



## Description

The outboard ignition system is alternator-driven with distributor-less capacitor discharge. Major components of the ignition system are the flywheel, stator, trigger, switch box, ignition coils and spark plugs.

The stator assembly is mounted stationary below the flywheel and has 2 capacitor charging coils. The flywheel is fitted with permanent magnets inside the outer rim. As the flywheel rotates the permanent magnets pass the capacitor charging coils. This causes the capacitor charging coils to produce AC voltage. The AC voltage then is conducted to the switch box where it is rectified and stored in a capacitor.

The trigger assembly (also mounted under the flywheel) has 3 coils – 3 cylinder models and 2 coils for 4 cylinder models. The flywheel has a second set of permanent magnets (located around the center hub). As the flywheel rotates the second set of magnets pass the trigger coils. This causes the trigger coils to produce an AC voltage that is conducted to an electric Silicon Controlled Rectifier (SCR) in the switch box.

The switch discharges the capacitor voltage into the ignition coil at the correct time and firing order sequence.

Capacitor voltage is conducted to the primary side of the ignition coil. The ignition coil multiplies this voltage high enough to jump the gap at the spark plug.

The preceding sequence occurs once-per-engine-revolution for each cylinder.

Spark timing is changed (advanced/retarded) by rotating the trigger assembly which changes each trigger coil position in relation to the permanent magnets on the flywheel center hub.

**IMPORTANT:** If the engine misfires, runs rough or does not start, the ignition system should be checked using a Multi-Meter/DVA Tester (91-99750), or a voltmeter (capable of measuring 400 volts DC, or higher) and Direct Voltage Adapter (91-89045).

## Test Procedures

### Direct Voltage Adapter (DVA) Tests

#### WARNING

**DANGER - HIGH VOLTAGE/SHOCK HAZARD!** Do not touch ignition components and/or metal test probes while engine is running and/or being “cranked.” **STAY CLEAR OF SPARK PLUG LEADS.** To assure personal safety, each individual spark plug lead should be grounded to engine.

#### CAUTION

To protect against meter and/or component damage, observe the following precautions:

- 400 VDC\* test position (or higher) **MUST BE** used for all tests.
- **INSURE** the Positive (+) lead/terminal of DVA is connected to the Positive (+) receptacle of meter.
- **DO NOT CHANGE** meter selector switch position while engine is running and/or being “cranked.”
- **Switch box MUST BE GROUNDED** during tests. Running or “cranking” engine with switch box ungrounded may damage switch box.

\* If using a meter with a built-in DVA, the DVA/400 VDC test position should be used.

**NOTE:** Test leads are not supplied with the DVA. Use test leads supplied with meter.

Test procedures and specifications are provided for **checking primary ignition voltage** while the engine is **running** and/or being “**cranked**.”

#### TROUBLESHOOTING TIPS:

##### 3 CYLINDER MODELS –

1. Intermittent, weak, or no spark output at **one** spark plug usually indicates a **bad GROUND, SPARK PLUG, COIL, SWITCH BOX or TRIGGER.**
2. Intermittent, weak, or no spark output at all **three** spark plugs usually indicates a **bad STATOR, SWITCH BOX or STOP CIRCUIT.** A defective **WHITE/BLACK Lead** for the trigger will also cause intermittent, weak or no spark at all 3 cylinders as this lead is the return path for all 3 triggers.



## TROUBLESHOOTING TIPS: 4 CYLINDER MODELS –

1. Intermittent, weak, or no spark output at **two** spark plugs usually indicates a **bad TRIGGER**.
2. Intermittent, weak, or no spark output at all **four** spark plugs usually indicates a **bad STATOR, SWITCH BOX or STOP CIRCUIT**.
3. Intermittent, weak, or no spark at any **one** spark plug usually indicates a bad **GROUND, SPARK PLUG, COIL, or SWITCH BOX**.

## Test Sequence

### 1-A) Check primary input voltage to coils. (See Test Chart).

1. If voltage readings to coil(s) are **BELOW** specification, proceed with **Step 2-A**.
2. If voltage readings to coil(s) are **WITHIN** specifications, proceed with **Step 1-B**.

### 1-B) Check coils for spark. [Connect Spark Gap Tester (91-63998A1) between coil high voltage tower and spark plug.]

1. No spark or weak spark. **COIL** is bad.
2. Spark is OK, proceed with **Step 1-C**.

### 1-C) If Step 1-A and 1-B check OK, replace spark plugs.

If problem exists after replacing spark plugs, proceed with **Step 1-D**.

### 1-D) If Steps 1-A, 1-B, and 1-C check OK, check ignition timing.

1. If ignition timing **does not** check to specification (or a sudden or unexplained timing change occurs) check trigger advance linkage for loose and/or broken parts and check trigger magnet ring (on flywheel hub) for looseness and/or a shift in position.
2. If ignition checks to specification and engine does not run or runs poorly, **trouble exists with fuel system or engine mechanical**.

### 2-A) Check switch box “stop” circuit. (See Test Chart).

1. If reading is **BELOW** specifications, proceed with **Step 2-B**.
2. If reading is **ABOVE** specifications, the **Trigger** or **Switch Box** is bad (test trigger as outlined in this service manual section; if trigger checks OK, replace switch box and repeat check).
3. If reading is **WITHIN** specifications, proceed with **Step 3-A**.

### 2-B) Check ignition switch/wiring, as follows:

#### CAUTION

To prevent engine from starting, remove spark plug leads from **ALL** spark plugs and ground leads to engine.

1. Disconnect **ignition switch** and **stop switch** leads from switch box and isolate the leads.
2. Repeat check in **Step 2-A**.
3. If reading is still **BELOW** specification, proceed with **Step 3-A**.
4. If reading is **WITHIN** specification, **either the ignition switch, stop switch, or wiring** is bad.

### 3-A) Check stator low speed and high speed input to switch box. (See Test Chart).

1. If either the low speed or high speed reading to switch box is **BELOW** specification, **Stator** or **Switch Box** is bad (test stator as outlined in this service manual section; if stator checks to specification replace switch box and repeat check).
2. If both the low speed and high speed reading are **WITHIN** specification, replace switch box and repeat test.



## Ignition System DVA Specifications Test Chart

**IMPORTANT: BEFORE attempting the ignition system checks, following, read the preceding pages of these instructions to become familiar with the proper test sequence and procedures (particularly any "Safety Warnings" and "Cautions"). ALL tests are performed with lead wires connected – terminals exposed. SWITCH BOX MUST BE GROUNDED (CASE TO ENGINE BLOCK) FOR ALL TESTS – IF NOT, SWITCH BOXES MAY BE DAMAGED.**

### 3 Cylinder Stators

**75 Manual with 9 Ampere Stator 398-9873A20, USA-0D283222 thru 0G227199**

**75/90 Electric with 16 Ampere Stator 398-9710A3, USA-0D283222 thru 0G280043  
Belgium-09793577 thru 09879064**

| ADI Test Seq. | Test                   | Selector Sw. Position | DVA Leads                                                  |                   | Voltage Reading <sup>(1)</sup><br>@ 300-1000 RPM | Voltage Reading<br>@ 1000-4000 RPM |
|---------------|------------------------|-----------------------|------------------------------------------------------------|-------------------|--------------------------------------------------|------------------------------------|
|               |                        |                       | Red                                                        | Black             |                                                  |                                    |
| 1-A           | Coil Primary           | 400 VDC*              | Coil (+) Terminal                                          | Coil (–) Terminal | 150-250                                          | 180-280                            |
| 2-A           | Sw. Box – Stop Circuit | 400 VDC*              | Black/Yellow (3) Sw. Box Terminal                          | Ground            | 200-360                                          | 200-360                            |
| 3-A<br>4-A    | Stator – Low Speed     | 400 VDC*              | Blue Sw. Box Terminal                                      | Ground            | 200-300                                          | 200-330                            |
| 3-A<br>4-A    | Stator – High Speed    | 400 VDC*              | Red Sw. Box Terminal                                       | Ground            | 20-90                                            | 130-300                            |
| 5-A           | Sw. Box – Bias         | 20 VDC or 40 VDC      | [See Note (1)]<br>Ground      White/Black Sw. Box Terminal |                   | 2-10                                             | 10-30                              |

### 4 Cylinder with 16 Ampere Stator 398-9710A31

**USA-0D283222 thru 0G301750**

**Belgium-09793577 thru 09885527**

| ADI Test Seq. | Test                   | Selector Sw. Position | DVA Leads                                                  |                   | Voltage Reading <sup>(1)</sup><br>@ 300-1000 RPM | Voltage Reading<br>@ 1000-4000 RPM |
|---------------|------------------------|-----------------------|------------------------------------------------------------|-------------------|--------------------------------------------------|------------------------------------|
|               |                        |                       | Red                                                        | Black             |                                                  |                                    |
| 1-A           | Coil Primary           | 400 VDC*              | Coil (+) Terminal                                          | Coil (–) Terminal | 150-250                                          | 180-280                            |
| 2-A           | Sw. Box – Stop Circuit | 400 VDC*              | Black/Yellow (3) Sw. Box Terminal                          | Ground            | 200-360                                          | 200-360                            |
| 3-A<br>4-A    | Stator – Low Speed     | 400 VDC*              | Blue Sw. Box Terminal                                      | Ground            | 200-300                                          | 190-310                            |
| 3-A<br>4-A    | Stator – High Speed    | 400 VDC*              | Red Sw. Box Terminal                                       | Ground            | 20-90                                            | 140-310                            |
| 5-A           | Sw. Box – Bias         | 20 VDC or 40 VDC      | [See Note (1)]<br>Ground      White/Black Sw. Box Terminal |                   | 2-10                                             | 10-30                              |

(1) Using meter only, REVERSE LEAD POLARITY; connect leads as specified.

\* If using a meter with a built-in DVA, place selector switch in the DVA/400 VDC position.



### 3 Cylinder Stators

**75 Manual with 9 Ampere Stator 398-9873A21, USA-0D227200 and Above**  
**75/90 Electric with 14 Ampere Stator 398-9873A24, USA-0G280044 thru**  
**0G404505 Belgium-09879065 thru 09916672**

| ADI Test Seq. | Test                   | Selector Sw. Position | DVA Leads                                                  |                   | Voltage @ 300 RPM | Voltage @ 1000 RPM | Voltage @ 4000 RPM |
|---------------|------------------------|-----------------------|------------------------------------------------------------|-------------------|-------------------|--------------------|--------------------|
|               |                        |                       | Red                                                        | Black             |                   |                    |                    |
| 1-A           | Coil Primary           | 400 VDC*              | Coil (+) Terminal                                          | Coil (-) Terminal | 145-175           | 210-250            | 200-240            |
| 2-A           | Sw. Box – Stop Circuit | 400 VDC*              | Black/Yellow (3) Sw. Box Terminal                          | Ground            | 215-265           | 280-340            | 260-320            |
| 3-A<br>4-A    | Stator – Low Speed     | 400 VDC*              | Blue Sw. Box Terminal                                      | Ground            | 215-265           | 280-340            | 260-320            |
| 3-A<br>4-A    | Stator – High Speed    | 400 VDC*              | Red Sw. Box Terminal                                       | Ground            | 10-15             | 45-55              | 205-255            |
| 5-A           | Sw. Box – Bias         | 20 VDC or 40 VDC      | [See Note (1)]<br>Ground      White/Black Sw. Box Terminal |                   | 2-10              | 10-30              | 10-30              |

### 4 Cylinder with 16 Ampere Stator 398-9710A33

**USA-0G301751 and Above**

**Belgium - 09885528 thru 09916721**

| ADI Test Seq. | Test                   | Selector Sw. Position | DVA Leads                                                  |                   | Voltage @ 300 RPM | Voltage @ 1000 RPM | Voltage @ 4000 RPM |
|---------------|------------------------|-----------------------|------------------------------------------------------------|-------------------|-------------------|--------------------|--------------------|
|               |                        |                       | Red                                                        | Black             |                   |                    |                    |
| 1-A           | Coil Primary           | 400 VDC*              | Coil (+) Terminal                                          | Coil (-) Terminal | 110-140           | 250-300            | 215-265            |
| 2-A           | Sw. Box – Stop Circuit | 400 VDC*              | Black/Yellow (3) Sw. Box Terminal                          | Ground            | 160-200           | 315-385            | 270-330            |
| 3-A<br>4-A    | Stator – Low Speed     | 400 VDC*              | Blue Sw. Box Terminal                                      | Ground            | 160-200           | 315-385            | 270-330            |
| 3-A<br>4-A    | Stator – High Speed    | 400 VDC*              | Red Sw. Box Terminal                                       | Ground            | 8-10              | 27-33              | 165-205            |
| 5-A           | Sw. Box – Bias         | 20 VDC or 40 VDC      | [See Note (1)]<br>Ground      White/Black Sw. Box Terminal |                   | 2-10              | 10-30              | 10-30              |

(1) Using meter only, REVERSE LEAD POLARITY; connect leads as specified.

\* If using a meter with a built-in DVA, place selector switch in the DVA/400 VDC position.



## ⚠ WARNING

When testing or servicing the ignition system, high voltage is present, be extremely cautious! **DO NOT TOUCH OR DISCONNECT** any ignition parts while engine is running, while key switch is on, or while battery cables are connected.

## ⚠ CAUTION

Failure to comply with the following items may result in damage to the ignition system.

1. **DO NOT** reverse battery cable connections. The battery negative cable is (-) ground.
2. **DO NOT** “spark” battery terminals with battery cable connections to check polarity.
3. **DO NOT** disconnect battery cables while engine is running.
4. **DO NOT** crank engine when switch box is not grounded to engine.

A process of elimination must be used when checking the ignition system without a Multi-Meter/DVA Tester (91-99750) or a voltmeter (capable of measuring 400 volts DC, or higher) and Direct Voltage Adaptor (91-89045), as the switch box and ignition coils cannot be thoroughly checked with conventional test equipment.

All other components can be tested with an ohmmeter. Before troubleshooting the ignition system, check the following:

1. Make sure that electrical harness, ignition switch and/or emergency stop switch are not the source of the problem.
2. Check that plug-in connectors are fully engaged and terminals are free of corrosion.
3. Make sure that wire connections are tight and free of corrosion.
4. Check all electrical components, that are grounded directly to engine, and all ground wires to see that they are grounded to engine.
5. Check for disconnected wires, and short and open circuits.

### STATOR LOW AND HIGH SPEED OHM TEST

**NOTE:** Stator can be tested without removing from engine.

1. Disconnect stator leads from switch box.

2. Use an ohmmeter and perform the following tests.

**IMPORTANT:** If stator is mounted on engine, black stator lead must be grounded to power-head when testing.

### 3 CYLINDER STATORS

#### 75 MANUAL WITH 9 AMPERE STATOR

398-9873A20

USA-0D283222 THRU 0G227199

#### 75/90 ELECTRIC WITH 16 AMPERE STATOR

398-9710A3

USA-0D283222 THRU 0G280043

BELGIUM-09793577 THRU 09879064

| Test Leads                                               | Resistance (OHMS) | Scale Reading (x _____) |
|----------------------------------------------------------|-------------------|-------------------------|
| Between Blue Stator Lead and Red Stator Lead (Low Speed) | 3600-4200         | 3.6-4.2 (R x 1000)      |
| Between Red Stator Lead and Engine Ground* (Hi-Speed)    | 90-140            | 90-140 (R x 1)          |

### 4 CYLINDER WITH 16 AMPERE STATOR

398-9710A31

USA-0D283222 THRU 0G301750

BELGIUM-09793577 THRU 09885527

| Test Leads                                                    | Resistance (OHMS) | Scale Reading (x _____) |
|---------------------------------------------------------------|-------------------|-------------------------|
| Between Blue Stator Lead and Blue/Wht Stator Lead (Low Speed) | 6800-7600         | 6.8 - 7.6 (R x 1000)    |
| Between Red Stator Lead and Red/White Stator Lead (Hi-Speed)  | 90-140            | 90-140 (R x 1)          |

### 3 CYLINDER STATORS

#### 75 MANUAL WITH 9 AMPERE STATOR

398-9873A21

USA-0D227200 AND ABOVE

#### 75/90 ELECTRIC WITH 14 AMPERE STATOR

398-9873A24

USA-0G280044 – 0G404505

BELGIUM-09879065 – 09916672

| Test Leads                                               | Resistance (OHMS) | Scale Reading (x _____) |
|----------------------------------------------------------|-------------------|-------------------------|
| Between Blue Stator Lead and Red Stator Lead (Low Speed) | 1100-1600         | 1.1-1.6 (R x 1000)      |
| Between Red Stator Lead and Engine Ground* (Hi-Speed)    | 30-35             | 30-35 (R x 1)           |





\* Connect test lead to BLACK stator lead if stator is removed from engine.

#### 4 CYLINDER WITH 16 AMPERE STATOR 398-9710A33 USA-0G301751 – 0G404616 BELGIUM - 09885528 – 09916721

| Test Leads                                                    | Resistance (OHMS) | Scale Reading (x _____) |
|---------------------------------------------------------------|-------------------|-------------------------|
| Between Blue Stator Lead and Blue/Wht Stator Lead (Low Speed) | 1000-1400         | 1.0-1.4 (R x 1000)      |
| Between Red Stator Lead and Red/White Stator Lead (Hi-Speed)  | 15-30             | 15-30 (R x 1)           |

**NOTE:** Above readings are for a cold engine (room temperature). Resistance will increase slightly, if engine is warm.

- If meter readings are other than specified, replace stator assembly.

#### IGNITION COIL TEST

**IMPORTANT:** Ohmmeter tests can only detect certain faults in the ignition coil. Replace ignition coil, if ohmmeter readings (listed in chart, following) are not as specified. If coil tests OK, and coil is still suspected of being faulty, use Multi-Meter/ DVA Tester (91-99750) or a voltmeter (capable of measuring 400 volts DC, or higher) and Direct Voltage Adaptor (91-89045) to thoroughly check coil.

- Disconnect wires from coil terminals.
- Pull spark plug lead out of coil tower.
- Use an ohmmeter and perform the following tests.

| Test Leads                               | Resistance (OHMS) | Scale Reading (x _____) |
|------------------------------------------|-------------------|-------------------------|
| Between (+) and (-) Coil Terminals       | .02-.04*          | .02-.04* (R x 1)        |
| Between Coil Tower and (-) Coil Terminal | 800-1100**        | 8-11** (R x 100)        |

\* The primary DC resistance of these coils generally is less than one (1) OHM. If a reading resembling a short is obtained, this would be acceptable.

\*\* Copper wire is an excellent conductor, but it will have a noticeable difference in resistance from cold to hot temperatures. Reasonable variations from these readings are acceptable.

- If meter readings are not as specified, replace ignition coil.

#### TRIGGER TEST

- Disconnect all trigger leads from switch box.
- Use an Ohmmeter and perform the following tests.

#### 3 CYLINDER TRIGGER SPECIFICATIONS

| Test Leads                                               | Resistance (OHMS) | Scale Reading (x _____) |
|----------------------------------------------------------|-------------------|-------------------------|
| Between Brown Trigger Lead and White/Black Trigger Lead  | 1100-1400         | 11-14 (R x 100)         |
| Between White Trigger Lead and White/Black Trigger Lead  | 1100-1400         | 11-14 (R x 100)         |
| Between Violet Trigger Lead and White/Black Trigger Lead | 1100-1400         | 11-14 (R x 100)         |

**NOTE:** Above readings are for a cold engine (room temperature). Resistance will increase slightly, if engine is warm.

#### 4 CYLINDER TRIGGER SPECIFICATIONS

| Test Leads                                         | Resistance (OHMS) | Scale Reading (x _____) |
|----------------------------------------------------|-------------------|-------------------------|
| Between Brown Trigger Lead and Black Trigger Lead  | 700-1000          | 7-10 (R x 100)          |
| Between White Trigger Lead and Violet Trigger Lead | 700-1000          | 7-10 (R x 100)          |

**NOTE:** Above readings are for a cold engine (room temperature). Resistance will increase slightly, if engine is warm.

- If meter readings are not as specified, replace trigger.

## ADI Ignition using a RED Stator with an Adapter Module

Red stators require an adapter module that is connected between the stator and switch box. Without the adapter module, the voltage supplied by the stator would exceed the voltage capability of the switch box.



# RED Stator with Adaptor and Ignition Coils

## RED Stator DVA Test

| Test                        | Selector Switch Position | RED DVA Lead                  | BLACK DVA Lead                      | Voltage @ 300 RPM | Voltage @ 1000 RPM | Voltage @ 4000 RPM |
|-----------------------------|--------------------------|-------------------------------|-------------------------------------|-------------------|--------------------|--------------------|
| Coil Primary                | 400 VDC*                 | Coil (+) Terminal             | Coil (-) Terminal                   | 130 Volts Minimum | 195 to 275         | 195 to 275         |
| Stop Circuit                | 400 VDC*                 | Black/Yellow Sw. Box Terminal | Ground                              | 190 Volts Minimum | 275 to 320         | 260 to 320         |
| Blue Sw. Box Terminal       | 400 VDC*                 | Blue Sw. Box Terminal         | Ground                              | 190 Volts Minimum | 275 to 320         | 260 to 320         |
| Blue/White Sw. Box Terminal | 400 VDC*                 | Blue/White Sw. Box Terminal   | Ground                              | 190 Volts Minimum | 275 to 320         | 260 to 320         |
| Switch Box Bias             | 20 VDC or 40 VDC         | Ground (1)                    | White/Black Switch Box Terminal (1) | 2 to 10           | 10 to 30           | 10 to 30           |

(1) Using meter only, REVERSE LEAD POLARITY; connect leads as specified

**NOTE:** If using a meter with a built -in DVA, place selector switch in the DVA/400 VDC position.

## Electric Start Engines

| Red Stator Resistance Test (all wires disconnected) |                                    | R x 1 Ohms Scale |
|-----------------------------------------------------|------------------------------------|------------------|
| Positive Meter Lead (+)                             | Negative Meter Lead (-)            |                  |
| Connect to White/Green stator lead                  | Connect to Green/White stator lead | 660 - 710        |
| Connect to Yellow stator lead                       | Connect to Yellow stator lead      | 0.165 - 0.181    |

**NOTE:** Resistance varies greatly with temperature. Measurements should be made within an ambient range of 65 to 85 degrees F°.

**NOTE:** The stator for manual start engines have a BLUE/WHITE and a BLACK wire which provide power for the over-heat horn and overspeed limiter module.

## Troubleshooting Procedures

### ALL MODELS –

If the DVA reading is **HIGH** (particularly @ 1000 RPM) the ADAPTER MODULE is defective.

If the DVA reading is **LOW**, the stator, adapter module or switch box may be defective. Refer to the particular engine model procedure, following, to isolate the problem.

## Manual Start Engines

| Red Stator Resistance Test (all wires disconnected) |                                    | R x 1 Ohms Scale |
|-----------------------------------------------------|------------------------------------|------------------|
| Positive Meter Lead (+)                             | Negative Meter Lead (-)            |                  |
| Connect to White/Green stator lead                  | Connect to Green/White stator lead | 660 - 710        |
| Connect to Blue/White                               | Connect to Black                   | 130 - 145        |
| Connect to Yellow stator lead                       | Connect to Yellow stator lead      | 0.17 - 0.19      |



### 3 CYLINDER MODELS –

- Disconnect the BLUE adapter lead from the switch box.
- Connect the DVA meter between the BLUE adapter lead and ground.
- Crank the engine (manual or electric).
- If the DVA is normal (190 to 260 volts), the **switch box is defective**.
- If the DVA reading is still low, either the stator or the adapter is defective.
- Disconnect the GREEN/WHITE and WHITE/GREEN stator leads from the adapter.
- Measure the resistance between the GREEN/WHITE and WHITE/GREEN stator leads.
- If the resistance is normal (660 to 710 ohms), the **adapter is defective**.
- If the resistance is incorrect, the **stator is defective**.

### 4 CYLINDER MODELS –

- Disconnect the BLUE adapter lead from the switch box.
- Connect the DVA meter between the BLUE adapter lead and ground.
- Crank the engine (manual or electric).
- If the DVA reading is normal, reconnect the BLUE adapter lead to the switch box.
- Disconnect the BLUE/WHITE adapter lead from the switch box.
- Connect the DVA meter between the BLUE/WHITE adapter lead and ground.
- Crank the engine (manual or electric).
- If the DVA reading is normal (190 to 260 volts), the **switch box is defective**.
- If either of the DVA readings is still low, either the stator or the adaptor is defective.
- Disconnect the GREEN/WHITE and WHITE/GREEN stator leads from the adapter.
- Measure the resistance between the GREEN/WHITE and WHITE/GREEN stator leads.
- If the resistance is normal (660 to 710 ohms), the **adapter is defective**.
- If the resistance is incorrect, the **stator is defective**.

## Theory of Operation

This outboard ignition system is alternator driven (distributor-less) capacitor discharge system. Major components of the ignition system are the flywheel, stator, trigger, capacitor discharge modules (CDM's) and spark plugs. Each capacitor discharge module functions as a combination switchbox and secondary ignition coil.

**NOTE:** The following schematics are for 3 cylinder models. The circuitry would be very similar for the 4 cylinder models with the addition of a another CDM. 3 cylinder models have 3 trigger coils and 4 cylinder models have 4 trigger coils.