



INSTALLATION INSTRUCTIONS

MULTI STAGE HIGH SPEED RETARD

(REMOTE / ADJUSTABLE IGNITION TIMING CONTROL)

Part No. 618-3

The Multi Stage High Speed Retard Part No. 618-3 is not legal for sale or use in California on any pollution controlled motor vehicles.

PARTS LIST:

- | | |
|---|--|
| 1 - Multi Stage High Speed Retard (control box) | 1 - Terminal, male receptacle 1/4" |
| 1 - Velcro™ hook and loop | 1 - Terminal, female receptacle 1/4" |
| 1 - Terminal, insulated open | 1 - Screw, #8 sheet metal |
| 1 - Terminal, ring insulated | 3 - Splice, butt crimp |
| 1 - Terminal, spade | 1 - Magnetic pickup harness (Part No. 29787) |

GENERAL INFORMATION

The Multi Stage High Speed Retard is an adjustable three stage timing retard control. The adjustment range for the first and second stage is 0°-15° while the third stage is 0°-20°. Each succeeding stage overrides the previous stage. Since each succeeding stage overrides the previous stage, the racer can take out, or put back in, some ignition timing on a succeeding stage. This is typically used in drag racing, and is especially recommended for nitrous oxide applications. It is not necessary to switch "OFF" a previous stage for a succeeding stage to override the previous stage.

The Multi Stage High Speed Retard may be used with any electronic ignition using one of the Mallory HYFIRE® Electronic Ignition Controls or any comparable types of high energy inductive storage or capacitive discharge ignition control with a point or electronic ignition amplifier trigger.

NOTE: *The Multi Stage High Speed Retard cannot be used with the Mallory HYFIRE® Electronic Ignition Control Part No. 29037, point trigger distributors, semi-even fire engines or odd-fire engines. The Multi Stage High Speed Retard is not for marine use.*

Spark Plug Wires

To prevent false triggering and the possibility of premature ignition failures, use suppression type spark

plug wire. Spiral suppression core type ignition wire is highly recommended, such as Mallory PRO SIDEWINDER® Ignition Wire.

Electric Welding

Unplug all wires on the control box, and unplug the distributor harness before any welding is done on the vehicle.

MOUNTING PROCEDURE

Find a location to mount the control box. The control box must be mounted away from high heat producing parts such as headers or coolant lines. The control box must be mounted where the controls can be adjusted. Use Velcro™ fastening tape for attaching the control box to the dash or flat mounting surface.

WIRING PROCEDURE

BLACK WIRE

Connect the BLACK wire to engine or chassis ground. Use the supplied crimp ring insulated terminal and sheet metal screw for this if necessary.

RED WIRE

Connect the RED wire to 12-volts from ignition switch.

TRIGGER INPUTS

Magnetic Pickup Connector/Small PURPLE (MAG+) and small GREEN (MAG-) wires:

If you are using a magnetic pickup, such as a crank trigger, and the magnetic pickup wires are connected

to the ignition control, transfer the magnetic pickup wires to the magnetic pickup connector (small PURPLE/MAG+ and small GREEN/MAG- wires) on the control box.

If you are using a magnetic pickup, such as a crank trigger, and the magnetic pickup wires are connected to another timing accessory, the magnetic pickup wires shall remain connected to that timing accessory. The magnetic pickup connector on the control box will not be used. Install the female receptacle terminal on the trigger output wire from the timing accessory and connect it to the GREEN (trigger input) wire with the male receptacle terminal.

If you are using an electronic ignition distributor, install the female receptacle terminal on the trigger output wire from the ignition module and connect it to the GREEN (trigger input) wire with the male receptacle terminal.

TRIGGER OUTPUT

Connect the WHITE wire with the female receptacle terminal to the point or electronic ignition amplifier

trigger input terminal or wire on the inductive storage or capacitive discharge ignition control.

TIMING RETARD WIRES

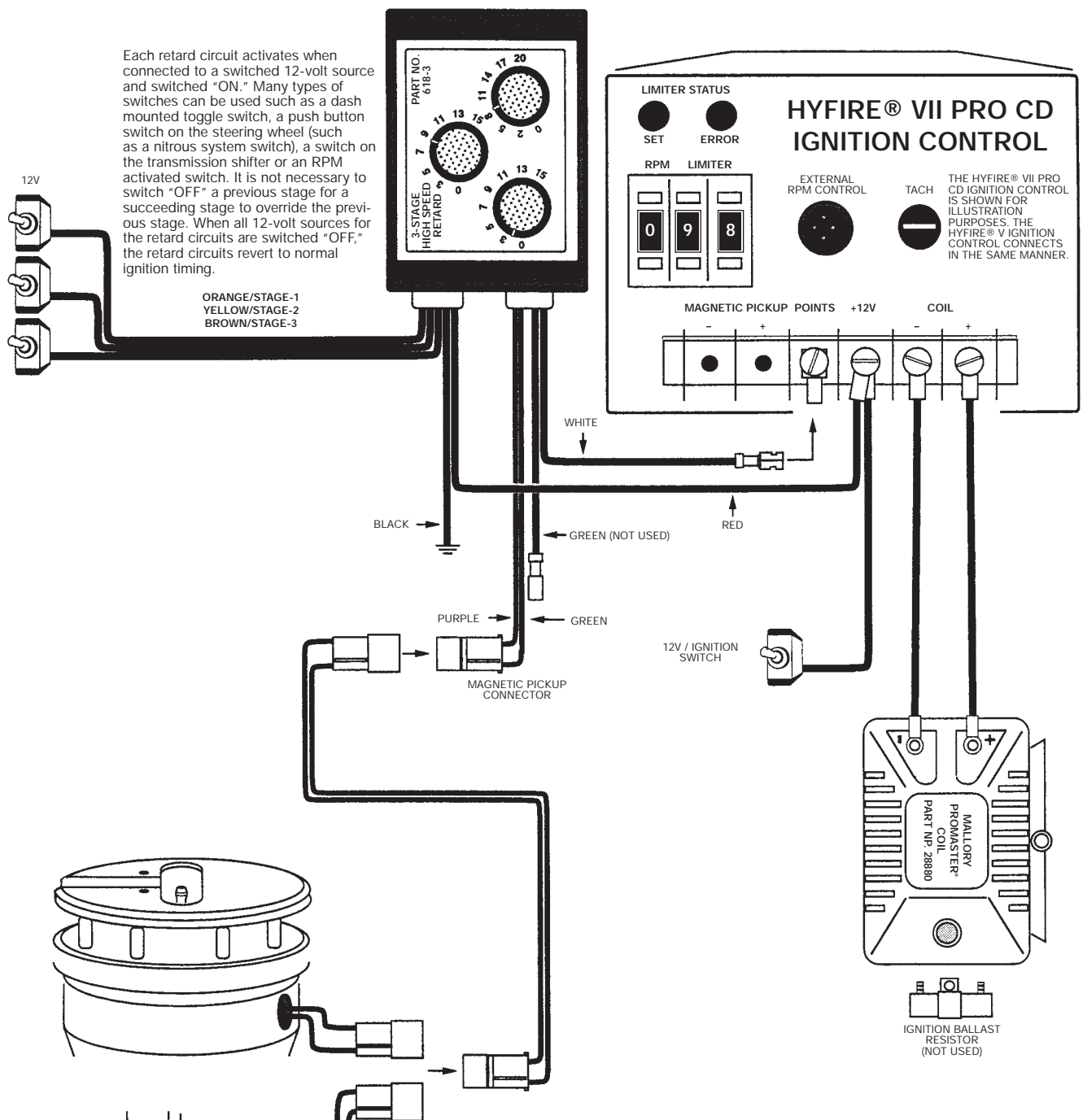
Stage-1 ORANGE wire

Stage-2 YELLOW wire

Stage-3 BROWN wire

Each retard circuit activates when connected to a switched 12-volt source and switched "ON." Many types of switches can be used such as a dash mounted toggle switch, a push button switch on the steering wheel (such as a nitrous system switch), a switch on the transmission shifter or an RPM activated switch. It is not necessary to switch "OFF" a previous stage for a succeeding stage to override the previous stage. When all 12-volt sources for the retard circuits are switched "OFF," the retard circuits revert to normal ignition timing.

FIGURE 1: HYFIRE® VII IGNITION CONTROL; MAGNETIC PICKUP DISTRIBUTOR OR CRANK TRIGGER IGNITION



Each retard circuit activates when connected to a switched 12-volt source and switched "ON." Many types of switches can be used such as a dash mounted toggle switch, a push button switch on the steering wheel (such as a nitrous system switch), a switch on the transmission shifter or an RPM activated switch. It is not necessary to switch "OFF" a previous stage for a succeeding stage to override the previous stage. When all 12-volt sources for the retard circuits are switched "OFF," the retard circuits revert to normal ignition timing.

ORANGE/STAGE-1
YELLOW/STAGE-2
BROWN/STAGE-3

MAGNETIC PICKUP/CRANK TRIGGER COLOR CODES

- MAGNETIC PICKUP DISTRIBUTOR OR CRANK TRIGGER
- MALLORY BILLET COMPETITION DISTRIBUTOR SERIES NOS. 81 AND 84
- MALLORY COMP 9000® SERIES NOS 96-99
- MALLORY CRANK TRIGGER OR WIRE HARNESS PART NO. 29787
- MALLORY DISTRIBUTOR WIRE HARNESS PART NO. 29788
- MALLORY HARNESS PART NO. 29040
- MSD™ CRANK TRIGGER OR WIRE HARNESS PART NOS. 8859 OR 8860
- MSD™ CRANK TRIGGER (OLD STYLE)
- MSD™ DISTRIBUTOR
- MOROSO™ CRANK TRIGGER
- MOROSO™ DISTRIBUTOR
- ACCEL® CRANK TRIGGER
- CHRYSLER ELECTRONIC DISTRIBUTOR (NON-COMPUTER)
- FORD DURASPARK DISTRIBUTOR (NON-COMPUTER)
- GM/DELCO HEI DISTRIBUTOR (NON-COMPUTER)

PICKUP MAG+	PICKUP MAG-
ORANGE	PURPLE
ORANGE	PURPLE
PURPLE	GREEN
ORANGE	PURPLE
RED	BLACK
PURPLE	GREEN
ORANGE	BLACK
ORANGE	PURPLE
BLACK	WHITE
ORANGE	PURPLE
BLACK	WHITE
ORANGE	BLACK
ORANGE	PURPLE
WHITE	GREEN

FIGURE 2: HYFIRE® VII IGNITION CONTROL; MALLORY UNILITE® DISTRIBUTOR, MAGNETIC BREAKERLESS IGNITION DISTRIBUTOR OR ELECTRONIC ADVANCE DISTRIBUTOR

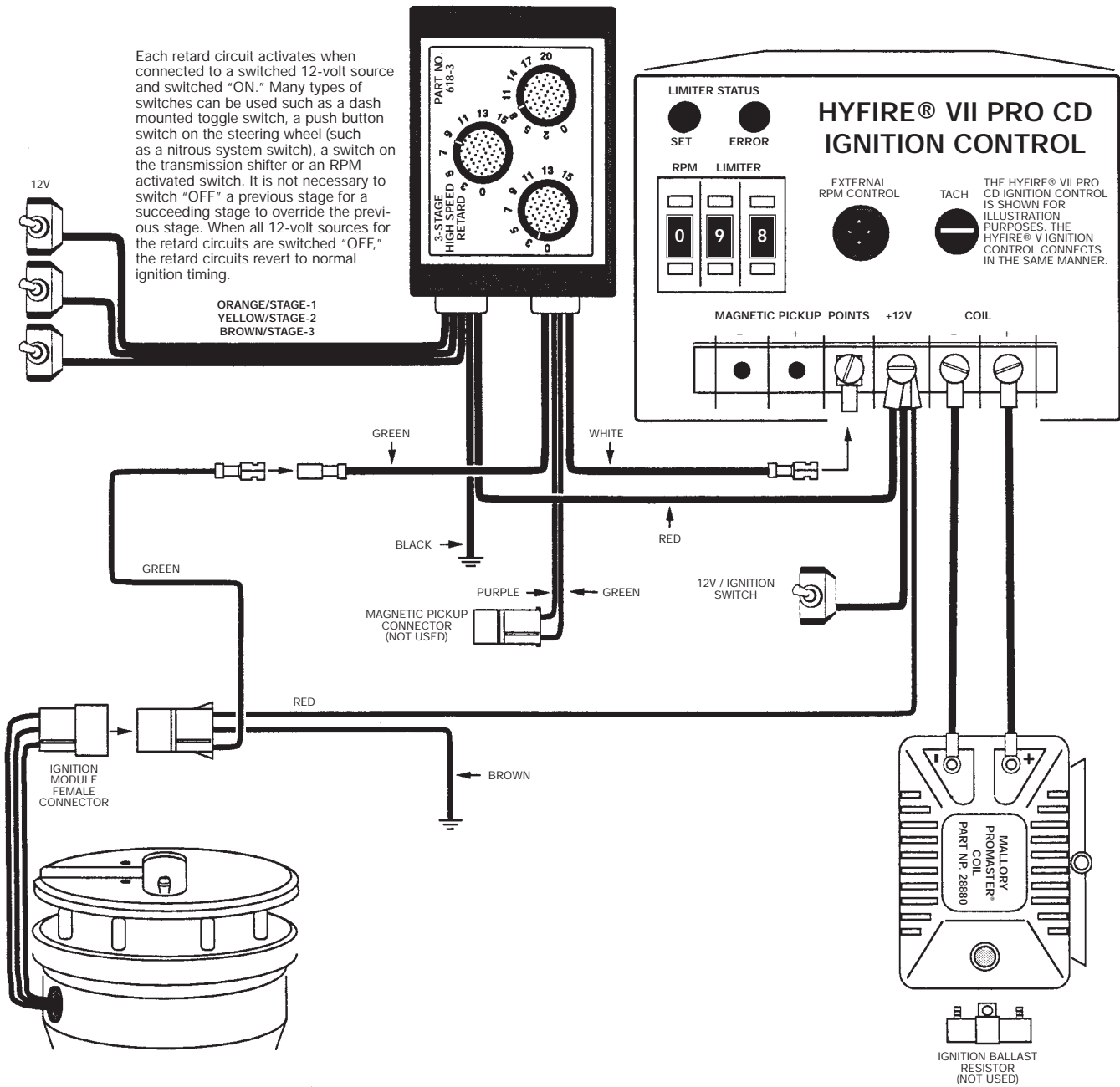
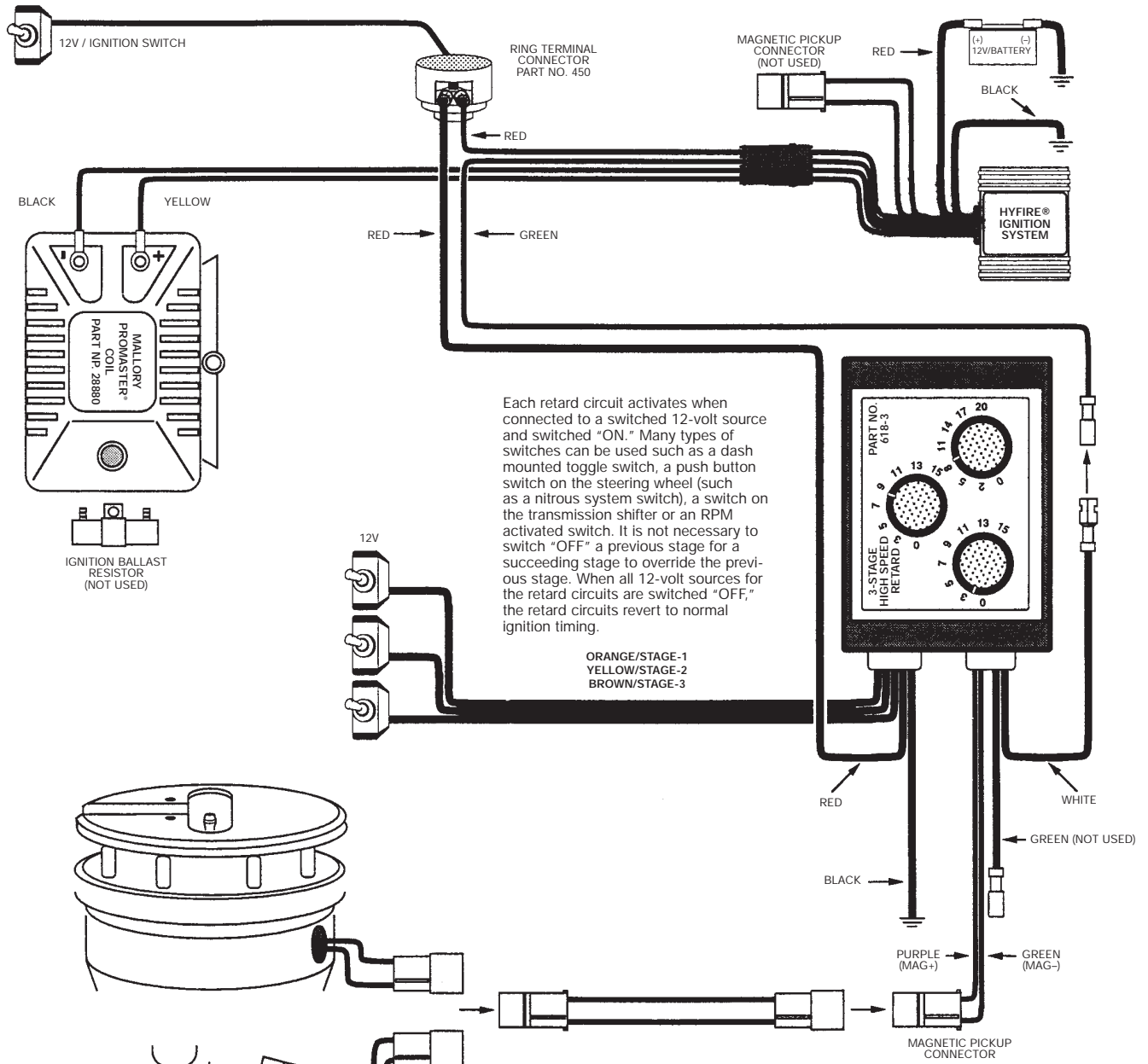


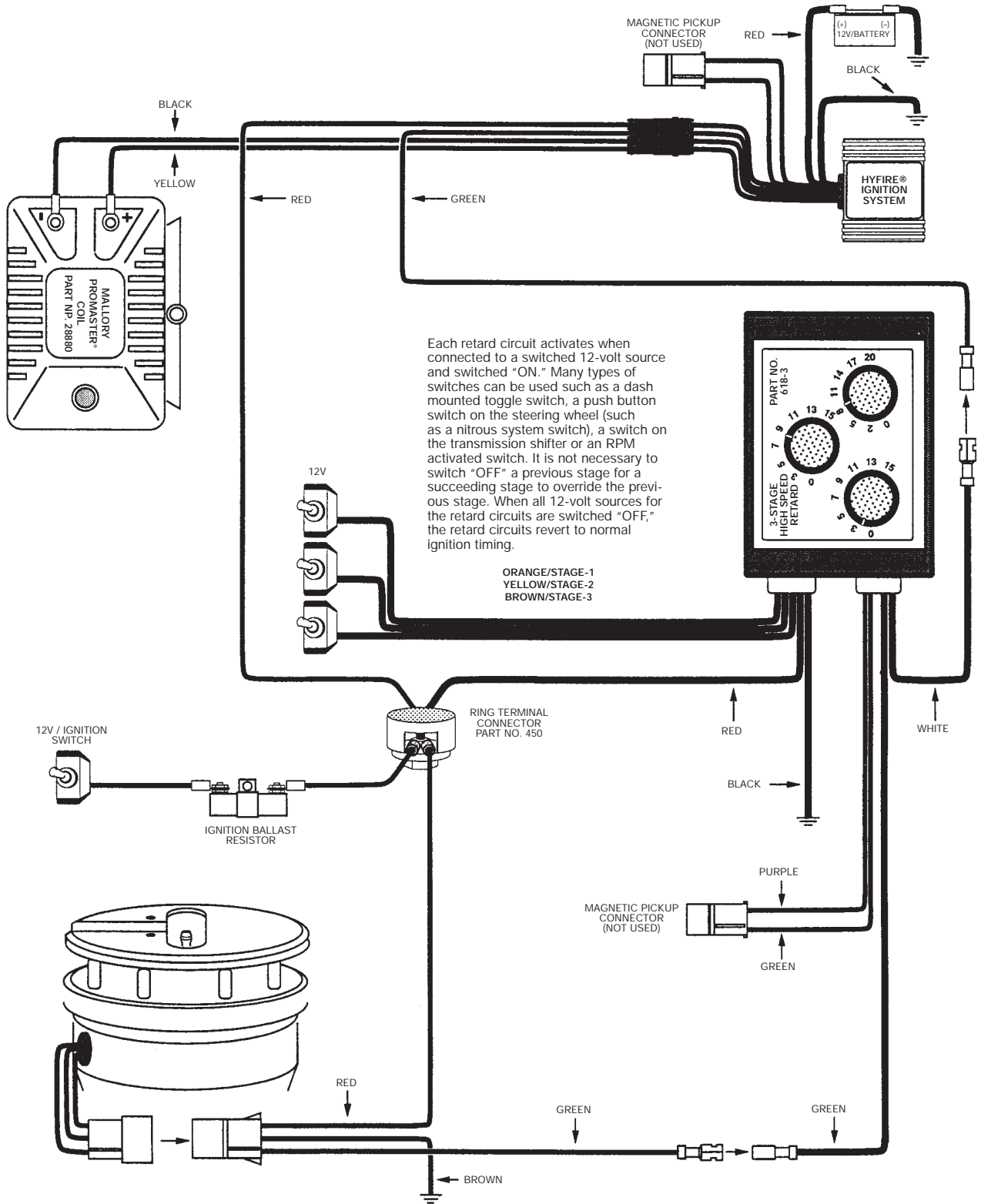
FIGURE 3: HYFIRE® IA, IIA, IIIA, IV/A-C, CD/IS AND SD IGNITION CONTROL; MAGNETIC PICKUP DISTRIBUTOR OR CRANK TRIGGER



MAGNETIC PICKUP/CRANK TRIGGER COLOR CODES

MAGNETIC PICKUP DISTRIBUTOR OR CRANK TRIGGER	PICKUP MAG+	PICKUP MAG-
MALLORY BILLET COMPETITION DISTRIBUTOR SERIES NOS. 81 AND 84	ORANGE	PURPLE
MALLORY COMP 9000® SERIES NOS 96-99	ORANGE	PURPLE
MALLORY CRANK TRIGGER OR WIRE HARNESS PART NO. 29787	PURPLE	GREEN
MALLORY DISTRIBUTOR WIRE HARNESS PART NO. 29788	ORANGE	PURPLE
MALLORY HARNESS PART NO. 29040	RED	BLACK
MSD™ CRANK TRIGGER OR WIRE HARNESS PART NOS. 8859 OR 8860	PURPLE	GREEN
MSD™ CRANK TRIGGER (OLD STYLE)	ORANGE	BLACK
MSD™ DISTRIBUTOR	ORANGE	PURPLE
MOROSO™ CRANK TRIGGER	BLACK	WHITE
MOROSO™ DISTRIBUTOR	ORANGE	PURPLE
ACCEL® CRANK TRIGGER	BLACK	WHITE
CHRYSLER ELECTRONIC DISTRIBUTOR (NON-COMPUTER)	ORANGE	BLACK
FORD DURASPARK DISTRIBUTOR (NON-COMPUTER)	ORANGE	PURPLE
GM/DELCO HEI DISTRIBUTOR (NON-COMPUTER)	WHITE	GREEN

FIGURE 4: HYFIRE® IA, IIA, IIIA, IV/A-C, CD/IS AND SD IGNITION CONTROL; MALLORY UNILITE® DISTRIBUTOR, MAGNETIC BREAKERLESS IGNITION DISTRIBUTOR OR ELECTRONIC ADVANCE DISTRIBUTOR



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FORM 1026
 (REV. C) 06/03
 Made in U.S.A.
 Printed in U.S.A.