



INSTALLATION INSTRUCTIONS FOR M&W PRO-12 2 CHANNEL CAPACITOR DISCHARGE IGNITION

CONTENTS:

2. Connections and specifications
3. 2 Channel ignition – 2 coil ignition
4. 2 Channel ignition – 4 coil ignition

REVISIONS:

S/No. 120249+	Trigger edge selection added
S/No. 120306+	Twin spark output added

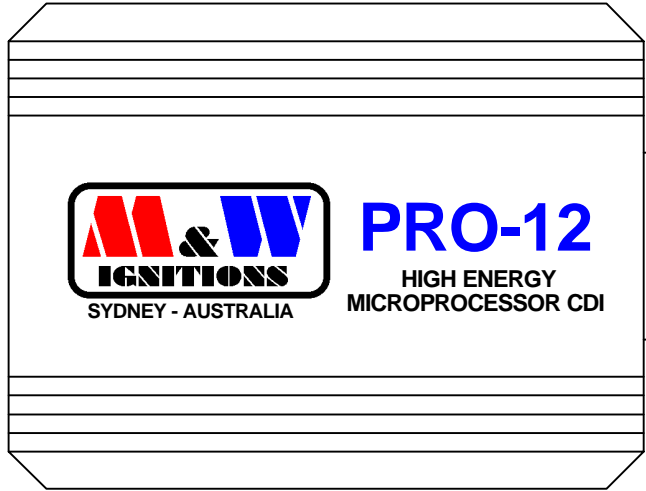
CAUTION!
HIGH VOLTAGE



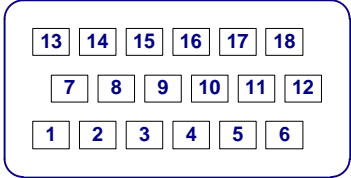
M&W IGNITIONS

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**THIS UNIT CAN BE UPGRADED
BY THE FACTORY TO FOUR
CHANNEL OPERATION**



← LED indicator



IMPORTANT INSTALLATION NOTES!

MOUNTING
Do not mount the unit where it would be exposed to water splash.
Do not mount the unit near hot engine components.
Where possible mount the unit in an area subject to cooling air.
The unit must be isolated from strong vibration by rubber mounts.

ELECTRICAL
Protect the +12V supply with a 15A inline fuse
Warranty void if not installed!
Max coil wire length 1M, twist wires 1 twist / 15mm
Keep ignition coil wires away from all ecu wiring in particular
triggers and sensors

IGNITION LEADS
Do not use carbon suppressed ignition leads.
Do use premium quality magnetic suppressed, spiral wound
metal conductor ignition leads.

LED INDICATOR
The LED indicator will illuminate when power is first applied to the
unit and extinguish with the first trigger pulse, it will then flash
with each consecutive trigger pulse

TRIGGER EDGE

Falling edge ignition - leave pin #5 disconnected.
Rising edge ignition - connect pin #5 to ground or 0V.
When triggering this unit of an existing ignition module or an ecu with built in igniters such as the Microtech 'MTX' series it will be necessary to select rising edge trigger.
Main power to CDI (Pin 7) must be momentarily disconnected for changes to take effect.

SPECIFICATIONS

Supply voltage = 13.8V DC negative ground
Operating voltage = +6V to +18V (Restrictions apply)
Maximum supply current = 7.5A
Maximum ignition frequency = 600Hz or 350Hz in high power or two spark modes
Coil primary voltage = 450V - std power, 580V - high power
Spark energy = 105 millijoules - std power, 170mJ - high power
Trigger = 10mA open collector drive, falling edge
Tacho = 12V, 25mA square wave
Maximum continuous operating temperature = 105°C
Dimensions = 140L * 130W * 50H
Weight = 800gm

KEEP ALL INPUTS WELL SEPARATED FROM COIL OUTPUTS

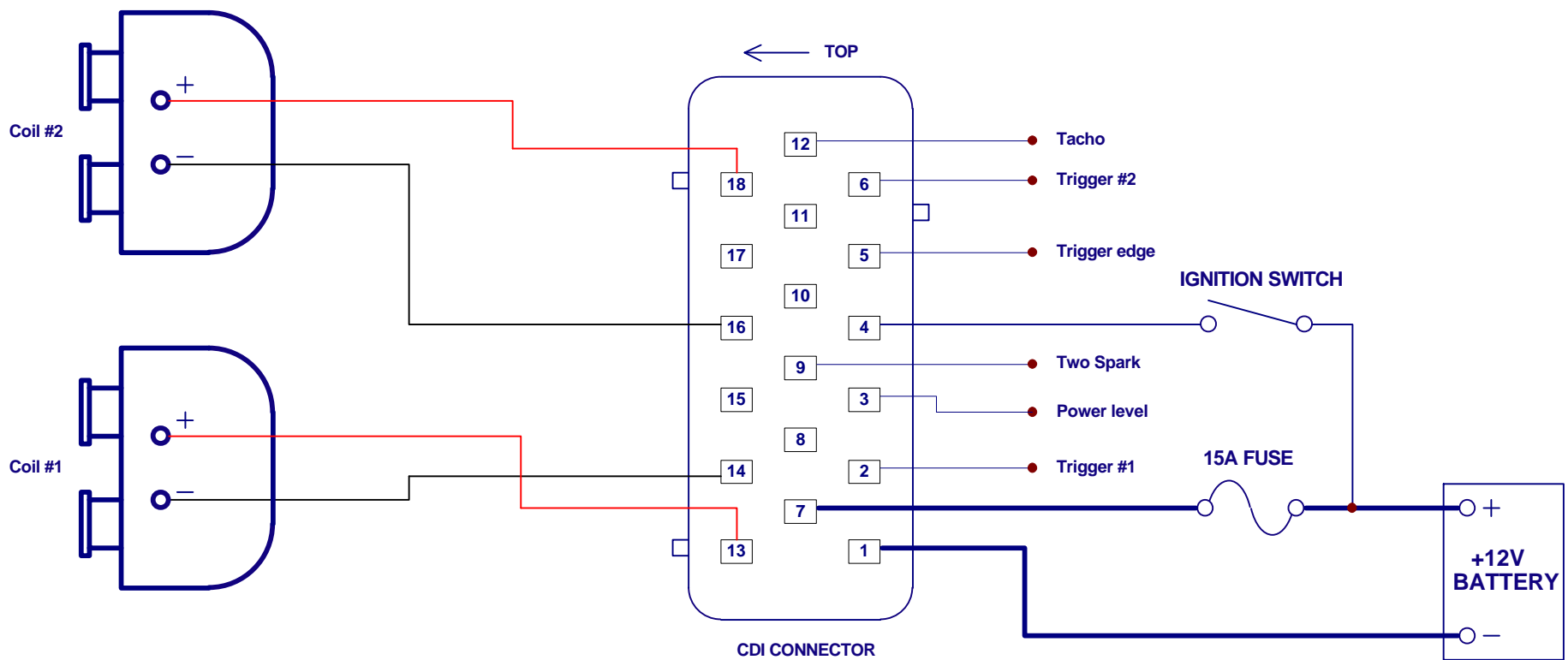
1 Ground (Battery)	7 +12V (Battery)	13 Coil #1 +
2 Trigger #1	8 N/C	14 Coil #1 -
3 Power level	9 Two Spark	15 N/C
4 Ignition switch	10 N/C	16 Coil #2 -
5 Trigger edge	11 N/C	17 N/C
6 Trigger #2	12 Tacho	18 Coil #2 +

Title			TWO CHANNEL CDI		
Size	Number	Revision			
A4	PRO-12	S/No. 120306 +			
Date:	29-Aug-2004	Sheet 1 of	1		
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POWER LEVEL & TWO SPARK MODES

Leave power level switch disconnected for 105mJ - 600Hz mode or connected to ground for 170mJ - 350Hz mode.

Leave twin spark switch disconnected for single spark 600Hz mode or connected to ground for twin spark 350Hz mode.

Note! It is not possible to have both high power and twin spark active at the same time.

MINIMUM RECOMMENDED WIRE SIZE

— (thin line)	1.5mm Dia - 0.5 Sqmm - 20 AWG
— (medium line)	2.5mm Dia - 1.0 Sqmm - 18 AWG
— (thick line)	3.5mm Dia - 2.0 Sqmm - 14 AWG

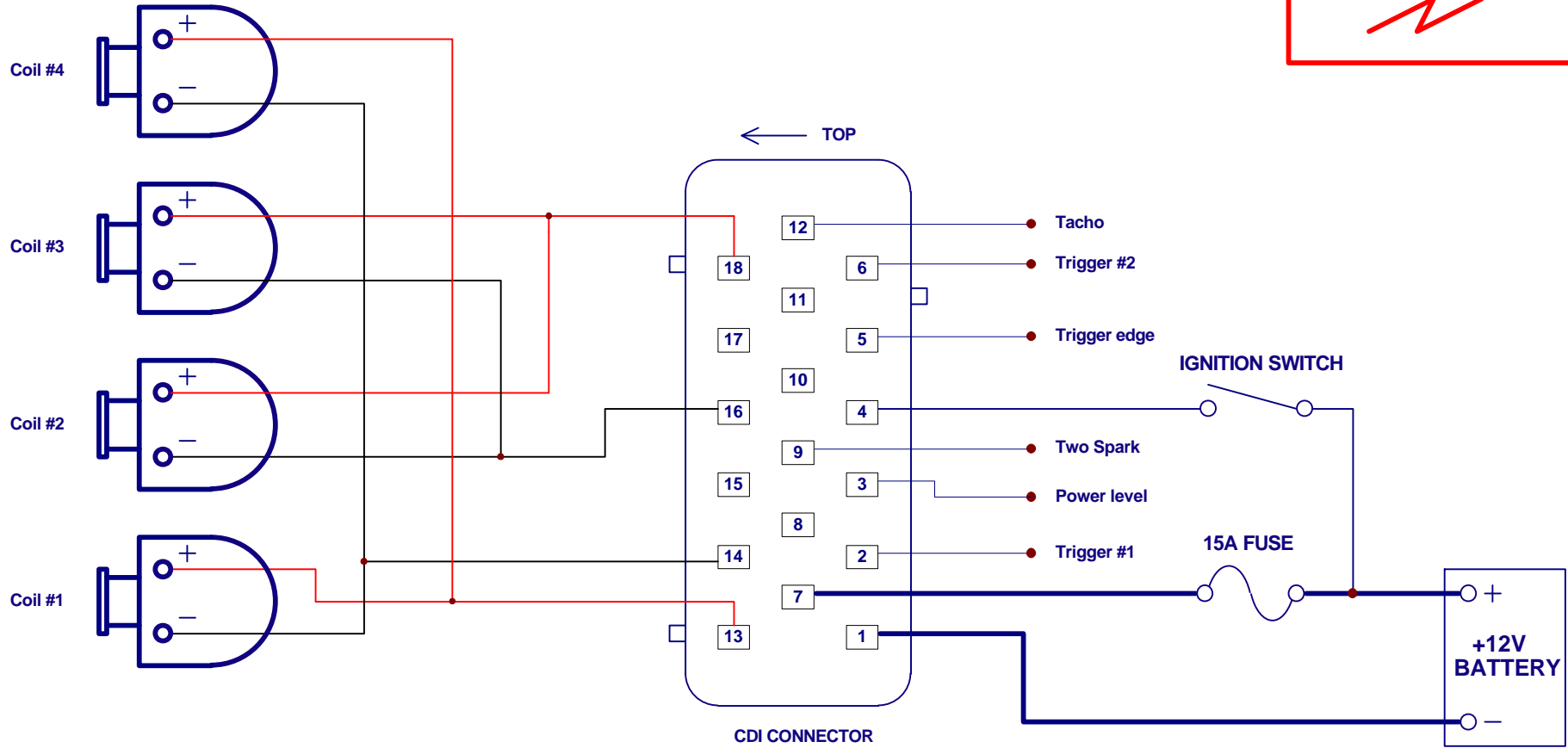
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Size	Number	Revision			
A4	PRO-12	S/No. 120306 +			
Date:	29-Aug-2004	Sheet 1 of	1		
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HIGH VOLTAGE

FOR OEM COILS ONLY
DO NOT USE FERRITE COILS



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Leave twin spark switch disconnected for single spark 600Hz mode or connected to ground for twin spark 350Hz mode.

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Size	Number	Revision	
A4	PRO-12	S/No. 120306 +	
Date:	29-Aug-2004	Sheet 1 of 1	
File:	D:\M&W\Diagrams\Pro-12\Pro12_3_3.sch	Drawn By:	M&W