## ATO

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A panel, back panel diagram and button description

### 1.1 Panel diagram



### 1.2 Backplane diagram


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### 1.3 Electronic ruler (or magnetic ruler) pin signal



| Foot number | No. |
| :---: | :---: |
| 1 | +5 V |
| 2 | 0 V |
| 3 | A |
| 4 | B |
| $5-8$ | NC |
| 9 | FG |

### 1.4 Button description

| key symbol | Function | Description: |
| :---: | :--- | :--- |
| ZERO | Reset | Clear the displayed value to zero <br> and use it as the cancel key when setting and presetting the <br> number internally. |
| INC | Score | Relative/absolute coordinate mode <br> Divide the displayed value by 2 <br> and use it as a sign when presetting the number |
| INCH | Imperial/Metric units | INC/ABS coordinate mode switching shifts <br> to the left when presetting the number |
| The display value switches between metricimperial system |  |  |
| and increases the number by 1 when presetting the number. |  |  |

## 2. Basic operating instructions

### 2.1 Power on

Function introduction: Turn on the POWER, and the digital display enters the self-test state.

> After completion, the various states of the last shutdown will be retained (including position, coordinate mode, display unit, indicator light, parameter setting value, etc.)

### 2.2 Clear

Function introduction: When the digital display is in normal display state, the displayed value is cleared to zero.

## Operation steps:

$\square$
press
press key, clear.

Note : (1) INC and ABS can be cleared in both states.
(2) When cleared in ABS mode, the value in INC mode is also cleared at the same time; while cleared in INC mode

At zero, the ABS mode value does not change.
(3) After clearing, if the electronic ruler (or magnetic ruler) has not moved and other keys have not been pressed, you can


### 2.3 Absolute/relative coordinate switching

Function introduction: The coordinates are between "ABS" (absolute coordinates) and "INC" (relative coordinates) switch between.

Operation steps:
according to $\frac{\mathrm{INC}}{\mathrm{ABS}}$ key to complete the switch.

Note:Whenthelightison,itmeansthatthecoordinatemodeis"INC" (relativecoordinates). sales@ato.com

### 2.4 Conversion of metric/imperial units

Function introduction: The unit of display size is switched between "MM" (metric system) and "INCH" (imperial system).

Operation steps:
according to $\frac{\mathrm{INCH}}{\mathrm{MM}}$ key to complete the switch.

Note: When the light is on, it means that the unit of the displayed size is "INCH" (imperial system).

## 2.5 points

Function introduction: Divide the displayed value by 2.

Using this function, the zero point can be set at the center of the workpiece.

## Operation steps:

1) Aim the edge finder at one side of the workpiece and press $\begin{aligned} & \text { ZERO } \\ & \end{aligned}$
2) Movetheedgefindertotheothersideoftheworkpieceandpress

3) Move the edge finder and find the point with a displayed value of 0.000 , which is the center of the workpiece.

Note: This function can only be used in INC mode.

### 2.6 Preset values

Function introduction: When the digital display is in normal display state, preset the display value of the current position. Example: Preset-125.455

## Operation steps:

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Thelastdigitflashestoindicatethatithasenteredthepresetmode.


3) Press the | $\frac{\mathrm{INC}}{\mathrm{ABS}}$ The key flashes and moves one position to the left. If it moves to the highest position, press it again. |
| :--- | :--- |

button once to go to the rightmost position.

Press the
was originally a negative number, it will become a positive number.
5) Use the above method to input the value of each digit.
6) Press the
according to
ZERESET thedefaultvaluewillbestoredandexit;orifthedefaultvalueisnotstored, then
key to exit.

Note:1)ThepresetvalueoperationcanonlybeperformedintheINCstate.
2)The decimal point position always remains unchanged and is related to the resolution of the current axis.

### 2.7 Outbound call operation

Function introduction: call out the preset value.

Operation steps:


Note: Outbound calls can only be made in the INC state. sales@ato.com

## Three internal operating parameter function settings

\footnotetext{
Parameter content:

| unit | Resolution settings |
| :--- | :--- |
| rA | D/R mode setting |
| dir | Electronic ruler (or magnetic ruler) counting direction setting |
| L | Last two digits display settings |
| AUTOSET | Linear compensation setting |
| QUIT | Automatically set |
| Exit settings |  |


3.1 Enter the internal operation parameter function setting


### 3.2 Resolution setting

Set the electronic ruler (or magnetic ruler) resolution.

Operation steps:

1) Enter the internal function settings;

2) 
3) Press $\frac{\frac{I N C H}{M M}}{}$ the button to switch between resolutions. The options are 0.5 ÿm, 1 ÿm, 5 ÿm, 10 ÿm, 50 ÿm, 100 ÿm, 500 ÿm, 1000 ÿm, etc. The factory setting value is 1 ÿm.

### 3.3 D/R mode setting

Set the position of the electronic ruler (or magnetic ruler) to be displayed in R mode (radius mode) or D mode (diameter
mode). The D mode display value is twice the R mode display value.

Operation steps:

1) Enter the internal function settings;
2) Press $\square$ Until the window displays "rA 0";
$\frac{\mathrm{INCH}}{\mathrm{MM}}$
3) Press the button to select $R$ mode or $D$ mode. 0 means $R$ mode, 1 means $D$ mode. The factory setting value is 0 , which is R mode.

### 3.4 Counting direction setting

Set the counting direction of the electronic ruler (or magnetic ruler).

Operation steps:

1) Enter the internal function settings;

opposite direction, the specific direction will be determined during installation. The factory setting value is 0 . Global Shipping

### 3.5 The last two digits display settings

Set whether the last two digits of the data in the window are displayed.

Operation steps:

1) Enter the internal function settings;
) Press $\square$ Until the window displays "bL 0";

$$
\frac{\mathrm{INCH}}{\mathrm{MM}}
$$

3) Press the button to select the display mode. 0 indicates that the last two digits are displayed, 1 indicates that the last digit is not displayed, and 2 indicates that the last two digits are not displayed. The factory setting value is 0 .

### 3.6 Linear compensation setting

Set the linear compensation value of the electronic ruler (or magnetic ruler)

Operation steps:

1) Enter the internal function settings;
$\square$
2) Press until the window displays a five-digit value. If it is all zero, it means there is no compensation. Otherwise, the compensation value is set to this value; that is, "LL". The last $L$ represents the current linear compensation value, and the last digit flashes and waits for the input value. |
3) Press one $\square$ Move the key one position to the left. When it moves to the highest position, move it further left to the rightmost position. digit on the side.

4) If the button was originally a positive number, the current value will become a negative number. On the contrary, if the button was originally a negative number, the current value
will become a positive number sal sales@ato.com Global Shipping
5) Press

ZEROSave the entered value and exit setting the compensation value.

Note: 1) The maximum input compensation value shall not exceed 99999, and the minimum value shall not be less than

## -99999.

2) The compensation value is calculated according to the following formula:


### 3.7 Automatic settings

Set the system to factory settings.

Operation steps:

1) Enter the internal function settings;
2) Press
 until the window displays "AUTOSET". At this time, press $\square$ PRESET the key to confirm
the automatic setting, and the window displays "Init_EE". After completion, it will automatically switch to the next setting item.

Note: After the system is automatically set, all setting items are set to 0 .

### 3.8 Exit internal function settings

Save and exit internal function settings.

Operation steps:


Key weight function settings)

Appendix A: Specifications

| size: | $104^{\star} 77^{*} 35(\mathrm{~mm})$ |
| :--- | :--- |
| weight: | 252.5 g |
| Power | DC $7.5 \sim 9 \mathrm{~V}$ |
| supply: | $<5 \mathrm{~W}$ |

Power consumption: Electronic interface: TTL

