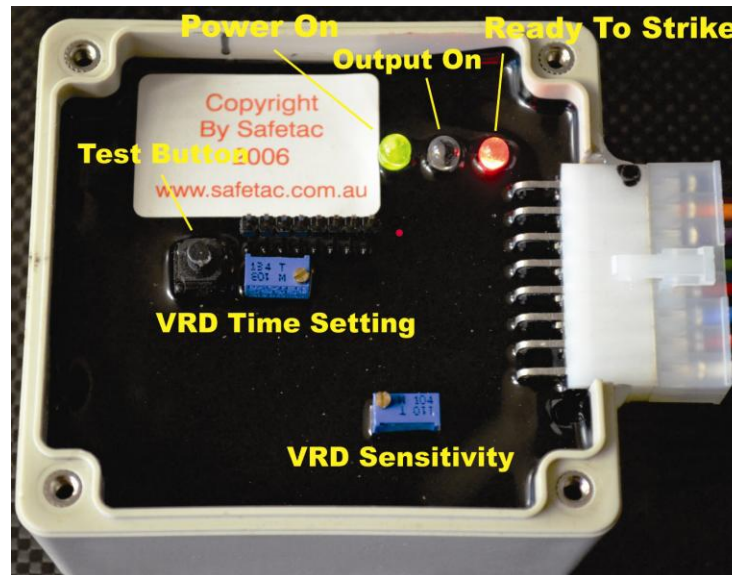


SafeTac VRD UM1 – PM,PB & UM1

Calibration Procedure

Note : UM1 – PM , UM1 – PB & UM1 – AB are all the same core Module UM1 – PM is 50 to 270 VAC
UM1 – PB is 10 to 28 VDC the UM1 – AB uses the UM1 – PB module



Pre – Start Checks When the welder is Off check resistance across output terminals it must be greater the 1000 Ohms Some welders such as the USA Lincoln DC 600 ,Miller Dimension 812 & Cigweld MPM Diesel series are fitted with large internal resistors 200 Ohms or less these must be removed otherwise calibration will be affected

Sensitivity Calibration

Turn on machine VRD green & Red LED should turn on Output voltage of welder should be from 8 to 14 VDC

If OK connect 200 Ohm 10 Watt resistor across Stick output terminals of welder

Blue LED should remain off if flashing off & on turn sensitivity pot anticlockwise until blue LED is off ,then reduce resistance across output terminals to 100 Ohms

If Blue LED flashes off & on turn sensitivity pot anti clockwise until blue LED begins to turn off & on then remove 100 Ohm resistor on output terminals leaving 200 Ohms in place Blue LED should be off & green LED on front fascia indicator plate should be on.

Remove 200 Ohm resistor & weld test indicator LED on front panel should flash red when welding & return to green when welding stops.

Timing Calibration

- Check VRD time as described in WTIA Tech note 22 VRD test sheet VRD time should be less than 300 ms if higher turn VRD timing pot anti – clockwise & retest ,repeat process until
- VRD reaction time is 300 ms or less.
- SafeTac has a LCD timing device to check preset VRD time once set VRD time should be tested as per WTIA tech note 22 test procedure



Test VRD OCV with a Peak Voltage tester as described as WTIA Tech note 22 OCV must be less than 35 VDC peak A Peak Voltage Testers are available from SafeTac P/N PVA 1
VRD timing test unit P/N STA 1