

# Calibration

KTM-10,100



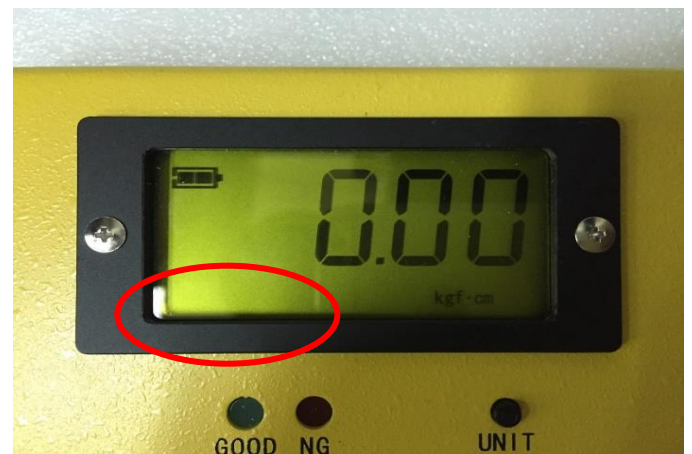
KTM-15,150,250



The torque value is out of range when you validate it with corresponding weights. You need to do the following processes.



Change to track mode (Blank at the left bottom corner of the screen)



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Unfasten 4 screws and then unplug the battery



Mounted the torque tester on a calibration stand and the mounting surface must be level.



Mounted the torque tester on a calibration stand and the mounting surface must be level.



Press UNIT, PRG/SET, MODE and CLEAR buttons (4 buttons) at the same time



Install K2S cal. arm (K4S cal. arm for KTM-100)



When Good and NG LEDs are ON which means you enter to calibration mode successfully



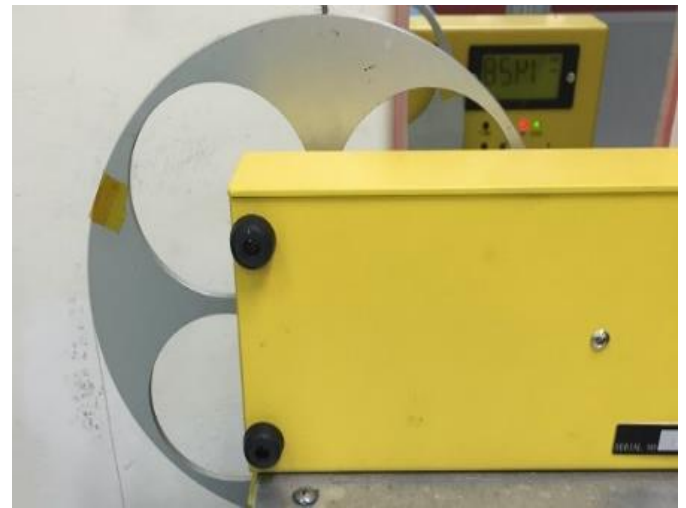
KTM-10  
Requires weights 1kg 500g 200g 100g



KTM-15  
Requires weights 1500g 1200g 800g 400g 100g



Hang a 1kg weight first  
(KTM-100 hang a 5kg weight first)



Install K2S cal. arm. (K4S cal. arm for KTM-150.)  
If the reading not equal to ZERO, please press CLEAR button to zero it.



Check the maximum torque value, hang the weights:1500g. Above photo shows 14.71. (You could start the calibration from either CW or CCW)

Weight:1.5KG with K2S for KTM-15 /  
 Weight:7.5KG with K4S for KTM-150 /  
 Weight:12.5KG with K4S for KTM-250

When starting from CW calibration and the display value is not within specification, please press "UNIT" button.

Unload the weight and the reading should be equal to ZERO.  
 (If the reading not equal to ZERO, please press clear button to zero it.)

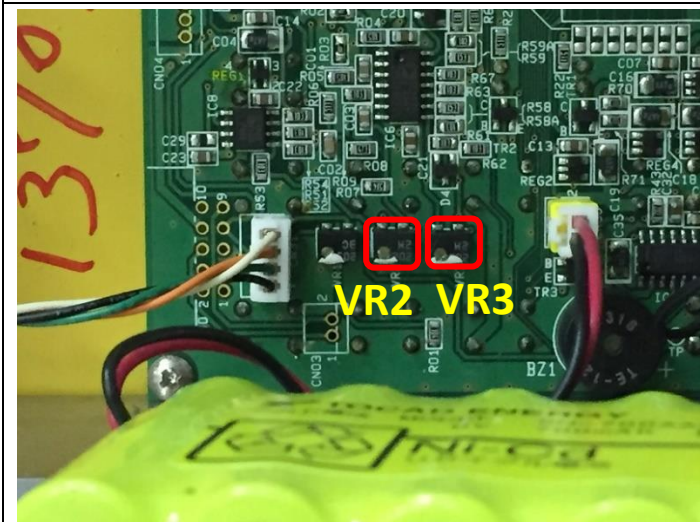




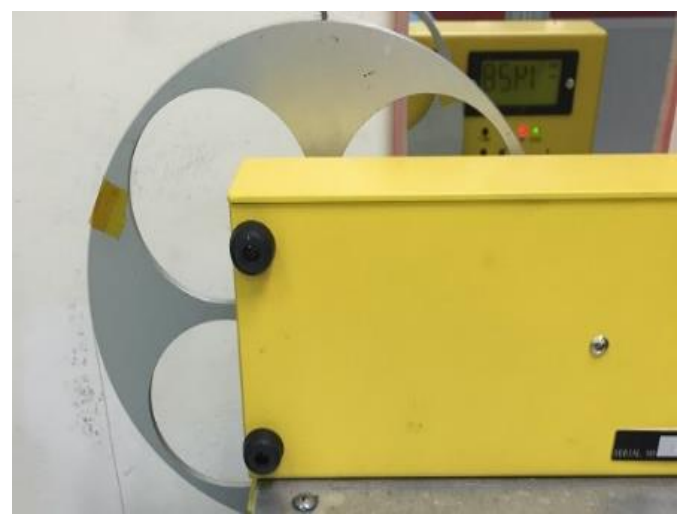
Hang a 1KG weight again, the above photo display 10.09  
 (The range should be:9.95~10.05)



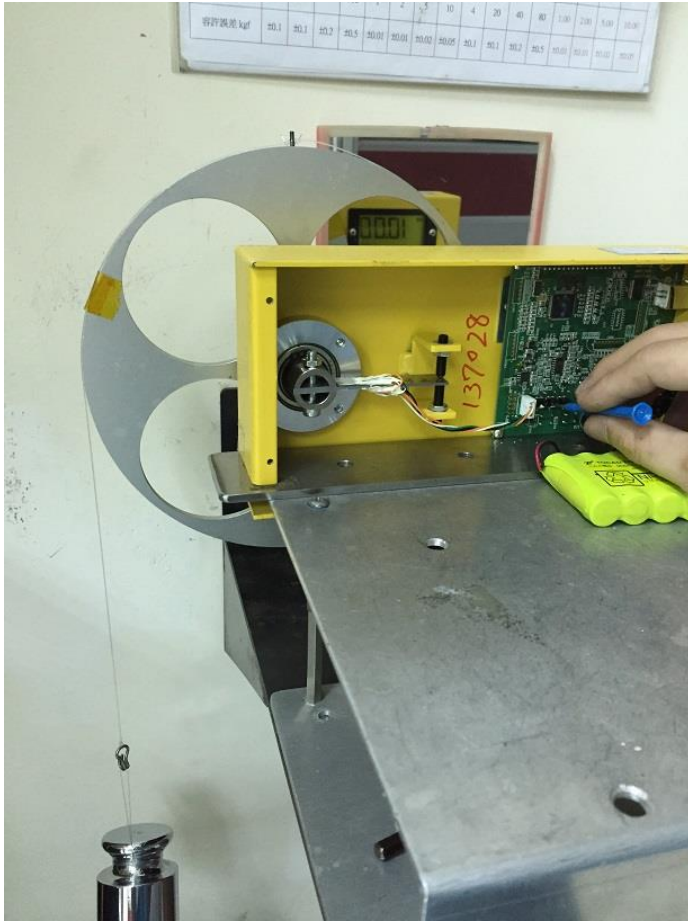
After you pressed "UNIT" button, the display should be 15.00. After that, you could unload the weight and then press "CLEAR" button to ZERO again. You could start to do C.C.W. calibration now.



For the CW calibration, please adjust VR2 variable resistor.  
 (For the CCW calibration, please adjust VR3 variable resistor)



Hang the cal. Weight:1500g for the CCW direction. The above photo shows 14.58



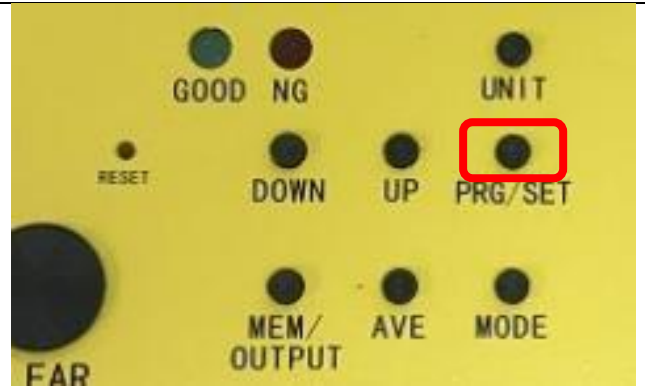
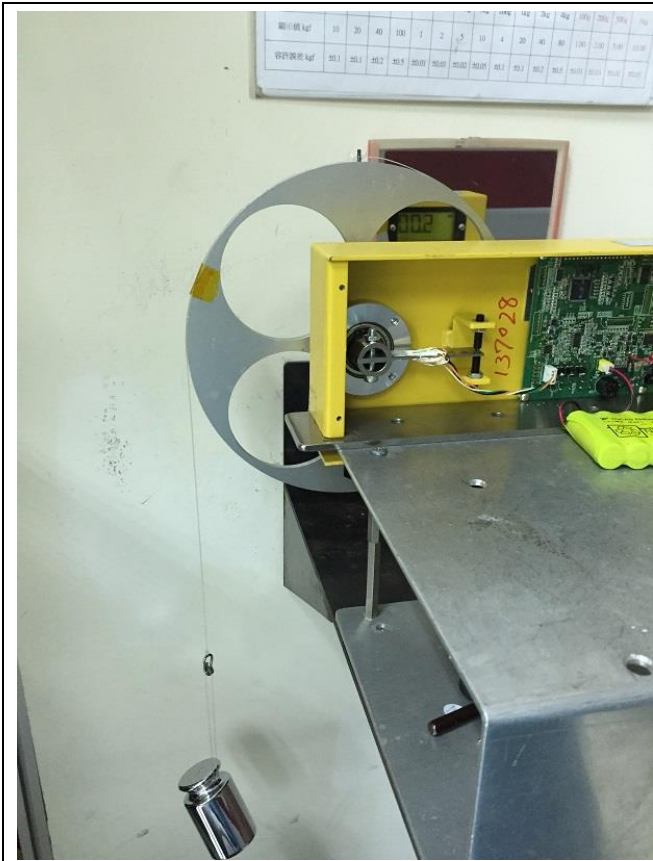
Adjust the value to the standard one follow by the specification. Above photo shows 10.00



After you pressed "MODE" button, the display should be 15.00. Above photo shows 15.00.

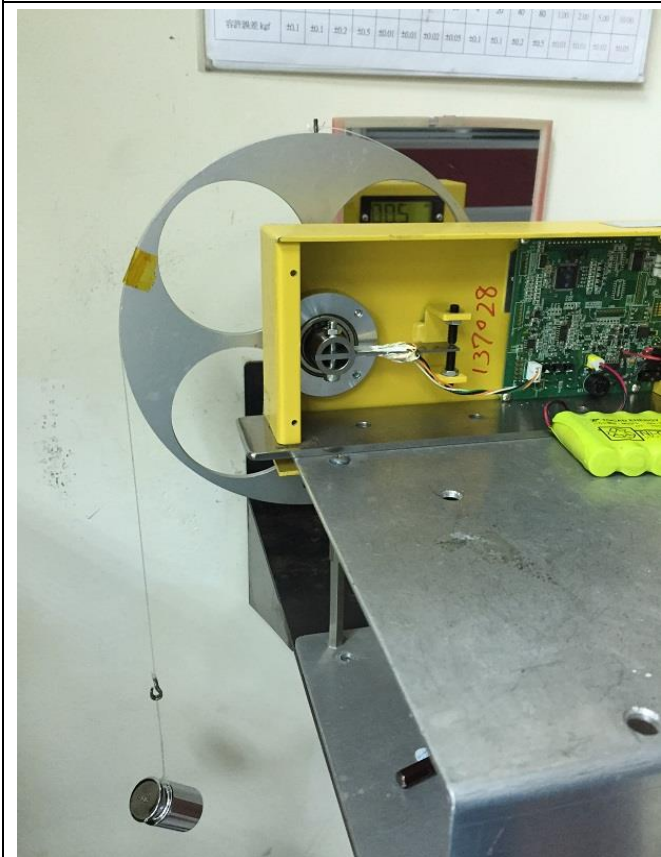


After pressed "MODE" button and then unload the weight. The calibration process is done.



After adjustment, according to specification, hang on the corresponding weights to verify each cal. point from **maximum** one to **minimum** one. Above photo shows weight is 500g and the display value is 5.00.

Press “PRG/SET” button twice, it will be back to idle mode (GOOD and NG LEDs will be OFF). (If you just press “PRG/SET” once, it will display 100.0. Don’ t change the value!!!



Above photo shows the weight is 200g and the display value is 2.00



After adjustment, according to specification, hang on the corresponding weights to verify each cal. point from **minimum** one to **maximum** one.

Above photo shows weight is 100g and the display value is 1.00.



Above photo shows the weight is 100g and the display value is 1.00

**When any of the cal. point values out of range, you need to hang the weight 1kg (check the maximum torque value) and then adjust it by the Variable resistor. Ex: If you hang a weight 100g and the display value is 1.02. You need to change the weight to 1 kg and adjust the tolerance value to minimum until all cal. points value within its acceptable tolerance value.**

Above photo shows the weight is 400g and the display value is 3.99







After you finished a calibration process for one direction, you could start to do the other direction calibration followed by the same procedure above. Also begins from calibrating the maximum torque value of the tester. Hang a 1 kg weight.



Above photo shows the weight is 800g and the display value is 7.99

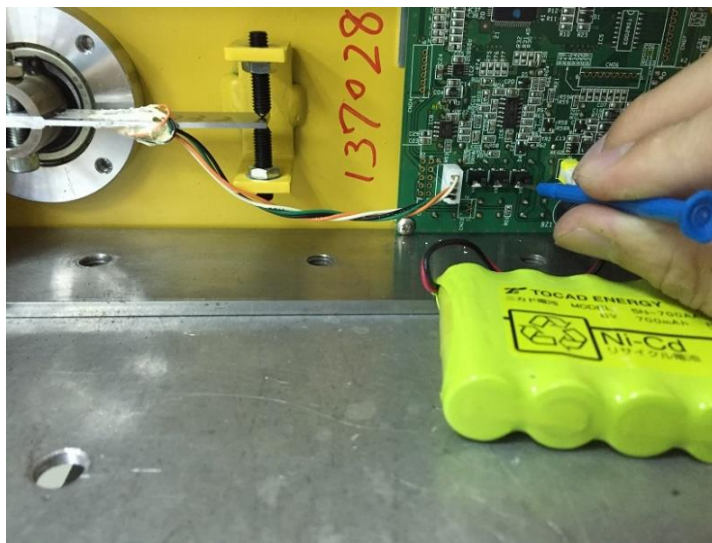


Unload the weight and check the display value. It should be 0.  
(If it is not 0, please press CLEAR to reset it to be 0)

Above photo shows the weight is 1200g and the display value is 11.99.



Hang a 1kg weight, the above photo shows- 10.08.



Above photo shows the weight 1500g and the display value is 15.00.  
Once the C.W. cal. process is completed, you could start to do C.C.W. calibration.

Also, verify reading by hanging the corresponding weights from minimum cal. point to maximum cal. point.

Adjust the VR3 variable resistor, to make the value within an acceptable value.  
Then verify reading by hanging the corresponding weights from maximum cal. Point to minimum cal. Point.

\* The calibration methods for C.W and C.C.W. are the same. All of the reading values must be

機型	KTM-100				KTM-10			
使用力桿	K4S				K2S			
使用砝碼	500g	1kg	2kg	5kg	100g	200g	500g	1kg
顯示值 kgf	10	20	40	100	1	2	5	10
容許誤差 kgf	±0.1	±0.1	±0.2	±0.5	±0.01	±0.01	±0.02	±0.05

settle within acceptable tolerance.

KTM-15, 150 and 250 use the same calibration process.

\* The calibration methods for C.W and C.C.W. are the same. All of the reading values must be settle within acceptable tolerance.

(Above photo is the tolerance value for KTM-10, KTM-100 )

機型	KTM-150					KTM-15				
使用力桿	K4S					K2S				
使用砝碼	7.5kg	6kg	4kg	2kg	500g	1500g	1200g	800g	400g	100g
顯示值(kgf.cm)	150	120	80	40	10	15	12	8	4	1
容許誤差(kgf.cm)	±0.7	±0.6	±0.4	±0.2	±0.1	±0.07	±0.05	±0.04	±0.02	±0.01

機型 MODEL	KTM-250				
使用力桿 Cal. arm	K4S				
使用砝碼 Cal. Weights	12.5kg	10kg	7.5kg	5kg	2kg
顯示值(kgf.cm) Reading value	250	200	150	100	40
容許誤差(kgf.cm) Tolerance	±1.2	±1.0	±0.8	±0.5	±0.2