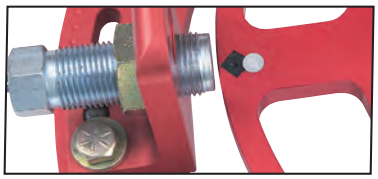
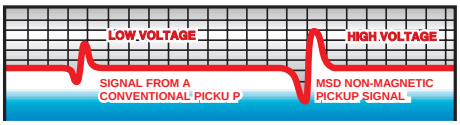
FLYING MAGNET CRANK TRIGGERS



Strong rare earth magnets used in the trigger wheel are riveted in place.

FLYING MAGNET DESIGN PREVENTS FALSE TRIGGERS

The Flying Magnet Crank Trigger is named for the four magnets that are embedded in the aluminum wheel. As the engine is rotating, these magnets move past the stationary non-magnetic pickup, creating the trigger signal for the ignition. This design eliminates false triggering because only the moving magnets can trigger the pickup and ignition control.



For a long time, racers have known that one of the best things to do to an engine to improve its performance is to stabilize the ignition timing. The MSD Flying Magnet Crank Trigger system does exactly that by using four magnets embedded in an aluminum wheel. Although similar in appearance to other crank triggers, the MSD Flying Magnet design works on a different principle.

Most crank triggers have a wheel, with steel studs sticking out, bolted to the harmonic balancer. As the crankshaft turns, the studs pass by a stationary magnetic pickup, triggering the ignition. This pickup can be triggered by other bolts, debris or even vibrations which will cause a loss of power or engine damage. The MSD Flying Magnet Crank Trigger uses four magnets secured in the aluminum trigger wheel that pass by a stationary non-magnetic pickup to trigger the ignition. This "flying magnet" design produces accurate trigger signals and the non-magnetic pickup cannot be false triggered.

Each Flying Magnet Crank Trigger includes a two-piece mounting bracket for the non-magnetic pickup that in most cases will work on either the passenger side or driver's side of the engine (the SB Chrysler and SB Ford brackets mount on only one side). The CNC-machined aluminum bracket securely holds the pickup in place and is slotted to provide a wide range of timing adjustment. Spacers are included so you can mount the bracket on engines with standard motor mounts or engines with a .25" motor plate. These systems will trigger MSD 6, 7 and 8-Series Ignitions and all MSD Timing Accessories.

FLYING MAGNET™ CRANK TRIGGER KITS

Chevy

Small Block

- **6.25" Balancer - PN 8600***
- **7" Balancer - PN 8610***
  - Wheel only - **PN 8611***
- **8" Balancer - PN 8615***

Big Block

- **8" Balancer - PN 8620***
  - Wheel only - **PN 8621***

Chrysler

- **SB, 7.25" Balancer - PN 8633***
- **BB, 7.25" Balancer - PN 8636***

Ford

- **SB,** 289, 302, 351W, **6.562" Balancer - PN 8640***
- **BB,** (except Cleveland block), **7.25" Balancer - PN 8644***

Pontiac V8

- **7" Balancer - PN 8650***

The MSD Flying Magnet Crank Trigger kits are supplied complete with CNC-machined brackets, spacers and hardware.

TECH TIP

A few things to consider with your Flying Magnet Crank Trigger Kit:

- *The arrow on the wheel MUST face out!*
- *Air gap between the wheel and the pickup should be 0.030" – 0.060"*
- *The resistance across the pickup wires should be 65 – 85 ohms*

*Not legal for use or sale on pollution controlled vehicles.

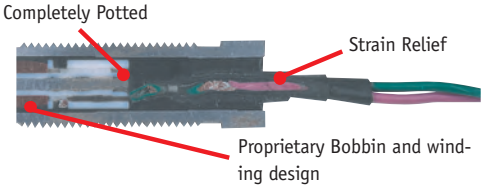
Non-Magnetic Pickup

MSD's Non-Magnetic Pickups are engineered for extreme applications. In fact, this Pickup was designed and tested on 300+ mph top fuel dragsters! To live up to MSD's demanding expectations in these extreme applications, we took it upon ourselves to design and build the Pickups in-house. This way we can control every aspect of their assembly and quality.

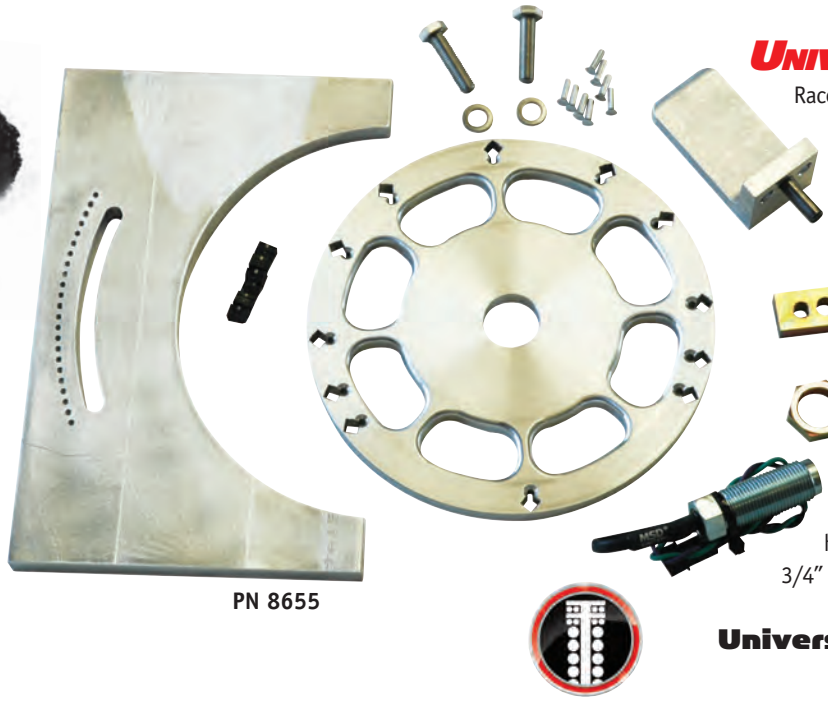
Each Pickup is hand wound on a special bobbin and terminated to our tinned conductor, teflon jacketed wiring. These wires are also routed through a strain relief for protection. This assembly is then installed into the precision housing and is potted with a fracture resistant epoxy compound. To ensure that the windings are entirely encased in epoxy, the Pickups undergo a vacuum procedure to remove any air inside the housing.

All of these procedures are necessary to produce the strongest, most reliable non-magnetic Pickup available.

PN 8276



Non-Magnetic Pickup for MSD Flying Magnet Crank Trigger Kits (3/4" X 16 X 2.25") **- PN 8276**



PN 8655

Universal Crank Trigger Kit

Racers have always been inventive and willing to fabricate the parts they need if nothing is available. Building a crank trigger system is not an easy task but there has been an increasing number of unique front hub systems and distributorless ignitions that require one. MSD's Universal Flying Magnet Crank Trigger Kit will give you a head start in fabbing a custom kit for your application.

This kit is supplied with everything you'll need to get you going in the right direction. A 7" billet aluminum wheel is supplied that has magnet positions for 4, 6, 8, 10 or even 12-cylinder engines. An oversized bracket arm is supplied that can be cut down to your specs and an "L" shaped holder is also supplied that can be machined for the 3/4" or 3/8" pickup.

Universal Crank Trigger Kit - PN 8655*

Magnetic Pickup

This is a replacement pickup for older style crank trigger systems that require a magnetic pickup. This pickup is magnetic and must be used with a trigger wheel equipped with steel studs to create a signal. The pickup is .75" x 16" x 2.25".

Magnetic Pickup (for old style crank triggers only) **- PN 8505**

*Not legal for use or sale on pollution controlled vehicles.