

APPLICATION GUIDE TECHNICAL INFORMATION & PART NUMBERS

CLUTCHES - STARTERS - FLYWHEELS HYDRAULIC RELEASE BEARINGS BELLHOUSINGS

5.5" Super Lightweight Clutch with aluminum pressure plate, drilled floater plates and drilled button flywheel.

	CLUTCH SPLINE SIZES						
Spline Number	O.D. x No. of Teeth	Applications					
12	.740" (18.8mm) X 18 tooth	Ford Festiva, Suzuki Swift					
20	13/16" X 18 tooth	Nissan A series (Datsun A), Skoda					
28	20.5mm X 18 tooth	Peugeot, Citroen Metro K					
32	13/16" (20.6mm) X 24 tooth	Porsche (901 trans), Alfa Romeo, Volkswagen, Vauxhall					
36	7/8" (22.2mm) X 28 tooth	Volkswagen Bug, Golf, Jetta (VR6 Engine)					
40	7/8" (22.22mm) X 10 tooth	MG Midget, Imp, Triumph, Quaife, 750 MC, Lada					
41	7/8" (22.22mm) X 20 tooth	Hewland, Ford, Porsche (915 trans), Mitsubishi Eclipse					
50	15/16" (23.5mm) x 21 tooth	Toyota (small), Lotus					
53	7/8" (23.1mm) X 21 tooth	Renault, Peugeot					
54	1" X 6 tooth	Ferrari					
59	24mm X 23 tooth	Volkswagen 1.8L Golf / Jetta					
60	1" (25.4mm) X 10 tooth	Volvo, Alfa Romeo, Triumph					
61	1" (25.4mm) X 14 tooth	Chevy Vega & Monza, Pontiac Sunbird & Fiero, Buick Skyhawk, Opel, Getrag Manta, Calibra T					
62	1" (25.4mm) X 22 tooth	Mazda RX7 & Miata					
63	1" (25.4mm) X 23 tooth	Ford Rocket, Cosworth, MGB, Talbot, Austin Healy, Porsche, Xtrac, Quaife, Healy, Mitsubishi EVO					
64	1" (24.7mm) X 24 tooth	Nissan (Datsun), Honda (small), Rover, Skyline, Lotus Elan					
70	1-1/16" (26.9mm) X 10 tooth	Ford T5					
72	1" (26.2mm) X 24 tooth	Honda (big), Integra '92 & up					
78	1-1/8" (28.5mm) X 10 tooth	Getrag metric, BMW, Moss, Cosworth					
80	1-1/8" (28.5mm) X 10 tooth	BMW, Chevrolet, Cosworth, Getrag, Jaguar, Muncie					
81	1-1/8" (28.9mm) X 21 tooth	Toyota Supra RWD					
89	29mm X 22 tooth	BMW					
90	1-5/32" (28.5mm) X 26 tooth	Borg Warner T10 & Super T10, Chevrolet, Hewland, Jerico					
91	1-1/4" (30.8mm) X 14 tooth	Toyota Supra Turbo '92 - '98 (2JZ-GTE engine)					
92	1-1/8" (31.8mm) X 29 tooth	NASCAR					
94	1-3/16" (30mm) x 18 tooth	G-Force, Mopar, Chrysler					
96	1-3/8" (35mm) x 26 tooth	BMW M-3 V-8					
97	1-3/8" (35mm) X 10 tooth	BMW, Getrag					
99	1-3/8" (35mm) X 10 tooth	Ford					

All PTT clutches are modular in construction. This means that any spline size can be put into any clutch combination. See page 4 and 5 for PTT's complete clutch assembly and clutch pack part numbering systems, or call PTT at 714.630.2764 for product assistance.

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Racing Clutch Terminology

CLUTCH COVER ASSEMBLY – The main body of the clutch which all the other clutch parts fit into. The fasteners securing the diaphragm spring should never be disassembled by the end user. The diaphragm spring(s) are installed under load at the factory and cannot be removed or serviced in the field.

PRESSURE PLATE – Steel ring with a 'hump' on one side which contacts the diaphragm spring. The pressure plate is flat on the opposite side which clamps down on the clutch disc closest to the transmission. In a <u>stock</u> clutch, the term pressure plate often refers to the stamped steel clutch cover / pressure plate / diaphragm spring assembly. These components are permanently fastened together in a stock clutch.

FLOATER PLATE – A flat steel separator plate that goes between the clutch discs. Floater plates are available in solid steel or drilled out lightweight versions.

CLUTCH PACK or CLUTCH DISCS – Friction disc with steel hub riveted in the center that matches the spline on the transmission input shaft.

BUTTON FLYWHEEL – A 'button style' flywheel is roughly the same diameter as your clutch. It is used in combination with a lightweight flexplate to replace the heavy stock flywheel with the ring gear on it. You can also use a button flywheel in a reverse starter mount bellhousing set up with a small diameter reverse mount ring gear bolted to the top of the clutch.

REVERSE MOUNT RING GEAR (RMRG) – This ring gear is bolted on top of the clutch and is engaged by the starter from the transmission side of the bellhousing. It is used with a reverse starter mount bellhousing. Advantages are:

 \bigcirc

1) The starter is mounted away from the heat of the headers; 2) The small diameter of the ring gear allow the drivetrain to be mounted lower in the chassis; 3) The smaller overall physical size is more easily packaged in a racecar; 4) Relocating the starter closer to the racecar's polar moment of inertia results in quicker handling and faster turn-in response.

FLEXPLATE – a Low Moment of Inertia (MOI) flexplate is an excellent way of getting a lightweight racing clutch and button flywheel mounted on your engine while using a starter located in the stock location.

HYDRAULIC RELEASE BEARINGS – A hydraulic release bearing (HRB) (also known as an annular slave cylinder) is used to actuate the clutch in most race and street applications. The HRB is located in the bellhousing, between the transmission face and the clutch spring fingers. HRB's used with small diameter



racing clutches work best with a 5/8" or 3/4" master cylinder. Street style clutches will typically use a slightly bigger diameter master cylinder.

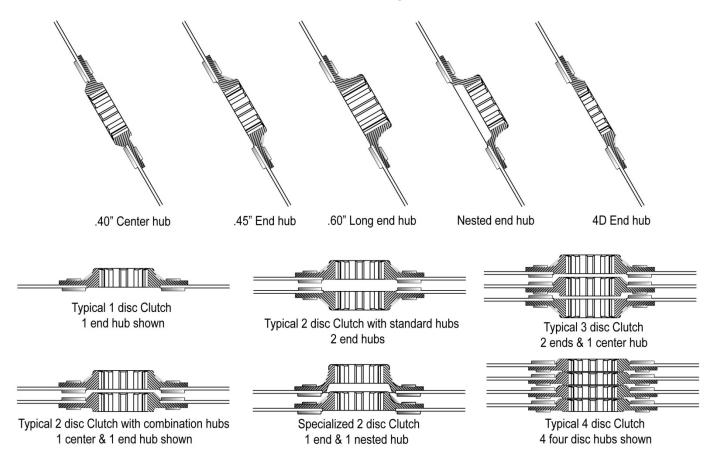
MOMENT OF INERTIA (MOI) – MOI is a measure of an object's angular acceleration. The reduction of MOI in your racecar's drivetrain will pay big dividends in your car's performance. For more information, see PTT's complete discussion of MOI on page 11.

Spline-A-Lign - SPLINE ALIGNMENT TOOL – A spline alignment tool is a lightweight splined shaft which simulates the input shaft of your transmission. It is used to align the splines of the individual clutch discs during the installation of a multi disc clutch. Using a spline alignment tool ensures that the clutch discs are aligned properly so that the transmission input



shaft goes smoothly into the clutch hubs when the transmission is installed. Spline-A-Ligns are made of aluminum, then hard coat anodized for durability. Most plastic alignment tools do not work well with multi-disc clutches.

Clutch Hub Types *



Clutch Hub Usage Table *

	NUMBER OF DISCS & DISC THICKNESS								
Hub	Description	1 x .105	2 x .105	3 x .105	1 x .200	2 x .200	3 x .200	1 x .250	2 x .250
A	Standard Hubs	145" end hub	245" end hubs	245" end hubs & 1 center hub	145" end hub	245" end hubs	245" end hubs & 1 center hub	145" end hub	245" ends
с	Combination Hubs	1 Center	145" end hub & 1 center hub	1 center & 14" end & 160" nested	1 - center hub	145" end & 1 - center hub	1 center & 145" end & 160" nested	1 - center hub	145" end & 1 - center
L	Long End Hubs	160" end hub	140" end hub & 160" end hub		160" end hub	160" end & 145" end hub		160" end hub	160" end & 145" end
N	.60" Nested Hubs	160" nested hub	140" end hub & 160" nested		160" nested hub	145" end & 160" nested		160" nested hub	145" end & 160" nested
т	.60" Nested w/ .1" c'bore				160" T-nested hub	145" end & 160" T-nested		160" T-nested hub	145" end & 160" T-nested

These charts are not all inclusive. Please call PTT for other available combinations.

CLUTCH ASSEMBLY PART NUMBERING SYSTEM

	C = <u>C</u> LUTC	<u>HASSEMBLY</u> <u>C</u> <u>H</u> <u>3</u> <u>1</u> <u>6</u> <u>A</u> <u>1</u> <u>A</u> <u>80</u>
	CLUTCH STYLE	
	C = 4.5" Open Style H = 7.25"	Open Style
		Rally Style
	E = 5.5" Open Style	
	NUMBER OF DISCS - 1, 2	, 3, or 4
	FRICTION MATERIAL	
1 = Me		Drganic Lining, .200" thick
	-	Drganic Lining, .250" thick
3 = Me	letallic Lining, .250" thick	
	NUMBER OF HUB RIVETS	
		e for extreme torque applications
	CLUTCH HUB TYPE - see Hub Usage Chart or	C = Combination Hubs
		disc = 1 center hub
		discs = 1 end hub & 1 center hub
		discs = ctr.& .4" end & .60" nested
		discs = 1 end hub & 3 center hubs
	PRESSURE P	
1 =		5 = Std. P.Plate, LtWt Floaters
		B = Alum. P.Plt. w/ Super LtWt Floaters
	,) = Steel, Hi-Mass
	SPRING CLAMP FORCE	
	X = AAAA = Highest Clamp Force Available for	or Extreme Torque Applications
	Y = AAA = Higher Clamp Force	
	Z = AA = High Clamp Force - Standard for rac	zing clutches
	A = Above average clamp force, with reduced	•
	B = Average clamp force for moderate horsep	ower usage
	C = Low clamp force	
	D = Lowest clamp force	
SP	PLINE SIZE	
12 = .7	.740" (18.8mm) X 18 - Ford Festiva, Suzuki Swif	t
20 = 13	13/16" X 18 - Nissan A series (Datsun A), Skoda	
	20.5mm X 18 - Peugeot, Citroen Metro K	
32 = 13	13/16" (20.6mm) X 24 - Porsche (901 trans), Alfa	a Romeo, Volkswagen, Vauxhall
	7/8" (22.2mm) X 28 - Volkswagen Bug, Golf, Jet	
	7/8" (22.2mm) X 10 - MG Midget, Imp, Triumph,	
	7/8" (22.2mm) X 20 - Hewland, Ford, Porsche (9	15 trans), Mitsubishi Eclipse
	15/16" (23.5mm) x 21 - Toyota (Small), Lotus 15/16" (23.2mm) X 21 - Renault, Peugeot	
	1 X 6 - Ferrari	
	24mm X 23 - Volkswagen 1.8L Golf/Jetta	
	1" (25.4mm) X 10 - Volvo, Alfa Romeo, Triumph, N	MGA
	1" (25.4mm) X 14 - Chevy Vega, Monza; Pontiac Sunb	
	1" (25.4mm) X 22 - Mazda RX7, Miata	
	1" (25.4mm) X 23 - Ford Rocket, Cosworth, MGB, Ta	lbot, Austin Healy, Porsche, Xtrac, Quaife, Mitsubishi Evo
	1" (24.7mm) X 24 - Honda (small), Rover, Nissar	
	1-1/16" (26.9mm) X 10 - Ford T5	
	1" (26.2mm) X 24 - Honda (big), Integra '92 & up	
	1-1/8 (28.5mm) X 10 - Getrag metric, BMW, Moss	
	1-1/8" (28.5mm) X 10 - BMW, Chevrolet, Coswoi	rtn, Getrag, Jaguar, Muncie
	1-1/8" (28.5mm) X 21 - Toyota Supra RWD	
	29mm X 22 - BMW 1-5/32" (28 5mm) X 26 - Borg Warner T10 & Sur	per T10 Chevrolet Hewland Jerico
	1-5/32" (28.5mm) X 26 - Borg Warner T10 & Sup 1-1/4" (30.8mm) x 14 - Toyota Supra Turbo '92 - '§	
	1-1/4" (31.8mm) x 29 - NASCAR	
	1-3/16 (30mm) x 18 - G-Force, Mopar, Chrysler	
	1-3/8" (35mm) x 26T - BMW M-3 V-8	
	1-3/8" (35mm) X 10 - BMW, Getrag	
	1-3/8" (35mm) X 10 - Ford	
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Every digit of PTT's part number represents something. The part numbering chart shown below can be used to identify the correct clutch pack part number for your application. Please note that <u>not all</u> combinations are available and the following charts are not all inclusive. There may be some additional clutch combinations that are <u>not</u> represented in these charts. Please call PTT at 714.630.2764 for assistance finding your correct part number.

Clutch Component Wear Limits

Every small diameter racing clutch PTT manufactures has a usable friction material wear limit of 0.030" (0.75mm). This friction material wear limit is for <u>all</u> friction material in the clutch. So... the only disc in a single disc clutch would be allowed to wear a maximum of 0.030" (0.75mm). At that point, the clutch disc's service life is over. The clutch disc will need to be replaced.

The clutch discs in a 2 disc clutch are allowed to wear a maximum of 0.015" (0.38mm) <u>each</u> (0.015" x 2 = 0.030" [0.75mm]) total clutch pack wear. When each clutch disc has worn 0.015" (0.38mm) from their new thickness, their service life is over. The clutch pack needs to be replaced.

The clutch discs in a 3 disc clutch pack are allowed to wear a maximum of 0.010° (0.25mm) <u>each</u> (0.010^o x 3 = 0.030^o [0.75mm]) total clutch pack wear. When each clutch disc has worn 0.010^o (0.25mm) from their new thickness, their service life is over. The clutch pack needs to be replaced.

Yes, if you are running a three disc clutch, and you know a fellow racer who is running a two disc, or a single disc clutch, that racer can make further use of your used clutch discs.

One last thing to consider when discussing wear limits: If the floater plate(s), pressure plate, or flywheel step are worn, the wear amount for these parts must be added to the overall clutch pack wear. Any amount they are worn below the New Thickness shown below will reduce the amount of wear available to the clutch discs. For example, if your floater plate only measures 0.176" (4.47mm) it has 0.004" (0.10mm) of wear. This means that if you are running a 2 disc clutch you should replace the discs when they are worn down to .092" (2.34mm) instead of the normal .090" 2.28mm) per the table below. The easy engagement friction material, which is proprietary to PTT clutches, does not normally wear the mating surfaces of the pressure plate or floater plate(s), but their thickness and flatness must be inspected every time the clutch is serviced.

Inspect your clutch at frequent intervals. This interval will vary depending on driver skill level. Replace the clutch disc(s) when they are worn to the minimum thickness. This avoids clutch slippage which leads to excess heat that can permanently damage your clutch. Clutch component wear limits are as follows:

Number	Thickness	Thickness
of Discs:	New	Worn
1	0.105" (2.67mm)	0.075" (1.90mm)
2	0.105" (2.67mm)	0.090" (2.28mm)
3	0.105" (2.67mm)	0.095" (2.41mm)
4	0.105" (2.67mm)	0.097" (2.46mm)
1	0.125" (3.18mm)	0.095" (2.41mm)
1	0.200" (5.08mm)	0.170" (4.32mm)
2	0.200" (5.08mm)	0.185" (4.70mm)
3	0.200" (5.08mm)	0.190" (4.83mm)
1	0.250" (6.35mm)	0.220" (5.59mm)
2	0.250" (6.35mm)	0.235" (5.97mm)
Floater Plate	0.180" (4.57mm)	for all PTT clutches
Pressure Plate	0.535" (13.59mm)	for most PTT clutches

HOW TO SELECT A RACING CLUTCH

Circle track racing clutches are designed to be as light in moment of inertia (MOI) as absolutely possible. You always want to select the lightest clutch and drivetrain components which the rules you race under will allow. The only exception to this has to do with durability. In order to finish first, first you must finish!

The clutch you select will be a fine balance of lightweight and low moment of inertia performance, combined with enough durability for your particular car/engine/driver combination. Too heavy, and you will not be competitive. Too light and you might not finish the race. The clutch that you ultimately select is based upon several factors. Here is a step by step guide to selecting the correct clutch for your application. First, let's talk about some clutch basics.

Clutch Basics

The reason for selecting a multi-disc racing clutch is increased torque capacity. If you want to double the torque capacity of a one disc clutch, simply add another clutch disc. Do you want triple the torque capacity? Use three clutch discs. Adding clutch discs is a great way to increase torque capacity, without increasing the diameter of the clutch or increasing the pedal effort.

Another way to increase the torque capacity of a clutch would be to increase the diameter. Increasing the diameter is usually impractical due to size limitations. Doubling the diameter of a clutch will approximately double the torque capacity if the spring clamp load remains the same. However, the bigger diameter clutch will have <u>four times</u> the MOI.

CLUTCH SELECTION GUIDE

1. Ensure the clutch you are considering conforms to the rules

The sanctioning body which governs your type of racing usually has a 'clutch rule'. Generally, sanctioning bodies like to spell out minimum clutch disc diameters, or limit you to a single disc clutch.

2. <u>Select a clutch with the right torque capacity</u>

The minimum break-away torque capacity of the clutch you select is based upon how much peak torque your engine develops. Clutches only care about torque, NOT horsepower. The rule of thumb PTT uses to properly size a clutch to your application is as follows:

Multiply your engine's peak torque by 1.25 (minimum) and select a clutch that has at least as much or more, torque capacity. For instance, if your engine has a peak torque of 400 lb.ft. multiply 400 by 1.25 ($400 \times 1.25 = 500$). Therefore, in this example, you would select a clutch which has a torque capacity of at least 500 lb.ft. For all wheel drive (AWD) cars, you should use a 1.5 multiplier.

Engines that have unusually high harmonic vibration, such as some inline 4 cylinders, or inline 6 cylinders or engines with extremely light rotating/reciprocating assemblies (light cranks and pistons, titanium rods, no harmonic damper, etc.) should be rated using a 1.5 multiplier. Please see "Clutch Torque Capacity Conversion Guide" (Table #1) on page 8 to quickly determine how much torque capacity your PTT clutch requires.

Too much clutch torque capacity can be just as harmful as too little clutch torque capacity. Think of your clutch as a fusible link between your drive wheels and your engine. If the drive wheels rub up against another car (or the wall) or come to an abrupt stop for whatever reason (collision), the clutch will slip and not transmit a harmful torque spike from the drivetrain to the engine. This can save valuable engine components, saving you a considerable amount of money.

TABLE # 1Clutch Torque Capacity Conversion Guide

		AWD, 4 cylinder	Extreme	Do not Exceed
Your	Minimum Clutch	or inline 6 cylinder	Application	this Clutch
Car's	Torque Capacity	Clutch Torque	Clutch Torque	Torque
Engine		Capacity	Capacity	Capacity
Torque	(1.25 multiplier)	(1.50 multiplier)	(1.75 multiplier)	(2.00 multiplier)
100	125	150	175	200
150	188	225	263	300
200	250	300	350	400
250	313	375	438	500
300	375	450	525	600
350	438	525	613	700
400	500	600	700	800
450	563	675	788	900
500	625	750	875	1000
550	688	825	963	1100
600	750	900	1050	1200
650	813	975	1138	1300
700	875	1050	1225	1400

Remember:

It is important to always specify a clutch with more torque capacity than needed. Always *round up* when it comes to selecting a clutch with the proper torque capacity. This avoids the possibility of slippage, which will quickly destroy a racing clutch due to excessive heat buildup. Avoid using a clutch with a torque capacity of 2.0 or more times the engine's peak torque rating (see PTT Clutch Facts: *Maximum Clutch Release Load Limits* on page 11).

3. Select a clutch size matched to your racecar overall weight

Lightweight cars (formula cars, small 4 cylinder cars, etc.) can use the smallest clutches (4.5".) Heavier cars have more kinetic energy, and will need to go up in clutch diameter. Bigger diameter clutches have more mass. This extra clutch mass is needed for cars with more kinetic energy.

4. Gear Ratios

If your racecar has a tall first gear, or a tall final drive ratio (or both), you might want to consider going to a larger diameter clutch than you would normally install. The increased amount of clutch slippage needed to get the car rolling, due to high gear ratios, will generate increased heat in the clutch. More clutch mass is needed to offset this increased slippage.

5. Durability vs. Performance

The primary consideration in selecting the diameter of the clutch comes down to balancing durability against performance. A smaller clutch will give the car better performance. A bigger clutch will give extra durability. All things being equal, a 4.5" clutch has approximately half the MOI of a 5.5" clutch. A 5.5" clutch has about half the MOI of a 7.25" clutch. The performance benefits with a clutch that has half (or one fourth!) the MOI of larger clutches help immensely on the track. For an estimated clutch size recommendation, see "Clutch Size Selection Guide" (Table #2) on page 10. Please note: For best results, each application must be individually evaluated.

A word about clutch heat

It is important to understand that the smaller the clutch is, the more sensitive it is to excessive heat build-up. The driver must be very careful and always drive the smaller clutch within its limits. Just as conserving your tires or your brakes is important, so is <u>conserving your clutch</u>!

To help you understand how critical this is, think of a 4.5" clutch as a cup of water, and think of a 5.5" clutch as a quart of water, and a 7.25" clutch as a gallon of water. If you put a cup of water and a gallon of water on the stove to boil, which one will boil sooner? The cup of water boils sooner, due to its lower mass. Think of slipping the clutch as being equivalent to putting the water on the hot stove. Lower mass can be a great help in getting around the race track faster due to lower MOI, BUT you have to be careful to *not overheat the clutch*!

With a small clutch you should always *push* your car around the pits, <u>never</u> drive the car on the trailer, and always avoid slipping the clutch. In the heat of the battle, leaving the pits under a green flag pit stop, or spinning out in the in-field, it is <u>always</u> better to break the tires loose to get the car going, rather than excessively slipping the clutch.

6. Driver Skill Level

Getting maximum life out of your clutch is an acquired skill. First you must ask yourself, "How good is my driver?" Does he/she have multi-disc racing clutch experience? Can he/she make a racing clutch pack last a full season or longer? If the answer is yes, select the smallest clutch you can afford that meets the torque requirements, vehicle weight, and gear ratio guidelines specified above.

If you have a newer, less experienced driver, here is a trick we often recommend. You may want to add an additional disc to your selected clutch assembly. This will help the clutch withstand more heat abuse (because it now has a little more mass), while still improving the racecar's performance over what is achievable with a larger diameter clutch. If you have the choice of adding a disc to a small diameter clutch or going to the next size larger clutch, adding the extra disc to the smaller size clutch will give you much better performance than the larger clutch *and* give you the extra durability required. Generally the next bigger size clutch roughly doubles the clutch MOI. As the driver's performance (skill with the racing clutch) improves, it is inexpensive to get a shorter clutch cover, and remove one clutch disc and floater plate.

Heat is a racing clutch's mortal enemy

Every time you are slipping the clutch, the clutch friction surfaces are generating heat. You should always try to conserve your equipment by keeping the heat build-up in your racing clutch to an absolute minimum. This is best accomplished by using the minimum engine RPM necessary to get the car launched, and/or slipping the clutch for the shortest amount of time needed to get the car moving. Get your crew to push the car off when leaving the pits or paddock area. Once the car is rolling, and the driver's foot is completely off the clutch (clutch is fully engaged), you can do whatever you want with the throttle.

NEVER drive the car onto the trailer. Use a winch!

Matching engine RPM on downshifts also helps reduce clutch heat build-up (and excessive wear) immensely. You should NEVER slide or 'fan' the clutch coming off a slow corner to make up for a wrong gear ratio. The amount of heat generated doing this to a small multidisc clutch will damage it in a short time.

TABLE #2

	Car Weight	Driver		Clutch Torque		Recomme	endation	
	with Driver	Skill Level	Gear Ratio	Capacity from	4.5"	5.5"	7.25"	
				Table #1 150 lb.ft.	+.5 NO	2 disc	1 disc	7
d.			Tall 1st gear or	225 lb.ft.	NO	2 disc 2 disc	1 disc	õ
ate			Tall final ratio	300 lb.ft.	NO	2 disc 2 disc	1 disc	E
n				375 lb.ft.	NO	2 disc 2 disc	1 disc	:::
va		New Driver		150 lb.ft.	2 disc	1 disc	1 disc	Th
/ e	For best results, each application must be individually evaluated.		Appropriate Gear	225 lb.ft.	2 disc	1 disc	1 disc	is:
ally			Ratios	300 lb.ft.	2 disc	2 disc	1 disc	ch
n	1,000 to 1,500			375 lb.ft.	2 disc	2 disc	1 disc	ar
<u><i< u=""></i<></u>	pounds			150 lb.ft.	1 disc	1 disc	1 disc	iis
ip			Tall 1st gear or	225 lb.ft.	1 disc	1 disc	1 disc	a
.=			Tall final ratio	300 lb.ft.	2 disc	2 disc	1 disc	pr
å		Highly Skilled		375 lb.ft.	2 disc	2 disc	1 disc	eli
list		Driver		150 lb.ft.	1 disc	1 disc	1 disc	mi.
l I			Appropriate Gear	225 lb.ft.	1 disc	1 disc	1 disc	na
Ē			Ratios	300 lb.ft.	1 disc	1 disc	1 disc	۲
tio				375 lb.ft.	1 disc	1 disc	1 disc	NOTE: This chart is a preliminary guideline.
<u>ca</u>				300 lb.ft.	NO	2 disc	2 disc	id
jd			Tall 1st gear or	450 lb.ft.	NO	2 disc	2 disc	eli
ap			Tall final ratio	600 lb.ft.	NO	3 disc	2 disc	ne.
ج ج		New Driver		750 lb.ft.	NO	3 disc	3 disc	
eac			Appropriate Gear Ratios	300 lb.ft.	2 disc	2 disc	1 disc	Fo
ۍ ک				450 lb.ft.	3 disc	2 disc	2 disc	Ē
l ti	1,501 to 2,500			600 lb.ft. 750 lb.ft.	3 disc	2 disc	2 disc	es
esi	pounds			300 lb.ft.	3 disc 3 disc	3 disc 2 disc	3 disc 2 disc	tr
t z	pounds		Tall 1st gear or	450 lb.ft.	3 disc	2 disc 2 disc	2 disc 2 disc	esi
es			Tall final ratio	600 lb.ft.	3 disc	3 disc	2 disc 2 disc	For best results, each application m
2 2		Highly Skilled		750 lb.ft.	3 disc	3 disc	2 disc	
E B		Driver		300 lb.ft.	2 disc	1 disc	1 disc	ea
			Appropriate Gear	450 lb.ft.	2 disc	1 disc	1 disc	ch
ary guideline.			Ratios	600 lb.ft.	3 disc	2 disc	2 disc	ар
eli				750 lb.ft.	3 disc	2 disc	2 disc	pli
id				450 lb.ft.	NO	3 disc	2 disc	ca
nb			Tall 1 at goor or	600 lb.ft.	NO	3 disc	3 disc	tio
∑			Tall 1st gear or Tall final ratio	750 lb.ft.	NO	3 disc	3 disc	ň
				900 lb.ft.	NO	3 disc	3 disc	must be individually evaluated.
<u> </u>		New Driver		1050 lb.ft.	NO	3 disc	3 disc	
eli				450 lb.ft.	3 disc	2 disc	2 disc	þ
pr			Appropriate Gear	600 lb.ft.	3 disc	3 disc	2 disc	è ir
a			Ratios	750 lb.ft.	3 disc	3 disc	3 disc	١di
t is				900 lb.ft.	3 disc	3 disc	3 disc	<u>≤</u> .
ar	2 ,501 to 3,500			1050 lb.ft.	3 disc	3 disc	3 disc	du:
NOTE: This chart is a prelimin	pounds			450 lb.ft.	3 disc	2 disc	2 disc	JII
<u>Is</u>			Tall 1st gear or	600 lb.ft.	3 disc	2 disc	2 disc	/e
۲			Tall final ratio	750 lb.ft.	3 disc	3 disc	2 disc	va
		Highly Skilled		900 lb.ft. 1050 lb.ft.	3 disc 3 disc	3 disc 3 disc	3 disc 3 disc	lua
		Driver		450 lb.ft.	2 disc	1 disc	1 disc	Ite
9		Diriver		600 lb.ft.	2 disc 2 disc	2 disc	2 disc	d.
<u> </u>			Appropriate Gear	750 lb.ft.	3 disc	2 disc 2 disc	2 disc 2 disc	
			Ratios	900 lb.ft.	3 disc	3 disc	2 disc 2 disc	
				1050 lb.ft.	3 disc	3 disc	3 disc	
L	1							

Clutch Size Selection Guide

NOTE: Other factors to take into consideration for clutch selection include:

Type of racing; Tires; Standing starts; and Event length. This table is not all inclusive.

PTT CLUTCH FACTS

Clutch torque improves over the life of the clutch

The torque capacity of all PTT clutches increase as the clutch wears. As the clutch wears, the clutch will transmit more torque! Once you understand this little known fact, you can rest easy in the knowledge that if the clutch does not slip when it is initially installed then, like a fine wine; it will only get better with age.

Custom torque capacity

PTT clutches can be custom tailored for a lower clutch release force by installing a lighter diaphragm spring. This is frequently done for a couple of reasons. It reduces pedal effort to the driver and it reduces the force on the engine's crank thrust bearing. This helps reduce driver fatigue in longer endurance events, while improving engine durability. Some smaller 4 cylinder engines cannot withstand the excessively high release loads imparted from some aftermarket racing clutches. PTT's clutches with lower release loads eliminate the chance of expensive engine rebuild costs due to 'crank walk'. See our article on crank walk at www.PowerTrainTech.com.

THE TORQUE CAPACITY OF A PTT CLUTCH CAN BE CHANGED IN THREE WAYS:

1. Install a high-torque pressure plate instead of a standard pressure plate. The high torque pressure plate has a reduced diameter fulcrum. Installing a high-torque pressure plate will increase the torque capacity of a clutch with NO increase in spring clamp load or pedal effort.

2. Select a different diaphragm spring. PTT diaphragm springs are rated from 'X' to 'D'. Standard clutches come with 'A' rated springs. Changing from an 'A' spring to a 'Z' spring will increase the torque capacity as well as pedal effort and thrust bearing load. Conversely, changing from an 'A' spring to a 'B' spring will reduce the torque capacity, pedal effort, and thrust bearing 'stress'. Typically, clutch diaphragm springs are changed to accommodate pedal effort requirements just as much as for peak torque capacity fine tuning.

3. Select a different friction material. PTT offers bronze metallic and organic based friction materials. Different friction materials offer different coefficients of friction (Cf). An alternative friction material might be selected for its drivability as well as its ultimate torque capacity.

Maximum clutch release load limits

All PTT clutches are designed to never exceed 800 pounds of thrust force during clutch disengagement (clutch release). Some unknowledgeable clutch manufacturers will install two standard diaphragm springs into a 7.25" clutch cover and call it 'high performance.' This is irresponsible, and demonstrates a lack of good engineering judgment (or no engineering at all). Although this doubles the torque capacity of the clutch, it also doubles the load on the engine's thrust bearing, causing its early failure and expensive replacement. This 'trick' will also double the force needed to disengage the clutch, causing driver fatigue.

FRICTION MATERIALS

SINTERED BRONZE METALLIC - PTT's standard friction material is a proprietary sintered metallic material that has been custom blended to meet a variety of different requirements. It is also ground to an extremely fine surface finish. This eliminates excessive clutch wear the first time the clutch is used. It also doesn't require bedding-in when first installed. Standard thicknesses available in this material are 0.105", 0.200", or 0.250" thick. The thickness of the disc for use in your clutch is determined by the type of use it is put to. Generally, a thicker disc would be selected if the clutch is going to be consistently subjected to higher operating temperatures brought about by lots of slippage. Thinner discs are selected for their lighter MOI, resulting in faster shifting, and longer transmission part life.

Under normal conditions, each 7.25" disc provides 300 lb.ft. of torque capacity. PTT metallic friction materials stand up to extreme heat abuse better than organic friction materials, and do not drop as much Cf as organic materials as the lining temperature goes up.

ORGANIC - Organic friction materials have a softer, more forgiving engagement characteristic. PTT organic discs have a higher coefficient of friction (Cf) than some metallic linings offered. Using a clutch cover with the same clamp load (diaphragm spring), the organic material will deliver a higher clutch torque capacity. GENERALLY, you can plan on approximately 400 lb. ft. of torque per 7.25" disc. Organic friction materials lose

Cf as the lining temperature goes up. If you get an organic clutch hot, and it slips, let the clutch cool down to avoid costly damage to the rest of the clutch components due to excessive heat. Organic discs are designed mainly for street driving. Organic clutch discs should not be used in applications over 400 hp or other extreme applications, such as drag racing.

MOMENT OF INERTIA

Moment of inertia, (MOI) or more properly called angular moment of inertia as it applies to rotating parts (racecar drivetrain parts) deserves important consideration. The reduction of MOI in your racecar's drivetrain will pay big dividends in your car's performance. First let's consider how MOI is calculated. The MOI of rotating parts can be solved by the formula $\frac{1}{2}$ MR² where M = mass and R = radius. This means that one half the mass of a rotating part times the radius (squared) of the rotating part will give us the MOI of the part expressed in lb./in.². Let's solve for the MOI of a simple flywheel:

Let's say we have a flywheel that weighs 12 pounds and is 10" in diameter. Mass (M) = 12 lbs. and Radius (R) = 5" $\frac{1}{2} \times 12 \times 5^2 = 150 \text{ lb./in.}^2$

Now let's take our 12 pound flywheel and put it on a diet. Let's turn 4 pounds off of it to reduce its weight down to 8 pounds. (That is a full 1/3 reduction in weight!)

Now, $\dot{M} = 8$ lbs. and R = 5" $\frac{1}{2} \times 8 \times 5^2 = 100$ lb./in.²

This shows that a 1/3 reduction in weight results in a 33% reduction in MOI. OK. Good. 1/3 lighter MOI will result in a good performance increase on-track.

To illustrate how important MOI is, let's look at this problem a little differently. Let's reduce the size of the flywheel to a 6" diameter but for comparison sake we will say that it still weighs 12 pounds (just as heavy as our original flywheel).

Now, M = 12 lbs. and R = 3" $\frac{1}{2} \times 12 \times 3^2 = 54 \text{ lb./in.}^2$

This shows that a 50% reduction in size results in a 64% reduction in MOI.

If you reduce the size of the flywheel to a 6" diameter *and* reduce the weight to 6 pounds you have: $\frac{1}{2} \ge 6 \ge 3^2 = 27$ lb./in.², a full <u>82% reduction in MOI!</u>

This example illustrates that you get a bigger reduction in MOI by reducing the rotating diameter than by reducing the rotating weight. So... the next time you are shopping for a new clutch you should not ask how much it weighs. Instead, ask how much MOI does it have. This also clearly illustrates that the MOI of a 5.5", 3 disc clutch (39.4 lb./in.²) will be significantly lower than a 7.25", 2 disc clutch (71.4 lb./in.²).

Reduced MOI shows up as a benefit in your race car in several different ways:

Low MOI Advantage #1

On acceleration the engine's horsepower is more efficiently transmitted to the drive wheels. Due to the fact that this extra power is not being absorbed by having to spin up the excess inertia of the heavier clutch and flywheel, the racecar with the lower MOI driveline parts will out-accelerate a racecar with heavier MOI driveline parts.

Low MOI Advantage #2

On braking when approaching a turn, the racecar with the lower MOI driveline parts decelerates harder, with less stress on the braking system. This is due to the fact that the engine has much less flywheel inertia trying to carry the car deeper into the corner. This increased engine braking can result in less brake pad wear and less stress on the rest of the brake system.

Low MOI Advantage #3

Lower MOI parts take less horsepower to accelerate. This can result in lower fuel consumption. In an endurance event this can add up to a substantial fuel savings. Perhaps enough to alter your pit stop strategy.

Low MOI Advantage #4

Low MOI rotating parts usually also have lower static weight. This allows the racecar designer to reduce the car's weight. If the class has a minimum weight and the car is already under that weight, it allows the designer to put the ballast where it will help the car's handling the most.

Low MOI Advantage #5

Low MOI clutch disc(s) allow for quicker up-shifts and down-shifts. This is a measurable difference in reduced lap times on a road course.

Low MOI Advantage #6

Low MOI clutch discs allow for reduced stress on transmission synchros or dog rings. Because the clutch disc(s) change RPM quicker there is less force applied to synchros or dog rings, resulting in longer life of these critical transmission components.

Q. Is it more important to reduce the static weight of your racecar, or reduce the MOI of your car's rotating parts?

A. It is generally recognized that there is about a ten to one advantage in favor of reducing rotating weight over static weight in a racecar. As an example...if you have the chance to remove just one pound of rotating weight from your flywheel, you will feel an immediate and noticeable improvement in the racecar's acceleration. On the other hand if we put a ten pound brick in your racecar without your knowledge, you probably would not even realize it was there.

Every spinning part PTT engineers is built with an eye towards reduced MOI, while still paying critical attention to rugged reliability and quality. It is this low MOI that gives you the unfair advantage over your competition. You may be fast, but PTT racing products can allow you to go faster!

4.5" Open Style Clutch Units (no flywheel)

xx = spline size. See spline look-up chart inside front cover.

				10-Bolt	Clutch	PowerSTAR 5-Bolt Clutch	
4	4.5" Clutch (no flywheel)			Friction Material		Friction Material	
	Application	Number of Discs	Spline= xx	Metallic .105" Thick	Hi-Torque .105" Thick	Metallic .105" Thick	Hi-Torque .105" Thick
	All	1	See List	CC116A1A xx	CC158A1A xx	CS116A1A xx	CS158A1A xx
	All	2	See List	CC216A1A xx	CC258A1A xx	CS216A1A xx	CS258A1A xx
	All	3	See List	CC316A1A xx	CC358A1A xx	CS316A1A xx	CS358A1A xx
	All	4	See List	CC416A1A xx	CC458A1A xx	CS416A1A xx	CS458A1A xx

All part numbers shown above are for standard clutch hub configuration.

For additional clutch options see "Clutch Assembly Part Numbering System" on page 5.

4.5" Open Style Clutch & LtWt Button Flywheel Kits

Early Model = 1985 & earlier, 2 piece rear main seal. Late Model = 1986 to 1997, 1 piece rear main seal.

4.5" Clutch	& Button F	ly	10-Bolt Clutch	PowerSTAR 5-Bolt Clutch
Application	Number of Discs	Spline	Metallic .105" Thick	Metallic .105" Thick
	2	10 Tooth	KC2128	KS2128
Chevy SB V-8	2	26 Tooth	KC2129	KS2129
Early Model	3	10 Tooth	KC3128	KS3128
	3	26 Tooth	KC3129	KS3129
	2	10 Tooth	KC2828	KS2828
Chevy SB V-8	2	26 Tooth	KC2829	KS2829
Late Model	3	10 Tooth	KC3828	KS3828
		26 Tooth	KC3829	KS3829
	2	10 Tooth	KC2028	KS2028
Chowy I C V A		26 Tooth	KC2029	KS2029
Chevy LS V-8		10 Tooth	KC3028	KS3028
	3	26 Tooth	KC3029	KS3029
	2	10 Tooth	KC2328	KS2328
Ford SB V-8	2	26 Tooth	KC2329	KS2329
FOID 36 V-8	3	10 Tooth	KC3328	KS3328
	3	26 Tooth	KC3329	KS3329

4.5" Open Style Clutch Bellhousing Kit

Early Model = 1985 & *earlier, 2 piece rear main seal.* Late Model = 1986 to 1997, 1 piece rear main seal. Kit includes: Clutch, LtWt Button Fly, Reverse Starter Mount Aluminum Bellhousing, Reverse Mount Starter, Hydraulic Release Bearing with External Bleeder, Reverse Mount Ring Gear, Clutch Bolts & Flywheel Bolts

4.5" Clutch & Bellhous	4.5" Clutch & Bellhousing Kits				All Friction Material is Metallic .105" Thick. Call PTT for other Friction Material options.			
	Number		HYDRAULIC RELEASE BEARING					
Application	Number of Discs	Spline	Hydro-MAX	Tri-MAX	Hydro-MAX	Tri-MAX		
	UI DISCS		10-Bolt	Clutch	PowerSTAR	5-Bolt Clutch		
	2	10T	BC2118	BC2128	BS2118	BS2128		
Chevy SB V-8	Ζ	26T	BC2119	BC2129	BS2119	BS2129		
Early Model	3	10T	BC3118	BC3128	BS3118	BS3128		
	3	26T	BC3119	BC3129	BS3119	BS3129		
	2	10T	BC2818	BC2828	BS2818	BS2828		
Chevy SB V-8		26T	BC2819	BC2829	BS2819	BS2829		
Late Model	3	10T	BC3818	BC3828	BS3818	BS3828		
		26T	BC3819	BC3829	BS3819	BS3829		
	2	10T	BC2018	BC2028	BS2018	BS2028		
Chevy LS V-8		26T	BC2019	BC2029	BS2019	BS2029		
	3	10T	BC3018	BC3028	BS3018	BS3028		
	3	26T	BC3019	BC3029	BS3019	BS3029		
	2	10T	BC2318	BC2328	BS2318	BS2328		
Ford SB V-8	2	26T	BC2319	BC2329	BS2319	BS2329		
	3	10T	BC3318	BC3328	BS3318	BS3328		
	3	26T	BC3319	BC3329	BS3319	BS3329		

If you don't see your application here, please call PTT at 714.630.2764 for additional information.

4.5" Flywheels

Early Model = 1985 & earlier, 2 piece rear main seal. Late Model = 1986 to 1997, 1 piece rear main seal.

Universal	LtWt, Button Style Fly, BLANK (No crank bolt holes, small center bore, .750" OAL)	FC001
Chevy SB V-8	LtWt, Button Style Flywheel, Chevy SB V-8, Early Model	FC101
10-bolt	LtWt, Button Style Flywheel, Chevy SB V-8, Late Model	FC103
	LtWt, Button Style Flywheel, Chevy LS V-8	FC105
Chevy SB V-8 5-bolt	LtWt, Button Style Flywheel, Chevy SB V-8 Early Model	FS101
Ford SB V-8	LtWt, Button Style Flywheel, Ford SB V-8, 10-bolt	FC301
Mazda 4-cyl	LtWt, Button Style Flywheel, Mazda 4-cylinder, Formula SCCA	FC501
Flywheel Bolts	Chevy, Ford, Chrysler SB V-8	NK407076

4.5" Clutch Bolt Kits

	Bolt Kit, 1 Disc x .105" thick	NK104140
4.5" 10-Bolt	Bolt Kit, 2 Disc x .105" thick	NK104160
Clutch	Bolt Kit, 3 Disc x .105" thick	NK104180
	Bolt Kit, 4 Disc x .105" thick	NK104200
4 5"	Bolt Kit, 1 Disc x .105" thick	NK104145
4.5" PowerSTAR 5-Bolt Clutch	Bolt Kit, 2 Disc x .105" thick	NK104165
	Bolt Kit, 3 Disc x .105" thick	NK104185
	Bolt Kit, 4 Disc x .105" thick	NK104205

4.5" Replacement Clutch Spare Parts

Clutch Cover Assembly, 1 Disc X .105"	CC101					
Clutch Cover Assembly, 2 Disc X .105"	CC201					
	CC301					
(no discs, floater plates or pressure plate) Clutch Cover Assembly, 3 Disc X .105" 5-Bolt Cover Assembly, 4 Disc X .105" 5-Bolt Cover Assembly, 1 Disc X .105" Clutch Cover Assembly, 2 Disc X .105" Clutch Cover Assembly, 3 Disc X .105" Clutch Cover Assembly, 3 Disc X .105" Clutch Cover Assembly, 4 Disc X .105" Clutch Cover Assembly, 4 Disc X .105" Pressure plate Pressure Plate, Steel, Std. Fulcrum for 10-bolt clutch Pressure Plate, Steel, Std. Fulcrum for 5-bolt clutch	CC401					
5-Bolt Cover Assembly, 1 Disc X .105"						
Clutch Cover Assembly, 2 Disc X .105"						
Clutch Cover Assembly, 3 Disc X .105"	CS301					
Clutch Cover Assembly, 4 Disc X .105"	CS401					
Pressure Plate, Steel, Std. Fulcrum for 10-bolt clutch	CC031					
Pressure Plate, Steel, Std. Fulcrum for 5-bolt clutch	CC037					
Floater Plate - for 10-bolt clutch	CC041					
Floater Plate - for 5-bolt clutch						
Floater Plate, LightWeight Drilled - for 5-bolt clutch	CC047					
	Clutch Cover Assembly, 2 Disc X .105" Clutch Cover Assembly, 3 Disc X .105" Clutch Cover Assembly, 4 Disc X .105" Clutch Cover Assembly, 1 Disc X .105" Clutch Cover Assembly, 2 Disc X .105" Clutch Cover Assembly, 3 Disc X .105" Clutch Cover Assembly, 4 Disc X .105" Pressure Plate, Steel, Std. Fulcrum for 10-bolt clutch Pressure Plate, Steel, Std. Fulcrum for 5-bolt clutch Floater Plate - for 10-bolt clutch Floater Plate - for 5-bolt clutch					

4.5" Replacement Clutch Packs (discs)

xx=spline size. See spline look-up chart inside front cover.

4.5" Clutch D	iscs		Friction Material		
Application	Number of Discs	Spline= xx	Metallic .105" Thick	Hi-Torque .105" Thick	
All	1	See List	PC116A xx	PC158A xx	
All	2	See List	PC216A xx	PC258A xx	
All	3	See List	PC316A xx	PC358A xx	
All	4	See List	PC416A xx	PC458A xx	

All part numbers shown above are for standard clutch hub configuration.

For additional clutch pack options see "Replacement Clutch Pack Part Numbering System" on page 5.

5.5" Open Style Clutch Units

xx=spline size. See spline look-up chart inside front cover.

5.5" Clutch U	nite (no fly)		Friction Material				
	nits (no ny)		Metallic .1	05" Thick	Met200" Thk	Org200" Thk	
Application	Number of Discs	Spline= xx	Steel Pressure Alum. P.Plt. w/ Plate LtWt Floaters		Steel Pressure Steel Pres Plate Plate		
All	1	See List	CE116A1A xx	CE116A3A xx	CE126A1A xx	CE176A1A xx	
All	2	See List	CE216A1A xx	CE216A3A xx	CE226A1A xx	CE276A1A xx	
All	3	See List	CE316A1A xx	CE316A3A xx	CE326A1A xx	CE376A1A xx	
All	4	See List	CE416A1A xx	CE416A3A xx	-	-	

All part numbers shown above are for standard clutch hub configuration.

For additional clutch options see "Clutch Assembly Part Numbering System" on page 5.

Early Model = 19	985 & earlier, 2	2 piece rear main	seal. Late Mode	el = 1986 to 1997, 1	piece rear main seal.		
5.5" Clutch & E	Button Fly	All Friction Material is Metallic .105" Thick. Call for other Friction Material options.					
Application	Number of Discs	Spline	Steel Pressure Plate	Alum. P.Plt. w/ LtWt Floaters	Alum. P.Plt. w/ LtWt Floaters & Super LtWt Drilled Btn Fly		
	2	10 Tooth	KE2128	K52128	K52128S		
Chevy SB V-8	2	26 Tooth	KE2129	K52129	K52129S		
Early Model	3	10 Tooth	KE3128	K53128	K53128S		
	5	26 Tooth	KE3129	K53129	K53129S		
	2	10 Tooth	KE2828	K52828	K52828S		
Chevy SB V-8	2	26 Tooth	KE2829	K52829	K52829S		
Late Model	3	10 Tooth	KE3828	K53828	K53828S		
		26 Tooth	KE3829	K53829	K53829S		
Chevy SB V-8	2	10 Tooth	KE2928	K52928	K52928S		
Late Model	2	26 Tooth	KE2929	K52929	K52929S		
Ext. Bal.	3	10 Tooth	KE3928	K53928	K53928S		
(Crate Motor)	3	26 Tooth	KE3929	K53929	K53929S		
	2	10 Tooth	KE2028	K52028	K52028S		
Chevy LS V-8	2	26 Tooth	KE2029	K52029	K52029S		
Chevy LS V-0	3	10 Tooth	KE3028	K53028	K53028S		
	5	26 Tooth	KE3029	K53029	K53029S		
	2	10 Tooth	KE2328	K52328	K52328S		
Ford SB V-8	۷	26 Tooth	KE2329	K52329	K52329S		
	3	10 Tooth	KE3328	K53328	K53328S		
	5	26 Tooth	KE3329	K53329	K53329S		

5.5" Open Style Clutch & LtWt Button Flywheel Kits

5.5" Open Style Clutch Bellhousing Kit

Early Model = 1985 & earlier, 2 piece rear main seal. Late Model = 1986 to 1997, 1 piece rear main seal. Kit includes: Clutch, LtWt Button Flywheel, Reverse Starter Mount Aluminum Bellhousing, Reverse Mount Starter, Hydraulic Release Bearing with External Bleeder, Reverse Mount Ring Gear, Clutch Bolts & Flywheel Bolts

5.5" Clutch & Bellhousi	5.5" Clutch & Bellhousing Kits			All Friction Material is Metallic .105" Thk - Call for other Friction Material options.					
				HYDRAULIC RELEASE BEARING					
Application	No. of	Spline	Hydro-MAX	Tri-MAX	Hydro-MAX	Tri-MAX	Hydro-MAX	Tri-MAX	
, pp. oddorf	Discs		Steel Press	ure Plate	Alum. Pressure LtWt Flo			Floaters & Super ed Btn Fly	
	2	10T	BE2118	BE2128	B52118	B52128	B52118S	B52128S	
Chevy SB V-8	2	26T	BE2119	BE2129	B52119	B52129	B52119S	B52129S	
Early Model	3	10T	BE3118	BE3128	B53118	B53128	B53118S	B53128S	
	3	26T	BE3119	BE3129	B53119	B53129	B53119S	B53129S	
	2	10T	BE2818	BE2828	B52818	B52828	B52818S	B52828S	
Chevy SB V-8	2	26T	BE2819	BE2829	B52819	B52829	B52819S	B52829S	
Late Model	3	10T	BE3818	BE3828	B53818	B53828	B53818S	B53828S	
	5	26T	BE3819	BE3829	B53819	B53829	B53819S	B53829S	
Chevy SB V-8	2	10T	BE2918	BE2928	B52918	B52928	B52918S	B52928S	
Late Model	2	26T	BE2919	BE2929	B52919	B52929	B52919S	B52929S	
Externally Balanced	3	10T	BE3918	BE3928	B53918	B53928	B53918S	B53928S	
(Crate Motor)	5	26T	BE3919	BE3929	B53919	B53929	B53919S	B53929S	
	2	10T	BE2018	BE2028	B52018	B52028	B52018S	B52028S	
Chevy LS V-8	2	26T	BE2019	BE2029	B52019	B52029	B52019S	B52029S	
	3	10T	BE3018	BE3028	B53018	B53028	B53018S	B53028S	
	5	26T	BE3019	BE3029	B53019	B53029	B53019S	B53029S	
	2	10T	BE2318	BE2328	B52318	B52328	B52318S	B52328S	
Ford SB V-8		26T	BE2319	BE2329	B52319	B52329	B52319S	B52329S	
	3	10T	BE3318	BE3328	B53318	B53328	B53318S	B53328S	
	5	26T	BE3319	BE3329	B53319	B53329	B53319S	B53329S	

If you don't see your application here, please call PTT at 714.630.2764 for additional information.

5.5" Flywheels

Early Model = 1985 & earlier, 2 piece rear main seal. Late Model = 1986 to 1997, 1 piece rear main seal.

Universal	LtWt, Button Style, Blank (No crank bolt holes & small center bore, .84" OAL)	FE001
Chevy SB V-8	LtWt, Button Style, Chevy SB V-8 Early Model	FE101
Early Model	Super LtWt, Drilled, Button Style, SB V-8 Early Model	FE106
	LtWt, Button Style, Chevy SB V-8 Late Model	FE103
Chevy SB V-8 Late Model	Super LtWt, Drilled, Button Style, Chevy SB V-8 Late Model	FE107
	LtWt, Button Style, Externally Balanced for Crate Motor (needs special bolt kit)	FE1031
Woder	Super LtWt, Drilled Btn, Ext. Bal. for Crate Motor (needs special bolt kit)	FE1071
	EB103	
Chevy LS V-8	LtWt, Button Style, Chevy LS V-8	FE105
	Super LtWt, Drilled, Button Style, Chevy LS V-8	FE108
Chrysler	LtWt, Button Style, Chrysler, 6 Bolt	FE203
Ford SB V-8	LtWt, Button Style, Ford SB V-8	FE301
	Super LtWt, Drilled, Button Style, Ford SB V-8	FE302
Mazda	Button Style, Mazda 4-cylinder, Formula SCCA	501-010-140SB
	Chevy, Ford, Chrysler SB V-8	NK407076
Flywheel Bolts	Chevy LS1 V-8	NK400076
	Mazda 4-cylinder	NK408076

5.5" Clutch Bolt Kits

	Bolt Kit, 1 Disc x .105" thick	NK105148
All Applications	Bolt Kit, 2 Disc x .105" thick	NK105168
All Applications	Bolt Kit, 3 Disc x .105" thick or 2 Disc x .200" thick	NK105188
	Bolt Kit, 4 Disc x .105" thick	NK105208
Chevy Crate	Bolt Kit, 2 Disc x .105" thick for ext. bal. fly w/ Rev.Mnt.RG or Flexplate	NK105168R or F
Motor	Bolt Kit, 3 Disc x .105" thick for ext. bal. fly w/ Rev.Mnt.RG or Flexplate	NK105188R or F

5.5" Open Style Replacement Clutch Spare Parts

	Clutch Cover Assembly, 1 Disc X .105"	CE101
Cover Assembly	Clutch Cover Assembly, 1 Disc X .200"	CE121
(no discs, floater	Clutch Cover Assembly, 2 Disc X .105"	CE201
plates or	Clutch Cover Assembly, 2 Disc X .200"	CE221
pressure plate)	Clutch Cover Assembly, 3 Disc X .105"	CE301
	Clutch Cover Assembly, 4 Disc X .105" (or 3 Disc X .200")	CE401
Pressure	Pressure Plate, Steel, Standard Fulcrum (5.0" diameter fulcrum)	CE031
Plates	Pressure Plate, Steel, Hi-Torque Fulcrum (4.9" diameter fulcrum)	CE032
T lates	Pressure Plate, Aluminum, Standard Fulcrum	CE035
Floater Plates	Floater Plate	CE041
ribater Flates	Floater Plate, LtWt drilled	CE042

5.5" Replacement Clutch Packs (discs)

xx = spline size. See spline look-up chart inside front cover.

5.5" Clutch Di	scs		Friction Material			
Application	Number of Discs	Spline= xx	Metallic .105" Thick	Metallic .200" Thick	Organic .200" Thick	
All	1	See List	PE116A xx	PE126A xx	PE176A xx	
All	2	See List	PE216A xx	PE226A xx	PE276A xx	
All	3	See List	PE316A xx	PE326A xx	PE376A xx	
All	4	See List	PE416A xx	-	-	

All part numbers shown above are for standard clutch hub configuration.

For additional clutch pack options see "Replacement Clutch Pack Part Numbering System" on page 5.

7.25" Open Style Clutch Units

xx = spline size.See spline look-up chart inside front cover.

7.25" Clu	itch (n	o flywheel)		Pressure Plate				
Application	No. of Discs	Friction Material	Spline= xx	Steel Pressure Plate	Alum. P.Plt. w/ LtWt Floaters	Hi-Torque Steel P.Plt.	Hi-Mass Steel P.Plt.	
All	1		See List	CH116A1A xx	CH116A3A xx	CH116A7A xx	CH116A9A xx	
All	2	Metallic	See List	CH216A1A xx	CH216A3A xx	CH216A7A xx	CH216A9A xx	
All	3	.105" Thick	See List	CH316A1A xx	CH316A3A xx	CH316A7A xx	CH316A9A xx	
All	4		See List	CH416A1A xx	CH416A3A xx	CH416A7A xx	CH416A9A xx	
All	1	Metallic	See List	CJ126A1A xx	-	CJ126A7A xx	CJ126A9A xx	
All	2	.200" Thick	See List	CJ226A1A xx	-	CJ226A7A xx	CJ226A9A xx	
All	3	.200 11100	See List	CJ326A1A xx	-	CJ326A7A xx	CJ326A9A xx	
All	1	Metallic	See List	CJ136A1A xx	-	CJ136A7A xx	CJ136A9A xx	
All	2	.250" Thk	See List	CJ236A1A xx	-	CJ236A7A xx	CJ236A9A xx	
All	1	Organia	See List	CJ176A1A xx	-	CJ176A7A xx	CJ176A9A xx	
All	2	Organic .200" Thick	See List	CJ276A1A xx	-	CJ276A7A xx	CJ276A9A xx	
All	3		See List	CJ376A1A xx	-	CJ376A7A xx	CJ376A9A xx	
All	1	Organic	See List	CJ186A1A xx	-	CJ186A7A xx	CJ186A9A xx	
All	2	.250" Thk	See List	CJ286A1A xx	-	CJ286A7A xx	CJ286A9A xx	

All part numbers shown above are for standard clutch hub configuration.

For additional clutch options see "Clutch Assembly Part Numbering System" on page 5.

7.25" Open Style Clutch & LtWt Button Flywheel Kits

Early Model = 1985 & earlier, 2 piece rear main seal. Late Model = 1986 to 1997, 1 piece rear main seal.

7.25" Clutch &	utch & Button Fly All Friction Material is Metallic .105" Thick. Call for other Friction Materia				
Application	Number of	Spline	Steel Pressure	Alum. P.Plt. w/	Alum. P.Plt. w/ LtWt Floaters
Application	Discs	Spillie	Plate	LtWt Floaters	and Super LtWt Drilled Btn Fly
	2	10 Tooth	KH2128	K72128	K72128S
Chevy SB V-8	2	26 Tooth	KH2129	K72129	K72129S
Early Model	3	10 Tooth	KH3128	K73128	K73128S
	5	26 Tooth	KH3129	K73129	K73129S
	2	10 Tooth	KH2828	K72828	K72828S
Chevy SB V-8	2	26 Tooth	KH2829	K72829	K72829S
Late Model	3	10 Tooth	KH3828	K73828	K73828S
	5	26 Tooth	KH3829	K73829	K73829S
Chevy SB V-8	2	10 Tooth	KH2928	K72928	K72928S
Late Model	2	26 Tooth	KH2929	K72929	K72929S
Ext. Bal.	3	10 Tooth	KH3928	K73928	K73928S
(Crate Motor)	5	26 Tooth	KH3929	K73929	K73929S
	2	10 Tooth	KH2028	K72028	K72028S
Chevy LS V-8	<u>ک</u>	26 Tooth	KH2029	K72029	K72029S
	3	10 Tooth	KH3028	K73028	K73028S
	5	26 Tooth	KH3029	K73029	K73029S
	2	10 Tooth	KH2328	K72328	K72328S
Ford SB V-8	2	26 Tooth	KH2329	K72329	K72329S
	3	10 Tooth	KH3328	K73328	K73328S
	5	26 Tooth	KH3329	K73329	K73329S

7.25" Open Style Clutch Bellhousing Kits

Early Model = 1985 & *earlier, 2 piece rear main seal. Late Model* = 1986 to 1997, 1 piece rear main seal. Kit includes: Clutch, LtWt Button Fly, Reverse Starter Mount Aluminum Bellhousing, Reverse Mount Starter, Hydraulic Release Bearing with External Bleeder, Reverse Mount Ring Gear, Clutch Bolts & Flywheel Bolts

•	•		All Friction Material is Metallic .105" Thick. Call for other Friction Material options.						
7.25" Clutch & Bellhousing Kits		•							
				HYDRAULIC RELEASE BEARING					
Application	No. of	Spline	Hydro-MAX	Tri-MAX	Hydro-MAX	Tri-MAX	Hydro-MAX	Tri-MAX	
, pprication	Discs	-	Steel Pres	sure Plate	Alum. Pres w/ LtWt I		Alum. P.Plt, Lt Super LtWt D		
	2	10T	BH2118	BH2128	B72118	B72128	B72118S	B72128S	
Chevy SB V-8	2	26T	BH2119	BH2129	B72119	B72129	B72119S	B72129S	
Early Model	3	10T	BH3118	BH3128	B73118	B73128	B73118S	B73128S	
-	3	26T	BH3119	BH3129	B73119	B73129	B73119S	B73129S	
	2	10T	BH2818	BH2828	B72818	B72828	B72818S	B72828S	
Chevy SB V-8	2	26T	BH2819	BH2829	B72819	B72829	B72819S	B72829S	
Late Model	3	10T	BH3818	BH3828	B73818	B73828	B73818S	B73828S	
		26T	BH3819	BH3829	B73819	B73829	B73819S	B73829S	
Chevy SB V-8	2	10T	BH2918	BH2928	B72918	B72928	B72918S	B72928S	
Late Model	2	26T	BH2919	BH2929	B72919	B72929	B72919S	B72929S	
Externally Balanced	3	10T	BH3918	BH3928	B73918	B73928	B73918S	B73928S	
(Crate Motor)	5	26T	BH3919	BH3929	B73919	B73929	B73919S	B73929S	
	2	10T	BH2018	BH2028	B72018	B72028	B72018S	B72028S	
Chevy LS V-8	2	26T	BH2019	BH2029	B72019	B72029	B72019S	B72029S	
Chevy LS V-0	3	10T	BH3018	BH3028	B73018	B73028	B73018S	B73028S	
	5	26T	BH3019	BH3029	B73019	B73029	B73019S	B73029S	
	2	10T	BH2318	BH2328	B72318	B72328	B72318S	B72328S	
Ford SB V-8		26T	BH2319	BH2329	B72319	B72329	B72319S	B72329S	
	3	10T	BH3318	BH3328	B73318	B73328	B73318S	B73328S	
	Ŭ	26T	BH3319	BH3329	B73319	B73329	B73319S	B73329S	

7.25" Flywheels

Early Model = 1985 & earlier, 2 piece rear main seal. Late Model = 1986 to 1997, 1 piece rear main seal.

Universal	LtWt, Button Style, Blank (No crank bolt holes & small center bore, .84" OAL)	FH001
Chevy SB V-8	LtWt, Button Style, Chevy SB V-8 Early Model	FH101
Early Model	Super LtWt, Drilled, Button Style, SB V8 Early Model	FH106
	LtWt, Button Style, Chevy SB V-8 Late Model	FH103
Chevy SB V-8	Super LtWt, Drilled, Button Style, SB V8 Late Model	FH107
Late Model	LtWt, Button Style, Externally Balanced for Crate Motor	FH1031
	Super LtWt, Drilled Button Style, Externally Balanced for Crate Motor	FH1071
	Balance Weight Only	EB104
Chevy LS V-8	LtWt, Button Style, Chevy LS V-8	FH105
	Super LtWt, Drilled, Button Style, Chevy LS V-8	FH108
Chrysler	LtWt, Button Style, Chrysler, 6 Bolt	FH203
Ford SB V-8	LtWt, Button Style, Ford SB V-8	FH301
FOID SE V-0	Super LtWt, Drilled, Button Style, Ford SB V-8	FH302
Flywheel Bolts	Chevy, Ford, Chrysler SB V-8	NK407076
T IY WHEET DOILS	Chevy LS1 V-8	NK400076

7.25" Clutch Bolt Kits

All Applications	Bolt Kit, 1 Disc x .105" thick (or .200" thick, or .250" thick)	NK105126
	Bolt Kit, 2 Disc x .105" thick	NK105146
	Bolt Kit, 2 Disc x .200" (or 2 Disc x .250" thick) Mitsubishi	NK1051660
	Bolt Kit, 3 Disc x .105" thick (or 2 Disc x .200", or 2 Disc x .250" thick)	NK105166
	Bolt Kit, 4 Disc x .105" thick (or 3 Disc x .200" thick)	NK105186

7.25" Open Style Replacement Clutch Spare Parts

Cover Assembly	Clutch Cover Assembly, 1 Disc X .105"	CH101
	Clutch Cover Assembly, 1 Disc X .200"	CH121
(no discs, floater	Clutch Cover Assembly 1 Disc X 250"	CH1251
plates or	Clutch Cover Assembly, 2 Disc X .105"	CH201
pressure plate)	Clutch Cover Assembly, 2 Disc X .200"	CH221
pressure plate)	Clutch Cover Assembly, 3 Disc X .105" (or 2 Disc x .250")	CH301
	Clutch Cover Assembly, 4 Disc X .105" (or 3 Disc x .200")	CH401
	Pressure Plate, Steel, Standard Fulcrum (6.2" diameter fulcrum, .535" tall)	CH031
Pressure		
Pressure	Pressure Plate, Steel, Hi-Torque (6.0" diameter fulcrum, .535" tall)	CH032
Pressure Plates	Pressure Plate, Steel, Hi-Torque (6.0" diameter fulcrum, .535" tall) Pressure Plate, Aluminum, Standard Fulcrum	CH032 CH035
	Pressure Plate, Aluminum, Standard Fulcrum	CH035
	Pressure Plate, Aluminum, Standard Fulcrum Pressure Plate, Steel, Hi-Mass, Standard Fulcrum	CH035 CH038

7.25" Replacement Clutch Packs ^{xx = spline size.} See spline look-up chart inside front cover.

	-				000 00000000000000000000000000000000000		
7.25" Discs					Friction Materia	l	
Application	Number of Discs	Spline= xx	Metallic .105" Thick	Metallic .200" Thick	Metallic .250" Thick	Organic .200" Thick	Organic .250" Thick
All	1	See List	PH116A xx	PH126A xx	PH136A xx	PH176A xx	PH186A xx
All	2	See List	PH216A xx	PH226A xx	PH236A xx	PH276A xx	PH286A xx
All	3	See List	PH316A xx	PH326A xx	-	PH376A xx	-
All	4	See List	PH416A xx	-	-	-	-

All part numbers shown above are for standard clutch hub configuration.

For additional clutch pack options see "Replacement Clutch Pack Part Numbering System" on page 4.

7.25" Mitsubishi AWD Twin Disc Clutch Kits

Kit includes 7.25" Clutch, Flywheel & Bearing			Pressure Plate		
Application	Friction Material	Flumbool	Standard Torque Steel	Hi-Torque Steel Pressure	
Application	Fliction Material	Flywheel	Pressure Plate	Plate	
	Metallic .200" thick	6-bolt	KJ2664	KH2664	
7/8" x 20T	Metallic .200 thick	7-bolt	KJ2674	KH2674	
Eclipse	Organic .200" thick	6-bolt	KJ6664	Not Recommended	
		7-bolt	KJ6674	Not Recommended	
	Metallic .200" thick	5 spd	KJ2686	KH2686	
1" x 23T EVO		6 spd	KJ26866	KH26866	
4, 5, 6, 7, 8 & 9	Organia 200" thiak	5 spd	KJ6686	Not Recommended	
	Organic .200" thick	6 spd	KJ66866	Not Recommended	
Request "OPTION1" to add heat treated spline teeth to any set-up					

.250" thick discs are available upon request.

All part numbers shown above are for the standard Mistubishi clutch hub configuration.

For additional clutch options see "Clutch Assembly Part Numbering System" on page 3.

7.25" Mitsubishi Twin Disc Clutches

		Pressu	re Plate
Application	Friction Material	Standard Torque Steel	Hi-Torque Steel Pressure
Application	Friction Material	Pressure Plate	Plate
7/8" x 20T	Metallic .200" thick	CJ226T1X41 (8.9 #)	CJ226T2X41 (8.9 #)
Eclipse	Organic .200" thick	CJ276T1X41 (8.2 #)	Not Recommended
1" x 23T EVO	Metallic .200" thick	CJ226T1X63 (8.9 #)	CJ226T2X63 (8.9 #)
4, 5, 6, 7, 8 & 9	Organic .200" thick	CJ276T1X63 (8.2 #)	Not Recommended
Request "OPTION1" to add heat treated spline teeth to any set-up			

.250" thick discs are available upon request.

All part numbers shown above are for the standard Mistubishi clutch hub configuration. For additional clutch options see "Clutch Assembly Part Numbering System" on page 3.

Mitsubishi AWD Flywheels

7.25", 2.0 ltr. 4G63B engine, I4, 106t, 2 pc., 6 bolt (6.4 #)	FH540
7.25", 2.0 ltr. 4G63B engine, I4, 106t, 2 pc., 7 bolt (6.4 #)	FH541
7.25", EVO 4, 5, 6, 7, 8 & 9 (7.3 #)	FH542

Mitsubishi Bearing

Mechanical Bearing w/ collar, 2D 7.25", Eclipse	RM2550
HRB, Mitsubishi EVO 5-speed	RH4501
HRB, Mitsubishi EVO 6-speed, needs adapter RH4503	RH4502
Adapter, HRB, Mitsubishi EVO 6-speed	RH4503

7.25" Mitsubishi Clutch Pack - set of 2 - 7.25" discs

		Friction	Material	
Application	Metallic .200" thick	Organic .200" thick	Metallic .250" thick	Organic .250" thick
7/8" x 20T Eclipse	PJ226T41	PJ276T41	PJ236T41	PJ286T41
1" x 23T EVO	PJ226T63	PJ276T63	PJ236T63	PJ286T63
Request "OPTION1" to add heat treated spline teeth to any set-up				

All part numbers shown above are for the standard Mistubishi clutch hub configuration. For additional clutch pack options see "Replacement Clutch Pack Part Numbering System" on page 4.

10.4" Clutches

10.4" Clutches hold 700 HP at rear wheels with metallic disc

Covers	Aluminum Pressure Plate (13#)	CN101
	Nod. Iron Pressure Plate (17#)	CN102
Discs	Metallic, 6 paddle, solid hub (3#), 10 tooth	PN1A8A80
	Metallic, 6 paddle, solid hub (3#), 26 tooth	PN1A8A90
	Organic, sprung hub (5.3#), 10 tooth	PN1C8S80
	Organic, sprung hub (5.3#), 26 tooth	PN1C8S90
Bolts	10.4" Clutch Bolt Kit, ARP	NK106086

Hydro-MAX drop-in HRB

All units come with an External	No	Supply Line Length			
Bleeder & Installation Kit.	Supply Line	18"	24"	34"	40"
Standard Height 2.28" to 3.03" Sleeve ID = 1.385"	RH7101	RH710218	RH710224	RH710234	RH710240
Tall Height 2.78" to 3.53" Sleeve ID = 1.385"	RH7151	RH715218	RH715224	RH715234	RH715240
Ford T5 Standard Height 2.28" to 3.03" Sleeve ID = 1.46" Use with spacer shown below	RH7121	RH712118	RH712124	RH712134	RH712140
Spacer, Ford T5, 1.175" OAL	RH7020				

Hydraulic Release Bearings (HRB) (Continued)

Hydro-MAX Accessories

	Installation Kit with shims, washers, studs & -3 to -4 union	RH7111
	External Bleeder Kit, All HRB's (Bleeder line & union)	RH7112
All Hydro-MAX	Rebuild Kit, Hydro-MAX HRB (O-rings, retaining ring & unions)	RH7113
units	Replacement Bearing & Sleeve Assy Standard Height	RH7110
	Replacement Bearing & Sleeve Assy Tall Height	RH7160
	Replacement Bearing & Sleeve Kit - Tall - with shims	RH7161
Ford T5	Replacement Bearing & Sleeve Assy Standard Height - Ford T5	RH7122
	Spacer, Ford T5, 1.175" OAL	RH7020

Stainless Steel Braided Clutch Supply Line

Dash 3, Straight female ends, 8" long (bleeder) Teflon lined	RA3008
Dash 3, Straight female ends, 18" long, Teflon lined	RA3018
Dash 3, Straight female ends, 24" long, Teflon lined	RA3024
Dash 3, Straight female ends, 34" long, Teflon lined	RA3034
Dash 3, Straight female ends, 40" long, Teflon lined	RA3040

Tri-MAX bolt-in HRB

Fit recomendations are for Reverse Mount Ring Gear (RMRG) set-up. If using a flexplate, order the next shorter Tri-MAX.

All units come with an External	No	Supply Line Length			
Bleeder & Installation Kit.	Supply Line	18"	24"	34"	40"
2.70" OAL w/ 1.65" piston Fits 3D Clutch with Chevy Flywheel & Flexplate	RT73271	RT7327218	RT7327224	RT7327234	RT7327240
2.85" OAL w/ 1.80" piston Fits 3D Clutch with Chevy Flywheel & RMRG	RT73281	RT7328218	RT7328224	RT7328234	RT7328240
3.00" OAL w/ 1.95" piston Fits 3D w/ Chevy Fly & 1/4" Engine Plate & RMRG	RT73301	RT7330218	RT7330224	RT7330234	RT7330240
3.15" OAL w/ 2.10 piston Fits 2D Clutch with Chevy Flywheel & RMRG	RT73311	RT7331218	RT7331224	RT7331234	RT7331240
3.30" OAL w/ 2.25" piston Fits 2D w/ Chevy Fly & 1/4" Engine Plate & RMRG	RT73331	RT7333218	RT7333224	RT7333234	RT7333240
3.45" OAL w/ 2.40" piston Fits 1D Clutch with Chevy Flywheel & RMRG	RT73341	RT7334218	RT7334224	RT7334234	RT7334240
3.60" OAL w/ 2.55" piston Fits 1D w/ Chevy Fly & 1/4" Engine Plate & RMRG	RT73361	RT7336218	RT7336224	RT7336234	RT7336240
3.75" OAL w/ 2.70" piston Fits 1D w/ Chevy Fly & 3/8" Engine Plate & RMRG	RT73371	RT7337218	RT7337224	RT7337234	RT7337240

Tri-MAX Replacement Bearing & Piston Assembly

1.65" Long	(Fits Bearing # RT73271)	RT73116
1.80" Long	(Fits Bearing # RT73281)	RT73118
1.95" Long	(Fits Bearing # RT73301)	RT73119
2.10" Long	(Fits Bearing # RT73311)	RT73121
2.25" Long	(Fits Bearing # RT73331)	RT73122
2.40" Long	(Fits Bearing # RT73341)	RT73124
2.55" Long	(Fits Bearing # RT73361)	RT73125
2.70" Long	(Fits Bearing # RT73371)	RT73127

Hydraulic Release Bearings (HRB) (continued) Tri-MAX Accessories

External Bleeder Kit, All HRB's (Bleeder line & union)	RH7112
Rebuild Kit, Tri-MAX HRB (O-rings & unions)	RT7313
Bolt Kit, Tri-MAX Installation Kit w/ -3 to -4 union	NK203053
Union, Dash 3AN (All HRB's)	NA001
Bleeder Screw (All HRB's)	NA010

Stainless Steel Braided Clutch Supply Line

Dash 3, Straight ends, 8" long (bleeder), Teflon lined	RA3008
Dash 3, Straight ends, 18" long, Teflon lined	RA3018
Dash 3, Straight ends, 24" long, Teflon lined	RA3024
Dash 3, Straight ends, 34" long, Teflon lined	RA3034
Dash 3, Straight ends, 40" long, Teflon lined	RA3040

Street-MAX Hydraulic Release Bearings (HRB)

For use with 10.4" Street Stock Clutches.

Chevy Street-MAX HRB

	Street-MAX, Chevy, w/ external bleeder & installation kit, no supply line	RS7201
Fits	Street-MAX, Chevy, w/ ext. bleeder & installation kit & 18" supply line	RS720218
Chevy	Street-MAX, Chevy, w/ ext. bleeder & installation kit & 24" supply line	RS720224
1-3/8"	Street-MAX, Chevy, w/ ext. bleeder & installation kit & 34" supply line	RS720234
	Street-MAX, Chevy, w/ ext. bleeder & installation kit & 40" supply line	RS720240
trans	Installation Kit, Street-MAX, Chevy (Anti-spin studs & shims)	RS7111
snout	External Bleeder Kit, All Street HRB's (Bleeder line & bleeder screw)	RS7112
	Rebuild Kit, Street-MAX, Chevy (O-rings & unions)	RS7113

Ford Street-MAX HRB

	Street-MAX, Ford, w/ external bleeder & installation kit, no supply line	RS3101
	Street-MAX, Ford, w/ ext. bleeder & installation kit & 18" supply line	RS310218
Fits Ford	Street-MAX, Ford, w/ ext. bleeder & installation kit & 24" supply line Street-MAX, Ford, w/ ext. bleeder & installation kit & 34" supply line	RS310224
1-7/16"	Street-MAX, Ford, w/ ext. bleeder & installation kit & 34" supply line	RS310234
	Street-MAX, Ford, w/ ext. bleeder & installation kit & 40" supply line	RS310240
trans	Installation Kit, Street-MAX, Ford (Anti-spin studs, shims & spacer)	RS3111
snout	Spacer, Anti-Spin, 1.4375" ID x .7" Thk, Ford	RS3008
	External Bleeder Kit, All Street HRB's (Bleeder line & bleeder screw)	RS7112
	Rebuild Kit, Street-MAX, Ford (O-rings & unions)	RS3113

Chrysler Street-MAX HRB

	Street-MAX, Chrysler, w/ external bleeder & installation kit, no supply line	RS3301
	Street-MAX, Chrysler, w/ ext. bleeder & installation kit & 18" supply line	RS330218
Fits	Street-MAX, Chrysler, w/ ext. bleeder & installation kit & 24" supply line	RS330224
Chrysler	Street-MAX, Chrysler, w/ ext. bleeder & installation kit & 34" supply line	RS330234
1-1/4"	Street-MAX, Chrysler, w/ ext. bleeder & installation kit & 40" supply line	RS330240
trans	Installation Kit, Street-MAX, Chrysler (Anti-spin studs, shims & spacer)	RS3311
snout	Spacer, Anti-Spin, 1.25" ID x .7" Thk, Chrysler	RS3009
onout	External Bleeder Kit, All Street HRB's (Bleeder line & bleeder screw)	RS7112
	Rebuild Kit, Street-MAX, Chrysler (O-rings & unions)	RS3313

Bearings, Mechanical, with Collar

	1 Disc x .105" thick, Long, 7.25" Chew/GM	RM1050
	1 Disc x .105" thick, 7.25" Chevy/GM	RM1100
Chevy/GM	2 Disc x .105" thick, 7.25" Chevy/GM	RM2100
	3 Disc x .105" thick, 7.25" Chevy/GM	RM3100
	4 Disc x .105" thick, 7.25" Chevy/GM	RM4100
Mitsubishi	2 Disc x .200" thick, 7.25" Mitsubishi	RM2550
Jaguar-D	3 Disc x .105" thick, 7.25 (or 2 disc x .250" thick)	RM2500

Bearing only

1.600" contact diameter (40mm ID)	RM001
Street, Flat Face (45mm ID)	RM006

Bellhousings

Aluminum, Chevy SB V-8, for use with Reverse Mount Starter	BR100
Magnesium, Chevy SB V-8, for use with Reverse Mount Starter	BR110
Aluminum, Ford, SB V-8, for use with Reverse Mount Starter	BR300

Flexplate Early Model = 1985 & earlier, 2 piece rear main seal.

Low MOI Flexplate	Low MOI Chevy SB V-8 Early Model, 153 tooth	FF105

Flywheel Bolt Kits (Crank bolts)

Torque crank bolts according to crank manufacturer's recommendation. Typically between 60 - 80 lb. ft.

Chevy, Ford, Chrysler SB V-8 (7/16"-20 x 7/8")	NK407076
Chevy LS V-8	NK400076
Mazda, 4 cylinder	NK408076

Ring Gear, Reverse Mount

7.25"	7.25", 1 Disc, 2 Disc & 3 Disc x .105" thick	FR010
	Adapter Kit, 7.25" 1 Disc	FR007
7.25" Jaguar-D	7.25" 3 Disc x .105" thick (or 2 Disc x .250" thick)	FR502
5.5"	5.5", 2 Disc x .105" thick (or 3 Disc x 1.05" w/ 1/4" motor plate)	FR020
	5.5", 3 Disc x .105" thick	FR021
	5.5", 2 Disc x .105" thick with 1/4" motor plate	FR022
4.5"	4.5", 2 Disc x .105" thick	FR030
	4.5", 3 Disc x .105" thick	FR031

Starters

Reverse Mount	Nipon Denso - 8.0#	SR100
Chevy	153 tooth flywheel - 8.2#	SS100
Ford	289-302-351 3&4 spd - 8.8#	SS300
Chrysler	Chrysler - 8.2#	SS200

Spline-A-Lign Clutch Alignment Tools

7/8" x 20 spline	TH041
1" x 23 spline	TH063
1-1/16" x 10 spline	TH070
1-1/8" x 10 spline	TH080