AIR-PACK TYPE CONTACT SURFACE PRESSURE MEASURING SYSTEM OPERATION MANUAL

AMI3037-2・2B <Unit:KPa>

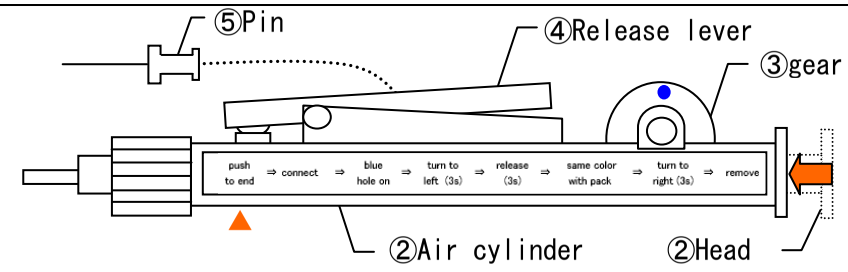
OPERATION PROCEDURE (＊: Refer to the right pictures)	FUNCTION, PURPOSE, CAUTIONS
1) Connect the output cable to the output connector of main unit (AMI3037-2), Connect the opposite side of output cable to the data collector, volt meter, tester or recorder.	Output signal is 0.1V (100mV) corresponds to 1kPa. {1kPa : 10.2gf/cm2 : 102mmH_2O : 7.5mmHg}
2) Turn on the power. Make sure that the green lamp is illuminated. Red lamp is low battery.	Wait 10 minutes after turning the power on. (For warming up)
＊3) Use the gear③, Press the head of the air cylinder② to the end to be 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 in dia., Press 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 to next step)	Remove the air from air pack completely. (this time, the air pack ① should be completely flattened)
＊6) Press the release lever④ for making air cylinder pressure to be equal to the ambient pressure. (wait 3 seconds and start to next step)	For making the inside pressure to be equal to the ambient pressure.
＊7 Insert the pin⑤ into the hole of the gear③, whose color is the same with that of air pack. Turn the gear③ until the pin⑤ comes to the end. (In case of air pack size being φ30mm in dia., insertion of the pin⑤ into the hole of the gear③ is not required). Turn the gear③ to its end. (Wait 3 seconds and start to next step) (φ15mm/BLACK, φ20mm/RED, φ25mm/GREEN, φ30mm/BLUE FULL)	Introduce the air into to the air pack until its thickness comes to be slightly thinner than 1mm. (In case of air pack being φ15mm in dia., its thickness should be less than 0.5mm).
＊8) Remove the air pack① from the air cylinder②.	The joint is protected from reversing flows. No air leakage may therefore take place from the connector.
9) The output signal should be adjusted to around "0" with attached screw driver. <Do not need to adjust if the output signal lower than 0.005V(5mV)(±0.05kPa)>	The zero adjustment should be made per channel independently. (When a very high accuracy is required in the measurement, effect calibration to the main unit and the Data collector separately).
10) Connect the air pack① to the main unit. (Connection should be carried out in one action. If you intend to renew connection, start from Step 3) because in such cases an air volume to be poured to be changed.)	When the connecting the air pack① to the main unit, there should be a possibility of some air coming into pack. Therefore, repeat the connection of the pack with the main unit once again if a very high accuracy is required. On that occasion, note that there may be a possibility that a thermal calibration has to be effected.
11) First, press 3 times the air pack by hand flat, finger or by the press tester for removing all remaining air from the air pack. Check the main unit to see the output signal. Be careful that this is the maximum measurement value and also that that the system (AMI3037) cannot measure any values exceeding the maximum measurement value. Cannot the air cylinder to the system and press the release lever④ when a contact surface is curved too much or an output signal transmitted from the main unit exceeds +20mV.	The measuring range is dependent on the size of air pack, length of the tube, weather conditions (barometric pressure), or a volume of the air poured inside the air pack. Mount the air pack① on the contact surface and start measurement. Change a pouring volume of air slightly when the pressure got exceeds the maximum measuring value even in case when using the same system (AMI3037) is employed.
12) Mount the air pack① pin the contact surface and start measurement. ＊NOTE: Mount the air pack on the surface in a slightly pressed state (0.1～0.5kPa).	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 ADVAICE

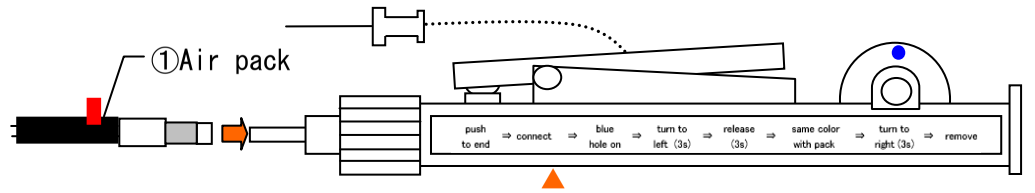
CAUTIONS

- When pressing the air pack for some checking purpose, press the pack by hand flat, finger, press tester or on some other soft material. (If the air pack is pressed on a hard material, it must be hurt and become useless rapidly within a short period.)
- Do insert air into the air pack only to the extent that its thickness does not exceed 2mm. (Insertion of an excessive air into the air pack might weaken welded portions of the air pack).
- Do not apply to the main unit a pressure exceeding 100kPa. (A higher pressure applied might break the pressure sensor). (Follow the instructions given I our operation manual when the standard air cylinder is employed).

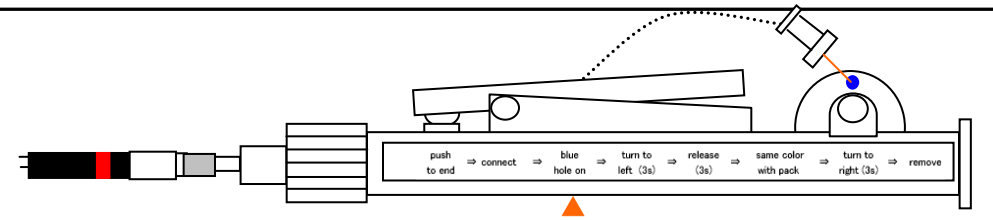
3)



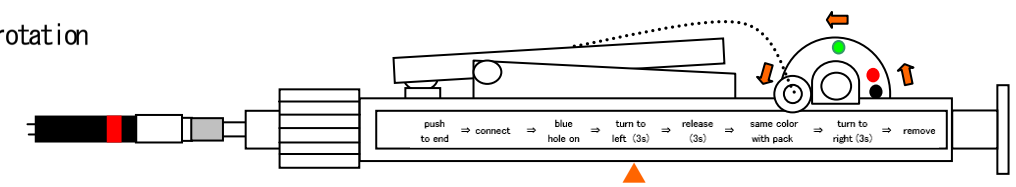
4)



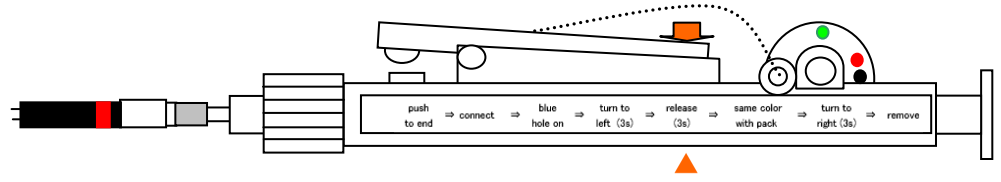
5)



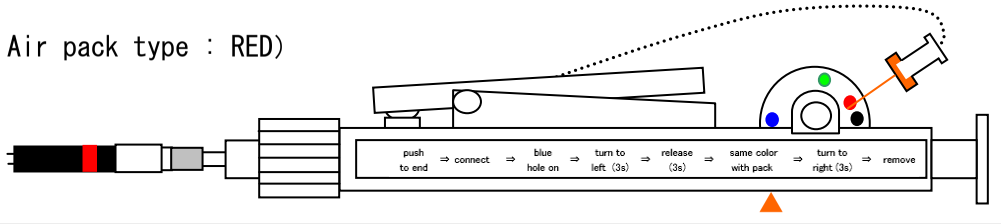
5) After rotation



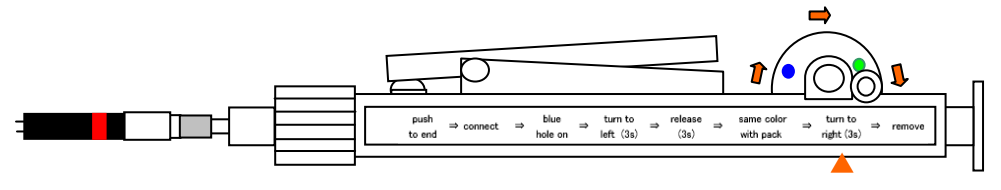
6)



7) (e.g. Air pack type : RED)



7)' (e.g. Air pack type : RED) After rotation



8) (e.g. Air pack type : RED)