



TAPP x Evolution Clutching Instructions

SKU(s):

INCLUDED PARTS

(1) TAPP Uncalibrated Clutch
(4) Set of Rollers
(4) Set of Ramps
(1) Primary Clutch Spring
(1) Primary Clutch Cover

REQUIRED TOOLS

Allen Sockets, Ratchet
Torque Wrench
Blue Loctite
Allen Wrenches
Clutch Compressor Tool



Installing the TAPP Clutch:

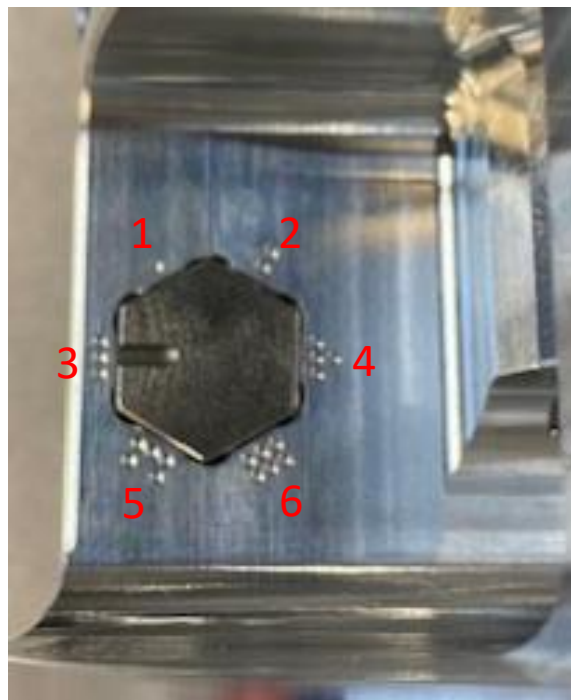
The TAPP clutch will bolt on just like the OEM primary or other aftermarket primary clutches. However, you will need a new primary bolt. You can use the OEM clutch bolt only if you torque it three times to 89 ft-lbs. EVP designed and built a primary clutch bolt specifically for the TAPP clutch that outperforms anything else on the market. **X3 XR Series Primary Clutch Bolt, TAPP (SKU:404FC0039)**

Adjusting the TAPP Clutch:

There are (4) main adjustable components on the TAPP primary clutch: Ramp Profile, Ramp Angle, Roller Size, Adjustable Weights. **Always use Blue Loctite when adjusting the weights.**

Adjusting Ramp Angle:

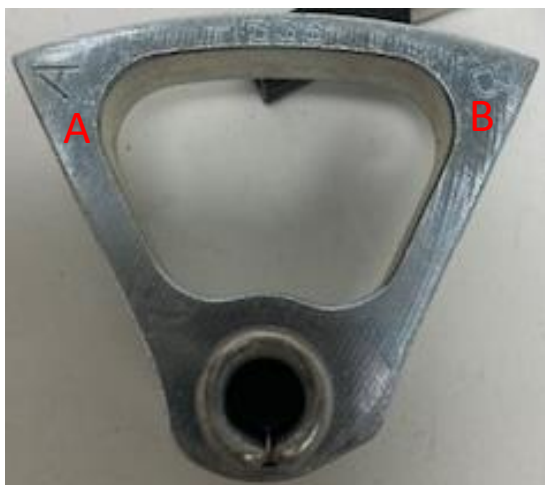
The ramp angle in your TAPP Clutch is adjustable from the outside via the use of the Quick Shift Bolts. As with other clicker style clutches the higher the number, the higher the RPM. This will mainly affect the full shift speed but also affects the engagement and low speed slightly. On the TAPP clutch each ramp has its own quick clicker adjustments. Each clicker has (6) adjustments. Each click will add or subtract 25rpm but they need to be done in opposite pairs actually adding/subtracting 50rpm. **IMPORTANT - Always adjust the ramp angle in pairs across from each other, if you do not the clutch will be out of balance.**



Adjusting Ramp Profile:

Your TAPP clutch comes with a set of (4) pre-chosen ramps that have been tested in many scenarios and are calibrated for your vehicle setup. Each ramp has an “A” profile side and “B” profile side. “A” side will always be lower engagement, “B” side will be higher engagement. Changing the profile of the ramp will have many effects on the shift profile including engagement rpm and back shift. This should only be done by an experienced tuner.

IMPORTANT - Always adjust the ramp profile in pairs across from each other, if you do not the clutch will be out of balance.



- Flipping 2 ramps from “A” side to “B” side you will increase your engagement roughly 600-800rpm.
- Flipping all 4 ramps from “A” side to “B” side you will increase your engagement roughly 1200-1600rpm.

Ramp Profile	A side B side	Engagement
1328 Convex	A Side 2900+ rpm B Side 4500+ rpm	Medium/High
1335 Concave	A Side 1700+ rpm B Side 2400+ rpm	Low/Medium
1336 Concave	A Side 1700+ rpm B Side 4500+ rpm	Low/High

Adjusting Roller Size:

There are 3 sizes of rollers available: standard, 1mm oversize, and 2mm oversize. Bigger rollers make the low end "quicker RPM's" but shift out quicker and lower the full shift RPM. Smaller rollers make the engine slower shift and raise the full shift RPM. This has to do with the angle of the arms combined with the weight difference of the rollers. The roller assembly consist of a roller, axel, and two washers. **IMPORTANT - As with the ramp angle roller size must be done in pairs across from each other, failure to do so will result in an imbalance of the clutch and possibly failure.**



Roller Profile	Measurements
0mm Rollers	OD 15.5mm with a weight of 9.9 grams, each.
+1mm Rollers	OD 16.5mm with a weight of 12.5 grams, each.
+2mm Rollers	OD 17.5mm with a weight of 15.3 grams, each.



Roller Assembly: Roller, Axle, (2) washers located on the outside of the roller.

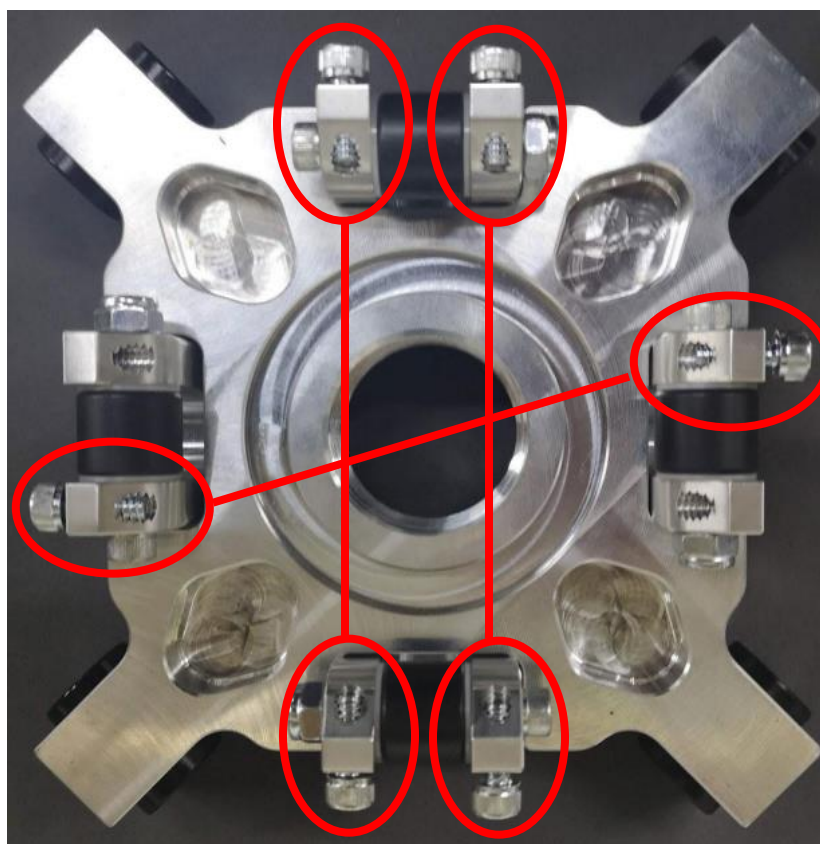
Adjusting Weight Overview:

The weight in the arms can be adjusted in two ways: set screws in the arms, and washers on the roller thru bolt. Your clutch was shipped with a standard tuning kit. As with all other clutches add weight to lower RPM, remove weight to raise RPM. Set screws in the arms affect the **low-speed** shift points more than the high-speed and will reduce the max RPM. Weight on the roller axle bolt acts like tip weight in a conventional clutch affecting the **high-speed** more than any other part of the curve. Adjust this as needed for your application. **IMPORTANT - As with all other adjustments, do this evenly and only in pairs across from each other, failure to do so will result in an imbalance of the clutch and possible failure.**

Adjusting Weight on the Arms:

Allen screws must be added in pairs opposite to one another. Allen screws are .500" weighing 2.7 grams. Adding two Allen screws will add 5.2 grams. Added all eight Allen screws will add 20.8 grams.

If adding (1) Allen to an arm, they must be opposing each other.



If adding (2) Allen to an arm, they must be parallel with each other.

Adjusting Weight on the Roller:

The TAPP clutch includes a roller weight kit with the following parts.

Hardware	Dimension	Weight (Grams)
Socket Head Screws (4)	1.50"	5.8 grams
Socket Head Screws (4)	1.75"	6.8 grams
Socket Head Screws (4)	2.00"	7.5 grams
Nylon Locknut (4)	10-32	2.2 grams
Washer (16)	.0625 (1/16")	1.2 grams
Race Weight (8)	.250 (1/4")	8 grams



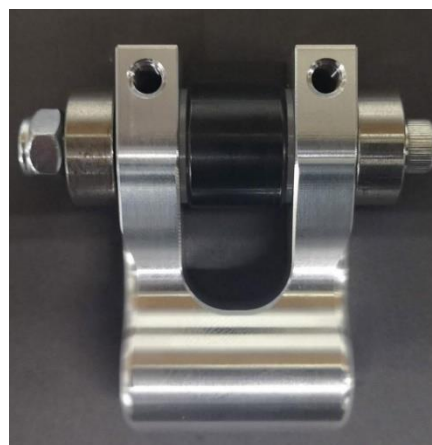
Using Socket Head Screw 1.50" doesn't allow for added weight.



Using Socket Head Screw 1.75" allows for a max of 4 washers adding 5.8 grams.



Using Socket Head Screw 2.00" allows for a max of 8 washers adding 10.3 grams.



Using Socket Head Screw 2.00" allows for a max of 2 race weights adding 16.7 grams.



TAPP Primary Spring(s)

Spring Color	Spring Rating 2.8"/1.50"	Engagement Rating
<i>Blue</i>	<i>100/190</i>	<i>3200-3800 rpm with less than 400hp setup</i>
<i>Black</i>	<i>140/210</i>	<i>3600-4200 rpm with less than 400hp setup 3800-4500 rpm with more than 400hp setup</i>
<i>Red</i>	<i>160/270</i>	<i>4200-5000 rpm with more than 400hp setup</i>
<i>Orange</i>	<i>40/210</i>	<i>1800-2800 rpm with less than 400hp setup</i>
<i>Yellow</i>	<i>40/300</i>	<i>1800-2800 rpm with less than 200hp setup</i>

Installing the Primary TAPP Clutch

We have found the best way to install the TAPP clutch is by the “valve lapping” technique between the clutch to the engine crank shaft. This should be done every time you remove the clutch from the engine crank shaft to ensure there is a perfect mate between clutch taper and crank shaft taper not allowing the clutch to spin on the crank. We recommend Permatex™ fine grit.

Step 1: Put nitrile gloves on, lightly apply Valve Grinding Compound onto the crank shaft taper and clutch taper.

Step 2: Slide the clutch onto the crank shaft, spin the clutch in one direction, 25 cycles with your hands. Pull the clutch off and look for a uniform grey section all the way around the crank. When a new crank is installed, you must do this three times, or until uniform all around the crank.

Step 3: Once complete, brake clean all the valve lapping compound off the crank shaft and clutch. If you don't remove all the compound, you will ruin the crankshaft and clutch taper.

Installing the Primary Clutch Bolt

If you are using the OEM bolt, you will need to torque the primary bolt down to 89 ft/lbs and drive the car up to 4000rpms, re-torque to 89 ft/lbs. Do this a total of (3) times to ensure the primary bolt is torqued completely or it can come off.



If you are using our recommend XR Series Clutch Bolt, you will need to torque the primary bolt down to 110 ft/lbs and drive the car up to 4000rpm's, re-torque to 115 ft/lbs. Do this a total of (3) times to ensure the primary bolt is torqued completely or it can come off.

Listed Below is TAPP Pre-Built Kits:

UTV CALIBRATION KIT FITMENTS

MODEL	HP	ENGAGEMENT 4 Ramps A Side	ENGAGEMENT 4 Ramps B Side	KIT 1 OR2-1336	KIT 2 OR2-1336-PCRWS	KIT 3 YL0-1335	KIT 4 YL2-1336
CAN AM	300 -	1700+	4500+	✓			
CAN AM	300 +	1700+	4500+		✓		
POLARIS	180 -	1700+	4500+				✓
POLARIS	180 +	1700+	4500+	✓			
POLARIS	250+	1700+	4500+		✓		
WILDCAT XX NA	130	1700+	2400+			✓	
WILDCAT XX TURBO	300 -	1700+	4500+	✓			
WILDCAT XX TURBO	300 +	1700+	4500+		✓		

SKU PARTS REFERENCE

- KIT 1 OR2-1336** - Orange Spring 40/210, 2mm Rollers, 1336 Ramps
- KIT 2 OR2-1336-PCRWS** - Orange Spring 40/210, 2mm Rollers, 1336 Ramps, 8g Race Weights
- KIT 3 YL0-1335** - Yellow Spring 40/300, 0mm Rollers, 1335 Ramps
- KIT 4 YL2-1336** - Yellow Spring 40/300, 2mm Rollers, 1336 Ramps

Thank you for choosing Evolution Powersports products. If you require further assistance, please call our Tech Support @ (715) 247-3862

Note: This product is exempt from the emission standards and related requirements of 40 C.F.R. § 1051 as provided by 40 C.F.R. § 1051.620, and California law [e.g., vehicle code §§ 27156 and 38391]. This product is sold only for use in connection with EPA certified, purpose-built, nonroad vehicles used solely for closed course, nonroad competition/racing and not used for any recreational purpose or on public highways or right of ways maintained by and open to the public. This product is sold only in connection with machines that do not fall under state and/or federal noise or emission standards/regulations. Purchasers who/that purchase this product represent and warrant that the product is purchased only in connection with EPA -certified, emission-regulations-exempt and noise-regulations-exempt competition/racing vehicles as interpreted under applicable state and/or federal law. Questions: Call Evolution Powersports at (715) 247-3862.