

**Alternator Ordering Guide for GM Cutaway Chassis**  
**When utilizing BSI mounting brackets.**  
**(As of 6/2011)**

**6.0L Gas Engine Cutaway Application**

<u>Approx. Year Range</u>	<u>BSI Bracket No.</u>	<u>PennTex Alternator Kit</u>	<u>Output Post Clocking Description</u>
2007 to 10/2008	#17091	PX-422V-2	2:00 as viewed from the rear
10/2008 to 4/2010	#17392	PX-422V-4*	4:00 as viewed from the rear
4/2010 to present	#17492	PX-422V-4*	4:00 as viewed from the rear

\* BSI list alternator as PX422V5

*Note: All alternators would have to be specially clocked, not just PennTex.*

**6.6L Diesel Engine Cutaway Application**

<u>Year Range</u>	<u>BSI Bracket No.</u>	<u>PennTex Alternator Kit</u>	<u>Output Post Clocking Description</u>
All	21197 & 21297	PX-422V-10	10:00 as viewed from the rear (Standard OEM clocking)

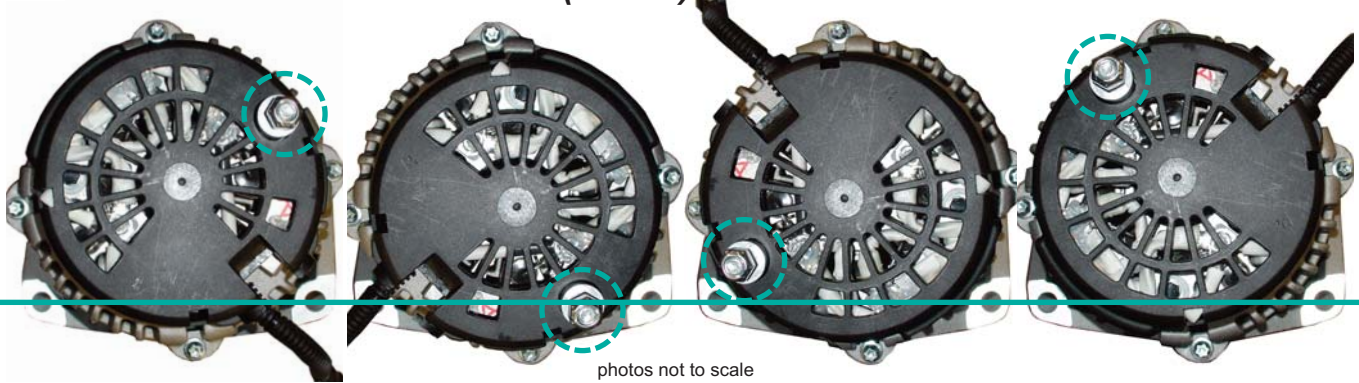
## PX-4V-220 ALTERNATOR INFORMATION

PX-4V-220-2

PX-4V-220-4 (or "5")

PX-4V-220-8

PX-4V-220-10



photos not to scale

These output post positions are the alternator rear housing clock position in relation to the alternator front housing, *not the position of the post when mounted on the engine*. The actual mounting position on the engine can vary due to brackets, engine model, year model, etc.



The output post position is taken from the rear view of the alternator with the main mounting holes level. The actual alternator mounting hole position on the engine can vary. See our additional information on how to determine which PX-4V-220 alternator model you need.

Some applications use special brackets that relocate the PX-4V-220 alternator and they require the output post to be in a specific "clock" position. The part number suffix indicates this position. The model numbers are PX-4V-220-2, PX-4V-220-4, PX-4V-220-8, and PX-4V-220-10.

NOTE: Some bracket instructions call for a "PX-4V5" alternator. The correct alternator model is a PX-4V-220-4 or a PX-422V-4 complete kit.

### Alternator only Part Number /

### Complete Kit Part Number:

PX-4V-220-2 / PX-422V-2

PX-4V-220-4 / PX-422V-4

PX-4V-220-8 / PX-422V-8

PX-4V-220-10 / PX-422V-10

A complete kit includes alternator, regulator, and harness. See Application Guide for more information.

If the PennTex alternator will be used in the original OEM alternator location and the output post clocking will be the same as the OEM alternator, use a PX-4V-220-10 alternator or PX-422V-10 complete kit.

For aftermarket replacements, the model number on the alternator ID Tag on the front housing may help you get the correct replacement, but only if the alternator hasn't been reclocked at some time in its history. Check your actual front to rear housing alignment to be sure.

If we can help with ordering information call us at 877-590-7366, email us at [sales@penntexusa.com](mailto:sales@penntexusa.com) or fax us at 817-590-0505, attn: sales.

Reclocking of alternators in the field or on the assembly line is an alteration that could adversely affect reliability and performance. The PennTex Manufacturers Limited Warranty specifically excludes charging system failures caused by this alteration from any warranty coverage.

## PERFORMANCE, ENDURANCE AND SATISFACTION

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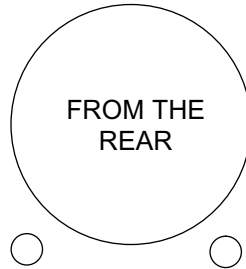


# HOW TO DETERMINE WHICH PX-4V-220 ALTERNATOR MODEL YOU NEED

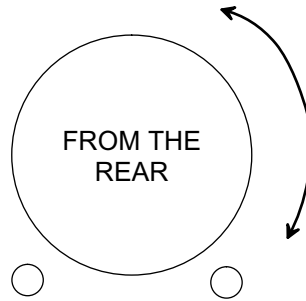
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ALTERNATORS MOUNT ON THE ENGINE IN MANY DIFFERENT POSITIONS. THE OUTPUT POST ON THE BACK HAS TO CLEAR MANY OBSTACLES INCLUDING SHEET METAL, BRACKETRY, AND ENGINE PARTS. WE USE THE TERM "CLOCKING POSITION" TO IDENTIFY THE LOCATION OF THE OUTPUT POST. ON A PX-4V-220, THE TERM RELATES TO THE ALIGNMENT OF THE POST TO THE FRONT ALTERNATOR HOUSING AND NOT TO THE ALIGNMENT OF THE POST WHEN MOUNTED ON THE ENGINE. IF YOU DON'T ALREADY HAVE AN ALTERNATOR MODEL NUMBER, OR YOU WANT TO CONFIRM AN APPLICATION LISTING, DO THE FOLLOWING:

1) DRAW A CIRCLE WITH TWO SMALLER CIRCLES BELOW IT AS SHOWN. WRITE THE WORDS "FROM THE REAR" IN THE LARGE CIRCLE. THIS ALIGNMENT IS BASED ON LOOKING AT AN ALTERNATOR FROM THE BACK.



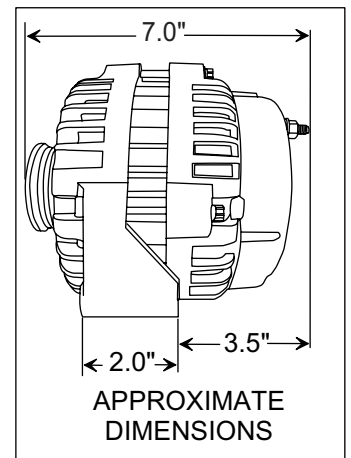
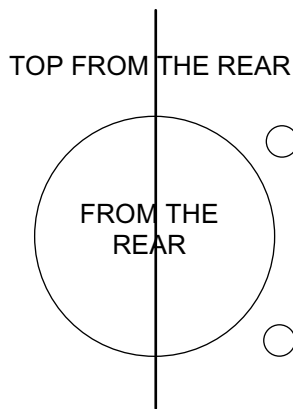
2) THE TWO SMALLER HOLES ARE THE ALTERNATOR MOUNT BOLT HOLES. ROTATE YOUR DRAWING UNTIL YOUR TWO HOLES IN THE DRAWING ARE ALIGNED WITH THE TWO MOUNT HOLES ON THE VEHICLE.



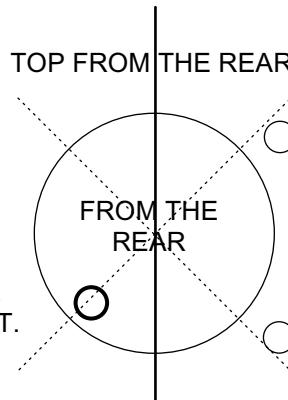
SCALE: NONE

3) WITH THE MOUNT HOLES ALIGNED, DRAW THE WORDS "TOP FROM THE REAR" ABOVE THE LARGER CIRCLE, AND DRAW A STRAIGHT VERTICAL REFERENCE LINE THROUGH THE CIRCLE.

NOTE: THIS HOLE ALIGNMENT EXAMPLE IS FOR REFERENCE ONLY. YOUR ALIGNMENT MAY BE DIFFERENT



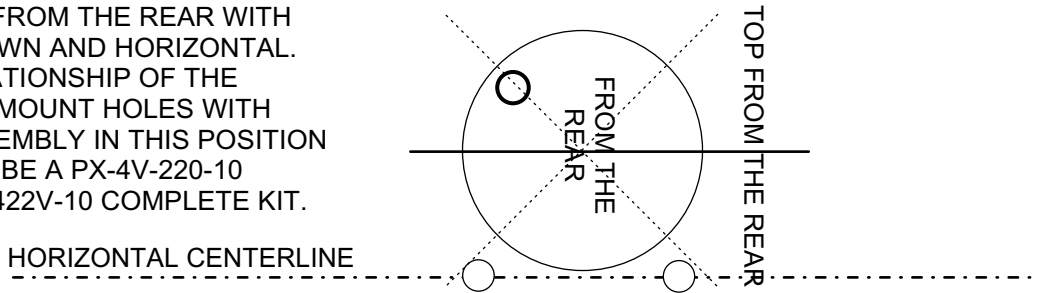
4) KEEPING YOUR TWO MOUNT HOLES LINED UP WITH THE HOLES ON THE VEHICLE, DRAW THE LOCATION OF THE OUTPUT POST ON THE EXISTING ALTERNATOR OR THE LOCATION WHERE THE POST WON'T INTERFERE WITH SHEET METAL OR BRACKETS. THE DOTTED LINES SHOW YOUR FOUR LOCATION CHOICES. NOTE: THE POST TO MOUNT HOLE ALIGNMENT SHOWN HERE IS FOR REFERENCE ONLY. YOUR ALIGNMENT MAY BE DIFFERENT.



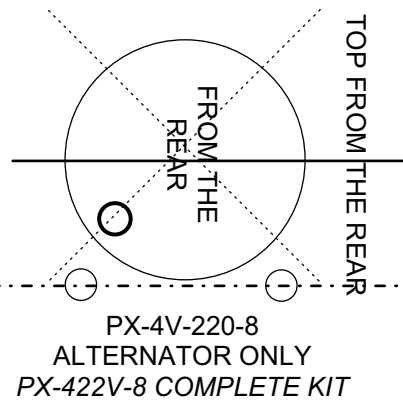
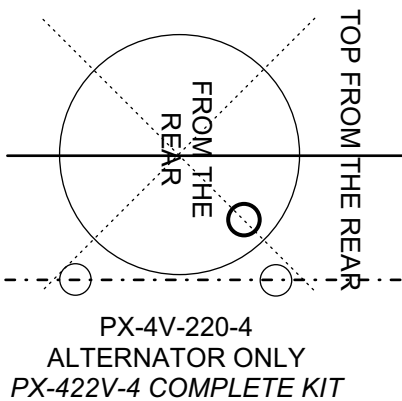
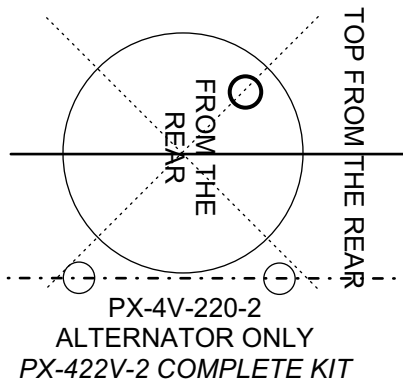
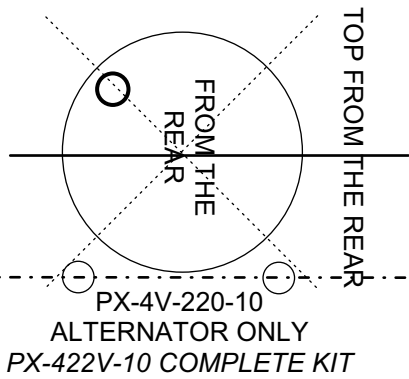
# HOW TO DETERMINE WHICH PX-4V-220 ALTERNATOR MODEL YOU NEED

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5) ROTATE YOUR DRAWING UNTIL THE TWO MOUNT HOLES ARE AT THE BOTTOM AND HORIZONTAL AS SHOWN. THE OUTPUT POST IS NOW AT THE 10 O'CLOCK POSITION FROM THE REAR WITH THE MOUNT HOLES DOWN AND HORIZONTAL. BECAUSE OF THE RELATIONSHIP OF THE OUTPUT POST TO THE MOUNT HOLES WITH THE ALTERNATOR ASSEMBLY IN THIS POSITION THIS EXAMPLE WOULD BE A PX-4V-220-10 ALTERNATOR OR A PX-422V-10 COMPLETE KIT.



MATCH YOUR FINAL DRAWING TO ONE BELOW



RECLOCKING THIS ALTERNATOR CAN VOID THE WARRANTY.  
IF YOU HAVE ANY QUESTIONS CONTACT PENNTEX AT  
PHONE: 877-590-7366, FAX: 817-590-0505, OR EMAIL TO [sales@penntexusa.com](mailto:sales@penntexusa.com)