



Company History



ech Cycle Performance Products, Inc. is a pioneer in the motorcycle components field. Among the first products designed, engineered, and manufactured were 4-Speed and 5-Speed electric start kits for open primary Harley-Davidson® motorcycles. A complete line of high torque, gear reduction

starters for closed primary Harley-Davidson® motorcycles followed shortly thereafter. The industry has recognized and embraced Tech's high performance gear reduction starters as the #I quality starter line for cranking big inch motors.

Today, Tech has expanded its product lines to include a line of high performance clutch packs, open primary belt drive systems, and engine components. We have become standard equipment on many OEM offerings. Tech looks to the future with great optimism, offering the motorcycle industry an ever expanding line of products engineered for excellence. Our mission is to continue to be the leading supplier of motorcycle starter solutions worldwide through product innovation, manufacturing consistency, and enhancement of customer productivity with product efficacy and service solutions.

Warranty Information

All items intended to be returned to Tech Cycle Performance Products, Inc. <u>must</u> first receive an RGA number from Tech. The RGA number <u>must</u> be displayed on the exterior of the shipping container.

WARRANTY:

Unconditional ninety (90) day warranty. At Tech's discretion, starters will be repaired or replaced free of charge. Tech is not responsible for shipping and handling charges. Potential warranty items will not be repaired or replaced without first returning the defective part(s) to Tech, along with the original invoice, for inspection.

REFUNDS:

If the unit is returned within ten (10) days of shipment from Tech and has not been altered or defaced in any way, (i.e. painted, plated, damaged, etc...) a refund will be issued soley for the cost of the product. After ten (10) days, a twenty-five (25) percent (%) restocking fee will be imposed. After fifteen (15) days, the purchaser will be issued a merchandise credit only.

Important!!! Do not bench test starter!!!

All starters have been tested by Tech prior to packaging. Bench testing starters improperly will result in damage to the starter gears and gearbox.

Tech Cycle Performance Products, Inc. will not warranty any starter damaged in this manner!!!

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Tornado Starters

10 reasons why...

Nothing Starts Without Us!

- **I.** All Brand New Components -- Unlike our competitors, Tech Cycle uses no remanufactured parts in our starters. We refuse to sacrifice quality for cost savings.
- **2. Manufactured by Nippondenso** -- All of our electrical components are manufactured by Nippondenso, the world's leading starter manufacturer. Many of our competitors choose to use Taiwanese starters that just won't do the job for the long haul.
- **3. Top Quality Bearings** -- All bearings in our starters are manufactured in the U.S. or Japan. You won't find a Chinese or Taiwanese bearing in one of our starters like you will in many others.
- **4. Heavy Duty Clutch** -- Our clutches are designed to withstand the beating of your big inch, high compression application. Simply put, you won't see the clutch failures with our starters that you've become accustomed to seeing in others.
- **5. High Quality Finish** -- We offer a polished, chrome dipped finish on our starters. Many of our competitors have tried to pass off chrome tape on their starter motors as a "chrome finish."
- **6. High Performance** -- Available in 1.4kW, 1.8kW, and 2.0kW sizes, our Tornado starters provide superior starting power over your stock starter. Starting 150ci. engines is not a problem when you have a Tornado.
- **7.** Availability -- Our starters are always on our shelves, equating to less down time during an already short riding season.
- **8. 100% Tested** -- All Tornado starters are tested several times during the manufacturing process at Tech Cycle's manufacturing facility before they are shipped. You will never receive a bad starter from our factory.
- **9. Full Warranty** -- We stand behind our products, period.
- **IO.** Starting H-D style motorcycles is our specialty. From our direct replacement, high-torque Tornado starters to our Twister Open Primary Electric Start Kits and Cyclone Belt Drives, we have a system to start just about anything you can dream up.

Late Model Starters

Tornado Starter for '06 Dyna & 2007 H-Ds



Tech Cycle manufactures the only starter in the industry for 2006 Dynas and all 2007 Harley-Davidson® models. Dimension-wise, these Tornado starters are no larger than a stock H-D starter, but featuring I.4kW of power, they are fully equipped to handle the stresses of turning over today's big-inch motors.

Tornado starters feature a one-piece, aluminum, CNC machined mounting plate/gearbox that simply bolts in the place of a stock starter. It is available in a natural, black, or chrome and polished finish, and is supplied with a pinion gear, heavy duty battery cable, and connectors.

P/N	Description
TC-I-07N4M	'06 Dyna / '07-up all models, I.4kW, natural finish
TC-I-07N4MP	'06 Dyna / '07-up all models, I.4kW, chrome/polished finish

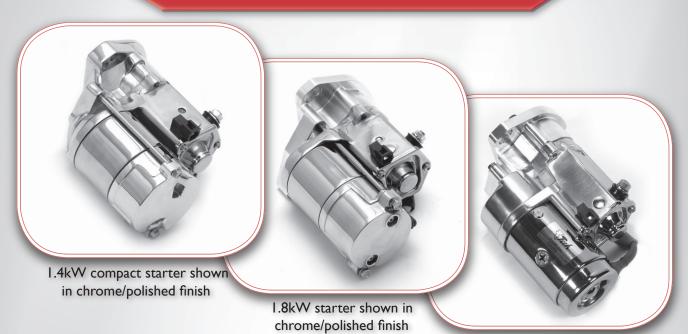
NEW! Tornado Starter for Big Dog & DSSC-equipped Motorcycles

If you have a Drop Starter Slam Clutch-equipped ride or a 2005-to-current Big Dog, Tech has a starter for you. Available in either I.4kW or 2.0kW, these full size starters offer significantly more starting power than a stock unit, and are available standard in a chrome and polished finish. Starters come with a heavy duty battery cable and connectors.

P/N	Description
TC-I-BDN4P	'05-up Big Dog / Baker DSSC primary, I.4kW, chrome/polished finish
TC-I-BDN2P	'05-up Big Dog / Baker DSSC primary, 2.0kW, chrome/polished finish



Late Model Starters



Tech Cycle manufactures three (3)

Tornado starters for '89-'06 models. At the heart of the starter line is the Tech 2.0kW (2.7hp) Tornado starter -- the #1 rated starter on the market.

Tech offers a next-generation 1.8kW starter as well. Combine a greater stalling torque than our 2.0kW starter with a smaller amperage requirement and a compact size, and you have the new standard in motorcycle starters!

For those hard to fit applications where space is limited, Tech offers a 1.4kW high torque compact starter that is the same size as a stock H-D starter. All three (3) starters are available in a natural, black, or chrome and polished finish. The 2.0kW and 1.8kW starters feature a one-piece mounting plate/gearbox fully CNC machined from 6061-T651 billet aluminum. All starters come with a heavy duty battery cable and connectors.

'89-'93 Models (1/4"-20 Jackshaft tap)		'94-'06 Models (#10-32 Jackshaft tap)	
P/N	Description	P/N	Description
TC-1-89N4M	'89-'93 all models, I.4kW compact, natural finish	TC-1-94N4M	'94-'06 all models, I.4kW compact, natural finish
TC-I-89N4MP	'89-'93 all models, I.4kW compact, chrome/polished finish	TC-I-94N4MP	'94-'06 all models, I.4kW compact, chrome/polished finish
TC-1-89N8	'89-'93 all models, I.8kW, natural finish	TC-1-94N8	'94-'06 all models, I.8kW, natural finish
TC-1-89N8P	'89-'93 all models, I.8kW, chrome/ polished finish	TC-1-94N8P	'94-'06 all models, I.8kW, chrome/ polished finish
TC-1-89N2	'89-'93 all models, 2.0kW, natural finish	TC-1-94N2	'94-'06 all models, 2.0kW, natural finish
TC-1-89N2P	'89-'93 all models, 2.0kW, chrome/ polished finish	TC-1-94N2P	'94-'06 all models, 2.0kW, chrome/ polished finish

Note: 1.8kW starters are approximately 5/8" longer than a stock H-D starter. 2.0kW starters are approximately 11/4" longer than a stock H-D starter. On some applications, a Tech Cycle oil fill spacer can be used if the length of the starter creates an interference. It may also be necessary to relocate oil lines and wiring on some models.

Early Model Starters

ech Cycle manufactures Tornado starters to fit early '65-'88 model 4 and 5-Speeds with final chain or belt drive. Tornado starters are available with either a 1.4kW or 2.0kW starter motor. Each includes a new gearbox, gears, and mounting plate to replace the factory gear reduction housing. These starters utilize our unique 3 gear reduction system in place of the factory 2 gear unit. As with all Tornado starters, the early model starters are available in a natural or chrome finish.

Note: Due to the increased size of the gear reduction unit utilizing three (3) in-line gears, certain applications may require clearancing a small area on the top of the transmission case. Instructions are provided.



2.0kW starter for Pre '85, solid mount motor, 4-Speed, final chain drive models, shown in chrome finish

Pre '85, Solid Mount Motor, 4-Speed, Final Chain Drive Models

(course spline pinion shaft)		
P/N	Description	
TC-1-77N4	I.4kW, natural finish for Pre '85, solid mount motor, 4-speed, final chain drive models	
TC-I-77N4P	I.4kW, chrome finish for Pre '85, solid mount motor, 4-speed, final chain drive models	
TC-1-77N2	2.0kW, natural finish for Pre '85, solid mount motor, 4-speed, final chain drive models	
TC-1-77N2P	2.0kW, chrome finish for Pre '85, solid mount motor, 4-speed, final chain drive models	

'81-Up, Solid Mount Motor, 4-Speed, Final Belt Drive Models

(fine spline pinion shaft)

\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		
P/N	Description	
TC-1-82N4	I.4kW, natural finish for '81-up, solid mount motor, 4-speed, final belt drive models	
TC-1-82N4P	I.4kW, chrome finish for '81-up, solid mount motor, 4-speed, final belt drive models	
TC-1-82N2	2.0kW, natural finish for '81-up, solid mount motor, 4-speed, final belt drive models	
TC-1-82N2P	2.0kW, chrome finish for '81-up, solid mount motor, 4-speed, final belt drive models	



2.0kW starter for '81-up, solid mount motor, 4-Speed, final belt drive models, shown in chrome finish

Early Model Starters



1.4kW starter for '81-'85, rubber mount motor, 4 or 5-Speed, final chain or belt drive models, shown in chrome finish

Note: '81-early '85 models should have a course spline pinion shaft. Late '85 models should have a fine spline pinion shaft. Check your application before ordering.

'81-'85, Rubber Mount Motor, 4 or 5-Speed, Final Chain or Belt **Drive Models**

(course or fine spline pinion shaft)

P/N	Description
TC-I-8IN4C	I.4kW, natural finish for '81-'85, rubber mount motor, 4-speed, final belt/chain drive models, course spline shaft
TC-I-8IN4CP	I.4kW, chrome finish for '81-'85, rubber mount motor, 4-speed, final belt/chain drive models, course spline shaft
TC-I-8IN2C	2.0kW, natural finish for '81-'85, rubber mount motor, 4-speed, final belt/chain drive models, course spline shaft
TC-I-8IN2CP	2.0kW, chrome finish for '81-'85, rubber mount motor, 4-speed, final belt/chain drive models, course spline shaft
TC-I-8IN4F	I.4kW, natural finish for '81-'85, rubber mount motor, 4-speed, final belt/chain drive models, fine spline shaft
TC-I-8IN4FP	I.4kW,chrome finish for '81-'85, rubber mount motor, 4-speed, final belt/chain drive models, fine spline shaft
TC-1-81N2F	2.0kW, natural finish for '81-'85, rubber mount motor, 4-speed, final belt/chain drive models, fine spline shaft
TC-I-8IN2FP	2.0kW,chrome finish for '81-'85,rubber mount motor, 4-speed, final belt/chain drive models, fine spline shaft

'86-'88 All Big Twin Models (fine spline pinion shaft)

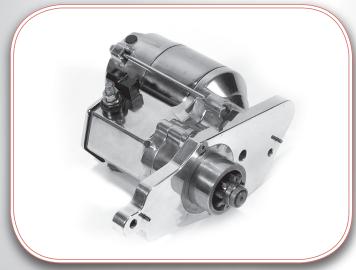
P/N	Description
TC-I-86N4	I.4kW, natural finish for '86-'88 all big twin models
TC-I-86N4P	I.4kW, chrome finish for '86-'88 all big twin models
TC-1-86N2	2.0kW, natural finish for '86-'88 all big twin models
TC-1-86N2P	2.0kW, chrome finish for '86-'88 all big twin models



Sportster Starters

Tech Cycle manufactures a Tornado gear reduction starter for '67 to Current Sportsters. For the early Sportster models, Tech offers a 1.4kW compact size gear reduction starter with a self-contained solenoid that simply bolts in place of the original starter/housing assembly. For late model Sportsters and certain Buell models, Tech offers three (3) different starters.

At the heart of the starter line is the Tech 2.0kW (2.7hp) Tornado starter -- the #I rated starter on the market. Tech also offers a full size I.4kW starter which utilizes the same clutch as the 2.0kW starter but requires less cold cranking amps from your battery. For those hard to fit applications where space is limited, Tech offers a I.4kW compact starter that is the same size as a stock H-D starter. All three (3) starters are available in a natural or chrome and polished finish. All starters come with a heavy duty battery cable and connectors.



'67-'80 Sportster, I.4kW compact starter shown in chrome and polished finish

Early Model Sportsters '67-'80

P/N	Description
TC-I-67SP	'67-'80 Sportster, I.4kW compact size starter, natural finish
TC-I-67SPP	'67-'80 Sportster, I.4kW compact size starter, chrome/polished finish

Note: When removing a starter block-off plate from non-electric start models, some models may not have a starter ring gear on the clutch basket. In that event you must order the clutch shell with a ring gear from an H-D dealer.

This starter may cause interference with stock oil tank brackets and sprocket cover.

Late Model Sportsters '81-Current

P/N	Descr	iption	
1 /13	Desci	iption	
TC-I-81N4	'81-up Sportster, starter, natural finis		full size
TC-I-81N4P	'81-up Sportster, polished finish	1.4kW,	chrome/
TC-I-81N4M	'81-up Sportster, natural finish	1.4kW	compact,
TC-I-81N4MP	'81-up Sportster, chrome/polished fi		compact,
TC-1-81N2	'81-up Sportster, 2.	0kW, nat	ural finish
TC-I-8IN2P	'81-up Sportster, polished finish	2.0kW,	chrome/



'81-Current Sportster, 1.4 kW full size starter shown in chrome and polished finish

Indian Starters

Tech Cycle manufactures a Tornado starter for 2002 and 2003 model Indian Chiefs. This I.4kW full size starter, P/N 94-283, was the exact starter Tech Cycle engineered for Indian Motorcycle Company to resolve their problems with starting the Power Plus I00 motor. If you are replacing a Compufire[©] starter, you will also need a jackshaft coupler, available from Tech.

Tech Cycle also manufactures a Tornado starter for 2001 Chiefs, as well as Spirit and Scout models. This 1.4kW compact starter fits these applications without modification.



'02-'03 Indian Chief Models

P/N

Description

94-283

'02-'03 model Chiefs, I.4kW full size starter, chrome starter motor and end cap, natural finish solenoid housing

1.4 kW full size starter for '02-'03 Indian Chief models

'01 Indian Chief, all Scout and Spirit Models

P/N	Description
TC-1-89N4M	'01 Chief, all Spirit and Scout models, 1.4kW compact size, natural finish
TC-I-89N4MP	'01 Chief, all Spirit and Scout models, 1.4kW compact size, chrome/polished



1.4 kW compact size starter for '01 Indian Chief as well as all Scout and Spirit models



Jackshaft Coupler

P/N

Description

94283-31548-90

Jackshaft Coupler used when replacing Compufire (Engine Electronics) starters with a Tech starter

Tornado Starter Accessories









Tech 1.4kW compact starter, wireless starter button

Tech 1.4kW full-size starter, wireless starter button

Tech I.8kW starter, wireless starter button

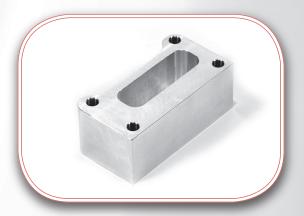
Tech 2.0kW starter, wireless starter button

Tech's wireless starter button assembly replaces the solenoid end cap and can be used as your primary starter button, eliminating wiring to the handlebars. It can also be used as a backup in the case of a starter relay problem. There are four (4) models available to fit the following applications:

- 1.2kW or 1.4kW H-D starter or Tech 1.4kW compact Tornado starter
- Tech 1.4kW full size Tornado starter or 4-Speed Start Kit starters
- Tech 1.8kW Tornado starter
- Tech 2.0kW Tornado starter

Oil Fill Spacer Block

Relocates OEM oil fill location when a full size starter motor causes an interference. FLH and Road King models may require the use of this spacer when installing a I.4kW, I.8kW, or 2.0kW full size starter.





Tech Electrical Component Builders Kit

The Tech Electrical Component Builders Kit helps to simplify the ordering process, allowing you to get your new build up and running. This high-quality kit includes:

- 32 Amp Charging System, complete with a Cycle Electric Regulator & Stator, and genuine Harley-Davidson Rotor
- Dyna 2000i Adjustable Electronic Ignition Module
- Tech I.4kW Compact Tornado Starter

All necessary accessories, hardware, and wiring are included.

Note: Please specify year of bike and desired finish of starter upon ordering.

Battery Cables

Tech Cycle manufactures high performance battery cables that ensure your Tech Tornado (or stock H-D) starter receives the proper amperage to crank over big inch, high compression motors. Made from 4 gauge Pro-Flex material, these high stranded, highly flexible cables are available in several different colors and lengths. Tech Cycle recommends that a secondary ground strap, connected directly from the starter to the battery, be installed to ensure proper grounding of the starter.



Pro-Flex clear jacketed, silver tinned cable

Stocked Lengths

Tech's Pro-Flex cables are stocked in the following lengths:

- 8"
- 10"
- 12"14"
- 16"
- 18"
- 25"

Cables can be special ordered in any length. Unless otherwise specified, each cable is supplied with one (1) $\frac{1}{4}$ diameter lug and one (1) $\frac{5}{16}$ diameter lug installed.

Available Colors

Tech's Pro-Flex cables are available in the following colors:

- clear
- black
- translucent black
- translucent red
- translucent blue



Pro-Flex translucent black jacketed, gold tinned cable



Pro-Flex black jacketed, copper cable

H-D Starter Rebuild

Tech Cycle sells replacement parts to rebuild your stock H-D starter. These parts are factory Nippondenso® components, the exact components utilized in stock H-D starters. Tech recommends different levels of starter rebuild kits based on years of experience in the starter field. The following kits do not represent a full line of available parts from Tech Cycle, but merely represent what Tech has found to be problematic aspects of stock H-D starters. Should you find yourself in need of something you don't see on this page, call Tech Cycle for pricing and availability.



Solenoid Contact Repair Kit

- Left leg stationary battery contact Straight stationary motor contact Battery and motor terminal posts
- (2) external insulators
- (2) internal insulators
 - (2) terminal post o-rings
 - (2) belleville style washers
 - (2) low profile jam nuts
 - (2) lock nuts

Complete Solenoid Repair Kit

Same as above, but with the addition of:

- Contact and plunger assembly
- Plunger return spring





Replacement Brush Plate

Manufactured by Nippondenso, this is an exact replacement for a stock H-D starter. Use to replace worn brushes or shorted brush plates. This brush plate will also operate with many I.4kW starters.

Replacement Starter Clutch

Manufactured by Nippondenso, this is an exact replacement for a stock H-D starter. Use to replace a blown starter clutch or broken clutch teeth. Tech Cycle does not recommend trying to replace springs and/or rollers in a starter clutch.





Replacement Starter Drive

Manufactured by Nippondenso, these are exact replacements for a stock H-D starter. Use to replace a starter clutch and idler gears with broken teeth. Tech Cycle recommends replacing the clutch any time an idler gear is broken.



Tech Cycle manufactures a high-performance line of belt drives and clutch assemblies for 4-Speeds and late model 5-Speeds. These 8mm belt drive systems include the front pulley assembly, belt, rear pulley clutch basket assembly, clutch pack, and mounting hardware. Kits are available in 3" or 2" for open primary applications, and $1\frac{3}{4}$ " for enclosed tin primary applications. Each belt drive and clutch assembly features the following:

- Fully CNC machined, jet black, hard anodized 6061-T651 billet aluminum pulleys for a great look and a long life
- Sealed double row bearing in steel inner hub for proper clutch basket support
- Aircraft quality billet aluminum pressure plate
- 6 coil springs that allow for precise tuning of your clutch for any application, mild to extreme, which provide a consistent and linear clutch lever feel
- 7 full size friction plates provide twice as much surface area as a stock clutch
- Smooth, quiet operation with high horsepower capacity
- Free releasing clutch for effortless shifting
- High strength reinforced belt
- Front pulley offsets available from 0" to 1½", in ¼" increments
- Pulleys can be polished by request (as shown at right), and front nut covers are available (as shown below)





Polished Cyclone Drive Pulleys (2" Drive pictured)

Chrome Front Nut Covers (specify style upon ordering)

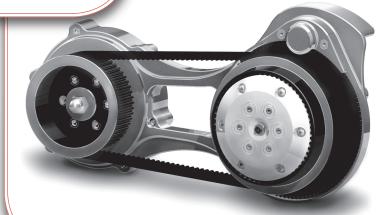


07-Up H-D Open Primary Belt Drive System

ooking to set your new H-D apart from the crowd? It's easy when you add a Contoured Primary Belt Drive System to your ride.

A one-piece, fully contoured motorplate is machined from a solid chunk of billet aluminum and then polished to a high-class shine; throw in our renowned Cyclone Open Primary Belt Drive and you have a winning combination. The contoured lines of the Cyclone System compliment any '07-Up

Softail, Dyna, or FL, and is available in 2" and 3" belt widths.



Also available is our contoured belt guard system, designed to keep your leg safe and your bike looking great (pictured below). This guard system can be used in a front/side configuration or a full side configuration (as shown below). Chrome finish (for both drive and guard) available upon request.



Contoured Belt Guard System

'07-Up H-D Open Primary Belt Drive Systems

P/N	Description
TC-13-07CS2	Softail 2" System
TC-13-07CS3	Softail 3" System
TC-13-07CD2	'06-Up Dyna 2" System
TC-13-07CD3	'06-Up Dyna 3" System
TC-13-07CFL2	FL 2" System
TC-13-07CFL3	FL 3" System

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'Category 5' Open Primary Belt Drive System

he 'Category 5' Open Primary Belt Drive System takes Tech's proven, high-performance belt drive & clutch assembly and packs it into one strong, lightweight package. With quality second to none, this is the drive you have been waiting for.

Complete with front bearing support, the fully polished 'Category 5' Open Primary Belt Drive System is the obvious choice where strength, size, and weight are of primary

concern. The contoured lines of the 'Category 5' will compliment any Softail, Dyna, or FL, and is available in 2" and 3" belt widths.

Optional accessories include Mid-Controls (2" only, see p.20) and a right-side-drive blockoff plate.

'Category 5' Open Primary Belt Drive Systems

P/N	Description
TC-13-5CYCS2	Softail 2" System
TC-13-5CYCS3	Softail 3" System
TC-13-5CYCD2	Dyna 2" System
TC-13-5CYCD3	Dyna 3" System
TC-13-5CYCFL2	FL 2" System
TC-13-5CYCFL3	FL 3" System



Contoured Series Open Primary Belt Drive System

Look the look of our standard Twister electric start kit but need the strength that only a one-piece motorplate can provide? Look no further -- the Contoured Series 5-Speed Motorplates fit the bill perfectly.

Designed from the ground up to complement our Cyclone Primary Drive, the 5-Speed Contoured Motorplates offer an exciting, fresh new look in the world of primary belt drive systems.



The Contoured Series 5-Speed Motorplates enhance the look of just about any style of bike you may have, and are available for multiple years and applications in a plain, polished, or chrome plated finish. You can even order a set of Mid-Controls designed to work with our contoured plates (see p.20). So give us a call today to find out which Contoured Series Motorplate is right for you.

Contoured Series Open Primary Belt Drive Systems

P/N	Description
TC-13-5CS2	Softail 2" System
TC-13-5CS3	Softail 3" System
TC-13-5CSG2	Softail 2" System, Generator Front
TC-13-5CSG3	Softail 3" System, Generator Front
TC-13-5CD2	Dyna 2" System
TC-13-5CD3	Dyna 3" System
TC-13-5CFL2	FL 2" System
TC-13-5CFL3	FL 3" System

Twister Open Primary Belt Drive System

This kit includes everything you need to convert your Late Model H-D to an Open Primary. System includes:

- One-piece 6061-T651 motorplate
- Nose cone shaft support
- One-piece starter drive extension shaft and pinion gear assembly
- 2" or 3" Cyclone primary belt drive system with clutch assembly
- 84 tooth ring gear
- Billet side belt guard
- All inserts, standoffs, and mounting hardware

This kit will accept your stock starter or one of Tech's Tornado starters. If your bike has a fat tire with left side drive, up to a 1" offset can be machined into the motorplate to accommodate your needs (spacers are available for offsets greater than 1").



Kit is available in a machined or polished aluminum finish, with chrome plating available by request. In addition, if you are running a right-side drive setup, a motorplate featuring a custom side contour is available to clean up the look of your bike.



One-Piece Motorplate shown with optional recessed ring gear and rotor cover, polished finish, and I" offset

Twister One-Piece Motorplate

The Twister One-Piece Motorplate provides some serious support for the powertrain of your ride. Machined out of a solid piece of 6061 aluminum, this one-piece plate rigidly ties the motor and transmission together, while at the same time supports the transmission mainshaft with a high-quality sealed roller bearing. Available options include provisions for a recessed starter ring gear with front rotor cover, up to a 1" offset machined into the plate, and a provision for a plate-mounted oil filter.

Twister Belt GuardsTech manufactures a variety of optional belt guards for use on 5-Speed primary drives. Belt guards are available in a side guard version or in a front/side version which covers the front pulley as well as the belt. All belt guards are manufactured from 6061-T6 billet aluminum and are



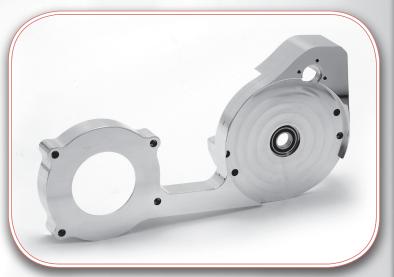
Cyclone Primary Drives

NEW!Bobber Shop Signature Series Motorplate

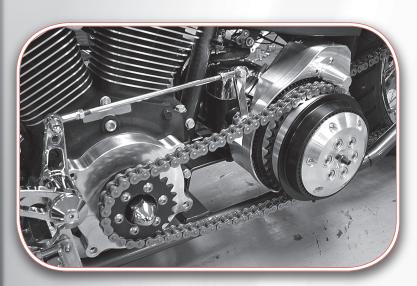
wo-piece looks with the strength of a one-piece motorplate!

This plate was designed in conjunction with Bobber Shop Custom Cycles to give your ride the clean, uncluttered look found on our two-piece designs, while keeping the proper fixed center distance and support of our standard Twister recessed ring gear motorplate.

The Bobber Shop Signature Series Motorplate can be ordered with or without our Cyclone Open Primary Belt Drive and Tornado Starter. Motorplate is available in a machined or polished aluminum finish, with chrome plating available by request.



NEW 5-Speed Open Primary Chain Drive



Cox Signature Series Chain Drive for 4-Speeds comes the Cyclone Primary Chain Drive System for 5-Speed style transmissions.

Using a single row, nickel-plated 530 oring chain, this primary drive completely transforms the look of your bike to something considerably more *old school*.

With rock-solid performance - thanks to its Cyclone Clutch - this is one drive that does more than just look the part. Available in optional chrome & polished finish.

Note: Primary drive not legal or inteded for street use.

Cyclone Accessories

Twister Outboard Bearing Support System

A vital component for any high horsepower or right side drive application!

The Twister Outboard Bearing Support System is an excellent addition to your Cyclone Belt Drive. This simplistic yet robust design was engineered for use with the highest quality materials and components, and can be used with the Twister One-Piece Motorplate for Evo or Twin Cam Applications and 3" Cyclone Belt Drive.

The Twister Outboard Bearing Support System includes:

- Outboard bearing support plate with bearings installed
- Pulley covers with integral shaft support
- Aluminum standoffs
- All necessary hardware

Comes standard in our show quality polished finish -- available chrome plated by request.





Shown with Cyclone 2" Clutch

EFM Auto Clutch for Cyclone Drives

The EFM Automatic Clutch is a centrifugally driven pressure plate that engages and disengages automatically based upon engine RPM. On a bike equipped with the EFM Auto Clutch, all you have to do is give it gas and shift -- no clutch necessary.

This product maximizes the performance of you and your machine, allowing you to focus on the other areas of riding. The clutch lever remains functional, giving you the option to use the clutch in its normal manner.

The Auto Clutch is available for both 2" and 3" Cyclone Belt Drives, and comes with all necessary hardware.

Lockup Unit

Need some help launching your V-Twin at the track? Want to handle huge amounts of power on the street? The Cyclone Lockup Unit is the answer. This CNC machined assembly simply mounts on top of a stock Cyclone pressure plate and allows for fully adjustable tuning to suit your application (with engine RPM and arm mass determining how quickly and how hard the clutch engages and holds). If you need that extra bit of help on the strip or on the street, look no further than the Cyclone Lockup Unit.





Domed Style Pulley Cover Set

Available for 3" Cyclone belt drive systems only. Spun out of 6061 aluminum, these billet covers are the finishing touch on your Cyclone Belt Drive. Standard polished finish, with chrome plating available upon request.

Cyclone Accessories

Cyclone License Plate Bracket



or Isolator Series Electric Start Kits, this polished, all aluminum license plate holder is a functional and clean way to mount a tag to your bike. It is also simple to install; the whole unit easily mounts on top of your existing Tech nose cone. Features ultra-bright LED taillight and license plate illuminator lights, and comes with necessary hardware and wiring.

Available in both flat and curved profiles.



Primary Spacer

Made from 6061-T651 billet aluminum, this spacer is available in thicknesses ranging from ½" to 2", in ½" increments. Allows for the spacing of your motorplate to compensate for offset transmissions and wide tire frames. Available in both alternator and generator patterns.

Mid-Controls



Tech Cycle is proud to include Mid-Controls to the lineup of Cyclone Belt Drives using One-Piece Motorplates. Available for the 'Category 5' Open Primary Belt Drive System and select One-Piece Motorplates, these Mid-Controls are manufactured from top quality materials and can be used on both standard and right side drive 5/6-Speed style transmissions.

These CNC-machined, billet aluminum units are available in a chrome, polished, or black anodized finish, and come with necessary mounting hardware. As a bonus, you get to choose from 5 different peg designs, as shown above -- just let us know which style you want upon ordering. Give us a call at 215-702-TECH to see if the Tech Mid-Controls will work on your application.

Late Model Isolator Series Electric Start Kits

ech Cycle's Late Model Isolator Series Electric Start Kits for 5-Speed style transmission cases eliminate the need for a complete motorplate assembly. The transmission-isolated bearing support plate is nearly concealed behind the clutch basket providing a crisp, clean look to the primary drive side of your bike. Utilizing a unique starter extension shaft that will not bind in the nose cone shaft support assembly, the kit is compatible with almost any 3" primary belt drive and even some I-3/4" drives. Tech can also supply you with a 3" or 2" Cyclone belt drive. The kit can be used with a stock starter or one of Tech's Tornado starters, the #I rated starter line on the market. An optional alternator cover finishes off the kit by hiding that unsightly rotor, and chrome plating is available upon request.



TC-I-5SSK

Twin Cam/Late Model Softail Electric Start Kit

P/N

TC-I-5SSK

Isolator Series electric start kit for Twin Cam/Late Model 5 or 6-speed Softail style transmissions

TC-I-5SSKC

Contoured Isolator Series electric start kit for Twin Cam/Late Model 5 or 6-speed Softail style transmissions with recessed ring gear

Note: Please specify primary belt drive when ordering



TC-I-5SSKC



Twin Cam/Late Model Dyna Electric Start Kit

P/N	Description
TC-1-5SSKD	Isolator Series electric start kit for pre 2001 Twin Cam/Late Model 5 or 6-speed Dyna style transmissions
TC-I-5SSKDI	Isolator Series electric start kit for 2001 & later Twin Cam/Late Model 5 or 6-speed Dyna style transmissions

Note: Please specify primary belt drive when ordering

Included with Kits:

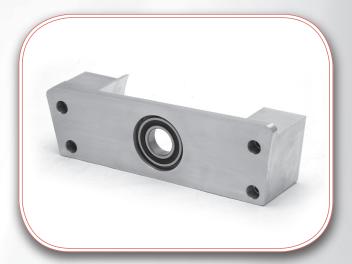
- Starter Extension Shaft
- Nose cone Support Assembly
- Ring Gear and Adapter



Late Model Isolator Series Accessories

Bearing Support Plate *for* **Kick-only applications**

Supports transmission mainshaft when an open primary is used without a starter. Available for 5-Speed Softail-style transmissions.

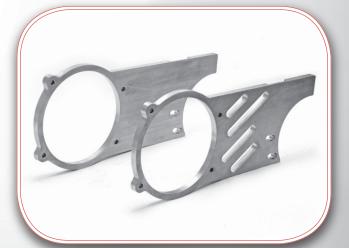


Alternator Cover

Cover up that unsightly rotor! Available in the following thicknesses: 0.700", 0.875", 1.000", 1.375", and 1.500". Can be used with or without optional great plate.

Great Plate

Ties motor to transmission case on Softail applications. Can be used with or without optional alternator cover. Available in solid or slotted versions.



Cyclone Primary Drives

Cyclone Drop-In Clutch

Available as a direct replacement for '90-'97 and '98-'06 Harley-Davidson® clutch packs.

The Cyclone Drop-In Clutch features over 200% more friction surface area than stock, which allows for a lighter lever pull and greatly increased torque and horsepower capacity.

It fits in the OEM clutch shell and is a true boltin - no clearancing required - and its six coil springs allow for a wide range of adjustment, letting you choose the optimum setup for your ride.



Cyclone Enclosed Primary Belt Drive System



ow you can enjoy all the high performance, low maintenance benefits of an open primary belt drive while using your stock primary covers.

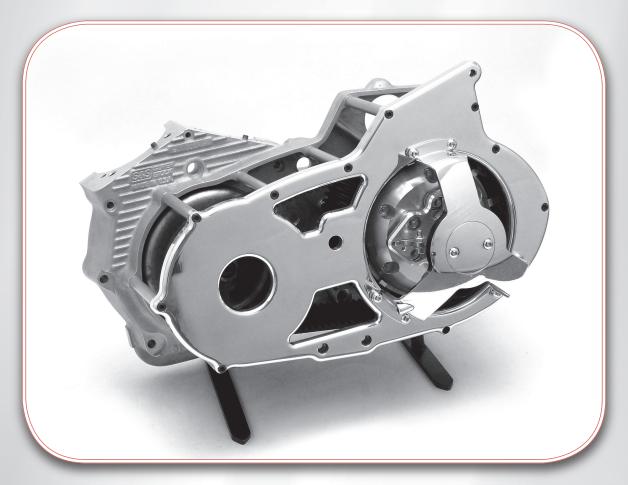
The Cyclone Enclosed Primary Belt Drive System may let you keep the stock looks of your ride, but its performance is anything but -- featuring a full Cyclone clutch pack, this is one drive that can handle anything you throw at it.

Increased clutch plate friction surface area (more than 200% greater than stock)

and a six coil spring pressure plate ensure a huge increase over stock holding power, while reducing lever pull at the same time.

This system requires no lubrication, thus accessing your internals just got a whole lot cleaner (and easier too). No belt adjustments are needed, and you'll be sure to enjoy the smooth, strong, mess-free nature of a belt drive primary for many miles to come.

Tech Pro-Primary Plate



Primary Plate! Completely CNC machined from 6061-T651 billet aluminum and then polished to a show quality shine, this primary plate has what it takes to put you in first place at the track or in the show. Fits all 5-Speed S&S XL Sportster engine cases equipped with a Bandit Clutch and Lockup unit when using an open belt primary belt drive (also works with MTC lockup). This primary plate features:

- Provision for Air Shifter
- Provision for Starter
- Provision for Clutch Adjuster
- Plenty of access to work on your clutch

The Pro-Primary Plate is a must for any 5-Speed S&S XL Sportster case with an open belt primary, and includes all necessary hardware and standoffs.

4-Speed Style Cyclone Belt Drives



Contour Series
Open Primary
Belt Drive System
for 4-Speed

Alternator Pattern

Shown with 2" Cyclone Belt Drive & Contoured Belt Guard

Generator Pattern

nspired by our own Indian Larry Signature Series Electric Start Kit, the Contoured Series One-

Piece Motorplates for 4-Speed style trannys combine the strength of a one-piece motorplate with the contoured look of our two-piece start kit to form a true piece of engineering beauty.

Available in a polished, natural, or bead-blasted finish, these plates are CNC machined from a solid chunk of aluminum to exacting tolerances, and are engineered to start your bike perfectly with a Tornado start-kit starter. In addition, a Contoured Side Belt Guard is available that perfectly matches the contour of the One-Piece Motorplate and covers the front pulley.

Now you can have the clean look found on Indian Larry's bikes with the extra strength the real world demands. Form and function -- the very definition of the Contoured Series 4-Speed Motorplates.

Note: Please specify year of engine and transmission upon ordering.

4-Speed Isolator Series Electric Start Kits

Tornado gear reduction starter (with self-contained solenoid). The starter assembly can be rotated and mounted in four (4) different positions, allowing the kit to be used on both swing arm and rigid applications. Kits may also be installed on some rear belt applications. Kits include a ring gear which can be adapted to fit most 2" or 3" belt drives.

Kits must be used with an electric start oil tank, and some minor modifications may be necessary when installing the kit. Kits are available with either a 1.4kW or 2.0kW starter. Chrome and polished starters, as well as fully polished kits, are also available. All kits, except for the early shovelhead kit, will accept a great plate and/or alternator cover.

Note: Please specify your primary belt drive system and whether or not you are using a Rev-Tech transmission when ordering. Chrome plating available upon request. Kits will not work with rear O-ring chain.



Application Chart

Application	P/N	Description
Early Shovelhead electric start kit	TC-1-4SSKSH	Isolator Series electric start kit for '65-'69 Shovelhead with 4-speed ratchet top transmission
Late Shovelhead electric start kit	TC-I-4SSKSHL	Isolator Series electric start kit for '70-'78 Shovelhead with 4-speed ratchet top transmission
Cow Pie electric start kit	TC-1-4SSKC	Isolator Series electric start kit for '79-'84 Shovelhead with 4-speed rotary top transmission
Cow Pie Rear Belt electric start kit	TC-1-4SSCRB	Isolator Series electric start kit for '79-'84 Shovelhead with 4-speed rotary top transmission and factory rear belt*
5 or 6-Speed Transmission in a 4-Speed Case electric start kit	TC-I-4SSKSP-IL TC-I-4SSKSP TC-I-4SSKSHL-R	Isolator Series electric start kit for Sputhe®, Rev-Tech®, Baker®, or other transmission manufacturers utilizing a 5 or 6-speed transmission in a 4-speed transmission case**

^{*} Note: When ordering, please specify diameter of main shaft where bearing seats. Must be used with Tech Cycle primary drive with clutch pack.

^{**} Note: When ordering please specify transmission manufacturer and diameter of main shaft where bearing seats.

4-Speed Isolator Series Accessories

Bearing Support Plate *for* Kick-only applications

Supports transmission mainshaft when an open primary is used without a starter. Available for '65 and later 4-Speed style transmissions.



Great Plate

Ties motor to transmission case on Softail applications. Can be used with or without optional alternator cover. Available in solid or slotted versions.

Alternator Cover

Available in the following thicknesses: 0.700", 0.875", 1.000", 1.375", and 1.500". Can be used with or without optional great plate.



4-Speed Electric Start Kit Accessories



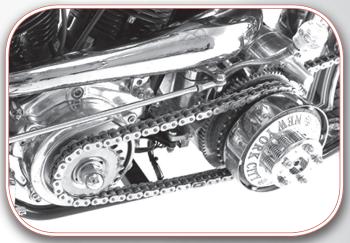
Cyclone Drop-In Clutch

Available as a direct replacement for '36-'84 Harley-Davidson® clutch packs, this Cyclone Drop-In Clutch is a massive improvement over your stock clutch. With a huge increase in the clutch surface area and a double row hub bearing, you get more horsepower to your rear wheel! Also fits square-dog BDL and Primo applications.

Paul Cox Signature Series Primary Chain Drive System

From the mind of Paul Cox comes this wild new primary drive for 4-Speed style trannys. Made with nickel-plated 530 Oring chain, it has the same tough look, light weight, and undeniable coolness factor that Indian Larry Legacy bikes have enjoyed for years. Available in chrome & polished finish, and with or without Cyclone clutch.

Note: Primary drive not legal or intended for street use.



Shown in chrome & polished finish

11/2" & 3" Primary Belt Drive System



Available for splined or tapered shaft. Includes 47 tooth front pulley, 76 tooth rear pulley, insert, nut, washer, and belt. Available with or without Cyclone clutch.

Indian Larry Electric Start Kits

Dictured at right is the Indian Larry Signature Series Electric Start Kit as featured on Indian Larry's Discovery Biker Build-off bikes. These systems were used with a Baker 6 in a 4 tranny and featured custom contoured bearing support plates and great plates. The systems utilized a Tech Cycle 3" Primary Belt Drive System, an aftermarket 11/2" rear belt





Indian Larry Legacy Hidden Starter Kit

Developed for the 2007 Indian Larry Legacy entry to the Biker Build-off, this bearing support plate takes a Tornado starter and hides it under the transmission. If you truly want a kick-only look with electric start capability, this is the kit for you.

Note: This kit requires custom frame modifications. Call for details.



Indian Larry Signature Series Electric Start Kits

P/N

Description

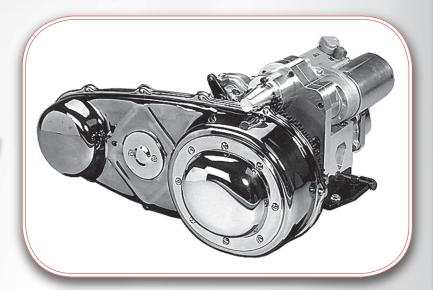
TC-I-4SSKIL Open Primary Electric Start kit for 4-speed ratchet top trannys. Can also be used with 5 or 6-speed in a 4-speed case applications

Note: When ordering, please specify diameter of main shaft where bearing seats.



Panhead Electric Start Kit

Do you enjoy kicking over that old Panhead of yours?



f the above question was answered with a resounding *NO!*, then you have come to the right place. Tech Cycle manufactures a Twister Electric Start Kit for both rigid and swing arm Panhead applications. No longer do you need to change your transmission mainshaft or transmission case to a later style with mounting ears for an inner primary cover. The Twister kit mounts directly to your transmission mounting plate, as shown in the picture above. The kit must be used with a primary belt drive, electric start oil tank, and a low profile 12V battery. Kits can be used with certain 1½", 2", or 3" primary belt drives (with 76 teeth on clutch basket), and with some modifications to your tin primary covers, you can retain that original Panhead look.

Note: Tin primary covers can only be utilized with a Tech Cycle 11/2" primary belt drive installed.



The Twister Electric Start Kit for Panheads includes the following:

- I.4kW, high torque, gear reduction starter in natural finish
- Gearbox and mounting plates for swing arm or rigid applications
- Support brackets and support arms
- Closed nose cone shaft support assembly
- Ring gear and ring gear adapter that mounts to the back of certain primary belt drive clutch baskets
- Heavy duty battery cable and connectors

Note: Starter motor/solenoid assembly can be upgraded to a chrome/polished finish as shown

Panhead Components



Electric Start Oil Tank for swing arm or rigid frame Panhead applications. Includes brackets, plugs, fittings, and hardware. Sized for use with low profile Odyssey battery shown below.



6V to 12V Conversion Kit. With this 12V generator/ regulator combination, your Panhead can now run a modern 12V charging system. Coil and distributor not included.



Odyssey low-profile 12V battery. This dry cell battery produces 545 Cold Cranking Amps and fits in the electric start oil tank shown above.



Remote starter button for Panhead applications. Eliminates all wiring from starter assembly to handlebars. Mounts to kicker cover and supports starter assembly.



1½" wide Primary Belt Drive System. Available for splined or tapered shaft. Includes 47 tooth front pulley, 76 tooth rear pulley, insert, nut, washer, and belt. Also available in 3" wide version and with Cyclone Drop-In Clutch.



Panhead clutch arm. Eliminates interference of stock clutch arm with starter assembly. Available for use with mouse trap, mouse trap eliminator, jockey shift, or foot clutch. Can be utilized on rigid or swing arm frame.

Tech Testimonials

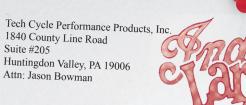


On behalf of TP Engineering, please accept our compliments in the manufacture of a high torque gear reduction starter that has performed flawlessly in the field. Our customers have expressed their extreme pleasure with the quality, the fit and the finish. We commenced using your starters in the first quarter of 2002 and we have and we will continue to recommend your starters to our customers. We do so willingly as a result of having no incidences of clutch failure, gear fracture or breakage, or motor burnout.

Jason, in writing, our customers have expressed their happiness with not only your product, but, with the Tech personnel who they found to be helpful, knowledgeable and extremely pleasant. You should stand proud of your accomplishments and remain the industry's starter system specialists.

Very truly yours,

Joe Chowansky



Dear Jay:

Fresh from the Discovery Channel Biker Build-Off victory, we first have the opportunity to thank you for designing and manufacturing an electric start kit for our Baker 6-speed in a 4-speed case rear belt application. It was wonderful working with you on the project. It was the third of what hopefully will be many more customs.

It is flattering that you are featuring the kit in your catalog and naming it the Indian Larry Signature Series. Look forward to seeing you soon.

Again, many thanks.

Indian Larry Gasoline Alley

Industry Leaders Trust Tech Cycle

BOBBER SHOP

















































