

# Instruction Handbook for UBX-T60 SMALLER & LIGHTER AUTO SHUT-OFF BATTERY PULSE TOOLS

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警告



- Use this tool (hereafter UBX-T) correctly reading through everything in this instruction handbook (hereafter handbook) before use. A shock, fire or severe injury is possible if you fail to follow all the instructions.
- After reading, save this handbook at the place where users can read any time.



**URYU SEISAKU, LTD.**

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# ©Safety Cautions

This handbook has divided safety instructions into WARNING and CAUTION.



WARNING

: A fatality or severe injury is supposed and urgent warning is highly essential in the event of mishandling.



CAUTION

: A dangerous situation can happen, minor to moderate injury or only physical damage is supposed in the event of mishandling.



WARNING sign

: Warning sign also warns the risk of serious consequences depending upon the situation. Follow all the instructions as they state important contents.

## For safety operations

\*Converting battery-powered motor's rotational movement into hydraulic pulsing, UBX-T fastens or opens screws by repeated pulse applications. Do not apply UBX-T to other purposes or modify because doing so will carry risks. Do not put clothes or hands close to rotating part because UBX-T rotates at high speed.

\*Make sure to follow below instructions to prevent fire, shock and severe injuries.

\*After reading, save this handbook at the place where users can read any day now.

\*Make sure this handbook and UBX-T go together when lending them to others.



## WARNING

### Working environment

1. Keep work place tidy and clean with a good lighting.

\*Cluttered place or work bench is the cause of an accident.



## WARNING

2. Do not use UBX-T in the presence of combustible liquid, gas or dust. A spark from UBX-T is a cause of an explosion.

3. Never miss to allow children or unauthorized persons go close to work place.

\*Concentration on operation can be difficult due to reduced attention.

\*Non-operators never touch UBX-T, charger or the cord.

### Electric safety instructions

1. Plug power plug into a compatible outlet. Do not modify power plug. Make sure to ground charger by its earth terminal.

\*Use unmodified power plug and compatible outlet, and the risk of shock will be reduced.

2. Avoid body contact to grounded objects such as metal pipe, heater, micro-wave, or refrigerator's chassis. There is a risk of shock.

3. Do not expose UBX-T, charger and battery pack to the rain. Do not use them and charge battery pack at moist or wet place. There is a risk of shock or short-circuited battery pack due to water intrusion to charger or UBX-T. Short-circuit due to water intrusion can cause heat, fire or explosion.

4. Do not mishandle power cord of charger. Do not carry charger by its power cord or pull power cord from charger. Do not pull power cord to unplug power plug from outlet. Do not put power cord close to heat, oil or a pointed object; otherwise it gets damaged or catches operator's body causing shock.

5. Use an extension cord suitable for operation environment.



## WARNING

### Safety instructions for operators

1. Carry out operations staying alert with great care. In operating UBX-T, work carefully paying attention to handling method, way of operation and surrounding environment. People those who are tired, under drug or alcohol influence, or pregnant are not authorized to use UBX-T. Do not use UBX-T outdoors under low visibility in the night or in bad weather. A momentary carelessness invites a serious damage.
2. Use safety protectors. Wear an eye protection all while at work. Wear a dust mask if the working environment is dusty. Wear antiskid safety shoes, helmet, earplug or earmuff as needed.
3. Avoid a sudden start. Ensure switching off UBX-T before loading battery pack to UBX-T. Do not carry UBX-T with your finger on trigger.
4. Remove torque adjustment spanner from UBX-T before switching on. Switch on UBX-T with the spanner attached, and the spanner will rotate giving injuries. Save UBX-T at the designated position firmly, if it has storing place.
5. Do not use UBX-T with awkward posture. Keep solid footing and maintain a balanced position.
6. Wear decent clothes for operation. Do not wear loose-fitting clothes or dangling ornaments such as necklace as they can be caught up in the rotating part. Do not put clothes, hair or gloves close to rotating part. Wear rubber gloves and antiskid shoes for outdoor operations. Cover your long hair with a cap or hair cover.

### Operation and maintenance of UBX-T

1. Choose the right UBX-T model for the working requirement. Use the right UBX-T models covering the load for safe and efficient operation.
2. Check UBX-T for any error with the switch. It is dangerous if the switch can neither turn on nor off UBX-T. Place an order for repair with the distributor who supplied it to you or our nearest branch.



## WARNING

3.To prepare for next operation avoiding an error start, switch off UBX-T. unload battery pack from the tool and carry out the below works.

- \*Tuning UBX-T

- \*Replacement of socket or accessories

- \*Storing or repair

- \*Works that any danger is anticipated

- \*Tool transfer to next operator

4.Store off-duty UBX-T, battery pack and charger in a dry, locked and hard to reach place for children as follows.

- \*Unload battery pack from UBX-T and charger, then save them in a separated form.

- \*Unplug power plug of charger from outlet before storing charger.

- \*Store battery pack with pack cover attached.

5.Confirm that there is no error with moving parts location and fixing, parts state and fixing and others those who can influence on operation. \*Insufficient maintenance is the cause of accident.

- \*Always keep handling grip part clean and dry so it is free from oil or grease.

- \*Replace parts following this handbook.

- \*Inspect charger's power cord on a regular basis. If damage is found, place an order for repair with the distributor who supplied it to you or our nearest branch.

- \*Inspect extension cord on a regular basis. If damage is found, replace it with a new one.

6.Use right UBX-T, accessories or socket fitting to works and the conditions.

- \*Unintended use of UBX-T is the cause of an accident.

7.UBX-T is unable to exert a due performance under environment of extremely high or low temperature.

### Safety instructions for battery pack

1.Make sure that the switch is turned off before loading battery pack to UBX-T.

- \*Battery loading to UBX-T with switch turned on position will cause an accident.

2.Use only dedicated charger to recharge UBX-T. Do not use non-dedicated charger.

Recharging UBX-T by non-dedicated charger causes fire, explosion, and liquid leaking.



## WARNING

3. Use only dedicated battery pack and never use non-dedicated ones. Do not use modified battery pack made by rebuilding disassembled parts sharing. Use of modified ones is the cause of fire, injury, breakdown and burst.
4. Do not allow battery terminals contacted each other by metal components.  
\*Do not store battery pack and metal components together in a toolbox or a bag filled with nails. This way of storage causes heat, fire or burst. Store battery pack with the cover attached after removal from UBX-T or charger.
5. Battery fluid can leak from battery pack if used under extreme conditions. Do not have direct contact with the leaked fluid casually. If you get battery fluid in your eyes, wash out it with clean water and see a doctor for treatment. Battery fluid causes inflammation and injuries.
6. Do not throw battery pack in fire. Doing so causes fire and burst.
7. Do not drive nail in battery pack. Do not give battery pack shock. Do not disassemble and modify battery pack. Such a treatment causes heat, fire and burst.
8. Do not charge, use or store battery pack under high temperature place like near fire or in the hot sun. Do not store battery pack in a metal box or in a car in summer where the ambient temperature above 50 degrees C is possible. It causes battery pack deterioration, smoke and fire.
9. Do not immerse battery pack in a conductive material like water. Prevent conductive material like water ingress into battery pack. There is a risk of heat, fire and burst if such a water ingress into battery pack happens.
10. Do not use battery pack if it runs out in an extremely short time.
11. Do not use battery pack if it is dropped or affected something.
12. Do not dispose of used battery pack with general household garbage. There is a risk of fire and smoke because battery pack is destroyed and short-circuited if processed as the general household garbage by dust cart.



## WARNING

### Electrical Safety

- Do not handle the tool, battery or charger with wet hands.
  - Do not expose the tool, battery and charger to rain or wet conditions.
  - Do not attempt to open, disassemble, modify or service the battery pack.
  - Do not crush, puncture, shorten external contracts or circuits, dispose of in fire or water.
- Keep the battery away from metal objects such as paper clips, coins, keys, screws or other small metal objects that can lead to short circuit.
- Do not expose batteries to temperatures above 50°C.
  - Keep the battery and charger dry and away from water or any liquid as it may cause a short circuit.
  - Do not use a battery that appears damaged, deformed or discolored or the one that has any rust on its casing, overheats or emits a foul odor.
  - Do not attempt to solder anything to the battery. It will dissolve insulations, destroy the gas exhaust valve or the protection circuit.
  - Do not place any object on the charger nor cover the battery with flammable things while charging.
  - Leaks from battery cells can occur under extreme conditions. Do not allow the leaking fluid to come in contact with skin or clothing. If already in contact, flush the affected area immediately with clean water and seek medical advice. If the liquid comes in contact with eyes, DO NOT rub; rinse with clean water immediately for minimum 10 minutes and seek medical help. Liquid ejected from the battery may cause irritation or burns.
  - Take extra precautions to keep a leaking battery away from fire as there is a danger of ignition or explosion.
  - Do not abuse the power cable. Do not pull the power cable for carrying the charger or disconnecting the power plug from the power point.
  - Arrange the power cable so that it may not be stepped, caught or stressed for damages.
  - Do not use charger if it is damaged by a drop or is with a damaged power cable.





## WARNING

### Personal Safety

- Stay alert, watch what you are doing and use common sense when operating the tool. Do not use any tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating a tool may result in serious personal injury.
- Maintain a balanced body position and secure footing. Avoid awkward or off-balanced postures. Change the posture during extended tasks, which may help to avoid discomfort and fatigue. If the operator experiences symptoms such as persistent or recurring discomfort, pain, throbbing, aching, tingling, numbness, burning sensation or stiffness, the operator should tell the employer and consult a qualified health professional immediately.
- Always detach the battery from the tool when not in use, before changing accessories or when making repairs.
- Prevent unintentional or inadvertent start. Ensure that the trigger is in the off-position before attaching the battery to the tool, picking up or carrying the tool. Carry the tool only by the handle. Carrying the tool with your finger on the trigger or energizing the tool that has the trigger on invites accidents.
- Never hold the drive socket / bit or drive extension. Keep hands away from rotating drives.
- Dress properly. Do not wear loose clothing, jewellery and neck ware. Keep your hair, clothing and gloves away from all moving parts.
- Use personal protective equipment such as dust mask, non-skid safety shoes and hard hat as instructed by the employer and as required by occupational health and safety regulations.
- Wear suitable gloves to protect hands against hazards such as crushing, impacts, cuts and abrasions and heat. Do not wear loose fitting gloves or gloves with cut or frayed fingers. When using gloves, always be sure that the gloves will not prevent the throttle mechanism from being released.



## WARNING

Always wear impact-resistant eye protection during the operation of the tool. The grade of protection required should be assessed for each use.



- Remove any adjusting wrench before turning the tool on. A wrench that is left attached to a rotating part of the tool may result in personal injury.
- Ensure that the workpiece is securely fixed.

### Noise

Unprotected exposure to high noise levels can cause permanent, disabling, hearing loss and other problems such as tinnitus (ringing, buzzing, whistling or humming in the ears).



Risk assessment and implementation of appropriate controls for these hazards are essential.

- Use hearing protection in accordance with employer's instructions and as required by occupational health and safety regulations. Look after your hearing protection.

### Vibration

Exposure to vibration can cause disabling damage to the nerves and blood supply of the hands and arms. If you experience numbness, tingling, pain or whitening of the skin in your fingers or hands, stop using the tool, tell the employer and consult a physician immediately.

- Hold the tool with a light but safe grip taking account of the required hand reaction forces. The risk from vibration is generally greater when the grip force is higher.
- Wear warm clothing when working in cold conditions and keep your hands warm and dry.

### Residual Risks

Gloves can become entangled with the rotating drive, causing severed or broken fingers. Rotating drive sockets and drive extensions can easily entangle rubber coated or metal reinforced gloves.

- Additional residual risks may arise when using the tool which may not be included in the safety warnings. These risks can arise from misuse, prolonged use and so on. Even with the application of the relevant safety regulations and the implementation of safety devices, certain residual risks cannot be avoided. (e.g. injuries caused when changing any parts or accessories)



## WARNING

### Products Use and Care

- Hold the tool correctly: be ready to counteract normal or sudden movements – have both hands available.
- Keep the tool dry and clean – free from oil and grease for better control of the tool.
- Do not force the tool. Use the correct tool for your application. The correct tool will do the job better and safer at the rate for which it is designed. Overwork applications can cause not only smoke or fire from the motor but also anvil breakage, resulting in injuries.
- Unless otherwise required, do not make idle running at free speed.
- Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the tool operation. If damaged, have the tool repaired before use.
- Store idle tools out of the reach of children and do not allow persons unfamiliar with these instructions to operate the tool. Tools are dangerous in the hands of untrained users.
- Do not leave the tool, battery and charger inside a vehicle or in places where the temperature may exceed 40° C.
- Do not place the tool as shown in the below figure. Supporting the tool only on the two points may damage the battery casing. It is recommended to use a tool holder, URYU Part Number , 852-669-1 for UBX-T60 to keep the tool at workplace.





## WARNING

### Maintenance

1. Maintain safety of UBX-T using repair services with genuine parts provided by authorized persons.

\*Do not disassemble, repair or modify UBX-T, charger and battery pack by your own because doing so will cause fire or abnormal action inviting injuries.

\*Send UBX-T for inspection and repair if you realize abnormality or heat.

\*Modifications on UBX-T destroy conformity to the concerned safety standard. Do not make any modifications.

\*Send UBX-T to our branches or distributors who you purchased for repair.

\*Repair by unauthorized persons without knowledge and technique will result insufficient performance and a risk of accidents or injuries.

### Other safety instructions

1. Check parts for any damages

\*Check UBX-T and other parts for any damages completely before use. Check if it works normally and outputs prescribed capability. Repair UBX-T before use if abnormality is found.

\*Follow this handbook for repair and parts replacement of failed UBX-T and other parts. Send UBX-T to our branches or distributors who you purchased if the necessary repair method is not explained in this handbook.

\*Stop the operation at once on an abnormality or failure. UBX-T will cause smoke, fire, shock and injury if the operation continues.

### <Abnormality and failure examples>

\*UBX-T or battery pack is exceptionally hot.

\*UBX-T or battery pack has deep scratches or deformation.

\*It smells something burning.

\*You feel a tingling shock.

\*Unload battery pack at once and send UBX-T to our branches or distributors who you purchased for servicing if the tool remains stop despite switching.



## WARNING

2. Do not charge UBX-T in the presence of lacquer, paint, benzine, thinner, gasoline, gas, adhesives etc. There is a risk of explosion or fire.
3. Do not do below actions because they can cause fire.
  - \* Do not charge UBX-T placing the same on paper products like cardboard, cloth products like cushion, tatami mat, carpet, or vinyl.
  - \* Do not cover vent hole of charger all while charging battery pack. Do not tuck metal products or combustible materials into vent holes.
  - \* Do not charge battery pack in the presence of dusty place with cotton waste.
4. Charger has charging terminals at battery loading part. Do not put foreign matters like metal fragment or water close to charger.
  - \* There is a risk of smoke, fire and burst both with UBX-T and charger if the charging continues.
5. Do not use charger for unintended purposes.
6. Stop battery charge disconnecting power plug from outlet at once if you find abnormality like heat phenomenon with charger. There is a risk of smoke, fire or burst if the charging continues.
7. Do not touch power plug with wet hand. There is a risk of shock.

## **DISCLAIMER**

- Contents of this handbook is subject to change without notice.
- We warrant that UBX-T, charger and battery pack will conform to the specifications, but disclaim all implied warranties, including, without limitation, all implied warranties of merchantability and fitness for a particular purpose.

## **COPYRIGHT**

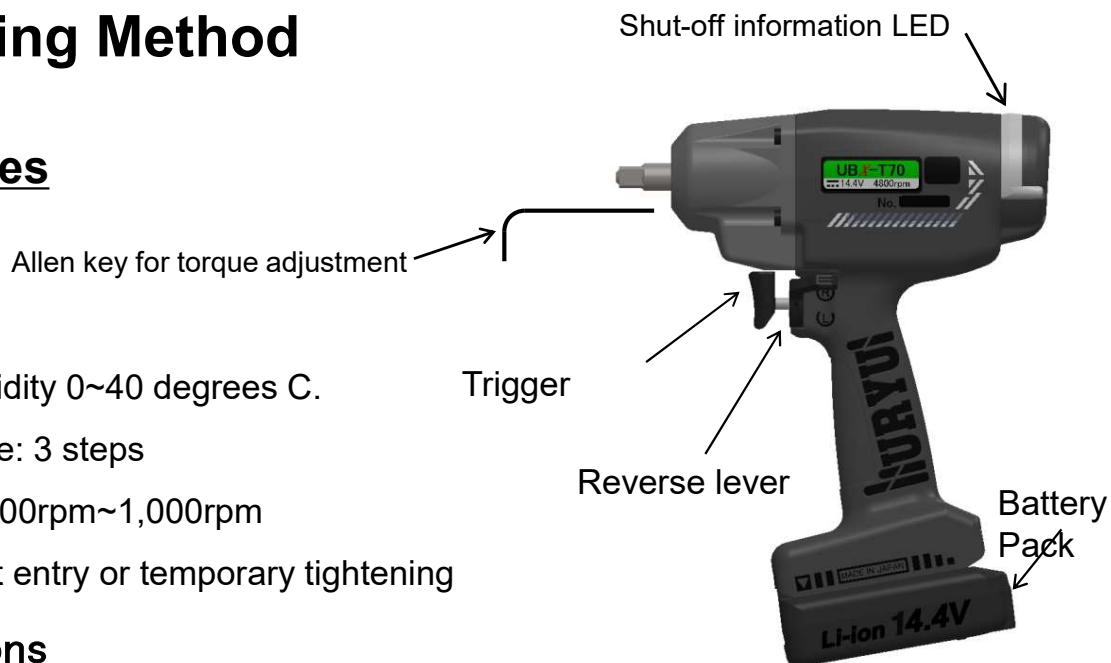
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# ©Handling Method

## Parts names

- Ambient humidity 0~40 degrees C.
- Speed change: 3 steps
- Slow speed 500rpm~1,000rpm  
(for socket-bolt entry or temporary tightening)

## Specifications



Model	Motor Power DC(V)	Free Speed	Nominal Bolt Capacity	Torque Range	Weight	Length	Drive Shank Size	
		(rpm)	(mm)	(N · m)	(kg)	(mm)	(mm)	
				※1		about		
UBX-T60	14.4	4,800	M8 ~ M10	18 ~ 36	※2 1.6 ※3,※4 1.83	179	9.5Sq.	
UBX-T60 (RF8)						185		
UBX-T60 (Z)						196		
UBX-T60D				15 ~ 30		183	6.35Hex.	
UBX-T60D (RF8)						189		
UBX-T60D (Z)						200		

※1 Refer to the torque range as guideline for tool selection.

※2 Weight including 14.4V 2.0Ah battery

※3 Weight including 14.4V 4.0Ah

※4 Weight including 14.4V 4.2Ah

The uncertainty in the sound levels is 3dB(A).

Operating temperature range is between 0°C and 40°C.

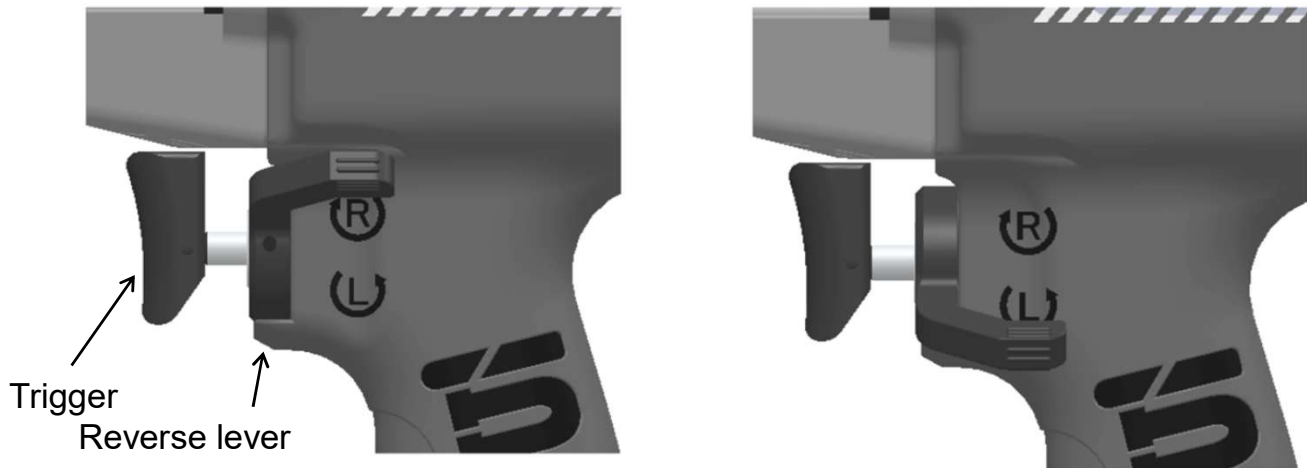
\*The noise test methods in EN62841-1: 2015 & EN62841-2-2: 2014 are pretty much aligned with ISO 15744.

These declared sound and vibration values given in the above table were obtained by laboratory type testing in accordance with EN62841-1: 2015 & EN62841-2-2: 2014 for sound levels and ISO 28927-2 for vibration values and are not for adequate for use in risk assessments. Values measured in individual work pieces maybe higher than the declared values. The actual exposure values and risk of harm experienced by an individual user are unique and depend upon the way the user works, the workpiece and the workstation design, as well as upon the exposure time and physical condition of the user.

We, URYU SEISAKU, LTD., cannot be held liable for the consequences of using the declared values, instead of values reflecting the actual exposure, in an individual risk assessment in a work piece situation over which we have no control.

## Actual operation

### 1 Set rotating direction



Set reverse lever to **R** for **RIGHT** or **L** for **LEFT**.

### 2 Pull trigger

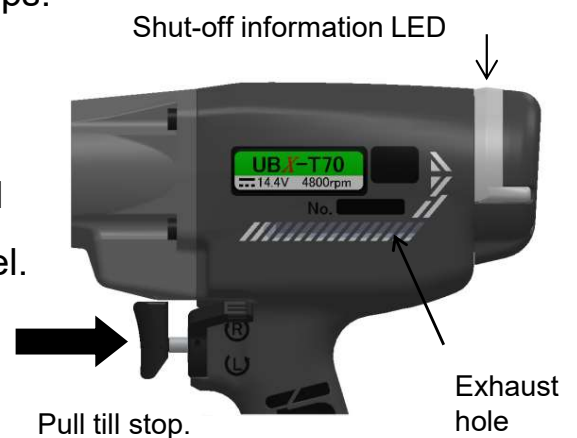
- 1) Speed increases in 3 steps as you pull trigger (both right and left).
- 2) Release finger from trigger, and UBX-T will brake to stop the operation.

### **3 FASTENING**

Keep pulling trigger until UBX-T automatically stops.

\*The fastening will result in under torque NOK if premature trigger off brakes to stop UBX-T.

\*Do not cover exhaust hole because doing so will turn up exhaust temperature to a dangerous level.



Fastener numbers that a UBX-T60 can fasten by 1 time charge (only for a reference)

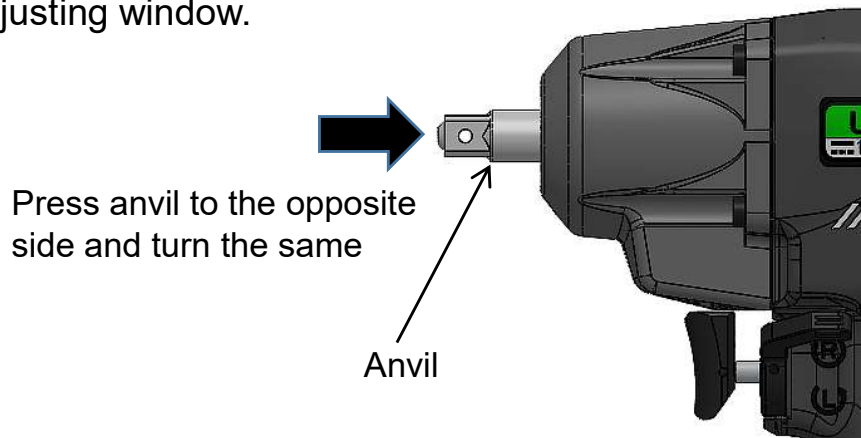
MODEL	Battery	Fastening Condition	Numbers (about)
UBX-T60 series	14.4V (2.0Ah) EYFB41	UFT-10(M10) Hard Joint	330
	14.4V (4.0Ah) EYFB43	Tightening torque: 22N·m	750
	14.4V (4.2Ah) EYFB42	Tightening time: approx. 0.3 sec.	790
	14.4V (2.0Ah) EYFB41	UFT-10(M10) A Joint	700
	14.4V (4.0Ah) EYFB43	Tightening torque: 32N·m	1570
	14.4V (4.2Ah) EYFB42	Tightening time: approx. 0.2 sec.	1680
UBX-T60D series	14.4V (2.0Ah) EYFB41	UFT-10(M10) Hard Joint	330
	14.4V (4.0Ah) EYFB43	Tightening torque: 22N·m	750
	14.4V (4.2Ah) EYFB42	Tightening time: approx. 0.3 sec.	790
	14.4V (2.0Ah) EYFB41	UFT-10(M10) A Joint	700
	14.4V (4.0Ah) EYFB43	Tightening torque: 30N·m	1570
	14.4V (4.2Ah) EYFB42	Tightening time: approx. 0.2 sec.	1680

Above fastener number is before factoring in fastening time elongation caused by heat, and the actual fastener number depends upon working conditions.

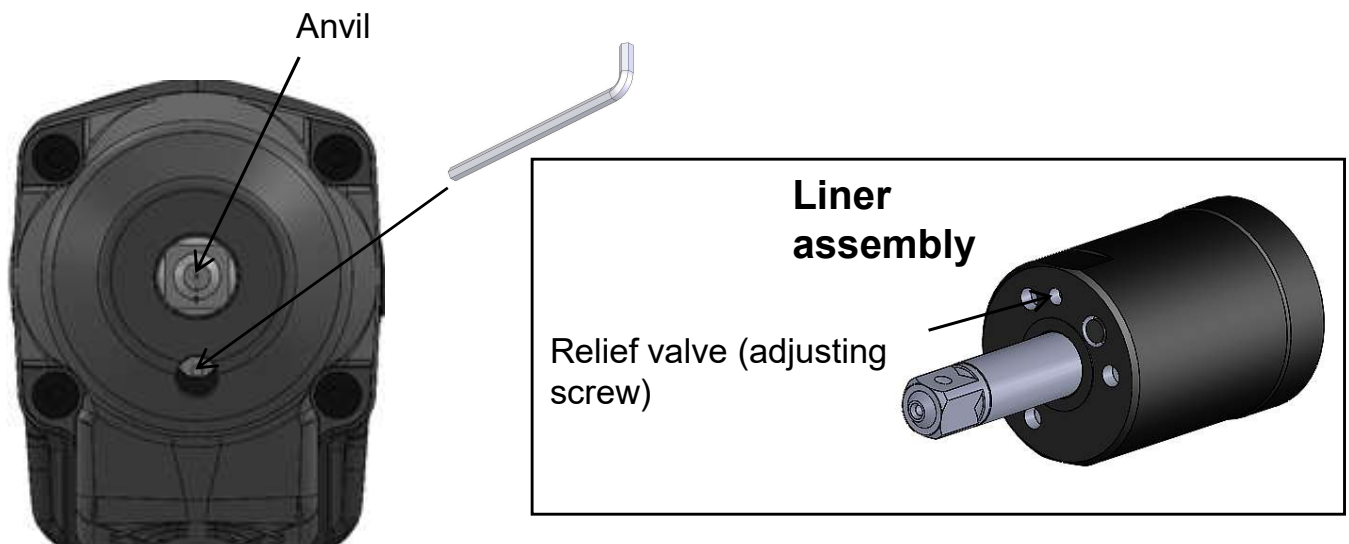
## 4 Torque adjustment for individual fastener (only for clockwise)

\*Hand off from trigger and remove battery pack out of UBX-T before adjustment.

\*Press anvil to the opposite side and turn the same until relief valve is visible from adjusting window.



\*Insert allen key through adjusting window and stick it in the relief valve's hole as the below arrow is pointing. Adjust relief valve as per the following torque range.



### Torque range table

Model	Relief valve position		
	Full relaxed to left ~ full fastened to right		
UBX-T60 series	18 (N·m)	~	36 (N·m)
UBX-T60D series	15 (N·m)	~	30 (N·m)

We have obtained above torque range by fastening our UFT testers with hard joint setting. Torque observed by actual fastening does not correspond to the above torque range due to conditions of work character and bolt seating surface.



## Shut-off information LED

LED color	UBX-T state
Green	Fastening OK
Orange	Fastening in progress
Red	Incomplete job detection (turned the trigger from ON to OFF before automatic shut-off), or UBX-T was compulsory stopped by heat protection function.
Red and green blink in turns.	Battery level is less than 5% or battery error.
Red and orange blink in turns.	Protection works against overload. Protection works against over discharge. Protection works against battery pack temperature.

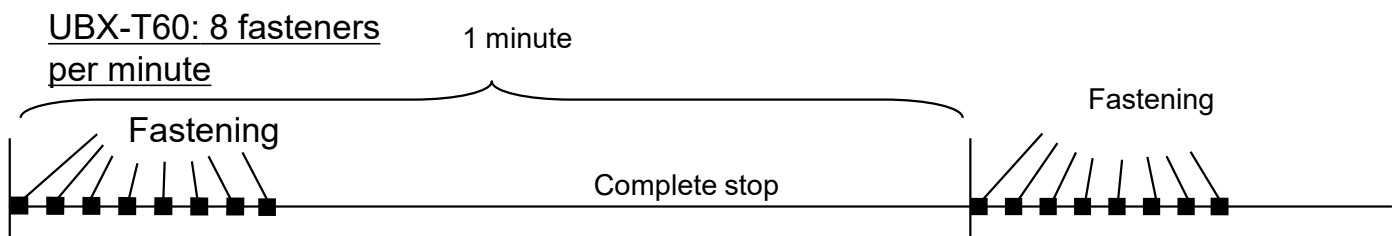


### WARNING

UBX-T stops fastening even before shut-off set by relief valve adjustment at a turn of protection functions. Refer to the following guideline for task time study not to switch on the protections.

**Heat protection :** When UBX-T gets hot, shut-off LED lights red, heat protection starts and UBX-T stops rotation. Restart the operation after cooling UBX-T until the LED lights off and the heat protection stops.

**Heat protection guideline:** Here is the heat protection guideline per minute as per the conditions on P13. Avoid work with heavy load giving motor over-burden such as continuous work in a short time.



## Incomplete job detection (premature trigger off)

**UBX-T detects incomplete job error if switched off before automatic shut-off.**

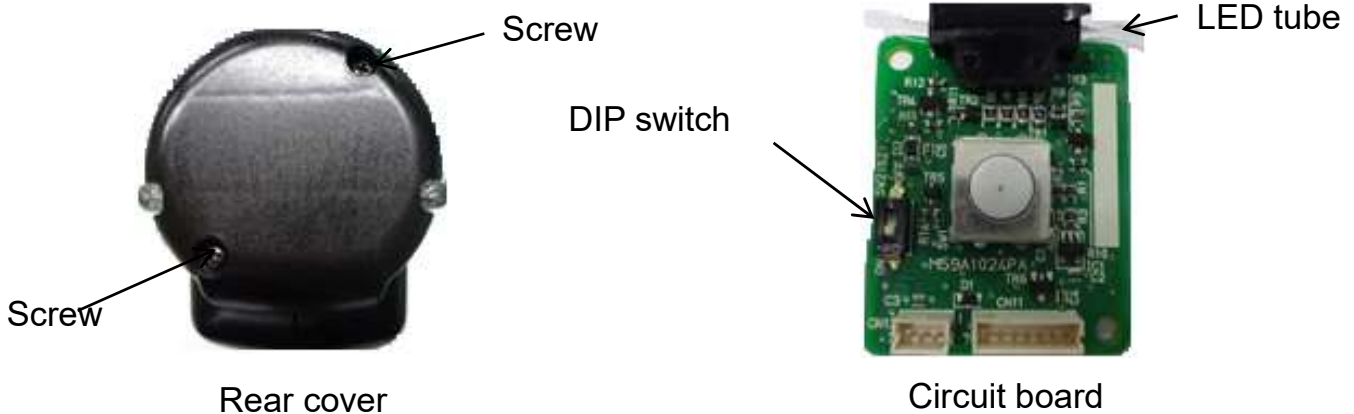
1 Squeeze trigger of UBX-T, and the LED will light orange. Switch off the trigger before automatic shut-off, and the LED will light red about 3 sec. and go out.

2 The LED lights green with 1 pulse buzzer sounding for automatic shut-off.

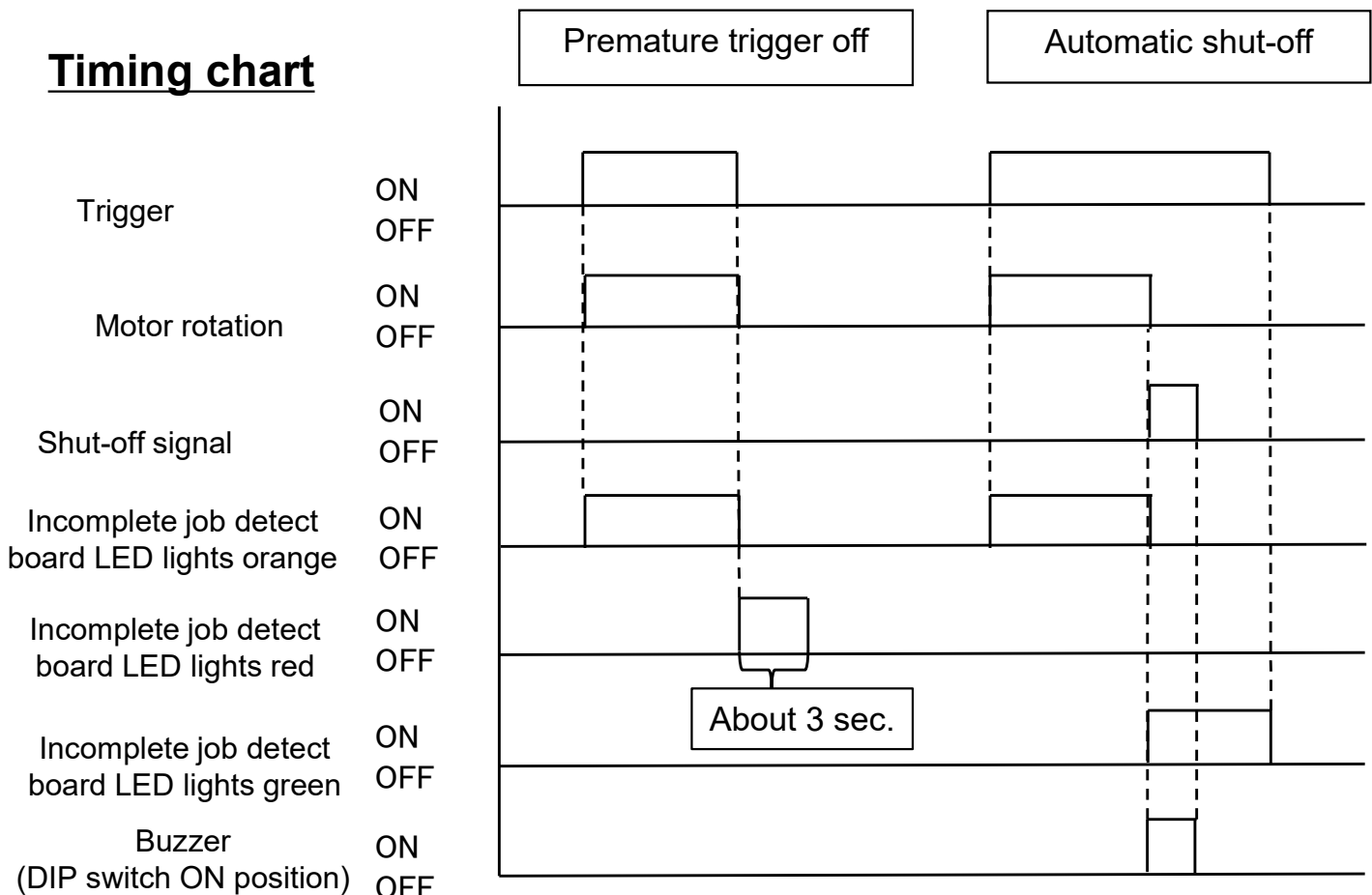
Retry until automatic shut-off comes if incomplete job was detected.

\*1 Set DIP switch to OFF opening screws and removing rear cover if it is not necessary to make buzzer sound.

\*2 The LED lights orange instead of green for OK judgment due to retrial repairing the previous NOK result with LED lighting red about 3 sec.



### Timing chart



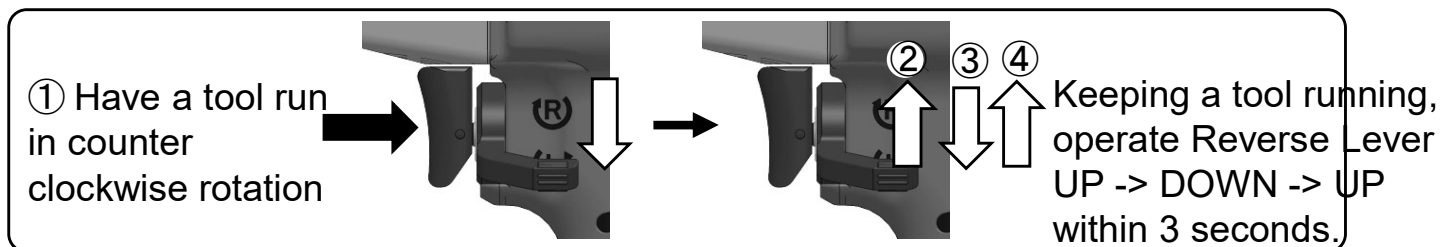
## **Seating error detect function**

By monitoring the number of pulses while fastening, when a tool shuts off with 2 or less pulses, it is judged as the fastening NOK.

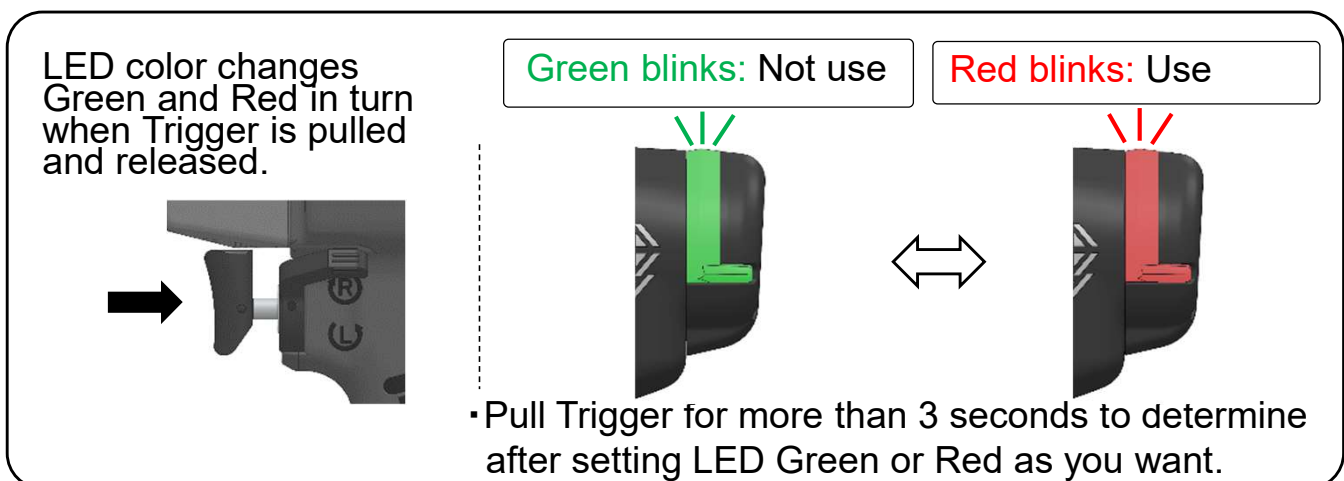
1. When the fastening NOK is fired, the shut-off information LED blinks Red for 30 seconds, and buzzer sounds for 5 seconds.
2. Red LED and buzzer are cleared by pulling Trigger.

When the fastening NOK is fired by Seating error detect function, there is a high possibility that a fastener is not fastened completely. Please check the fastening condition, ex. if a fastener is fastened properly. Please also check the tool's work condition, ex. if a socket doesn't vibrate widely, if there is no interferer between socket and a work piece and so on. Stop using a tool and ask for the inspection or repair if there is nothing wrong found with these conditions.

## **Setting procedure**



↓ Move to Select Mode (LED blinks)

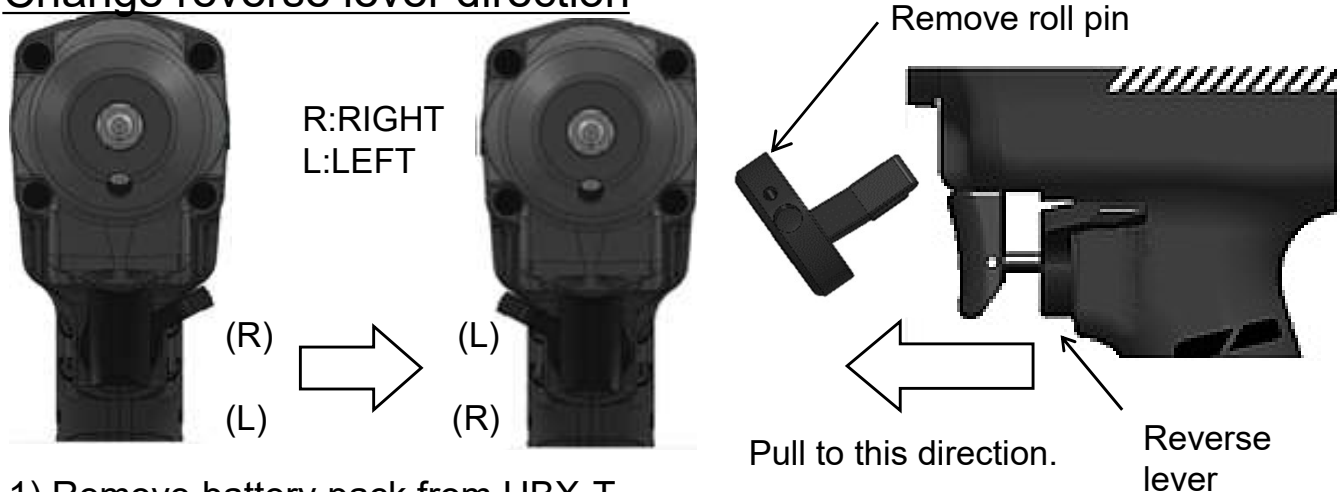


## **Confirmation procedure**

Have a tool run in a CCW rotation for more than 3 seconds and check LED color.

- Green lamp blinks: Seating error detect function is disabled.
- Red lamp blinks: Seating error detect function is activated (factory setting).

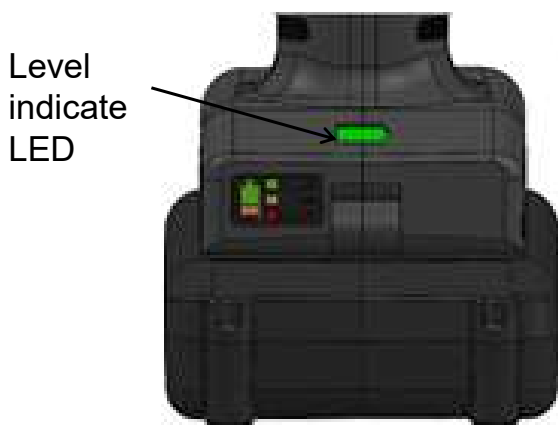
## Change reverse lever direction



- 1) Remove battery pack from UBX-T.
- 2) Remove roll pin.
- 3) Pull reverse lever to the arrow indicating direction.
- 4) Change the setting and refix reverse lever to UBX-T.
- 5) Fix roll pin as it was.

## Battery level indicating LED

Squeeze trigger, and LED will indicate battery level by its color. UBX-T stalls even under operation if battery level is less than 5%. LED color can change green to orange under pulsing.



LED level indicator colors at slow speed	
Battery level (%)	LED color
Less than 5%	Lighting red immediately after stalling, and goes out.
6~40%	Orange
41~100%	Green
Battery error	Red

Make sure to carry out full charge the brand new battery pack before operation.

Premature cessation of charging is subject to incorrect level indication. Carry out full charge for a few times, and the new battery pack will recover.

## **Factors that can affect fastening torque**

### **1 Working conditions**

Even if a fixed diameter size bolt is fastened by UBX-T, the transmitted torque changes depending the bolt grade, length, and coefficient that is determined by bolt quality and working conditions. Conditions of bolt seating part and between fasteners affect torque transmission. Torque transmission is also greatly disturbed if bolt and nut rotate together despite fastening by UBX-T.

### **2 Engagement gap among socket, UBX-T and fastener**

Do not use socket having wide gap with UBX-T anvil's male square and fastener head because large gap lowers torque transmission. Be sure to use right size socket fitting both UBX-T anvil and the fastener.

### **3 Trigger**

Keep trigger fully squeezed until UBX-T carries out automatic shut-off. UBX-T can fail automatic shut-off unless this is performed.

### **4 Influence posed by inclusion between UBX-T and socket**

Torque transmission is reduced by use of universal joint, connector or long socket extending UBX-T to fastener distance.

## RF8-type Handling Method

### Wireless Pokayoke function

#### 1 Fastener number count possible

Buy Herutu-made TW-800R receiver, and UBX-T will serve bidirectional fastener count with UTM-1500 fastener counter.

#### 2 Highly reliable communication

TW-800R automatically wins 1 channel out of 76 in 2.4GHz frequency and carries out bidirectional wireless communication with UBX-T.

### Pairing setup

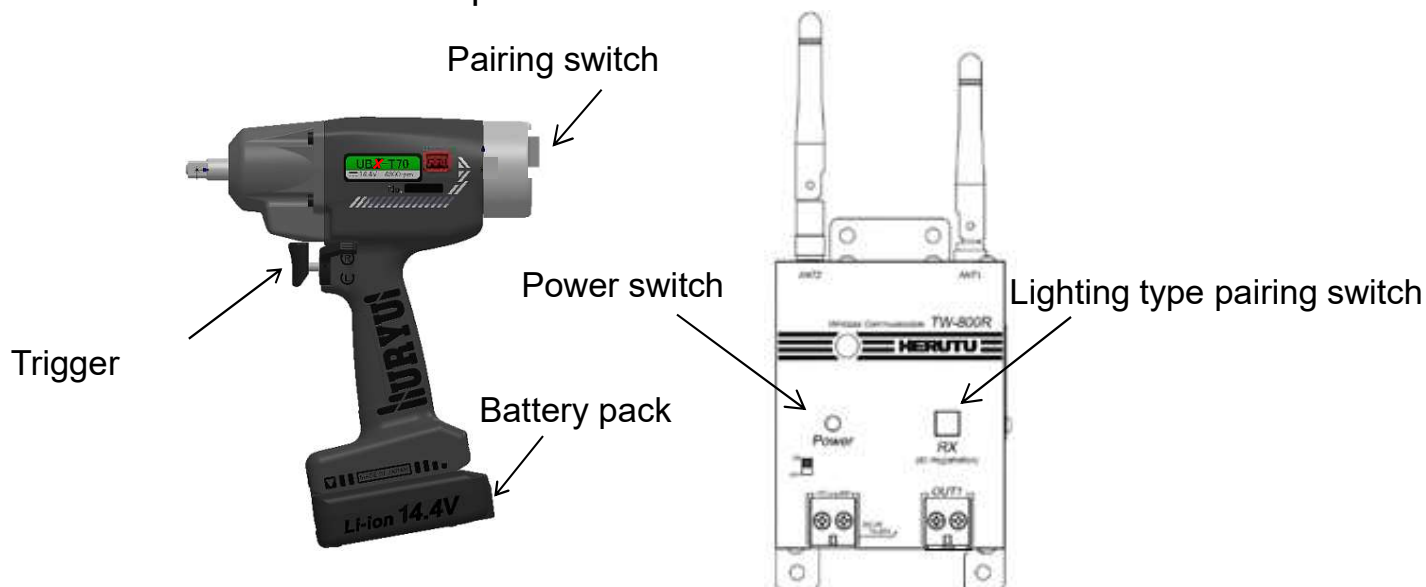
#### 1 Load battery pack into UBX-T so it will be standby condition.

#### 2 Set TW-800R power switch to ON holding down lighting type pairing switch, and it will be pairing mode for 10 sec with pairing switch blinking.

#### 3 Hold down pairing switch over 3 sec while triggering UBX-T, and UBX-T communication LED will blink in green. Check if pairing switch went out at this time. Pairing has failed if communication LED blinked in red 3 times.

#### 4 Switch off TW-800R and switch on again, and communication with UBX-T will be possible.

Note: 1 set TW-800R pairing with 1 set UBX-T only. T-800R does not have communication with multiple UBX-T.



## UBX-T Communication LED

Single blink in GREEN: UBX-T and TW-800R communication was successful.

10 blinks in RED: UBX-T and TW-800R communication failed.

3 blinks in GREEN: UBX-T received BUSY signal from TW-800R.

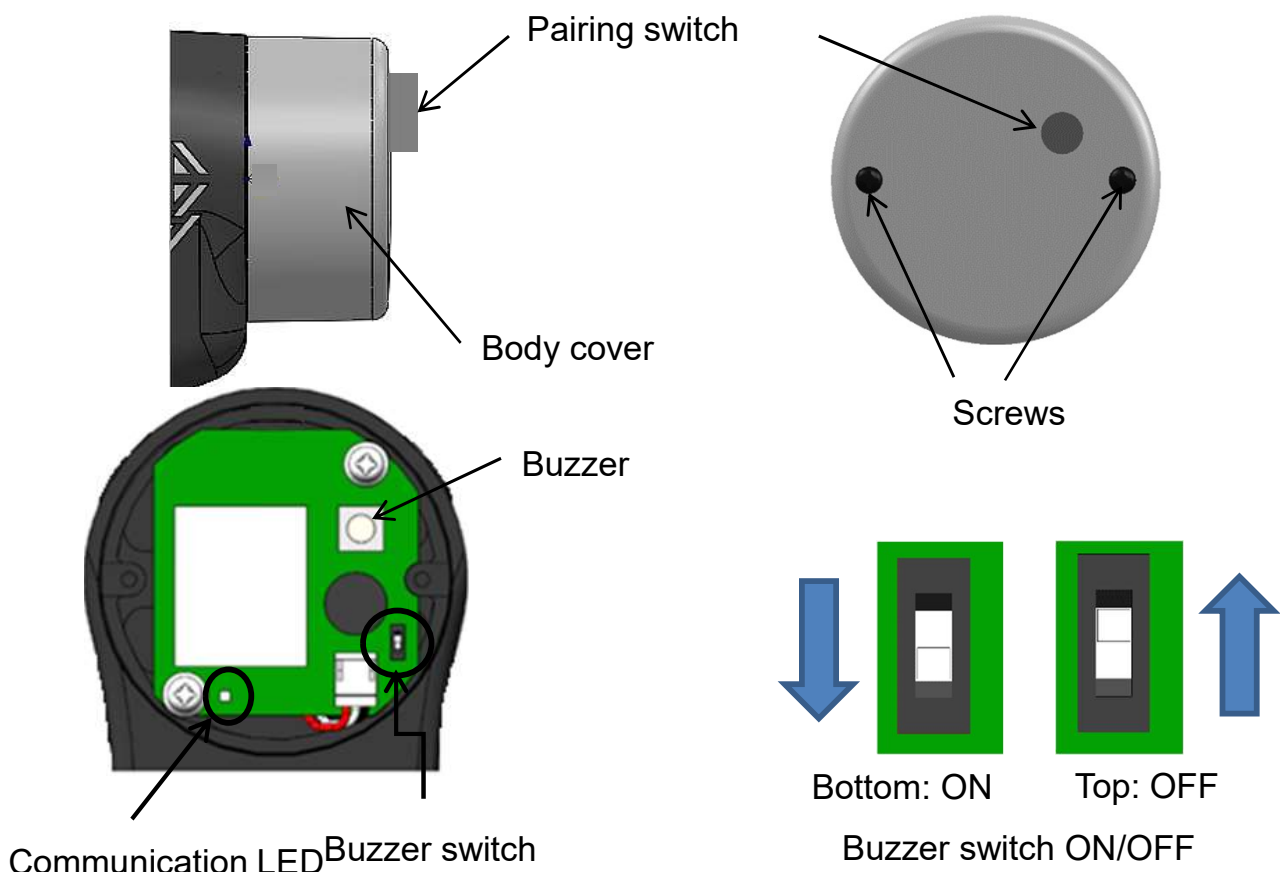
## Buzzer setup

Set UBX-T buzzer to ON, and it will output one pulse buzzer sounding per shut-off.

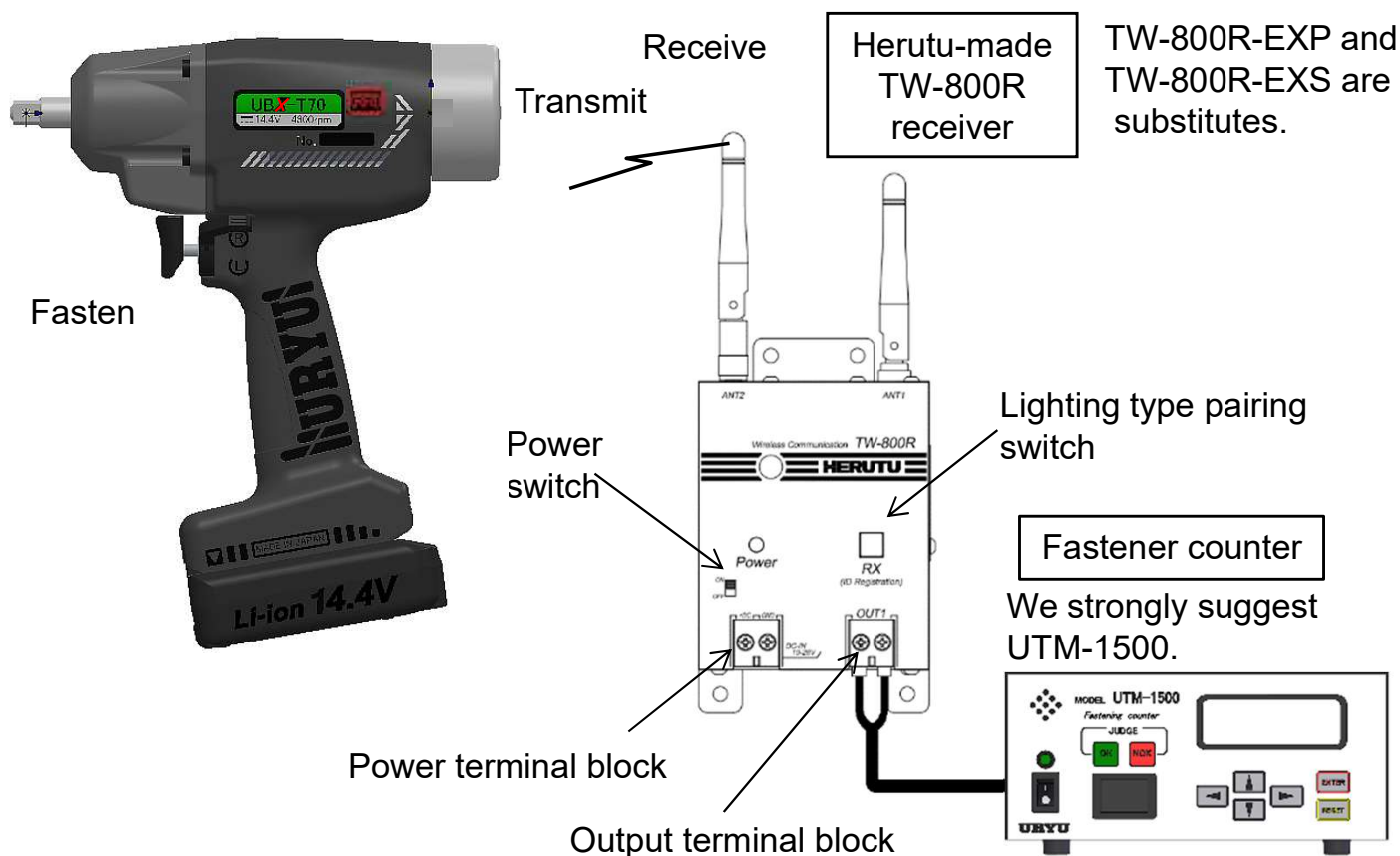
1 Remove body cover opening 2 screws.

2 Set buzzer switch to ON or OFF.

Bottom is ON and top is OFF.



## Pokayoke configuration



Refer to URYU and **Herutu** dedicated manual for the details of fastener counter and receiver.

## Specifications

	Items	Descriptions
1	Frequency	2403MHz~2478MHz
2	Transmitter power output	2.1mW
3	Modulation	GFSK (Gaussian frequency-shift keying)
4	Communication	Simple message transmission (bidirectional communication)
5	Distance	About 15~30M indoor condition (variable depending on environment)



# ©Pokayoke Functions

## Z(ZigBee) type

## Handling Method

### Wireless Pokayoke Function

#### 1 Fastener number count

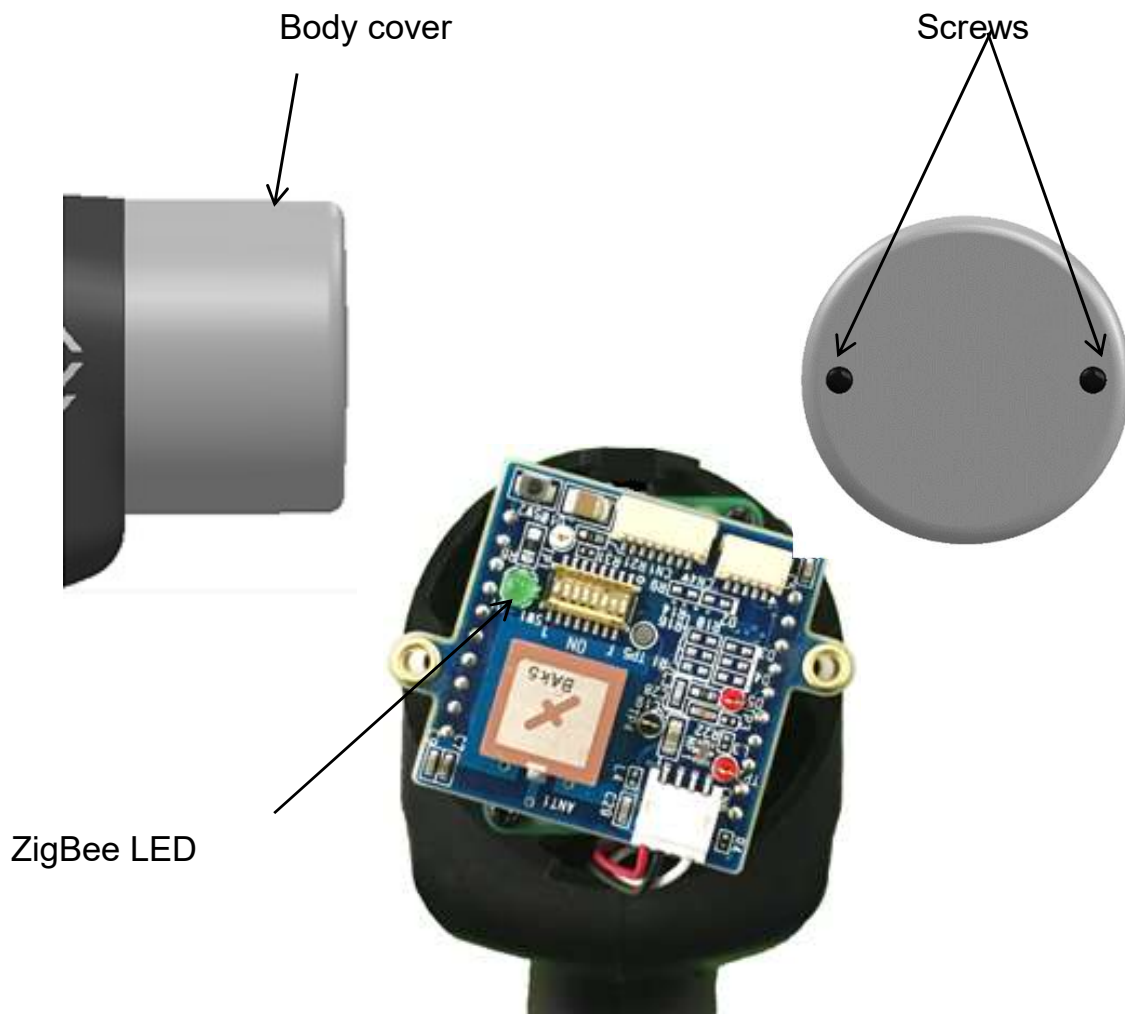
Z-type UBX-T carries out fastener number count by transmitting shut-off signal to receiver Uzig01 (ZigBee base unit).

#### 2 PAN ID code has a number of UBX-T transmit OK signal to 7-Bit ID code preallocated to Uzig01 for fastener count (up to 128 PAN ID). One (1) set Uzig01 receives shut-off signals from 4 sets UBX-T.

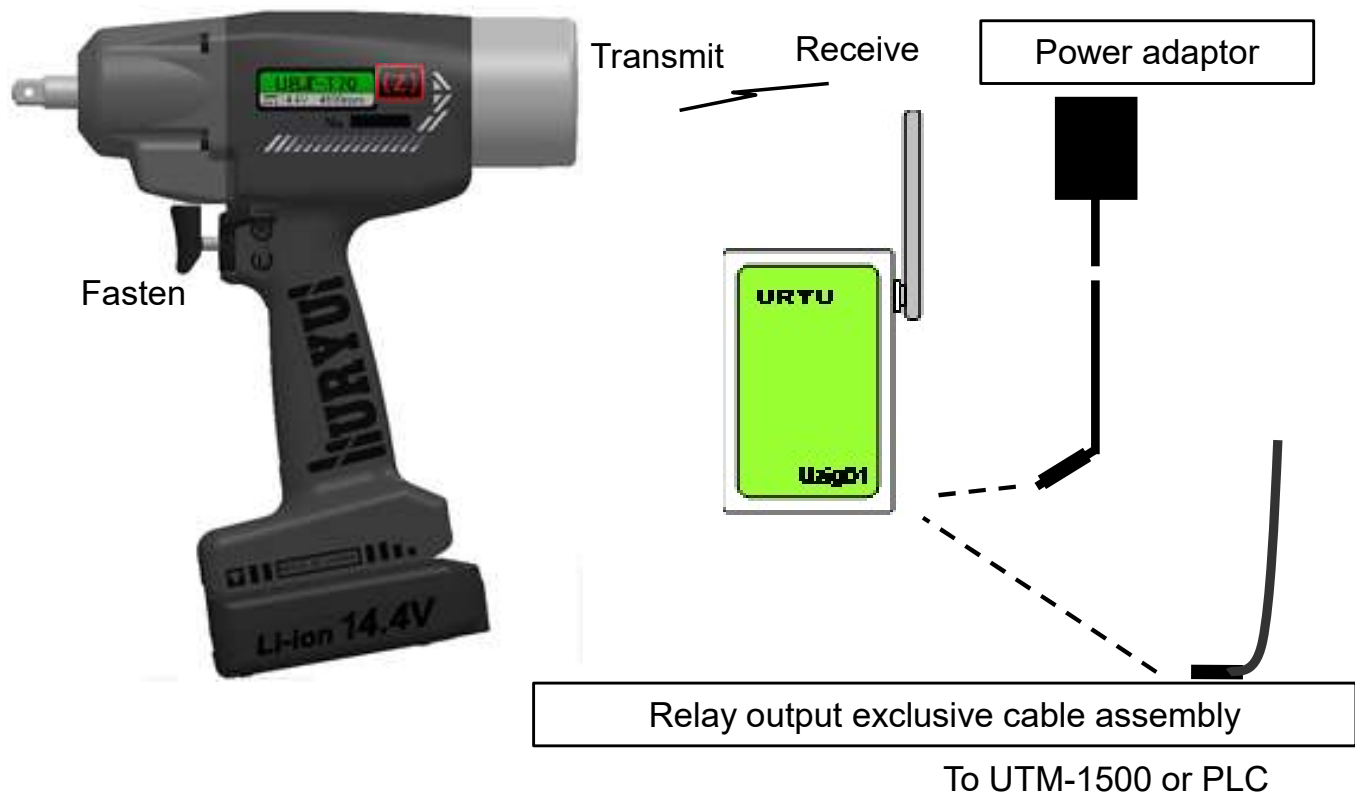
#### 3 16 channels (frequency) optional at 2.4GHz-band frequency

### LED (communication confirmation) behavior when fastening

Squeeze trigger, and LED will light for a while, blink for automatic shut-off, and go out upon completion of data transmission.



## Pokayoke configuration



Refer to dedicated manual of Uzig01 for receiver setup details. Refer to “Pairing manual” for PAN ID setup and pairing.

## Specifications

	Items	Descriptions
1	Frequency	2.4GHz-band (16 channels 2405-480MHz)
2	Output	10mW
3	Modulation method and communication method	Offset phase orthogonal modulation (duplex communication)
4	Diffusion system	Spectrum direct diffusion system
5	Distance	Within a 20M radius (about) (variable depending upon environment)
6	ID setting	7-Bit DIP switch (128 kinds)

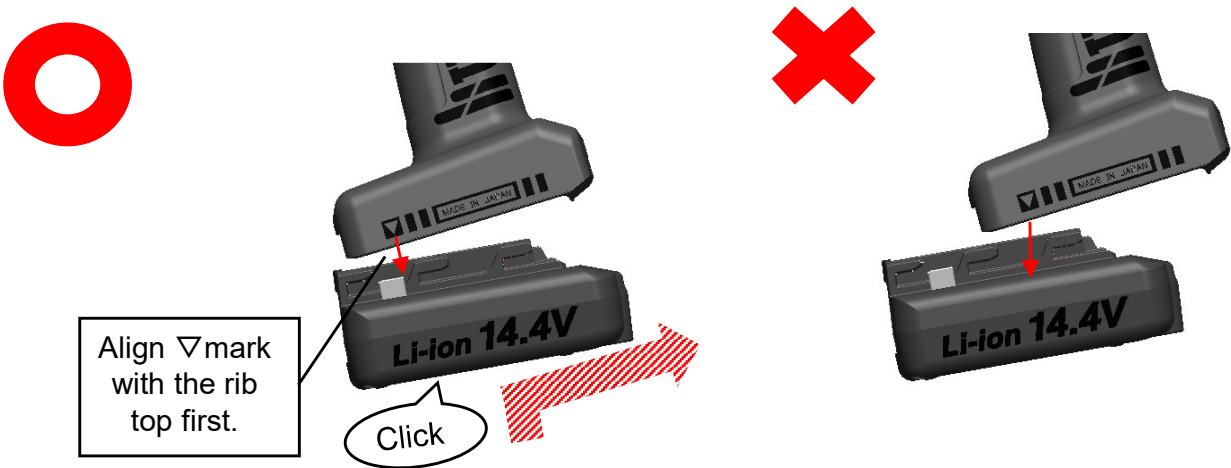
# ◎Battery Pack and Charger

UBX-T60 series run on a lithium-ion battery pack.

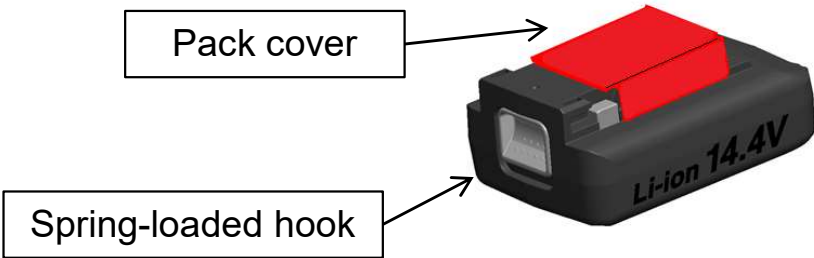
## Specifications

Battery pack (Panasonic)	EYFB41	EYFB43	EYFB42
Tool Type	UBX-T60 series		
Voltage	DC14.4V		
Capacity	2.0Ah	4.0Ah	4.2Ah
Charging Time	approx. 35 min.	approx. 55 min.	approx. 55 min.
Weight	approx.0.35kg	approx.0.58kg	approx.0.58kg

## Battery pack loading and unloading



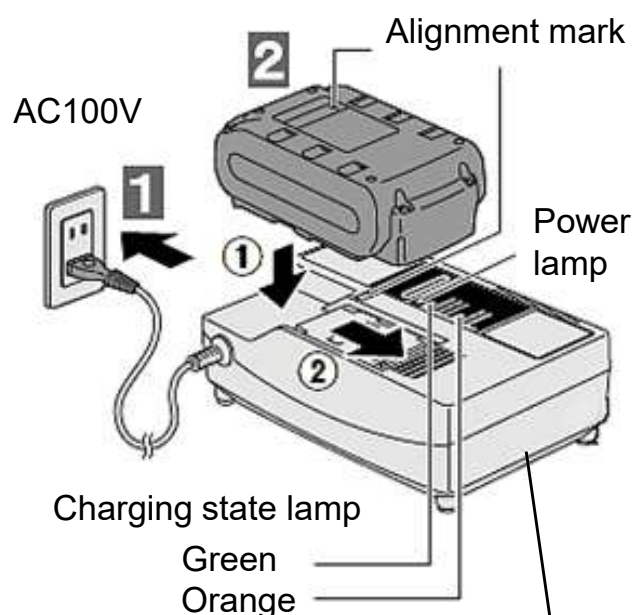
Load・・・Get 6 barbs (3 each side to side) of UBX-T and battery pack engaged, and push battery to arrow direction until they emit click sound for reassurance.  
Unload・・・Slide battery pack to UBX-T anvil direction holding down spring-loaded hook to unload. Attach red pack cover to battery terminals to protect it from dust.



## How to charge

- 1** Plug power plug into socket.  
Power lamp ► lighting
- 2** Load battery pack into charger.  
① Make mark alignment to  
load battery pack in charger.  
② Strike battery pack to the bottom,  
pull it to arrow direction.
- 3** Unload battery pack after charging  
and unplug charger from socket.

\*Follow strictly the above power source when using the charger. Download the manual from Panasonic home page.



Panasonic slide loading type  
Lithium-ion rapid charger  
AC100V(225VA) 50/60Hz (with 2-  
pin plug) 0.9kg (about), service  
temperature 0~40 degree. Use  
dedicated power plug only.

Described non-URYU company names or product names are their own brand or registered trademarks.

## Time for battery pack replacement

The number of charge-discharge are 500 but it depends on use condition. The battery life is end when the job decreases half despite full charge. Replace it with a new one.

## Battery pack storage

Store lithium-ion battery pack without charging after use. Remove foreign matter from the terminals if found, cover it by pack cover to avoid short circuit and foreign matter attachment, and avoid hot-humid place for storage.

## Battery pack recycling

Lithium-ion battery pack is recyclable precious resource. Avoid disposal for recycle and return used battery pack to our distributors who sold it to you. Cover terminals of the battery pack with insulating tape to avoid short circuit for return shipment.

## ©Trouble Shooting

### If you doubt a failure for a second.

Confirm the following points before you place an order for repair.

Phenomenon	Suspected cause	Counter measure
UBX-T does not rotate.	Battery level is below 5%.	Charge battery pack.
UBX-T gets hot.	1. Load is heavy and the large burden is given to UBX-T. 2. The exhaust hole of front casing is stuffed with dust.	1. This is not a breakdown. Apply UBX-T to less load job. 2. Get rid of dust from the front casing. If necessary, clean the inside of front casing.
UBX-T emits louder sound under slow speed.	UBX-T emits metallic sound at pulse and motor connecting part due to repelling power from internal magnet.	This is not a breakdown. Use UBX-T as it is.
UBX-T stalls if rotating anvil is fixed.	Protection circuit has functioned to stop motor.	Release grip on trigger and squeeze trigger again.
Fastening torque is found lower than setup.	Bit and socket have worn out.	Replace bit and socket with a new one.
Number of fasteners per full charge has become less.	Battery pack came to an end of life.	Replace battery pack with a new one.

Stop the operation at once if above countermeasures did not work or other troubles happen, place an order for repair with our distributors who supplied you with this product.

## ©Maintenance



### WARNING

1 Check for loose of any part, damage and wearing with UBX-T on a regular basis.



### CAUTION

#### 1. Care

The body is made of plastic. Wipe UBX-T with soft clothes. Do not use clothes wet with water or volatile oil because doing so can change the color or reduce the strength. Clean up the exhaust holes of front casing periodically (every month) to avoid poor performance of tool and heat generation.

2. Store UBX-T at the place of temperature below 40 degrees C and free from moisture, dust and direct rays of the Sun.

#### 3. Regular inspection

Overhaul once every 400,000 cycles is recommended.

### Caution for overhaul, adjustment, inspection and repair



### CAUTION

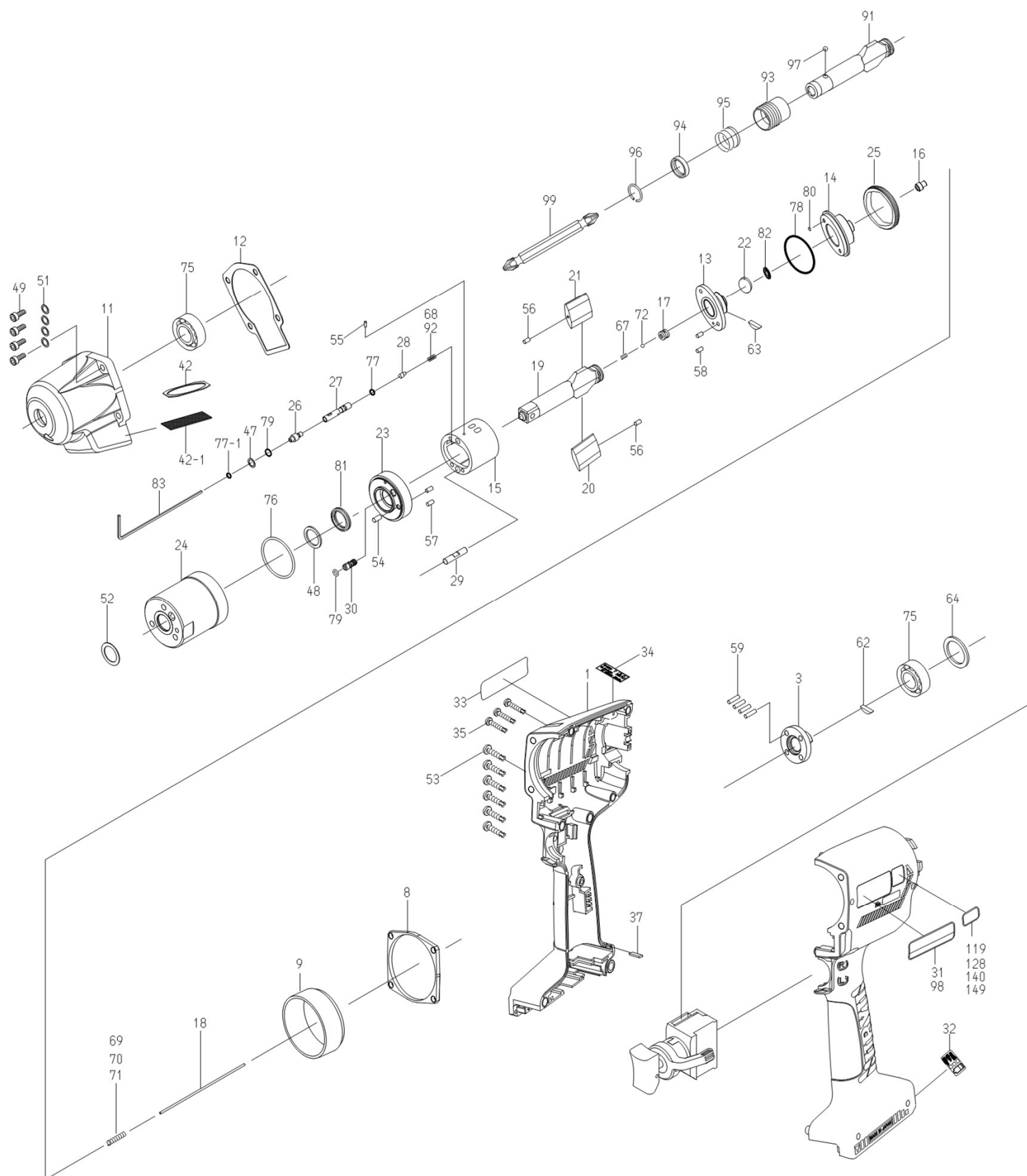
UBX-T is precisely manufactured battery pulse tool. The overhaul, assembly, adjustment and test require our original JIG, tester and special skill developed only for UBX-T. Any services without the aid of these original ones will cause not only poor performance but also accidents. Place an order for overhaul, adjustment, inspection and repair with our sales department mentioned in this handbook, our authorized service station or distributors who supplied you with this product. In no event shall we be liable to users for any accidents, defects or failure caused by your own treatment whatever is not conform to this caution.

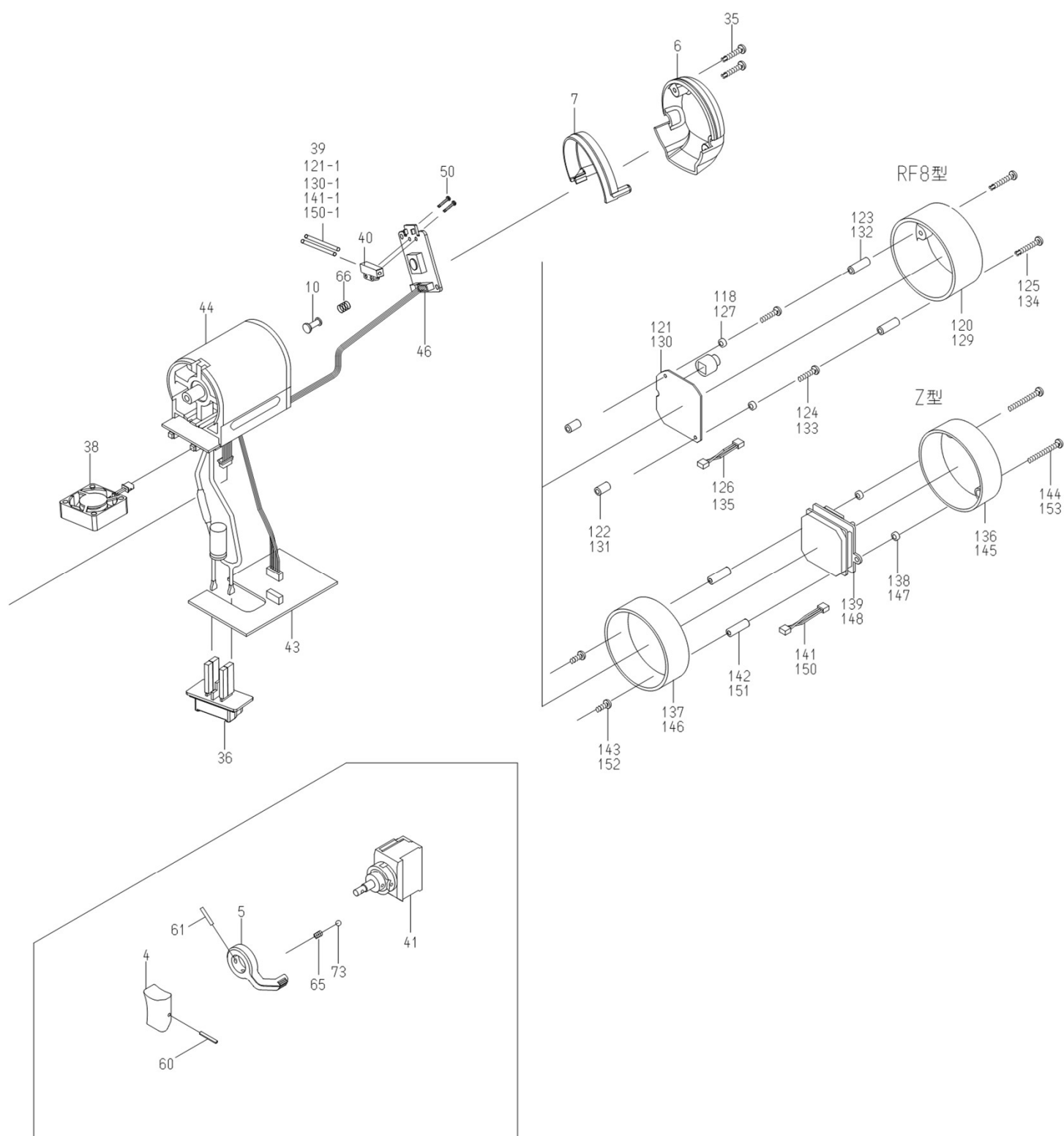
### About inquiries

Make inquiries about UBX-T to our distributors who supplied you with our product.

# ©Exploded View

## UBX-T60 Series







# © Parts List

## UBX-T60 Series

No.	Part Number	Description	QTY	No.	Part Number	Description	QTY
<b>UBX-T60 (12E12)</b>							
1	10F-025-0	Handle	1	44	911-042-0	Motor Assembly L=35 including # 46	1
3	12F-079-0	Connector	1				
4	147-107-2	Trigger	1				
5	09B-212-5	Reverse Lever	1	46	863-891-1	Control Board c/w LED and Buzzer	1
6	12F-012-0	Head Cover	1				
7	12F-013-0	Handle Upper Cover	1	47	944-203-0	Supporting Ring 3.1 x 5 x 1	1
8	12F-035-0	Connector	1	48	944-212-0	Supporting Ring 12 x 16 x 1.5	1
9	12F-036-0	Hammer Case Connector	1	49	945-026-0	Allen Head Bolt M4X16	4
10	12F-038-0	Slide Base	1	50	957-030-0	Allen Head Screw M2X4	2
11	12E-439-1	Front Case	1	51	961-009-0	Round Washer 4(8X0.5)	4
12	12F-867-0	Front Case Packing	1	52	962-800-0	Wave Washer BWV-625	1
13	12F-901-0	Rear Liner Plate	1	53	963-253-0	Tapping Screw 3X16	6
14	12F-310-0	Anvil Front Spacer	1	54	969-449-0	Pin (G) 3X6	1
15	12A-902-3	Liner	1	55	970-013-0	Pin (H) 1.5X4	1
16	12F-546-0	Piston	1	56	970-014-0	Pin (H) 1.5X6.8	2
17	145-929-6	Check Valve Cover	1	57	970-147-0	Pin (H) 2.5X5	2
18	12F-130-0	Operating Rod 1.8X65.5	1	58	972-033-0	Pin 2.5X8	2
19	12E-319-1	Anvil	1	59	972-087-0	Pin 3X6	4
20	12A-440-3	Driving Blade (A)	1	60	973-014-0	Roll Pin 2X14	1
21	12A-440-4	Driving Blade (B)	1	61	973-018-0	Roll Pin 2X18	1
22	12F-835-0	Filter (K200)	1	62	974-952-0	Half-moon Key 3X12 (3)	1
23	12F-904-0	Front Liner Plate	1	63	974-961-0	Half-moon Key 1.5X15.8	1
24	12U-905-1	Liner Casing	1	64	975-798-0	Adjusting Spacer 24 × 18 × t (t=0.3)	1
25	12A-906-3	Liner Casing Cover	1	65	976-006-0	Spring 3X5(0.4)	1
26	174-907-2	Relief Valve Spindle	1	66	976-499-0	Spring 7.3X9.4 (0.4)	1
27	12E-970-1	Relief Valve	1	67	976-847-0	Spring 2.4X5.3 (0.26)n=7.5	1
28	144-270-0	Pressure Valve	1	68	976-957-0	Spring 2.9X5.9 (0.4) n=5.75	1
29	12F-276-6	Pressure Valve Body	1		Choose the best one among #69, #70 , #71.		
30	194-742-0	Oil Plug	1	69	976-984-0	Spring 3.3X13.5 (0.35) (Standard)	1
31	12E-924-1	Name Plate	1	70	976-960-0	Spring 3.3X12 (0.4) (Strong-tension)	1
32	12F-993-0	Plate (Specifications)	1	71	976-994-0	Spring 3.3X13.2(0.35) (Weak-tension)	
33	094-997-4	Plate (Others)	1	72	981-001-0	Ball 3/32	1
34	094-995-4	Plate (Caution)	1	73	981-002-0	Ball 1/8	1
35	963-258-0	Tapping Screw B1 M2.6 × 16	5	75	982-922-0	Ball Bearing 6901ZZ	2
36	910-383-0	Battery Terminal Block	1	76	990-334-0	O-Ring JW1530-24	1
37	910-404-0	Level Display Cover	1	77	990-621-0	O-Ring 3.8X1.8X1.0	1
38	910-484-0	Fan Assembly	1	77-1	990-623-0	O-Ring 4.6 × 3.0 × 0.8	1
39	910-449-0	Elastomer Tube φ2	2	78	990-985-0	O-Ring SNS-28 (NOK)	1
40	910-468-0	LED Cover	1	79	990-970-0	O-Ring SNS-2 (NOK)	2
41	910-475-0	Switch Assembly	1	80	990-620-0	O-Ring 3.8X2.2X0.8 (Ro10)	1
42	910-477-0	Mesh Plate	1	81	990-020-0	SU-Ring Q12 (NTN)	1
42-1	910-418-0	Mesh	1	82	996-280-0	Diaphragm	1
43	911-046-0	Battery Board Assembly	1		<b>Accessories</b>		
				83	939-091-0	Allen Wrench (1.5MM)	1



## After-sales services

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Feel free to inquire at the below parties.

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