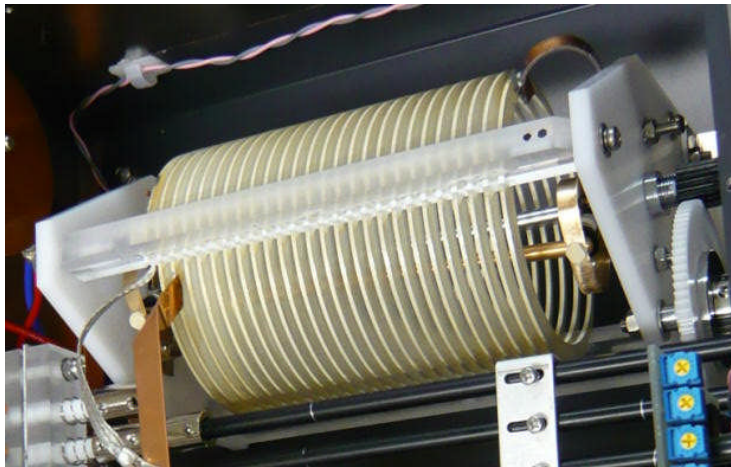


## ◆ Variable Inductor

Function : to control the Inductance of Antenna Impedance by rotating Pulley inside the coil.



### ● Pulley rotation

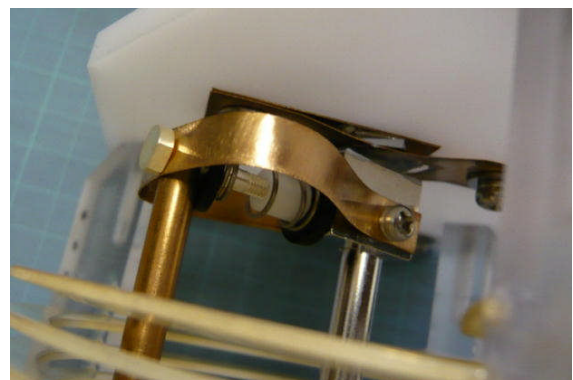
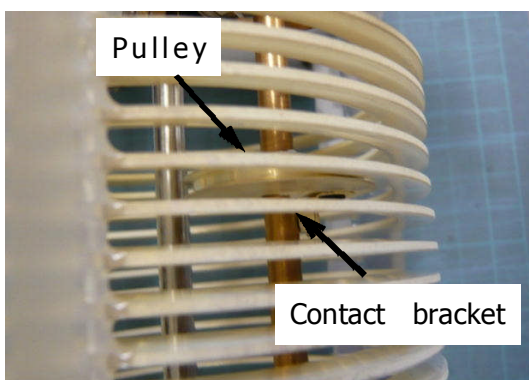
Adjust the pulley to "0" on scale. It rolls over with the scale increased, and the stopper works at "0" or the scale limit. Rotation limit is an average of 24.3 (within 24.1 - 25)

To fine-tune the scale, loosen the hollow set screws shown in the picture. Then, rotate the pulley without the gear rotation.

If the pulley does not rotate smoothly, the main cause is either the small contact fitting attached to the pulley or the gear deflected. Bend the contact fitting while lifting it off the shaft a little. Also, loosen the screws all attached to the gear, and tighten them again. When the pulley comes to the particular position, the noise might be generated around the spring. It shouldn't be a big deal as long as it's not abnormally loud, it is OK.

### ● Pulley Shaft Mechanism

Both ends of the Pulley Shaft are structurally appressed to inside the coil by spring. The axis is matched with M3 screws, so tighten the screws when it loose. \* Do not overtighten the screws. Do not use the glue, it would adhere to the moving parts such as springs.



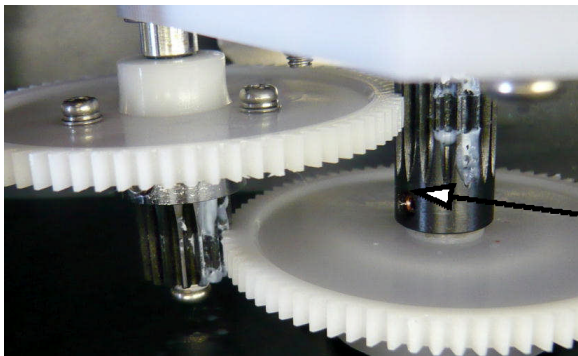
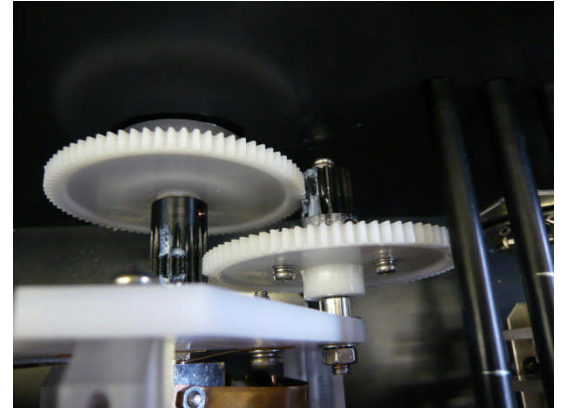
### ● Gear Drive

Gear ratio on two gears is 1 : 5, hence the final gear ratio(two speed) is 1:25. This ratio means that the pulley must make 1 revolution to move the scale 1 mark. (the scale has 25 reading marks)

Gear Model : KHK Kohara Gear Industry Co.,Ltd. DS0.8-80,  
Material POM / Gear Teeth 80

KHK Kohara Gear Industry Co.,Ltd. DS0.8-16A Material S45C  
/ Gear Teeth 16(\*)

\*the hole of the central axis is modified to  $\phi 6$

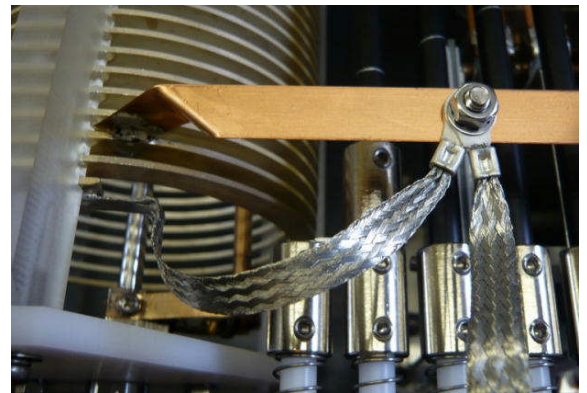


If you loosen this hollow set, each gear stops interacting with pulley. Do not loosen this hollow set unless you need to fine-tune the scale or do some adjustments to make rotation smooth.

### ● Connection with other circuits.

The followings are connected to other circuits.

There is a copper plate connecting the Variable Inductor and A section on Variable Capacitor. Also, there is a flat wires starting from the Variable Inductor. It is connected to the copper plate and also to the fitting for the Output Selector C.



### ● Disassembly

First of all, remove the copper plates and flat wires connected to other circuits. Be careful of soldering at some points.

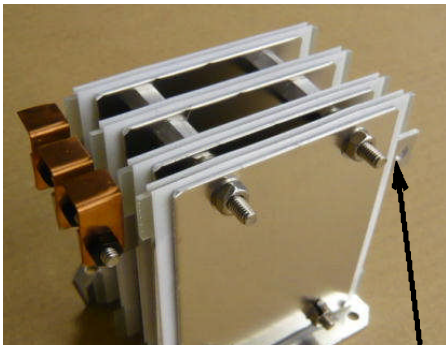
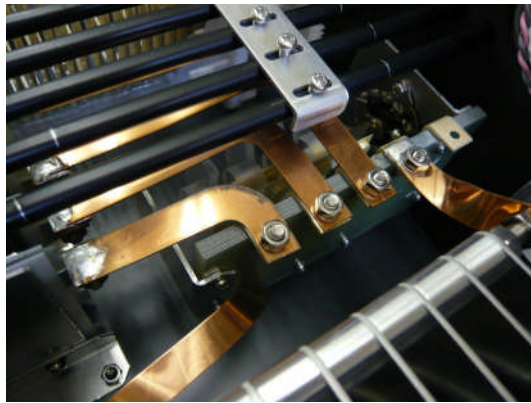
Set the scale "0". Remove 4 screws(M4) at the bottom, and move it as close to the front panel side as enough to touch the panel. (It doesn't matter if the inner gear touches the panel.) Seen from the right of the front panel, you can find a hole to insert the hex wrench on the scale holder. Insert a blunt tip wrench( subtense 2mm) and loosen the screws to remove the knob. After knob removed, you can see three screws(M2) holding the scale panel. Remove it hard, as it is adhered with glue.

Be careful to scratch the scale panel in this disassembly process.

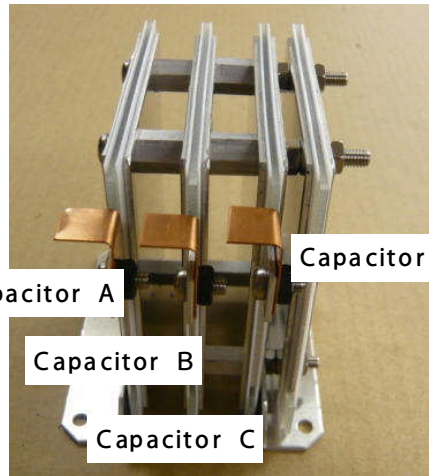
Reverse the above procedure when assembling. Using a blunt tip wrench is highly recommended.

## ◆ Solid Capacitor Switch

Function : To intergrade the Capacitance of Impedance by switching the points.

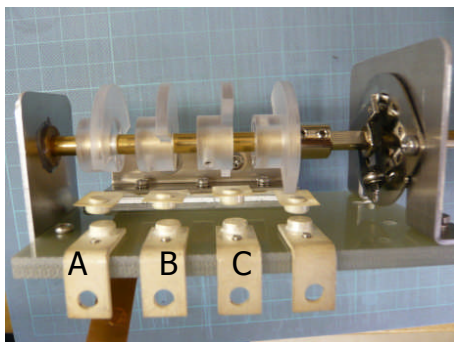


Only the capacitor D, you can find the mounting hole from the opposite side.

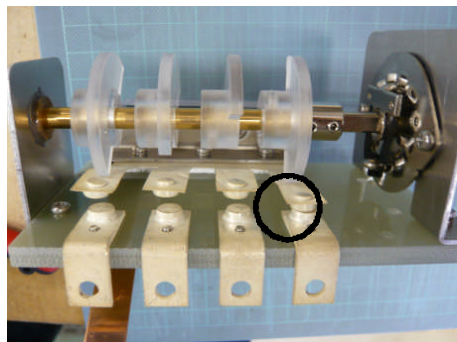


## ● Relations between the Switch and the Solid Capacitor

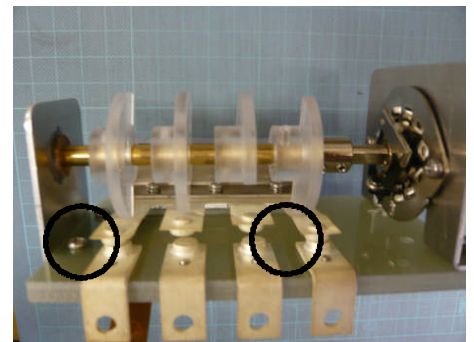
Each 4 semicircular cam is fixed with two M3 hollow set screws.



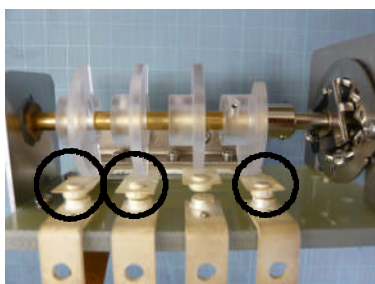
Switch0



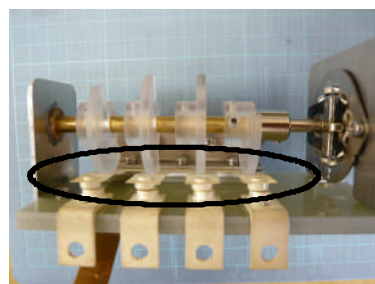
Switch1



Switch2



Switch 3



Switch 4



According to the below table, adjust each “ON” cam position so that it touches lightly the switch plate. (See also the pictures on the previous page.) You can rotate the cams when you have difficulty with tightening the hollow set screws. Be careful of the order of switch touching.

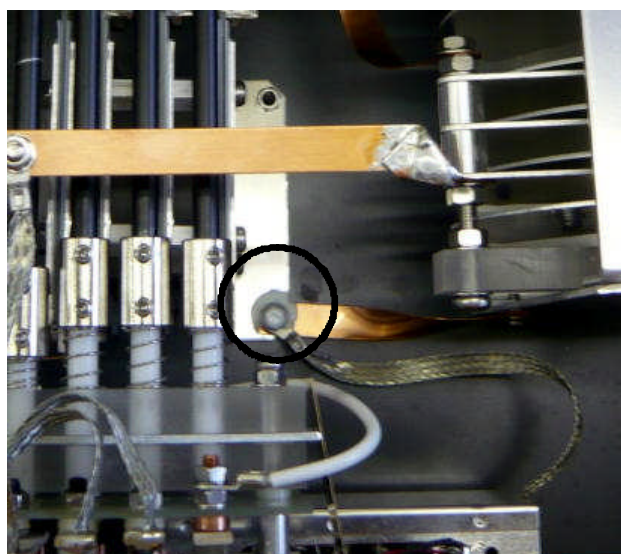
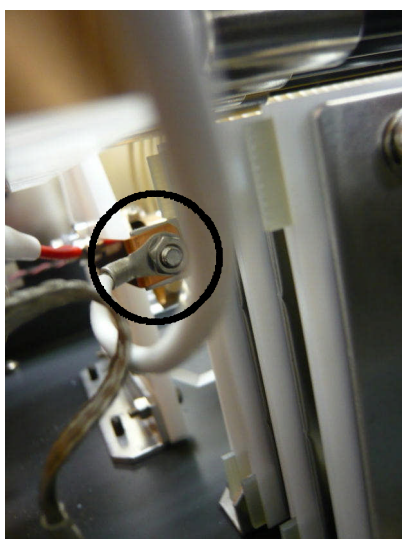
Hollow set screws : M3 x 3 (1.5mm Wrench) x 8pcs

	Switch Position				
	0	1	2	3	4
Variable Capacitor	<b>A</b>	<b>A+B</b>	<b>A+B</b>	<b>A+B</b>	<b>A+B</b>
<b>Capacitor A</b>	OFF	OFF	<b>ON</b>	<b>ON</b>	<b>ON</b>
<b>Capacitor B</b>	OFF	OFF	OFF	<b>ON</b>	<b>ON</b>
<b>Capacitor C</b>	OFF	OFF	OFF	OFF	<b>ON</b>
<b>Capacitor D</b>	<b>ON</b>	<b>ON</b>	<b>ON</b>	<b>ON</b>	<b>ON</b>

### ● Disassembly operation

As the knob visible from the front panel is adhered with glue, you can't disassemble it easily. If you really need to disassemble it, separate the board holding the rotary shaft and FRP board.(M3 x 10 screws) then, remove the copper plate connected to the solid capacitor. Finally, remove the two screws(M4) at the bottom to complete disassembling the switch section.

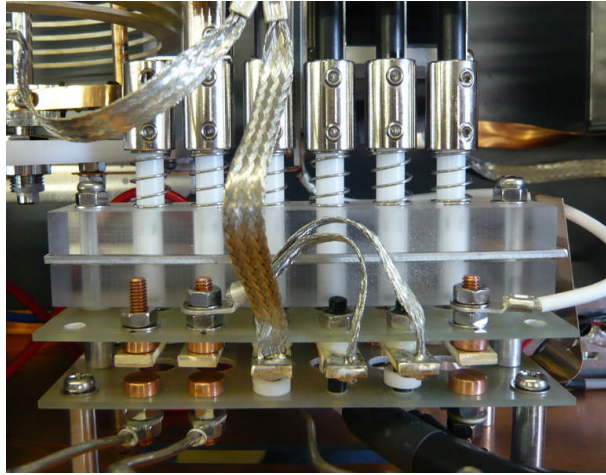
Solid Capacitor can be disassembled. First, remove the copper plate connected to the variable Inductor and the terminal with white code. Second, remove the 4 screws(M4) but be careful that one of them is attached to the copper plate connecting to the Variable Capacitor. 3 L-shaped copper plates are connected at the front side, but not necessarily remove the soldering. Just remove the screws.



### ◆ Output selector switch

Function :

To switch the terminals of output power.



Structure(basic concept)

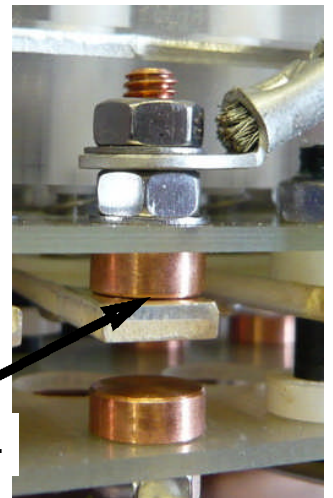
Default position : Switching plate is put into a first groove of each push bar.

1 With any one of the switches pushed, the switching plate moves horizontally following the groove of the push switch.

2. When the switching plate comes to the second groove, it is pushed back by the plate spring and locked.

3. Pressing the other push switch releases the lock by Spring reaction force.

Come in contact.



With the switch pushed back, the contact point between the switching plate and the plate spring is also switched.

While the operation check, confirm there is no gap between the plate and the rivet.

The plate spring must touch lightly to the switching plate.

Separated from the switching plate, the plate spring doesn't work properly so that it can't be locked. Bend the plate spring further to bring it into contact with the switching plate.

