

Installation MANUAL



Direct Mount EXHAUST BRAKES

APPLICATION:

International Trucks 2000 Model Year & Newer

With Multi-Plex Wiring

4200/4300/4400/7300/7400/7500/8500/8600

DT466/DT530/HT530 Engines (2000 MY & Newer)

Important - Application Guide

Please check the exhaust brake part number against the chart below before installing.
Using the wrong exhaust brake can cause engine damage or low retarding performance.

DT 466 engines requesting a fixed orifice exhaust brake use **PN C20371** (Exhaust Brake Only)

DT 466 engines requesting a PRXB exhaust brake use **PN C40303** (Exhaust Brake Only)

DT 530 engines requesting a fixed orifice exhaust brake use **PN C20373** (Exhaust Brake Only)

DT 530 engines requesting a PRXB exhaust brake use **PN C40302** (Exhaust Brake Only)

HT 530 Pre 2002 engines requesting a fixed orifice exhaust brake use **PN C20375** (Exhaust Brake Only)

HT 530 Pre 2002 engines requesting a PRXB exhaust brake use **PN C40302** (Exhaust Brake Only)

7000/4000/8000 Series Require Pacbrake Header Pipe **PN C11936** -90° Exhaust Pipe

7000 Series Requires Pacbrake Header Pipe **PN C11973** -30° Exhaust Pipe

Some truck models may interchange exhaust header pipes.
Mounting and electrical control groups vary with each application.

Important Notes:

Note: Check the dash panel for the switch pack option, it must have space available for the exhaust brake on/off switch. This kit does not include the International dash switch which is required. Order this switch, PN 3549436C91 from International or Pacbrake.

Before Starting

Check to make sure you have all components required for your application. The photo below is an example of everything required.

(Pipe may vary depending on vehicles exhaust configuration).

Note: The NavPac ECM will need to be turned on and Dash Switch configured by an International Dealer.

Note: If your vehicle does not have an onboard air system use Pacbrake remote air group PN C11777

(Not Shown in this photo - See Step 10).



Getting Started

1

ALL MODELS

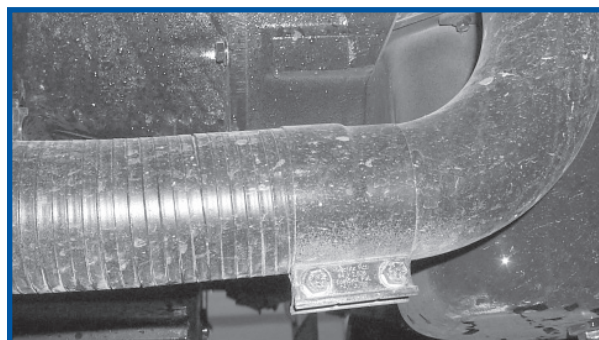
Remove turbo "V" clamp and save for re-use.



2

MODELS WITH 90° EXHAUST HEADER PIPE

From below the vehicle remove clamp at flex pipe and remove header pipe.



3

MODELS WITH 30° EXHAUST HEADER PIPE

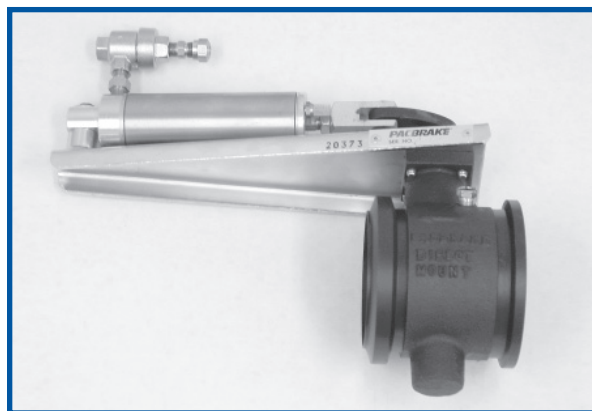
Remove exhaust system up to the muffler, save turbo outlet and flex pipe, discard exhaust pipe to muffler. PN C11973 will replace existing pipe.



4

ALL MODELS

Vehicles equipped with Pacbrake compressor require a quick release valve be installed in Pacbrake cylinder. Using the "V" clamp supplied in your kit, mount the brake to the turbo. Rotate the Pacbrake to attain equal clearance between cab and engine.



Fixed Orifice Exhaust Brake

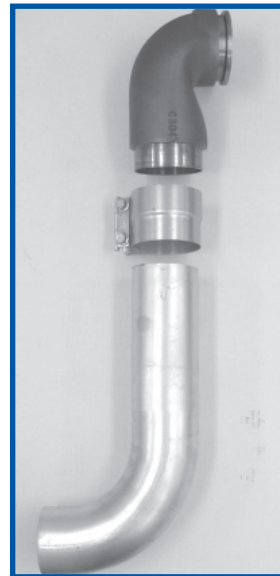
MODELS WITH 90° EXHAUST HEADER PIPE

5a Once the header pipe has been cut to length, slide the band clamp on the original pipe. Then insert the original pipe into the Pacbrake cast elbow, do not tighten the band clamp yet. Install the exhaust brake on the turbocharger using the “V” clamp supplied, before torquing the “V” clamp rotate the exhaust brake to attain clearance around the exhaust brake. Torque the “V” clamp to 12 lbs. ft. 16 N•m.



5b Insert the header pipe assembly into the vehicle. Using the “V” clamp supplied, connect the cast elbow to the exhaust brake. Align the header pipe to attain clearance, torque the “V” clamp to 12 lbs.ft. 16 N•m. Make sure the header pipe is seated fully in the cast elbow, torque the band clamp to 50 lbs.ft. 70 N•m.

IMPORTANT: Do not exceed the “V” clamp torque specifications listed above, tap the clamp lightly and retorque. Clamps MUST be retorqued after road test to ensure the proper sealing.



PRXB And Cast Elbow

MODELS WITH 90° EXHAUST HEADER PIPE

6a The original header pipe will need to be cut off to adapt to the Pacbrake assembly. The cast elbow is mounted horizontally with the PRXB exhaust brake vertical. The exhaust flange adapter is expanded to slide over the original header pipe. Consider this in your measurement. Cut the pipe and discard the flange side.



- 6b** Remove the lower clamp of the crankcase breather tube, a bracket is supplied to relocate the lower clamping position. Install the cast elbow horizontally on the turbocharger using the “V” clamp supplied. Tighten the “V” clamp enough to center and hold it in place and still allow for rotational adjustment. Install the exhaust brake and flange adaptor to the cast elbow. Clamp the cast elbow and the Pacbrake using the “V” clamp supplied in the kit, then the exhaust brake outlet and the exhaust brake flange using the existing “V” clamp. Rotate the entire assembly to attain adequate clearance and install the header pipe.

Starting at the turbocharger:

Torque the “V” clamp to 12 lbs.ft. 16 N•m.

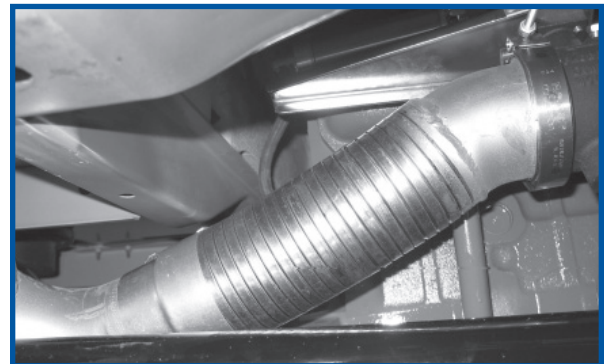
Then torque the cast elbow to exhaust brake “V” clamp to 12 lbs. ft. 16N•m.

Then torque the exhaust brake to flange adaptor to 10 lbs.ft. 13N•m.

Then torque the band clamp to 50lbs.ft. 70N•m.

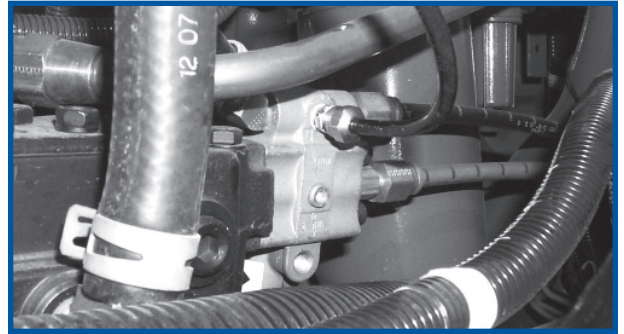
IMPORTANT: Do not exceed the “V” clamp torque specifications listed above, tap the clamp lightly and retorque. Clamps MUST be retorqued after road test to ensure the proper sealing.

- 7** **MODELS WITH 30° EXHAUST HEADER PIPE**
Insert the Pacbrake C11973 pipe into the muffler, do not tighten. Trim the required amount off the end of the flex pipe to allow for the length of the exhaust brake. Align the exhaust system to allow for clearance, then tighten all clamps to specifications.

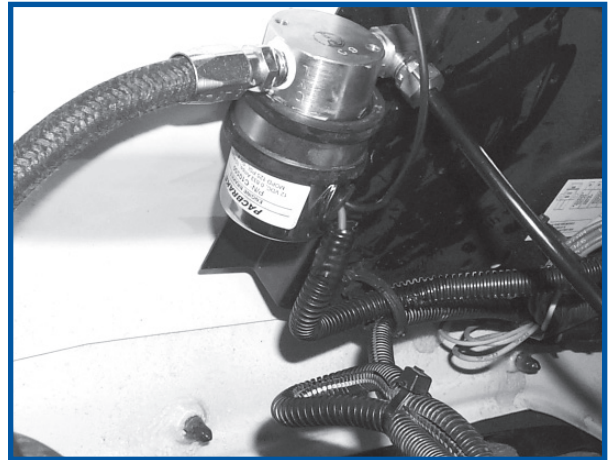


8 ALL MODELS WITH ONBOARD AIR SYSTEM

For vehicles without onboard air refer to the instructions IN STEP #10. For vehicles with onboard air tap into the dry air tank to supply Pacbrake solenoid valve.

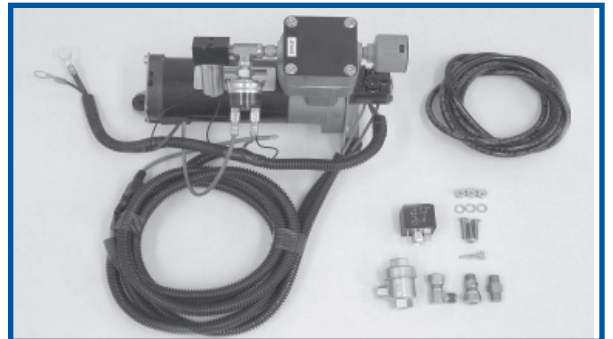


9 Mount Pacbrake solenoid valve on the firewall with the exhaust port pointing down. Connect the black wire to a good vehicle ground. The red wire will be connected to the red wire of the Pacbrake harness using the heat shrink connector supplied. Plumb the supply air line to the IN port using the nylon line with fitting supplied, then cut the wire braid to the correct length, install fittings. Using shop air, blow this line from each end to clear debris from inside the hose. Route this line from the solenoid valve (cyl port) to the Pacbrake air cylinder or the quick release valve.



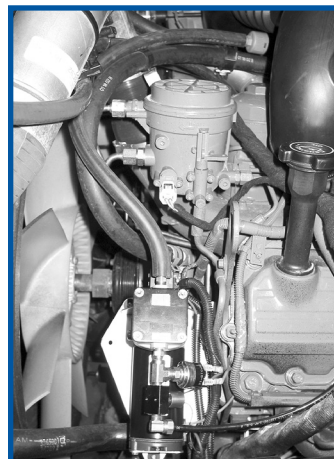
10 ALL MODELS WITHOUT ONBOARD AIR

For vehicles without an onboard air system, use Pacbrake remote compressor kit C11777. Check to make sure kit contains everything in photo.



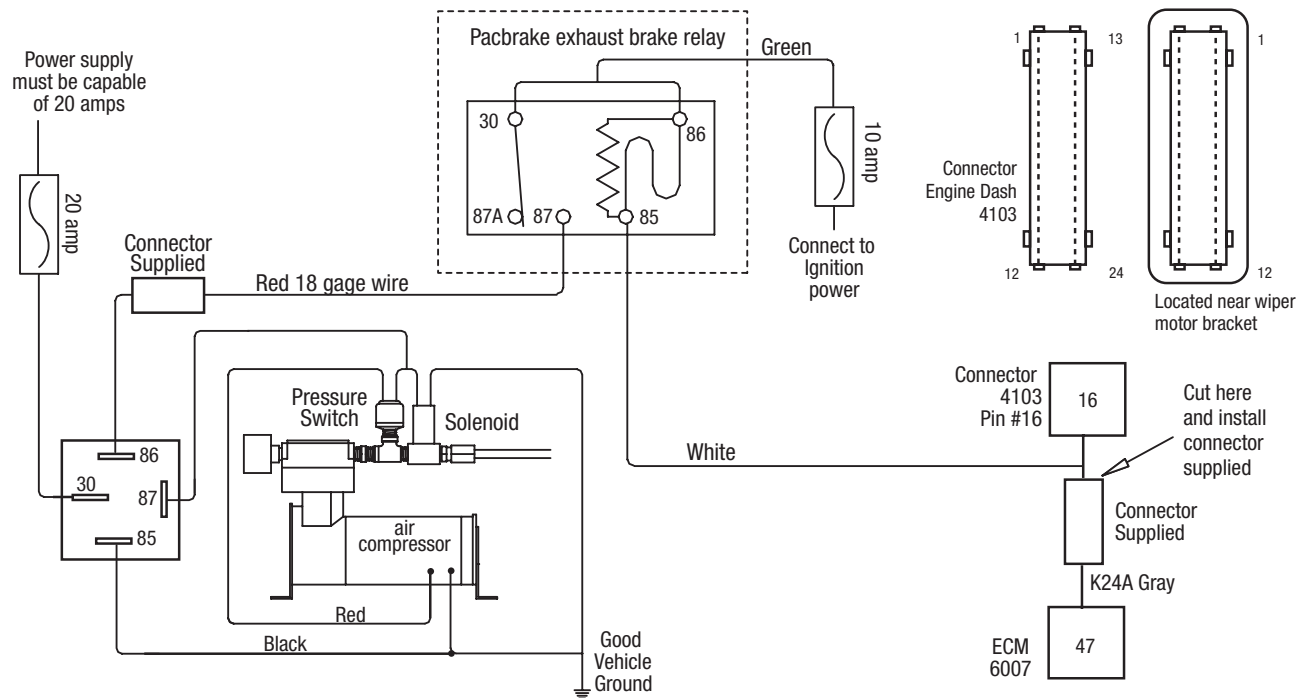
11 Mount the compressor in a suitable location, free from road spray and close to the exhaust brake. Connect the plastic 1/4" airline from the compressor to the exhaust brake's quick release valve. Using the heat shrinkable connector supplied, connect the red wire from the Pacbrake harness and one of the black wires from the solenoid valve to the pressure switch.

Note: If the compressors air intake filter is subject to moisture, a remote breather kit must be added to prolong the life of the compressor (PN C11620).



INTERNATIONAL 4300 and 4400 models with Multiplex Wiring DT466 / DT530 / HT530 Navpak Systems 2000 M/Y and Newer

For vehicles: (WITH OR WITHOUT) Allison WT Transmission (WITH OR WITHOUT) ABS Braking (WITHOUT) On-Board Air Supply



Using the Pacbrake wiring harness supplied (shown in the dotted area above) mount the Pacbrake relay receptacle onto the firewall using the self tapping screw provided. Install the relay.

Route the red wire along the firewall to the Pacbrake compressor and connect to the red wire of the relay. Secure with tie-straps.

Follow the green and white wires of the Pacbrake harness to the Metri-pac connector, cut off and discard the Metri-pac connector. Route the white wire from the Pacbrake harness to Navistar connector 4103. In Navistar connector 4103 locate the gray wire #K24A in port #16, cut this wire close to the connector and attach the harness side to the white wire of the Pacbrake harness using the heat shrinkable butt connector supplied. Some vehicles may not have wire K24A installed to connector 4103, for these vehicles it will be necessary to purchase the ECM pin from Navistar, part number 2501100C1 or Pacbrake # C20108. This wire originates at the Navistar ECM, locate connector 6007 at the engine ECM, mounted on the engine. Navistar wire #2501100C1 or Pacbrake # C20108 will need to be installed in port #47 the black 60 pin connector, then connected to the white wire of the Pacbrake harness.

Using the inline fuse harness and heat shrinkable butt connector supplied, connect the green wire of the Pacbrake harness to a 12 volt positive power source at the power distribution center, heat the connector to provide a sealed connection.

Using the fuse harness supplied, Connect to the power supply at the power distribution center. Using the heat shrinkable butt connector, connect the green wire to the power supply.

Note 1: Navistar vehicles must have the switch pack option, Navistar dash switch part number 3549436C91 included. This switch will require the dash to be configured by a Navistar Dealer.

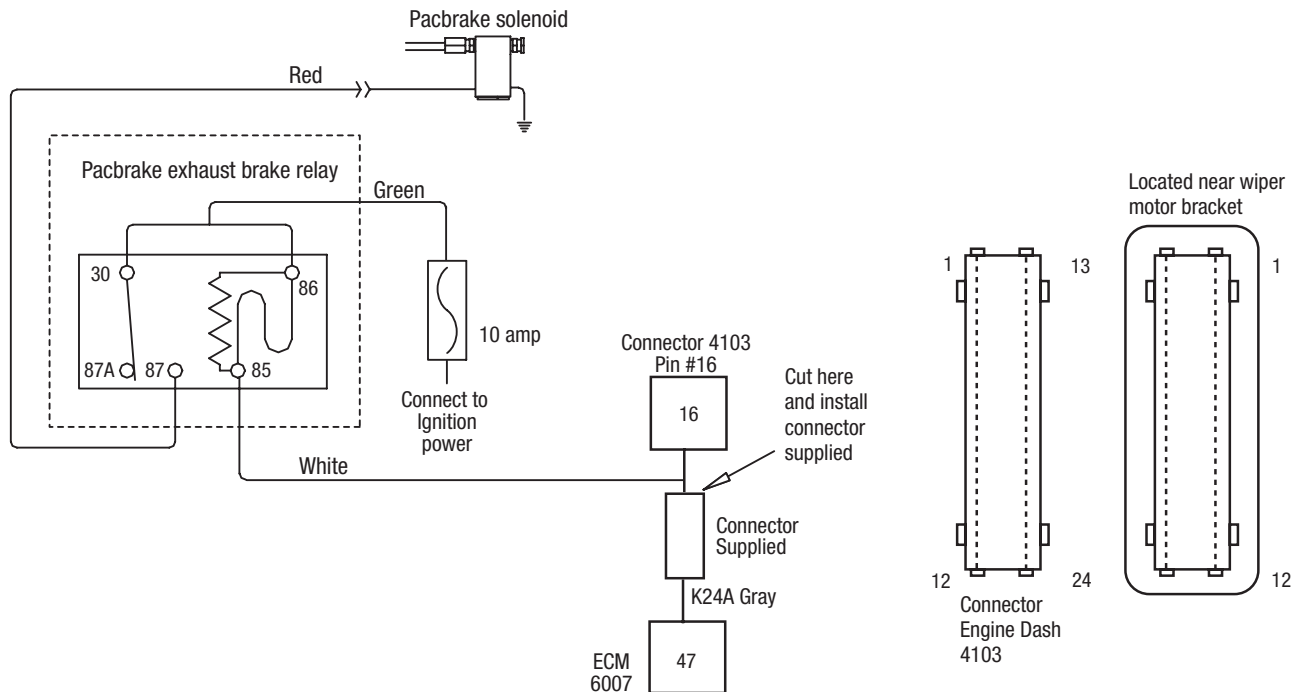
Note 2: The indicator light on the exhaust brake switch should be "ON" if the switch and the ignition is on. This will indicate that the exhaust brake is enabled. If a switch error occurs the indicator light on the switch should flash.

For all applications the engines ECU will need to be turned on by a Navistar dealer and the dash switch be programed to the ESC.

- Information for this schematic was derived from vehicle systems at the date of this printing.
- Updates or variations by vehicle manufacturers constituting changes will not be the responsibility of Pacbrake.

INTERNATIONAL 4300 and 4400 models with Multiplex Wiring DT466 / DT530 / HT530 Navpak Systems 2000 M/Y and Newer

For vehicles: (WITH OR WITHOUT) Allison WT Transmission (WITH OR WITHOUT) ABS Braking (WITH) On-Board Air Supply



Using the Pacbrake wiring harness supplied (shown in the dotted area above) mount the Pacbrake relay receptacle onto the firewall using the self tapping screw provided. Install the relay.

Route the red wire along the firewall to the Pacbrake solenoid and connect to one wire of the solenoid, then attach the other wire to a good vehicle ground. Secure with tie-straps.

Follow the green and white wires of the Pacbrake harness to the Metri-pac connector, cut off and discard the Metri-pac connector. Route the white wire from the Pacbrake harness to Navistar connector 4103. In Navistar connector 4103 locate the gray wire #K24A in port #16, cut this wire close to the connector and attach the harness side to the white wire of the Pacbrake harness using the heat shrinkable butt connector supplied. Some vehicles may not have wire K24A installed to connector 4103, for these vehicles it will be necessary to purchase the ECM pin from Navistar, part number 2501100C1 or Pacbrake # C20108. This wire originates at the Navistar ECM, locate connector 6007 at the engine ECM, mounted on the engine. Navistar wire #2501100C1 or Pacbrake # C20108 will need to be installed in port #47 the black 60 pin connector, then connected to the white wire of the Pacbrake harness.

Using the inline fuse harness and heat shrinkable butt connector supplied, connect the green wire of the Pacbrake harness to a 12 volt positive power source at the power distribution center, heat the connector to provide a sealed connection.

Note 1: Navistar vehicles must have the switch pack option, Navistar dash switch part number 3549436C91 included. This switch will require the dash to be configured by a Navistar Dealer.

Note 2: The indicator light on the exhaust brake switch should be "ON" if the switch and the ignition is on. This will indicate that the exhaust brake is enabled. If a switch error occurs the indicator light on the switch should flash.

For all applications the engines ECU will need to be turned on by a Navistar dealer and the dash switch be programed to the ESC.

- Information for this schematic was derived from vehicle systems at the date of this printing.
- Updates or variations by vehicle manufacturers constituting changes will not be the responsibility of Pacbrake.

Pacbrake Company

toll-free: 800-663-0096

phone: 604-882-0183

fax: 604-882-9278

e-mail: info@pacbrake.com

Internet: www.pacbrake.com

Canada: 19594 96 Ave. Surrey BC V4N 4C3

USA: 250 H St. Box 1822 Blaine WA 98231-1822



Pacbrake exhaust brakes are protected by law.

U.S. patents 5,445,248. Patents pending. Pacbrake and Direct Mount are registered trademarks of Pacbrake Company. Other trademarks used herein are property of their respective holders.

Printed in Canada L2029.12.16.11