RIVERA PRIMO

HOME OF PRIMO® BELT DRIVES

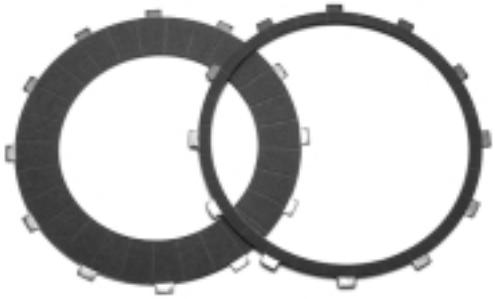
PRO-CLUTCH™

PC-1100-CA / PC-1200-CA / PC-1298-CA / 1056-0020

INSTALLATION INSTRUCTIONS

PC-1100-CA
1986-1989 Evo Big-Twin
chain drive primary

Pro-Clutch™ Stock Clutch

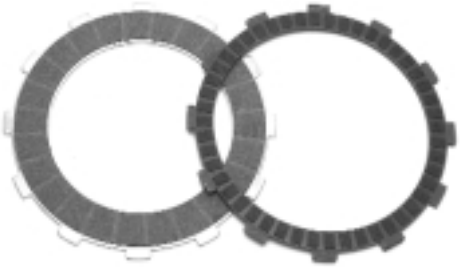


PC-1200-CA
1990-1997 Evo Big-Twin
chain drive primary

Pro-Clutch™ Stock Clutch

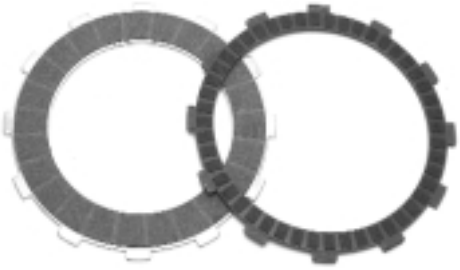
PC-1298-CA
1998-2006 Evo Big-Twin & Twin-Cam
(except 2006 Dyna)
chain drive primary

Pro-Clutch™ Stock Clutch



1056-0020
2006 Dyna Models & All 2007-up Big Twin Models

Pro-Clutch™ Stock Clutch



*Congratulations you have just purchased **Rivera Primo's Pro-Clutch™**, the best clutch upgrade in the world. Please read and follow the directions for a simple, trouble free installation. If you have any questions about this installation please contact **Rivera Primo**, and a knowledgeable **Pro-Clutch™** technician will assist you. Thank you for purchasing **Pro-Clutch™**.*

Rivera Primo's Pro-Clutch™ for 1990 & later Evolution Big-Twin motorcycles increases clutch area almost 100%. For 1986-1989 applications clutch area is increased 325%. More clutch surface means more performance potential. Installation is very simple. ***Pro-Clutch™*** installs quickly into the existing clutch basket by removing the OEM hub, and then installing the ***Pro-Clutch™*** hub, followed by the **Pro-Clutch™** clutch pack assembly. Pro-Clutch will easily transmit all your motor's horsepower to the transmission without slipping or grabbing. Smooth, easy hand control makes **Rivera Primo's Pro-Clutch™** a must for any stock or high performance Big-Twin Harley motorcycle.

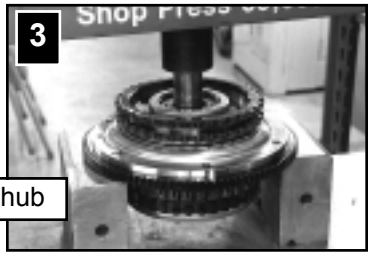
SAFETY FIRST

When performing work on any motorcycle, and prior to starting this installation disconnect BOTH battery cables. If the motorcycle is on a lift, fasten the motorcycle securely to prevent it from falling. Please read and become familiar with the Pro-Clutch™ instructions before starting. A hydraulic press is required to remove the OEM clutch hub and install the Rivera Primo Pro-Clutch™ hub. For safety use only the proper tools for a given task and wear eye protection.

STEP 1:
As you disassemble the Pro-Clutch™ prior to installation, keep the clutch plates in exactly the same sequence as shipped. The clutch plates must be re-installed in exactly the same order. Drain the primary lubricant from the chain-case, and remove the outer primary cover. Loosen the primary chain adjuster and remove the OEM clutch basket and all of the OEM clutch components.

STEP 2:
Remove the snap ring from the rear of the OEM clutch hub using the appropriate snap-ring tool. ALWAYS wear eye protection during this procedure.

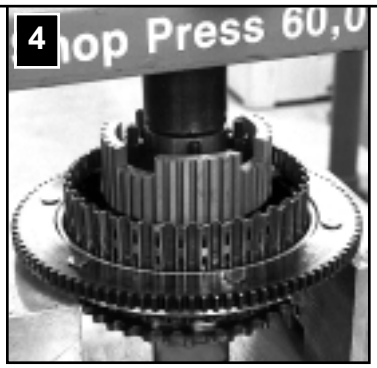
STEP 3:
Using a hydraulic press remove the OEM clutch hub from the clutch basket! Firmly support the OEM clutch bearing as shown during this operation. After pressing the hub out, check the bearing for smoothness by rotating the clutch basket while holding the inner bearing race. If the bearing feels rough or binds, it must be replaced.



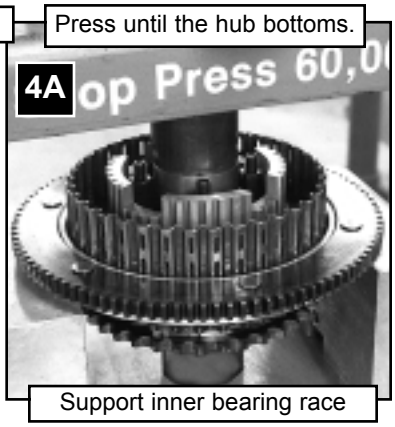
Press out the OEM hub

STEP 4:
Using the press, install the Rivera Primo Pro-Clutch™ hub into the OEM clutch basket. Securely support the INNER bearing races during this process. Carefully bottom the Pro-Clutch™ hub in the OEM basket. After pressing in the Pro-Clutch™ hub, check the bearing for smoothness again!

Carefully align the Pro-Clutch™ hub.

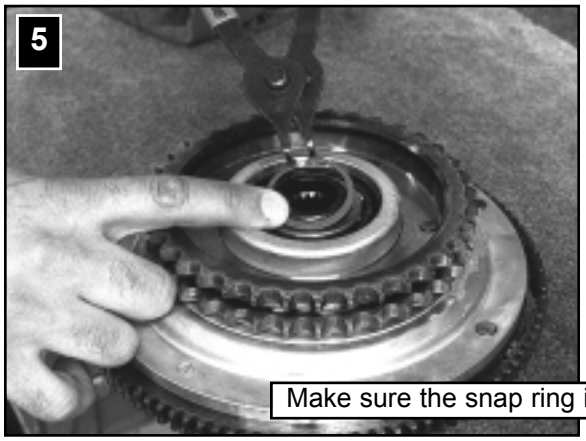


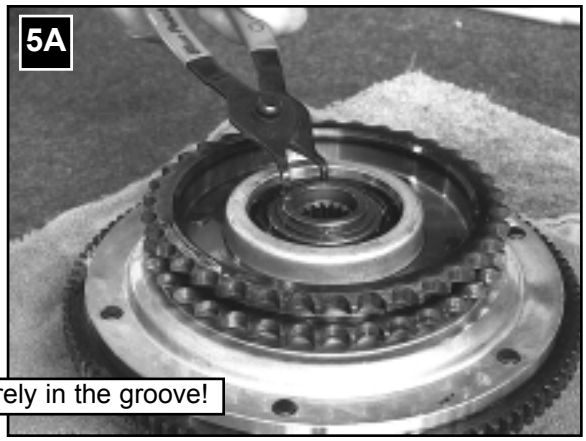
Press until the hub bottoms.



Support inner bearing race

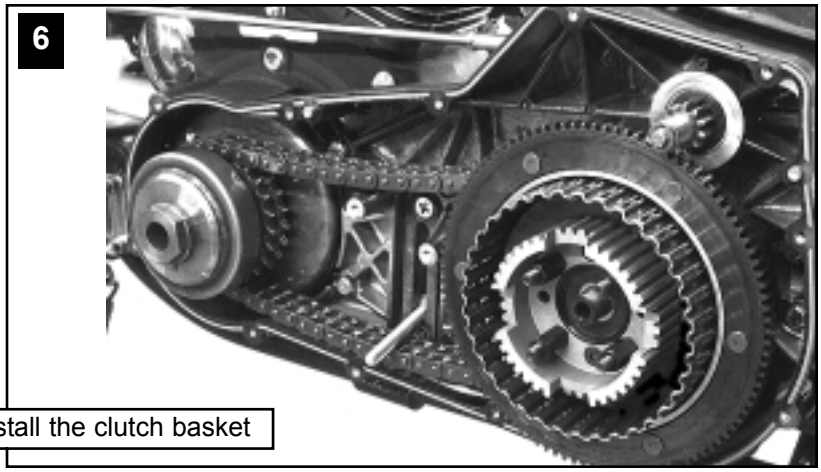
STEP 5:
Install the snap ring onto the rear of the Pro-Clutch™ hub as shown. Make sure the snap ring is correctly installed into the snap-ring groove.





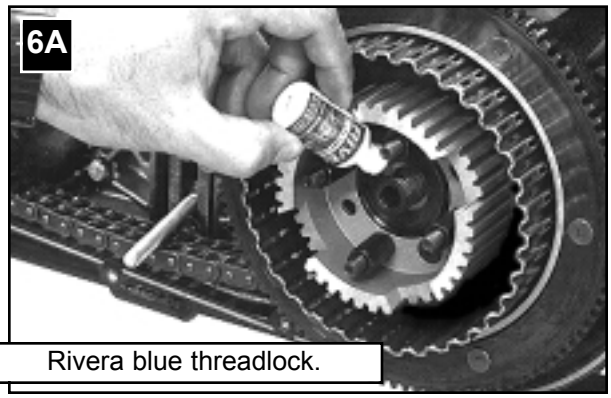
Make sure the snap ring is fitted securely in the groove!

STEP 6:
Thoroughly wipe down the primary case & components to remove the OEM lubricant. Re-install the clutch basket into the primary case with chain & associated components. Dexron III ATF is recommended as the primary lubricant for use with Pro-Clutch™ units.



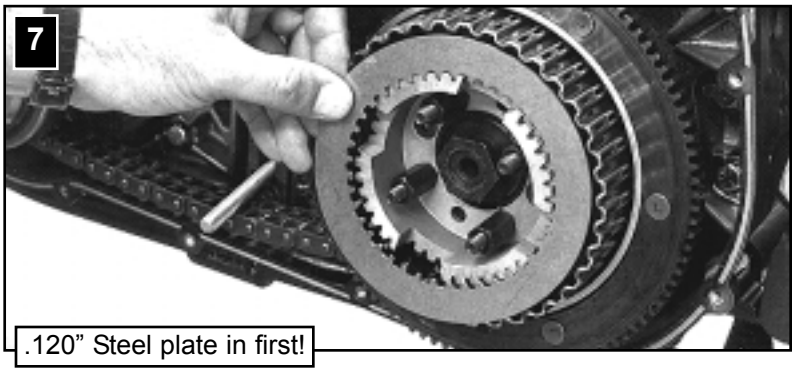
Re-install the clutch basket

STEP 6A:
Put two drops of blue thread lock on the transmission main shaft prior to installing the clutch hub nut. Tighten the clutch hub nut using the factory torque specifications (50-60 foot pounds of torque for 86-89 models, or 70-80 foot pounds for 90 & later models) indicated by your original equipment service manual.



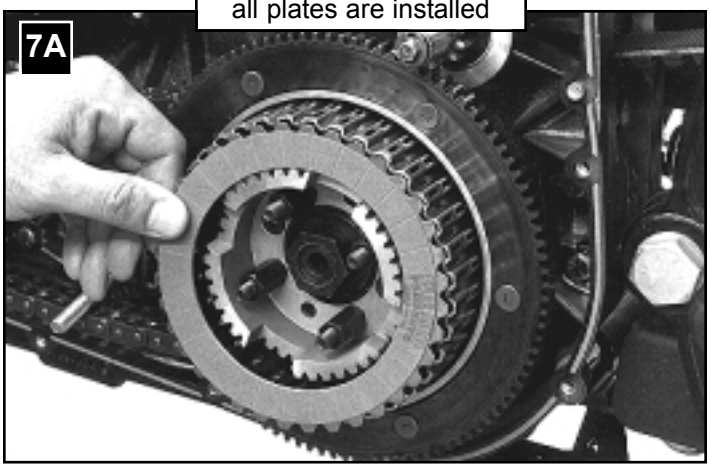
Rivera blue threadlock.

STEP 7: Soak friction discs in Dexron III ATF (wipe away excess before installation) lubricant for a minute prior to installation. Install steel & friction clutch plates exactly as they were shipped. Install the .120" steel plate first, then friction, alternating until all are installed. Never install 2 friction or 2 steel plates together.

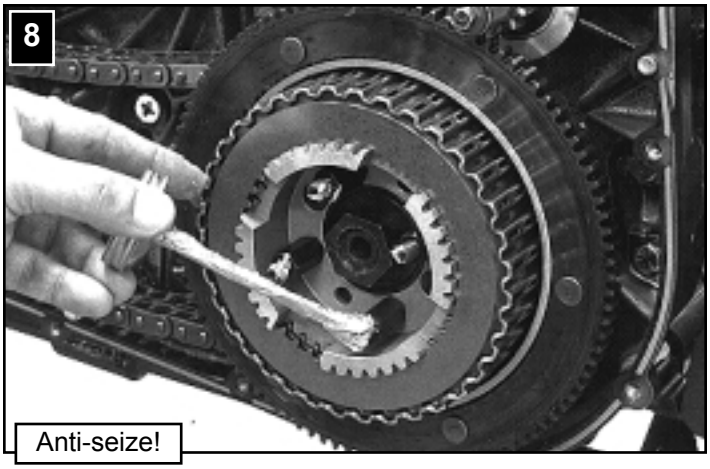


.120" Steel plate in first!

Friction plate next!
Alternate steel-friction until all plates are installed

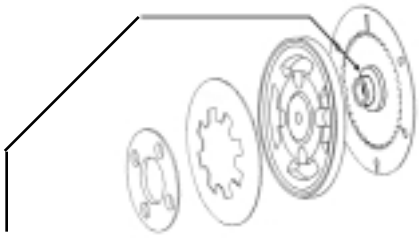


STEP 8: Generously dab some quality anti-seize on the stud threads of the Pro-Clutch hub!

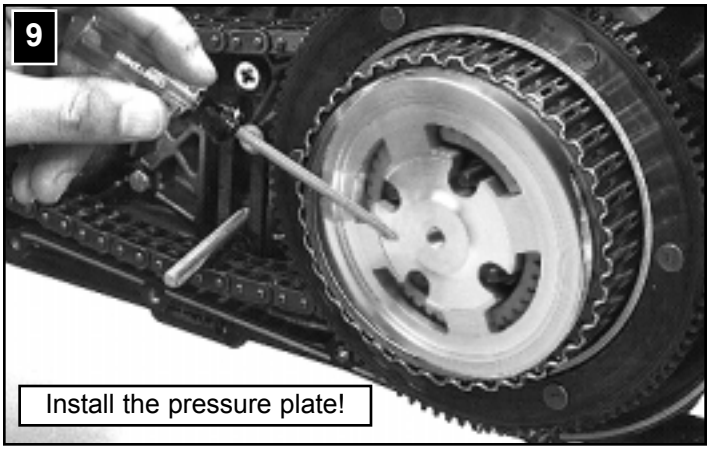


Anti-seize!

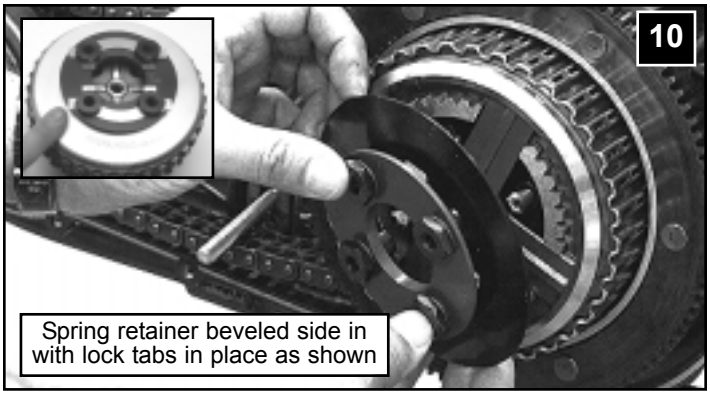
STEP 9: Install the pressure plate as shown!
Use your OEM adjuster screw!

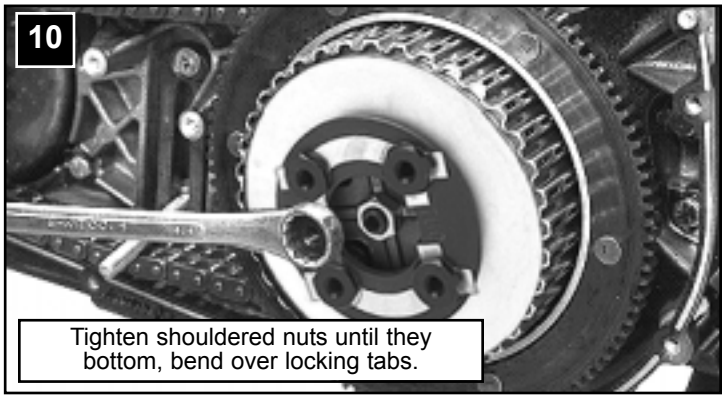


The Rivera Pro-Clutch™ PC1100-C requires that the clutch hub nut spacer (PC-215) be installed with the big-end towards the transmission as shown.

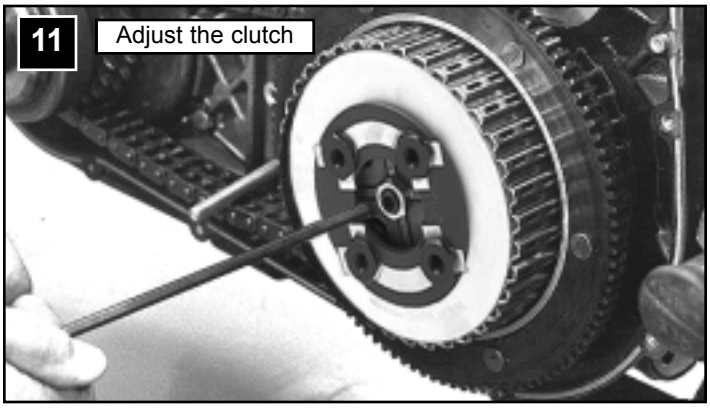


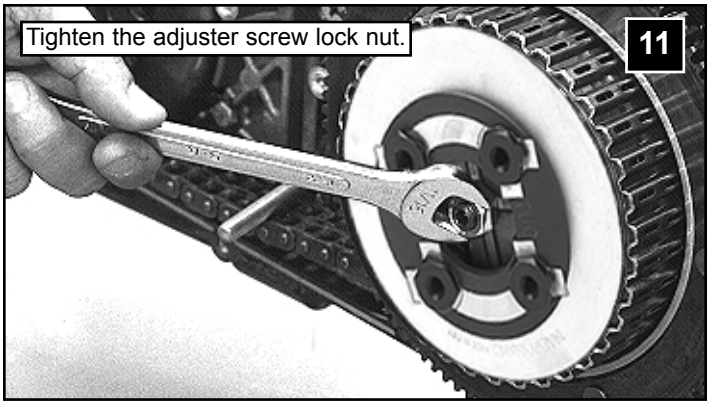
STEP 10: The diaphragm spring & spring retainer are installed next. (spring retainer goes beveled side in). Tighten the shouldered nuts equally (cross pattern) until they bottom.



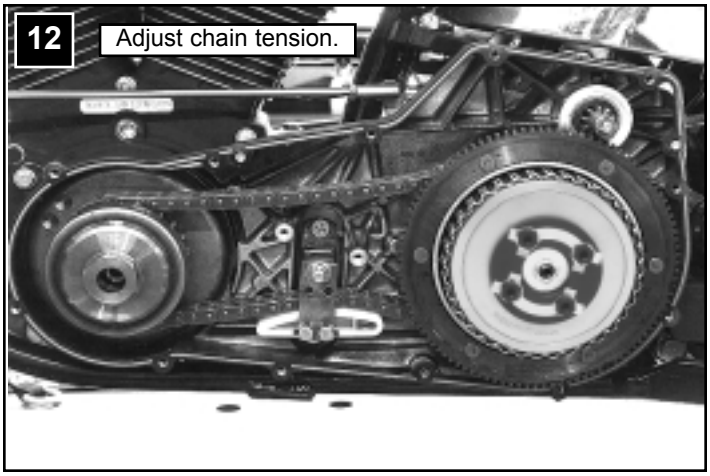


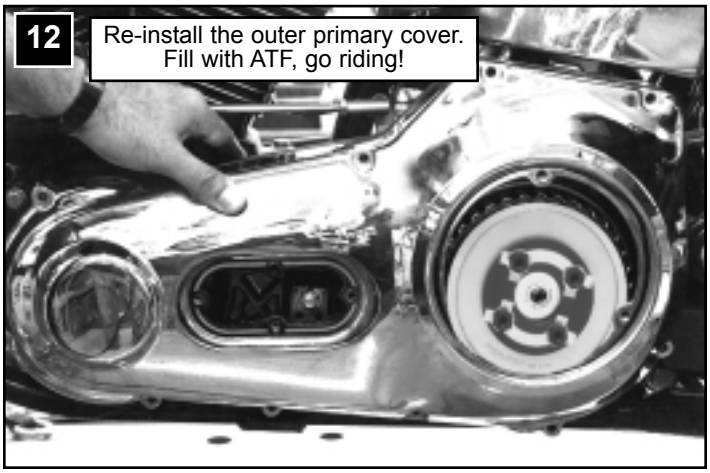
STEP 11: Adjust the clutch as you would normally using the center bolt adjuster.





STEP 12: Check and adjust primary chain tension as needed. Re-install the outer primary cover using a new gasket, and fill the chain case with Dextron III ATF to the bottom of the ring gear.





PRO-CLUTCH ADJUSTMENT

As delivered, the Pro-Clutch™ clutch-pack requires no adjustment, having been set at the factory.

After the Pro-Clutch™ has accumulated significant mileage, it may require some adjustment due to normal wear. Use the procedures outlined below if & when adjustment is required. For best performance the diaphragm spring MUST be compressed to within .010"-.020" of being flat when the shouldered spring retainer nuts have been properly tightened (bottomed)! This will provide maximum spring pressure to the clutch pack, with minimum hand effort at the handlebar!

Three clutch springs are available: A stock replacement spring (black in color), a medium spring for street performance (silver in color), and a competition spring (gold in color) for drag race only applications.

If the diaphragm spring adjustment requires LESS ARCH, this can be accomplished by using one or more of the special .020" washers on each of the shouldered nuts. (photo A)

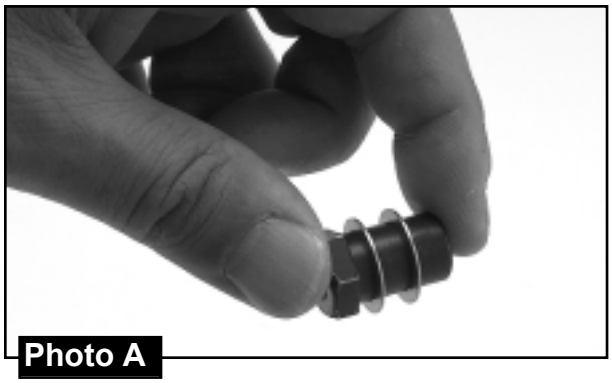


Photo A

If the diaphragm spring adjustment requires IMORE ARCH, this can be accomplished by using one or more of the special .030" washers on the clutch hub studs nuts as pictured.

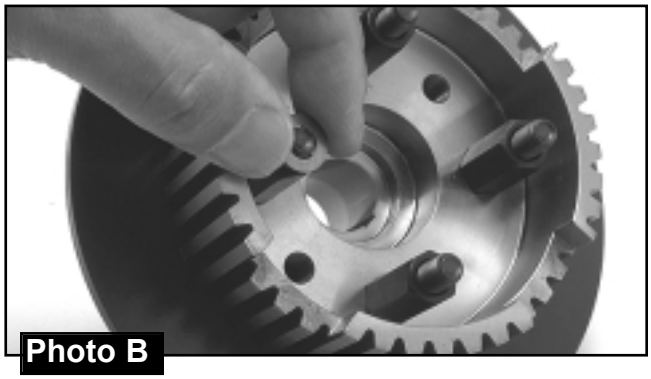


Photo B

The diaphragm spring will be compressed to within .010"-to-.020" of being flat when correctly installed & adjusted

Photo C shows a diaphragm spring that is compressed too far, and needs to be adjusted. Special adjustment washers be added to the clutch hub studs as shown in photo B.

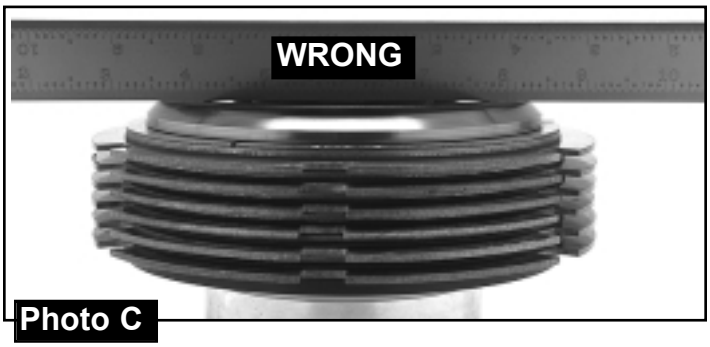


Photo C

This is a diaphragm spring that is correctly adjusted. A little daylight is showing at either edge, because the spring is within .010"-to-.020" of being flat! (Slightly bowed outward) as seen in photo D.

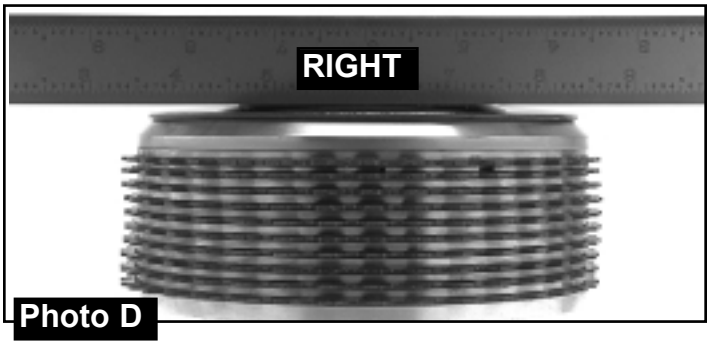
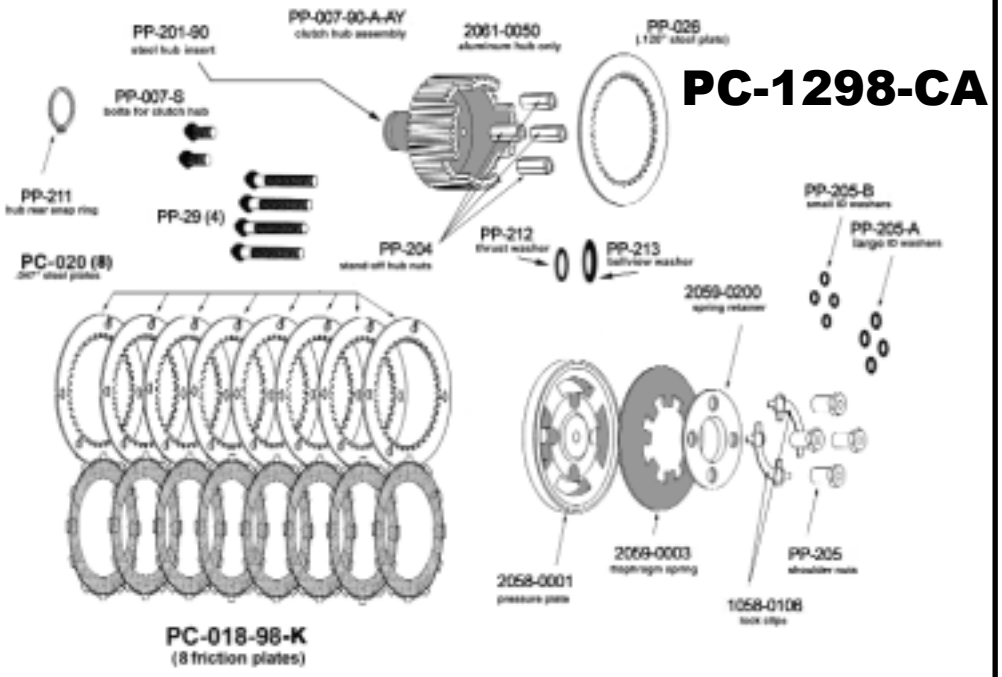


Photo D

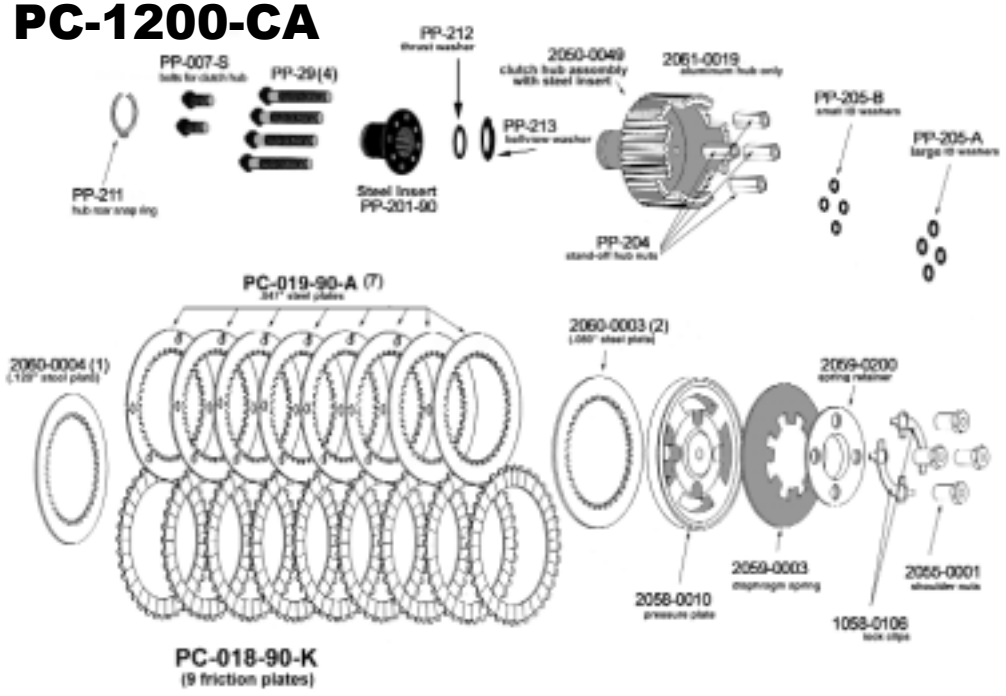
GENERAL WARRANTY

Rivera Primo Inc.'s sole obligation and the customer's sole remedy is limited to replacement or repair of products free of charge in the event products fail to perform as warranted for a period of one year from actual date of purchase. Proof of purchase must accompany any warranty claim. In no event shall Rivera Primo Inc. be liable for claims for any other damages, whether direct, incidental, foreseeable, consequential, or special (including but not limited to loss of use, revenue or profit), whether based upon warranty, contract, tort (including negligence) or strict liability arising in connection with the sale or the failure of Rivera Primo Inc. products to perform in accordance with the stated specifications.
Rivera Primo Inc. makes no other warranty of any kind whatsoever, and specifically disclaims and excludes all other warranties of any kind or nature whatsoever, directly or indirectly, express or implied, including, without limitation, as to the suitabilitly, productivity, durability, fitness for a particular purpose or use, merchantability, condition, or any other matter with respect to Rivera Primo Inc. products.



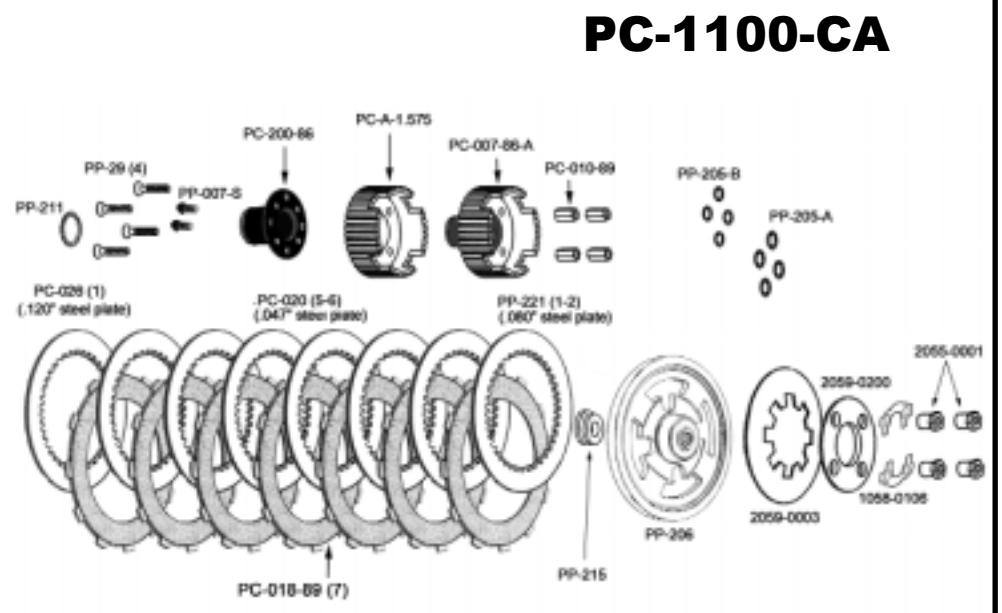
PC-1298-CA

PC-018-98-K
(8 friction plates)

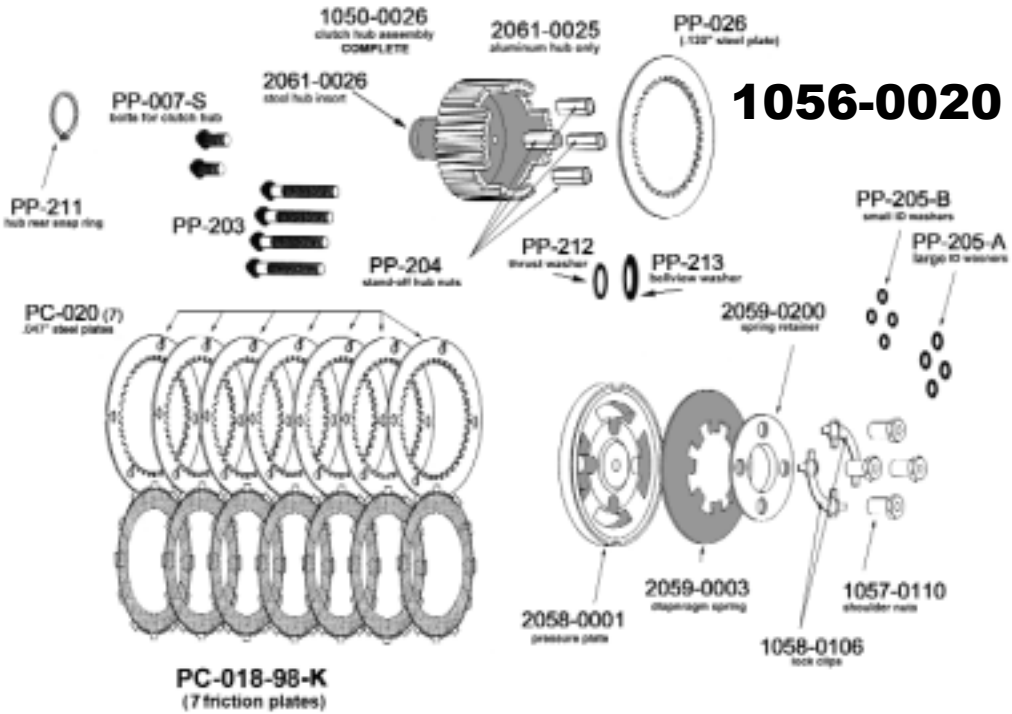


PC-1200-CA

PC-018-90-K
(9 friction plates)



PC-1100-CA



1056-0020

PC-018-98-K
(7 friction plates)

PC-1100-CA
Fits 1986-1989 Evo Big Twin

PC-1100-CA

Qty	Part #	Description
1	PP-211	Small snap ring (hub rear)
1	PC-200-86	Steel inner hub
1	PC-010-89	Nut for clutch hub screw (need 4)
1	2059-0003	Diaphragm clutch spring (silver/medium)
1	2059-0200	Diaphragm spring retainer
4	2055-0001	Shouldered nut (retainer)(need 4)
2	1058-0106	Locking clip for retainer nuts (2 req)
4	PP-205-A	Washer for nut (need 4)
1	PC-A-1.575	Outer hub aluminum
4	PP-29	Bolts for clutch hub
4	PP-205-B	Washer (stud side adjustment)(4 req)
7	PC-018-89	Clutch friction plate
1	PP-221	Clutch plate steel (.080”)
1	PP-206	Pressure plate (center hump)
1	PP-215	Clutch hub nut spacer
6	PC-020	Steel plate (.047”)
1	PP-026	Steel plate (.120”)
2	PP-007-S	Screws for clutch hub(2)
1	1108-0006	Installation instructions

PC-1200-CA
Fits 1990-1997 Evo Big Twin

PC-1200-CA

Qty	Part #	Description
1	PP-201-90	Steel inner hub
1	2061-0019	Outer hub (aluminum)
1	PP-212	Thrust washer
1	PP-213	Bellview washer
2	PP-007-S	Screws for clutch hub
4	PP-29	Bolts for clutch hub
4	PP-204	Nuts for clutch hub screws
9	PC-018-90-K	Clutch friction plate(s)/Kevlar
2	2060-0003	Clutch plate steel (.080”)
7	PC-019-90-A	Clutch plate steel (.047”)
1	2060-0004	Clutch plate steel (.120)
1	PP-211	Snap ring small
1	2058-0010	Pressure plate
1	2059-0003	Diaphragm clutch spring (silver/medium)
4	2055-0001	Shouldered nuts (for retainer)
2	1058-0106	Lock clips for shouldered nuts
1	2059-0200	Diaphragm spring retainer
1	PP-205-AB	Washer set (4 plus 4)
1	1108-0006	Installation instructions

PC-1298-CA
Fits 1998-2006 Evo & Twin Cam (except 2006 Dyna)

PC-1298-CA

Qty	Part #	Description
1	PP-201-90	Steel inner hub
1	2061-0050	Outer hub (aluminum)
1	PP-212	Thrust washer
1	PP-213	Bellview washer
2	PP-007-S	Screws for clutch hub
4	PP-29	Bolts for clutch hub
4	PP-204	Nuts for clutch hub screws
8	PC-018-98-K	Clutch friction plate(s)/Kevlar
8	PC-020	Clutch plate steel (.047”)
1	PP-026	Clutch plate steel (.120)
1	PP-211	Snap ring small
1	2058-0001	Pressure plate
1	2059-0003	Diaphragm clutch spring (silver/medium)
4	PP-205	Shouldered nuts (for retainer)
2	1058-0106	Lock clips for shouldered nuts
1	2059-0200	Diaphragm spring retainer
1	PP-205-AB	Washer set (4 plus 4)
1	1108-0006	Installation instructions

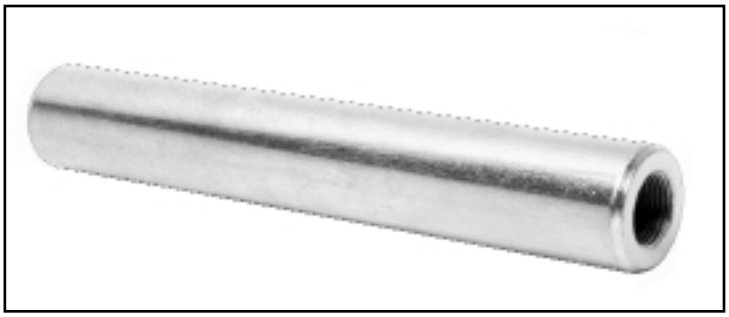
1056-0020
Fits 2006 Dyna & 2007-Up All Big Twin

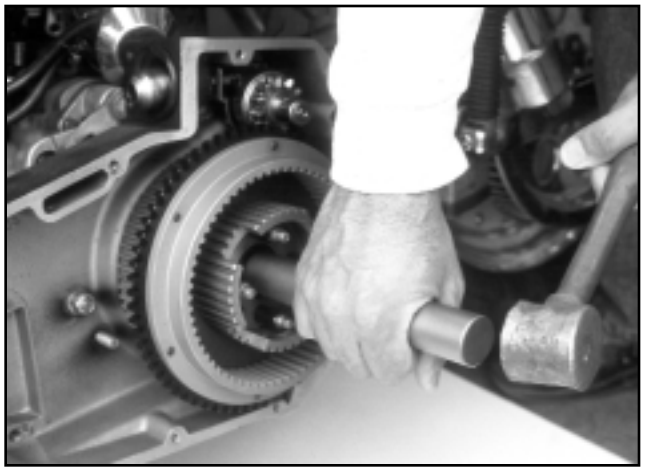
1056-0020

Qty	Part #	Description
1	1050-0026	Complete clutch hub assembly
1	2061-0026	Steel inner hub only
1	2061-0025	Outer hub (aluminum) only
1	PP-212	Thrust washer
1	PP-213	Bellview washer
2	PP-007-S	Screws for clutch hub
4	PP-203	Bolts for mounting alum. plate
4	PP-204	Stand-off hub nuts
7	PC-018-98-K	Clutch friction plate/Kevlar
7	PC-020	Clutch plate steel (.047”)
1	PP-026	Clutch plate steel (.120”)
1	PP-211	Small snap ring
1	2058-0001	Pressure plate
1	2059-0003	Diagraphm clutch spring (silver/medium)
1	2059-0200	Diaphragm spring retainer
4	1057-0110	Shouldered nuts (for retainer)
2	1058-0106	Lock clips for retainer nuts
1	PP-205-AB	Shims for clutch pack (4 large / 4 small)
1	1108-0006	Installation instructions

TAPERED SHAFT HUB REMOVER TOOL

PC-4000 . . . Tapered hub removal tool (all applications). Simply mount the tool on the left hand threads of the transmission main shaft, and give the end of the tool a sharp tap with a medium weight hammer and the clutch hub simply “pops” off. Available now for all tapered shaft clutch hubs.



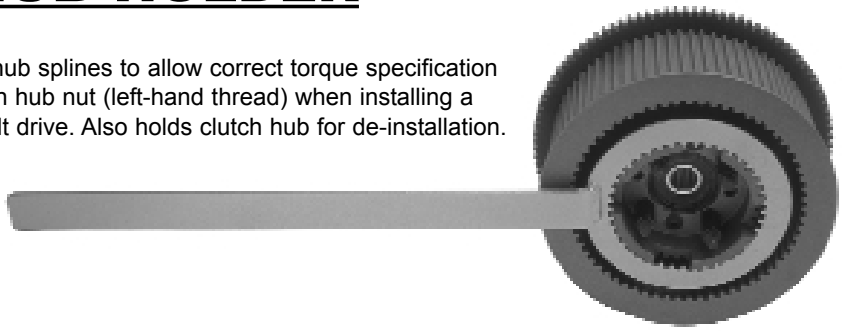


RIVERA CLUTCH HUB PULLER

PC-2000 . . . Quickly attaches to most Pro-Clutch™ or Primo Belt Drives diaphragm-spring style clutch hub to allow quick easy removal.

CLUTCH HUB HOLDER

PC-3000 . . . Engages & holds clutch hub splines to allow correct torque specification to be applied to the clutch hub nut (left-hand thread) when installing a Pro-Clutch™ or Primo Belt drive. Also holds clutch hub for de-installation.



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