

TM  
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# ORANGE Locomotive Air Conditioner



*"Uniting Innovation, Engineering, Manufacturing and Distribution"*

## Product Description

PowerRail, an **AAR M-1003** Certified Quality Company introduces our New...

## ***Split Type Air Conditioner System.***

The Orange is the **ONLY** direct 72 VDC driven Locomotive Cab Air Conditioning System that **DOES NOT NEED AN INVERTER.**

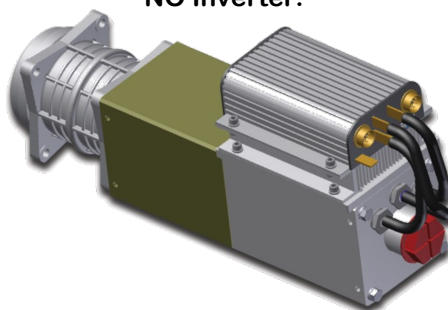


Running directly off the locomotive's batteries and using VRF (Variable Refrigerant Flow) technology, the Orange will save up to **30%** in energy consumption while reducing power surges in the 72 VDC system. Our compact split-system components can be custom configured to fit any cab without looking like a retrofit.

### ***Patent Pending Design:***

Breakthrough proven technology used in both off-road vehicles and MOW vehicles. Our new AC unit offers a compact, reliable, and brushless system while eliminating the Inverter known for major failures. The AC unit's lightweight and modular design offers the end user the option of easy maintenance by replacing any of the (3) three major components on a UX (Unit Exchange) Basis.

**Compressor - 72V  
Brushless Motor  
NO Inverter!**



**Condenser**



**32,000 BTU Evaporator - Air Handler**



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## Specifications and Features

Evaporators (Weight 10 Lbs)	Achieving a cooling capacity of 32,000 BTU and an Amp draw at max load of 60A, with individual adjustable airflow and temperature controls
Refrigerant System	Non Ozone depleting refrigerant, type R134a, sealed systems (eliminates need for refrigeration techs for installation)
72 VDC Power	Directly from the locomotives electrical systems battery-bank and/or Auxiliary Generator (Operating Voltage 68V to 74V DC)
Condenser Unit & Compressor (Weight 24 Lbs) & (Weight 60 Lbs)	32,000 BTU Each

### **Why VRF?**

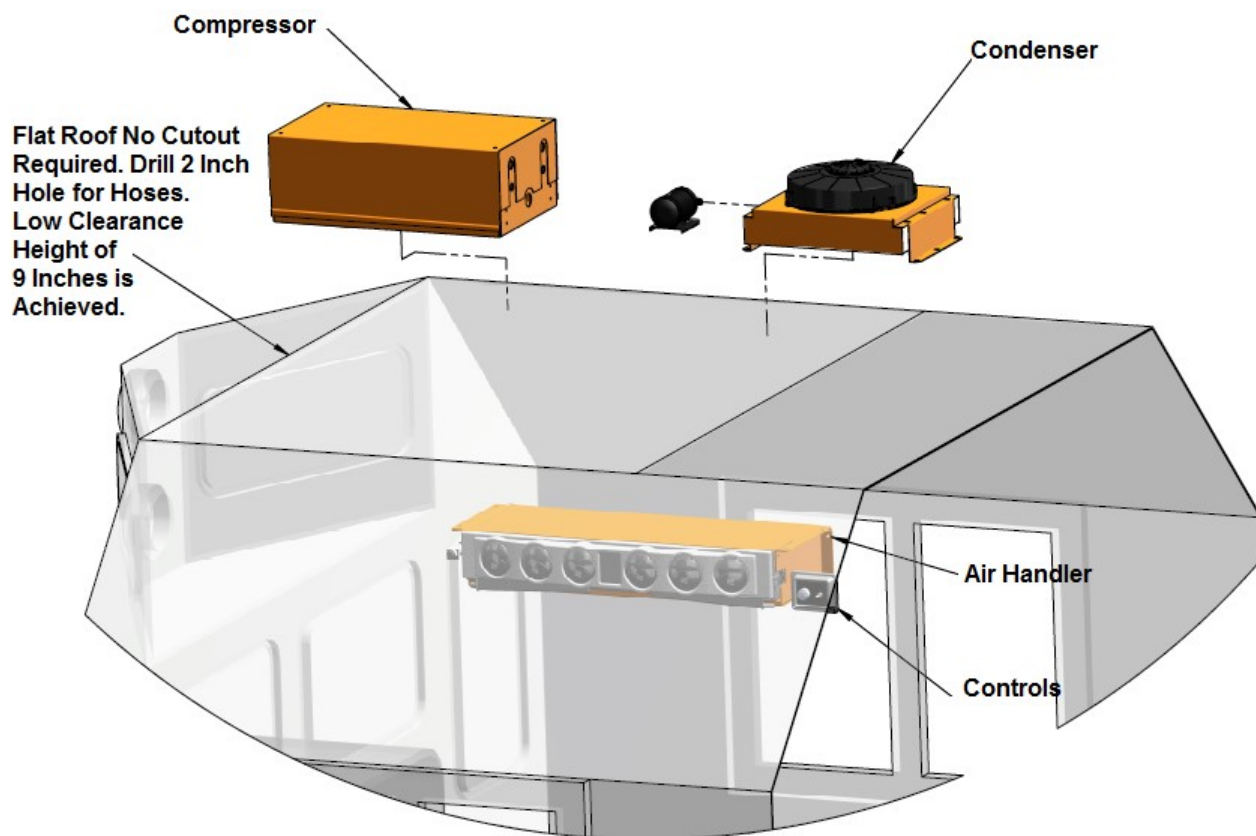
VRF (Variable Refrigerant Flow) technology works like the accelerator in a car, by matching the Out-Put to the Load. The compressor starts up smoothly and ramps up until it meets the demand. When the Thermostat is satisfied, it ramps down to match the lower demand.

### **Modular Design**

Our design offers a unique Modular Design for easy operations during the Maintenance or Replacement of a component. Each component is lightweight, offering easier installation and lower labor cost to the installer.

### **Installation #1: Roof No Cutout**

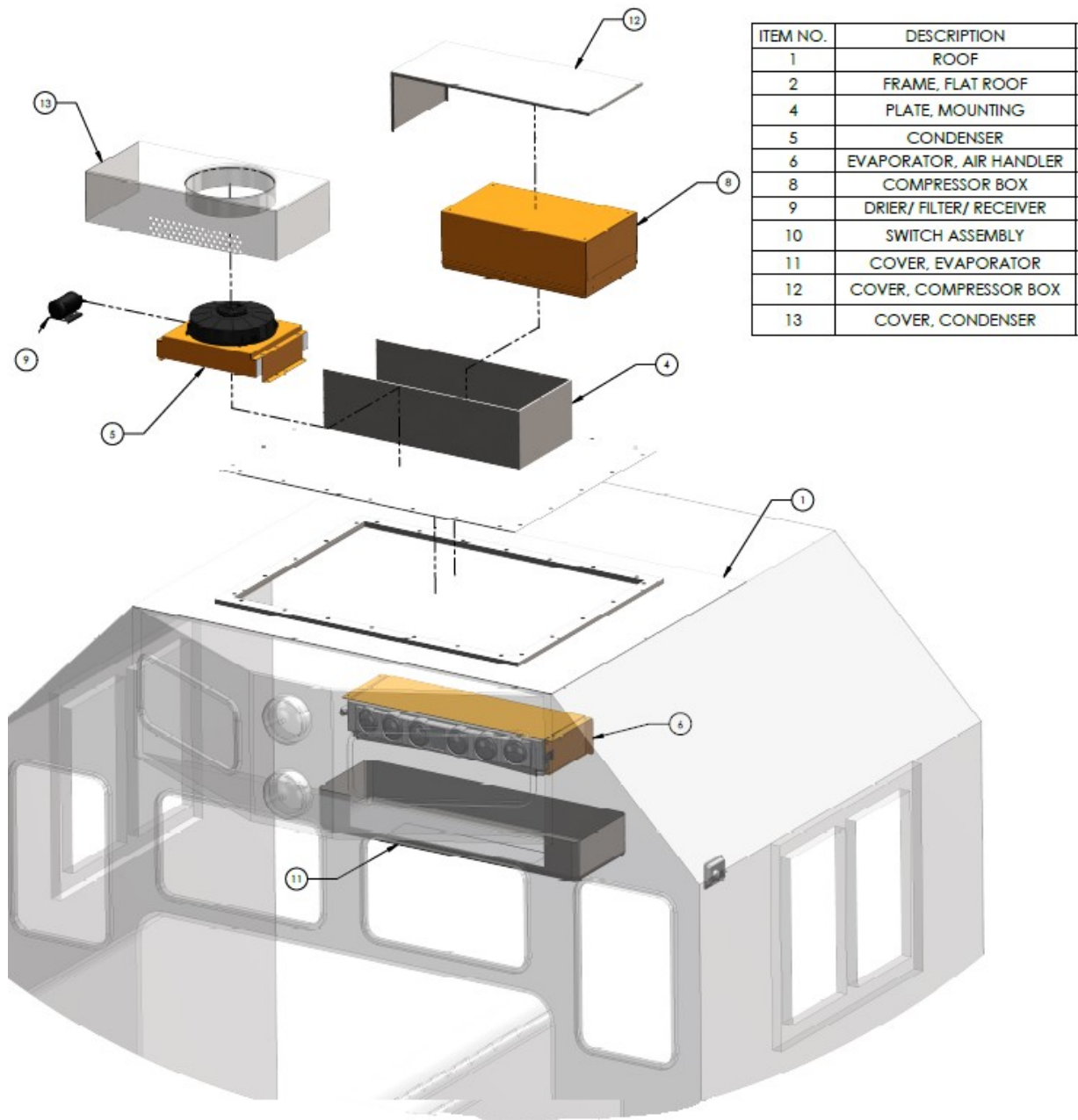
Our Compact Modular design can be easily mounted anywhere on the locomotive. The Roof Mount is most common and achieves a low clearance of only 9 inches to accommodate tunnel clearances or low bay doors.



## Installation #2: Roof Mount With Cutout For Frame Mounting - SINGLE UNIT

Our Compact Modular design can be easily mounted in a New Square Cutout or can be used in an Existing Cutout. Both designs require our Universal Roof Cutout Frame and the Mounting Kit to accommodate a replacement which will be a precise fit.

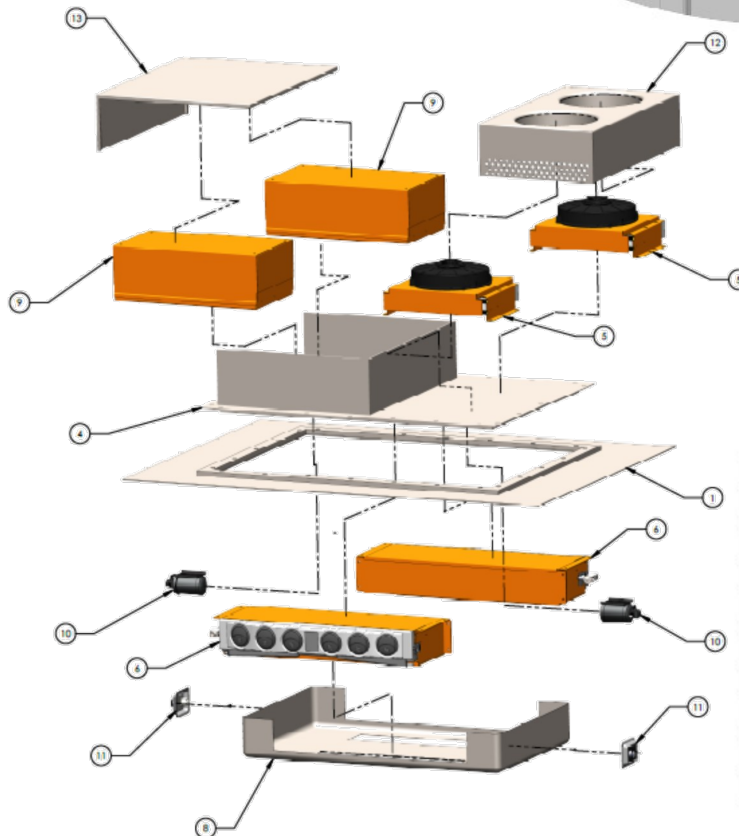
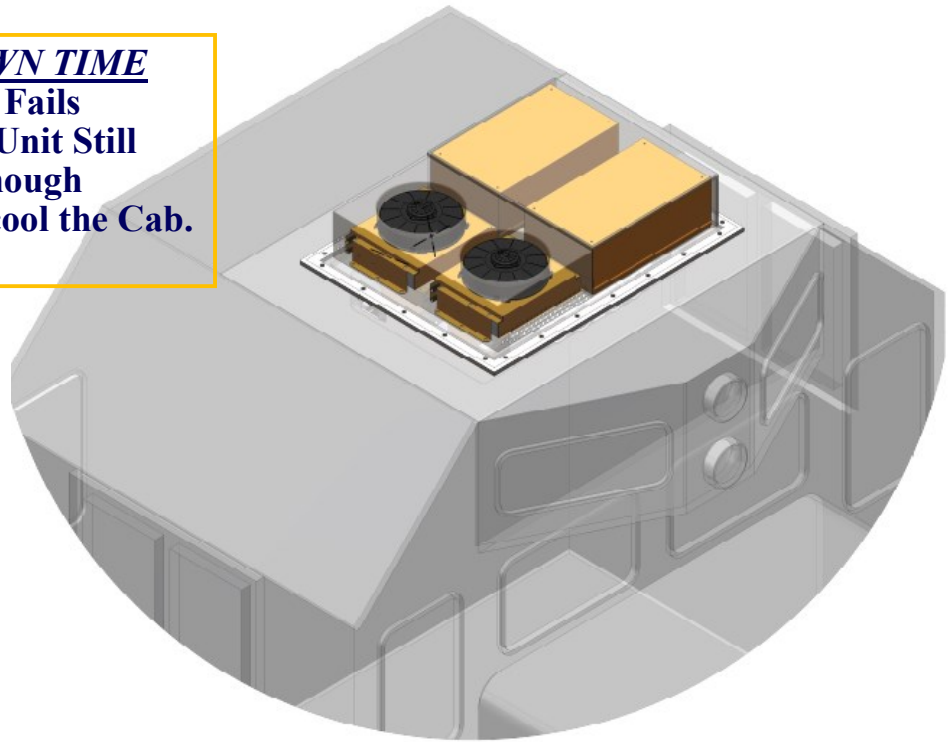
*(Note for Switchers with Round roofs and addition frame is required)*



### Installation #3: Roof Mount With Cutout For Frame Mounting - DOUBLE UNIT

Our Double Unit System is mounted the same as the Single Unit. The extra advantage of never having a Locomotive unit out of service offers **True Train Time Reliability** for the End User.

**NO MORE DOWN TIME**  
If One Unit Fails  
the Secondary Unit Still  
Provides Enough  
Cooling Power to cool the Cab.



ITEM NO.	DESCRIPTION	QTY.
1	ROOF	1
2	FRAME, FLAT ROOF	1
3	AIR CONDITIONER OUTLINE	1
4	PLATE, MOUNTING	1
5	CONDENSER	2
6	EVAPORATOR/ AIR HANDLER	2
8	COVER, EVAPORATOR	1
9	COMPRESSOR BOX	2
10	DRIER/ FILTER/ RECEIVER	2
11	SWITCH ASSEMBLY	2
12	COVER, CONDENSER	1
13	COVER, COMPRESSOR BOX	1