



Technical Bulletin: 481X crank trigger parts selection

X-10 applications using the 481X engine platform require ignition parts different than the Ford and Chevy engine platforms (which most often use MSD, Innovators West and other crank trigger types). The AJPE 481X and TFX HEMI engines are most often used with 7" diameter degree rings/trigger wheels and 3/8" diameter pickups. As such, the X-10 block adapters have been designed for use with these parts. We have assembled this bulletin to assist in determining what parts will be needed to incorporate a crank trigger into your X-10 setup.

- Damper-to-hub compatibility: 481X and TFX engines are most often used with Hubs and Dampers featuring a 6-bolt pattern on a 2.760" diameter bolt circle. These hubs are available from RCD engineering in various lengths, for crankshafts having splined or keyed snouts.
- The damper shell is typically provided by the engine builder. We have not confirmed the damper shell part number typically used in these applications, but information we have reviewed to date indicates that ATI damper shell part number 918442E-99. The hub adapters used to fit the damper shell to the RCD hub are available from RCD under the following part numbers:
 - 204203-02 - Aluminum adaptor to connect your ATI Damper to a RCD keyed crank hub
 - 204203-03 Aluminum adaptor to connect your ATI Damper to a RCD splined crank hub



Figure 1 - RCD hub-to-damper adapter

- With the damper shell and hub in place, RCD P/N 204203-05 may be used to adapt an RCD degree ring to your damper. Images found on the RCD site at the time of this bulletin's writing show an adapter with three thru holes. When ordering a degree ring adapter for your application, the adapter must feature six thru holes



Figure 2 - RCD degree ring to damper adaptor

- Degree rings with magnets are available from RCD under the following part numbers:
 - 201020-0004 - This degree ring has a diameter of 7.0", it has 4 magnets 90 degrees apart and is marked for an alcohol burning engine 204203-03 Aluminum adaptor to connect your ATI Damper to a RCD splined crank hub
 - 201020-0012 - This degree ring has a diameter of 7.0", it has 12 magnets 30 degrees apart and is marked for an alcohol burning engine.



Figure 3 - RCD degree wheel

- RCD offers two crank trigger pickup holders suitable for use with their 7.0" trigger wheels. They are available under the following part numbers:
 - 202015-03 This standard pickup holder has a 3/8-24 threaded hole for a small MSD pickup P/N 8159
 - 202015-05 This standard pickup holder has a .380" diameter thru (unthreaded) hole for a Leahy pickup RCD P/N 202005-90



Figure 4 - RCD holder for threaded pickup

- Threaded crank trigger pickups are available under MSD part number 8159 and 8154'



Figure 5 - MSD P/N 8154 pickup



Figure 6 - MSD P/N 8159 pickup

- Unthreaded crank trigger pickups are available under RCD P/N 202005-90. These pickups, made by Electrimotion, come standard with a 36" lead and a 90 degree turn. They are available by special order in straight, 45 degree and 120 degree turns. These pickups are robust and able to withstand the rigors of serious drag and circle track racing.



If you're looking for more information on 481x crank triggers and other details, more information is available here:

<http://www.alanjohnsonperformance.com/gear-drives/item/196>

RCD also has many helpful details on their website here:

<http://rcdengineering.com/product-v2/damper-adaptors>