# Maintenance

Maintenance	
	List of products
Actions to take in the event of failure and malfunctioning Olf a Manostar product (instrument) does not operate normally, by referring to the investigation procedures shown below,	WO81
investigate the product yourself to see whether the malfunctioning has been caused by an instrument failure, pressure detector, or the piping system. OIf an investigation has made clear that the instrument has failed, contact us via the following.	W071
Failure investigation procedures	FR51A
Check the pipes and pressure detector for clogging.  Address clogging.  Address clogging.  Defective Address lockers and	MS99
Check the pipes and pressure detector for leakage and disconnection.  Address leakage and disconnection.	
Check the polarity in pipe connection.	MS99S
Normal     Defective     Address defective products.	MS61A-RA
Normal Contact the manufacturer.	QDP33
Causes A: Pulsation of measured pressure due to mistake in construction design.	EMD8A
<ul> <li>B: Mistake in calculation of airflow rate of duct, fan, etc.</li> <li>C: Mistake in selection of pressure range of instrument</li> <li>D: Mistake in design and assembly of piping/wiring system</li> </ul>	EMD7
Actions to take concerning product returned to distributor or trading company that handles it	EMT1
Check individual products.  Contact for failure and malfunctioning Manostar Co., Ltd.	EMTGP1
Contact the manufacturer.       Manostar Co., Lto.         1-2-3, Nishi-shiriike-cho, Nagata-ku, Kobe, Hyogo 653-0031 JAPAN TEL. +81-78-621-7000 FAX. +81-78-621-7788	EMT1H
Periodical calibration of instrument	EMT6
OIn general, to retain the service life and reliability of an instrument for a long period, it is important to prevent stress due to external factors from being applied to the instrument. It is not necessary to conduct maintenance, lubrication in particular, as long as the instrument is appropriately used in accordance with the instruction manual. However, we recommend that you	EMP5A
conduct periodic calibrations once a year. For periodic calibrations, contact the distributor or us. OPlease be advised that depending on the condition of the instrument, we may decline your request for calibration.	EMRT1
Accuracy maintenance The calibration system for maintaining the accuracy of our pressure standards is shown below.	HWS15A
Calibration (traceability) system	A
National standard National Institute of Advanced Industrial Science and Technology	Accessories Application
Reference standard Pneumatic dead-weight pressure gauge Digital pressure gauge	Precautions
Pressure standard Digital pressure gauge	Maintenance
Our products       WO81 • WO71 • FR51A • MS99 • MS99S • MS61A-RA         QDP33 • EMD8A • EMD7 • EMT1 • EMTGP1 • EMT1H • EMT6, and so on	

## Maintenance

### Maintenance

#### List of products **Calibration service** WO81 O In our calibration service, we conduct calibration of products and make optimum adjustments in accordance with the condition of each product. We provide the services of maintaining the accuracy and reliability of instruments by returning them in good condition to customers. WO71 \*We provide calibration services for our products only. Types of calibration service • Standard calibration: We conduct calibration and optimum adjustment of the instrument. **FR51A** · Speedy calibration: We conduct calibration and optimum adjustment of the instrument in a short period. (Speedy calibration requires an extra fee in addition to the fee for the standard calibration.) What is optimum adjustment? **MS99** It refers to an adjustment conducted by us to make the instrument indicate values as close to the true values as possible regardless of whether the calibration result is within or outside the tolerable range. When you want optimum adjustment: We will conduct optimum adjustment regardless of whether the calibration result is within MS99S or outside the guaranteed accuracy range. (For instruments compliant with RoHS only) However, if a product that is to be adjusted is already in the optimum condition, we will not conduct optimum adjustment. MS61A-RA We will not conduct optimum adjustment as long as the product is within the guaranteed When you do not desire optimum adjustment: accuracy range. If the product is out of the guaranteed accuracy range, we will contact vou. QDP33 Documents to be issued When optimum adjustment is conducted: We will issue inspection reports (two copies) listing data before adjustment and data after adjustment, respectively. EMD8A When optimum adjustment is not conducted: We will issue an inspection report of the calibrated data only. \*We will issue a calibration certificate and a standard calibration certificate, each for a fee. The expense for the inspection report is included in the calibration service fee. EMD7 Others When a product is be calibrated but cannot be calibrated, we will contact the customer and report whether it can be repaired or not. Repair service EMT1 $\bigcirc$ We will repair products requested to be calibrated that require repair, and products requested to be repaired. \*We provide a repair service for our products only. \*We cannot repair products not compliant with RoHS. EMTGP1 Documents to be issued When we have conducted a repair, we will issue an inspection report after the repair (one copy). Others EMT1H When a product is be repaired but cannot be repaired, we will contact the customer. <Flow from request to return> EMT6 **Calibration service Repair service** Calibration/ Calibration repair request shee repair request shee EMP5A 15 days] I [work period of 10 to 15 da work period of 2 to 3 days] Order sheet Request for quotation of repair EMRT1 Receipt of product requested to Receipt of product requested to be calibrated/order sheet be repaired HWS15A Check of product requested to be repaired Contact to report that the repair is impossible Check of product requested to be calibrated calibration is impossible When repair is impossible calibration calibration Contact to report that the repai Return/disposal of product that Calibration/optimum adjustment Accessories can be made/quotation cannot be repaired 'Standard 'Speedy Receipt of product that cannot Return of calibrated product Order sheet Application be repaired When Precautions Repair Receipt of calibrated product

\*The calibration/repair request sheet can be downloaded from our website.

Return of repaired product

Receipt of repaired product

Processing/worl conducted by us Processing conducted by distributor or sales shop

#### Warranty

#### Warranty period

The warranty period for our product is one (1) year from delivery to the location specified by the orderer who makes a direct transaction with us.

#### Scope of warranty

If any failure or defect attributable to us becomes clear during the above warranty period, we will repair the product or supply a substitute product free of charge. However, even during the warranty period, we will exclude the product from the scope of the warranty if the failure or defect corresponds to any of the following:

- (1) The failure or defect was caused by an unreasonable condition, environment, handling, or usage not mentioned in the
- instruction manual, specifications, and our product catalog.
- 2) The failure or defect was caused by a factor other than our product.
- (3) The failure or defect was caused by a modification or repair conducted by a party other than us.
- (4) The failure or defect was caused by an event that could not be foreseen at the scientific and technical levels at the time of product shipment from us.
- (5) The failure or defect was caused by an external factor not attributable to us, such as acts of God and disasters.

Please note that the warranty mentioned here means the warranty for our individual product, and damage provoked by a failure or defect of the product is excluded from the scope of the warranty.

\*This warranty is valid only in Japan.

#### Application and usage

Our products are designed and manufactured as general-purpose instruments for general industries. Therefore, our products are not intended for the following uses, and our products used in such a manner are outside the scope of application.

- (1) Equipment that is anticipated to greatly affect lives and properties, such as nuclear power generation, aviation, railways, marine vessels, vehicles, and medical devices
- (2) Utilities that include electricity, gas, and service water
- (3) Use in outdoor locations and under similar conditions or environments other than those stipulated in the instruction manual
- (4) Usage to which considerable safety consideration and attention equivalent to (1) and (2) above need to be given

#### Service

#### Scope of service

Because the product price does not include service expenses, such as the dispatch of engineers, we will separately charge for the expenses in the following cases:

(1) Instruction for installation and adjustment and a witnessed test run

- (2) Maintenance inspection, adjustments, and repairs
- (3) Technical guidance and technical education
- (4) Witnessed inspections of products at our factory

### <<Note>> The product specifications and information in this catalog are subject to change without prior notice for product improvement or other reasons.

For order placement, contact



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