

AIR-PACK TYPE CONTACT SURFACE PRESSURE MEASUREMENT SYSTEM OPERATION MANUAL

AMI3037-5S/10/20 <Unit : KPa>

OPERATION PROCEDURE (*: Refer to the right pictures)	FUNCTION, PURPOSE, CAUTIONS
1) Connect the output cable to the output connector of main unit (AMI3037-10・20), connect the opposite side of output cable to the data collector, volt meter, tester, recorder.	Output to the Data Collector AMI8061 is 0.1V (100mV) corresponds to 1kPa. {1kPa : 10.2gf/cm ² : 102mmH ₂ O : 7.5mmHg}
2 Turn on the power.	Wait 30 minutes after turning on the power. (For warming up)
*3) Use the gear③, Push the head of the air cylinder② to the end. (in the shortest length)	For avoiding the breakage of the air pack on account of the erroneous operation.
*4) Connect the air pack to the air cylinder (refer to picture "How to connect") (In case of air pack size being φ30mm. Press the release lever④ and press the air pack by hand flat until thickness comes lower than 1mm. After that connect the air pack to the air cylinder.)	In case of erroneous operation having been made press the release valve④ and press the air pack by hand flat after that start again from 3).
*5) Insert the pin⑤ into the blue hole on the gear③ until the pin⑤ comes to the end. (Wait 3 seconds and start next step)	Remove the air from air pack completely. (this time the air pack ① must be completely flattened)
*6) Press the release lever④, for making air cylinder pressure to be the same with and ambient pressure. (wait 3 seconds and start next step)	For making the inside to the pressure the same with the ambient pressure.
*7) Insert the pin⑤ into the hole of the gear③ whose color is the same with the air pack. Turn the gear③ until the pin⑤ comes to the end. (In case of air pack size being φ30mm, it is not required to insert the pin⑤ into the hole of the gear③, Turn the gear③ to it is end. (Wait 3 seconds and start next step) (φ15mm/BLACK, φ20mm/RED, φ25mm/GREEN, φ30mm/BLUE FULL)	Introduce the air into the air pack until its thickness comes slightly thinner than 1mm. (In case of air pack being φ15mm the thickness should be less thinner than 0.5mm)
*8) Remove the air pack① from the air cylinder②. (refer to picture "How to remove") Turn the gear③ until the pin⑤ comes to the end. (Wait 3 seconds and start next step)	The joint is protected against the reverse flow. Therefore no air leakage may take place from the connector.
9) Check if the output signal from the main unit is close to zero. ≪Allowance within ±0.05kPa: 0.005V (5mV)≫	Zero adjustment must be made on each channel independently. (If a very high accuracy is required, effect calibration to the main unit and the Data collector separately)
10) Connect the air pack① to the main unit. (Connection should be made in one action. If you renew connection, you should be made from step 3) because inside volume of air pack must be change.)	Connect the air pack① to the main unit, some air comes into the air pack. If a very high accuracy is required, connect the air pack① to the unit again. On that occasion, a thermal calibration also required
11) First, press the air pack by hand flat, finger or press tester for removing all the air from the air pack 3 times. Check the output signal transmitted from the main unit. Be careful that this is the maximum measurement value and that the system (AMI3037) cannot measure any values exceeding the maximum measurement value. If the contact surface is bent to much, and if output signal from the main unit exceed +20mV, connect the air cylinder and press the release lever④.	Measurement range is depending on the size of air pack, length of the tube, weather (barometric pressure), volume of air inside the air pack. Mount the air pack① on the contact surface and start measurement. When pressure exceeds the maximum measurement value. Even in case when using the same system (AMI3037), air volume must be changing slightly from time to time.
12) Mount the air pack① on the contact surface and start measurement. * NOTE: Mount the air pack on the surface slightly pressed.	You can confirm through the calibration.
13) After measurement, press the air pack by hand flat for removing all the air out from the air pack. Check the maximum output signal transmitted from the main unit.	If measurement data and the maximum measurement value are very close each other there is a possibility of the value having been saturated and the indicated value being equal to the maximum measurement value itself. We recommend to effect measurement again with another air pack of higher pressure. It is natural that the maximum measurement value after measurement is getting bigger and bigger. Replace the existing air pack with a new one or return it to the manufacturer for repair. If a long term measurement has to be made consult with AMI TECHNO for a useful advice.

FOR A USEFUL ADVICE

CAUTIONS

- When pressing the air pack for a checking purpose, press it by hand flat, finger, press tester or some other soft material.
(The air pack is pressed by a hard material, it must be hurt and rapidly become useless with in a short period.)
- Do insert air into the air pack only to the extent that it is thickness does not exceed 2mm.
(An excessive insertion of air into the air pack should weaken it is welded portions.)
- Do not apply pressure over 100kPa to the main unit. (A higher pressure applied must break the pressure sensor. Note that The sensor is a very expensive component.)
(If you use a standard air cylinder for an air insertion and follow instructions given in own manual. No worry is required for troubles).

