



1. Locate and mark the location of the lower left mount plate bolt hole (See Diagram). Keep the "X" dimension as short as possible.
2. Using a leveling square, mark the other three hole locations.
3. Attach the wall mount bracket/arm to the wall.
4. Insert the shorter leg of the "L" shaped arm into the wall mount bracket/arm. (These two pieces fit tight. A soft face mallet may be used to fit these two pieces together.)
5. Attach the goal post onto the HVTC.
6. Lift HVTC up and slide onto the "L" arm.
7. Adjust the "L" arm to allow 2" of clearance between the door and nozzle, then tighten locking bolts securely.
8. Position the HVTC outlet in the upper corner of the door opening and tighten the locking bolts.
9. Using the adjusting bolts on the side of the goal post, tilt the HVTC outlet 5 degrees above horizontal.
10. Run power lines along mount arm to the junction box.

Patterson Fan Company HVTC – High Velocity Truck Cooler

Please read carefully before attempting to assemble, install, operate or maintain the HVTC truck cooler. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.

Description

Patterson's direct drive truck cooler is designed for ventilating tractor-trailers. This compact unit is mounted at the upper right or left corner of the door opening. The reinforced motor mount bracket has an oversized rubber isolator to minimize vibration. The single phased motors are permanent split capacitor types with appropriate capacitor attached, automatic reset thermal protection. The three phased motors have automatic reset thermal protection as well. The internal steel housing and blower wheel have a gray enamel finish. The outer housing is powder coated blue.

Unpacking

1. Inspect for any damage that may have occurred during shipping. The blower wheel should turn freely by hand.
2. Check to be sure that the unit has not been exposed to dirt, grit or excessive moisture during transit.
3. Shipping damage claim must be filed with carrier.

GENERAL SAFETY INFORMATION

WARNING

Disconnect power source before installing or servicing. Failure to disconnect power source can result in fire, shock or serious injury.

1. The HVTC truck cooler should be installed and serviced by a qualified technician only.
2. Follow all local electrical and safety codes, as well as the national Electrical Code (NEC) and the Occupational Safety and Health Act (OSHA) in the United States.
3. Unit should be installed, protected and fused in accordance with the latest issue of the National Electrical Code, NEMA Standard Publication No. MG 2 and local codes.
4. Motor must be securely and adequately grounded. This can be accomplished by wiring with a ground, metal-clad raceway system, using a separate ground wire connected to the bare metal of the motor frame, or other suitable means.
5. Always disconnect power source before working on or near a motor or its connected load. Lock it in the open position and tag to prevent unexpected application of power.
6. In accordance with OSHA requirements, guarding is required if unit is mounted less than 7 feet above floor or where workers have access.
7. Keep hands and clothing away from moving parts.

Operating Instructions & Parts Manual

8. Be careful when touching the exterior of an operating motor; it may be hot enough to cause injury. With modern motors, this condition is normal if operated at rated load and voltage and built to operate at higher temperatures.
9. Protect power cable from coming into contact with sharp objects.
10. Do not kink power cable and never allow cable to come in contact with oil, grease, hot surfaces or chemicals.
11. Make certain that the power source conforms to requirements of your equipment.

UNIT INSTALLATION

1. Locate and mark the location of the lower left mount plate bolt hole. (See Diagram 1) Keep the X dimension as short as possible.
2. Using a leveling square, mark the other three hole locations.
3. Attach the wall mount bracket/arm to the wall.
4. Insert the **shorter leg** of the "L" shaped arm into the wall mount bracket/arm. (These two pieces fit tight. A soft face mallet may be used to fit the two pieces together.)
5. Attach the goal post onto the Truck Cooler.
6. Lift Truck Cooler up and slide onto the "L" arm.
7. Adjust the "L" arm to allow 2" of clearance from the door and nozzle and tighten, locking bolts securely.
8. Position the Truck Cooler outlet in the upper corner of the door opening and tighten the locking bolts.
9. Using the adjusting bolts on the side of the goal post, tilt the Truck Cooler outlet 5 degrees above horizontal.
10. Run power lines along mount arm to the junction box.

ELECTRICAL GUIDELINES

The following information should be used as a guideline for the installation of the HVTC truck cooler. These are only guidelines; all sites should work with a certified electrical contractor to ensure that all local codes, as well as national Electrical Codes, are adhered to.

The HVTC truck cooler is a $\frac{3}{4}$ HP squirrel-cage fan, which comes in various supply voltage arrangements. All fan motors are equipped with internal thermal overload protection; therefore, no additional thermal protection will be required at the on/off switch.

Below are some electrical guidelines for each voltage source:

- 480 volt, 3-phase fans have a full load amp rating of 1.4 amps. One 15-amp branch circuit can power up to a maximum of 8 fan motors.
- 240 volt, 3-phase fans have a full load amp rating of 2.8 amps. One 15-amp branch circuit can power up to a maximum of 4 fan motors.
- 277 volt, single-phase fans have a full load amp rating of 5.0 amps. One 15-amp branch circuit can power up to a maximum of 2 fans.
- 120 volt, single-phase fans have a full load amp rating of 10.2 amps. One 20-amp branch circuit can power up to a maximum of 1 fan motor.

The switch circuit should be installed, in conduit, from the junction box to the operator. The recommended operator is a Square D manual motor starter, toggle type, non-reversing, Class 2510 NEMA Type 1 with pilot light, rated for the voltage of the particular fan that it controls.

Replacement Parts List

Product Code

Blower Housing – front panel

10257-WB

9" Nozzle Assembly

10256-WB

Motor Access Panel

10258

Back Panel

10259-WB

Blower

10263

Operating Instructions & Parts Manual

When ordering replacement parts, please provide the following information:

- Model number
- Serial number (if any)
- Part description and number as shown in parts list

Replacement Parts List	115V	277V	460V/3-PH
Blower Housing Assembly	10263	10263	10263
Motor	10269	10278-TEAO	10280
Capacitor	10266	A376	-----
Capacitor Cap	10268 or 10268-Rubber	10268-Rubber	-----
Capacitor Strap	10268 or 10267	10267	-----
Motor Mounting Ring Kit	10272(3) & 10260	10272(3) & 10260	10272(3) & 10260
¼" Type F Screw	10382 (3)	10382 (3)	10382 (3)
#10 X ½ T/S Screw	10255 (24)	10255 (24)	10255 (24)

Troubleshooting Chart

Symptom	Possible Cause(s)	Corrective Action
Excessive Noise	Blower wheel striking housing Foreign material inside housing Loose fan mounting bolts Noise from high velocity air stream	Realign Clean Check and tighten Check for obstructions
Excessive Vibration	Blower wheel or sheaves loose on shaft Out of balance blower wheel Bent shaft Fan mounting bolts loose	Check and tighten Check and replace Check and replace Check and tighten
Insufficient Air Flow	Fan speed lower than design Inlet or outlet screens clogged Blower wheel rotating in wrong direction Improper wheel alignment	Make speed adjustment Clean See wiring diagram Center wheel in housing
Too Much Air Flow	Fan speed higher than design Motor speed too high (multi-speed units only)	Make speed adjustment Lower speed
Unit fails to operate	Wrong voltage Electricity turned off or not wired properly Blown fuse or open circuit breaker Defective motor/motor capacitor	Check Check Replace fuse or reset circuit breaker Replace

WARRANTY

ALL PATTERSON PRODUCTS ARE WARRANTED FOR TWO FULL YEARS FROM DATE OF SHIPMENT TO PURCHASER TO BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP.

Seller's liability under this warranty is limited to the cost of repair or replacement of any products which prove to be defective and are reported to seller during the warranty period, exclusive of labor and returned to seller's factory, transportation prepaid. Deterioration or wear caused by abrasive action, chemicals, improper installation, operation or lack of normal maintenance shall not constitute defect, and are not covered under warranty. In no event shall the seller be liable for any consequential damages claimed as a result of any breach of the foregoing warranty.

THE WARRANTY stated herein is in lieu of all other warranties, expressed or implied.