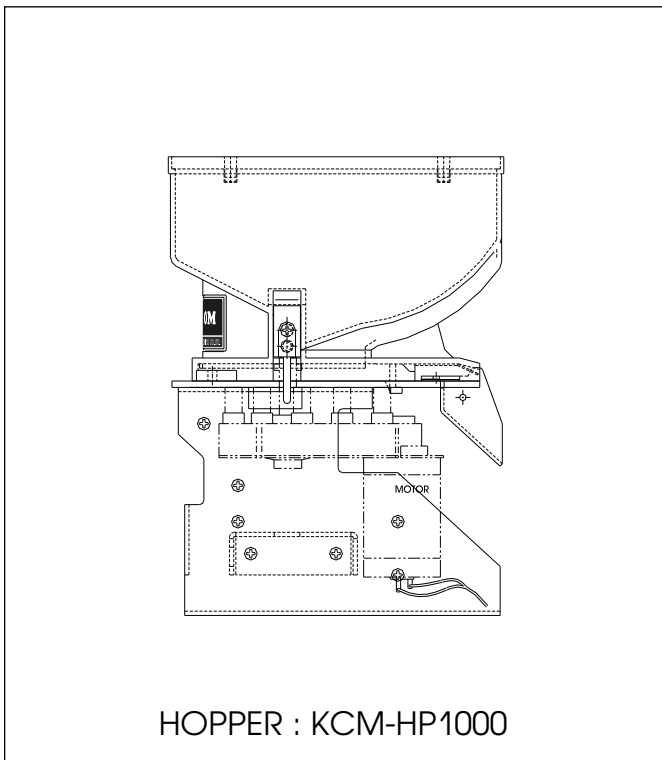K.COM

OPERATION MANUAL

COIN HOPPER

Please read this operation manual carefully before using our mechanism to use correctly.

■CONTENTS■

HOPPER : KCM-HP1000

■ MODEL : KCM - HP1000

■ POWER : +24VDC

■ TEMPERATURE RANGE :
- -15 C^0 ~ 55 C^0

■ POWER CONSUMPTION :
- 1,9W (Waiting mode)
- 12W (Operating mode)

■ DIMENSIONS : W157 x D93 x H215

■ WEIGHT : 1,45kg

KOREA COIN MECHATRONICS CO., LTD.

◈ I N D E X ◈

1.INSTRODUCTION

Coin hopper(KCM-HP1000) of K.COM is a high speed coin ejector the way of horizontal ejecting which can be used not to discriminate the kind of coin without creating coin jam.
Especially, it can easily control the change during use by its manual ejecting function

2.GENERAL SPECIFICATION

| Division	Contents			
Available coin	Diameter : 17.2mm ~ 27.2mm Thickness : 1.3mm ~ 2.2mm			
Max amount for receipt	USD (Approx)	$ 1 : 850 ea	25¢ : 965 ea	5¢ : 1.000 ea
	EURO(Approx)	2€ : 790 ea	20¢ : 840 ea	5¢ : 1.210 ea
Out put velocity	510 ea/min			
Sensoring the holding amount	USD (Approx)	$ 1 : 28 ea	25¢ : 36 ea	5¢ : 48 ea
	EURO(Approx)	2€ : 26 ea	20¢ : 40 ea	5¢ : 58 ea
Power consumption	Waiting mode : 1.9W Operating mode : 11W			

Function	■ Sensoring out of order
	■ A manual ejecting in buik
	  (ejecting in buik in case of pushing button for 3 seconds)
	■ Sensoring the change holding amount
	■ Presenting the operating & the break-down
	■ SELF TEST (Ejecting 5 coins per one pushing)
	■ Sensoring the coin-jam & ejecting sensor after
	    power on reset			

3. DETAIL FUNCTION

Function	Contents	Presenting Error by Lamp
• Sensoring out of order	• When coin-ejecting signal isn't sensored after HP Enable, operating it to go & return for convert way for 5 times and cutting the HP power sending Error signal. • Release : Released in case of Power Reset	Lamp : Repeating on & off with half second term
• SELF TEST (Ejecting 5 coins in bulk in case of pushing for 3 seconds)	• Ejecting 5 coins in bulk in case of pushing for 3 seconds and stopping the operation when can't sensor the changes in lower sensor. And also stopping it after operating it for rightward for 2 seconds when can't sensor the signal of ejecting sensor.	
• MANUAL EJECTING IN BULK (Ejecting in bulk in case of pushing for more than 3 seconds)	• When pushing the switch of HP for more than 3 seconds coins will be ejected in bulk with no consideration of sensoring coins	
• Sensoring the change holding amount	• It consists of lower & upper sensor, HP can't make any operations when can't sensor the changes in lower sensor. And waits until sensoring the change.	
• Presenting the operating & the break-down	• Lamp is on in case of normal condition and it is repeating on & off in case of sensoring Error. It is differentiated by the kind of error.	
• Sensoring the coin-jam & ejecting sensor after power on reset	• When coin is jammed in ejecting sensor after power on reset, HP cut off the power after operating for convert way for 5 times. If the jammed coin is removed until operating it 5 times, it will conduct its normal operation & clear the "LAMP ERROR" signal • Release : Release in case of removing the jammed coin.	Lamp : Repeating on & off with a second term
• Enhancing the function of lower sensor	• When the lower sensor can't sensor the changes after HP Enable, stopping it after operating HP about 15 seconds. And also HP is stopping in case of cutting he signal of Enable in 15 seconds.	

4. MAIN CONNECTOR

PIN NO	SIGNAL	I/O	DESCRIPTION	REMARK
1	+24V	I	+24VDC	Power
2	NC	-	-	Not use
3	GND	I	GND	Power
4	Active	I	HP operating signal	Enable
5	Coin	O	Coin ejecting signal	Pulse
6	LOWER	O	Change remain signal	Lower Sensor
7	NC	O	-	Not use
8	ERROR	O	ERROR Signal	Error

5. TIME CHART

Active — Operating ... Stopping

Coin — t1 t2 t3 t4

Lower — Change / No change

Error — normal / error
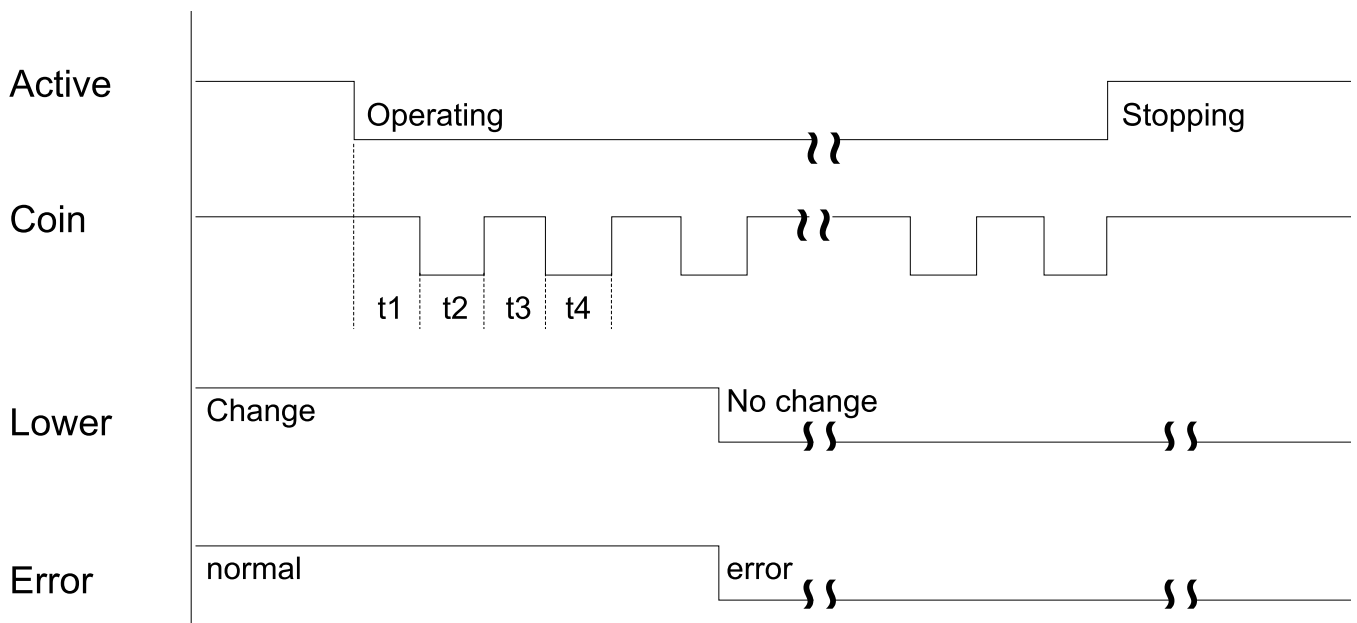
$t1 = t3 = 94\ ms \pm 2\ ms$ (Case of Euro 1¢, ARG 10¢ 82 ms ± 2 ms)
$t2 = t4 = 30\ ms \pm 2\ ms$ (Case of Euro 1¢, ARG 10¢ 20 ms ± 1 ms)

6. MAINTENANCE

6-1) Matters that demand special attention

① Please be careful to do not create any mechanical shock or dropping as it is precise assembly.

② Before turning off the power, any connection and disconnection with vending machine is strictly prohibited.

③ Keep out high temperature and humid places because coin mechanism has circuit inside.

④ Do not tighten or loosen any screws within the coin hopper because of their important function as coin ejection

⑤ Don't use damaged coins and you are not allowed to block the hole of the coin ejecting gate.

6-2) Simple cleaning

-- Power must be off

① Clean the basket interior of coin hopper regularly with the dry towel in which the alcohol is contained.

< Attention >

▶ In case of using a cleaning agent, avoid using solvents like lubrication oil and thinner. Using alcohol and wipe with a dry cloth.
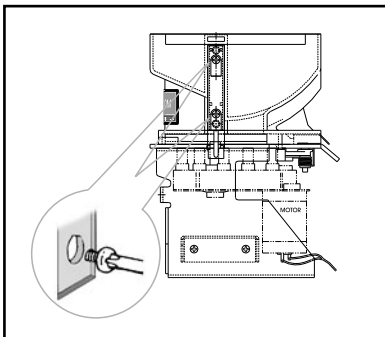

② Loose a screw in the upper and low sensoring case of coin hopper's basket exterior and wipe out other substance on the surface of the sensor.

③ Always check if there is other substance in the revolving disk inside of coin hopper basket.

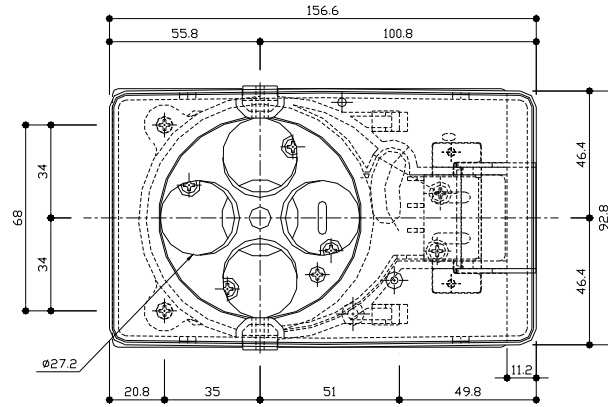< Attention >

▶ After finishing the checking and simple cleaning of the machine, check normal condition of the coin hopper. Then insert a coin to check for any errors.

▶ If you assemble or disassemble this product without any pertinent purpose except above listed case, it will not included in free A/S range.
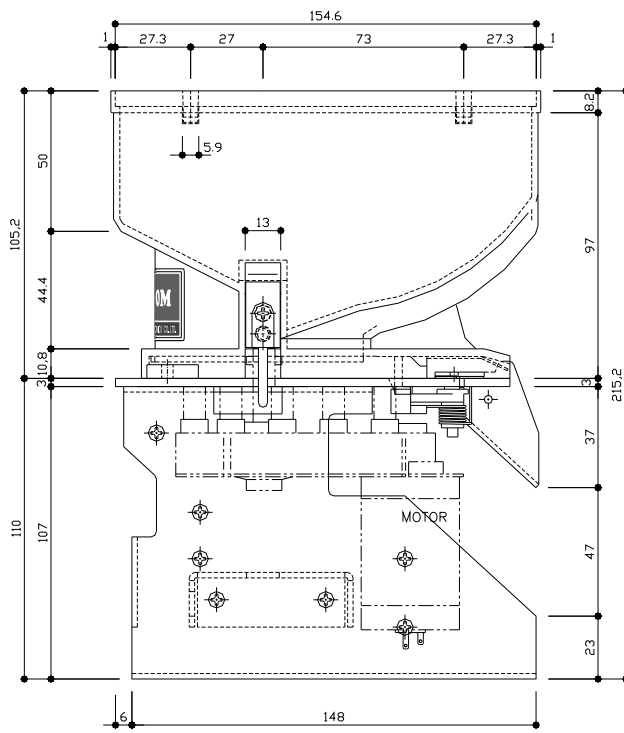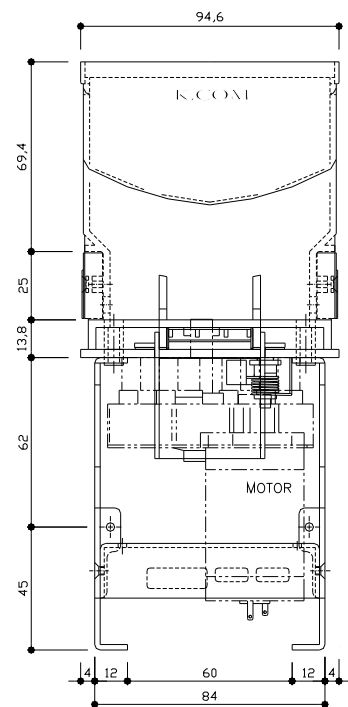So when any problem occurs, you must call to K.COM for repair.

7. INTERFACE CIRCUIT
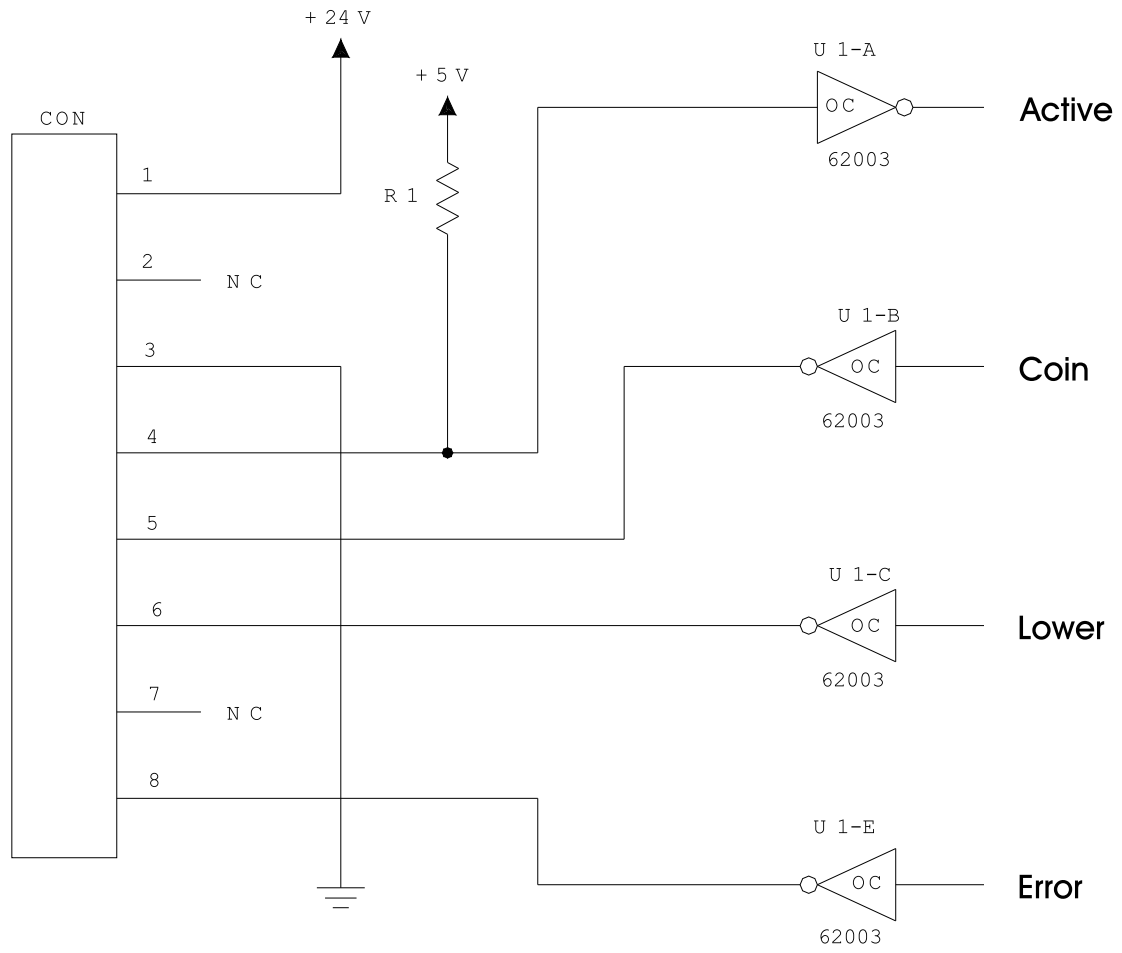
8. DIMENSIONS

TOP VIEW

SIDE VIEW

FRONT VIEW