

DC

INSTALLATION & TROUBLE SHOOTING

1. Installation

1) Installation and precaution

- ① Display counter should be safely grounded.
- ② Do not put the DRO system around other electrical appliances which could cause electrical noise.
- ③ Be careful not to let contaminants like lubrication oil and chips flow into the scale.
- ④ To insure the highest accuracy possible, install the scales as close as possible to the object being measured or the workplace.
- ⑤ It is strongly recommended to install a protective cover and insure that the reading head can move freely and smoothly.
- ⑥ Glass scales can be broken from any shock. Handle with care.
- ⑦ Use the voltage between 110V and 220V.

Required Tools for installation

Electric Drill : $\phi 3.5$, $\phi 4.3$, $\phi 5.2$

Tap : M4, M5, M6

Dial Gauge : 1/100 mm

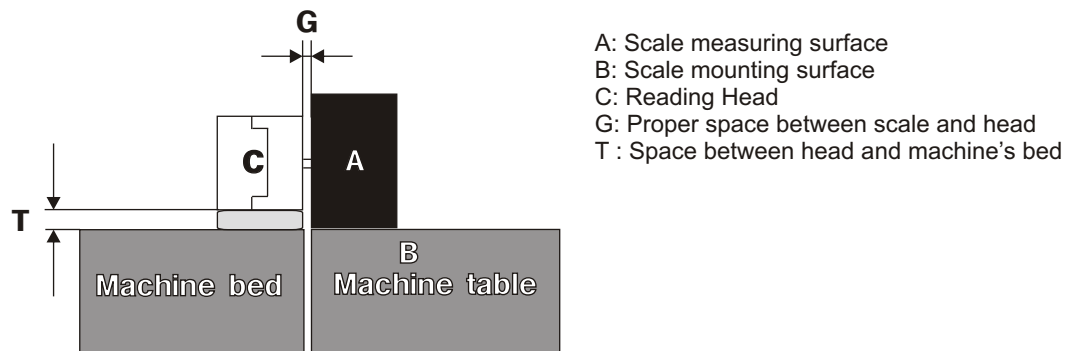
Tap Handle

Screwdriver

Wrench set .

2) Mounting & Accuracy

Mount the unit parallel with machine axis within the following limits:

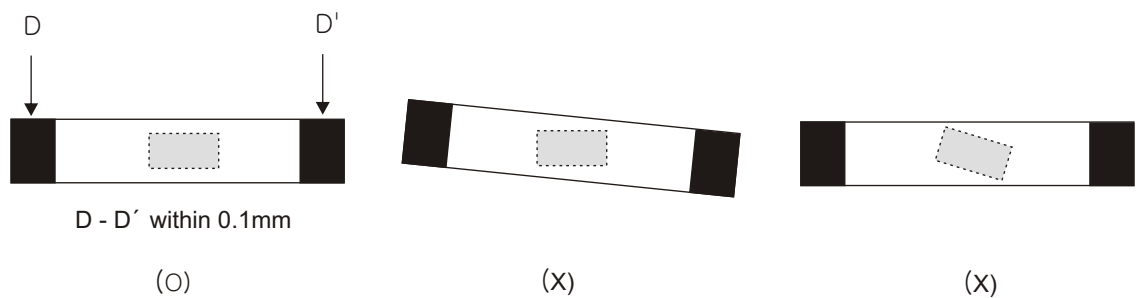
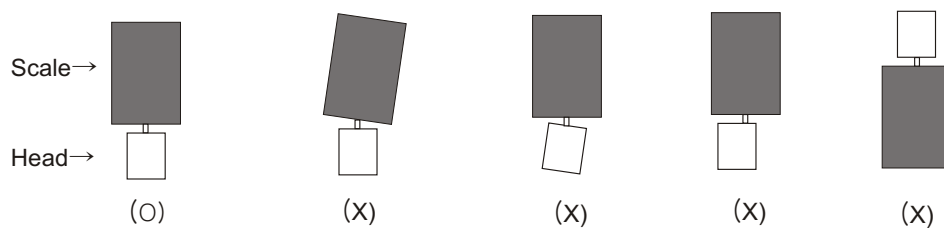
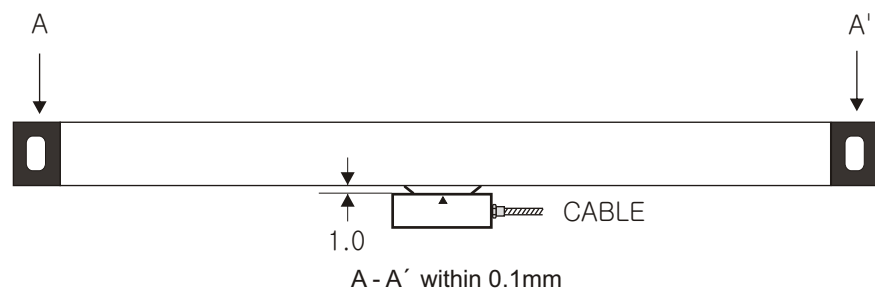


The following gap should be maintained.

Parallel line gap : Below 0.0039" (0.1mm)

T : 0.1378" (3.5mm) \pm 0.0039" (0.1mm) \rightarrow JSM

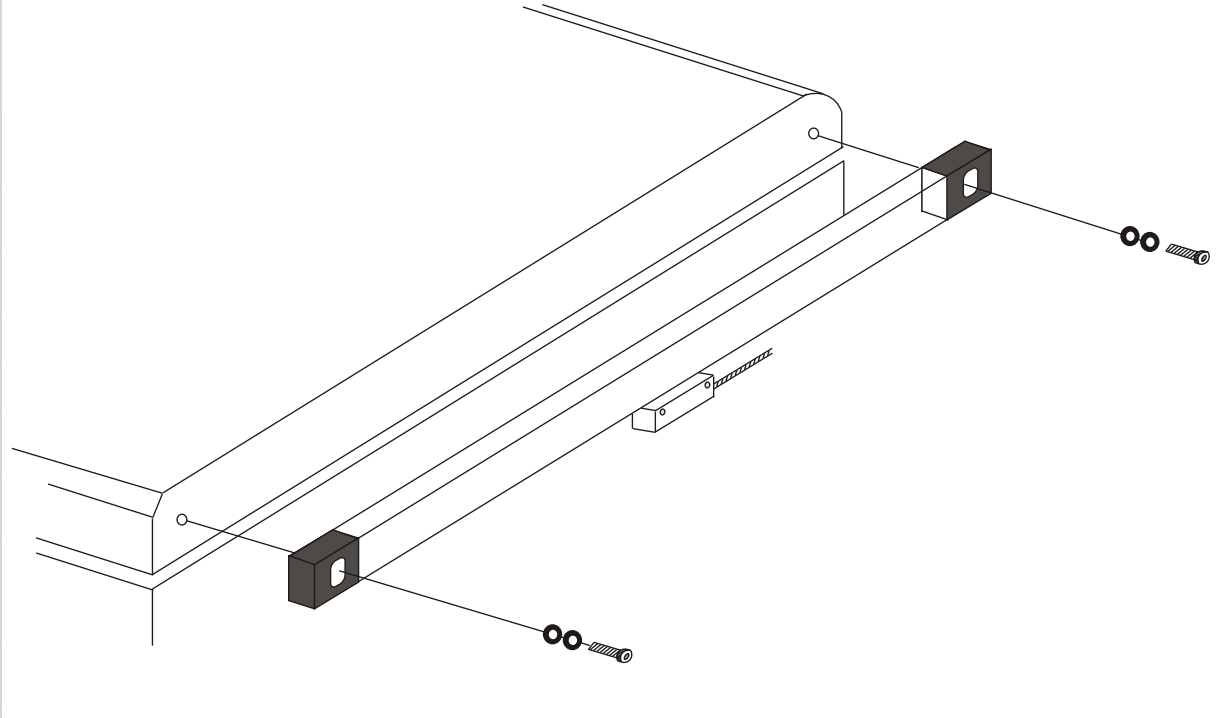
G : 0" (0mm) \pm 0.0039" (0.1mm) \rightarrow JSS



3) Mounting scale

(1) Positioning, Drilling, Temporary fixing.

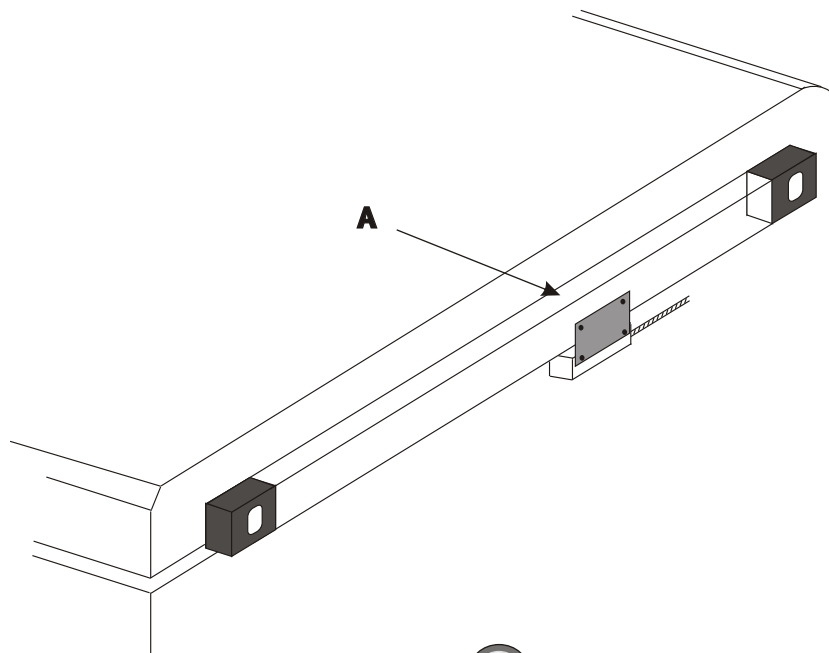
By determining mounting position on mounting surface of machine bed, drill and tap holes. Fix the scale temporarily to the machine table, using the hexagon socket head bolt.



(2) Mounting

Using dial gauge, measure horizontal angle of A.

- 1 Scales over 1000mm, check alignment and if it is fixed in a proper space.
- 1 If the alignment of A don't be measured with Digital Gauge, facing area of alignment mark is parallel in both direction.

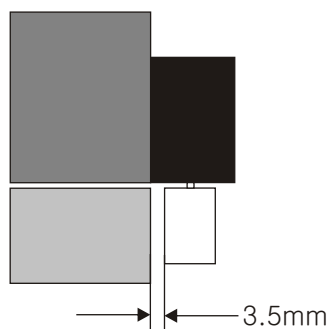


(3) Head carrier Mounting

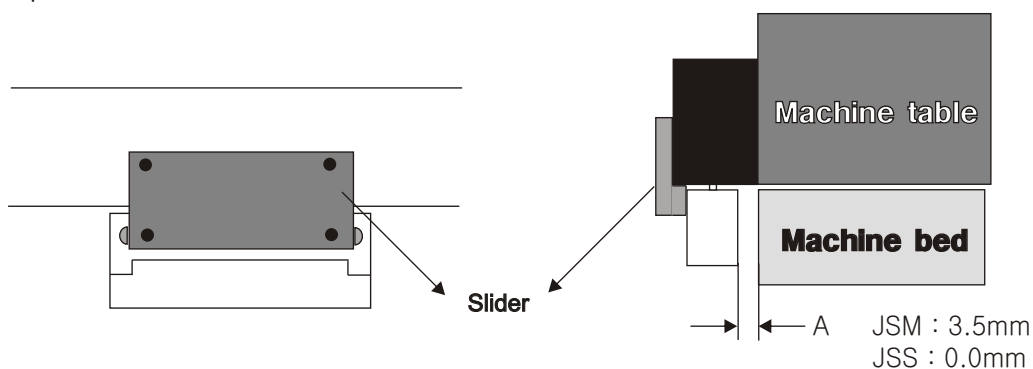
When the scale is attached directly to the table, the thickness of the attachment should be $0.1378" (3.5\text{mm}) \pm 0.0039" (0.1\text{mm})$.

It is recommended to use shim washer for the adjustment of the thickness

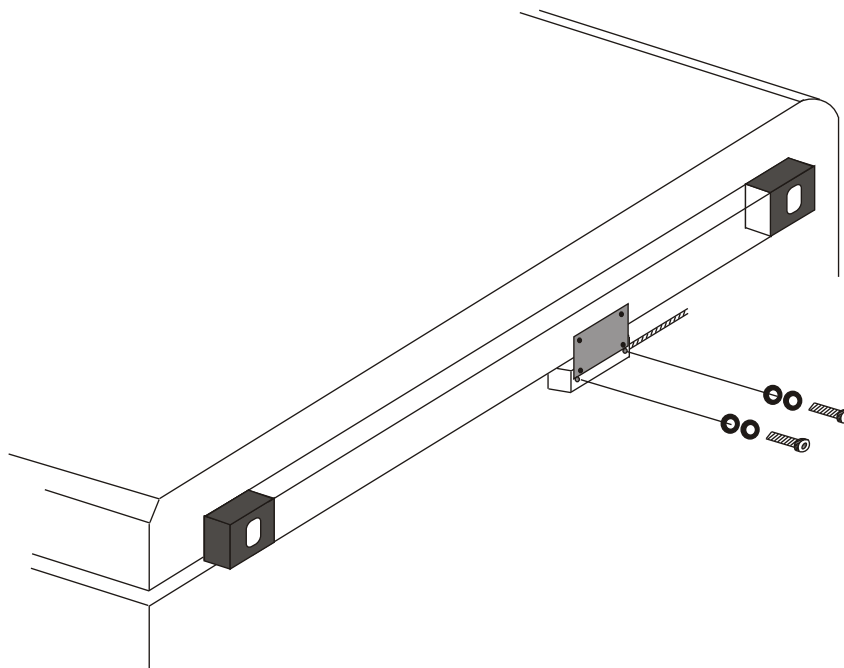
► JSM type



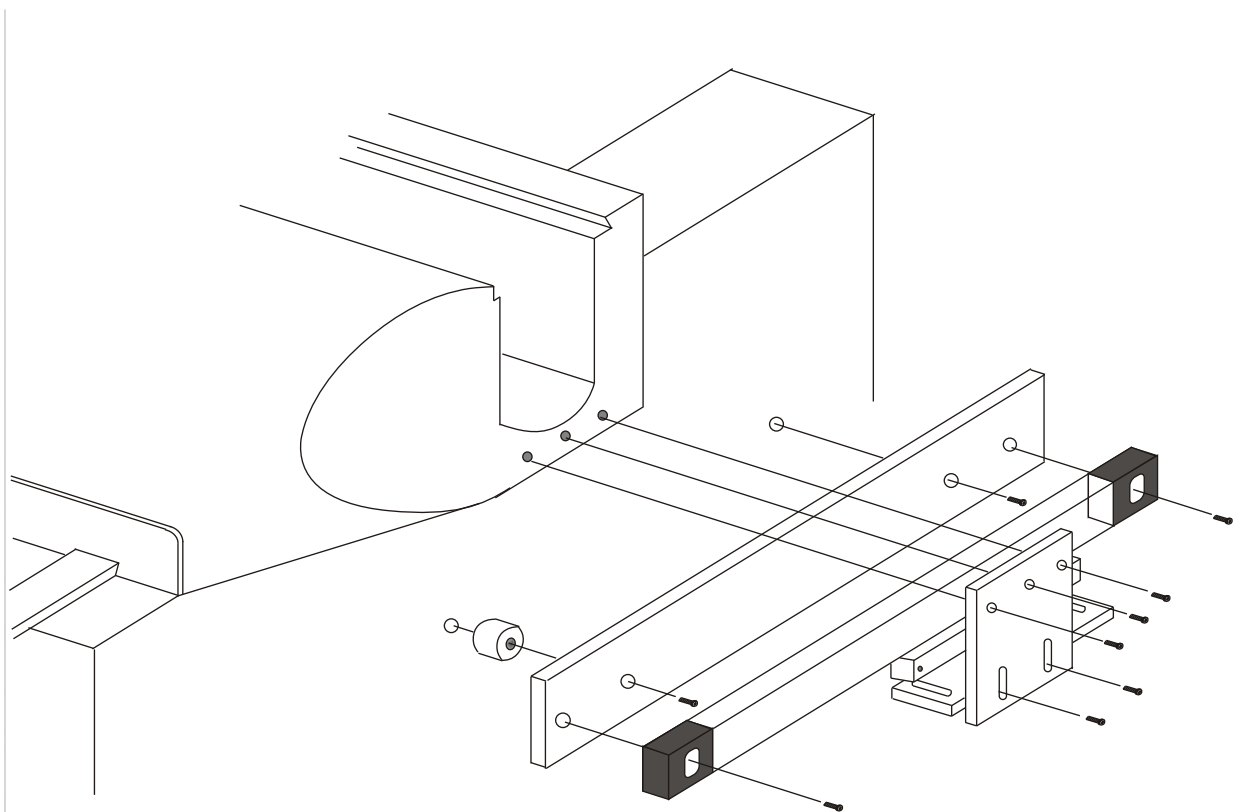
- Remove two screws bolts to slider that fasten head parts so that the head carrier is separated from scale.





- When ready, move head to the position to be installed, then drill at the position of the bed of a machine.
- Remove slider after installation.



- With a mark at the end of scale as a datum line, gap between head and scale should be equal.

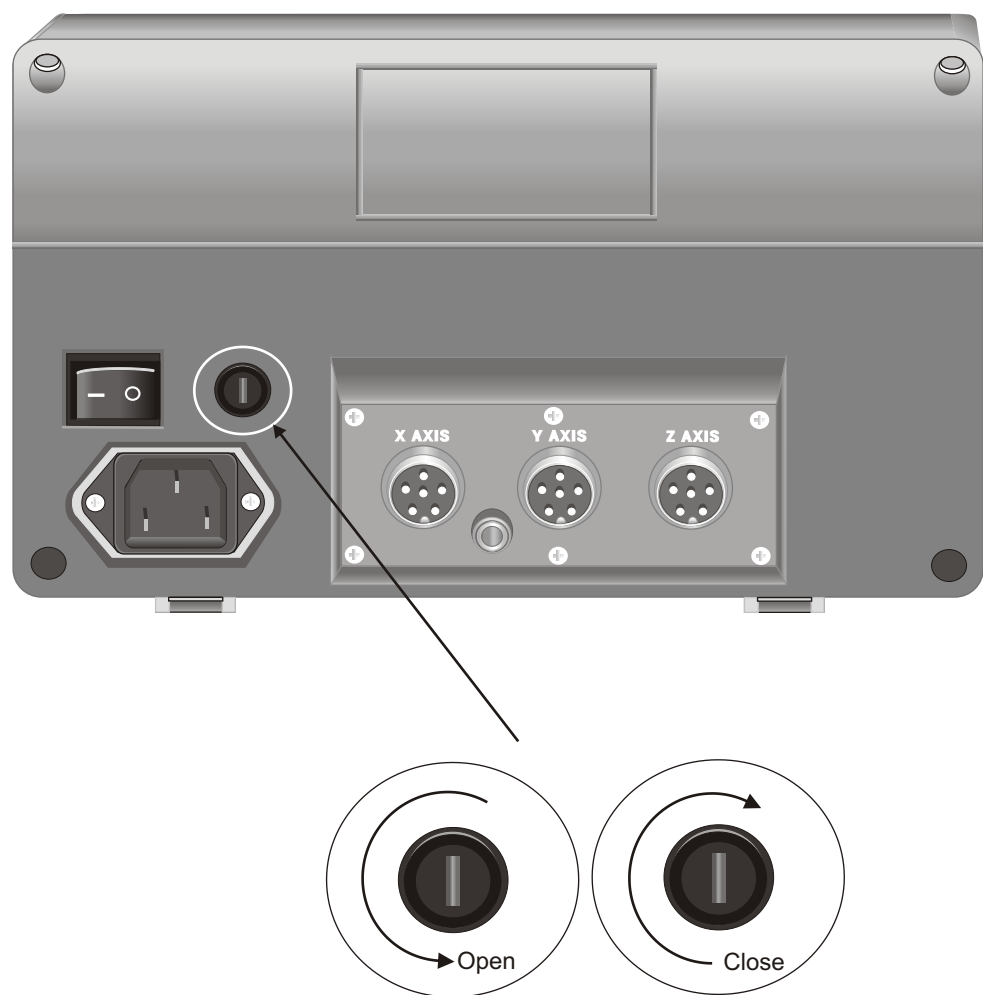


2. Trouble shooring

Trouble	Solution
Power was turned off.	<ul style="list-style-type: none"> ● Make sure  key is turned on. ● Make sure main power is on. ● Make sure Fuse has blown out ● Make sure power cord is connected rightly.
Fuse blows out frequently	<ul style="list-style-type: none"> ● Make sure supping power is stable or not. ● Disconnect a scale from the counter and check the connectors. ● After checking above, call repairing service.
Power is on but display is turned off	<ul style="list-style-type: none"> ● Cutting fluid or oil can flow into the keyboard. ● Disconnect a scale from a counter.
ERROR is shown in the axis window	<ul style="list-style-type: none"> ● Check the connection between a scale and a counter. ● Check the ground state of a counter. ● Check the fixing bolts are loosen. ● Connect the scale with other axis of a counter to see which one is the cause. ● Check backlash of the machine. ● Check if the scale was broken from being got bent or curved.
Displayed value is fixed when a scale is moving	<ul style="list-style-type: none"> ● Check “RATE” (32p) ● Check normal rate is “1000000”. ● Check the connection of a scale and a counter.
One out of X,Y and Z-axis doesn’t work	<ul style="list-style-type: none"> ● Connect the scale with other axis of a counter to see which one is the cause.
DIA lamp is on	<ul style="list-style-type: none"> ● Turn to RAD mode using “Double counting function of lathe” (39p).
Displayed value is double counted	<ul style="list-style-type: none"> ● Check “RATE” (32p). ● Check normal rate is “1000000”. ● Check if DIA lamp is on, then do correction as below (39p)
Difference between real value and measured value Correction of RATE (32p)	<ul style="list-style-type: none"> ● Real distance $\frac{\text{-----}}{\text{Measured distance}} = \text{RATE Correction}$ <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <p>Ex.1</p> $\frac{30.0000}{299.100} = 1.003009$ </div> <div style="text-align: center;"> <p>EX.2</p> $\frac{200.000}{200.050} = 0.999750$ </div> </div> <div style="text-align: center; margin-top: 10px;">  <p>(Select “ 5. RAtE”)</p> </div>
Note	<ul style="list-style-type: none"> ● Be careful cutting fluid, oil or dust not to flow into a scale.

※ This product can be modified without previous notice to improve quality.

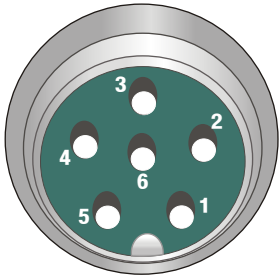
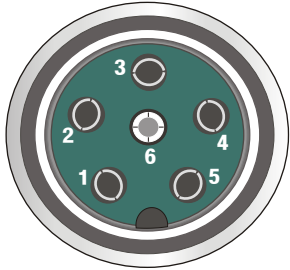
3. Replacing a fuse



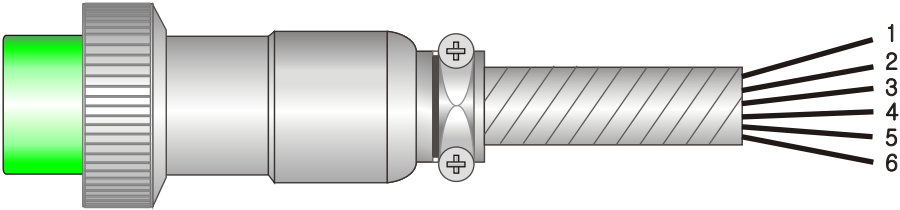
Replacing a fuse, 250V 2A.
Use a – type screw driver

Kinds	Standard
Rated Voltage Fuse	110V ~ 220V 250V, 2A

4. Connector information

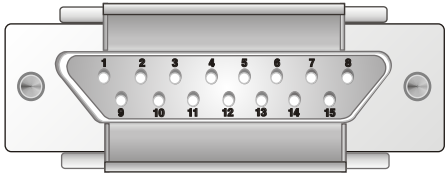
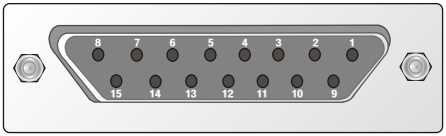
Counter	Scale
	
1 PIN : + (+5V) 2 PIN : A 3 PIN : B 4 PIN : Z 5 PIN : - (0V) 6 PIN : Shield	1 PIN : + (+5V) 2 PIN : A 3 PIN : B 4 PIN : Z 5 PIN : - (0V) 6 PIN : Shield

PIN & Color



PIN	Color	Signal
1 PIN	RED	+ (+5V)
2 PIN	YELLOW	A (+4.2V)
3 PIN	WHITE	B (+4.2V)
4 PIN	GREEN	Z (+0.4V)
5 PIN	BLACK	- (+0V)
6 PIN	BLACK SHIELD	Shield (GND)

PIN for DSC-703EDM Counter

					
Signal cable			803EDM counter		
2 PIN	A	YELLOW	2 PIN	A	WHITE
3 PIN	B	RED	3 PIN	B	GREEN
4 PIN	COM	WHITE	4 PIN	COM	BLACK

CERTIFICATE OF WARRANTY

SERVICE

- We, Dong Sahn JENIX Co., Ltd. suggest a limited warranty against various defects describes below for two years from the date of purchasing, according to the regulation for the preservation of consumer's right.
- Please contact the sales agent or service center as defects were found,
- Please put down your purchasing date and the others below blanks.

Product	Digital Linear Scale (DRO)	Model	DSC800series
Date of Purchase		Serial number	
Agent		Amount	

GUIDANCE FOR THE COMPENSATION OF CONSUMER'S DAMAGE

KINDS of DAMAGES			DETAILS	
			Within the warranty period	After the warranty period
Damage happened in normal operation, or functional defect	Functional or mechanical defects happened in normal operation		Gratuitous Exchange	
	Defects happened during shipping or installing		"	
	Repairable	Recurrence of a trouble	"	
		Recurrence of same trouble for over 4 times continuously	"	
	No repairable	In case of stop producing of parts, or other reason	—	Exchange for new model as compensation
Functional defect which caused from mishandling or misuse conducted on purpose by users.	Defect caused from careless handling or repairing and remodeling.		Charged	Charged
	Defect caused from repairing by non authorized personnel.		"	"
	Defect from applying non-allowable Voltage (use only AC 220V)		"	"
	Defect or broken from dropping down when moving it another place, after installation.		"	"
Others	The cause of trouble is not from product itself but from exterior factor.		"	"
<div>● In the case that the cause is from the natural calamity.</div> <div>● When life span of consumable parts is almost done or over.</div>			Charged	

Please be informed this certificate is not reissued.



Dong Sahn Jenix Co.,Ltd.