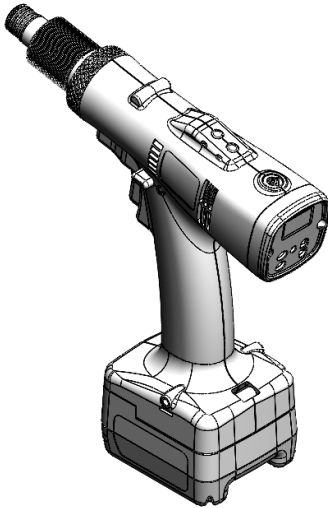




**Automatic Industrial Cordless Brushless
Power Torque Screwdrivers Series
OPERATION AND MAINTENANCE MANUAL**



**SKC-PTA-BE120
SKC-PTA-BE90
SKC-PTA-BE50F
SKC-PTA-BE60
SKC-PTA-BE35
SKC-PTA-BE35F**

CAUTION!!

**SKC-PTA-BE90/BE120 SERIES ARE ADVANCEMENT IN HIGH TORQUE MOTORS DESIGN.
TO BE MORE SAFTY, ASSEMBLE THE AUXILIARY HANDLE BEFORE OPERATION.**

Rechargeable -TYPE Automatic Brushless Series

KILEWS INDUSTRIAL CO., LTD.

<http://www.kilews.com.tw>

Y2F174A-1-005

Before you use the Cordless Screwdriver for the first time, it is essential to read and understand the manual completely (including the spare parts view). The term “Cordless Screwdriver” in all of the warning listed below refers to your main operated appliance.

Icon Instructions



- | | |
|--------------------------------------|---|
| 1. Read instruction manual. | 5. Do not expose to wet or rain conditions. |
| 2. Observe caution and safety notes. | 6. Do not operate in an explosive atmosphere. |
| 3. Recyclable. | 7. Do not disassemble. |
| 4. For indoor use only. | 8. Forbid to throw away. |

Accessories

Item	Quantity	Unit
Manual	1	PCS
Guarantee Card	1	PCS
Torque Fixing Ring	1	PCS
S Wist hook	1	PCS
Driver hook	1	PCS
Screw M3*0.5P*10LT	1	PCS
Socket Extension	1	PCS
BIT	2	PCS
Slip resistant soft cover (Blue)	1	PCS
Slip resistant soft cover (Yellow)	1	PCS
Slip resistant soft cover (Red)	1	PCS

Warning

Read all instructions and make sure the appearance of the device has no damage before you use it. Failure to follow all instructions listed below may result in electric shock fire and/or serious injury.

1. Keep the working area nice and clean.
 - 1.1 Mess and dark areas may cause of accidents.
 - 1.2 Keep the device away from rain or moisture to decrease the risk of electric shock or short-circuiting occurred.
2. Be alert to workplace safety.
 - 2.1 Use the device under a well-lit and clean environment.
 - 2.2 Keep children and other people away unless the person has been assigned for the task to avoid the danger of injury.
 - 2.3 Do not play around while the tool is being used to avoid the danger of distractions.
 - 2.4 Do not work with the device in potentially explosive environments in which there are inflammable liquids, gases or dusts. Electrical power tools create sparks, which can ignite dusts or fumes.
 - 2.5 Do not use the device if you are tired or under the influence of drugs, alcohol or medication.
3. When the devices are not being used, store them in a safe place.
4. Use a suitable device for the job will be safer at work and have a better result.
5. Always use a screwdriver that is intended for the task you are undertaking. Do not overload or use it improperly such as drilling or tapping.
6. Dress properly. Do not wear loose clothing or jewels while operating the tool to avoid the danger of trapping.
7. Please hold the cordless screwdriver carefully before operating and avoid wrong operating method.
8. When using the electrical power tool, take into account the auxiliary handle or waist hook is advantage of working conditions. On the contrary, the purposes of the waist hook or driver hook is convenient to put the device away and easier to keep it out of reach of children.
9. Look after either the device or the battery carefully and have any damaged parts repaired by an authorized or qualified shop. Always keep the tool nice and clean; pay attention on the machine grease which might ruin the tool.
10. Disconnect the plug from the power source after the charger has been used.
11. Take apart the battery from the device when it is not being used.
12. Use only the accessories that are detailed in the operating instructions. The use of others which are not recommended in the operating instructions may affect the functioning of the device. It could lead to an increased risk of personal injury as well.
13. Remain alert at all times and watch what you are doing during proceeding. Before operation, always check every part is in good condition and move freely in order to function properly.
14. This device only applies for metal screw bits designated with their dimensions and their shape. Do not recommend to countersink or force of loading on any material such as plastic and wooden.
15. The device does not apply for elastic or tensile load with washer on.
16. To prevent parts in gearbox from damage, replace the grease at least once for every year.
17. It is necessary for operators to read and follow all operating instructions in this manual. KILEWS is not responsible for any personal injury that might cause of disobeying the safety advice.
18. Use a safety device. Wear protective earmuffs to reduce personal injury.

Noise:

The typical A-weighted noise level acc. To EN62841-2-2

Sound pressure level (LpA): 53.6 dB(A)

Sound power level (LwA): 64.6 dB(A)

Vibration:

The vibration total value acc. EN62841-2-2.


Vibration emission value ah (m/s²): 0.17 m/s²

Uncertainty K (m/s²): 0.02 m/s

Function of cordless protection

- | | |
|------------------------------------|------------------------------|
| ■ Over electric current protection | ■ Prevent from low power |
| ■ Thermal Protector | ■ Stall protection |
| ■ Slow rotation protection | ■ Reverse control protection |
| ■ Battery Identification | ■ Sleeping mode |

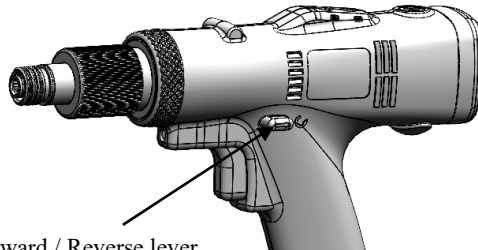
Warning

 **Do not attempt to repair or disassemble this cordless screwdriver, the warranty will be considered void.**

1. This rechargeable screwdriver maintenance make sure to remove the battery pack before maintaining or repairing the device by a qualified technician.
2. Do not attempt to disassemble or reassemble the device at will which may result in poor performance or danger of injury, the warranty applies only to initial package.
3. Do not repair the device with other than genuine KILEWS replacement parts may result in poor performance or danger of injury, the warranty will be considered void.
4. The temperature between $0^{\circ}\text{C} \sim 35^{\circ}\text{C}$ would be an ideal condition of carrying out the tasks on the device.

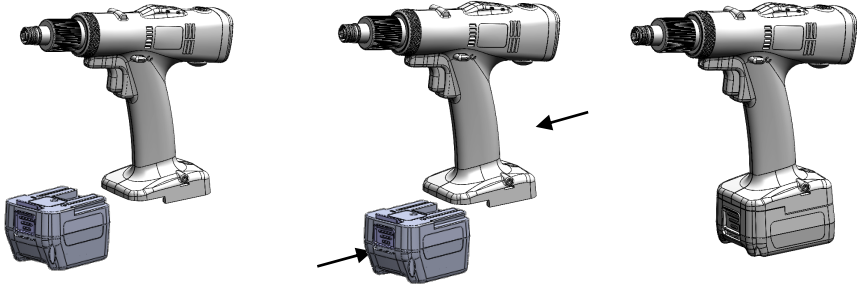
Operating instructions

1. Charge the battery in the charging station before first use to make sure operates at its highest capacity. To ensure operators against injuries, release the Forward/Reverse lever as arrow showing below into a center position to have trigger locked before start or disassemble the device.



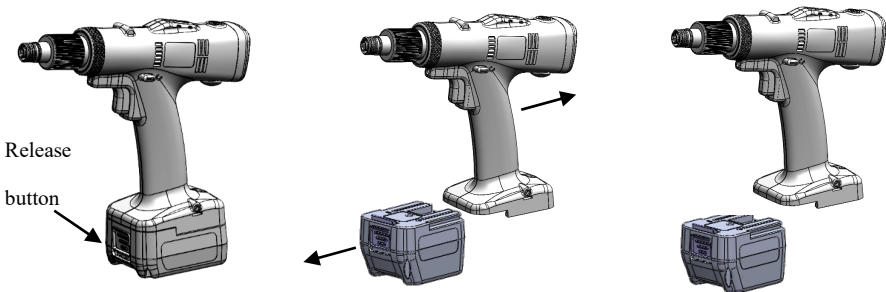
- 2.1 Below illustration is showing the process of correct install & disassemble the rechargeable battery. The beep sound comes along with a flash while the screwdriver is supplied genuine battery installation. It could be operated once the battery has been identified.
- 2.2 Too slow to install the battery may cause error identification so the beep sound and flash would be continuing. In order to function properly, re-assembling it as below process again.

Install Battery Steps



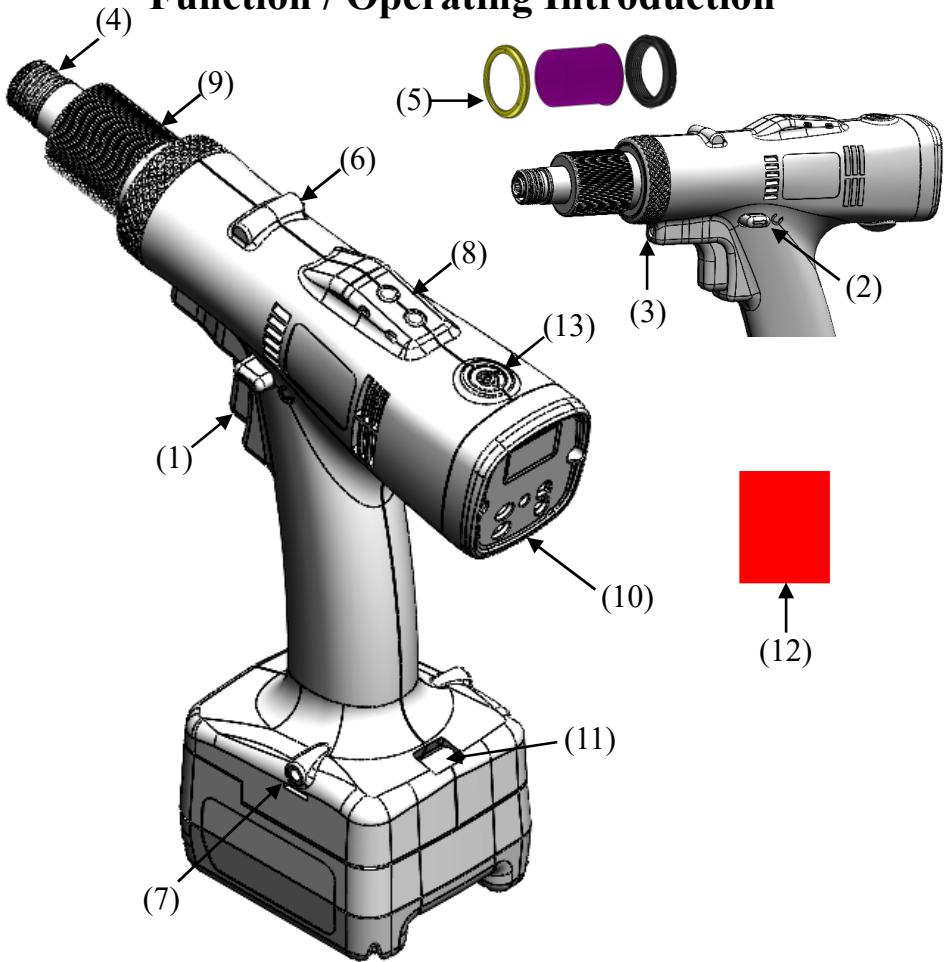
- (1) Align the screwdriver track with the battery track.
- (2) Insert battery to the screwdriver as shown above.
- (3) Complete assembly

Remove Battery Steps



- (1) Press the release button and (2) Follow the arrow direction. take it out of the device
- (3) Removed completely.

Function / Operating Introduction



Function Name Table

No.	Description	No.	Description
(1)	Trigger Switch	(8)	Indication light
(2)	Forward/Reverse Lever	(9)	Torque adjustment ring
(3)	LED Light	(10)	Control panel
(4)	Bit sleeve	(11)	Wrist strap hole
(5)	Torque fixing ring	(12)	Slip resistant soft cover
(6)	Driver hook hole	(13)	Key lock
(7)	S waist hook		

Manual / Function

1. Full auto shut-off screwdriver:

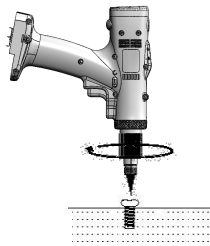
It stops automatically when the screw has been tightened up and reached the set-up torque level. The device will not cause damage of task since no continue running after screws are tightened.

(1) Trigger switch:

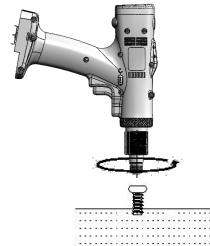
The LED lights on when the trigger switch has been pressed about one-third down, and then the screwdriver starts functioning when the switch trigger has been pressed half way down; on the contrary, it stops when the screw has been tightened up or the trigger has been released.

(2) Forward / Reverse switch:

When the switch turn to the right as arrow indicates, the screwdriver will be clock-wise screwing to tighten things up; Vice versa, left switch means to release the screw. As the diagram showing, always set the switch to neutral position when the screwdriver is not being used.



Forward (screw)



Reverse (unscrew)

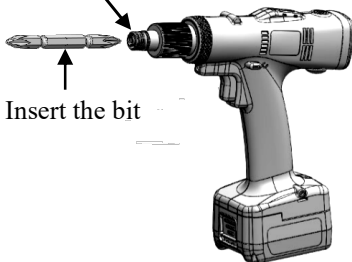
(3) LED light:

While press the trigger, the LED lights up automatically to assist the job to be done; on the contrary, it will be off once the trigger has been released.

(4) Bit Sleeve:

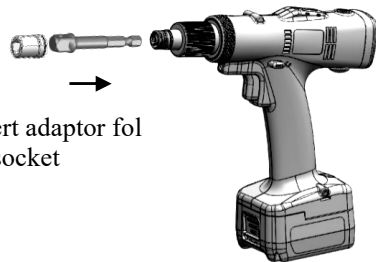
Switch the screw bit and compatibility, pull the head of the type B screwdriver, and install the bit according to the diagram below, after installing the bit please also install the W type cap and push it in following the arrow indicated on the diagram below on diagram #2.

Pull the bit holder



Insert the bit

Diagram 1

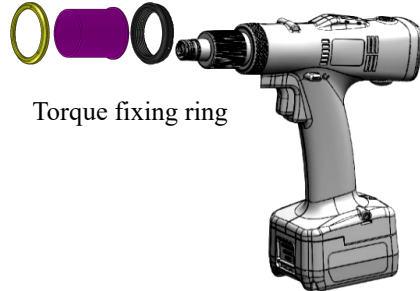
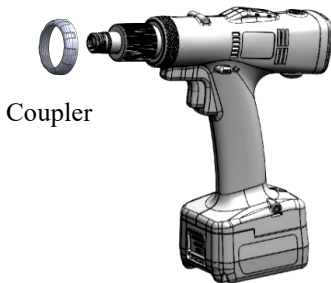


Insert adaptor fol
by socket

Diagram 2

(5) Torque fixing ring/Coupler

- 1). Torque Fixing Ring: To prevent torque to be adjusted, fixed upside-underside housing and clutch.
- 2). Coupler: Fixed upside-underside housing and clutch.



(6) Driver Hook:

It is convenient that the production lines are able to have spring balancers work together with the tools to be more efficiently.

(7) S Waist hook:

The waist hook allows users to carry the device easily by attaching it to their work belt.

(8) Functional light and the status indicator:

LED and buzzer judgment	LED	Buzzer
Start	Nil	Nil
Nonstop forward rotation	Red light flicks	Beep sound
Nonstop reverse rotation	Nil	Nil
Torque reached	Green light on-off	1 short beep sound
NG	Red light on-off	1 long beep sound
Others	Please refer to page 17 for more info regards to LCD, LED and buzzer operation status	

(9) Torque Adjustment Ring:

Turn torque adjustment ring counter clock wise to increase torque output, on the other hand decrease torque output by turning torque adjustment ring clock wise. 0 printed on the torque adjustment ring indicates the minimum torque for setting and 8 for the maximum torque setting. Do not turn torque adjustment ring lower than 0 or higher than 8 to avoid torque adjustment ring getting stuck with clutch.

(10) Control Panel

Function setting

(11) Hole for wrist band:

Enable to install the wrist band which is more convenient and safer for users.

(12) Slip resistant soft cover

Prevent slip and help user grip the screwdriver Torque setting identification. Three colors: blue, yellow, and red can help identify different torque setting by the users.

(13) Key lock: To lock and unlock control panel

Lock and unlock panel, avoid changing settings.

2. Auxiliary handle

For easier use of the screwdriver, there is a handle for assisting purpose. Please follow instruction below.

⚠ Warning, this power screwdriver delivers high torque, please install the handle before doing work in order to avoid danger. We are not responsible for any damage or injury caused by using this product without handle.



(1) Install base

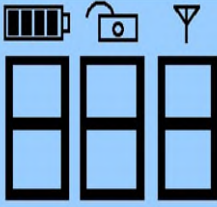


(2) Install handle









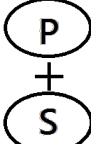
(3) Complete

1. Panel function

Front part	Description
	<p>LCD display main menu</p> <ol style="list-style-type: none"> 1. Battery status on upper left 2. Lock status on upper middle 3. Connection status on upper right 4. Screwdriver and settings status at bottom (3 digits/letters) <p>Remark:</p> <ol style="list-style-type: none"> 1. If NS set as [Y], NS will be shown when tightening error occurred. 2. If AS set as [Y], AS will be shown at next start when lock is triggered.
	<p>3 digits at bottom displays screw list and counting number.</p> <ol style="list-style-type: none"> 1. First digits displays current working screw list from [1]-[9] 2. Second and third digits display current screw count. [99]-[01] <p>Setting status</p> <ol style="list-style-type: none"> 1. Forward rotation [FrD] 2. OK tightening [OK] 3. No ok tightening [NOK] 4. Batch complete [OK A] 5. Reverse rotation [REV] 6. Brake by forward/reverse switch [BrK] 7. Auto Learning [Lrn] 8. Online mode [Cnt] 9. Offline mode [Dis] 9. Error code [Exx] xx : 00-99
<p>Program Setting</p>	<p>Screw List -----(SL) Screw List Screw Count----- (SC) Screw Count OKAll alarm time----- (At) OKALL Alarm time when batch complete Slow Start Time----- (RC) Slow Start Time Speed Level ----- (SP) Slow Start Speed (Full speed activated when slow start time reached) Max Fasten Thread----- (HC) Hi Thread (max. no. of fastening threads) Min Fasten Thread----- (LC) Low Thread (min. no. of fastening threads) Max Fasten Time----- (Ht) Max. fastening time Min Fasten Time----- (Lt) Min. fastening time Local(In-place) shutoff---- (LS) To judge double hit NG stop----- (NS) Whether to lock the screwdriver or not when error occurred OK ALL stop----- (AS) Whether to lock the screwdriver or not when a batch complete Gear Box Ratio----- (GR) Gear ratio</p>
<p>POWER LED (Red LED on bottom)</p>	<p>Red LED on when low voltage</p>
<p>LED_OK (Green LED on top)</p>	<p>Green light on when a tightening correctly completed</p>
<p>LED_NOK (Red LED on top)</p>	<p>Red light on when tightening time is higher or lower than max. and min fastening time settings.</p>
<p>LED_OK ALL (Green LED on top)</p>	<p>Greenlight on when 1 screw tightening complete or 1 batch complete.</p>
<p>KEY LOCK</p>	<p>To lock, turn the key clockwise, then operator cannot enter program setting menu. LCD display will show a locked icon. To unlock, turn the key counter clockwise. LCD display will show a unlock icon.</p>

2.Buttons on panel:



Button		Description
	Power wake up	Press P to wake up sleep mode screwdriver.
	UP	In setting mode, press up to select and change value.
	DOWN	<ol style="list-style-type: none"> In setting mode, press down to select and change value. Press and hold for 5 seconds to turn of counter function and turn off display. Press and hold again for 2 seconds to resume counter function. Press and hold for 3 seconds to clear counting.
	Set / Select	<ol style="list-style-type: none"> Press and hold for 3 seconds to enter setting mode. Press Set/Select in setting mode to go to next setting. When NS triggered, press Set/Select to unlock.
	Reset	Reset Press R to reset (factory default setting).
	UP + DOWN	Up+Down (switch to connect to wireless controller) <ol style="list-style-type: none"> Press up and down simultaneously for 10 seconds to connect screwdriver to KL-WSCBSN. At this moment screwdriver settings must be set from KL-WSCBSN. Press up and down simultaneously for 10 seconds to disconnect screwdriver and KL-WSCBSN. *Screwdriver default set as disconnected to KL-SCBSN.
	Power wake up + Set / Select	Power wake up + Set / Select Press simultaneously for 5 second to enter learning mode.

3. Set up functions

Functions		
Settings	Description	Default setting
SL	Screw list from U1~U9	U1
SC	Screw count number from 1-99 Count method: count down	05
At	When a batch completed, OKALL alarm signal will last for 0.1 ~ 9.9 sec. Meanwhile buzzer and OK ALL alarm signal will active simultaneously.	2.0 sec.
RC	Slow Start Time Run down Control (0.1 ~ 9.9 Sec)	0.0 sec.
SP	Slow start speed (L0/L1/L2/L3/L4/L5/L6/L7/L8/L9) L0 : 100% L1~L9 : 30%~90%	L0
HC	Maximum Fasten Thread (00.1~99.9)	99.9
LC	Minimum Fasten Thread (00.0 ~ 99.8)	00.0
Ht	Max. fastening time 0.10 ~ 9.99 sec.	9.99 sec.
Lt	Min fastening time 0.00 ~ 9.98 sec. When LT set as 0.00. LCD will show OK with green LED on when tightening time is correspond to HT setting. When LT set as 0.01 sec. LCD will show NOK with buzzer alarm, when tightening time exceed HT setting.	0.10 sec.
LS	When fastening no. of thread is smaller than LS setting, it will judge this fastening as double and will not count this fastening.	10
NS	When fastening error occurred, the LCD panel will display NOK, Buzzer alarming and the LED is red. It needs to unlock by the Confirm function (S key) to go on the next action.	[N]
AS	When the OK ALL status occurs, the LCD panel will display AS, BUZZER alarming and the LED is green. It needs to unlock by the Confirm (S key) function to go on the next action.	[N]
GR	Set gear ratio	14.5

->SL->SC->At-> RC->SP->HC->LC->Ht->Lt->LS->NS->AS->GR->END

Step1: Install battery and press [S] for 3 sec. to enter program.

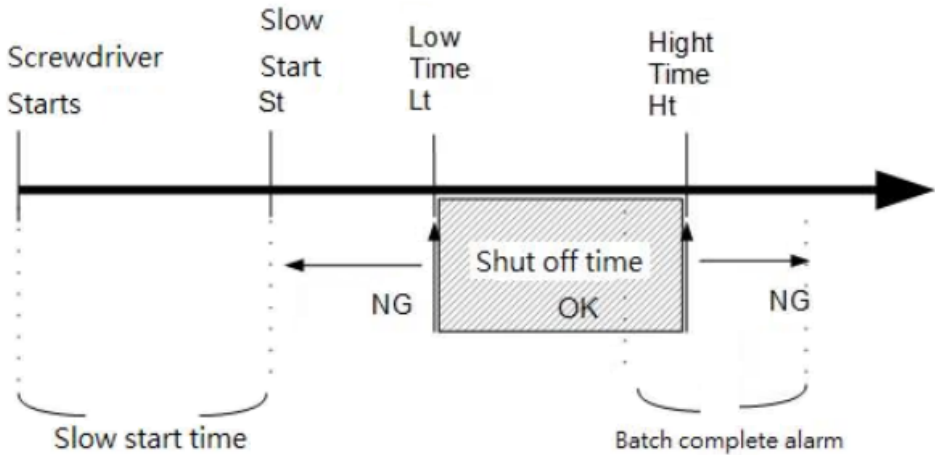
->SL->SC->At-> RC->SP->HC->LC->Ht->Lt->LS->NS->AS->GR->END

Step2: Press [S] to set next function.

Step3: Use up or down key to increase or decrease value. When setting NS and AS, there are only 2 selections, which are [Y] and [N]. [Y]= yes [N]= no

Step4: When setting completes and display END, parameters will be saved and the display will flicks twice and return to main screen.

Screw fastening process.



4.Set up functions

Functions		
Settings	Description	Remark
1. Auto learning mode P + S	->SL->SC->At->RC->SP->HC->LC->Ht->LT-->END (Complete process) Step1: Step1: Press P+S simultaneously for 5 sec., screen will be flashing and green LED will be on. Step2: Start to set up functions step by step until shows HC, use actual workpiece and screw to set up HC. (max. fastening no. of thread) Step3: When setting completes, press S to save settings. Settings will be saved after screen flash 2 times.	1. If no workpiece and screw were not used during HC setting. It will auto save as 99.9 2. After HC settings complete, HT and LT will also be shown.
2. Connection to wireless controller Up+Down	Set up this function to connect to wireless controller (KL-WSCBSN) 1. Default set as not connected. Press Up+Down simultaneously for 10 sec. to change connection status. 2. To disconnect, press Up+Down simultaneously for 10 sec. to disconnect	

5.LCD、LED、BUZER status:

Screwdriver status	Description	LED		Beep sound
		Status	Status	
SL	Display current screw list U1-U9			
SC	Display current OK fastening no. 1~99			
OK	LCD displays OK when screwdriver is proper shut off each time.	Green LED Bright		1 short beep sound
NOK	LCD display will show NOK when error occurred.	Red LED Bright		1 short beep sound
OK ALL	LCD will display OK ALL every time when a batch completed.	Green LED Long bright		1 long beep sound
AS	When a batch completes and OK ALL triggered. Screwdriver will be locked, and LCD displays AS.	Green LED Long bright		1 long beep sound
NS	When an error occurs, screwdriver will be locked, and LCD displays NS.	Red LED Bright		2 short beep sound
Fastening time exceed Ht setting (Stripped screw)	Fastening time exceed Ht setting, and screwdriver still not shut off.	Red Led Flicks		Continue short beep sound
Fastening time exceed Ht	Screwdriver shuts off but exceed Ht setting.	Red LED Long bright		Continue short beep sound
Fastening completes before Lt setting	Fastening completes before Lt setting	Red LED Bright		3 short beep sounds
Low voltage	When voltage lower than 17.5V Buzzer alarm trigger but can still be working.	Red LED Flicks		Continue short beep sound
Low voltage	When voltage lower than 17V Buzzer alarm trigger, screwdriver cannot start	Red LED Long bright		2 short 1 long beep sound
ID identification	Fail to identify ID	Green LED Flicks	Red LED Flicks	Continue short beep sound
BRAKE	Brake when forward/reverse switch set to middle Start disable when start triggered	Red LED Bright		1 short 1 long beep sound
Wireless controller and screwdriver connection status	Press Up+Down to build connection	Green LED Bright		Until buttons release
Wireless controller and screwdriver connection status	Press Up+Down to stop connection between screwdriver and wireless controller	Red LED Bright		Until buttons release
Clear	Press Down 3 sec. to clear	Red LED Bright		Until buttons release
Turn off screen	Press Down 5 sec to turn off LCD display	Red LED Bright		Until buttons release
Turn screen back on	Press Down 2 sec to resume LCD display	Green LED Bright		Until buttons release
Stalled	Stall protection			2 short beep sounds
Sleep mode	When screwdriver idled over 60 minutes., LCD display turns off.			

Other Cautions

1. The best condition of using the tool is under 8 hours a day, do not overloaded.
2. Do not attempt to repair or disassemble this cordless screwdriver without authorization. Always have the device serviced by assigned factory or qualified person in order to have the warranty effective continually.
3. KILEWS is not responsible for any poor performance or damage caused by customers own modification of the tool.
4. It is necessary for the management to have individual operators read and follow up all instructions in this manual. Do not attempt to repair or disassemble this cordless screwdriver themselves.
5. Chemicals, Acetone, Benzene, Alcohol, Thinner, Ketone, trichloroethylene, etc shall not be in contact with the surface of the screwdriver in order to prevent chemical damage.
6. Please follow instruction carefully and do not drop or shock the screwdriver.
7. This is an external torque adjustment screwdriver, 0 on the torque adjust ring stands for minimum torque and 8 for maximum torque. The rated operation time is 1 second / 3 seconds (ON / OFF). Appropriate fastening frequency is 15 fasteners in each minute. Overrunning may damage motor due to overheat. Proper amount of screwdriver resting is recommended to prevent motor overheating.

Slow speed Duty Cycle Conversion (for reference)

Based on 1000 rpm, 1 second ON/3 seconds OFF. For example, the duty cycle for 350rpm,
 $1000-350=650 \cdot 650/1000\%=65\%$

$ON=1 \cdot 1.65=1.65$, $OFF=3 \cdot 1.65=4.95$ (rounded value) =2 seconds ON / 5 seconds OFF

This tool is intended for a duty cycle of 2.0 sec on, 5.0 sec off.


Slow speed (rpm)	operation frequency	Slow speed (rpm)	operation frequency	Slow speed (rpm)	operation frequency
900	1.0 ON 3.0 OFF	600	1.0 ON 3.0 OFF	300	2.0 ON 5.0 OFF
850	1.0 ON 3.0 OFF	550	2.0 ON 5.0 OFF	250	2.0 ON 5.0 OFF
800	1.0 ON 3.0 OFF	500	2.0 ON 5.0 OFF	200	2.0 ON 5.0 OFF
750	1.0 ON 3.0 OFF	450	2.0 ON 5.0 OFF	150	2.0 ON 5.0 OFF
700	1.0 ON 3.0 OFF	400	2.0 ON 5.0 OFF	100	2.0 ON 5.0 OFF
650	1.0 ON 3.0 OFF	350	2.0 ON 5.0 OFF		

8. Not allow to turn the Hi/Lo switch during operation in order to cause system malfunction.
9. The device will not be able to function again once the OK/NG indicator/signal is not turn off yet.
10. When adjusting the torque, for safety purpose should stop the screwdriver completely and set the switch to neutral position. It could prevent the user from turning the tool on accidentally.
11. During operation, the switch has been changed accidentally that the device will enable its self-protecting mode which is power off. Re-start the tool when this happens.
12. Each operational torque setting, using time and frequency may result in different level of wear and tear, at higher torque setting and use extensively could accelerate the wearing down of tool. After one month, the torque is getting reduction gradually at the rate of 2~3% or 3~5 % (max torque). The longer use of the device, torque reduction will become stable, and the users could measure the torque by a tester on a regular time schedule to check if the torque power still meets the criteria.
13. SKC-PTA-BE series cordless screwdriver are tested by our torque meter KTM-150.
14. Kilews cordless screwdriver torque output is generated by clutch mechanism, and it is applicable to ISO 6789.

Description of Battery and Charger

1. KILEWS SKC-LB1830C series of batteries as options to fit in the device; you may consult with local agent based on your task requirement.
2. The use of other than genuine KILEWS batteries or screwdrivers can't be active due to the build-in protection system enforce no charging.
3. Recommended to use SKC-P80W-D

Specifications

Model	PTA-BE120	PTA-BE90	PTA-BE50F	PTA-BE60	PTA-BE35	PTA-BE35F
Input Voltage	DC 18V					
(N.m)	6~12	3~9	2~5	2~6	1~3.5	1~3.5
Torque accuracy (%)	±3%					
Duty cycle	1.0s ON 3.0s OFF					
Torque adjustment	External adjustment					
Free load n0: (r/min) ±10%	260~880	300~1000	660~2200	300~1000	300~1000	600~2000
	10 steps					
Screw size (mm) Machine screw	≤6	5.0~6.0	4.0~5.0	4.0~5.0	4.0~5.0	4.0~5.0
Weight (Kg)	1.2kg (without battery)					
Length (mm)	260mm * 200 mm (L * H without battery)					
Applicable auxiliary handle	C15001-2					
Applicable battery	SKC-LB1830C					
Applicable charger station	SKC-P80W-D					
Applicable Bit type						

Bits :square B: Hex 6.35mm

Accessory ~B I T no. : NO.3# Apply to 3.0~4.0mm

CAUTION 
SAVE THE INSTRUCTIONS
DO NOT DESTROY

Our company reserves the right to modify the product without prior notice.