

CALIBRATOR *Pro*

load banks up to 1000A

The best performing welding machine calibration/load banks in the world!

Load test & calibrate all arc welding processes MIG/MAG, MMA, TIG, SUB ARC, PLASMA WELD, GMAW, FCAW, SMAW, GTAW, SAW, PAW. – Works with every make & model.

3 portable models 600A, 800A & 1000 Amps. Our Calibrator Pro range is the easiest & fastest method to calibrate & load test machines. Just plug in & test in seconds.

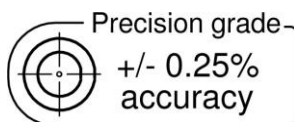
600A model



800A & 1000A models



Calibrator Pro instrument panel close up



All Calibrator pro models offer the same functions & features & are available with the instrument panel or as a basic load bank without instrument panel. (Plug in upgrade to full instrument panel version at any time).

Key functions & features (with instrument panel fitted)

- **Unique aluminium construction – weight from only 15kg yet rugged & robust for industry use.**
- **Super fast calibration & testing on any weld set –calibrate & certification in less than 10 minutes.**
- **Calibrate/test to all international standards BS, IEC, EN, DIN, ISO, ANSI.**
- **Compliance with EN1090, ISO9000, ISO9001, ASQ quality standards.**
- **No external power supply required, just plug into welding power source & test.**
- **Test A & V DC, AC T-RMS, complex waveforms, temp °C, wire feed speed (with optional plug in).**
- **Digital hold / un-hold function to capture instrument values.**
- **Extra Dix socket allows connection to calibrate real welding parameters instead of resistive load.**
- **4mm output terminals allow external DMM (Fluke etc) to display Voltage & current on multi-meter.**
- **Self test calibration function for operator verification of accuracy prior to use.**
- **TIG HF proof design, with overvoltage protection to 230V & current overload to 200%.**
- **Good range of main loads + 6 step fine step loads for precise setting on all welding processes.**
- **High stability precision electronics + self test function = extended calibration period to 1 year.**
- **Guaranteed temperature stability from 0°C - +40°C.**

Unbeatable long term back up; 1 year warranty, 15 year guarantee of parts & service availability & unlimited technical support via email/phone.

PTO for more detailed information & technical specifications



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These Calibrator models were first launched in 2008. Competitive pricing combined with superb portability, fast, easy operation & reliable results mean these are trusted by Engineers all over the world & have become the leading global product for welding equipment calibration & test.

Calibrator Pro models have been developed in response to recent updates to the IEC standards. These are upgraded versions of our original Calibrator models, just as easy to use but loaded with extra features to suit any application.

Almost everything has been improved, see below.

- Accuracy, repeatability & temperature stability now exceed precision grade requirements, for compliance with the toughest international requirements such as aerospace, nuclear industries & scientific testing.
- Displays mean DC volts & Amps, true AC RMS Volts & Amps, AC & DC complex waveform values such as pulse MIG & TIG, ambient temperature °C, & wire feed speed (with optional tachometer Pro unit).
- Volts now displays to 2 decimal places; amps display now to 1 decimal place + hold function to lock values if needed.
- Instrument panel now slopes back for better visibility & displays are sunlight readable up to 5M away.
- DIX connector now allows monitoring of real welding parameters instead of using the internal resistive loads, ideal for automated welding & integrated or inaccessible systems.
- Instrument panel removes in less than a minute for fast & easy recalibration.
- Power supply is now a replaceable PP3 9V battery, efficient design with auto shut down & auto wake up results in around 150-200 tests before replacement. Low battery shut down is also included.
- Improved internal case design with doubled panels at critical points to withstand tough use in industry.
- Improved 'stack effect' cooling, draws cool air in & channels hot air out at a faster rate than many powerful fans.
- Improved load resistor mount design, to minimise 'ringing' vibration noises in transport.
- Now with 6 fine control switch steps instead of 5 & greater load range from 2A@10V to 52A@44V.
- 4mm output terminals allow plug in of an external DMM, this allows readings of both voltage & current to be displayed on a Fluke or similar & can also be used for verification & recalibration of the instrument panel.
- Built in TIG 'HF' suppression stops HF from reaching the instrument panel & the 4mm output terminals to protect a DMM.

Models & technical specifications.

Model	Calibrator Pro 600	Calibrator Pro 800	Calibrator Pro 1000
Main power load switches	5 of, 30A, 60A, 100A, 150A, 230A	7 of, 25A, 35A, 75A, 105A, 145A, 170A, 200A	8 of, 25A, 35A, 75A, 105A, 145A, 170A, 200A, 230A
Fine control switch & rating	6 step, from 2A@10V-25A@21V. Max 52A@44V @90% duty cycle	6 step, from 2A@10V-25A@21V Max 52A@44V @90% duty cycle	6 step, from 2A@10V-25A@21V Max 52A@44V @90% duty cycle
Max load – approx. (all switch on)	0.053Ω, (650A@34.5V)	0.043Ω, 900A@39V)	0.033Ω, (1250A@41V)
Instrument accuracy (quoted@20°C-1 year-3% range-100% range). Temp coefficient 0°C-+40°C range +/-0.004%/°C TRMS AC/DC 20-300Hz sine/squ	Amps DC +/-0.25% rdn+4 count Volts DC +/-0.25% rdn+4 count Amps AC +/-0.25% rdn+5 count Volts AC +/-0.25% rdn+5 count WFS M/min +/-0.25% rdn+3 co. Temp +/-0.25% rdn+2 counts	Amps DC +/-0.25% +4 count Volts DC +/-0.25% rdn+4 count Amps AC +/-0.25% rdn+5 counts Volts AC +/-0.25% rdn+5 counts WFS M/min +/-0.25% rdn+3 co. Temp +/-0.25% rdn+2 counts	Amps DC +/-0.25% +4 count Volts DC +/-0.25% rdn+4 counts Amps AC +/-0.25% rdn+5 counts Volts AC +/-0.25% rdn+5 counts WFS M/min +/-0.25% rdn+3 co. Temp +/-0.25% rdn+2 counts
Volts display read range	0.00V -100.00V	0.00V -100.00V	0.00V -100.00V
Amps display read range	0.0A - 650.0A	0.0A - 900.0A	0.0A - 1250.0A
Wire speed display range	0.00M/min – 50.00M/min	0.00M/min – 50.00M/min	0.00M/min – 50.00M/min
Resolution	0.03V, 0.3A, 0.03M/min, 0.3°C	0.03V, 0.3A, 0.03M/min, 0.3°C	0.03V, 0.3A, 0.03M/min, 0.3°C
Main load duty cycles	100%@marked A value	100%@marked A value	100%@marked A value
Main load overload capability	125%A=30 secs, 150%A=12 secs, 200%A=3 secs	125%A=30 secs, 150%A=12 secs, 200%A=3 secs	125%A=30 secs, 150%A=12 secs, 200%A=3 secs
Total load duty cycle	9.0KW@100%, 18kw@50%	13KW@100%, 26KW@50%	16KW@100%, 32KW@50%
Overvoltage protection	230V AC/DC 3 secs	230V AC/DC 3 secs	230V AC/DC 3 secs
Recalibration period	1 year	1 year	1 year
Case size approx. mm	260Wx570Lx410H + ext hardware	310Wx660Lx560H + ext hardware	310Wx660Lx560H + ext hardware
Weight approx..	15kg (includes con cables)	25kg (includes con cables)	29kg (includes con cables)

The instrument panel on Calibrator Pro models use high stability precision electronics, including patented RMS precision converters, the result is superb accuracy, linearity & temperature stability, typically 10 times more precise than a good quality Fluke clamp on ammeter. This also allows precise measurement of complex AC/DC waveforms including pulsed MIG & TIG. In addition, the calibration period has now been extended to 1 year. Note; A clamp on meter & load bank is unlikely to offer compliance with current calibration standards.

The range of resistive loads fitted to our Calibrators is designed to test all welding power sources to the internationally recognised Amps to volts formula. (MIG/MAG 14+0.05V, TIG/WIG 10+0.04V, MMA + SUB ARC/SAW 20+0.04V. The operator can select any combination of loads including the fine control to achieve 100's of different load variations, this allows the required current & voltage to be easily selected.

There is no other product on the market offering the versatility, ease of use, speed & accuracy as our Calibrator Pro models. Calibration & documentation of welding machines is carried out with ease in under 10 minutes.

The most popular Calibration standard in the world is now IEC 60974-14 (BS EN60974-14) we include information, guides & sample certificates in our instruction manual to assist you in working to this standard. In addition, we can provide training & certification to show competence to the standard.

IEC60974-14 standard also requires calibration of wire speed where the function is available to calibrate, many modern MIG/MAG models now require this, our plug in Tachometer Pro provides the easiest & fastest way to compliance.

PTO for standard supply, options & accessories.



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Standard supply – complete calibrator with instrument panel

Model & part number	Calibrator Pro 600	Calibrator Pro 800	Calibrator Pro 1000
Standard Supply Full function unit	Calibrator Pro 600 fitted with precision instrument panel. 1.7M connection cables 70mm c/w Dix plugs Calibration certificate traceable to National Standards with ultimate traceability to UKAS lab. Instruction manual in English.	Calibrator Pro 800 fitted with precision instrument panel. 1.7M connection cables in 95mm c/w 12mm cable lugs. Castors wheels. Calibration certificate traceable to National Standards with ultimate traceability to UKAS lab. Instruction manual in English.	Calibrator Pro 1000 fitted with precision instrument panel. 1.7M connection cables 70mm doubled c/w 12mm lugs. Castors wheels. Calibration certificate traceable to National Standards with ultimate traceability to UKAS lab. Instruction manual in English.

Optional supply – Basic load bank without instrument panel (add B to model number)

Model & part number	Calibrator Pro 600-B	Calibrator Pro 800-B	Calibrator Pro 1000-B
Basic load bank With all loads including 6 pos fine switch.	Calibrator Pro 600 load bank with blanking plate instead of instrument panel. 1.7M connection cables 70mm c/w Dix plugs Instruction manual in English.	Calibrator Pro 800 load bank with blanking plate instead of instrument panel. 1.7M connection cables 95mm c/w Dix plugs Instruction manual in English.	Calibrator Pro 1000 load bank with blanking plate instead of instrument panel. 1.7M connection cables 70mm doubled c/w Dix plugs Instruction manual in English.

Accessories, options & upgrades

Description	Picture	Part number
Tachometer Pro (plugs into instrument panel) for precise measurement of WFS. A long rotary wheel is fitted with a replaceable rubber end, this provides a good pick up area for measuring directly onto welding wire. The long narrow design of the pick up wheel also allows easy access into wire drive rollers for direct measurement of drive roll speed. Fitted with 3M cable & plug.		CALPROT001
Euro adaptor fitted with switch for on/off & DIX socket to allow easy connection & operation on MIG/MAG machines.		CALPROE001
Calibration software package – simple, user friendly & fast to use, just a few inputs & calculations are done automatically with pass/fail confirmed. Save customer details etc ready for next machine, fast & efficient. We can add your company details as a header so you can print professional colour certificates directly from a laptop or save for later printing.		CALPROS001
Instrument panel complete with calibration certificate ready to upgrade Calibrator Pro load bank. Simple instructions included. The instrument panel includes all functions & includes the connection point for the tachometer Pro. Can also be purchased as a spare for any model if required.		600A model CALPROIN600 800A model CALPROIN800 1000A model CALPROIN1000
Training on Calibration to BS EN IEC60974-14 Please contact us for details.		
SAFE-ARC 1000 – our portable safety testing machine for welding equipment to allow compliance with BS EN IEC60974-4. Welding machines cannot be PAT tested correctly, its not a recognised safe test method. Testing to IEC60974-4 is the correct way to ensure weld sets are safe for use. The calibration standard IEC60974-14 recommends testing to IEC60974-4 prior to calibration		SAFE-ARC 1000