



817486 Millwatch Air Pump Kit

INSTALLATION GUIDE

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See degrees differently.

Health and Safety Information



Read all of the instructions in this booklet - including all the **WARNINGS** and **CAUTIONS** - *before* using this product. If there is any instruction which you do not understand, **DO NOT USE THE PRODUCT**.

Safety Signs



WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or personal injury.



CAUTION

Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury to the user or users, or result in damage to the product or to property.

NOTE

Indicates a potentially hazardous situation which, if not avoided, could result in damage or loss of data.

Signs and Symbols used on equipment and Documentation



Caution, risk of electric shock.



Caution, attention to possibility of risk of damage to the product, process or surroundings. Refer to instruction manual.



Caution, hot surface.



Protective Conductor Terminal.



Observe precautions for handling electrostatic discharge sensitive devices.

Equipment Operation

Use of this instrument in a manner not specified by LAND may be hazardous. Read **and understand** the user documentation supplied **before** installing and operating the equipment.

The safety of any system incorporating this equipment is the responsibility of the assembler.

Protective Clothing, Face and Eye Protection

It is possible that this equipment is to be installed on, or near to, machinery or equipment operating at high temperatures and high pressures. Suitable protective clothing, along with face and eye protection must be worn. Refer to the health and safety guidelines for the machinery/equipment before installing this product. If in doubt, contact LAND.



Wear Protective Gloves



Wear Protective Clothing



Wear Eye Protection



Wear Ear Protection



Wear Safety Boots



Wear Face Protection

Electrical Power Supply

Before working on the electrical connections, all of the electrical power lines to the equipment must be isolated. All the electrical cables and signal cables must be connected exactly as indicated in these operating instructions. If in doubt, contact LAND.

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For further details on all AMETEK Land offices, distributors and representatives, please visit our website.

Storage

The instrument should be stored in its packaging, in a dry sheltered area.

The maximum storage temperature is 10 °C (18 °F) higher than the maximum operating temperature.

The minimum storage temperature is 10 °C (18 °F) lower than the minimum operating temperature.

Refer to the Technical Specification for details of the operating temperature limits.

Unpacking

Check all packages for external signs of damage. Check the contents against the packing note.

Lifting Instructions

Where items are too heavy to be lifted manually, use suitably rated lifting equipment. Refer to the Technical Specification for weights. All lifting should be carried out in accordance with local and national regulations.

Return of Damaged Goods

IMPORTANT If any item has been damaged in transit, this should be reported to the carrier and to the supplier immediately. Damage caused in transit is the responsibility of the carrier not the supplier.

DO NOT RETURN a damaged instrument to the sender as the carrier will not then consider a claim. Save the packing with the damaged article for inspection by the carrier.

Return of Goods for Repair

If you need to return goods for repair please contact our Customer Service Department for details of the correct returns procedure.

Any item returned to LAND should be adequately packaged to prevent damage during transit.

You must include a written report of the problem together with your own name and contact information, address, telephone number, email address etc.

Design and Manufacturing Standards

The Quality Management System of Land Instruments International is approved to BS EN ISO 9001 for the design, manufacture and on-site servicing of combustion, environmental monitoring and non-contact temperature measuring instrumentation.

Registered ISO9001 Management System approvals apply in the USA.

UK Calibration Laboratory: UKAS 0034.

USA Calibration Laboratory: ANAB Accredited ISO/IEC 17025.

National Accreditation Board for Testing and Calibration Laboratories approvals apply in India.

Operation of radio transmitters, telephones or other electrical/electronic devices in close proximity to the equipment while the enclosure doors of the instrument or its peripherals are open, may cause interference and possible failure where the radiated emissions exceed the EMC directive.

The protection provided by this product may be invalidated if alterations or additions are made to the structural, electrical, mechanical, pneumatic, software or firmware components of this system. Such changes may also invalidate the standard terms of warranty.

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Contents

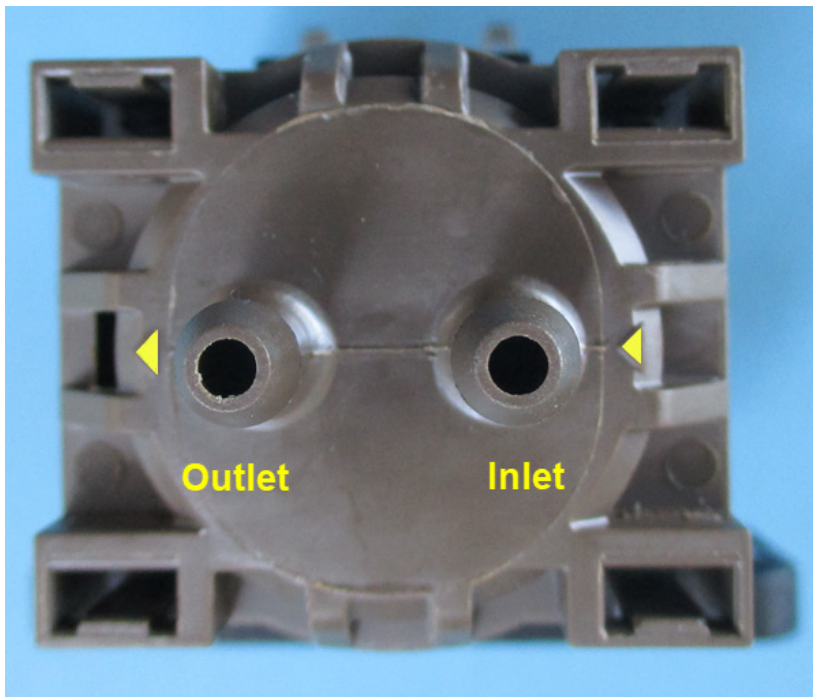
1	Installation	1-4
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1

INSTALLATION

1. Remove power from the instrument.
2. Remove the power cable from the spade terminals on the old air pump, *(Note: polarity is **NOT** important and does not need to be noted).*
3. Disconnect the instrument pipes from the old air pump taking note of which pipe is connected to the pump inlet and outlet.

The inlet/Output configuration on the original air pump is shown below:

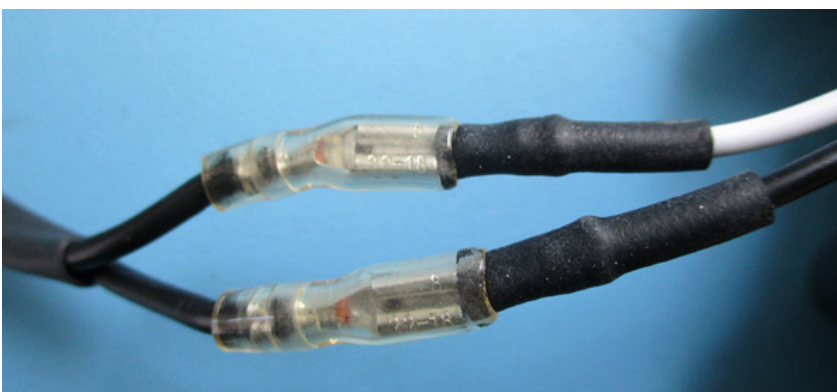


The pump Inlet is connected directly to the air inlet on the gland plate

The pump Outlet is connected to the pipe fitted with a T-piece



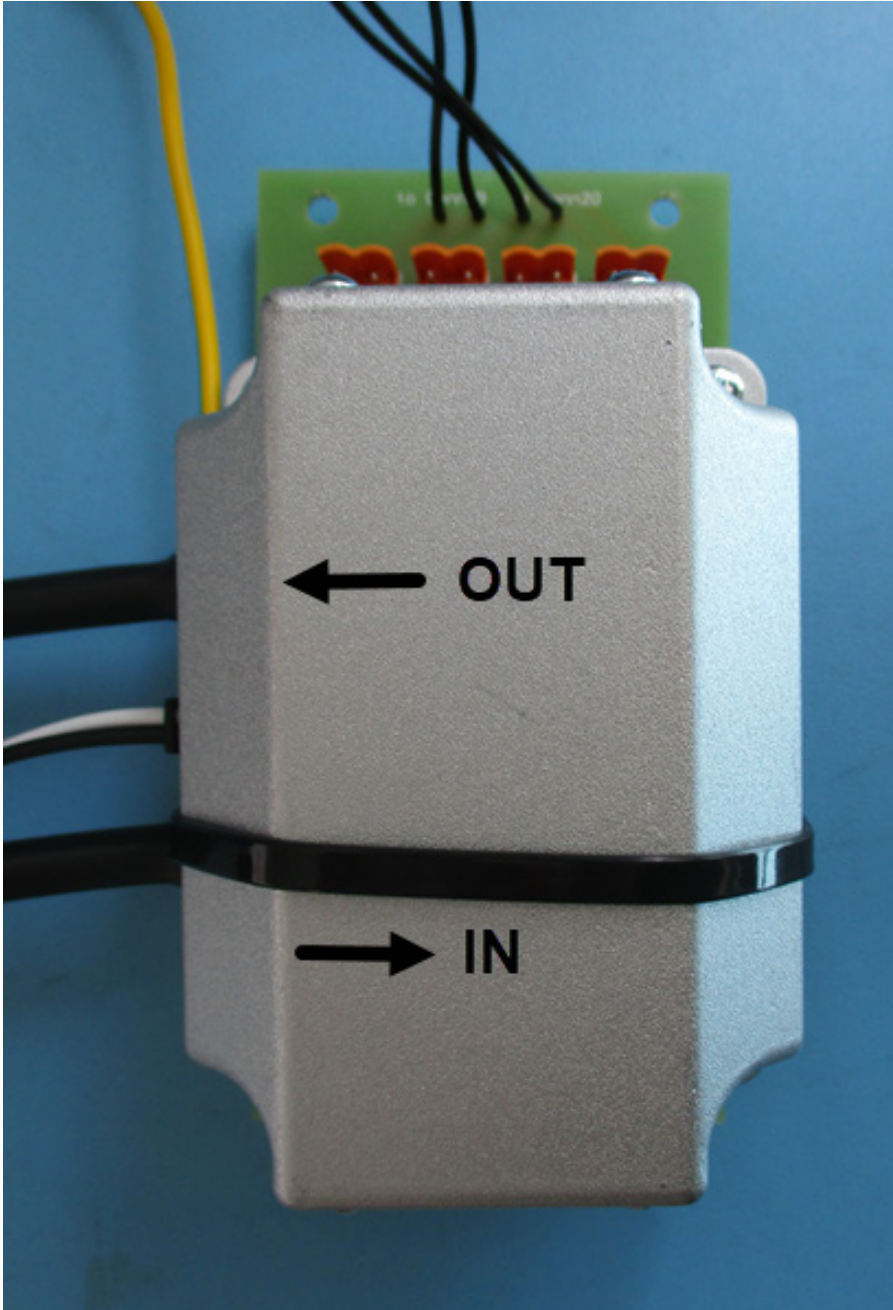
4. Remove the four pillars locating the pump PCB to the baseplate spacers. Remove the pump assembly from the baseplate and move the out of the way. (Note: **DO NOT** remove the electrical connections to the PCB currently.)
5. Fit the air pump supply wire female spade terminals to the Black and White wires on the replacement air pump assembly. Press the spade terminals fully home and check that there is no exposed conductor and the connections are fully insulated. (Note: connections can be either way round.)



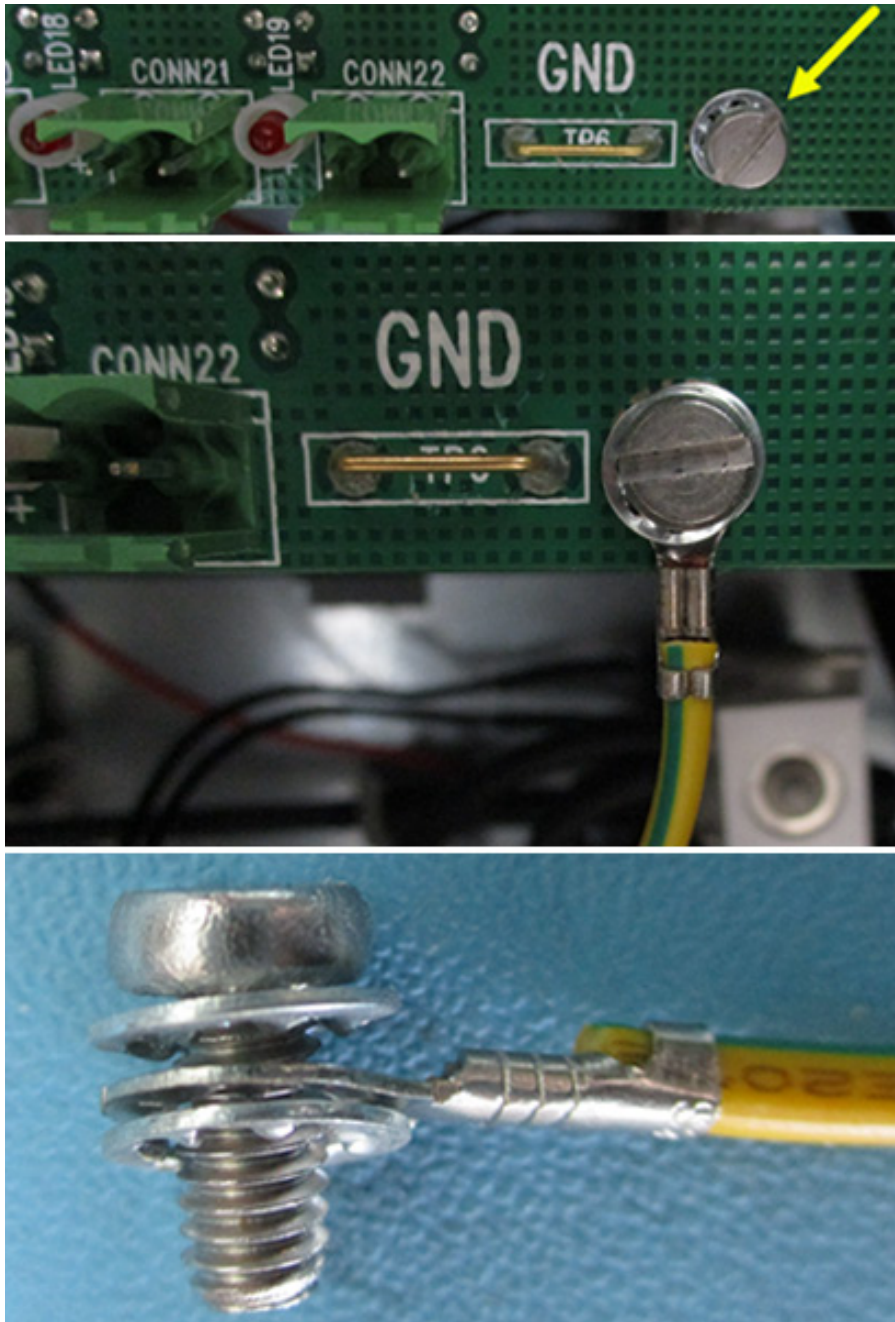
6. Fit the replacement pump assembly to the baseplate spacers and secure using the four pillars.
7. Transfer the electrical connections one at a time from the old pump PCB to the new pump PCB. The correct connector connections **MUST** be maintained.

817486 Millwatch Air Pump Kit

8. Connect the pump **OUTLET** pipe to the instrument pipe fitted with the T piece
9. Connect the pump **INLET** pipe to the instrument pipe connected directly to the gland plate. The pump inlet/outlet locations are shown below:



10. Connect the pump green/yellow earth wire to the main PCB earth point using the M4 screw and shakeproof washers supplied. (Note: there **MUST** be a shakeproof washer under the screw head and fitted between the PCB surface / pump ring terminal to make a good connection.)



PRODUCT WARRANTY

This LAND manufacturer's 'back-to-base' warranty covers LAND products ("Product") to be free from defects in material and workmanship. The warranty period commences on the date the Product is delivered from LAND. LAND shall at its option repair or replace the defective part of the Product.



36 Months Warranty

- 4500 MkIII (Transmissometer and AFU-APS-I/O only)
- Application-dedicated processors based on LANDMARK® Graphic
- DTT
- FLT5/B
- FTS
- LWIR Thermal Imager
- NIR-B / MWIR-Borescope thermal Imagers
- SPOT+ thermometers, accessories and mountings and special instruments based on SPOT+
- System 4 thermometers, processors, accessories and mountings and special instruments based on System 4
- UNO thermometers, accessories and mountings and special instruments based on UNO
- VDT/S and VDT/U



24 Months Warranty

- LSP-HD Linescanners
- MWIR, NIR Thermal Imagers
- SDS-640



12 Months Warranty

All other LAND Product including NIR-B Camera Retraction and Mounting Systems, Water Cooled Housings & Accessories, SPOT+ Actuator, and Air Purge Equipment.

EXCLUSIONS FROM WARRANTY

LAND reserve the right to charge for service/calibration undertaken during the warranty period if the cause is deemed to fall outside the terms of the warranty.

The foregoing warranty shall not apply to defects resulting from:

- Improper or inadequate maintenance by customer
- Customer-supplied hardware, software or interfacing
- Improper installation
- Misuse of the Product
- Unauthorised alteration
- Inappropriate routing, support, physical shock & strain protection, etc. of the fibre-optic lightguide (where fitted)
- Operation outside of the temperature specifications of the Product
- Environmental conditions exceeding the IP / NEMA rating of the Product
- Inappropriate recalibration which results in Product calibration being taken outside specification
- Improper resealing of thermometer following parameter adjustment (UNO, FLT5/A, etc.)
- Damage caused by an unauthorised repair

RETURNS PROCEDURE

All items returned to LAND under warranty must have a Return Merchandise Authorisation (RMA). Please contact LAND Customer Service for the necessary authorisation.



CONTACT US



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LAND's AMECare Performance Services ensure peak performance and maximum return on investment over the life of your equipment.

We deliver this by:

- Proactively maintaining your equipment to maximize availability.
- Optimizing solutions to meet your unique applications.
- Enhancing user skills by providing access to product and application experts.

LAND's global service network provides unparalleled after-sales services to ensure you get the best performance and value from your LAND products. Our dedicated service centre teams and on-site engineers are trained to deliver the highest standard of commissioning, maintenance and after-sales support.

Our worldwide network of Service Centres includes:

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