

# PART N

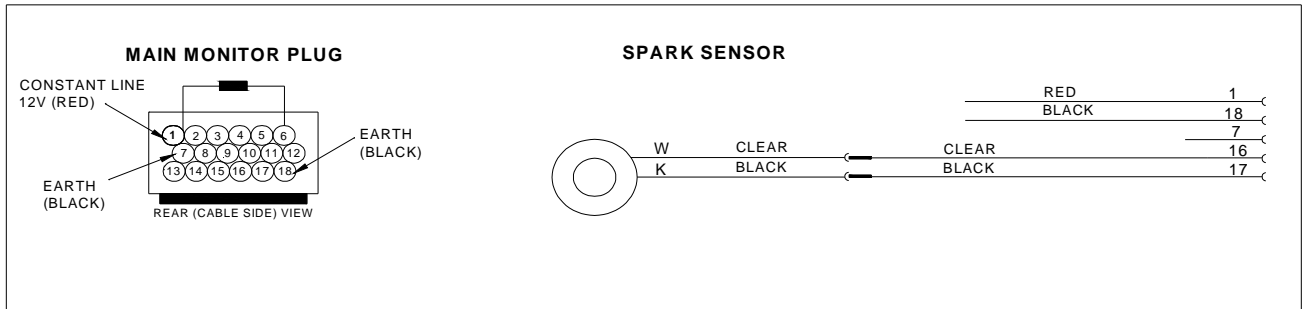
## SCHEDULE TL

### MSNZ DATA LOGGER

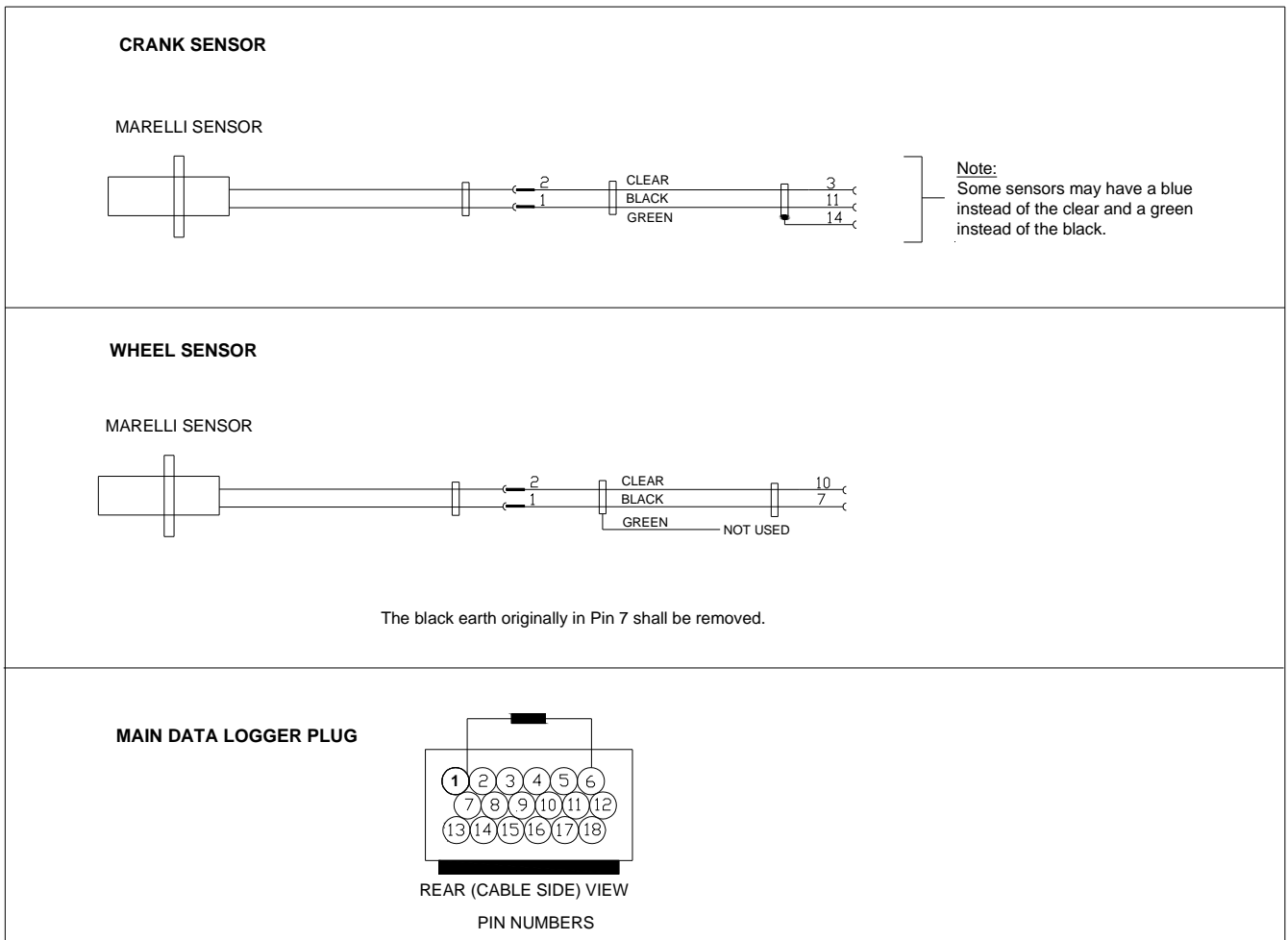
INTRODUCTION	Diagram Reference
<b>1.1 General:</b>	
(1) As a requirement of the V8s Championship (Series) a MSNZ data logger shall be installed and be operational whilst in attendance at any Round.	
(2) The MSNZ data logger system is a Motor Sport Electronics – VMS95 multi-channel racecar data logger which incorporates certain security features that ensures true and accurate information is recorded. All recorded data is only accessible by the officially appointed Championship Scrutineers.	
(3) The sole function of the data logging system is to monitor and record information relative to specific technical eligibility regulations. All recorded data is used solely for policing the technical integrity of the class.	
(4) ALL RECORDED DATA IS TIME STAMPED - this ensures that all recorded data can be precisely placed as to which specific qualifying session or race it relates to.	
(5) The data logging system operates totally independent to all of the cars operating systems; hence it will not affect the running of the car in any way.	
(6) Each team is issued with a CD (software) to enable testing of the sensors	
<b>1.2 Competitor responsibility:</b>	
(1) The data logger (box) is leased by the Competitor for the duration of the Series.	
(2) The Championship Scrutineer will issue the data logger (boxes) to each individual car / team at the first Round of the V8s Championship (entered).	
(2) <b>Throughout the V8s Championship (Series) the Competitor accepts full responsibility for:</b> <ul style="list-style-type: none"> <li>▪ Ensuring that the logger box is mounted in accordance with these regulations,</li> <li>▪ Ensuring that the mandatory sensors &amp; leads are purchased from MSNZ,</li> <li>▪ Ensuring that the mandatory sensors &amp; leads are installed in strict conformance with these regulations,</li> <li>▪ Ensuring that the data logger box is powered-up and operating prior to the first Test session at each Round and remains powered for the duration of each Round (except as in the case of point (3) below).</li> <li>▪ Returning the data logger (box) at the last Round entered, the last Round of the Series, or as requested by the MSNZ Technical Department,</li> <li>▪ Making whatever payment is deemed necessary by MSNZ to repair any damage to the data logger box caused by misuse or loss.</li> </ul>	
(3) <b>IMPORTANT WARNING</b> - The logger box <u>must</u> be removed (temporarily) from the car whenever any form of electric welding is being performed.	

<b>1.3</b>	<b>Installation:</b>										
	<b>(1)</b> All data logger wiring (leads) shall be installed totally independent to the cars (other) wiring and shall remain clearly visible at all times.										
	<b>(2) Wiring harness</b> - The data logger wiring harness and plug (part # WH001) is pre-wired with a red (supply) lead and 2 black (earth) leads. The red lead shall be connected directly to a 12 volt live supply through a 5 or 10 amp fuse and the black leads connected directly to earth on the cars bodyshell.										
	<b>(3) Spark sensor</b> - Mount the spark sensor (part # SS002) on the coil high tension lead at least 50mm away from the coil tower, with the sensor wire running away at right angles to the HT lead. The spark sensor should not be placed within 300mm of any other HT leads. The spark sensor loom is to be safely routed through the bulkhead and connected to the data logger plug as per wiring diagram; refer D1. Remove the white locking plate from the front of the plug prior to inserting the spark sensor lead wires. Replace the white locking plate.										
	<b>(4) Crankshaft sensor</b> - Mount the crankshaft sensor (part # CS003) on a fabricated bracket fitted to the front of the engine (to align with the trigger wheel). The crankshaft sensor loom is to be safely routed through the bulkhead and connected to the data logger plug as per wiring diagram; refer D2. Remove the white locking plate from the front of the plug prior to inserting the crankshaft sensor lead wires. Replace the white locking plate.										
	<b>(5) Crankshaft sensor trigger wheel</b> - Manufacture a trigger wheel from steel as per the requirements of Diagram D3. Alternatively, 4 steel inserts/pins may be mounted in the crankshaft pulley.										
	<b>(6) Hub speed sensor</b> - Mount the hub sensor (part # HS004) on a fabricated bracket or mounted to the rear brake calliper mounting bracket on the left hand side of the rear axle, so as to align with the back of the floating hub assembly as per Diagram D5. The hub sensor loom is to be safely routed through the rear floor panel and connected to the data logger plug as per wiring diagram; refer D2. Remove the white locking plate from the front of the plug prior to inserting the sensor lead wires. Replace the white locking plate.										
<b>1.5</b>	<b>Mounting the logger box:</b>										
	<b>(1)</b> A platform shall be fabricated to mount the logger box, <u>positioned in the front foot-well area on the passenger side of the cabin</u> . Four mounting rubbers should be used for this purpose (available from the Championship Scrutineer). Clear access to the data port (located on the front face of the data logger) must be maintained at all times to provide for ease of data retrieval by the appointed official. Ideally, the data logger status lights should be visible to the driver (to confirm the data logger is operating).										
	<b>(2)</b> The dimensions of the data logger box (mounting provisions) are detailed in Diagram D4.										
	<b>(3)</b> The mounted position should also avoid any sources of excessive heat, vibration and exposure to any liquids.										
<b>1.6</b>	<b>Logger status – LED lights:</b>										
	<b>(1)</b> The data logger status lights (1 red & 1 green) are positioned in the end cover (data port side) of the data logger box. These are used to indicate the current status of the unit according to the following table:										
	<table border="1"> <thead> <tr> <th>RED LED</th> <th>GREEN LED</th> <th>STATUS OF LOGGER</th> </tr> </thead> <tbody> <tr> <td>Off</td> <td>On</td> <td><b>The unit is powered up</b></td> </tr> <tr> <td>On</td> <td>On</td> <td><b>The unit is receiving and recording data</b> [Competitors may use this indication to check sensor operation]</td> </tr> </tbody> </table>	RED LED	GREEN LED	STATUS OF LOGGER	Off	On	<b>The unit is powered up</b>	On	On	<b>The unit is receiving and recording data</b> [Competitors may use this indication to check sensor operation]	
RED LED	GREEN LED	STATUS OF LOGGER									
Off	On	<b>The unit is powered up</b>									
On	On	<b>The unit is receiving and recording data</b> [Competitors may use this indication to check sensor operation]									
<b>1.7</b>	<b>Important notes:</b>										
	<b>(1)</b> It is the competitor's responsibility to confirm, on initial installation of the data logger box, that the green light is 'ON'.										
	<b>(2)</b> If in doubt at any time as to the status / operation of the data logger unit contact the appointed Championship Scrutineer for assistance										

# DIAGRAM D1



# DIAGRAM D2



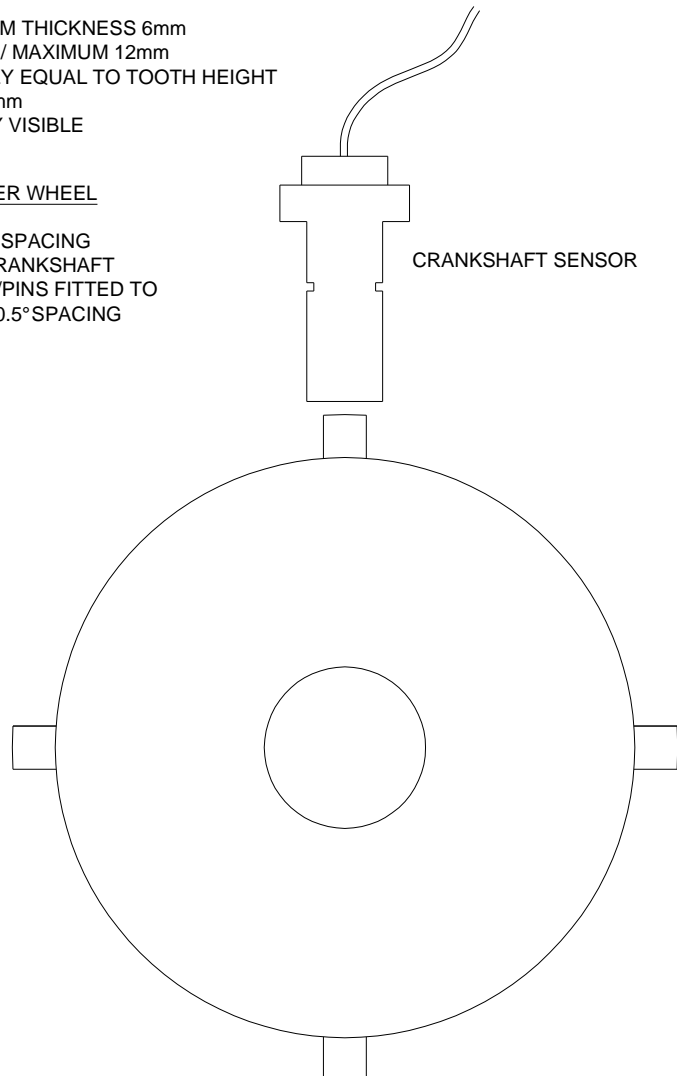
# DIAGRAM D3

## GENERAL

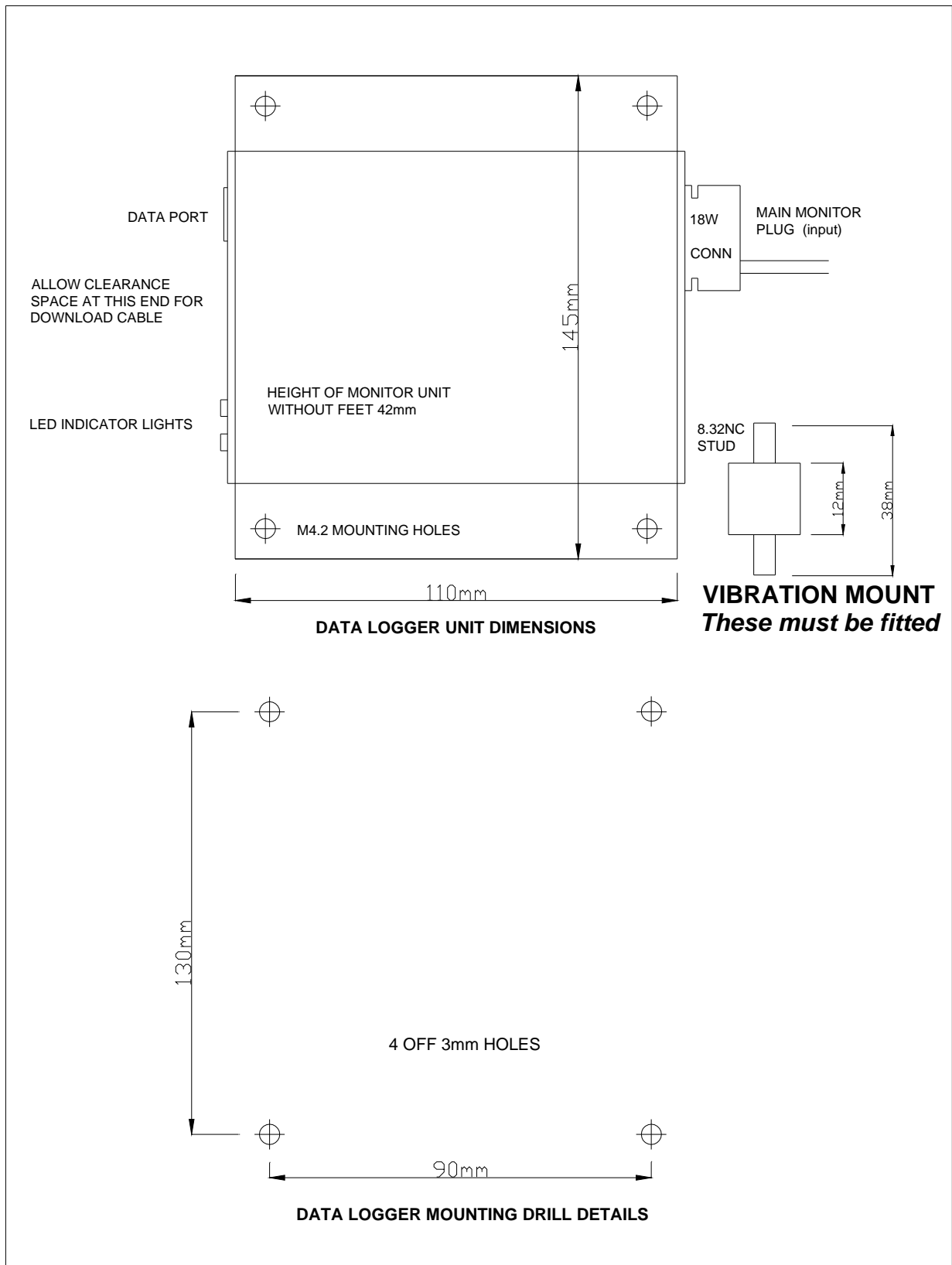
- \* MATERIAL MILD STEEL MINIMUM THICKNESS 6mm
- \* TOOTH HEIGHT MINIMUM 6mm / MAXIMUM 12mm
- \* TOOTH WIDTH APPROXIMATELY EQUAL TO TOOTH HEIGHT
- \* SENSOR TO TOOTH GAP 1 mm
- \* INSTALLATION TO BE CLEARLY VISIBLE

## CRANKSHAFT MOUNTED TRIGGER WHEEL

- \* 4 TEETH AT 90 +/- 0.5 DEGREE SPACING
- \* MOUNT ON PULLEY END OF CRANKSHAFT
- \* ALSO COULD BE FOUR BOLTS/PINS FITTED TO CRANKSHAFT PULLEY AT 90± 0.5° SPACING



# DIAGRAM D4



# DIAGRAM D5

