dynasys SL

Installation Guide

SL Installation Guide (PD22)
Revision 1

Introduction

This manual is written to assist with the installation of the Dynasys APU and HVAC System into a typical Class 8 truck.

While it is not intended to be specific to any particular make or model, the information provided in manual will assist the installer with a safe and correct installation. Class 8 trucks can be very diverse and some have modifications to the truck that may require changes to the installation procedures in this manual. However, the directives in this manual are accepted principals to be observed when installing the Dynasys APU. Review the entire manual before beginning the installation.

Due to the nature of the installation process, the installation should be performed by an experienced and Dynasys trained technician who has a clear understanding of refrigeration, electrical wiring, and mechanical principles. Furthermore, it is necessary to have the proper tools and equipment to complete this installation.

The first step in the installation process is to consult with the owner of the truck. This is to confirm proposed locations of all APU components and to discuss any modifications to the truck or existing equipment that may be necessary to complete the installation. An Owner Pre-installation and Post-installation checklist is provided with all Dynasys units, review checklist and perform initial inspection of truck prior to consulting owner. This will allow the installer to advise and answer the owner's questions regarding APU component placement. It is advisable to have the owner participate in the process to reduce any misunderstandings and to better meet the owner's expectations of the Dynasys APU system.

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1.1 Definitions and abbreviations

- APU (Auxiliary Power Unit)
- HVAC (Heating, Ventilating, and Air Conditioning)
- Class 8 Truck (Heavy Duty Trucks over 33,000 pounds [15,000 kg] as defined by FHWA in the US)
- FHWA (Federal Highway Administration)
- RTV (Room-temperature vulcanization, a type of rubber that hardens through chemical means instead of heat)
- CCU (Cabin Control Unit)
- ECM (Engine Control Module)
- PDC (Power Distribution Center)
- VAC (Volts of Alternating Current)
- DVOM (Digital Volt Ohm Meter)

1.2 General installation guidelines and tips

PRE-INSTALL

- Review the entire manual to determine component locations.
- Verify that all equipment and tools are available.
- Open all Dynasys packaging to verify all components are present and undamaged.
- Condenser mounting templates are located on the packaging for each component.
- Perform initial Pre-Install inspection of truck.
- Review APU component placement with the owner.
- Perform Owner APU Pre-Install checklist with owner.

APU MAIN CABINET ASSEMBLY

- Relocate any existing truck equipment (i.e. air tanks, battery box, and storage box) that interferes with the installation of the APU main cabinet.
- Determine mounting system to be used

  - Direct Mount, with or without spacers
  - Clamp Mount, with or without spacers

- Place the APU in position utilizing the packaging skid and a floor jack.
- Raise the unit until the mounting holes are flush with the chassis frame rail before tightening.
- Use only the Dynasys supplied mounting hardware (bolts, nuts and washers may be replaced with identical grade and dimension hardware, if necessary).
- Torque each mounting bolt to 75 ft-lbs.

A/C CONDENSER ASSEMBLY

- Determine the best location for mounting the condenser on the exterior rear wall of the sleeper.
- Verify all measurements before drilling mounting holes.
- Verify that there is no interference with any existing structures on the truck.
- Protect the truck's finish to prevent damage during install.
- Install Condenser assembly utilizing the supplied template (printed on the outside of the Condenser Assembly packaging).

Verify correct orientation of assembly, #8 fitting located at top of assembly.

HVAC UNIT

- Determine the best location inside the sleeper, under the bunk, allowing sufficient room to run the flex ducts.
- The HVAC unit needs to be located correctly to provide direct access for the intake (return) air for maximum HVAC

performance.

- Verify no interference with any existing truck equipment (i.e. OE rear HVAC system).
- The HVAC box should be mounted directly to the floor.
- Dynasys recommends the use of all four vents; this will ensure maximum bunk air delivery performance and temperature control.
- Seal all holes with RTV after mounting the HVAC unit at the mounting surface of bunk area.

A/C HOSES AND COMPONENTS

- Lubricate the hose o-rings with new PAG (100 viscosity) refrigerant oil. This will eliminate damage to the o-rings during the installation process.
- Hoses should be routed to the Condenser Assembly along the rear of bunk in a manner that allows for truck vibration and slight movement, while ensuring long term durability.
- Protect hoses from rubbing or chafing against any sharp edges.
- Protective loom and J style mounting clamps should be installed over the hoses to ensure long term durability.

CCU, ECM and ELECTRICAL

- Electrical and control wiring should be installed in a manner that allows for truck vibration and slight movement.
- Ensure that all wires and harnesses are protected from rubbing or chafing against any sharp edges.
- Protective loom and J style mounting clamps should be installed over the wire harnesses to ensure long term durability.

Apply Di-electric grease to APU Main unit interconnect connection.

- The CCU will be mounted inside the sleeper and accessible from the bunk. *DO NOT BLOCK THE TEMPERATURE SENSOR VENTS LOCATED ON EACH SIDE OF THE CCU.*
- Do not mount the CCU where it could be directly affected by an installed vent or direct sunlight.
- Locate the ECM within eighteen inches of the HVAC Unit and securely mounted.
- Locate the Power Distribution Center in the bunk area to provide easy accessibility to the PDC breakers.
- The 110vac receptacle can be flush or surface mounted.
- The block heater receptacle should be mounted outside the cab near the driver's door.

COMPONENT HARNESSES, CABLE, FUEL HOSE, and REFRIGERANT HOSE LENGTHS

- APU Main Cabinet Assembly
    - 110vacac harness – 17ft
    - 12v APU interconnect harness – 12ft
    - 12v APU ground to battery cable – 12ft
    - 12v APU positive to battery cable – 12ft
    - APU fuel hose sections (cut to length) – 2 at 12ft/ea.
- A/C Condenser to HVAC Unit refrigerant hoses
    - #6 high side hose – 14ft
    - #8 high side hose – 14ft

- HVAC Unit vent ducting
    - 1 section at 20ft
- CCU, ECM, and PDC
    - CCU RJ45 cable – 10ft
    - ECM to HVAC – 1.5ft
    - PDC to HVAC – 4ft
    - PDC to Block Heater – 8ft
    - PDC to Convenience outlet – 10ft

1.3 Required tools and shop supplies

TOOLS	SUPPLIES
•Typical technician tools	R-134a refrigerant
•Pallet jack	RTV
•½" Electric drill	Wire/hose loom
•Heat gun	Self tapping screws
•Set of drill bits	Various tie-wraps
•POP Nut installation tool (PN 55-1002)	Wire / Hose J style mounting clamps
•Hole saws – 3 ¼ “, 3”, 2”,. 1 ¼" dia. 3/4 " dia.	
•½" Torque wrench	
•Tape measure	
•Level	
•R-134a evacuation and recharging station	
•DVOM	

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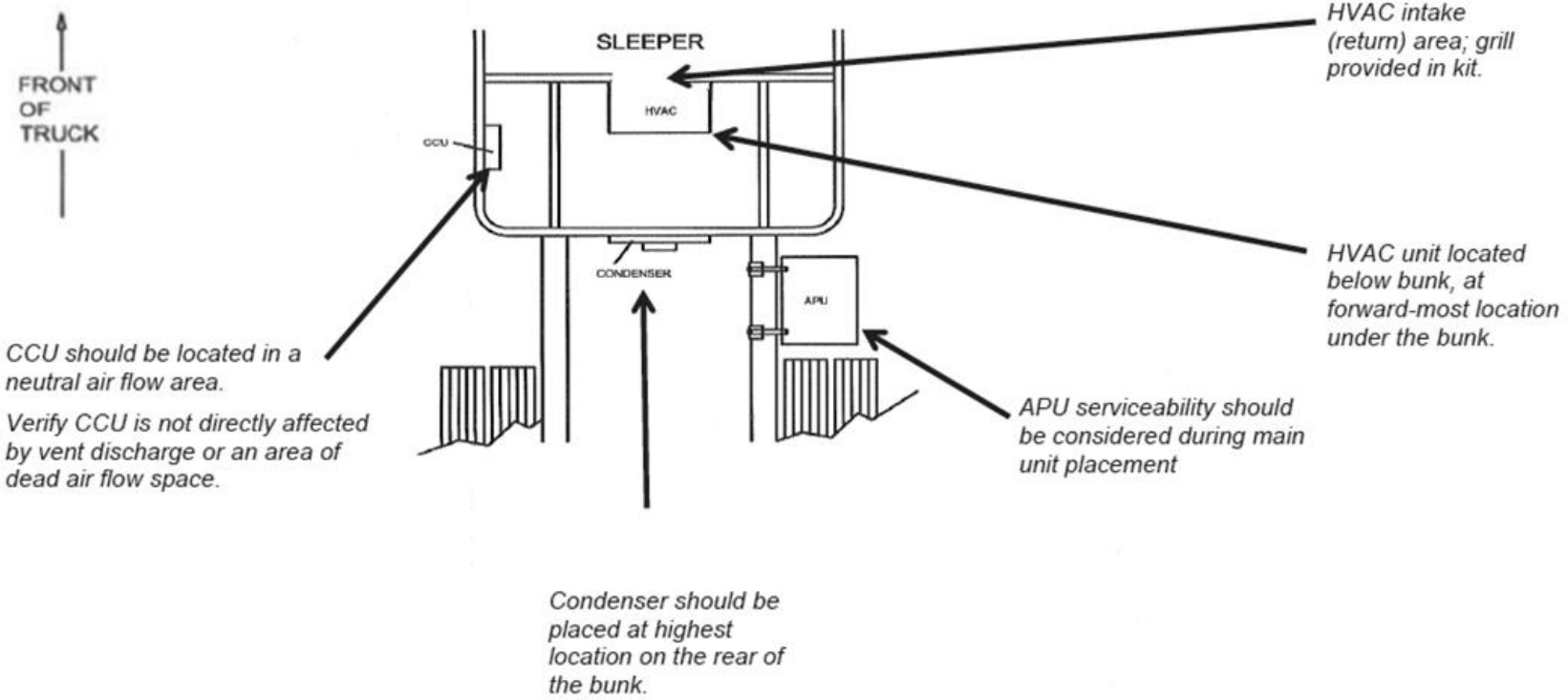
1.4 Recommended APU system component locations



1.5 Dynasys APU Cabinet Assembly Installation

1. Determine APU Cabinet location on frame rail that allows for serviceability and is within the 110vac, and 12v interconnect harness length. The 12v interconnect harness length is 12 ft, while the 110vac harness is 17ft.

2. Determine Mounting System to be used. The Dynasys System is provided with a Clamping system. This provides an installation that does not require drilling truck frame rails. Should direct mounting to the frame be desired, do not create a new hole closer than 2 inches from an existing hole.

Using a pallet jack (or similar device), position the unit against the frame rail and raise until the upper mounting holes are approximately 1/8" above the frame rail. From the inside of the unit insert each of the supplied grade 8 bolts with a grade

8 flat washer through the frame mounting holes. Install a frame clamp with a flat washer and a nylon lock nut on each of

the bolts as shown illustrated on the next page. Install the top two frame clamps first; then add the two bottom clamps. Do not let the mounting bolts carry the weight of the APU until fully tightened.

3 Hand-tighten the four nuts evenly so that the mounting face of the APU frame is flat against the frame rail and all hardware is in true alignment with the APU frame. Frame spacers (optional) are required for APU frame and truck rail clearance issues. Make sure the unit is level and flush to the frame rail. Use a torque wrench to fully tighten the assembly. Use of air tools or impact guns during this process is not recommended; hand tightening with the correct tools is required. Torque each mounting bolt to 75 ft-lbs.

NOTE: Uneven or over tightening the mounting hardware can cause damage to the APU frame assembly or weaken the mounting hardware. When installing the unit, slotted holes in all mounting hardware must be oriented to the bottom of the APU Frame Assembly and all bolts must be properly tightened to 75 ft-lbs using a torque wrench.

4 Verify all mounting bolts are secure and mounting torque is correct.

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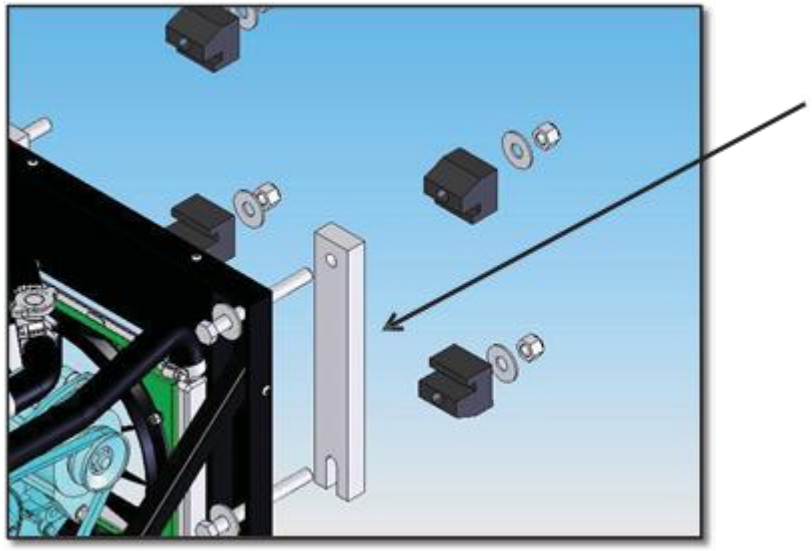
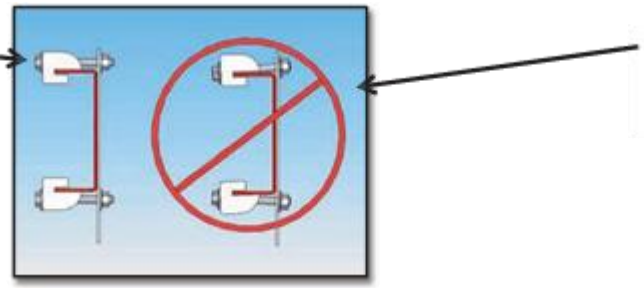


Spacer (optional)
is required for APU
frame clearance issues

Correct load
bearing of
clamp system



Improper load
bearing of
clamp system

1.6 APU A/C Condenser Assembly Installation

1. The ideal mounting location for the condenser is at the highest location on the rear of the bunk.

2. The distance between the Condenser and the HVAC unit should be within the length of hoses being used. The Dynasys system is supplied with 10ft hoses (14ft hoses are an available option. Please call Dynasys to place order).

3. Once a location has been chosen, it is advisable to have a second person assist in the process of marking the mounting holes using the provided template (printed on the outside of the Condenser Assembly packaging). Make sure the template is level.

4. Once marked, drill six 17/32" holes.

5. Use the provided POP® nuts and a proper installation tool (part #55-1002) to install the nuts into the back panel (see exploded view on the next page).

Locate condenser assembly into position and install the provided bolts and washers. Do not to over tighten the bolts.

6. Install refrigerant hoses to the Condenser Assembly after the installation of the HVAC unit. Apply new PAG (100 viscosity) refrigerant oil to the o-rings and ensure they are correctly installed on fittings prior to installation. Use a back-up wrench to protect the component being attached to.

Verify the routing of the refrigerant hoses, and the orientation of the drier (if applicable) prior to installing J style clamps to secure hoses from rubbing or chafing against any sharp edges.

7. Protective loom and J style mounting clamps should be installed over the hoses to ensure long term durability

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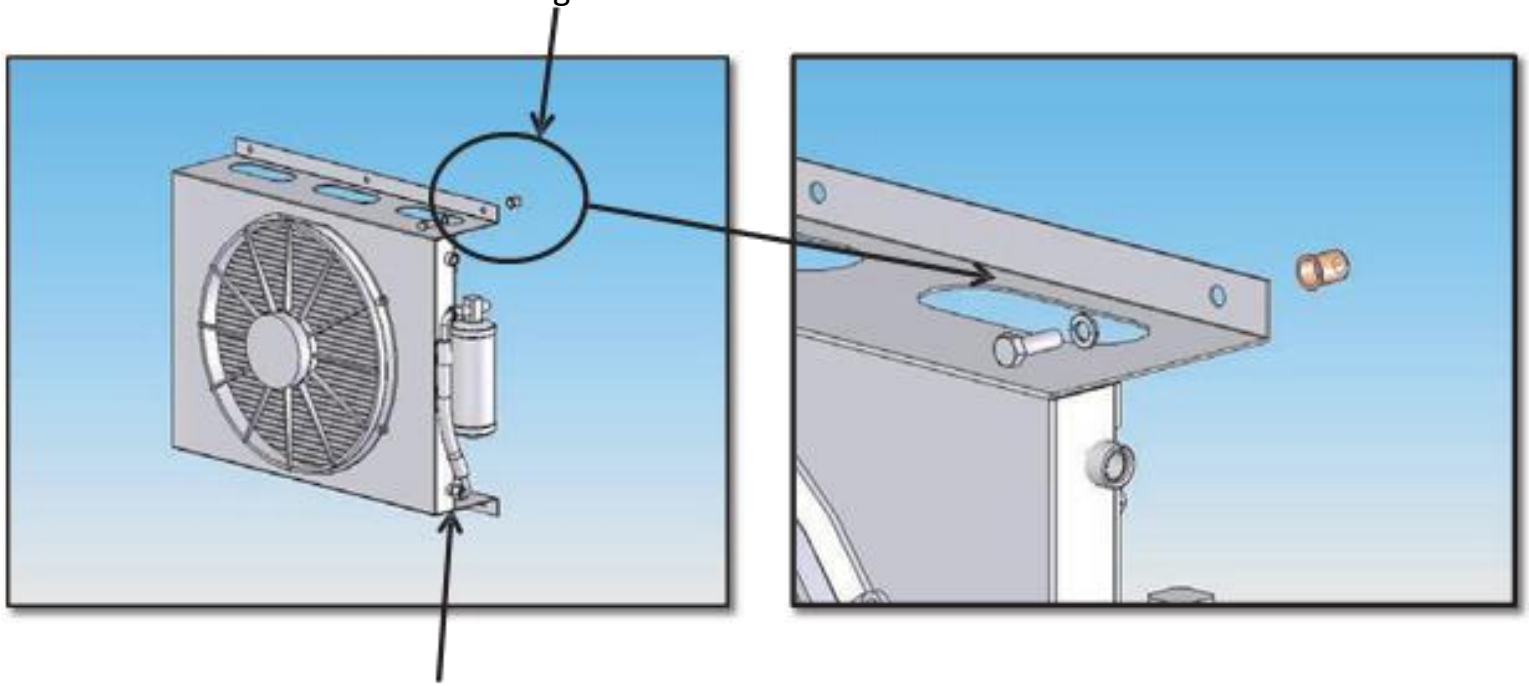
Exploded view to the right

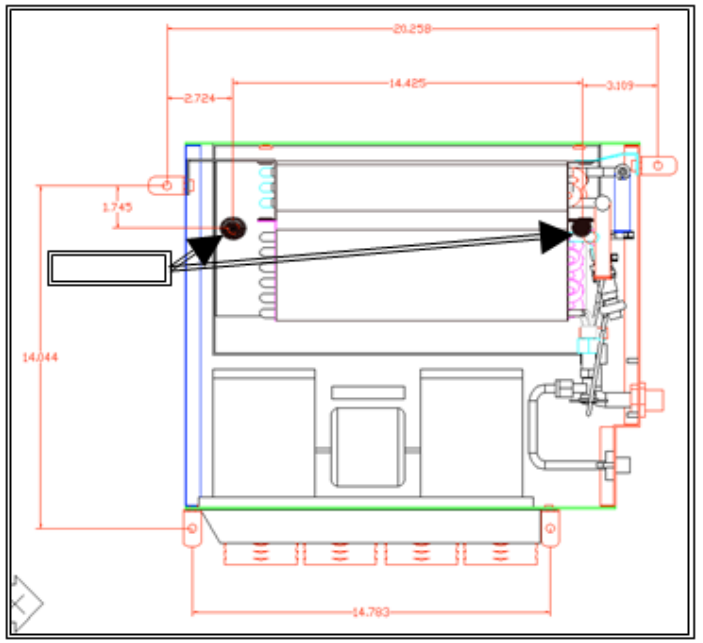


Refrigerant flows from #6 condenser fitting through the drier to the HVAC unit

1.7 Dynasys APU HVAC Unit Installation

The Dynasys Evaporator Unit should be placed in a breathable area located underneath the bunk inside the cab. After negotiating the proper location, please do the following:

1. Drill 2-(.750-1”) holes for the drain tubes. *See dimensions for the mounting holes and the drain tube locations relative to the housing orientation according to the following diagram. (*Note: the drain tube holes are highlighted in black in the following diagram.)
Use (4) ¼” x 1.5”, grade 8 fastener to install the unit to the ground (cab floor).



Evaporator Unit Diagram

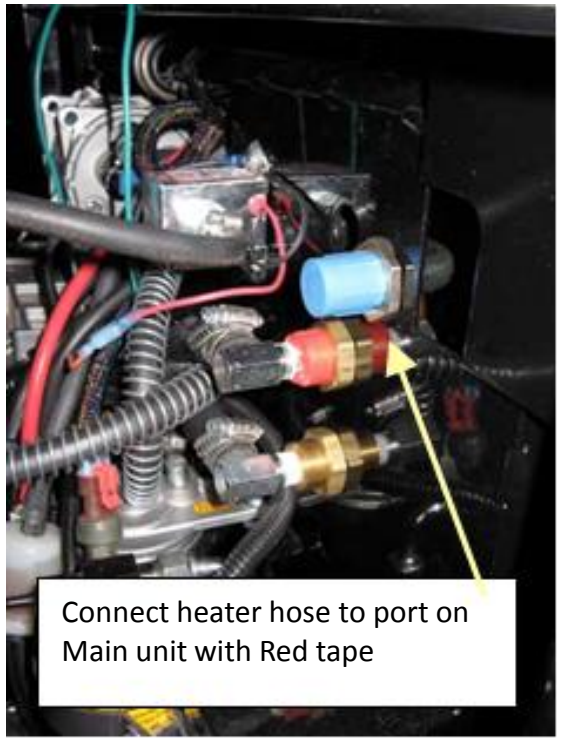
2. Routing of hoses and air ducts is important. (right) It is recommended that the HVAC unit be turned so the 4 circular air vents are facing the rear of the cab. This is proper positioning allowing for easy access to filters. The ducting is routed toward the back and into the OEM heating/AC ducts as well as directed forward toward the driver compartment. (The front louvers and filter / brackets are kit options.) Applicators may find other suitable locations. Just keep in mind that the filter has to be serviced

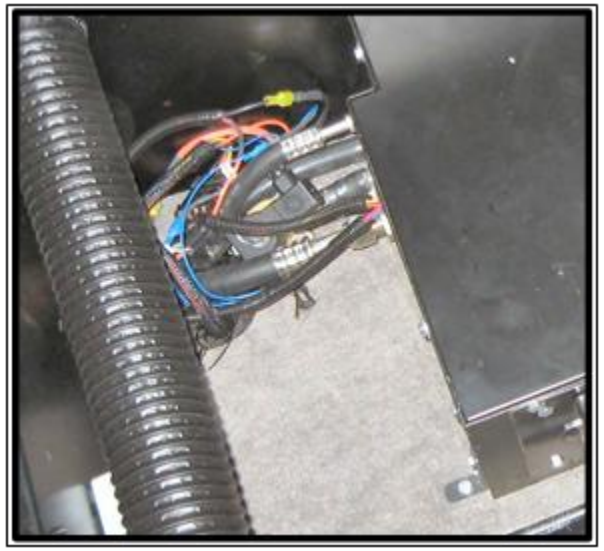
3. Various style and sized of vent louvers and mounting components are available through Dynasys Parts.

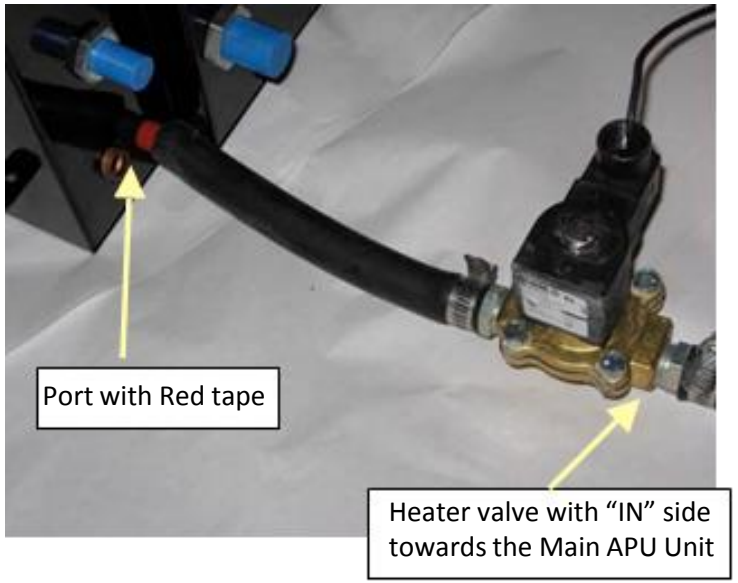
4. Notice the orientation of wiring harness and hoses as they come into the box. AC hoses come with one pre-crimped end and an end without a fitting. Determine the proper hose routing from the main unit to the bunk Measure the hose in place, cut and crimp the other end with an AC hose crimp system.

5. Note: Both ends of the hoses are taped-off to keep impurities from entering into the AC system. Keep all hoses sealed off during installation and pre-measurement.

6. Next begin routing the electrical and heater line hoses in to the HVAC system. It is recommended that the heater control solenoid valve be mounted in this same area as the HVAC unit.
   a. NOTE: Connect heater hose with heater valve from bunk unit to main unit using the red- taped ports. The valve “in port” is pointed toward the main APU unit and the “out port” side pointed to the heater evaporator unit. (See 2 photos)

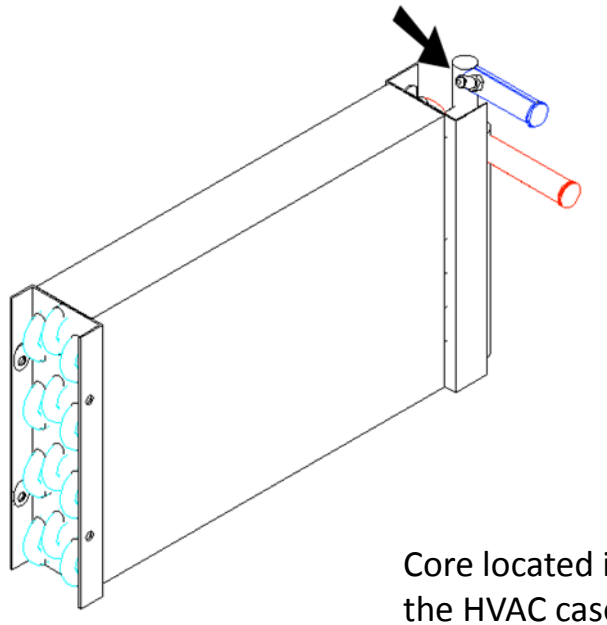

Connect heater hose to port on
Main unit with Red tape




Port with Red tape
Heater valve with “IN” side
towards the Main APU Unit

7. IMPORTANT: It is critical to operation of the heating system on the APU that all air is removed from the coolant system. The recommended procedure is to use a vacuum system for charging coolant systems. There is the additional option to remove air through the Schrader valve. Remove the rubber cap on top of the evaporator housing. Since the HVAC unit is highest point of the system, the air within the system will accumulate there. To remove that air, start the APU engine. While the engine is running, depress the Schrader valve on the heater core to bleed the air out of the system. When air escape is complete, release valve immediately to avoid coolant spray. (Valve location shown by black arrow at right.)

Schrader valve



Core located inside the HVAC case

1.8 Dynasys HVAC air delivery system

Independent Ducting and Integrated Ducting are the two methods of providing air from the HVAC unit to the bunk area. Determine the correct method(s) to be used that will provide maximum bunk air delivery performance and temperature control.

1. Independent Ducting (RECOMMENDED): The Dynasys system is supplied with all the required components to incorporate this method. The Dynasys installation kit includes 1 section of ducting (20 ft.) and three vents are also supplied.

Integrated Ducting (NOT RECOMMENDED): Interconnects the truck's OEM ductwork to the Dynasys HVAC Unit.

2. Duct hoses should be cut to length and run without kinks or unnecessary bends. Unrestricted duct hoses increase HVAC air delivery and provide long term durability. Shown below are correctly cut and routed duct hoses and incorrectly cut and routed duct hoses for HVAC air delivery.

3. The Dynasys HVAC unit should be in a location that does not restrict or cover the intake (return) inlet side of the HVAC unit. The ideal location for the HVAC unit is directly below the bunk towards the front outer edge with the grill facing ‘outward’. This location of the unit will provide the optimal intake (return) inlet to the HVAC unit.

4. Bunk configuration variances may require the HVAC unit to be located ‘deeper’ below the bunk, unrestricted intake (return) air flow is critical to ensure maximum HVAC performance and temperature control. The Dynasys system is supplied with an Intake (return) air vent to be installed at the outer edge of bunk cavity.

1.9 A/C hose routing and installation

1. Remove the protective caps from hoses prior to installing the hoses to the fittings.

2. Make sure the o-rings are in place, and lightly lubricated with new PAG (100 viscosity) refrigerant oil.

3. A/C hoses should always be routed away from sharp edges and allow for cab and frame movement to avoid damage to hoses or connected components.

4. A/C hoses should always be loomed and secured to provide long-term durability.

5. Verify all hose routing and mounting.

2.0 CCU installation

1. The preferred location for the cabin control unit (CCU) is at the head of the bed area and midway between the floor and the ceiling height.
2. CCU location distance from the ECM is determined by the length and routing of the RJ45 cable. The Dynasys system is supplied with a 10 foot cable. Should a longer cable be required, one can be purchased at any electronics store.
3. The CCU should be located in a neutral air flow area; this is defined as not directly affected by vent discharge air flow or an area that is dead space. Placement is critical for correct CCU readings and HVAC unit performance. DO NOT BLOCK THE TEMPERATURE SENSOR VENTS LOCATED ON EACH SIDE OF THE CCU.
4. When routing the RJ45 cable, avoid sharp edges and protect the cable from damage with grommets and/or wire loom.
5. Use self-tapping screws to secure the mounting bracket to the wall.
6. Plug the provided RJ45 cable into the back of the CCU and clip the CCU to the bracket. Ensure that the RJ45 cable is securely connected and routed between the CCU and ECM

2.1 Fuel delivery system installation

1. Locate the existing **supply** and **return** fittings on the truck's fuel tank.
2. Remove the existing **supply** fitting from the tank, install Dynasys fittings, and check valves (illustrated on the next page).
3. Remove the existing **return** fitting from the tank, and install the Dynasys fittings (as shown on the next page).
4. Use thread sealant on all Dynasys threaded fuel fittings.

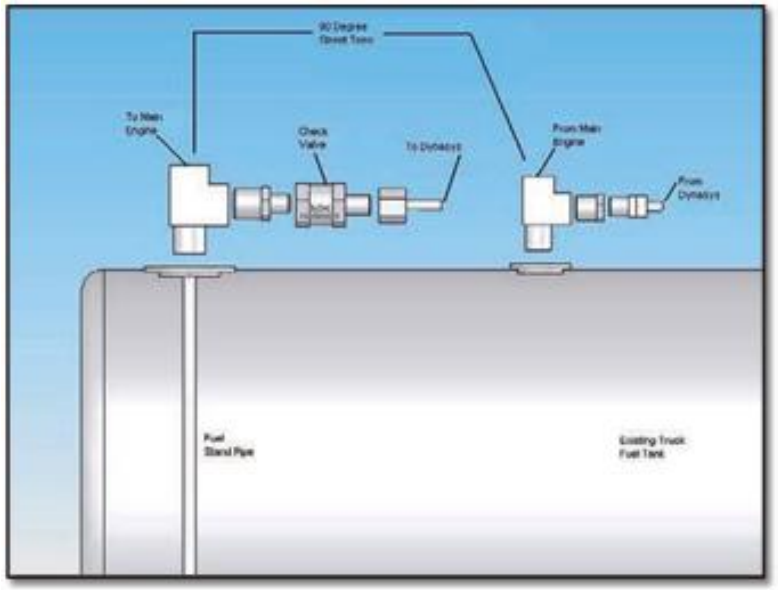
5. Route the fuel hoses (provided with the Dynasys system) from the fuel tank to the rear access panel of the APU; cut to length.

6. Connect the **return** line to the **upper** fitting on the APU.

7. Connect the **supply** line to the **lower** fitting on the APU.

8. Reconnect the truck's fuel lines; verify fuel hoses are routed away from hazards and are secure.

9. Install all clamps, tighten all fittings, and check for leaks.



2.2 Electrical connections

ATTENTION: ZERO ENERGY STATE

The Dynasys APU system complies with all applicable standards for 120 VAC wiring on a Class 8 truck. All 120 VAC wiring is covered with a bright orange protective loom. The power distribution system conforms to all applicable Federal Motor Carrier Safety Regulations under 393.28. Only qualified electricians should work on this portion of the unit.

2.2.1 110vac power distribution center (PDC)

The installation kit includes a 110vac power distribution center (PDC) with 3 breakers, remote receptacle, HVAC power supply cable, and a block heater cable/receptacle. The maximum total current for all receptacles is 15 amps. The bunk's circuit incorporates one duplex outlet receptacle to supply 110vac for appliances. The block heater is on a dedicated circuit of 15 amps. The block heater cable has a single grounded outlet that can be connected to the truck's block heater receptacle (typically located under or near the driver's door) with an extension cable (extension cable not provided).

2.2.2 110vac block heater receptacle location and installation

Route the PDC main harness from the inside of bunk through hole drilled during HVAC template directions. Route and secure the harness to the APU Main Cabinet Assembly. Connect the block heater receptacle to the power distribution center (PDC) and route the cable along the frame rail, securing it underneath bunk area (any excess should be coiled up, secured with wire ties). A block heater extension cable may need to be purchased separately to connect it to the Dynasys receptacle provided.

2.2.3 110vac Convenience outlet location and installation

Determine the optimal location of the 110vac outlet by identifying location of 110vac appliances either already present or as result of Owner APU Pre-Install checklist. Secure the 110vac outlet mounting bracket. Drill a hole under the bracket and route the outlet cable to the 110vac power distribution box. Secure the receptacle to the bracket and ensure that it is firmly

mounted. The supply cable should be hidden from view after receptacle is installed on bracket.

2.2.4 12v battery cables installation (with 125 amp inline fuse)

A 125 amp inline DC fuse, fuse holder assembly, and short positive (+) battery cable (cut to fit) is provided with the Dynasys system and must be installed on the positive (+) battery cable. The Dynasys positive battery cable should be installed on a separate battery from the negative cable connection. The Dynasys positive battery cable should be on an independent post (i.e. there should be no other line or load terminals connected to the same stud). Follow generally accepted safety practices when making all 12v connections at truck batteries.

1. Route the battery cables from the Dynasys APU Cabinet Assembly to the battery box, verifying cables are correctly secured and routed away from any hazards. Install protective loom on cables at edge corners.

2. Determine a suitable and secure location to mount the 125 amp inline DC fuse holder assembly. Install short positive (+) cable to desired terminal end, connect to fuse holder assembly stud. Terminate positive (+) battery cable from Dynasys APU Cabinet Assembly to opposite side of fuse holder assembly.

3.2.2 110vac block heater receptacle location and installation

4. Terminate ground cable and install to pre-determined battery terminal stud. Verify both battery terminal studs are clean before connecting the cables.

5. Snap fuse holder assembly cover in place and verify correct routing and cable route mounting points.

2.3 Shore power kit (optional) installation

The Dynasys Shore Power Kit, #54-8919-A, is an optional purchase. An installation and user's manual is provided in the packaging for these items.

2.4 Start-up procedure

Verify all of the previous installation steps have been followed; all electrical harnesses, fuel hoses, and refrigerant hoses are correctly routed and secured. Verify all component mounting is secured and correctly installed. Technical assistance is available at 800-289-8282.

2.4.1 Pre start-up inspection

Perform the following prior to initial Dynasys APU start-up:

1. Verify the Dynasys APU Installation Checklist is complete

2. Remove the cover

3. Check all engine fluid levels

4. Visually inspect the unit for leaks

5. Replace and secure the cover

6. Proceed with Installer initial APU startup CCU Functions Test

2.4.2 Operational overview of the CCU

Note: Refer to the Dynasys CCU Operation's Manual for more detailed instructions and operations of the Dynasys controller. Initial APU systems start-up CCU Functions Test for the installer:

- Touch the CCU display screen
    - System is now ON
    - Note: should the APU system lose 12v power source, this step may need to be repeated to turn system ON
- Set CCU clock
    - Depress Clock icon/button and follow all setting options to set correct date, day, and time
    - Note: should the APU system lose 12v power source, all clock settings may need to be reset
- Starting the APU
    - Start APU engine by depressing the start icon/ button, allow for engine run time to verify APU is now running on truck fuel source. Should the APU engine die, restart the APU. Fuel filter bowl needs to be at the full level for proper engine operation.
- Auto Start options
    - All Auto Start options (Cabin Temp, Coolant Temp, Battery Voltage Setting, and Time Start) can be accessed through the Auto icon/button.
    - Select battery voltage setting, reset voltage according to truck/bunk application using the right or left arrows to accept new voltage setting. The acceptable range is 11.70 to 12.2 volts.
    - Note: ECM factory default setting is 12.50v, should the APU system lose 12v power source, the voltage setting may need to be reset.

- Perform complete HVAC function performance check.
    - Low fan with AC and heat
    - Med fan with AC and heat
    - High fan with AC and heat
    - Auto fan with AC and heat
- Perform at least one AUTO START function to verify correct AUTO START operation.
    - All Auto Start options (Cabin Temp, Coolant Temp, Battery Voltage Setting, and Time Start) need to be followed.
- Remove front access cover to verify APU engine shut down
    - Verify cover switch error code on CCU display prior to re-installing front cover.
    - Verify correct front cover tightness. Adjustment is achieved by the threaded rod located behind each latch assembly (4).

2.4.3 Condenser Assembly Styles

Note: Dynasys incorporates two styles of Condenser Assemblies:

Non-Integrated Condenser: defined as a separate drier supplied with Condenser Body. Charge level: 2lbs, 12ozs.

Integrated Condenser: defined as the drier is internal within the Condenser Body. Charge levels: (min) 1lbs, 14ozs. (max) 2lbs

Integrated Condenser

2.4.4 HVAC system charging procedure

1. Locate service ports and remove protective caps.
2. Connect gauge manifold to the suction and discharge service ports located under the cover on the HVAC box.
3. Connect the service line of the gauge manifold to a vacuum pump.
4. Open the gauge manifold and vacuum pump valves.
5. Start the vacuum pump and evacuate until system reaches 27" of vacuum.

6. Once the system reaches 27" of vacuum, continue to vacuum for an additional 15 minutes

7. Close the vacuum pump valve, switch off the pump, and monitor the gauge for pressure rise. If the vacuum level does not hold at the prescribed pressure, proceed to check the system for leaks.

8. If vacuum level remains at 27" for 10 minutes, the system is ready to be charged. Close manifold valves and remove evacuation equipment.

9. Connect the refrigerant bottle to the gauge manifold and place it on a scale (or use a recovery and recharging system that can accurately measure the refrigerant).

10. Open the refrigerant bottle valve for liquid and purge the charging line.

11. Keep the low pressure side valve of the manifold gauge closed. Open the high pressure side.

12. Add refrigerant until reaching the desired charge level (see above). DO NOT OVERCHARGE.

13. Close the refrigerant bottle valve and high side valve of the gauge manifold.

14. Run the unit until the inside of the truck bunk reaches approximately 70°F and maintains discharge pressure of at least 150psi. Partially block off the air intake to the condenser if necessary.

15. Open the low side valve of the gauge manifold and the refrigerant bottle, and add refrigerant slowly until desired charge level is achieved (see above). DO NOT OVERCHARGE.

16. Close the refrigerant bottle and gauge manifold valves.

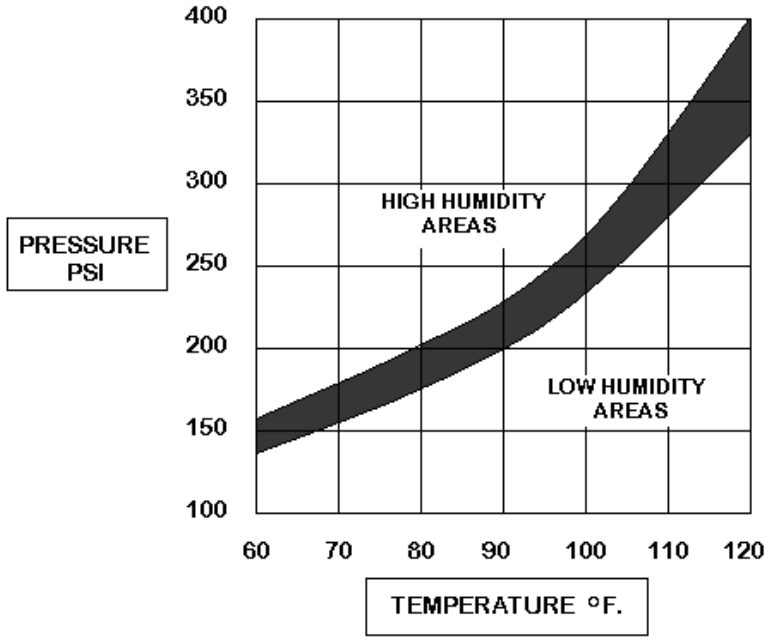
17. Leave the unit running for 15 minutes to stabilize.

18. Remove the gauge manifold.

19. Reinstall the service caps and replace the cover.

High Pressure / Temperature Readings

Temperatures and pressures are approximate. Readings within 10-15% of the chart readings will deliver acceptable performance.



Low Pressures/Temperature Readings

Common low side pressure readings will be 15-40 PSI depending on the ambient temperature.

2.4.5 HVAC system operations test

Set the CCU for a temperature lower than CCU display to activate the air conditioning. Allow HVAC system to operate for the appropriate time to achieve vent temperature stability. Vent temperature is affected by HVAC blower motor speed, check vent temperatures using a known Temp Probe while utilizing both fan speeds.

Set the CCU for a temperature higher than CCU display to activate the heating. Allow HVAC system to operate for the appropriate time to achieve vent temperature stability. Vent temperature is affected by HVAC blower motor speed, check vent temperatures using a known Temp Probe while utilizing both fan speeds.

2.4.6 110vac system operations test

Reference section for Installer initial APU system start up CCU Functions Test

2.5 Installation checklist and warranty registration

The installing dealer must complete the Installation Checklist and file a warranty registration. The Installation Checklist is only to be completed at the time of inspection by authorized technicians. A checklist is included with each unit or is available at dynasysapu.com

Note: Warranty is not activated for the Dynasys unit until the installation checklist and warranty registration are received. This can be sent to Support via email at apusupport@hodyon.com

2.6 Operational safety precautions

Safety Cover Switch

It is critical this safety cover switch on the Dynasys APU is never deactivated or bypassed; failure to comply may result in serious injury.

The safety cover switch is designed to prevent the Dynasys APU from starting when the front access panel is loose or has been removed. When the switch is open, the front access panel has been removed or is loose. When the switch is closed the front access panel is installed. The switch is located at the front of the engine enclosure in the lower right hand corner of the APU Cabinet Assembly.

Auto-Start Feature

The Dynasys APU system is capable of starting independently of its operator. With the Auto-Start feature, battery voltage, temperature, and time of day can initiate the Dynasys APU engine to start. Refer to the cabin controller unit (CCU) operating

instructions for further information on the Auto-Start feature.

Starting Aids

Use of any starting aids can result in an explosion, personal injury, and will render the Dynasys warranty null and void.

APU engine operation with the front access panel removed

Some installation or repair/diagnosis procedures require that the APU is started with the engine cover off. Do not deactivate or bypass the safety cover switch. Instead, have another individual assist by manually holding the safety cover switch down in

the closed position for the duration of the procedure, ensuring the individual keeps hands away from all moving engine parts.

Inspection of the Safety Systems

All safety systems for the Dynasys APU should be examined and tested whenever maintenance is performed on the APU to ensure that they are in good condition and proper working order.

Contact Information

Dynasys Customer Service & Technical Support Departments can be reached, toll free, at 1-800-289-8282.