UNDERSTANDING WHEEL SPECIFICATIONS

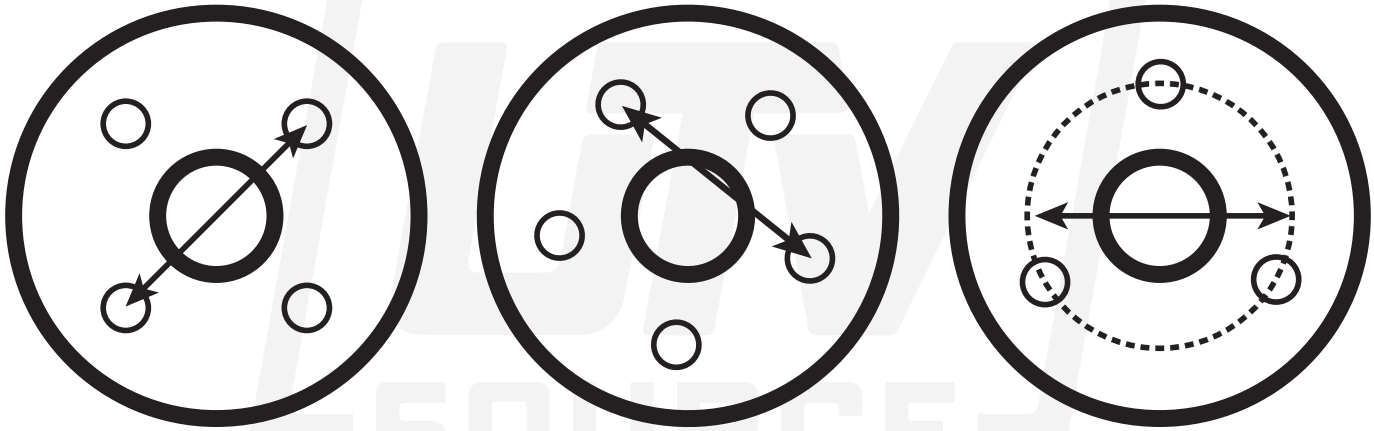
BOLT PATTERNS | BACKSPACING | WIDTH | DIAMETER | OFFSETS

Wheels are a personal purchase for your UTV, be it the performance or the appearance you're looking for. If you're not a "wheel expert", wheel specs can be intimidating. So we're going to break down some basic information on wheel size, offsets, and bolt patterns in this UTV Source educational guide.

BOLT PATTERNS AND SPACING

Bolt pattern is defined by the number of bosses (wheel stud holes) in your wheel for mounting the wheel to the hub of the car. Most UTV's utilize a 4-bolt pattern, however 5-bolt patterns are an emerging trend as vehicle performance increases. It's easy to recognize -4 and -5 bolt patterns by simply counting the number of wheel studs on your vehicle. However, the spacing may vary depending on the manufacturer.

Most bolt patterns are stated in millimeters and there are 25.4 millimeters in one-inch. So If you measure with a tape measure in inches, you can convert to metric millimeters by multiplying (inches x 25.4), or you can easily find an online converter with a quick Google search.



HOW TO MEASURE BOLT SPACING

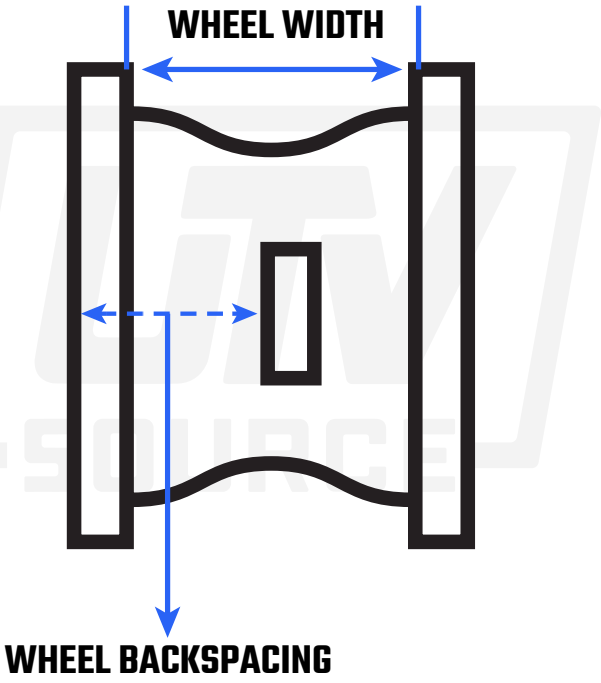
For a 4-bolt wheel: remove your stock wheel and measure diagonally opposing stud bosses (center-to-center). Example spacings: 4/110mm; 4/115mm; 4/137mm; 4/156mm

For a 5-bolt wheel: remove your stock wheel and measure diagonally opposing stud bosses (from the back of one boss-to-the-center of the opposing boss). Example spacings: 5/114.3

For a 3-bolt (ATV) wheel: remove your stock wheel. This one requires you to create a virtual circle (diameter) through the center of all three bosses. The bolt spacing is the distance across the middle of the diameter.

BACKSPACING

Backspacing is the distance between the hub mounting surface and the back lip of the wheel. You can easily measure this by laying your wheel flat with the front of the wheel down. Lay a flat straight edge across the back of the wheel. With a tape measure, take a measurement from the mounting hub of the wheel to the straight edge.

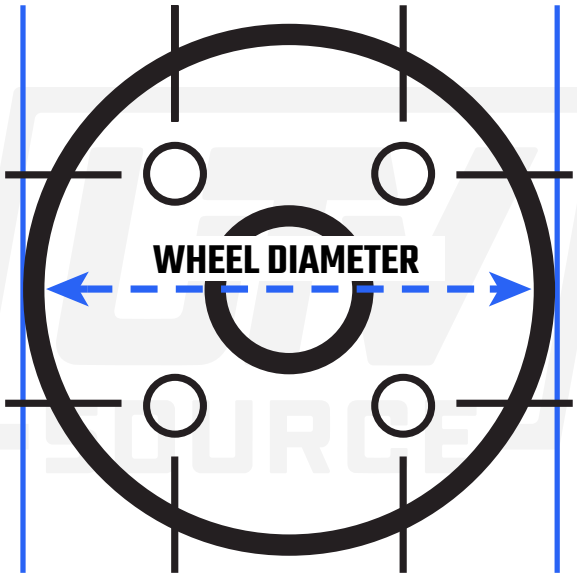


WHEEL WIDTH

Width is measured across the wheel. Place your wheel standing up as if it were on your car. Measure the distance across inside-to-inside of the bead (inside lip of the wheel).

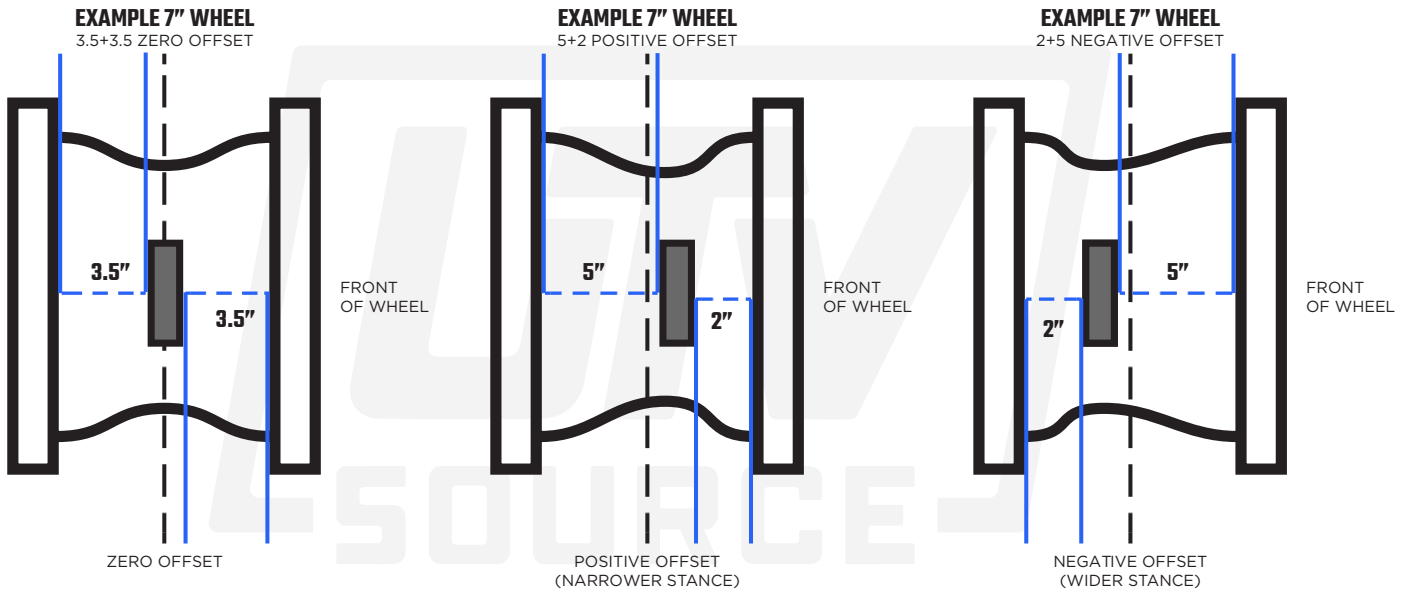
WHEEL DIAMETER

This is the overall diameter of the wheel. Simply measure across the face of your wheel from outside-to-outside of the wheel edge.



WHEEL OFFSET

Wheel offset is a measurement of the hub (mounting surface) in relation to the centerline of the wheel to the inside of the bead. This is important due to the relationship of wheel/tire clearance on the backside of the wheel to ensure good clearance of shock and suspension components. It also indicates how far the wheel/tire will protrude from the fenders/flares when viewing from the frontside of the wheel.



ZERO OFFSET

This means the mounting hub surface of the wheel is exactly in the center of the wheel, so you have the same distance on the back of the wheel and front of the wheel.

POSITIVE OFFSET

Indicated by a (+) measurement, a positive offset moves the mounting hub surface of the wheel forward of the wheel centerline. This tends to tuck the wheel in further on the vehicle for a narrower stance. (Note: the illustrations show a 5+2 offset - another popular positive offset size we see a lot is 4+3)

NEGATIVE OFFSET

Is indicated by a (-) value, a negative offset moves the mounting hub surface of the wheel back of the wheel centerline towards the brakes/suspension. This will allow for more tire clearance on the backside of the wheel and position the front of the wheel out a further distance on the vehicle for a wider stance.

Now that we've touched off on bolt patterns, bolt spacing, wheel diameter, backspacing, wheel width, and offsets you should have a better understanding of what these measurements all mean. Although this will serve as a good guide on your next set of wheels and tires we always recommend verifying your fitment with the wheel manufacturer - most manufacturers have great tools and resources on their websites to compare stock and non-stock wheel fitment. Be sure to check out UTV Source wheel offerings here: **UTVSource-wheels**

OFFSET CONVERSION CHART

MM OFFSET TO BACKSPACE IN INCHES

BACKSPACE	3.25"	3.5"	3.75"	4"	4.25"	4.5"	4.75"	5"	5.25"	5.5"	5.75"	6"	6.25"	6.5"	6.75"	7"	7.25"	7.5"	7.75"	8"	8.25"	8.5"	8.75"	9"	9.25"	9.5"
WHEEL WIDTH																										
	6	12	19	25	32	38	44	51	57	63	69	76														
	0	6	12	19	25	32	38	44	51	57	63	69	76													
	-6	0	6	12	19	25	32	38	44	51	57	63	69	76												
	-12	-6	0	6	12	19	25	32	38	44	51	57	63	69	76											
	-19	-12	-6	0	6	12	19	25	32	38	44	51	57	63	69	76										
	-25	-19	-12	-6	0	6	12	19	25	32	38	44	51	57	63	69	76									
	-32	-25	-19	-12	-6	0	6	12	19	25	32	38	44	51	57	63	69	76								
	-38	-32	-25	-19	-12	-6	0	6	12	19	25	32	38	44	51	57	63	69	76							
	-44	-38	-32	-25	-19	-12	-6	0	6	12	19	25	32	38	44	51	57	63	69	76						
	-51	-44	-38	-32	-25	-19	-12	-6	0	6	12	19	25	32	38	44	51	57	63	69	76					
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	-75	-69	-63	-57	-51	-44	-38	-32	-25	-19	-12	-6	0	6	12	19	25	32	38	44	51	57	63	69	76	
	-81	-75	-69	-63	-57	-51	-44	-38	-32	-25	-19	-12	-6	0	6	12	19	25	32	38	44	51	57	63	69	76

4X110MM BOLT PATTERN

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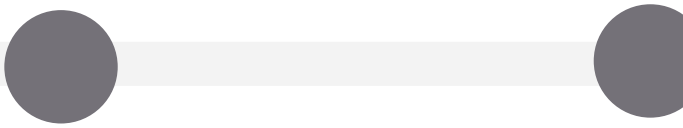

10MM STUD

YAMAHA RHINO

12MM STUD

CF MOTO
HONDA BIG RED 700 AND PIONEER 700/700-4
KYMCO
MASSIMO
YAMAHA VIKING, AND WOLVERINE
YAMAHA YXZ1000R (16-18)

WHEEL BOLT TEMPLATE

4X115MM BOLT PATTERN

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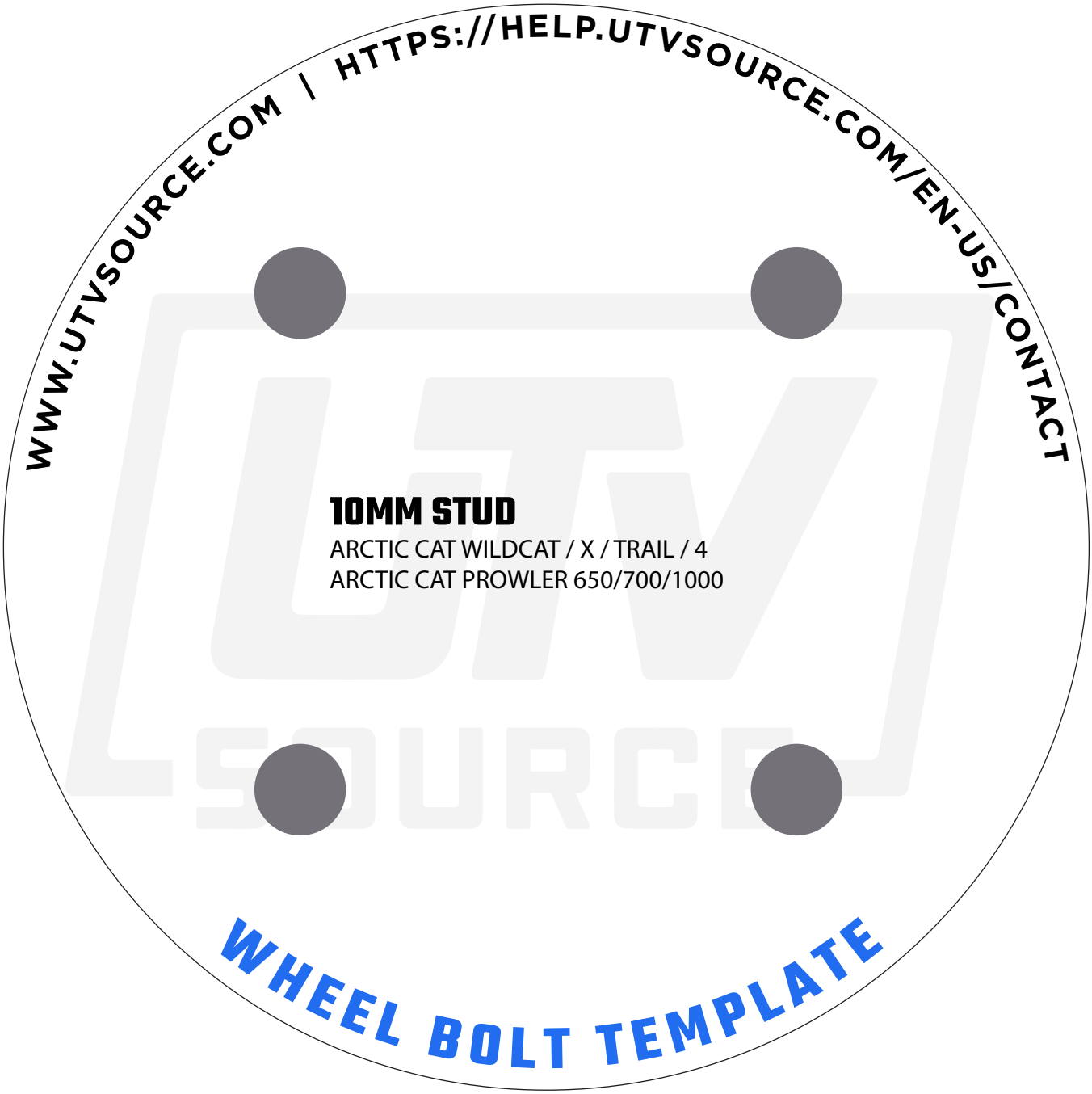

10MM STUD

ARCTIC CAT WILDCAT / X / TRAIL / 4
ARCTIC CAT PROWLER 650/700/1000

WHEEL BOLT TEMPLATE

4X137MM BOLT PATTERN

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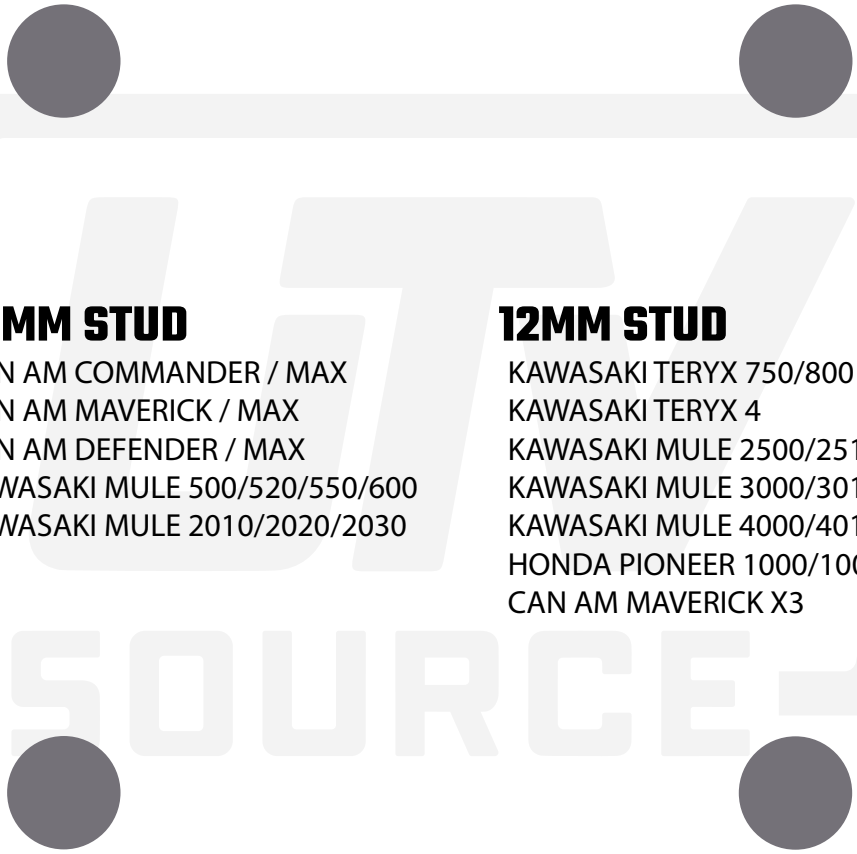

10MM STUD

CAN AM COMMANDER / MAX
CAN AM MAVERICK / MAX
CAN AM DEFENDER / MAX
KAWASAKI MULE 500/520/550/600
KAWASAKI MULE 2010/2020/2030

12MM STUD

KAWASAKI TERYX 750/800
KAWASAKI TERYX 4
KAWASAKI MULE 2500/2510/2520
KAWASAKI MULE 3000/3010/3020
KAWASAKI MULE 4000/4010
HONDA PIONEER 1000/1000-4
CAN AM MAVERICK X3

WHEEL BOLT TEMPLATE

4X156MM BOLT PATTERN

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10MM STUD

POLARIS ACE, RS1, RANGER, AND GENERAL
POLARIS RANGER 400/500/700/800, AND 6X6
POLARIS RZR 570 AND 800/S/4
POLARIS XP 900 2011-2014
KAWASAKI KRX
KAWASAKI MULE PRO-SERIES
YAMAHA YXZ1000R 2019
YAMAHA WOLVERINE RMAX
TEXTRON WILDCAT XX
BOBCAT WHEELS

12MM STUD

POLARIS POLARIS RZR 1000 (ALL)
POALRIS RZR 900 / S / XC 2015+
POLARIS RZR XP TURBO
POLARIS RANGER 900 (ALL)
POLARIS RANGER 1000 (ALL)
POLARIS GENERAL 1000 (ALL)
KAWASAKI MULE PRO (ALL)

WHEEL BOLT TEMPLATE

0 1 2 3 4 5 6 7

5X114 M BOLT PATTERN

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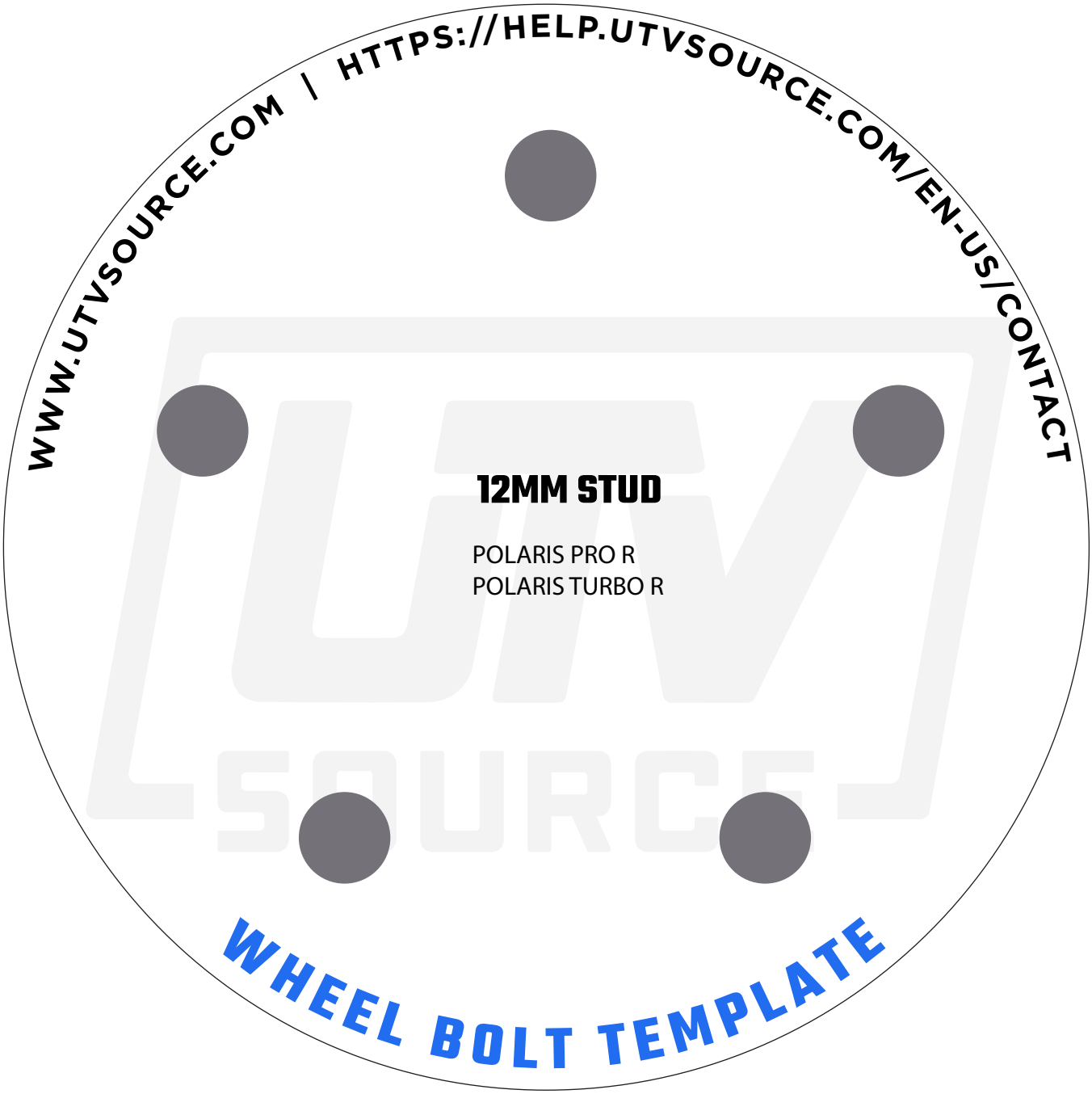

12MM STUD

POLARIS PRO R
POLARIS TURBO R

WHEEL BOLT TEMPLATE

6X139.7MM BOLT PATTERN

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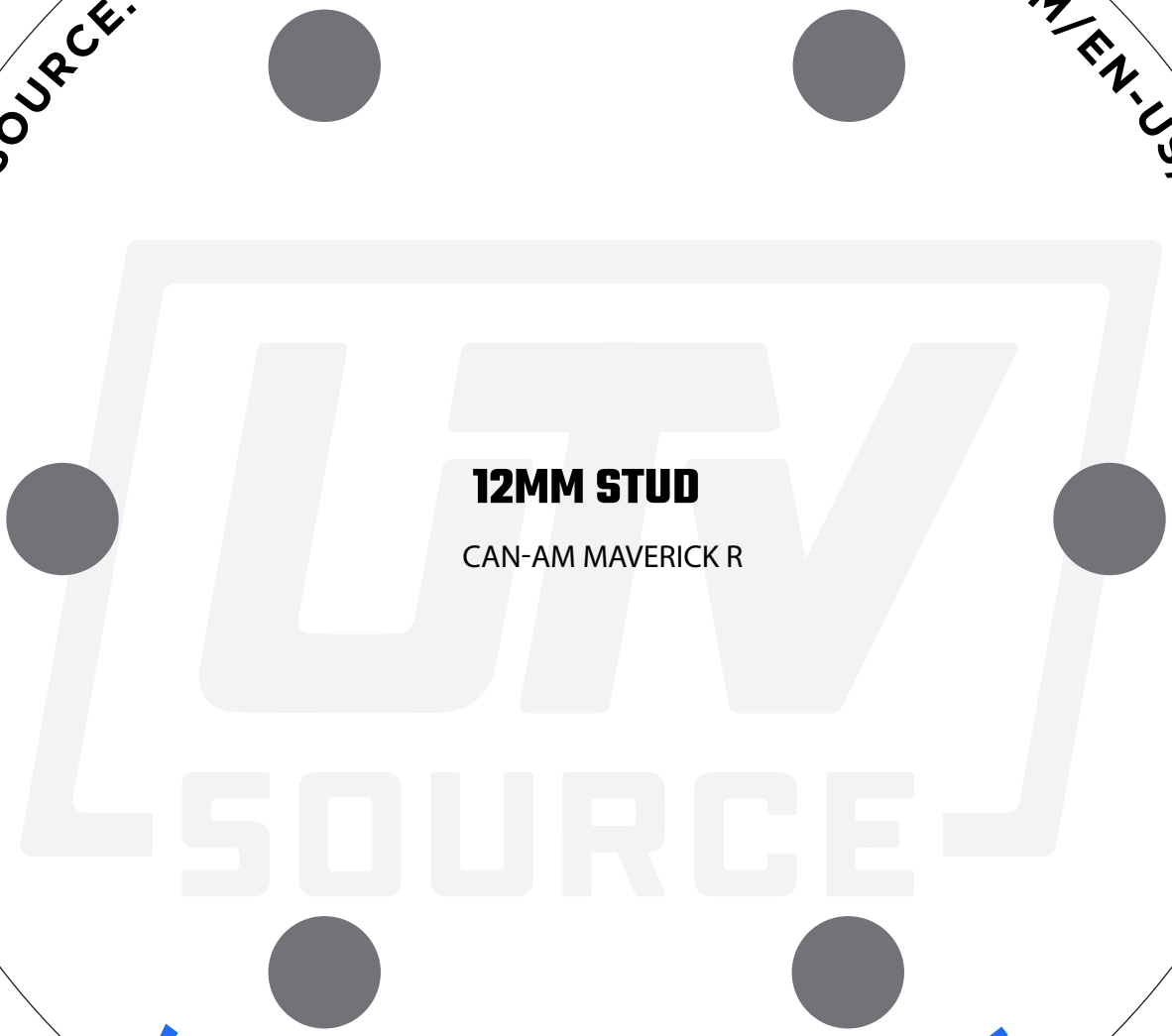

12MM STUD

CAN-AM MAVERICK R

WHEEL BOLT TEMPLATE