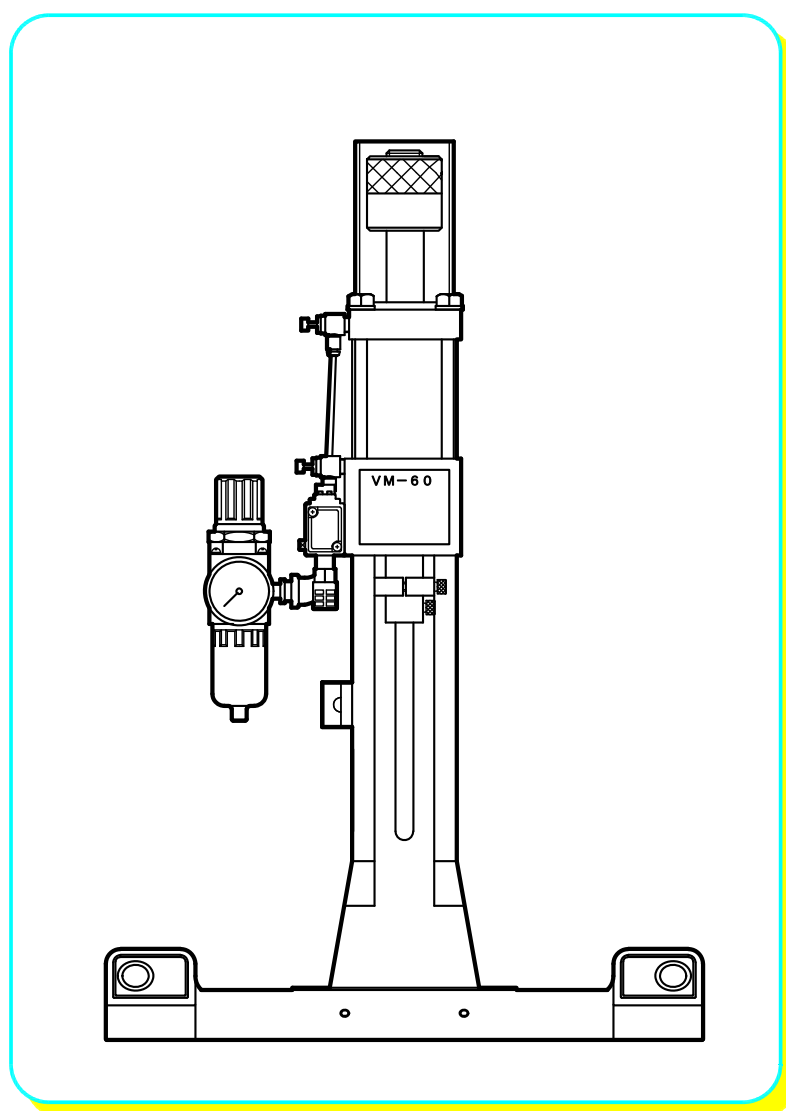


Pneumatic Press

PITA ICHI KUN (VM-60/80)

Instruction Manual

Version 3.04



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Before using the product:

We thank you for the purchase of our products.

In order to ensure proper equipment performance, please read this instruction manual to the end before using our products.

This manual should be carefully stored and referred to when necessary. Please use this equipment for ever.

***Number or unit inside of parenthesis is indicated as a reference.**


1. General notice

The following items are general notices in order to help you to use our equipment correctly. Regarding individual notice details when handling, refer to the following descriptions and explanations:

- This equipment is an Air-press driven with compressed air.
Please use compressed air in range of 0.20MPa to 0.50MPa .
- Please do not modify, disassemble or repair this equipment.

2. Notice when handling

- Please use AC 100V 50/60Hz for power source.
- Please refrain from using this equipment at the workplace where can be exposed to cutting chips, cutting oil, machine oil or solvent. Please take adequate measures if necessary.
- Absolutely refrain from using this equipment in a humid environment. There is a possibility of experiencing electric shock incidents.

 Notice:	Do not connect electric power source with AC200V line. There is a possibility of fire occurrence due to burnout.
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3. Notice when operating


- The working air pressure range is 0.20MP to 0.50Mpa .
In the case that this equipment is used at higher pressure than 0.5Mpa, there is a possibility that hose may break.
- This press should be used while fixed on an operation bench on which press weight is sufficiently sustainable.
If press is not fixed, there is a possibility of bodily injury occurrence due to press inclining or dropping.
- Press operation should be carried out by verifying that other operators do not contact any portion of the press.
It is especially dangerous when preparation operation or die setting up is carried out by multiple operators.
Do not make contact with mechanical stopper, jig, die or rotation stopping arm .
- It is necessary to install acrylic cover for mechanical stopper during operation.
If operation is carried out while the cover is removed, there is a possibility of bodily injury occurring due to fingers being caught by press.
- Mechanical stopper adjustment should be carried out when press ram stops after rising and no other operator should be in the vicinity of push button switch.
If push button switch is mistakenly pushed by other operator when adjustment is carried out, there is a possibility of bodily injury occurrence.
- For press operation it is necessary to push button switches with both hands.
If one push button switch is operative or the switch is modified to foot switch, there is a possibility of bodily injury occurrence due to free hand being caught by jig or die.
In the case that it is necessary to operate switch with one hand or foot, you may do so only after installing photo type press safety device.

- Do not touch jig or die when piping is removed from air supply inlet.

If air supply is stopped, there is a possibility that press ram descend. There is a possibility of bodily injury occurrence due to a part of body being caught by jig or die.

- When open height is adjusted, this should be carried out while firmly holding head side-face.

If adjustment is carried out while placing hand under ram, there is a possibility of bodily injury occurring due to a part of body being caught by press.

 Notice:	If tightening of bolt for fixing head portion is loose, there is a possibility of bodily injury occurring due to hand being caught by press when head portion falls.
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<Industrial safety and hygiene laws>

The Air-press is considered as a power press under the law. Please pay attention to the following items:

- Safety and sanitation implementation law; article 6, section 7

When stamping operation is carried out in work shop having a minimum of five presses, a “general foreman in charge of operations” (person completing technology training course for press operation general foreman) should be on duty.

- Safety and sanitation rules; article 134-3

A “regular self inspection” should be periodically carried out once a year.

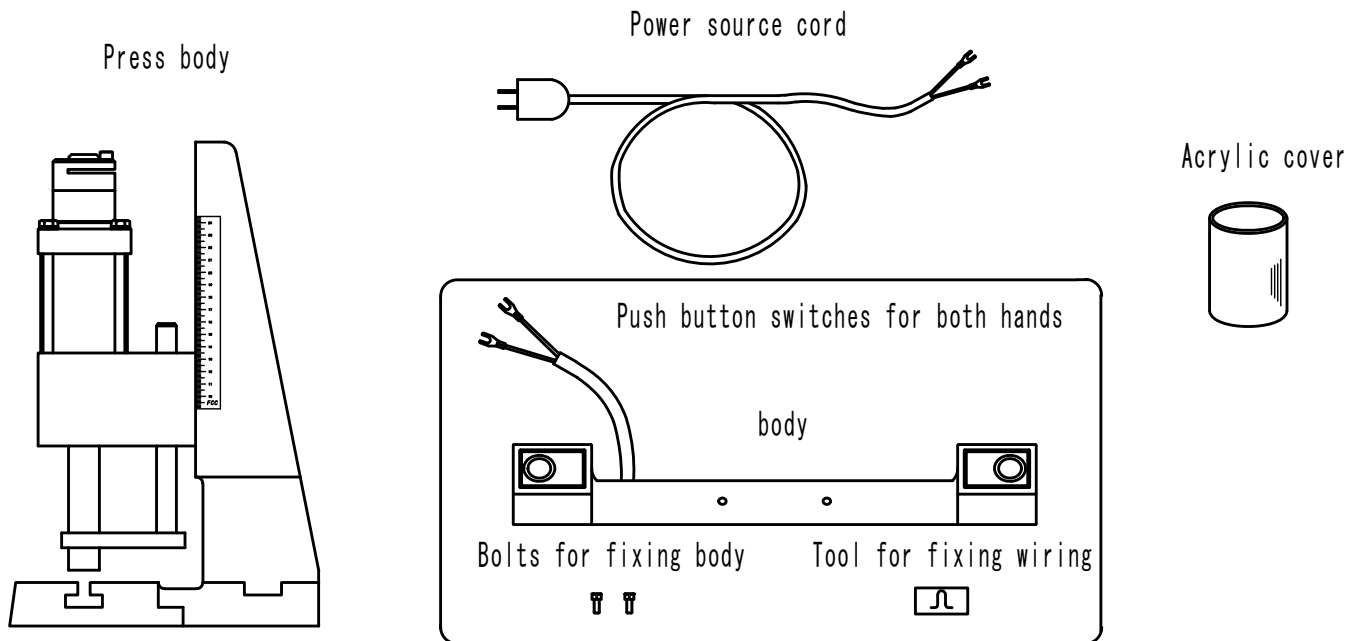
Unless otherwise specified, ‘ascending’ or ‘descending’ means ‘press ram ascends or descends’.
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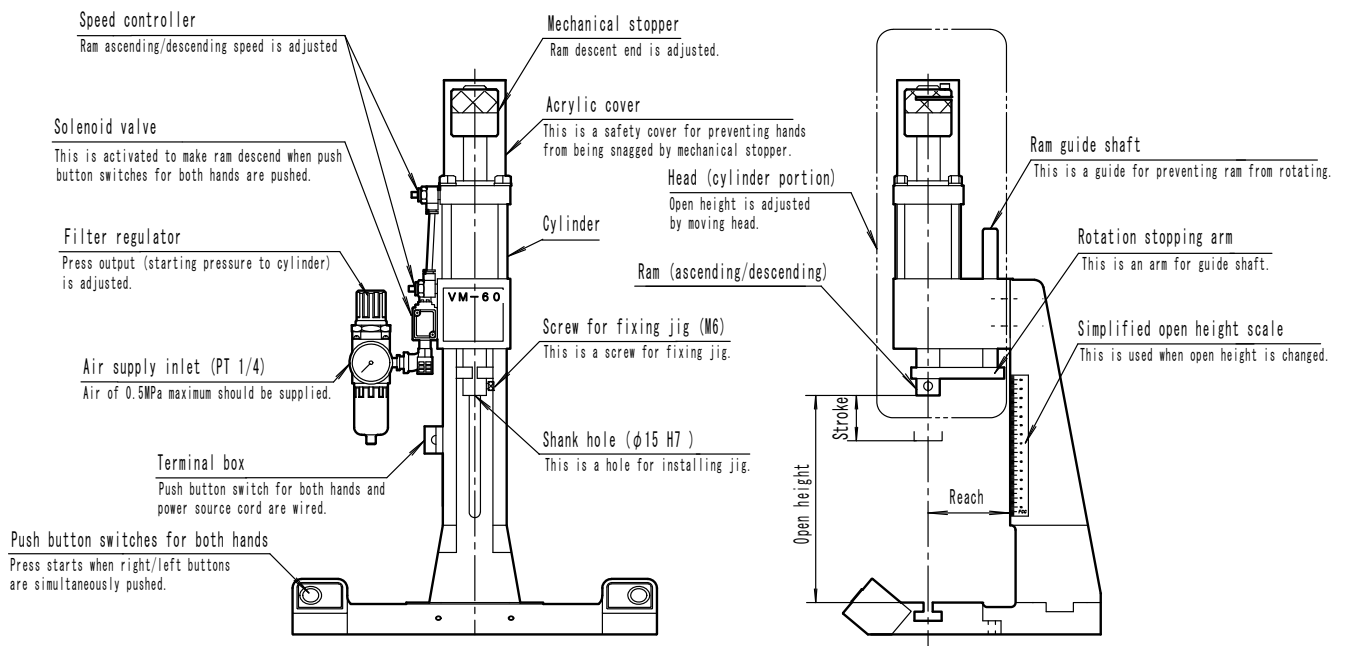
Unpacking

Press body and attachment should be taken out from corrugated board. Since the following products are packed, confirm the contents:

Press body, power source cord, acrylic cover, push button switches for both hands, bolts for fixing push button switches for both hands and tool for fixing wiring



Portion name and motion



Installation

The following items should be prepared:

Hexagonal wrenches (for M5, M6 and M10); Plus driver;

Two bolts for fixing press (M6 and length of 20mm minimum);

Plastic hammer; Nylon tube (6mm diameter) for air supply

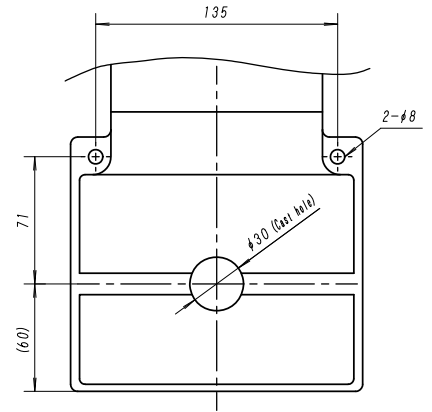
Overall press weight is 27kg.(VM-80 is 31kg.)

Press body should be placed on operation bench or equivalent which is sufficient to support the weight.

When the installation position is determined, the press should be firmly fixed using two fixing holes prepared on press base surface with two bolts for fixing.

If press is not fixed, there is a possibility that either bodily injury or press damage may occur due to press tumbling.

This is completion of installation.

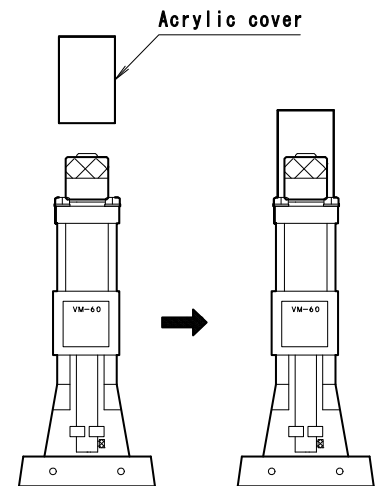


Position of holes for fixing press

Assembly and wiring

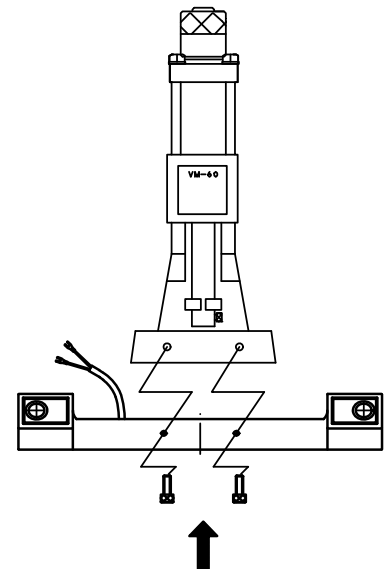
Assembly:

1. Acrylic cover is installed on cylinder upper portion.



2. Push button switches for both hands are to be installed on press body.


These switches should be firmly fixed using attachment bolts (M5) for fixing press body.

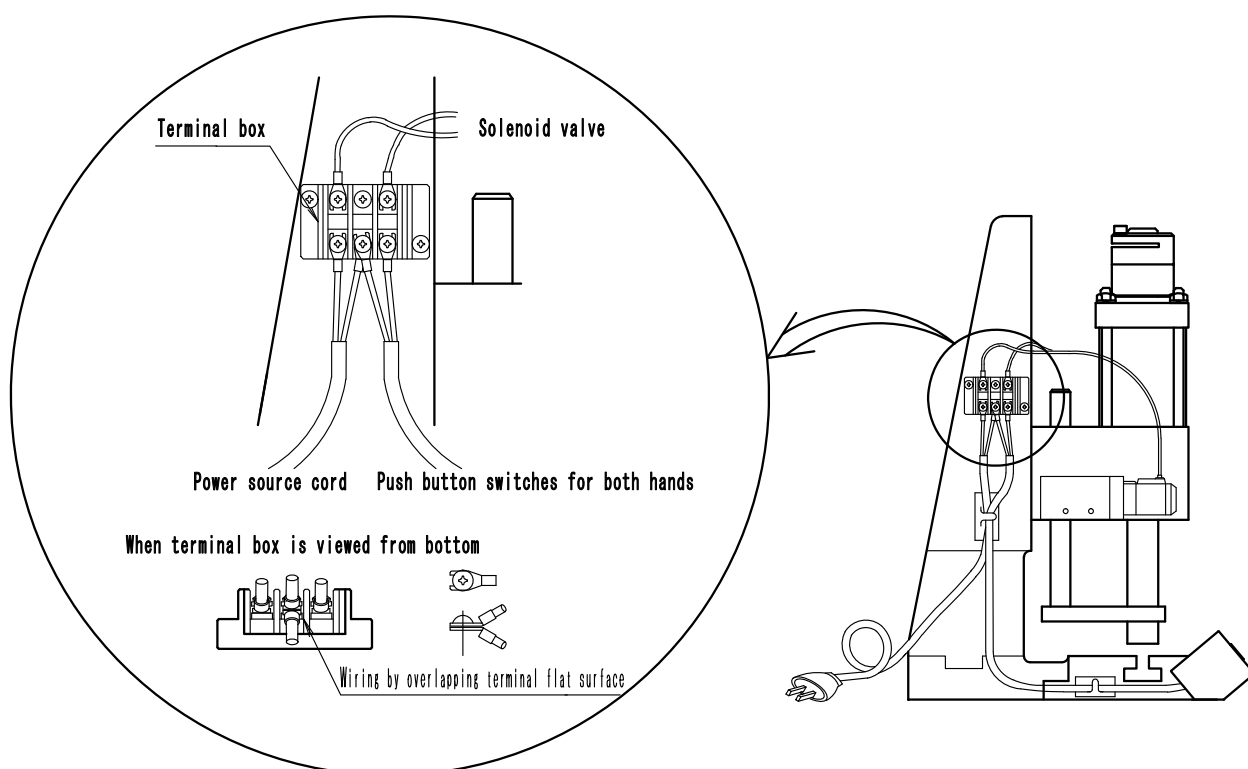


Wiring:

3. Wiring should be carried out between power source cord and push button switches for both hands.

Terminal box cover should be removed and wiring is to be carried out using plus driver. When this is being conducted, power source cord should not be plugged in consent. If wiring is carried out while the unit is plugged in, there is a possibility of electric shock or short. When wiring is completed, the cover is to be installed in original position on terminal box.

 Note:	Terminal box cover should be removed only when wiring is carried out. It is necessary for cover to be installed when wiring is completed. In the case that terminal box cover is not installed, there is a possibility of electric shock when mistakenly touching terminal box.
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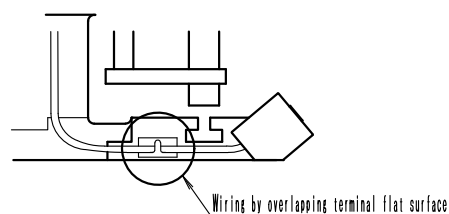


4. Cord for push button switches for both hands is fixed.

Attachment wiring fixing tool is used.

Back sheet on wiring fixing tool should be peeled off and the tool is to be directly placed on press base side.

Cord between push button switches for both hands and terminal box is fixed.

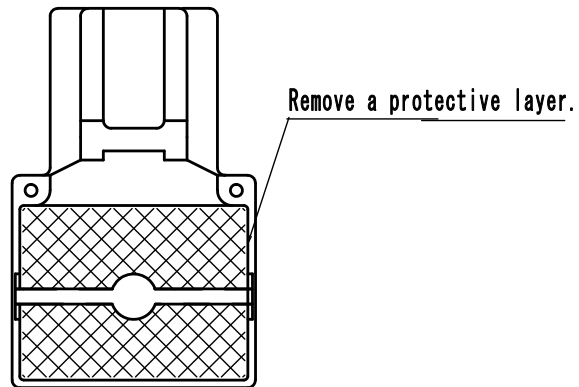


This is the completion of assembly.

Jig installation:

5. Lower jig is installed:

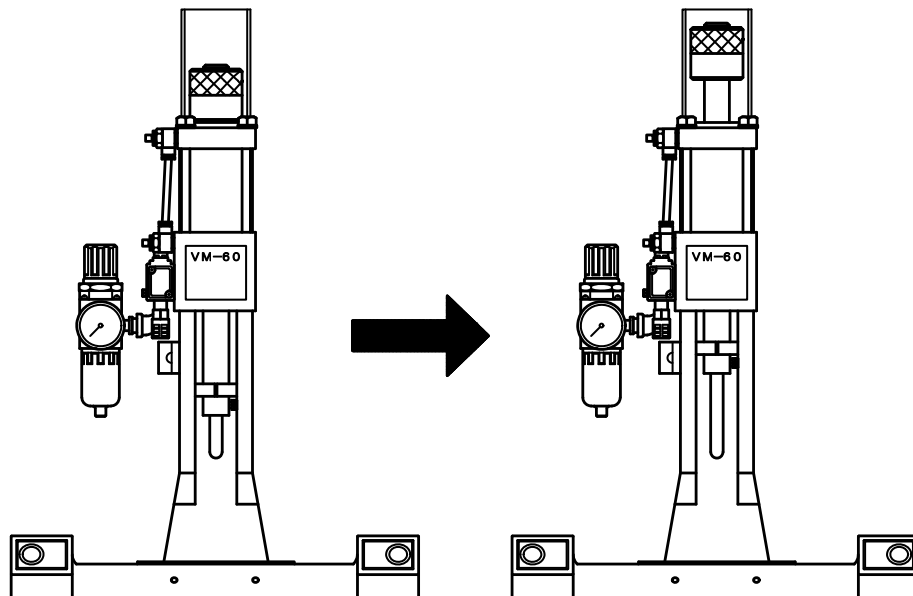
Remove a protective layer on the surface of the base.



6. Upper jig installation:

Ram is kept in descending position.

Ram should be manually lifted up when it is difficult to install the jig.



Die matching


Die matching is a very dangerous operation. Please carry out carefully according to the following procedure:
Before carrying out die matching, ensure that power source plug is not plugged into consent and that air is not being supplied to air supply inlet.

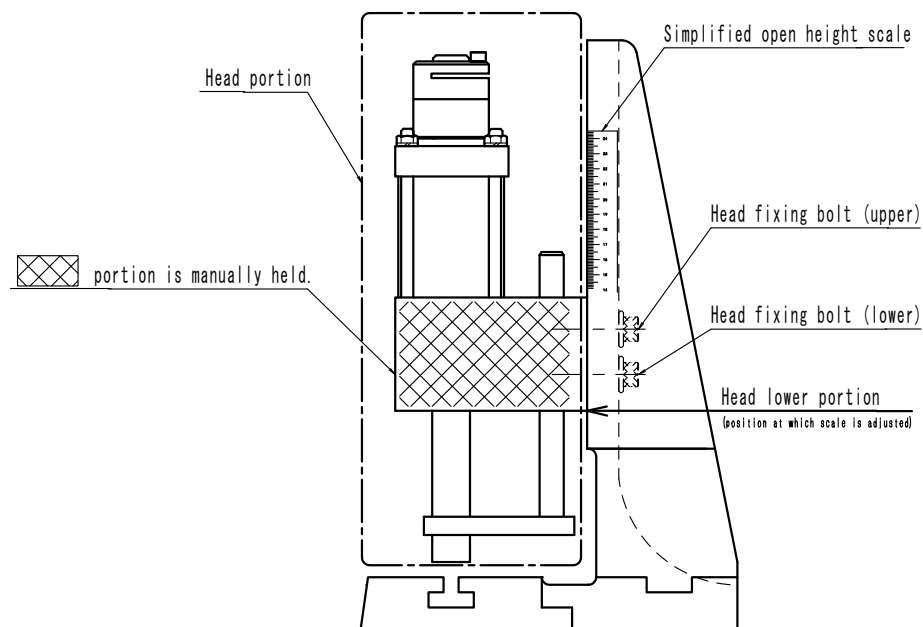
Procedures:

1. Open height should be determined. This is changeable from between 60mm to 245mm. (VM-80 is 50mm to 230mm.)
2. Head is to be removed.

Simplified scale for open height is placed on press body side-face.

Open height setting is easily carried out by fixing head lower portion while adjusting with this scale.

<p> Note:</p>	<p>Regarding open height adjustment, it should be carried out while head side-face is being held firmly.</p> <p>If head fixing bolts are suddenly loosened, there is a possibility that head may drop and this may cause bodily injury when hand(s) is placed under ram. If head fixing bolt tightening is loose, there is a possibility of bodily injury occurrence when head portion falls during operation.</p>
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Head moving procedures:

Head fixing bolts (lower) should be loosened.
(The bolt size is M10)



Head fixing bolts (upper) should be carefully loosened.



Head should be moved.



Head fixing bolts (upper) should be tightened so that head does not drop.



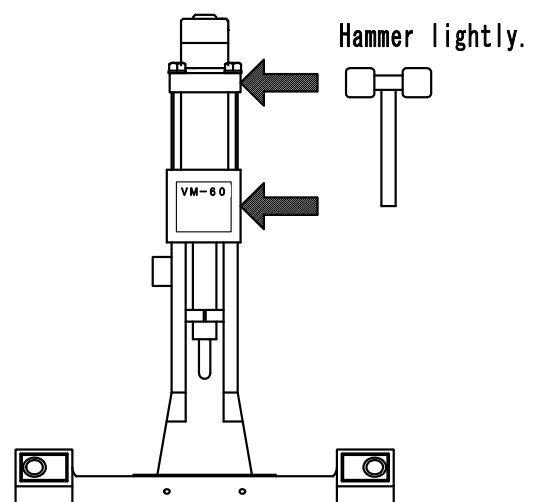
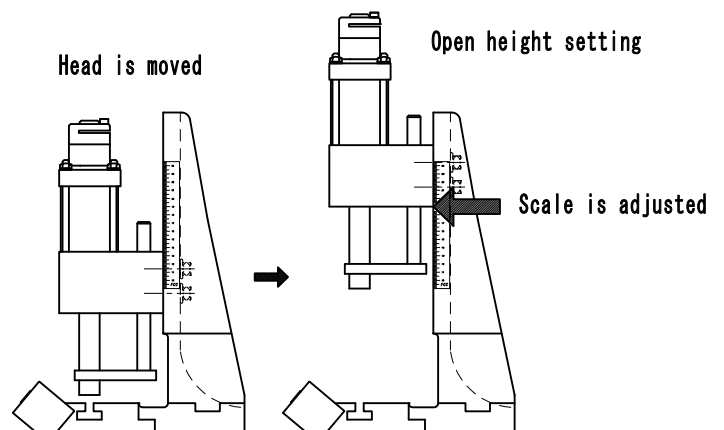
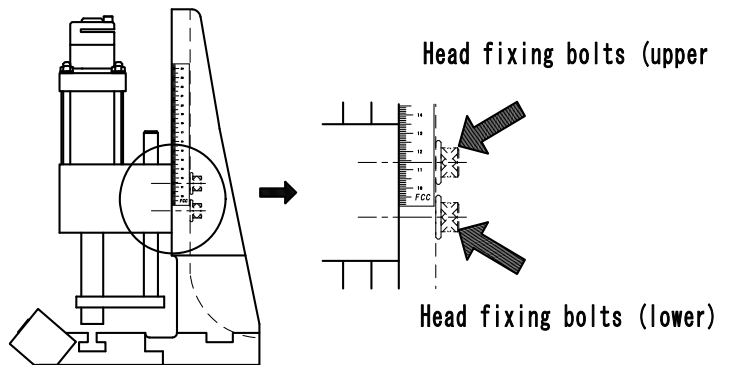
Head right-side (viewing from front) should be struck with a plastic hammer in order to make press body contact with head.



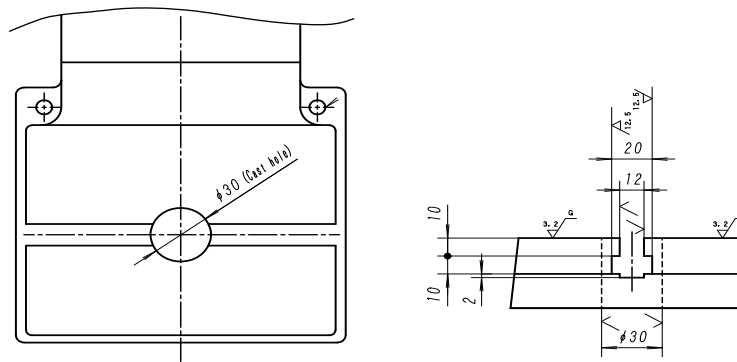
Head fixing bolts (lower) should be firmly tightened.



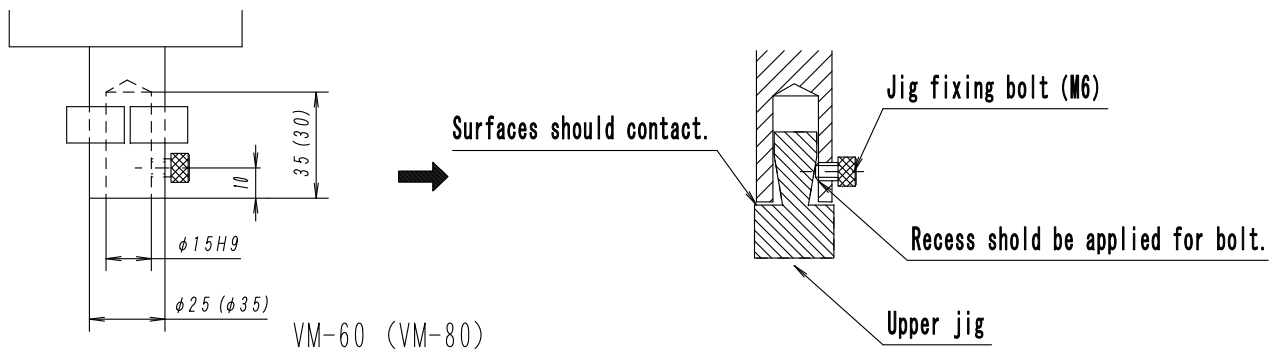
Head fixing bolts (upper) should be firmly tightened.



3. Lower jig should be fixed using T-slots.

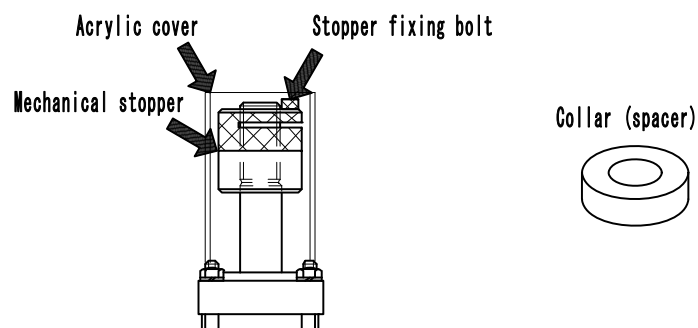



- Regarding upper jig, jig fixing bolt (M6) should be inserted into ram shank hole to tighten.



5. Mechanical stopper should be adjusted. Acrylic cover is to be removed and stopper fixing bolts (M6) loosened. Stroke should be adjusted in range of 25mm to 50mm.
Positioning is carried out by turning mechanical stopper and stopper fixing bolt is tightened. Acrylic cover is returned to the original position.

*In the case that stroke is used at less than 25mm, height should be adjusted by inserting a spacer (collar).

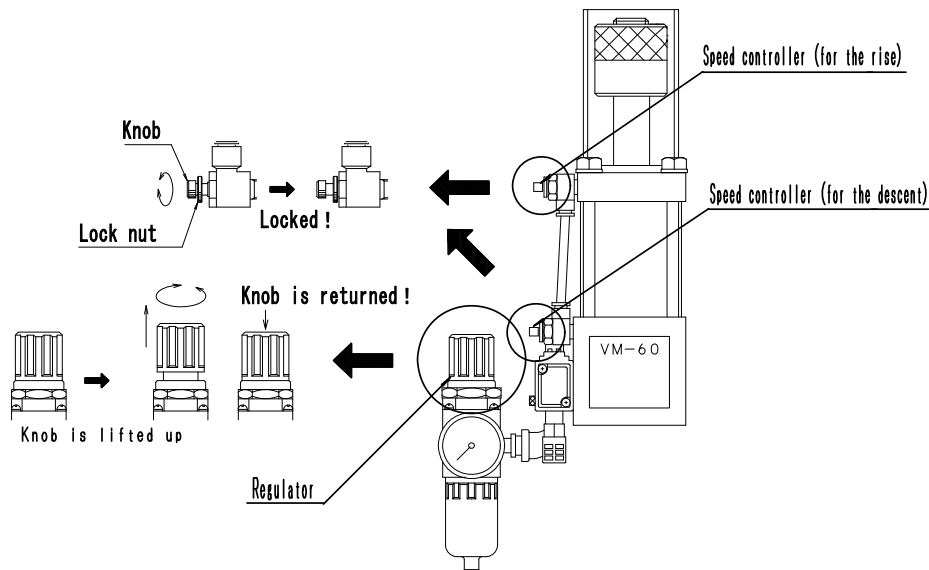


	Note: It is necessary for press operation that cover is installed.
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This is completion of die matching.

Operation


1. Nylon tube is piped on regulator supply inlet and air should be supplied. Air pressure should not reach maximum of 0.5Mpa . Ram is promptly recovered to the upper end when air is supplied.
2. Pressurizing force setting should be carried out. Regulator should be adjusted while examining setting air pressure on output diagram. Regulator knob should be turned after once lifting up. The knob should be returned to the original position when operation of setting pressure is completed.
3. Ram descending speed must be adjusted. Speed controller turns ten rounds. Ram descending speed decreases when speed controller knob is turned clockwise and increases when the knob is turned counterclockwise. If knob position is determined, lock nut should be tightened.



4. Power source plug is inserted into consent. Supplied power source is AC 100V 50/60Hz.

<p> Note:</p>	<p>Do not connect with AC 200V. There is a possibility of or fire occurrence due to burn-out.</p>
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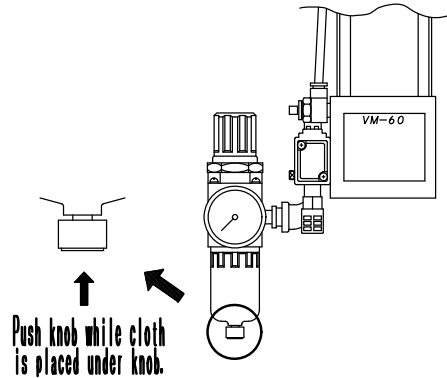
5. Ram descending speed is examined by briefly pushing either right or left switch of push button for both hands while other switch is continuously pushed.
6. Operation starts. After verifying safety around press area, operation should be carried out. Both push button switches should be simultaneously pushed. Ram descends while the switches are pushed.

<p> Note:</p>	<p>It is necessary for press operation to push button switches with both hands.</p> <p>If one push button switch is operative or the switch is modified to foot switch, there is a possibility of bodily injury occurrence due to free hand being caught by jig or die.</p> <p>In the case that it is necessary to operate switch with one hand or foot, do so only after installing photo type press safety device.</p>
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Maintenance

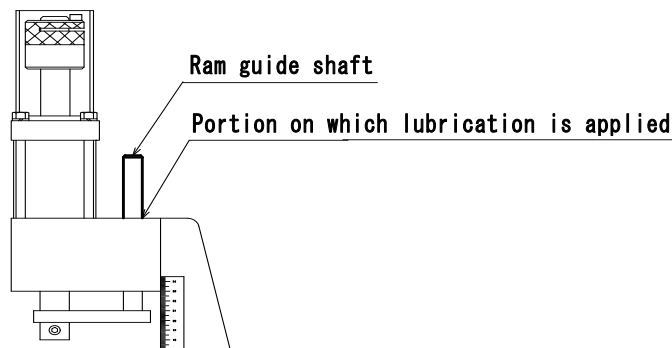
Water draining:

In the case that water stays in filter, carry out draining promptly. If draining is not carried out, there is a possibility that air instrument malfunctions due to fatigue and water spouts from silencer. In the case that humidity is high or air moisture content in supplied air is too much, it is easy for water to remain. Water draining is carried out under the condition of air being supplied. There is a knob under the filter. This knob should be lifted while cloth is placed on the knob bottom. Remaining water penetrates into the cloth. If water draining is carried out without cloth placement, the water may splash.



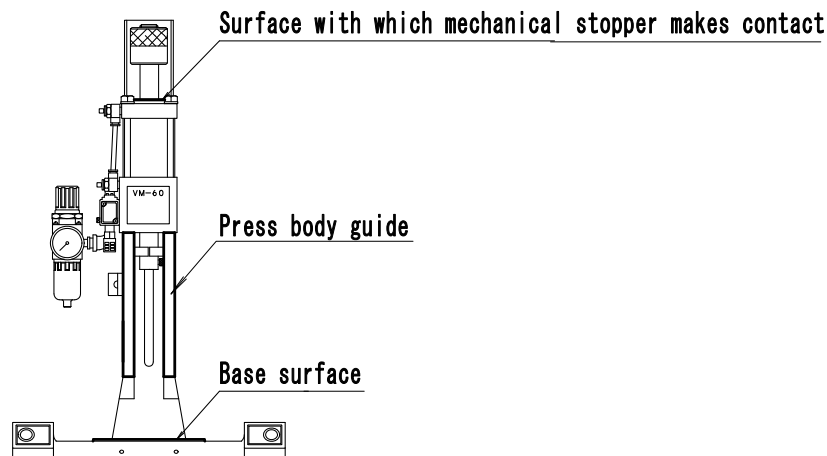
Lubrication:

Lubrication (machine oil) should be applied from time to time on ram guide shaft. Doing so ensures that Ram vertical motion becomes smooth. Either corrosion or improper (not smooth) Ram movement may occur if lubrication is not applied regularly.

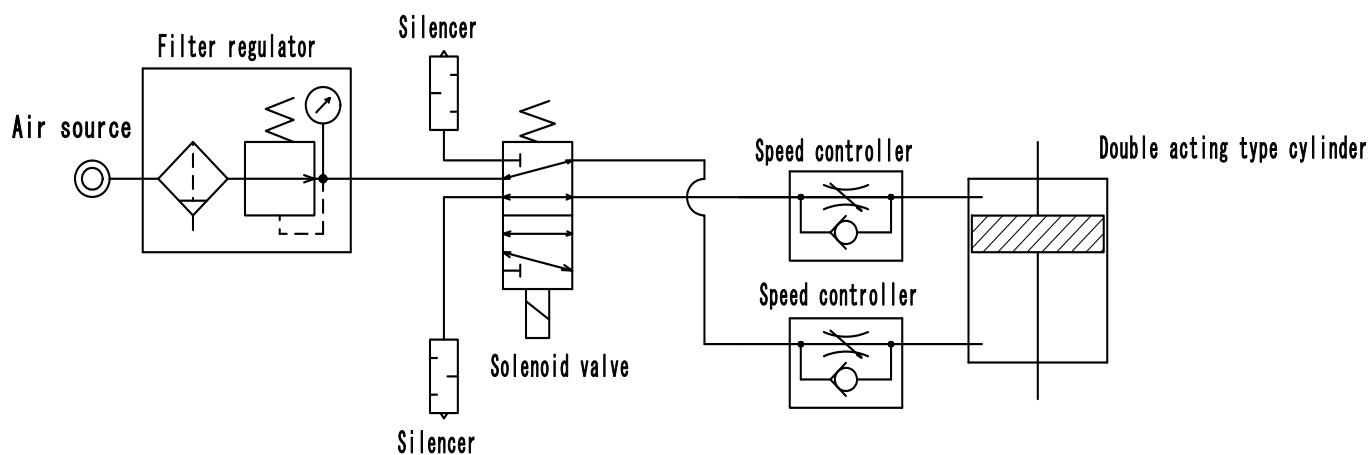


Rust prevention:

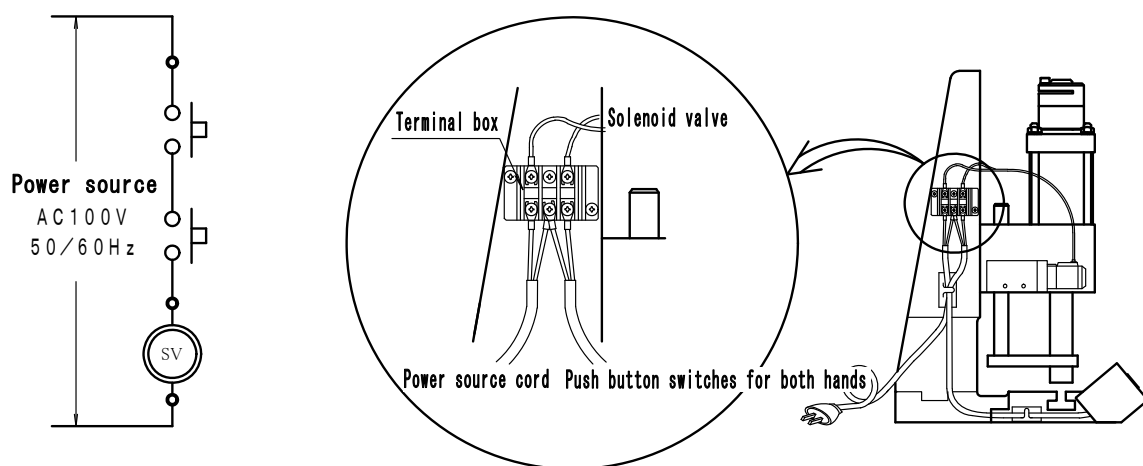
Surface with which mechanical stopper makes contact, base surface and press body guide should be wiped from time to time with a cloth containing oil in order to prevent them from rusting.



Air circuit chart

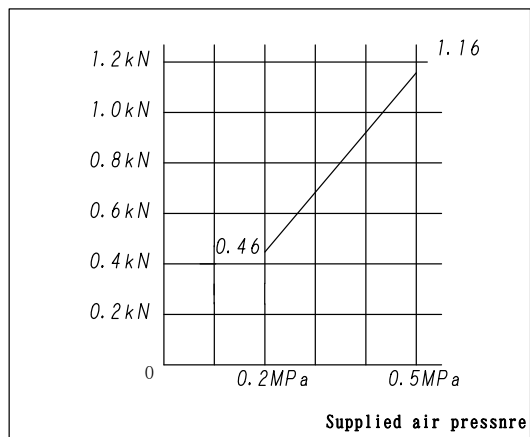


Wiring chart

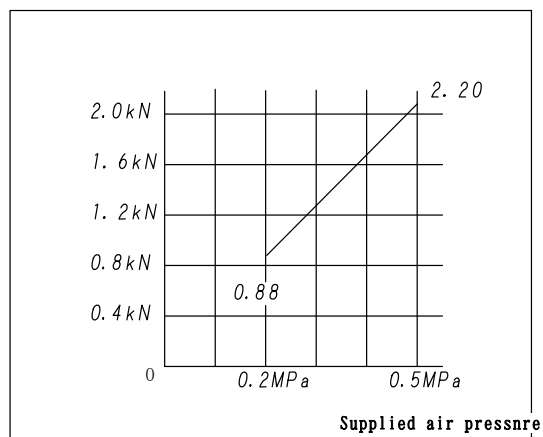


Output diagram

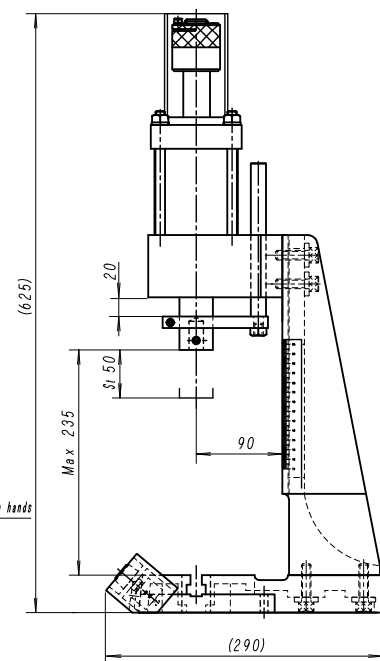
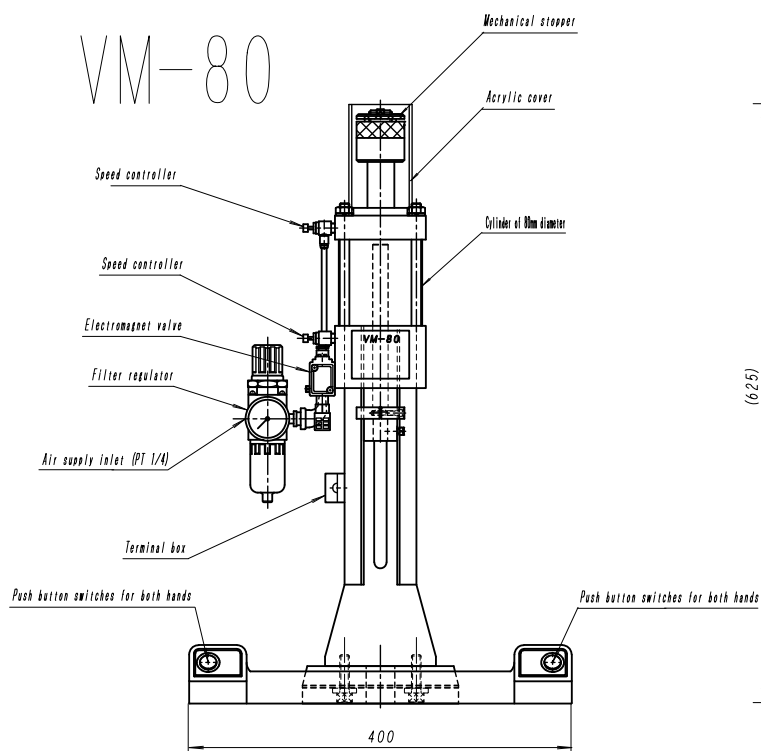
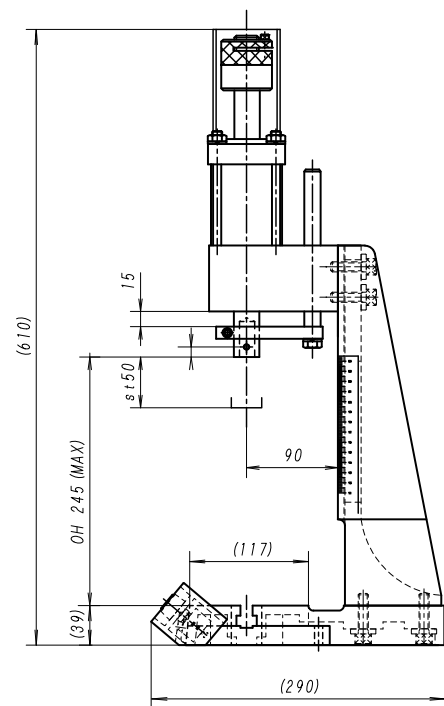
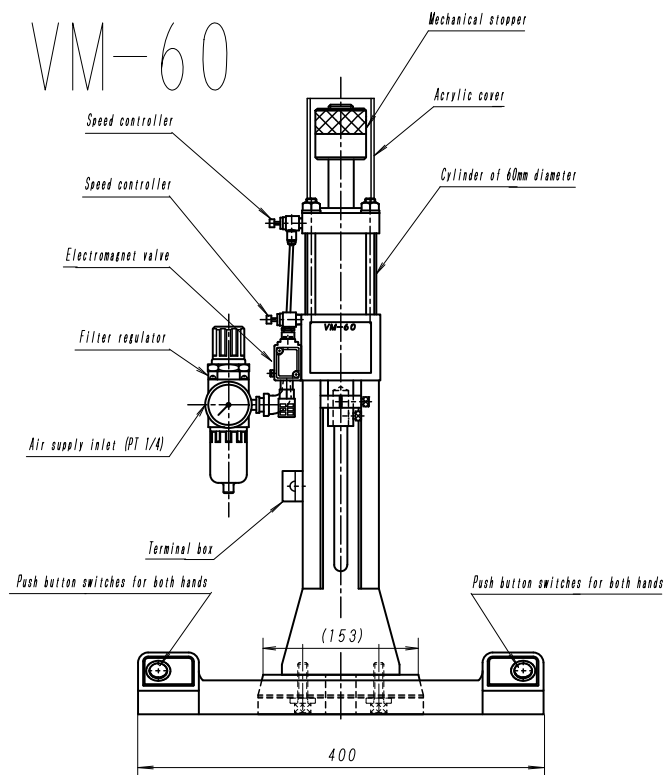
VM-60 Press output



VM-80 Press output



Dimensions drawing (part chart)



Part table:

Part name	Type	Quantity
Filter regulator	AW20-02G	1
Speed controller	AS2201F-02-06S	2
Solenoid valve	VF3130-01G-02	1
Silencer	AN103-M5	2
Push button switches for both hands	SCB2-MV12 (AT-455K,AT-454-W)	2

*Part type for use may be changed without notice.