SERIES 3 CDI TEST PROCEDURE

This document is designed to be used in conjunction with the appropriate installation and wiring instructions which may be found under the support tab on our website.

Back to Back testing is a reliable method for eliminating a suspect ignition system however it is vitally important to swap units several times otherwise mechanical wiring faults and connector/connection issues may invalidate the result. Do not carry out back to back testing if you suspect damage has been caused by the installation!

Poor crimping and/or soldering of the main connector terminals will cause distortion and is the major reason for unreliable operation!

The following test procedure can not take into account incorrect assembly of the main cdi connector. Before proceeding extract each pin and visibly inspect for distortion ensuring they have sufficient tension to make reliable contact with the mating cdi connector tabs.

Visually inspect LED as unit is powered up:
(LED located adjacent main connector)
LED does not illuminate – **(2)**
LED double flashes a repeating pattern – **(4)**
LED illuminates for 1 second then goes out – **(6)**

2. Test for voltage and ground continuity on power supply terminals:
(Remove connector from cdi and carefully probe terminals inside connector)
No power or ground detected – **(96)**
Ground and power ok – **(3)**

3. Test for voltage on power switch terminal:
(Remove connector from cdi and carefully pprobe terminals inside connector)
No voltage detected – **(96)**
Voltage >5V detected – **(99)**

4. Disconnect all coils from CDI:
(Remove coils and re-connect power)
LED illuminates for 1 second then goes out – **(5)**
LED double flashes a repeating pattern – **(99)**

5. Consecutively reconnect coils and inspect LED during power up:
(Cycle power after connecting each coil)
Locate coil causing LED to double flash – **(98)**

6. Is cdi connected to ecu:
Yes – **(12)**
No – **(7)**

7. Ground cdi trigger inputs:

(Consecutively and momentarily ground all trigger inputs)
LED flashes when input grounded – **(9)**
LED does not flash when input grounded – **(8)**

8. Inspect connector terminal and wiring:

Use a small screwdriver to lift locking tab inside front of connector then extract wire and terminal gently out backwards from housing.
Inspect crimping of wire, check pins for distortion and correct manufacture.
Wiring and terminal OK – **(99)**
Wiring and/or terminal faulty – **(96)**

9. Connect coils & grounded spark plugs to cdi outputs:

(Consecutively ground input triggers after applying power)
All spark plugs fire – **(90)**
Only some spark plugs fire – **(10)**
No spark plugs fire – **(99)**

10. Swap ignition coil:

(Swap coil with one that is firing and repeat test)
Different coil faulty – **(11)**
Same coil faulty – **(97)**

11. Inspect connector terminal and wiring:

Use a small screwdriver to lift locking tab inside front of connector then extract wire and terminal gently out backwards from housing.
Inspect crimping of wire, check pins for distortion and correct manufacture.
Wiring and terminal OK – **(99)**
Wiring and/or terminal faulty – **(96)**

12. Crank engine while inspecting LED:

LED flashes with engine rotation – **(13)**
LED does not flash – **(16)**

13. Connect coils & grounded spark plugs to cdi outputs:

(Crank engine and observe spark plugs)
All spark plugs fire – **(90)**
Only some spark plugs fire – **(14)**
No spark plugs fire – **(99)**

14. Swap ignition coil:

(Swap coil with one that is firing and repeat test)
Different coil faulty – **(15)**
Same coil faulty – **(97)**

15. Inspect connector terminal and wiring:

Use a small screwdriver to lift locking tab inside front of connector then extract wire and terminal gently out backwards from housing.
Inspect crimping of wire, check pins for distortion and correct manufacture.
Wiring and terminal OK – **(99)**
Wiring and/or terminal faulty – **(96)**

16. Ground cdi trigger inputs:

(Consecutively and momentarily ground all trigger inputs)
LED flashes when input grounded – **(95)**
LED does not flash when input grounded – **(96)**

90. Unit operating normally:

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95. ECU not triggering CDI

Inspect wiring and consult ECU supplier.

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96. Possible faulty wiring

Repair or replace wiring/terminal as necessary, re test ignition.

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97. Possible faulty Ignition Coil

Replace Ignition Coil as necessary.

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98. Coil output damaged:

Mark last coil connected to ignition as faulty **– (99)**

99. Unit possibly damaged:

Return ignition unit to manufacture for repair.
Instructions and RMA documentation may be found under support tab on our website www.mwignitions.com.