



**INSTALLATION INSTRUCTIONS
FOR
PRO-DRAG2 S3
2 CHANNEL
CAPACITOR DISCHARGE
IGNITION**

PLEASE REPORT ANY OMISSIONS OR
ERRORS TO SALES@MWIGNITIONS.COM

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4. Connections and specifications
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CAUTION

**THIS WIRING DIAGRAM IS
APPLICABLE ONLY TO
IGNITION SYSTEMS WITH THE
SERIAL NUMBER PREFIX
STARTING**

37xxxx

**INCORRECT INSTALLATION
WILL VOID WARRANTY**

IMPORTANT **INSTALLATION NOTES**

MOUNTING

Do not mount the unit where it will be exposed to water
Do not mount near excessively hot engine components
Use rubber mounts to isolate from strong vibration
Where possible provide a cooling air supply
Mount with the connector end low

IGNITION LEADS & SPARKPLUGS

Do not use straight wire high tension leads
Do not use carbon suppressed high tension leads
Use premium quality spiral wound metal core leads
Do not use resistor type spark plugs

POWER SUPPLY

Do not use a power supply above 16V
Do not solder connector terminals
Do not use a 'voltage booster'
Connect the cdi directly to the battery

LED INDICATOR

Once the unit has been switched on the led will illuminate for approximately 1 second and then extinguish. Each consecutive trigger input will be indicated by a single short flash. A repeated double flash indicates the generator stage has been unable to reach correct operating voltage.

IGNITION COILS

CAUTION

IGNITION COILS MAY BE DAMAGED INTERNALLY IF ALLOWED TO FIRE WITHOUT A SPARKPLUG AND HT LEAD INSTALLED.

If your engine develops a misfire which can not be eliminated by other means try replacing the ignition coil on the suspect cylinder with one that is known to be good.

COP coils with in built drivers are not suitable for cdi applications. Small COP ignition coils may overheat when used with a cdi system unless wired in parallel for wasted spark applications.

Most ignition coils will work with CDI system however for best power select one with very low resistance and inductance with a turns ration between 75 and 100 to 1.

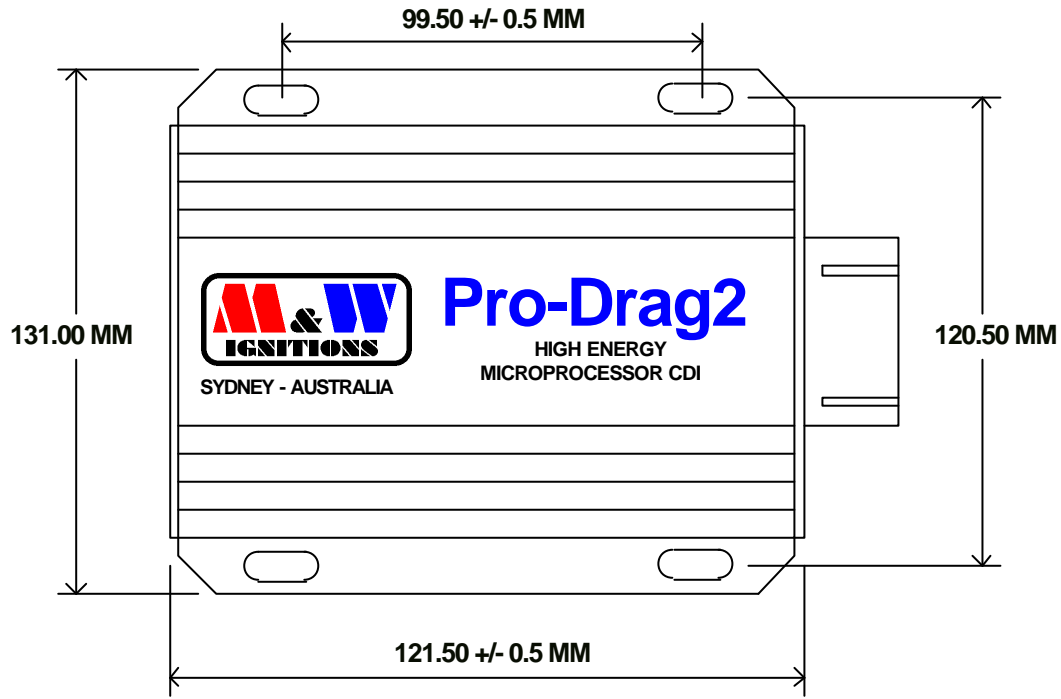
FERRITE COILS

Be aware when buying ferrite coils from other suppliers as not all companies have the knowledge to correctly prepare them for automotive use. Due to their fragile nature and poor quality control during manufacture it is easy to experience premature ignition coil failure and engine misfiring unless correctly assembled. All coils prepared by M&W are individually tested before assembly and sale.

**CAUTION!
HIGH VOLTAGE**



DISCONNECT POWER BEFORE
WORKING ON UNIT



Slot dimensions - 5mm * 10mm

Title				MOUNTING DIMENSIONS	
Size	Number	Revision		1.0	
A4	SERIES 3				
Date:	18-Apr-2006	Sheet 1 of	1		
File:	D:\M&W\Pro-Drag2_S3 Mounting Dimensions		Drawn By:	M&W	

**CAUTION!
HIGH VOLTAGE**



DISCONNECT POWER BEFORE
WORKING ON UNIT

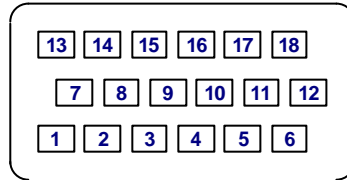
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FOR DRAG RACING USE ONLY



← LED indicator



CDI CONNECTOR
(LOOKING AT END
OF EXTRUSION)

TRIGGER EDGE SELECTION

Falling edge ignition - leave pin #9 disconnected.

Rising edge ignition - connect pin #9 to pin #10.

When triggering this unit from an existing ignition module or an ecu with built in igniters such as the Microtech 'MTX' series it may be necessary to select rising edge trigger.

KEEP ALL INPUTS WELL SEPARATED FROM COIL OUTPUTS

1 +12V (Battery)	7 Ground (Battery)	13
2 +12V (Battery)	8 Ground (Battery)	14 Trigger B
3	9 Trigger edge	15 Trigger A
4 Tacho	10 Signal ground	16 Ignition switch
5	11	17 Coil B -
6 Coil A +	12 Coil B +	18 Coil A -

SPECIFICATIONS

Supply voltage = 13.8V DC negative ground
 Operating voltage = +5.5V to +15V
 Maximum supply current = 17A
 Shutdown current <700uA
 Maximum ignition frequency = 600Hz
 Coil primary voltage = 500V
 Spark energy = 250 millijoules
 Trigger = 10mA open collector drive, falling edge
 Tacho = 12V, 25mA square wave
 Maximum continuous operating temperature = 105°C
 Dimensions = 122L * 110W * 40H
 Weight = 800gm

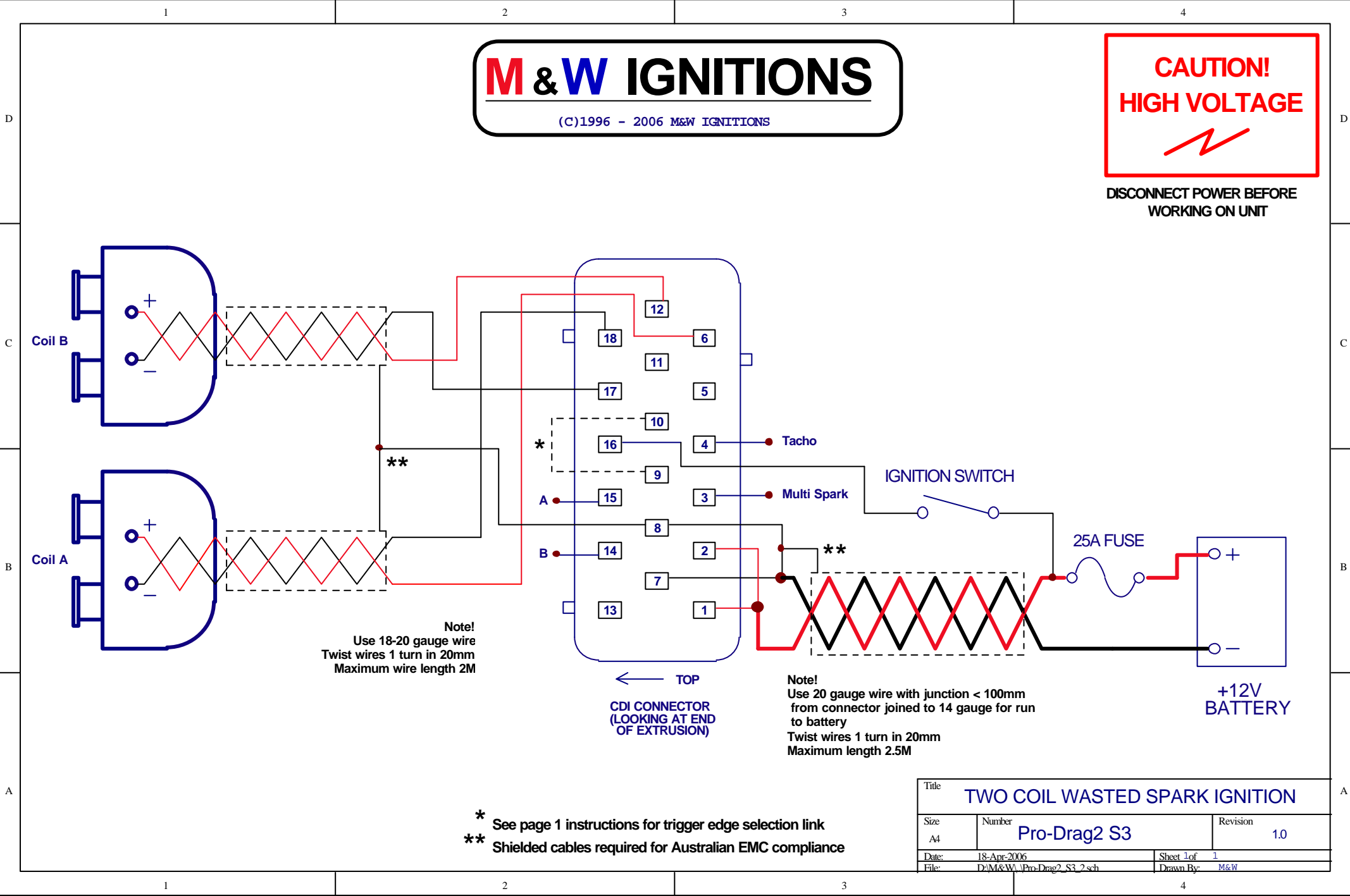
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Size	Number	Revision	
A4	Series 3	1.0	
Date:	18-Apr-2006	Sheet 1 of	1
File:	D:\M&W\Pro-Drag2_S3_1.sch	Drawn By:	M&W

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CAUTION!
HIGH VOLTAGE

**DISCONNECT POWER BEFORE
WORKING ON UNIT**



Note!
Use 18-20 gauge wire
Twist wires 1 turn in 20mm
Maximum wire length 2M

Note!
Use 20 gauge wire with junction < 100mm
from connector joined to 14 gauge for run
to battery
Twist wires 1 turn in 20mm
Maximum length 2.5M

← TOP
CDI CONNECTOR
(LOOKING AT END
OF EXTRUSION)

* See page 1 instructions for trigger edge selection link
** Shielded cables required for Australian EMC compliance

Title			TWO COIL WASTED SPARK IGNITION		
Size	Number	Revision			
A4	Pro-Drag2 S3	1.0			
Date:	18-Apr-2006	Sheet 1 of	1		
File:	D:\M&W\Pro-Drag2_S3_2.sch	Drawn By:	M&W		

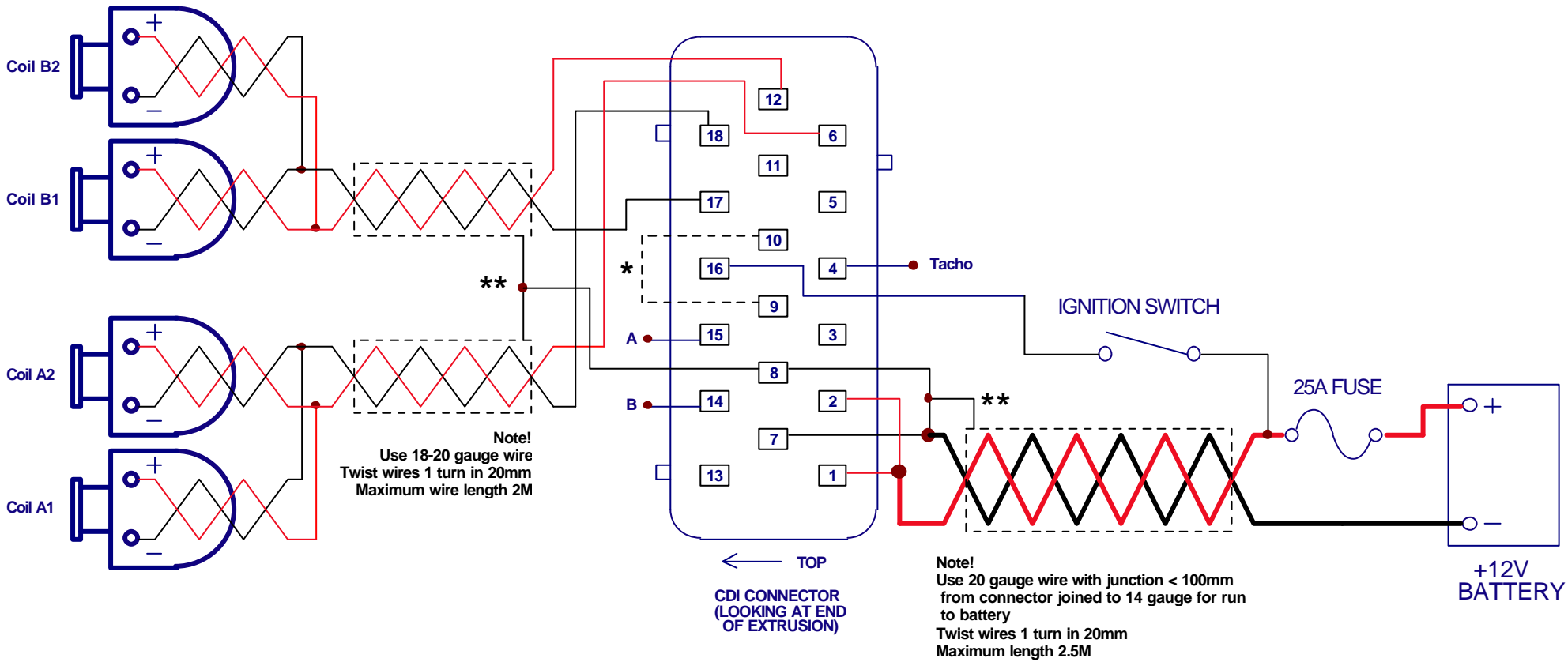
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CAUTION!
HIGH VOLTAGE

DISCONNECT POWER BEFORE
WORKING ON UNIT

FOR OEM COILS ONLY
DO NOT USE FERRITE COILS



* See page 1 instructions for trigger edge selection link
** Shielded cables required for Australian EMC compliance

Title			FOUR COIL WASTED SPARK IGNITION		
Size	Number	Revision			
A4	Pro-Drag2 S3	1.0			
Date:	18-Apr-2006	Sheet 1 of	1		
File:	D:\M&W\Pro-Drag2_S3_3.sch	Drawn By:	M&W		

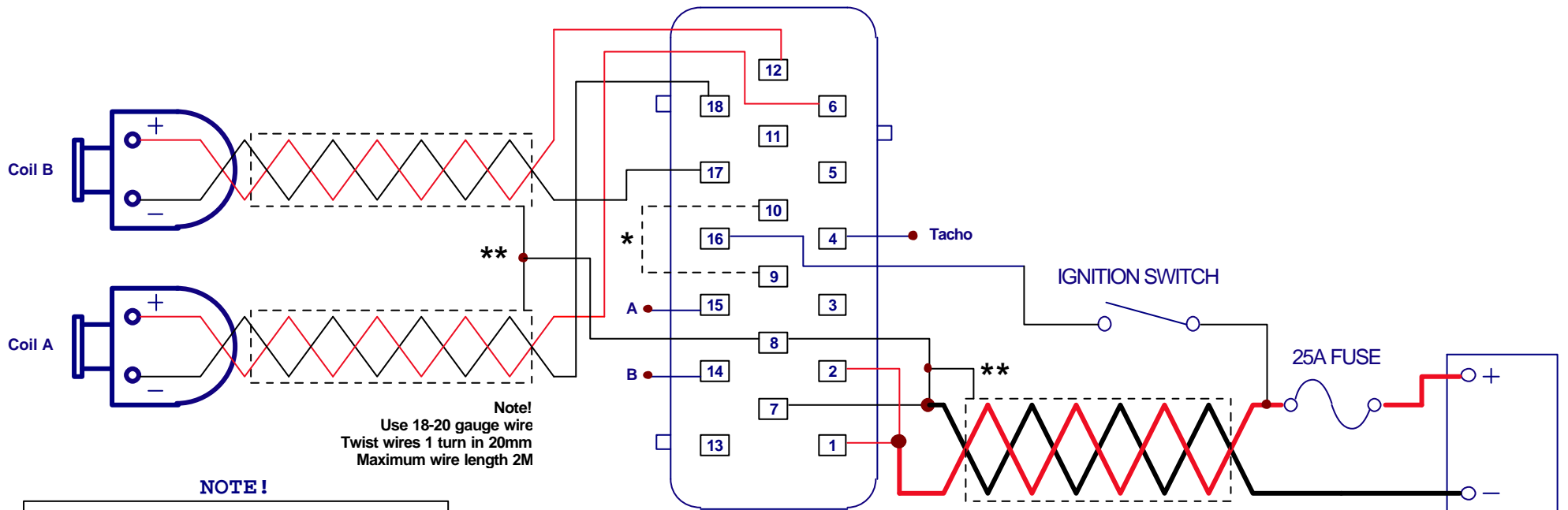
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CAUTION!
HIGH VOLTAGE



DISCONNECT POWER BEFORE
WORKING ON UNIT



Note!
Use 18-20 gauge wire
Twist wires 1 turn in 20mm
Maximum wire length 2M

NOTE!

Two 2 channel cdi ignition systems will be required for this installation.

Wire the two ignition circuits from one cdi box to the leading ignition coils and the two ignition circuits from the other cdi box to the trailing ignition coils.

If only 2 ignition outputs are available from the ecu then it is possible to run 'zero split' ignition by connecting the trigger for Leading1 from one cdi box to the same ecu output as Trailing1 from the other cdi box.

Note!
Use 20 gauge wire with junction < 100mm from connector joined to 14 gauge for run to battery
Twist wires 1 turn in 20mm
Maximum length 2.5M

- * See page 1 instructions for trigger edge selection link
- ** Shielded cables required for Australian EMC compliance

Title			2 ROTOR DIRECT FIRE IGNITION		
Size	Number	Revision		1.0	
A4	Pro-Drag2 S3				
Date:	18-Apr-2006	Sheet 1 of	1		
File:	D:\M&W\Pro-Drag2_S3_4.sch	Drawn By:	M&W		