



Vehicle Fire & Engine Management System

Early warning of fire or engine failure conditions in commercial vehicles.

SPECIFICATIONS

- 24v DC or 12v DC operation.
- 20 x 4 line LCD display.
- Real Time clock, date/time event recording.
- GUI for computer downloads to evaluate data, via BLE module. 12v battery backup.
- 12v DC output for smoke detectors.
- Two TYRE fire zones, fire and fault reporting.
- ENGINE fire zone, fire and fault reporting.
- Canistor Pressure Monitoring.
- SMOKE detector fire zone.
- OIL pressure monitoring.
- OIL temperature monitoring.
- WATER level monitoring.
- ALTERNATOR charging monitoring.
- SPEED or EXCESSIVE IDLE monitoring.
- Separate RELAY box controller monitoring.
- Physical size: 150mm x 97mm x 35mm.
- RELAY1 output for fire extinguish.
- RELAY2 output for external siren.
- RELAY3 output for engine shutdown.
- SILENCE and manual DISCHARGE push buttons.

OPERATION



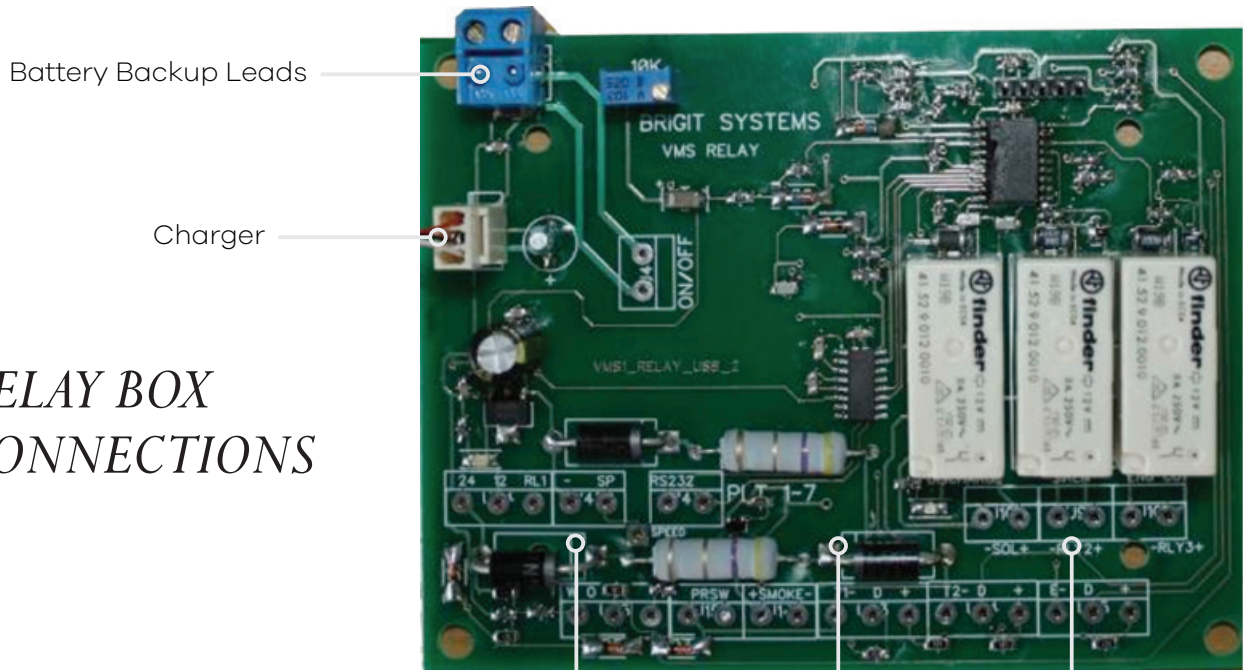
- Power up routine checks all the incoming zones and then continuously monitors for fire, fault or engine failure conditions.
- The VMS1 will beep and flash the LCD backlight on any fault condition.
- For fire conditions the extinguish relay will activate for 10 seconds.
- Faults on the fire zones will be displayed only.
- For engine fault conditions the VMS1 will beep and flash the LCD backlight slowly, the engine cut relay will energise after 15 seconds of beeping.
- The SILENCE button may be pressed to stop the beeping at any time.
- The DISCHARGE button will manually extinguish the fire. This button must be held in for more than 2 seconds.

INSTALLATION

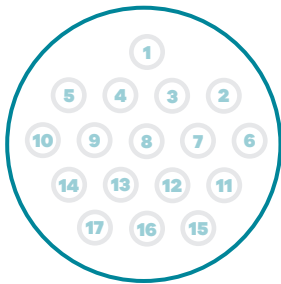
- The VMS1 controller unit is installed in the cab of the vehicle.
- The RELAY BOX is installed at the rear of the vehicle.
- A 20 metre harness is supplied in the kit.
- The FIRE zones have EOL boxes for zone monitoring.
- OIL pressure zone is connected to the existing pressure switch in the vehicle.
- ENGINE temperature sensor can be supplied.
- WATER probe kit is supplied.
- ALTERNATOR monitored on incoming DC voltage connection.
- SPEED input connects to vehicle pulse generator on wheels of the vehicle.



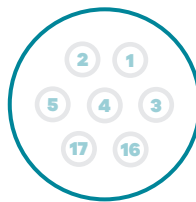
RELAY BOX CONNECTIONS



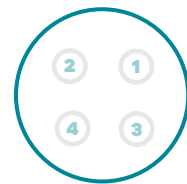
ENGINE MONITORING INPUTS



COMMUNICATION TO MAIN UNIT



FIRE INPUTS AND RELAY OUTPUTS



Fire Inputs

- 1 Pressure Switch N.C.
- 2 Pressure Switch N.C.
- 3 Smoke Detector +
- 4 Smoke Detector -
- 5 Tyres1 Zone GND
- 6 Tyres1 Data
- 7 Tyres1 POS
- 8 Tyres2 Zone GND
- 9 Tyres2 Data
- 10 Tyres2 POS
- 11 Engine Zone GND
- 12 Engine Data
- 13 Engine POS
- 14 Discharge Relay -
- 15 Discharge Relay +
- 16 Siren -
- 17 Siren +

Comms

- 1 24v DC to Main Controller
- 2 12v DC
- 3 Discharge Relay
- 4 GND
- 5 Relay box monitor
- 6 RS232 TX
- 7 RS232 RX

Engine Inputs

- 1 GND
- 2 Oil Pressure
- 3 Water Level
- 4 Engine Temperature

CONNECTORS

4 Way Connector

| | | |
|-----------|----------------------|----------|
| 1 - BLUE | Pressure switch N.C. | (17w-1) |
| 2 - WHITE | Pressure switch N.C. | (17w-2) |
| 3 - BLACK | Discharge – 12v DC | (17w-14) |
| 4 - RED | Discharge + 12v DC | (17w-15) |



2 Way Connector

| | | |
|-----------|----------------------|---------|
| 1 - RED | Smoke Detector + 12v | (17w-3) |
| 2 - BLACK | SmokeDetector-12v | (17w-4) |



3 Way Connector

| | | |
|------------|-------------------|---------|
| 1 - BLUE | GND Zone1 Linear | (17w-5) |
| 2 - WHITE | Data Zone1 Linear | (17w-6) |
| 3 - YELLOW | Zone1 Probe | (17w-7) |



3 Way Connector

| | | |
|------------|-------------------|----------|
| 1 - BLACK | GND Zone2 Linear | (17w-8) |
| 2 - YELLOW | Data Zone2 Linear | (17w-9) |
| 3 - RED | POS Zone2 Probe | (17w-10) |



3 Way Connector

| | | |
|-----------|-------------------|----------|
| 1 - BLUE | GND Zone3 Linear | (17w-11) |
| 2 - GREEN | Data Zone3 Linear | (17w-12) |
| 3 - WHITE | POS Zone3 Probe | (17w-13) |



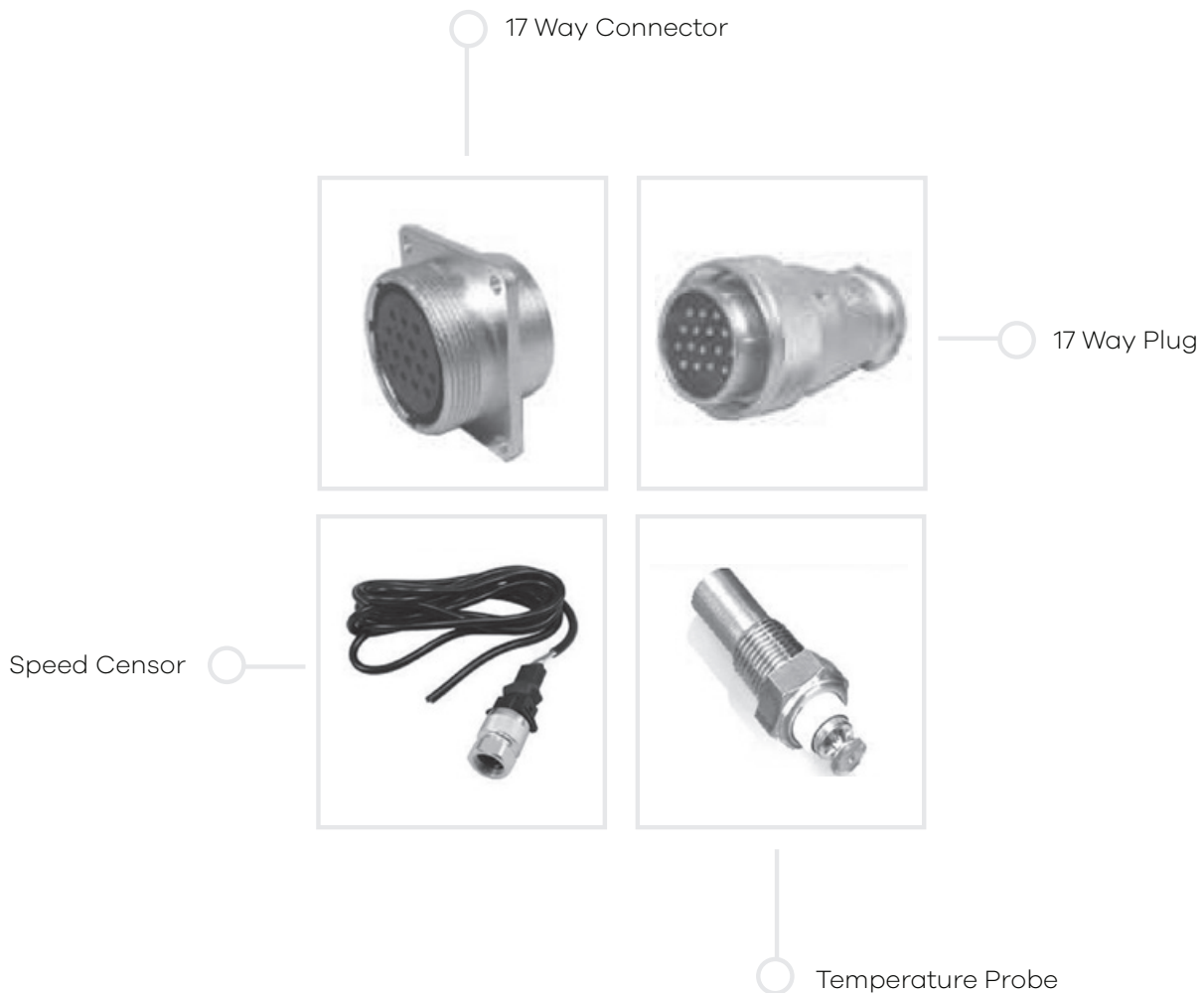
2 Way Connector

| | | |
|------------|-------------|----------|
| 1 - GREEN | Siren – 12v | (17w-16) |
| 2 - YELLOW | Siren + 12v | (17w-17) |



- Unused inputs must be bridged out using the supplied termination connectors and/or harness
- Fire zones require E.O.L. termination using the supplied connection box
- Engine inputs are N.C. type connected to GND
- A fault on any input cable will be displayed and recorded and should be attended to urgently
- Only the Engine fire zone will discharge the canister
- Any beeping may be silenced by pushing the RED SILENCE button
- A manual discharge is activated by pressing the YELLOW DISCHARGE button, must be held in for 2 seconds
- Programming the VMS unit
- Event viewing and real time clock
- Press and hold the program button located inside the main controller rear right hand side
 - View events
 - Date time and event may be viewed, use the RED and YELLOW buttons to scroll through the events

- Or Press the program button again
 - Set Date
 - Display will flash on day/mnth/year
 - Increase or decrease the value using the RED and YELLOW buttons
- Or Press the program button again
 - Set Time
 - Display will flash on hr/min/sec
 - Increase or decrease the value using the RED and YELLOW buttons
- Bluetooth event download
 - Download free Bluetooth terminal from google play
 - Enable Bluetooth on your device and connect to HC-05
 - Type "events" and send
 - All events that are stored in non-volatile memory will be uploaded to your device



CONTACT US

for more info

www.bright.co.za

JHB: +27 11 794 2217 / CPT: +27 21 300 1452