

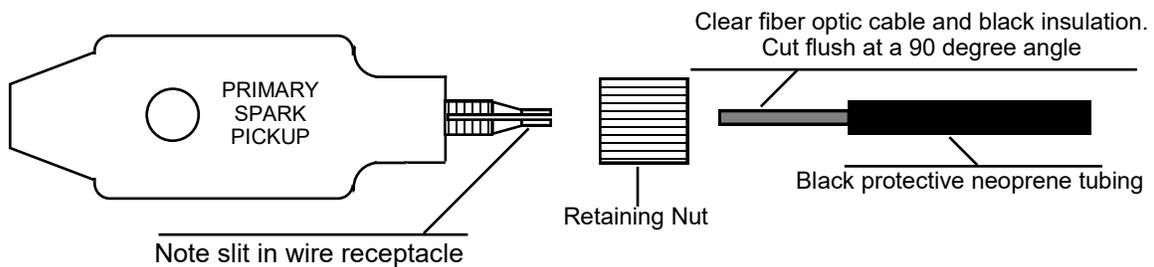
## TRIMMING AND CONNECTING THE FIBER OPTIC CABLE TO THE PRIMARY SPARK PICKUP

**NOTE:** There are currently two types of primary spark pickups in the field. Each require a different method of trimming the optic cable. The early type was manufactured before April 1, 1996. Please identify the type you have and follow the instructions for that type only.

### New Style Primary Spark Pickups (manufactured after April 1, 1996)

Using a sharp razor blade cut through the fiber optic cable and the black insulation at a 90 degree angle. The trimming is correct when the clear fiber optic cable is flush with the black insulation.

Push the fiber optic into the Primary Spark Pickup and finger tighten the retaining nut. Over-tightening could damage the optic cable.

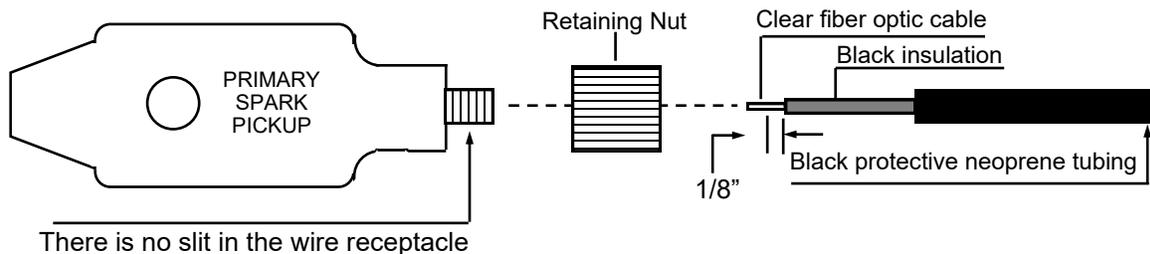


### Old Style Primary Spark Pickup (manufactured before April 1996)

Using a sharp razor blade cut the fiber optic cable and the black insulation at a 90 degree angle slightly longer than needed. Cut the black neoprene protective cover about one inch shorter being careful not to cut the fiber optic wire or its black insulation.

Next trim approximately 1/8" of the black insulation from the clear fiber optic cable.

Insert the fiber optic cable and the black insulation into the tip of the primary spark pickup, seating the fiber optic at the rear of the hole. Install the retaining nut finger tight. Over-tightening could cause damage to the optic cable.



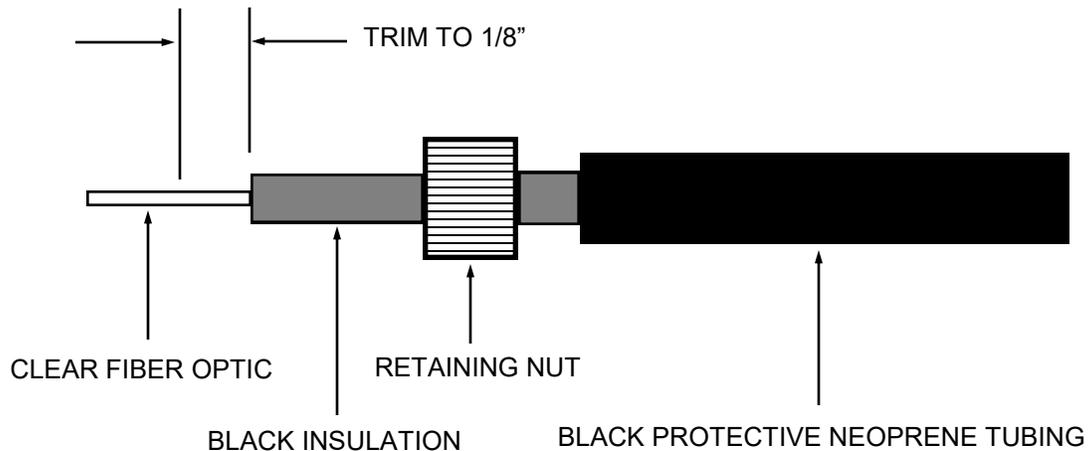
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**PORTANT:** Avoid sharp bends in the fiber optic cable. If you use tie wraps to hold the optic cable in place along the frame rail or roll bars DO NOT tie tightly, as the optic cable may be damaged.

## TRIMMING THE FIBER OPTIC CABLE AND CONNECTING IT TO THE RACEPAK DATA RECORDER

**PLEASE NOTE:** The following applies only to the end of the fiber optic cable that goes into the Racepak data recorder. It does not apply to the end that is inserted into all styles of Primary Spark Pickups. Instructions for trimming the end for the two types of Spark Pickups are on the preceding page.

- 1) Cut the fiber optic cable to the correct length. Only on the end that goes into the data recorder, strip back the black insulation 3/16" to 1/4". This cut should be made using a sharp razor blade. Be very careful not to cut into the clear fiber optic.
- 2) Using the sharp razor blade make a 90 degree cut in the clear fiber optic material leaving only 1/8" of the clear material exposed outside the black insulation.
- 3) Cut the protective neoprene tubing approximately 2" shorter than the fiber optic cable. Slide the fiber optic cable into the protective tubing, leaving about 2" of the optic cable extended outside the end of the protective tubing.
- 4) Gently push the optic cable into the 'Engine RPM' or 'Spark' port of the Racepak data recorder. **It is very important that the optic cable is completely bottomed out in the fitting.** Tighten the retaining nut finger tight to keep the optic cable in place. Do not over tighten as the optic cable can be damaged.



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## INSTALLING THE SPARK PICKUP ONTO THE RPM SIGNAL SOURCE (MAGNETO IGNITION SYSTEMS)

**Note:** Due to the various styles and amperage of magnetos in use today there is no single instruction that covers all types. Please locate the schematic for your type of magneto and follow that diagram closely. If you have any questions please call Racepak.

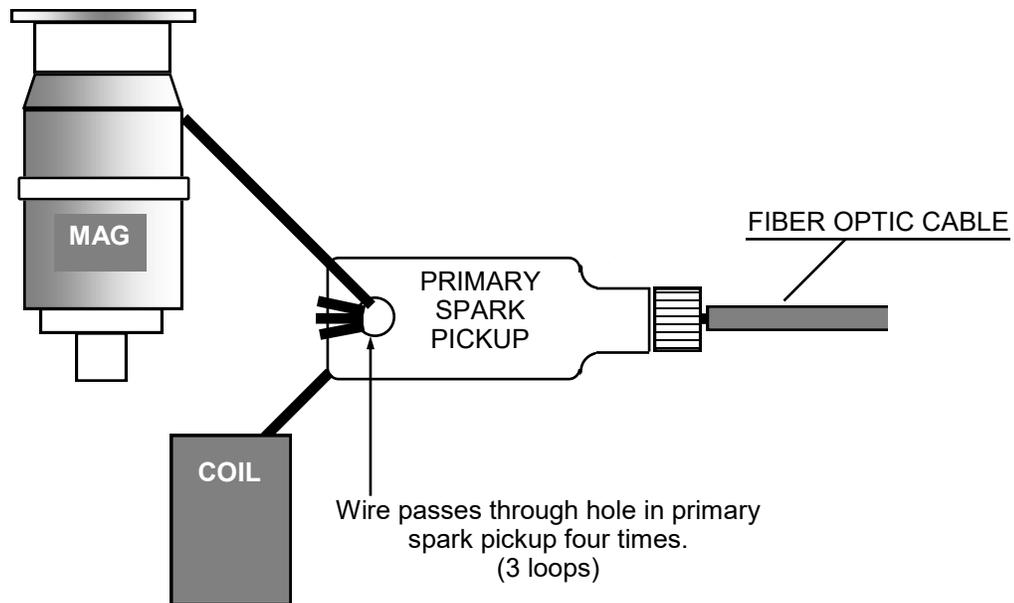
The **Primary** wire (usually orange or red in color), that connects the magneto to the coil or control box, must be routed through the Primary Spark Pickup. The wire must pass through the opening in the pickup (see drawing below). The number of times the wire must pass through the hole will depend on the type of magneto you are using:

Up To 5 Amp magneto	4 passes through hole	(3 loops)
MSD 12 Amp magneto	3 passes through hole	(2 loops)
MSD 20 Amp magneto	3 passes through hole	(2 loops)
MSD 44 Amp magneto	1 pass through hole	(no loops)

**IMPORTANT:** The primary wire must be cut, looped through the hole in the pick up module, and then spliced back together. You cannot double the wire over and then pass it through the hole half as many times. That method will not provide the clear signal that is required.

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### TYPICAL MALLORY MAGNETO INSTALLATION

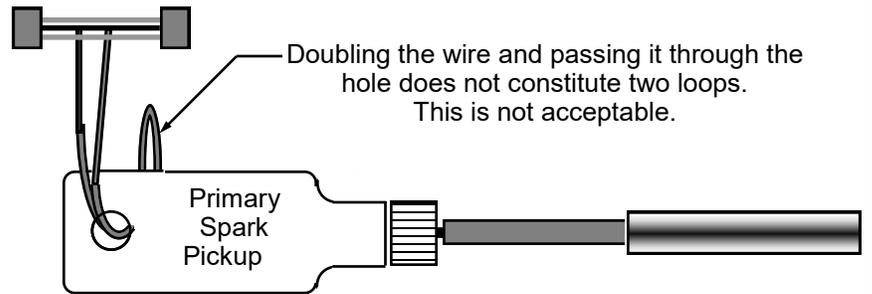
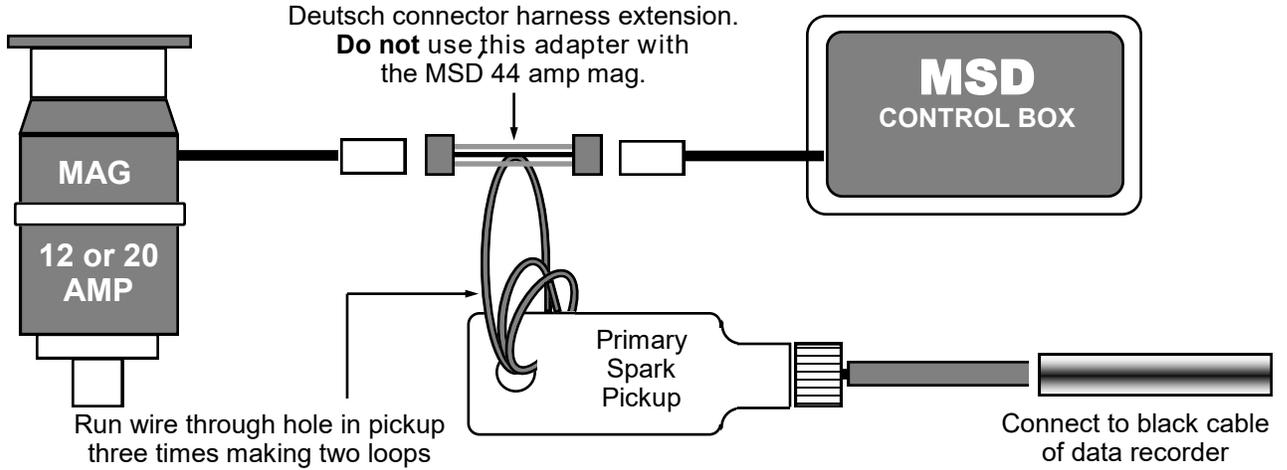


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## TYPICAL MSD 12 AMP OR 20 AMP MAGNETO INSTALLATION

Racepak #800-CA-MAGADPT -or- MSD Inductive Pickup Cable Part # 8114



## TYPICAL MSD 44 AMP MAGNETO INSTALLATION

