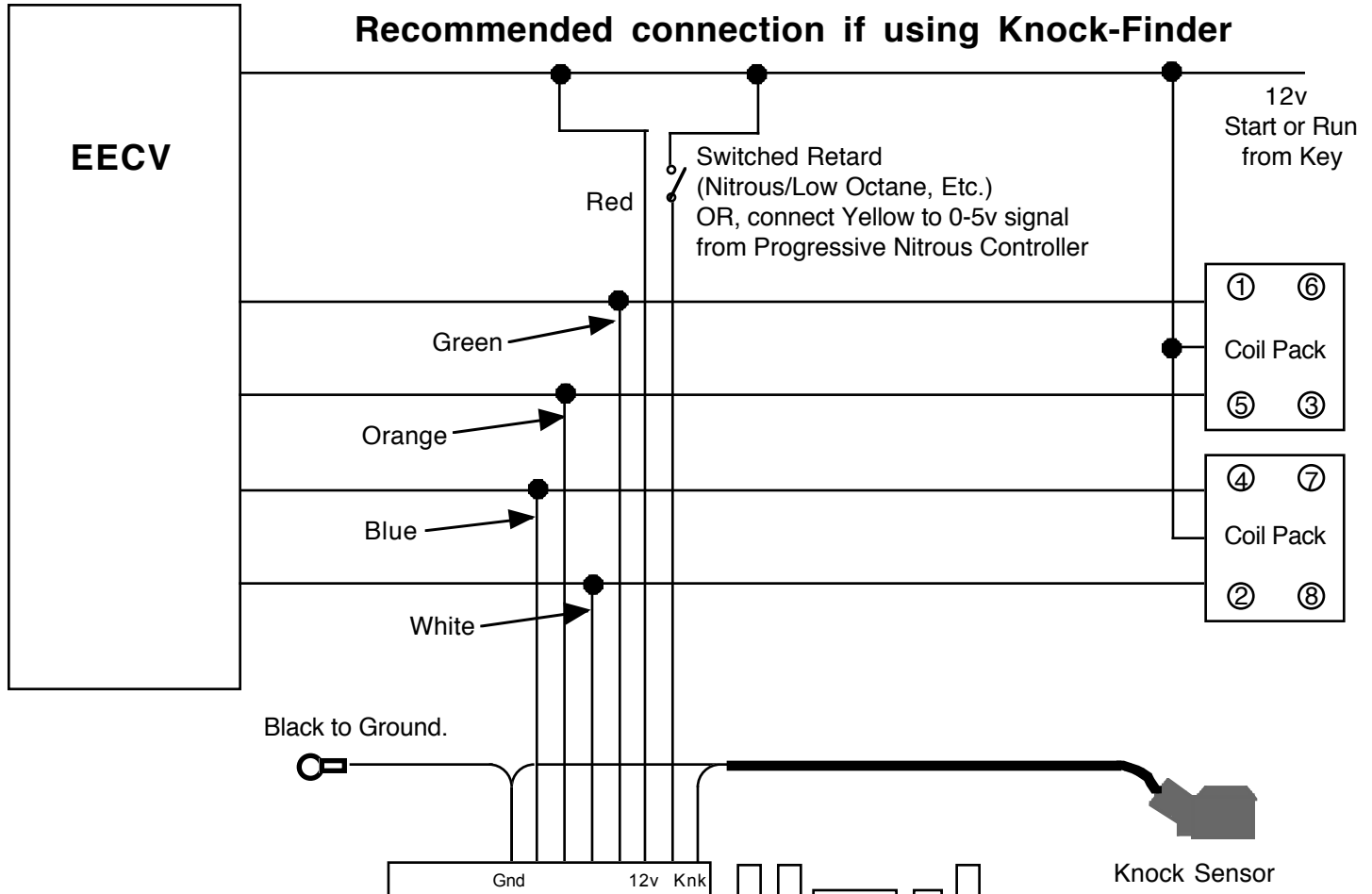


J&S Electronics

13925 Parkway Dr. Garden Grove, CA 92843
 (714) 534-6975 www.jandssafeguard.com

'96-'98 Ford 4ch 8 Cylinder Vampire (waste spark coils)



SafeGuard
 Individual Cylinder Knock Control

J&S
 Electronics

Manifold
 Pressure

Mode Switches:
 (Unit is preset as 8cyl)

S1 up is max 20° knock retard
 S1 dn is max 10° knock retard

S2 up is retard all
 S2 dn is retard individual

S3 S4 S5 Nitrous Retard:

1	1	1	0° - 16°
1	1	0	0° - 14°
1	0	1	0° - 12°
1	0	0	0° - 10°
0	1	1	0° - 8°
0	1	0	0° - 6°
0	0	1	0° - 4°
0	0	0	0° - 2°

Unit retards with 0-5v signal
 from Progressive Nitrous unit

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Applications ● 4, 5, 6, or 8 cylinder operation.

- Coil on plug or waste spark systems
 - Must have access to coil Neg.
 - Not for CDI. Must be inductive ignition.
-

Easy Installation ● Connect output wires to coils in any order (no wires to cut)

- Tap factory knock signal or install Bosch sensor
 - Connect hose to manifold
 - Connect 12v and ground.
-

Operation ● Retards only the knocking cylinders

- Retards with Boost
 - Retards with switch activation, such as nitrous or low octane.
 - Boost retard start point and rate are adjustable
-

Operating Principle ● Stock ignition is primary ignition. Unit retards by extending dwell, increasing spark energy as a side benefit.

- Unit "knows" that knocking cylinder is the last one that fired, and will retard "that cylinder" two revolutions later.
 - Retards one, two, or three steps per knock event, depending on knock intensity and sensitivity setting.
 - Re-advances one step every twenty revolutions.
 - Step size is one or two degrees, depending on mode switch.
-

Warranty Concerns ● Protects coils and factory wiring. Automatic disconnect if overcurrent is sensed.

- To bypass, simply unplug unit from harness. Stock ignition is still connected and operational.