPS-0005036
3- Water Drain Channel Part Number: WPS-0005033
4- Input Power Cable support plate Part Number WPS-0005034
5- Adjustable Air Diffuser Part Number: WPS-0005020
6- Air Inlet Filter Screen.. Small Part Number: WPS-0005021
7- Filter.. Air Inlet .. Part number: WPS-0005018
8- Ventilators Plate .. Buttom Part Number: WPS-0005039
9- Upper Back Side Body Plate Part Number: WPS-0005037
10- Main Chassis Part Number: WPS-0005040
11- Top Cover Plate Part Number: WPS-0005041
12- Condensing Fan Orifice Part Number: WPS-0005042
13- Safety Guard .. Condensing Fan Part Number WPS-0005043
14- Selector Switch.. Rotary Part Number: WPS-0005017
15- Service Panel Side Body Part Number: WPS-0005031
16- Service Valves and Sight Glass Panel Part Number WPS-0005035
17- Air Inlet Filter Screen .. Large Part Number: WPS-0005022
18- Filter .. Air Inlet .. Long Part Number: WPS-0005019
19- Selector Switch Support Plate Part Number: WPS-0005032
Please for more information visit our website https://www.WPSupplier.com on this product. Maintenance Instruction "MI-ACU-001" contains complete information about air conditioner unit WPS-5000.
You can send your orders to World Part Supplier via info@WPSupplier.com
Engineering Department of World Part Supplier Inc.
World Part Supplier Inc.
Roof Mount A/C Specification

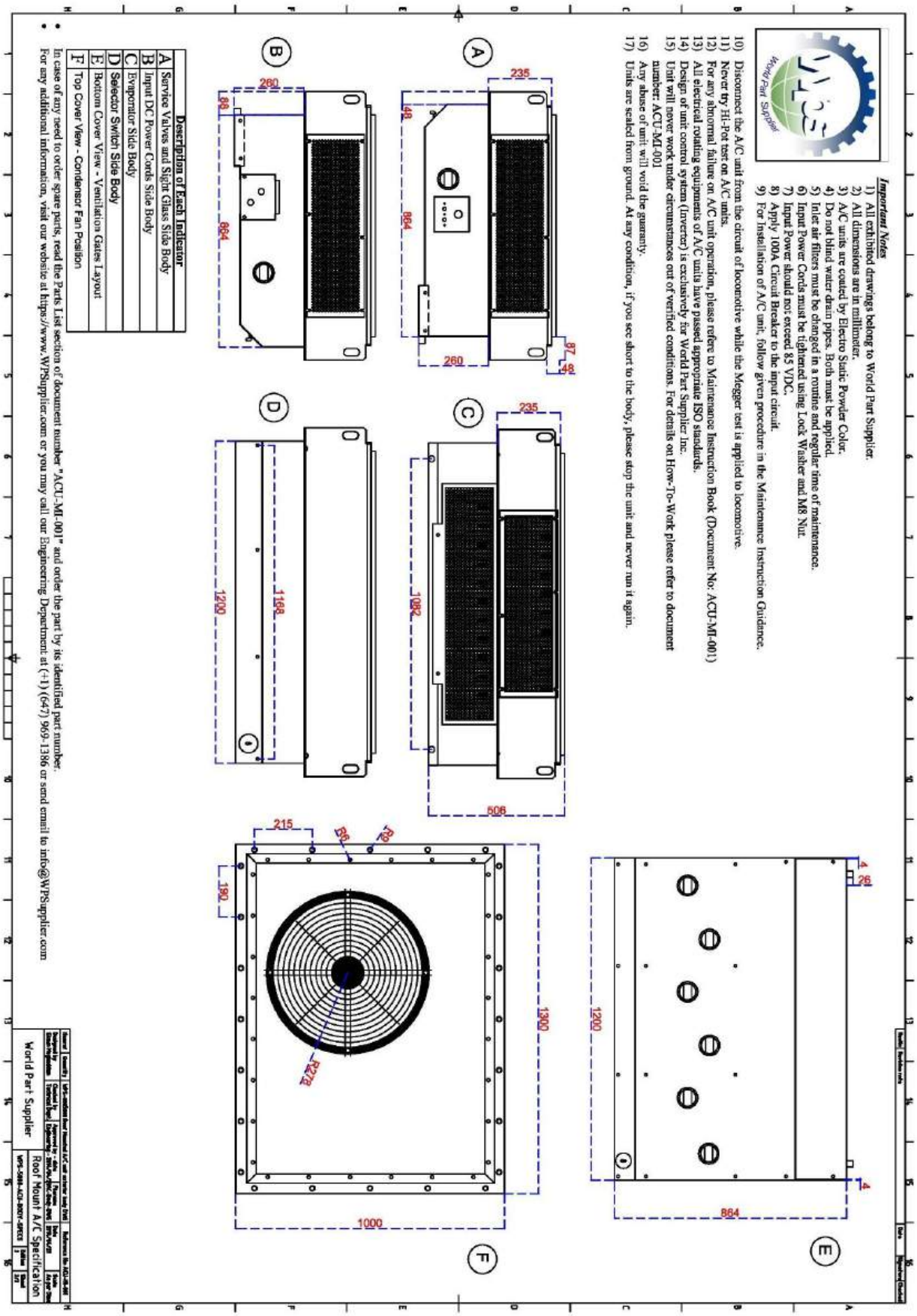


Figure 7. WPS-0005000 Mechanical Dimensions

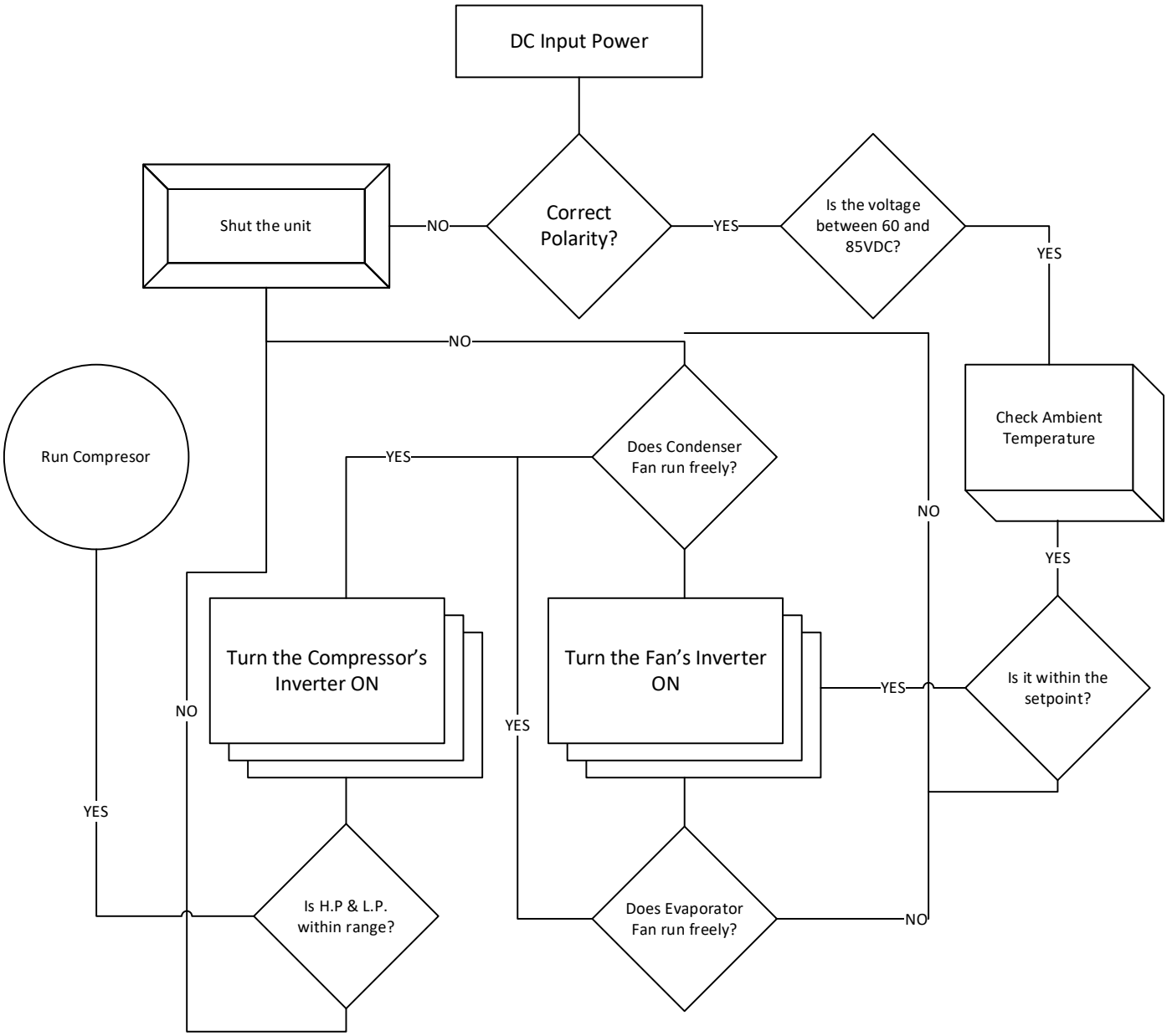
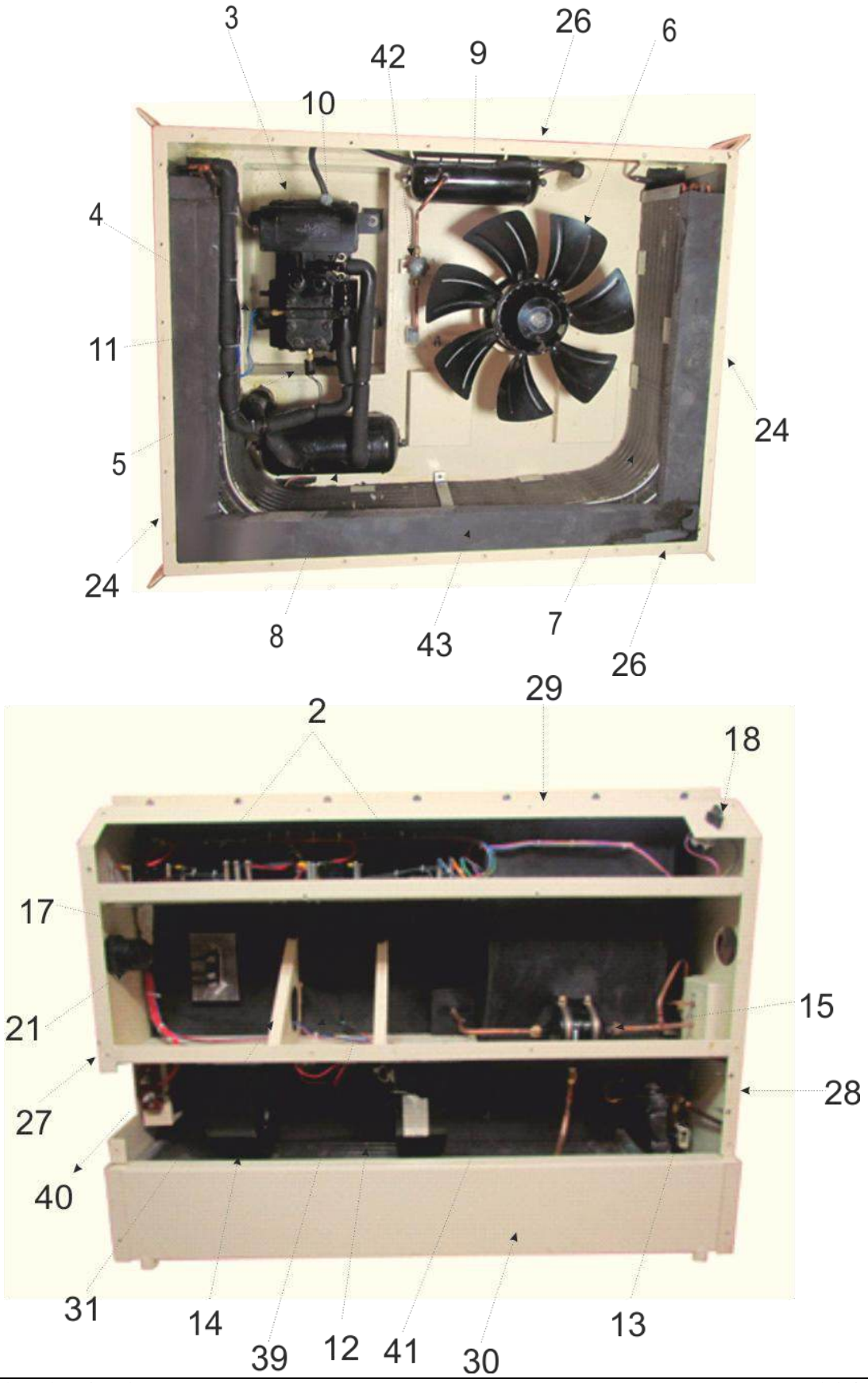
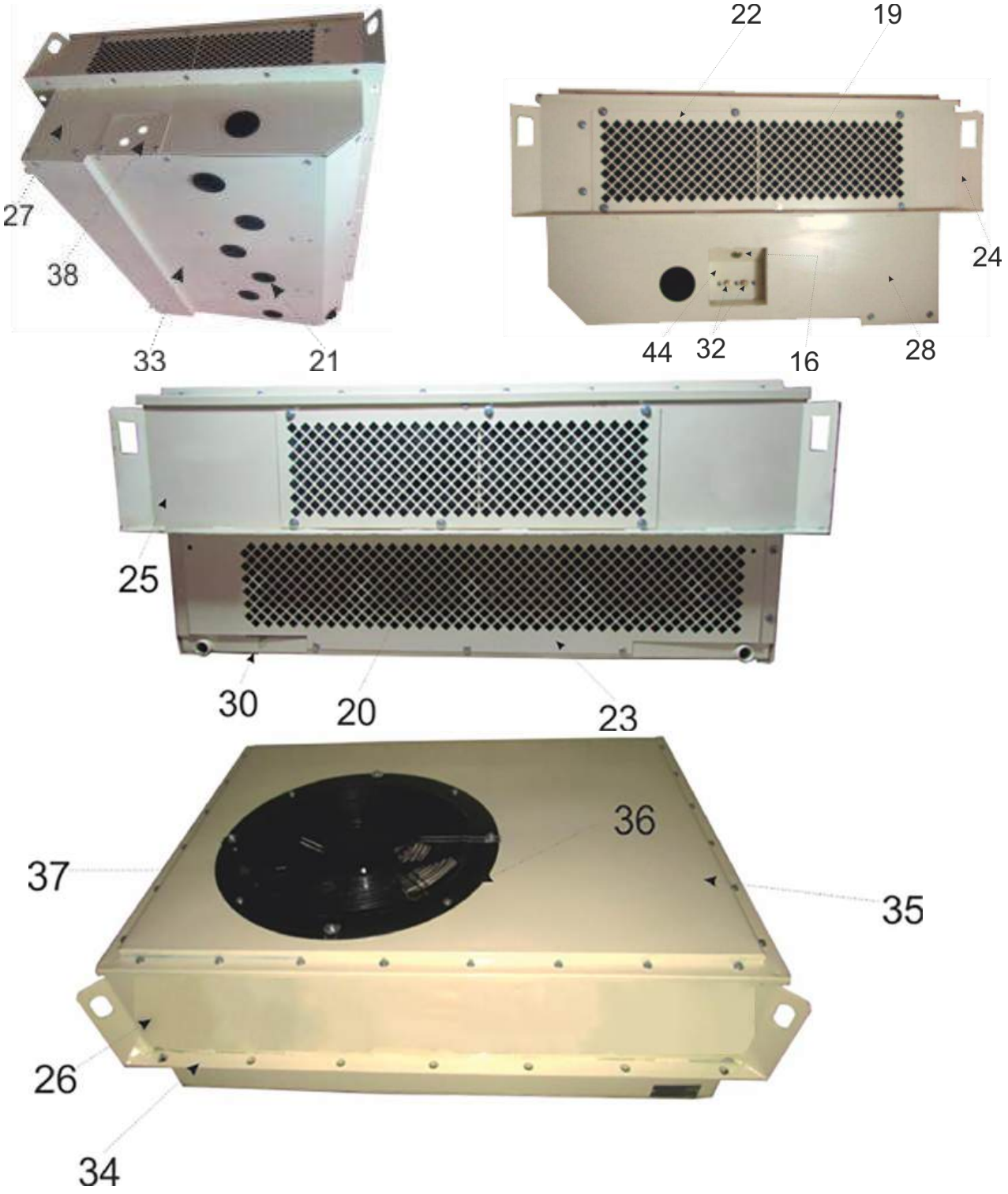


Figure 8. Logical Control Flowchart

WPS-0005000 Air Conditioner Spare Parts List





Interchangeability and Spare Part Ordering Instructions

This air conditioning unit has been carefully designed using components that are readily available in the local market and, where possible, interchangeable with parts used in other systems. This strategic compatibility ensures that most components can also be used with other similar A/C systems.

To order spare parts, simply refer to the relevant **part number** and specify the **required quantity per unit**.

Please send your purchase orders via:

- 📧 **Email**: info@WPSupplier.com
- 📠 **Fax**: +1 (647) 969 1386

Spare Parts List – World Part Supplier's A/C System

	Part Number	Description	QTY
1	WPS-0005000	Locomotive Driver Cabinet Air Cooler	
2	WPS-0005001	Inverter.. 3 Phase, 74 VDC to 55 VAC	1
2(*)[3]	WPS-0005002	Inverter.. 3 Phase, 74 VDC to 55 VAC with EVENT LOGGER	1
3	WPS-0005003	Compressor.. 3 Phase, 55 VAC	1
4	WPS-0005004	High-pressure sensor	1
5	WPS-0005005	Low-pressure sensor	1
6	WPS-0005006	Fan .. Condensing Fan	1
7	WPS-0005007	Condenser Coil	1
8	WPS-0005008	Accumulator	1
9	WPS-0005009	Receiver	1
10	WPS-0005010	Compressor Discharge Line Valve	1
11	WPS-0005011	Compressor Suction Line Valve	1
12	WPS-0005012	Evaporator Coil	1
13	WPS-0005013	Expansion Valve	1
14	WPS-0005014	Fan.. Evaporator Fan	2
15	WPS-0005015	Drier Filter	1
16	WPS-0005016	Sight Glass	1
17	WPS-0005026	Diode.. Bridge	1
18	WPS-0005017	Selector Switch.. 5 Position	1
19	WPS-0005018	Filter.. Air Inlet Filter - Upper side	3
20	WPS-0005019	Filter.. Air Inlet Filter - Evaporator side	1
21	WPS-0005020	Diffuser Vent.. Ventilator	8
22	WPS-0005021	Screen.. Air inlet Filter.. Small	3

[3] This part will be sold if the client asks for the Event Logger on the A/C unit's inverter.

23	WPS-0005022	Screen.. Air inlet Filter.. Large	1
24	WPS-0005036	Upper L-R Side body	2
25	WPS-0005024	Upper Front Side Body Plate	1
26	WPS-0005037	Upper Back Side Body Plate	1
27	WPS-0005030	74 VDC Input Power Side Body.. LEFT.. Bottom	1
28	WPS-0005031	Sight Glass Side Body.. RIGHT.. Bottom	1
29	WPS-0005028	Switch Plate Body.. Bottom	1
30	WPS-0005033	Water Drain Channel.. Bottom Side	1
31	WPS-0005024	Plate.. Blower Fan Sitting Support Plate	2
32	WPS-0005029	Service Valves.. High & Low Pressure	2
33	WPS-0005039	Cooler Diffuser Plate.. Bottom Side	1
34	WPS-0005040	Main Chassis Plate	1
35	WPS-0005041	Cooler Top Cover	1
36	WPS-0005042	Orifice.. Condensing Fan	1
37	WPS-0005043	Safety Guard .. Condensing Fan	1
38	WPS-0005034	74VDC Input Cord Support Plate	1
39	WPS-0005038	Thermometer.. Mechanical – In and Out	2
40	WPS-0005037	Terminal.. 74VDC input power, Insulated	1
41	WPS-0005032	Insulation.. Rubber Material	A/R
42	WPS-0005025	Valve.. Rotational, Mechanical	1
43	WPS-0005027	Insulation.. Rubber Material – Upper Side	A/R
44	WPS-0005023	Box.. Polygon Box for Service Valves and Sight Glass	1
45	WPS-0005044	Gasket.. Rubber, A/C Unit to Mounting Frame Sealing	1
46	WPS-0005120	Frame.. U Shape – Locomotive Roof Mounting	1
47	WPS-000511	Frame.. Flat – Locomotive Roof Mounting	1