

The ETHERCHECK is supplied with a standard "Two-Year Manufacturer Warranty".
This covers all components of the Instruments and only excludes customer damage or misuse.

The "Two-Year Warranty" can be extended to "Five Years" through purchase of "ETHERCover" Extended Warranty Protection.

SPECIFICATIONS

Eddy Current Flaw Detector

Probe	Connectors	12 Way Lemo 2b (Absolute, Bridge and Reflection) and Connection Lemo 00 (for single element absolute probes). Simultaneous probe operation possible using Lemo 12 way and Lemo 00.
	Rotary	600-3000 rpm - ETher Rotary Drive (ARD002), Hocking 33A100, Rohmann MR3, SR1 and SR2 Drive (special adapter required)
Frequency		Single Freq. = 10Hz – 20MHz with range variable resolution. Dual Freq. = 10Hz - 12.8MHz & Mix -18 to +18dB on output
Gain	Overall Input Drive Max X/Y Ratio	-18 to + 104dB, 0.1, 1 and 6dB steps (104dB maximum) 0dB or 12dB 0dB, 6dB and 10dB (0dB reference 1mW into 50 ohm). +/-100.0 dB
Phase	Range Auto Phase	0.0-359.9°, 0.1° steps Allows phase angle to be automatically set to a pre-set angle
Filters	Normal High Pass Normal Low Pass	DC to 2kHz or Low Pass Filter, which ever is the lower in 1Hz steps. Plus variable adaptive balance drift compensation 0.01 - 0.5Hz (6 steps). 1Hz to 2kHz or a quarter of the lowest test frequency, which ever is lower in 1Hz steps.
Balance	Manual Automatic	14 internal balance loads; 2.2µH, 5.0µH, 6.0µH, 6.5µH, 7.0µH, 7.5µH, 8.2µH, 12µH, 15µH, 18µH, 22µH, 30µH, 47µH, 82µH Optimised balance load selection.
Alarms	Box Sector Output	Fully configurable, Freeze, Tone or Visual. Fully configurable, Freeze, Tone or Visual. Open collector transistor (32v dc at 10mA max) available on 12 way lemo.
Display	Type Viewable Area Resolution Flip Colour Schemes Configurable Screen Display Modes Graticules Offset Digital Spot Position Readout Summary	5.7" (145mm), 18 bit Colour, daylight readable. 115.2mm (Horizontal) x 86.4mm (Vertical) 640 x 480 pixels Manual or automatic screen orientation change to enable left or right handed use. User configurable Dark, Bright and Black & White Full Screen, Single, Dual Spot or Dual Pane with variable size and location and function e.g. XY, Timebase, Waterfall and Meter. Spot, Time base (0.1-20 seconds x 1-200 sweeps and up to 55 seconds), Waterfall and Meter with peak hold and % readout. None, Grid (4 sizes 5, 10, 15 and 20% FSH), Polar (4 sizes 5, 10, 15 and 20% FSH) Spot Position: Y =-50 to +50, X =-65 to +65% Display in X,Y or R,θ Display of all settings in Legacy Format
Removable Data Storage	Setup Storage Stored Screen Shots Record Replay	micro SD up to 32GB, holding over 10,000 settings micro SD up to 32GB, holding over 10,000 screen shots Comprehensive Record Replay and Storage Up to 164 seconds on instrument and on PC over USB limited by Hard Drive capacity
Outputs	PC Connectivity Digital Volt Free Alarm VGA	USB (Full PC remote control plus Real Time data) On Lemo 12 way Open collector transistor (36v dc at 10mA max). Full 15 way VGA output
Languages		English, French, Spanish, Italian, Portuguese, Russian, Japanese, Chinese, Turkish, Czech, Norwegian
Verification Level		On delivery, the system includes a 2 year validity Verification Level 2 detailed functional check and calibration as per ISO 15548-1:2013
Power On Self Test		The system performs a self test on start up of external ram, sd ram, accelerometer, Micro SD card, LCD screen buffer.
Power	External Battery Running Time Charging Time	100-240 v 50-60Hz 30 Watts Internal 7.2V nominal @ 3100mAh = 22.32 watt.hr Up to 8 hours with a 2MHz Pencil Probe 30% Back Light and up to 6 hours with a Rotary Drive at 3000rpm 50% duty cycle. Up to 6 hours using Pitch-Catch Bond Testing Probe 2.5 hrs. charge time, Simultaneous charge and operation.
Physical	Weight Size (w x h x d) Material Operating Temp Storage Temp IP Rating	1.2 kg, 2.7 lbs. 237.5mm x 144mm x 52mm / 9.4" x 5.7" x 2.1" Aluminium alloy Mg Si 0.5 powder-coated -20 to +60 °C Storage for up to 12 months -20 to +35 °C Nominal +20 °C 54

EDDY CURRENT FEATURES

Guides	Create and display a slide show containing instructions, tutorials and procedures using Microsoft PowerPoint. Screenshots and Data Recordings are saved in a folder along with the Settings.
Attachments	
Loop	Capture a live repetitive signal and then optimise the instrument settings (Phase, Gain, Filters) to simplify optimising the parameters.
Trace	Allows a calibration reference signal to be stored on the screen and compared with the live signal.
Data Output	Real-time post processed over USB at 8kHz overall for all 3 data pairs (X, Y and Mix) with DLL for embedding functionality into software.

CONDUCTIVITY SPECIFICATION

Frequency	One frequency only 60kHz standard (choice of 120, 240 and 480kHz)
Accuracy	0.5%-10% IACS better than +/-0.05% IACS 10%-25% IACS better than +/-0.25% IACS 25%-60% IACS better than +/-0.5% IACS 60%-110% IACS better than +/-1% IACS Lift Off corrected to 1.0mm No temperature compensation All Errors at 90% Confidence Level
Resolution	3 decimal points max Auto Resolution Mode AutoS = Legacy Instrument, Auto = SigmaCheck

BOND TESTING SPECIFICATION

Operating Mode	Bond Testing	Pitch-Catch Tone Burst
Display Modes		RF (A-Scan waveform), Impedance Plane (Flying Spot), Frequency Spectrum, Time base Scan*, Encoded Scan*
Signal Processing	Main Gain Rectification Filtering	0 to 60dB in 1dB steps RF, Positive half wave, Negative half wave, Full wave Low pass filtering of Amplitude / Phase
Pitch-Catch Mode	Waveform Type Output Voltage Frequency Range Sample Rate Time base range Time base delay	Tone burst with fixed or swept frequency 6, 8, 10, 12, 18, 24, 30, 36V 1kHz to 100kHz – probe dependant 440kS/s 100us to 2ms 0us to 1ms
RF mode gates Y-T mode gates	Calibration mode Bond/ Dis-bond alarm	Adjustable threshold, start and width Multiple alarm regions, sector, box and circle Automatic inspection frequency with manual adjustment. Audible and visual alarm on instrument display and probe
Pitch-Catch Probe Specification	Operating frequencies Probe separation Linear travel Probe auto-recognition Alarm LED Probe tips Probe housing material Connector	30kHz (suitable for 10kHz to 50kHz operation) 17mm >5mm Yes, with default inspection settings stored in probe Yes, follows instrument alarm state Rounded end and flat end, user replaceable Anodised aluminium, with stainless steel probe housings, rubber grip 8 pin Lemo

EQUIPMENT KIT

STANDARD ETHERCHECK KIT - KIETH001

ETHERCHECK combined bond tester & dual frequency eddy current flaw detector including:
ETHERCHECK Unit, Power Adapter, Shoulder Strap, Soft Carry Case, USB Cable, Quick Reference Guide and Manual.
NB. Probes and cables extra.

OPTIONAL ACCESSORIES

AAER002 Hard Transit Case
AAER004 Protective Splash Proof Cover (WELDCHECK2, WELDCHECK+, AEROCHECK2, AEROCHECK+, ETHERCHECK)
AWEL006 External, 8 x AA Battery Holder with On/Off Switch
AWEL008 In Car Power Adapter
40470 Tripod Bracket to fit 1.4" Camera Tripod Mount with Male Screw

ETHER NDE 

