



# 扭力顯示器操作手冊

## KL-CTDS OPERATION MANUAL

**KL - CTDS**

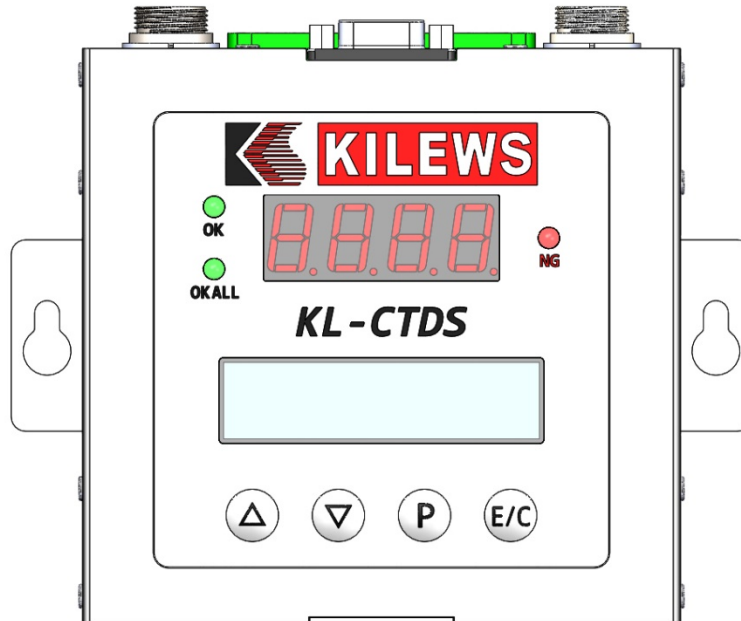
**V1.4**

奇力速工業股份有限公司

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[http : //www.kilews.com](http://www.kilews.com)

## 1. KL-CTDS Panel functions



### Display :

1. 4 digits and 7 steps torque value display
2. Settings display on 16\*2 LCM (LCD Module)

C	:	9	9	T	:	9	.	9	9	9	.	9		
Q	:	3	0	0	.	0	K	S	:	O	K	A	L	L

- C : Screw counting number
- T : Screwdriver fastening time
- 999.9 : Number of screw thread
- Q : Torque value
- S : Status

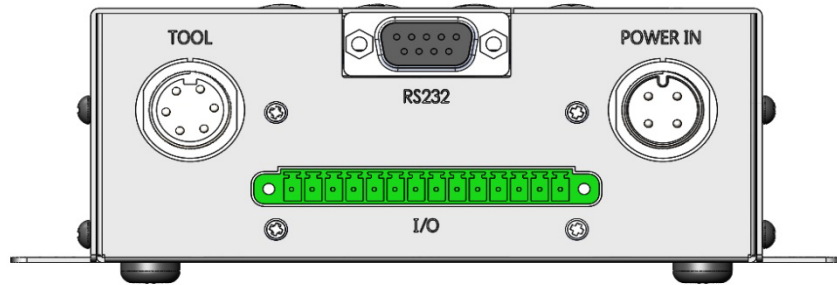
UP : Select Upward

Down : Select Downward

P : Press P button 3 sec to enter or out of setting mode

E/C : Confirm button in setting mode

OK,NOK,OKALL : Light indicated the current status



	Power port(4PIN)	Screwdriver port(6PIN)	RS-232 port
BN LOW torque series	SKP-BE32HL	BN shielded cable	Connector COM
BN POWER torque series	SKP-40B-HL-800	BN shielded cable	Connector COM

## 2. Function setting

Turn on the power, Press P button and hold for 3 seconds to enter function menu. Press E/C button to start selection and use UP and Down button for select. Press E/C button again to confirm.

R	E	V	E	R	S	E	M	O	D	E
O	N	L	Y	V	E	A	C	H		

- Reverse countdown setting  
 ONLY : Countdown number one time only while reverse triggered.  
 EACH : Countdown number on each time of reverse triggered

B	A	T	C	H	M	O	D	E
I	N	C	V	D	E	C		

- Count mode setting
- INC : Increase - Count up
- DEC : Decrease- Countdown

S	E	T	C	L	E	A	R	S	W	I	T	C	H
								0	.	0	S	E	C

- Clear torque value time
- Auto clear time can be set as follow selection: 0.0s 、 0.1s 、 0.5s 、 1.0s 、 1.5s 、 2s 、 2.5s 、 3s. When set as 0.0s, the torque value will be display until next start signal received.

R	E	C	O	N	F	I	R	M	T	I	M	E		
									0	.	0	S	E	C

- Double confirm time after screw shut-off, can be set in range between 0.0-9.9 sec.

C	L	U	T	C	H	S	I	G	N	A	L
O	N			V		O	F	F			

- Break signal
- When set as ON: After shut-off, break signal will be continuing output until start switch released.
- When set as OFF: Break signal will be continuing output until next start switch pressed.

T	I	G	H	T	L	I	M	I	T		
L	T	:	0	.	0	H	T	:	9	.	9

- Set L&H screw fastening time  
 LT : The range can be set in 0.0-9.9 ◦ NG will be displayed on status column when screwdriver stops before Lo after starting, if screw not set properly fastened at its position can be detected.  
 HT : The range can be set in 0.0-9.9 ◦ NG will be displayed on status column when screwdriver can't stop at set time after starting, if result stripped screw can be detected.

T	O	R	Q	U	E	L	I	M	I	T		
L	:		0	.	0	H	:	3	0	0	.	0

- Set L&H torque value range  
 Acceptable minimum and maximum torque ranges can be set by operator on each individual application. When torque output is in acceptable range, OK will be displayed on status column and green light will be on. If torque output is out of acceptable torque range, NG will be displayed on status column and red light will be on. Torque range can be set within 0-300 kgf.cm

T O R Q U E            T H R E A D  
 L :                    0 . 0            H :            9 9 9 . 9

- Set L&H number of thread rotation
- The minimum and maximum number of thread can be set by operator on each individual application. When if result within acceptable range, OK will be displayed on status column and green light will be on. If numbers of thread is out of acceptable range, NG will shows on status column and red light will be on.

G E A R                    R A T I O  
1 4

- Set gear ratio number  
 Set gear ratio as different model of screwdriver has different gear ratio setting.

B A T C H            C O U N T  
5

- Setting the number of screws
- Counting value setting range from 0-99

S A M P L E            I D  
1

- Set machine number.  
 Set machine no. from 1-255.

A U T O M A T I C  
 O N                    O F F            V

- Set auto learning  
 Press E/C to start selection, use UP/ Down to switch on. Press E/C again to enter to automatic leaning function.

A U T O M A T I C ( 0 . 0 )  
 Q : 0 . 0 C : 0 . 0

- Turn on the function of automatic learn. Once learning process has completed (fastening screw shut-off), monitor will display fastening time, torque value, numbers of thread turns and these data will be recorded.

T O R Q U E O F F S E T  
 + 0 . 0

- Set torque value offset  
 Torque compensation setting range as  $\pm 0.0-9.9$

T O R Q U E  
 O N O F F V

- Torque calibration On/Off (Please refer" KL-CTDS and BNK screwdrivers with KTM Calibration Procedure".)  
 Press E/C button to start selection. Use Up/ Down button to select on to start process of calibration and press E/C again to confirm.

S c a l e 0 I t e m 1  
 T o r q u e 0 0 . 0 0

- Calibration range is shown as torque adjusting ring. 0→0.5...7.5→8. Each step needs to calibrate 5 times as item 1-5. Use the KTM to calibrate BNK series screwdriver. Apply calibration software with torque meter together (screwdriver need to be shut off by reach torque value, KL-CTDS can calculate and display torque value) to correct torque automatically.

T O R Q U E            U N I T  
 K G F                    V            [ k g f . c m ]

- Torque unit setting  
 Set torque unit as kgf.cm/ N.m/ lbf.in

N S            S T O P  
 O N                                    O F F                    V

- Set the reaction when error occurred  
 ON : Screwdrivers STOP when error occurs during screwing. User can press E/C to confirm for release, but screwdrivers still can operation on REVERSE.  
 OFF : Screwdriver keeps operation in normal as no stop and jumps to next screwing process when error occurs; only make audible buzzing for warning.

### 3. Default setting

V A L U E S  
                                          [                    N O                    ]

- Default setting  
 NO : Return to MAIN display  
 CALIBRATION : Clear calibrated torque value  
 DEFAULT : Return to default setting



#### 4. Output & Input

1	OK Output	OK signal output CN1 and CN2 will be short when fasten one screw.
2	COM	OK_COM output
3	NG	NG signal output CN3 and CN4 will be short when error occurs.
4	COM	NOK_COM output
5	OKALL Output	OKALL signal output CN5 and CN6 will be short when finished all screw in the list.
6	COM	OKALL_COM output
7	BRAKE Output	BREAK signal output CN7 and CN8 will be short when screwdriver is braked.
8	COM	BREAK_COM output
9	24/12VDC Output	24Vdc/50mA 、 12Vdc/100mA output
10	GND	GROUDING
11	External START input	1. When CN11 short with COM, able to start the screwdriver. 2. When CN11 open with COM, screwdriver stop.
12	External REVERSE input	1.CN11 short with COM and when CN12 shorted with COM, screwdriver will start with reverse rotation. 2.When CN12 open with COM, if the F/R switch on “forward”, when CN11 short with COM again, the screwdriver will start with FORWARD rotation.
13	External DISABLE input	1. When CN13 short with COM, can't start the screwdriver. 2. When CN13 open with COM, screwdriver is able to start.
14	External COMFIRM input	1. CN14 short with COM for CONFIRM by SYSTEM request ° 2. NG signal will be release after input CONFIRM