

STONE CORDLESS NUT RUNNER

INSTRUCTION MANUAL

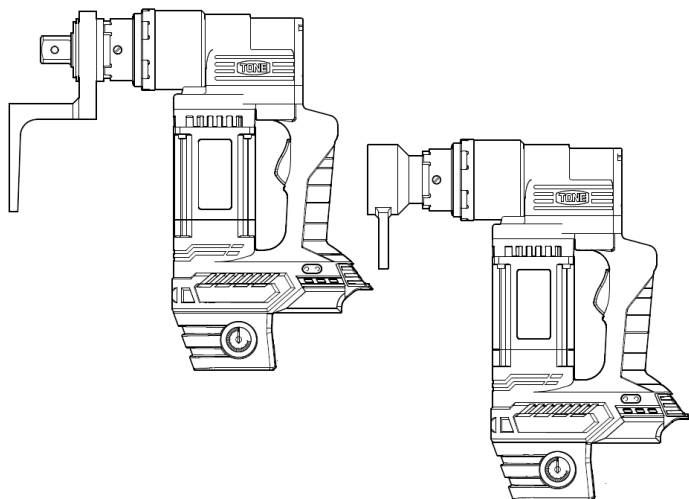
No. 2212

**TO BE
PRESERVED**

MODEL

CNR30-UC / CNR50-UC / CNR80-UC / CNR120-UC /
CNR210-UC

CNB30-UC / CNB50-UC / CNB80-UC / CNB120-UC /
CNB210-UC



CAUTION

Read and fully understand all the instructions before use.

Keep this manual in the designated place for easy and quick reference.

The models mentioned in this manual are designed for use outside Japan.

Warranty shall be void if the above-mentioned models are used in Japan.

TONE CO., LTD.

PREFACE

Thank you for purchasing. **CORDLESS NUT RUNNER**

- Please confirm the following contents upon receipt of the product.
 - During transportation, confirming the product for any damaged parts..
 - Confirming that screws and bolts have not dropped and loosened in any part of the product.
 - Confirming that the product is the model number/specification as ordered
 - Confirming that all accessories are completed. (⇒P. 17)

If there are any problems, please contact the distributor where you purchased the product.

- Read this instruction manual carefully before use.
A full understanding of the manual is essential to prevent personal injury or malfunction.
- Keep this manual in a bag attached to the back of the case lid for easy and quick reference.
- If the manual or warning label is lost or becomes illegible, or if an additional manual is required, please contact the distributor where you purchased the product.

If you have any questions about the product you have purchased or the contents of the instruction manual, please contact the distributor where you purchased the product.




- This manual is only applicable outside Japan.

SAFETY INSTRUCTION

This manual specifies three (3) basic safety instructions:



■ Instructions are classified by the degree of risk and described as follows:

	Danger is used to indicating threatening dangerous or unsafe practices that could immediately result in severe personal injury or death in the worst case.
	Warning is used to indicating hazardous or unsafe practices that could result in severe personal injury or death on the worst occasion.
	Caution is used to indicate hazardous or unsafe practices that could result in personal injury or product or property damage.



Even if the risk is classified as  , the risk could become a more serious result depending on conditions. Make sure to follow all instructions when using.

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1. GENERAL SAFETY INSTRUCTIONS

WARNING

When using electric tools, basic safety precautions, including the following, should always be followed to reduce the risk of fire, electric shock and personal injury. Read all instructions before operating this product and keep the instructions for future reference.

SAVE THESE INSTRUCTIONS

1) Work area

- a) Keep work area clean and well lit. Cluttered and dark areas invite accidents.
- b) Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
- c) Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

2) Electrical safety

- a) Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
- b) Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
- c) Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.

3) Personal safety

- a) Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.
A moment of inattention while operating power tools may result in serious personal injury.
- b) Use safety equipment. Always wear eye protection. Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c) Avoid accidental starting. Ensure the switch is in the off position Before installing the storage battery. Carrying power tools with your finger on the switch invites accidents.
- d) Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- e) Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- f) Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.
- g) If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of these devices can reduce dust related hazards.

4) Power tool use and care

- a) Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
- b) Do not use the power tool if the switch does not turn it on and off.
Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c) Detach the battery from the wrench before making any adjustments, changing accessories, or storing power tools.
- d) Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
- e) Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools operation. If damaged, have the power tool repaired before use.
Many accidents are caused by poorly maintained power tools.
- f) Use the power tool, accessories and tool bits etc., in accordance with these instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from intended could result in a hazardous situation.

5) Service

- a) Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

2. APPLICATION

- **CORDLESS NUT RUNNER** is an electric tool for tightening hexagonal bolts.

3. PRECAUTIONS FOR USE

- To prevent accidents, personal injury, etc., read and follow all instructions listed below.
- We are not responsible for any accidents caused by using this product on applications not written on this manual.
- If non-genuine parts are used for this product, it will be judged as a modified product and all warranties will be invalidating.

DANGER

- **Beware of electric shock when operating at the high place.**
 - Failure to follow this instruction may result in fall down accidents.

WARNING

- **Beware of electric shock.**
 - Never use the wrench under rainy or snowy conditions.
 - Never touch the plug with wet hands.

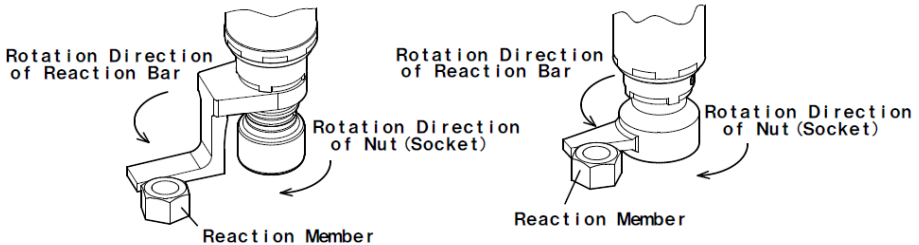
Failure to follow this instruction may result in electric shock, fire, or electric leakage.
- **Never use the wrench around the place where gasoline, gas, thinner, benzene, etc., are stored.**
 - Do not use the wrench around flammable substances. It may cause an explosion or fire.

DANGER

● Never put hand in the turning circle of reaction bar during operation. The reaction bar rotates in the reverse direction.

- If the wrench is started, the reaction bar will turn in the direction opposite to the rotation of nut. There is a risk that finger might be pinched by reaction bar and reaction-member.

Negligence might cause accidents or injury.



WARNING

● Do not use attachments

- Do not connect attachments such as extension bar, joint and adapter between output drive and socket.

Fall down of wrench and breakage of attachments might cause injury.

● Reaction bar must be placed to a solid reaction member.

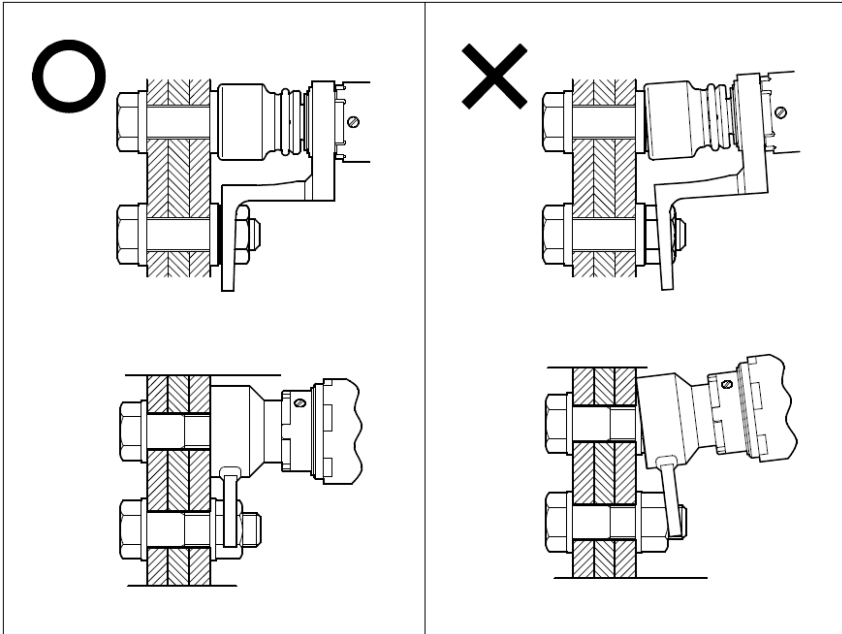
- Make sure to place the reaction bar to a solid member as it is loaded the same of the output torque.

Failure to follow these instructions may result in insufficient tightening result or breakage or personal injury.

WARNING

● Insert socket securely to the depth of nut.

- If insufficient, it might damage socket and cause personal injury.



Negligence might cause accident, breakage or injury.

● Beware of electric shock.

- Never use the wrench when moisture is present such as rain or snow.
- Never touch the plug with wet hands.

Failure to follow these instructions may result in electric shock, fire or electric leakage.

● Firmly hold the wrench with both hands during operation.

- The wrench automatically shuts off when snug tightening is completed. Prepare for automatic shut off by firmly holding the wrench with both hands as the reaction force maximizes just before automatic shut off.

Failure to follow these instructions may result in personal injury.

WARNING

● **Never use the wrench in an area where gasoline, gas, thinner, benzene, etc., are stored.**

- Do not use the wrench around flammable substances to avoid accidental fire caused by the spark out of the electric motor.

● **Beware of falling accidents when working at elevated heights.**

- Wear safety belt.
- Provide safety net or canvas as safe guarding against falling items.
- Confirm that no one is underneath the working site before operation.
- Stop operation when physically or mentally tired.

Failure to follow these instructions may result in accidents.

● **Avoid overloading.**

- Use the wrench and its accessories within the rated specifications.
An overloaded wrench and its accessories may result in the malfunction of the wrench which may cause accidents or personal injury.

● **Properly install the sockets and reaction bars as described in this manual.**

Incomplete installation may result in accident and personal injury.
See “CHANGING ACCESSORIES” on page (⇨ P.29~31)

● **Remove the storage battery from the wrench when.**

- Not in use.
- Changing accessories.
- Inspection and maintenance.
- Or another danger is foreseen.

Failure to follow these instructions may result in accidental starting and personal injury.

WARNING

● **Avoid accidental starting.**

- Do not put your finger on the switch when carrying the wrench with the storage battery installed.
- Before inserting the storage battery, make sure that the switch is turned off. It may start up accidentally and may cause injury.

● **Do not disassemble or modify the wrench.**

- Disassembly or modification made by unauthorized personnel may result in malfunction or personal injury.
- Disassembly and Re-assembly is permitted for the following consumable parts: Sockets, Reaction Bar, and Spiral Retaining Ring(for Reaction Bar).

● **Store wrench in the case and keep it at the designated place when not in use.**

- Store wrench in a lockable dry location to keep any unauthorized personnel away.

Failure to follow this instruction may result in malfunction or accidents.

- Do not store the wrench or storage battery in a place where the temperature may rise above 50°C (such as a metal box or a car in the summer).

It may cause deterioration of the storage battery and cause smoke and fire.

● **Immediately stop using the wrench and turn off the switch when unusual sound, vibration, or smell is detected.**

- Contact your distributor immediately.
Failure to follow this instruction may result in serious injury.

● **Contact your distributor for repair service.**

- Repair work should only be carried out by a qualified technician.
Repair work done by an inexperienced person may cause accidents, injury or malfunction.

WARNING

● Check the following items before an operation.

- Check for any deformation, crack or damage on the wrench body, sockets, storage battery, charger, parts, electric cord, plug, etc.
- Do not use the wrench if any problems are found on the items listed above.
- Make sure that socket and reaction bar are correctly installed on the wrench.
- Make sure that set screws are securely fastened. Loose installation may result in accidents and personal injury.

● Immediately check the wrench if it is dropped or impacted.

- Check for deformation, crack, damage and other abnormality. Stop using the wrench if any abnormality is found.
Failure to follow these instructions may result in electric shock, fire or burn accidents.

● Use the specified storage battery and charger.

- Do not use modified storage batteries (including storage batteries that have been disassembled and replaced with internal parts such as cells).

There is a risk that the performance and safety of the wrench will be impaired.

It may cause injury, malfunction, smoke, heat generation, ignition, explosion, etc.

● Do not put the storage battery in a fire or heat it.

It may cause overheating, ignition or explosion.

● Do not pierce the storage battery with nails, give it impacts, or disassemble or modify it.

It may cause overheating, ignition or explosion.

 **WARNING**

● **Do not short-circuit the terminals of the storage battery.**

- Do not store the storage battery together with metal in a toolbox or nail bag.

It may cause overheating, ignition or explosion.

- After removing the storage battery from the wrench body or the charger, be sure to attach the battery cover to the storage battery.

● **Do not charge, use or store the storage battery in a hot place such as near a fire or under the scorching sun.**

It may cause liquid leakage, heat generation, or explosion of the storage battery.

● **Do not put a conductive liquid such as water inside the storage battery.**

It may cause overheating, ignition or explosion.

● **Consider the surrounding conditions of the workplace and storage location.**

- Do not use the wrench body, charger, or storage battery in the rain or a damp place, or leave or store it.

It may cause electric shock or smoke.

● **Do not use a storage battery whose usage time is extremely short.**

● **Do not use a battery that has been dropped or damaged in any way.**

WARNING

- **Do not use if the wrench body or the terminal of the storage battery (storage battery mounting part) is deformed.**

If a storage battery is installed, it may short-circuit and cause smoke or fire.

- **Make sure that chips and dust do not collect on the terminal of the wrench body (battery mounting part).**

- Before use, make sure that the terminals are free of chips and dust.
- During work, make sure that chips and dust on the wrench do not fall on the terminals.
- Do not leave the wrench body in a place where chips and dust will fall during and after use.

It may cause a short circuit and cause smoke or fire.

CAUTION

- **Make sure to install the storage battery securely.**

If it is not installed securely, the storage battery may come off and cause injury.

- **Do not dispose of the storage battery with ordinary garbage or put it in a fire.**

- **Keep the storage battery out of the reach of children.**

- **Use the battery correctly according to the specifications displayed.**

- **Keep work area clean.**

- Cluttered areas and benches invite accidents.

- **Keep children away.**

- Do not let children touch the wrench or electric cord.
- All visitors should be kept away from work area.

CAUTION

● **Secure work area.**

- Keep body stance balanced and firm.
- Never wrap the electric cord around something.
- Keep work area well lit.

● **Use a suitable model for each application.**

- Do not use the wrench beyond its rated specifications.
- Do not use the wrench for unintended purposes.

● **Dress properly.**

- Always wear gloves and non-skid shoes when operating.
- Always wear safety helmet.

● **Use genuine accessories and attachments manufactured by TONE CO., LTD.**

- Use the genuine accessories mentioned in this instruction manual or TONE's general catalog.

Failure to follow these instructions may result in malfunction or accidents.

● **If the battery fluid gets into your eyes, immediately wash your eyes thoroughly with clean water and seek medical attention.**

● **Please clean the wrench properly and carefully.**

When using, keep the grip dry at all times to prevent oil and grease from getting on them.

● **Observe local laws and rules concerning noise level.**

● **If you notice any abnormalities such as heat generation during charging, immediately disconnect the power plug and stop charging.**

Continuing to charge the battery may cause smoke, fire, or explosion.

⚠ CAUTION

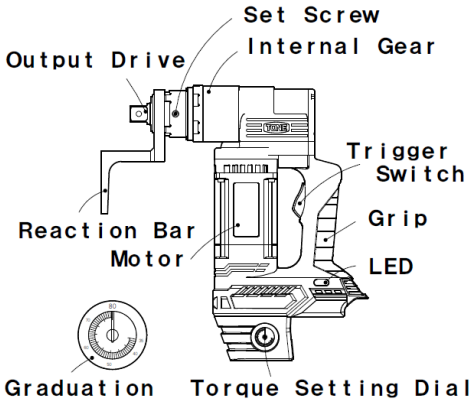
- Keep electric motor well ventilated.
 - Do not put any foreign materials into the vent.
 - Do not block exhaust vent.

4. NAME OF PARTS AND ACCESSORIES

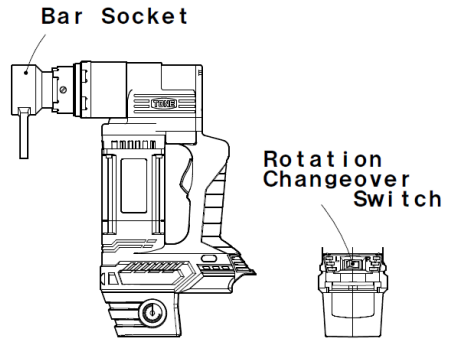
Part Name

Main Body

• CNR80-UC



• CNB80-UC



Accessory

(-) Driver for Socket



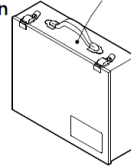
(-) Driver for Control Base



Instruction Manual



Case



Accessories

Model	Accessories(Exclusive) <Mounted on Main Body>	QTY	Accessories (common)	QTY		
CNR30-UC CNR50-UC	•Output Adapter: 6M	1				
	•Reaction Bar: 80KLHC	1				
	•Bush: 41.8 × 47 × 7	1				
	•Spiral Retaining Ring (For Reaction bar): FRSN-42	1				
CNR80-UC	•Output Adapter: 8M	1			•(-)Driver For Socket	1
	•Reaction Bar: 80KLHD	1				
	•Bush: 51.8 × 59 × 10	1				
	•Spiral Retaining Ring (For Reaction bar): FRSN-52	1				
CNR120-UC	•Output Adapter: 8H	1			•Case •Instruction Manual	1
	•Reaction Bar: 120KLHB	1				
	•Bush: 51.8 × 59 × 10	1				
	•Spiral Retaining Ring (For Reaction bar): FRSN-52	1				
CNR210-UC	•Output Adapter: 8V	1				
	•Reaction Bar: 210KLHB	1				
	•Bush: 60 × 73 × 8	1				
	•Spiral Retaining Ring (For Reaction bar): FRSN-60	1				
CNB30-UC	•Bar Socket: MRU27T	1				
CNB50-UC	•Bar Socket: MRU32T	1				
CNB80-UC	•Bar Socket: MRUB46Z	1				
CNB120-UC	•Bar Socket: HRU41T	1				
CNB210-UC	•Bar Socket: VRU46T	1				

● Contact your distributor for other available sockets and accessories.

Optional Accessories

Model	Option	Model	Option
CNR30-UC CNR50-UC	<ul style="list-style-type: none"> • Impact Socket 6NV-Series • Digitorqon DTM5EN • Bar Socket MRU-Series 	CNB30-UC CNB50-UC	<ul style="list-style-type: none"> • Digitorqon DTM5EN • Bar Socket MRU-Series
CNR80-UC	<ul style="list-style-type: none"> • Impact Socket 8NV-Series • Digitorqon DTM8EN • Bar Socket MRU-Series 	CNB80-UC	<ul style="list-style-type: none"> • Digitorqon DTM8EN • Bar Socket MRU-Series
CNR120-UC	<ul style="list-style-type: none"> • Impact Socket 8NV-Series • Digitorqon DTM12EN • Bar Socket HRU-Series 	CNB120-UC	<ul style="list-style-type: none"> • Digitorqon DTM12EN • Bar Socket HRU-Series
CNR210-UC	<ul style="list-style-type: none"> • Impact Socket 8NV-Series • Digitorqon DTM21EN • Bar Socket VRU-Series 	CNB210-UC	<ul style="list-style-type: none"> • Digitorqon DTM21EN • Bar Socket VRU-Series

- Contact your distributor for the accessories above and other optional accessories.

5. BEFORE USE

WARNING

● **Please check followings before use.**

It may cause injury.

1. Check for any deformation, crack or damage on wrench body, socket, storage battery, charger, parts, etc.
Do not use wrench if any problem is found on items listed above.
2. Please check the power supply.
Use the power supply indicated on the nameplate of the charger.
3. Choose Socket
Make sure to use to correct socket suitable for the product to be tightened.
4. Install Socket
Socket should be securely installed on the wrench.
Loose installation may result in accidents and personal injury.
See “CHANGING ACCESSORIES” on page (⇨ P.29～31)
5. Warm up the wrench
Implement warm up procedure before operation.

 **CAUTION**

- Warm up procedure with no-load should be carried out about 5 minutes before operation. Especially, when the wrench is used at low torque setting under low temperature (0~10°C), the warm up procedure with no-load must be carried out at least 5 minutes. In this case, the torque setting dial should be set at Maximum.
 - After the warm up procedure is finished, set the desired torque and squeeze the trigger switch to check the activation of the wrench.

6. PRECAUTIONS WHEN USING LITHIUM-ION BATTERIES

While using this product, the motor may stop in the following cases (1), (2), and (3) even if the switch is pulled, but this is due to the protection function and is not a malfunction.

(1) The motor will stop when the battery level is low. In this case, charge the battery immediately.

(2) If the wrench body becomes overloaded, the motor may stop. In this case, release the switch once to eliminate the cause of the overload.

(3) If the storage battery becomes overheated, the motor may stop. In this case, stop using the storage battery, remove it from the wrench body, and cool the storage battery sufficiently with a well-ventilated shade.

Then it can be used again.

In addition, be sure to observe the precautions below to prevent leakage, heat generation, smoke, and ignition of the storage battery.

 **WARNING**

● **Use a dedicated charger or storage battery.**

- If a storage battery other than the specified one is used, it may cause an explosion, resulting in injury or damage

● **Charge properly.**

- Do not charge the storage battery outside the operating temperature range of the charger.

Not only will it not be charged properly, but the life of the battery will be shortened. In addition, there is a risk of explosion and fire.

- Charge the storage battery in a well-ventilated place.
- Do not cover the storage battery or charger with a cloth while charging.

There is a risk of explosion or fire.

● **Do not short-circuit the terminals of the storage battery.**

If you put it in a nail bag, it may cause a short circuit, resulting in smoke, fire, or explosion.

● **Do not put a conductive liquid such as water inside the storage battery.**

There is a risk of overheating, ignition, and explosion.

● **Do not put the storage battery in a fire.**

It may explode or emit harmful substances.

● **When not in use, store it properly.**

- Do not store the wrench body or storage battery in a place where the temperature may rise above 50 °C (such as in a metal box or in a car in summer).

It may cause deterioration of the storage battery and may cause smoke or fire.

 **WARNING**

- **Be sure to observe the following to prevent battery leakage, heat generation, smoke, and ignition.**
- **Make sure that chips and dust do not collect on the storage battery.**
 - Make sure that chips and dust on the wrench do not fall on the storage battery during work.
 - Do not leave the storage battery in a place where chips and dust fall when not in use.
 - When storing, remove chips and dust from the storage battery and keep it separate from metal parts (screws, nails, etc.).
- **Do not give a strong impact such as put a nail in the storage battery, hit it with a hammer, step on it, or throw it.**
- **Do not use a storage battery that is significantly damaged or deformed.**
- **Do not use (+) and (-) in reverse.**
- **Do not connect the battery directly to an outlet or a car cigarette outlet.**
- **Do not use the storage battery for any purpose other than the designated equipment.**
- **Do not overheat or apply high pressure, such as putting the storage battery in a microwave oven or a high-pressure container.**
- **If the storage battery leaks or smells bad, keep it away from fire immediately.**
- **Do not use it in places where strong static electricity is generated.**
- **If you notice a strange odor, heat generation, discoloration, deformation, or other abnormalities when using, charging, or storing the storage battery, stop using it immediately and contact the distributor where you purchased the product.**

 **CAUTION**

- **If the storage battery leaks and gets into your eyes, immediately wash your eyes with clean water such as tap water without rubbing, and then seek medical attention immediately.**

If left untreated, the liquid may damage your eyes.

- **If the storage battery leaks and the liquid adheres to your skin or clothing, immediately wash it off with clean water.**

It may cause a rash on the skin.

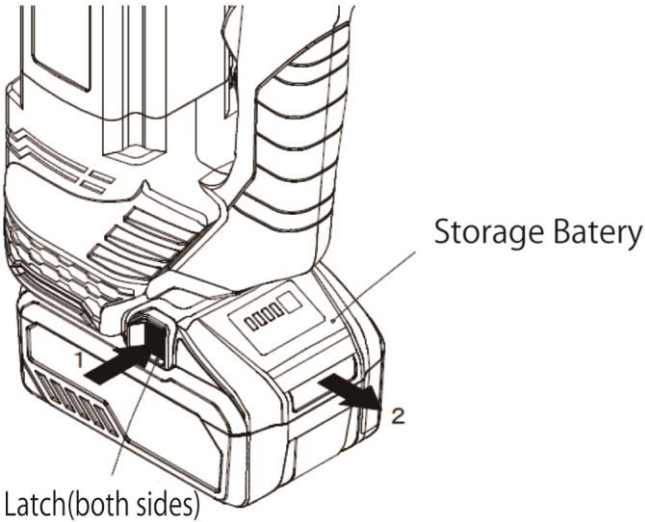
Storage batteries for recycling

Batteries are a valuable recyclable resource. When disposing of storage batteries or products, please cooperate with recycling and bring them to the distributor where you purchased the product.

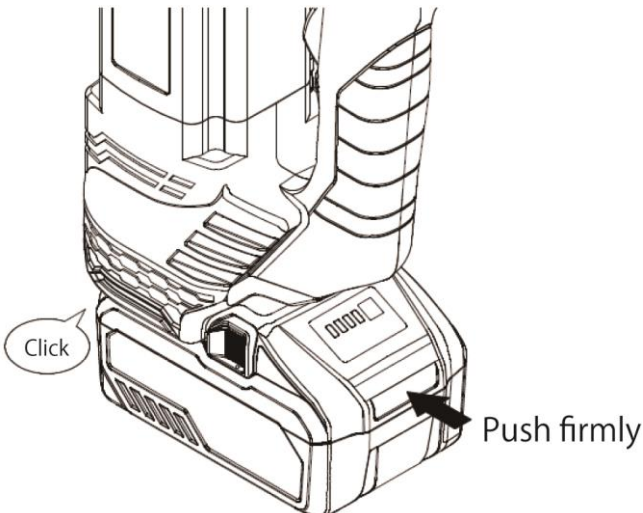


7. INSTALLATION / REMOVAL OF STORAGE BATTERY

- When removing the storage battery from the wrench body, slide it while pressing the latches on both sides



- When attaching the storage battery to the wrench body, align it with the groove on the wrench body and insert it completely until you hear a click.



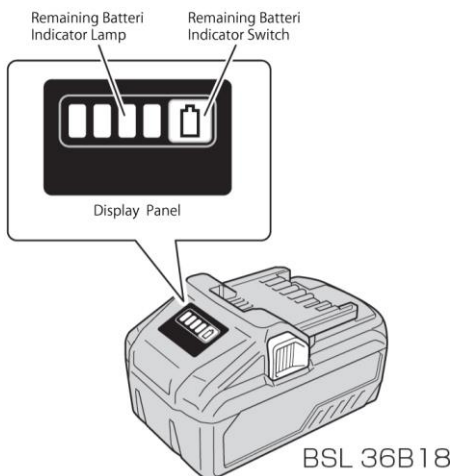
8. REMAINING BATTERY LEVEL

○ When you press the remaining battery indicator switch, the lamp lights up and you can check the battery's remaining battery level.

○ The lamp turns off about 3 seconds after pressing the remaining battery indicator switch.

○ The remaining battery display may differ depending on the usage environment, battery characteristics, etc., so please use it as a guide. In addition, it may differ from the remaining battery display on the product side and the charger side that have the remaining battery display function

Lamp lighting status	Remaining Battery
	75%~100%
	50%~75%
	25%~50%
	0%~25%
	0%
	Output stopped due to high ※1
	Output stopped due to failure ※2



※1. Remove the storage battery from the wrench and let it cool down sufficiently.

※2. The storage battery may be out of order, so please contact the distributor where you purchased the product.

9. PRECAUTIONS FOR OPERATION

○ About continuous use

The cordless nut runner is equipped with a temperature protection circuit to protect the motor and the electronic components that control the drive of the motor.

If you use it continuously, the temperature of the wrench will rise, so the temperature protection circuit will operate and may stop automatically. In that case, cool the wrench sufficiently. It can be used again when the temperature drops. Also, when working continuously, rest the wrench for about 15 minutes when replacing the storage battery before using it.

10. CHANGING ACCESSORIES

CNR TYPE

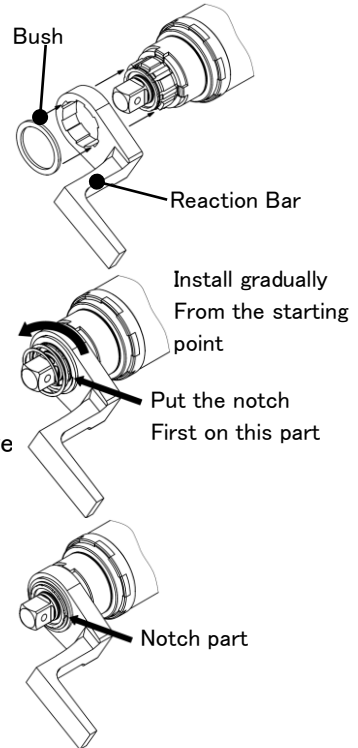
1. Changing Reaction Bar

● Mount Reaction Bar

- ① Mount the reaction bar on the wrench body to fit the spline.
- ② Install spiral retaining ring in groove part of the reaction bar.
 - * At first put the notch as shown and install gradually in a circumferential direction.
- ③ Confirm that the reaction bar is securely mounted.

● Remove Reaction Bar

- ① Remove spiral retaining ring with (-) screw drive
- ② Remove reaction bar from the wrench body.



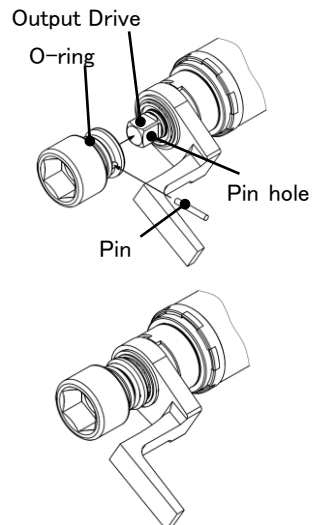
2. Changing Socket

● Install Socket

- ① Prepare an adequate size of socket.
- ② Put aside the O-ring and take the pin.
- ③ Align the hole in the socket and the output drive.
- ④ Insert the pin to the hole and place the O-ring on groove.
- ⑤ Confirm that the O-ring is placed and the socket does not fall down from wrench body.

● Remove Socket

- ⑥ Put aside the O-ring and take the pin.



 **WARNING**

- **Confirm if there is no crack, wear or deformation on the impact socket.**

Personal injury might be invited if the socket is shattered.

- **Confirm if there is no deformation with O-ring and bend or crack with pin.**

If something wrong with pin or O-ring, replace them to new one.

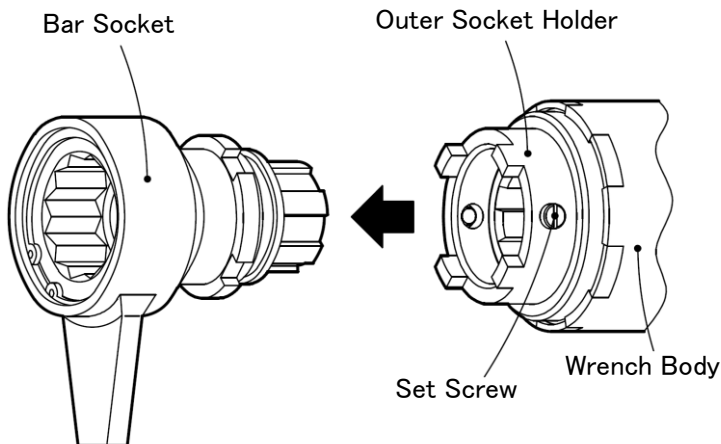
Personal injury might be invited if the socket falls down.

- **Confirm if the impact socket is securely mounted by pulling the socket.**

Inadequate mounting might reduce socket's durability, also cause injury or breakage.

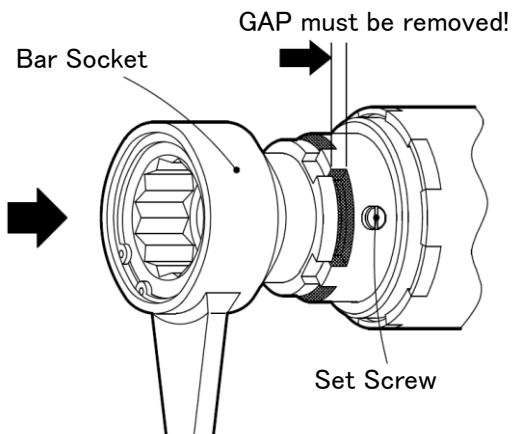
CNB TYPE

- Remove bar socket from the wrench by unscrewing set screws with (-) driver. Do not remove the set screws completely from outer socket holder.



- Select adequate bar socket for the bolts being tightened.
i.e. Use TONE genuine 7/8" bar socket for tightening 7/8" high strength hexagonal bolts/nuts.
- Mount the bar socket on the wrench body and remove the gap between the bar socket and the wrench body.

Fasten the set screws only after the gap is completely removed.



- Pull the bar socket in order to confirm that the bar socket was mounted on the wrench body completely.

 **WARNING**

- **There should be no gap between the socket assembly and the wrench.**

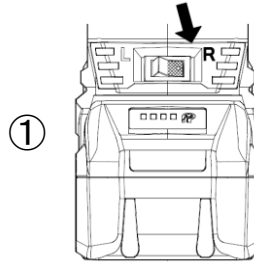
A gap invites accidents or breakage of the sockets or the wrench body.

11. OPERATING PROCEDURE

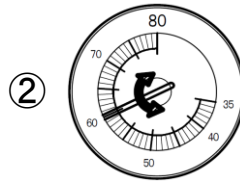
1. Tightening Operation

① Set the switch to "R" (clockwise) position.

※ When tightening left handed screw, set the lever or switch to "L" (counterclockwise) position.

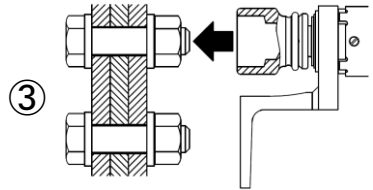


② Adjust the torque setting dial to target torque with (-) a screw driver.

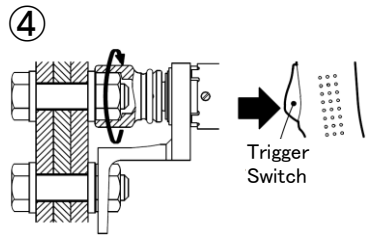


③ Slide the socket over nut completely by turning the internal gear.

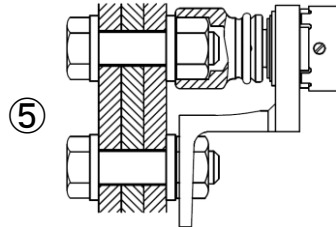
※ When the wrench starts, reaction bar turns in the direction opposite to the rotation of nut.



④ Squeeze the trigger switch to start. The reaction bar stops at adjacent material and tightening starts.



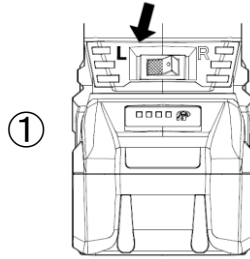
⑤ When the target torque is reached, the wrench shuts off automatically.



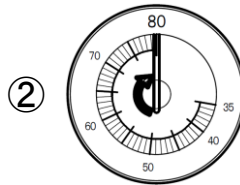
2. Loosening Operation

- ① Set the switch to "L"
(counterclockwise) position.

※ When tightening left handed screw, set the lever or switch to "R" (clockwise) position.

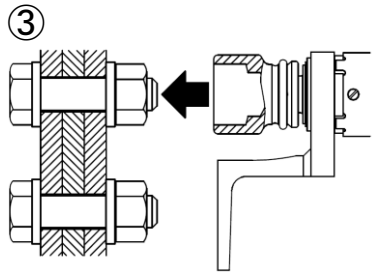


- ② Adjust the torque setting dial to the maximum torque with (-) a screw driver.

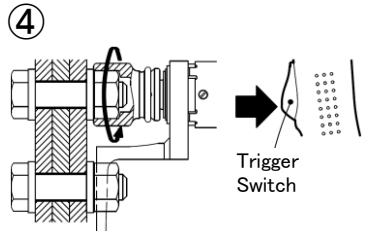


- ③ Slide the socket over nut completely by turning the internal gear.

※ When the wrench starts, reaction bar turns in the direction opposite to the rotation of nut.

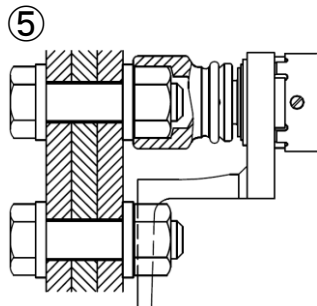


- ④ Squeeze the trigger switch to start.
The reaction bar stops at adjacent material and loosening starts.



- ⑤ When loosening operation is done, release the trigger switch to stop the wrench.

※ In the case that the nut is not loosened, stop the operation immediately since the nut may be tightened by a higher torque than that of the wrench.
Failure to follow these instructions may result in malfunction.



 **DANGER**

- **Never put hand in the turning circle of reaction bar during operation. The reaction bar rotates in the reverse direction.**

Negligence might cause accidents or injury.

 **WARNING**

- **Set target torque as well as the change lever while electric motor is stopping.**

Failure to follow these instructions may result in accidents or injury.

- **Confirm the position of the change lever to avoid the mistake of tightening direction.**

- **Never tighten the same bolt/nut twice. (Never apply too much torque to the same bolt/nut.)**

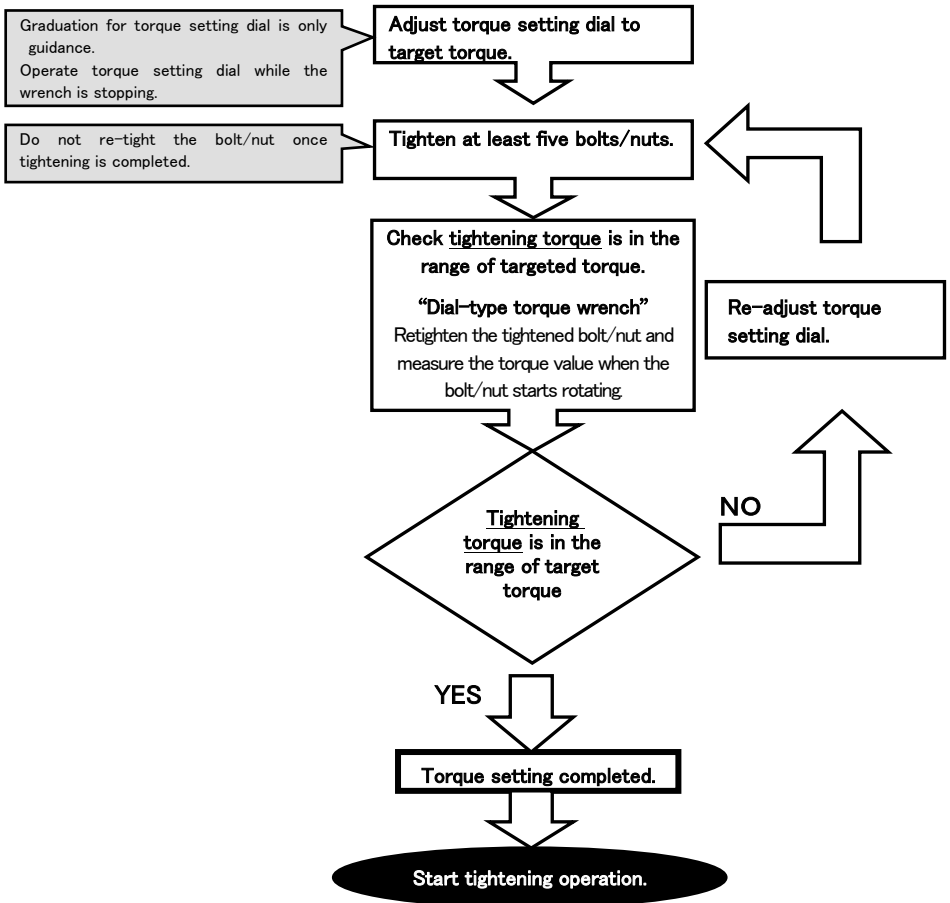
Failure to follow these instructions may result in breakage of the bolt/but, malfunction and personal injury.

12. TIGHTENING TORQUE

1. Adjustment of tightening torque

- Graduations of the torque setting dial are just a guidance.

For more precise tightening, use dial type TORQUE WRENCH to adjust torque setting dial.



○ Tightening Torque may differ by conditions.

Torque setting has to be done daily before operation and when tightening conditions change.

○ Turn off the motor before set target torque.

○ In order to prevent malfunction as well as over torque, never tightening the same bolts / nuts twice.

2. Tendencies that tightening torque may differ.







Tightening torque varies depending on tightening conditions.

Tendency shown as below.

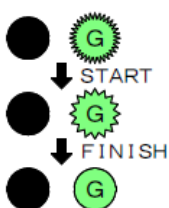
Factors at Tightening Conditions	Possibility
<ul style="list-style-type: none">- When connection is soft (gasket, rubber, glass & etc in between the steels)- When bolt length is extremely long,- When bolt diameter is small.- When bolt grades are under 8.8 or 10.9- When friction coefficient of the bolt is high- When bolt or washer is stripped during tightening	Tightening Torque becomes Low
<ul style="list-style-type: none">- When connection is hard- When bolt diameter is large- When bolt length is short- When water or oil is adhered on the bolt- When tightened bolt is tightened again (over tightened)	Tightening Torque becomes High
<ul style="list-style-type: none">- When gaps between the connection is large- When Tightening bolts/nuts from tilt position	Result in imprecise tightening

13. EXPLANATION ON LED INDICATION


- Red and green light equipped indicates tightening state and abnormalities.
The light turns off when the switch is released.
Confirm while squeezing the switch

 : Lights off
   : Lights on
  : Flashing (5 times/sec)
 : Flashing(2 times/sec)
  : Flashing (1 times/sec)


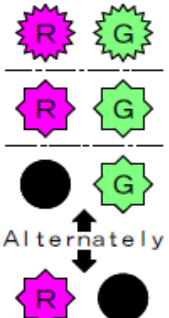
Normal Condition (Tightening State)

Indication	Explanation	Useful advices for remedy
	No-load operation ↓ Tightening operation ↓ Tightening Finished	Normal

Low Battery Remaining Capacity

Indication	Explanation	Useful advice for remedy
	Low battery remaining capacity ...The wrench stops immediately after starting operation.	Charge a battery or change with a charged battery

Trouble detected

Indication	Explanation	Useful advice for remedy
	Tightening was not finished normally. Repeated tightening of the same bolt detected	Keep the reaction bar away from adjacent bolt or material and tighten again Do not repeat tightening of same bolt to prevent over-torquing.
	The wrench is broken down.	The wrench should be repaired. Stop the operation and consult with your distributor.

14. INSPECTION & MAINTAINANCE

WARNING

- **Always switch off the tool and remove the battery from the wrench before repair and maintenance, and after use.**

Negligence may invite unintended start, and cause electric shock and injury.

CAUTION

- **If there are chips or dust on the terminals, remove them.**

- Continuing to use it may cause a malfunction.

- Check the terminals for chips and dust. Check from time to time before and after work as well as during work.
- Clean dust and debris from the sockets periodically.
- Use only a dry cloth to clean your wrench and sockets since organic solvents such as benzene, thinner and gasoline may cause cracks or discoloration to those parts.
- Be careful not to let oil and organic solvents get inside the motor.
- Store wrench in the case after operation and keep it dry.
- Overhaul must be carried out every 6 months or 10,000 tightening, whichever comes first. Contact your distributor for overhaul.

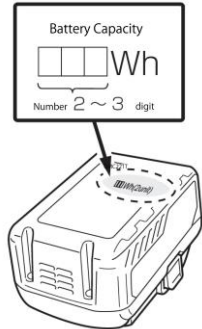
15. TRANSPORTATION OF LITHIUM-ION BATTERIES

- When transporting lithium-ion batteries, please heed the following points.

WARNING

- Please inform the carrier that the package contains lithium-ion batteries and the battery capacity, and follow the instructions of the carrier.

- Lithium-ion batteries' energy capacity exceeding 100 Wh will be treated as dangerous goods in terms of the classification of transported cargo, and a special application form will be required.
- When transporting overseas, it is necessary to comply with international regulations and the regulations of the destination country.
- BSL36B18 exceeds 100Wh when attached to the wrench body and will be treated as dangerous goods.

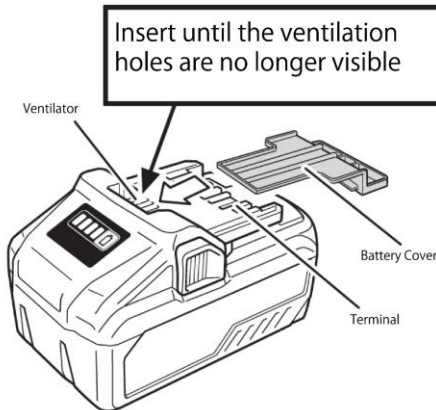


16. STORAGE OF LITHIUM-ION BATTERIES

WARNING

● If a conductive object gets into the terminal of the lithium-ion battery, the battery may be shorted, causing heat generation, smoke, or ignition. Therefore, be sure to obey the following when storing.

- Do not put conductive chips, nails, wires, copper wires, or other wires in the storage case.
- To prevent shorting from occurring, load the battery in the wrench body or insert the battery cover securely for storing until the ventilator is not visible.



CAUTION

● Fully charge the lithium-ion battery before storing it.

- If the storage battery is stored for a long time (3 months or more) with low remaining capacity, the storage battery may deteriorate, the usage time may be significantly shortened, or the battery may not be charged. Even if the storage battery's usage time is significantly reduced, it may be restored by repeating charging and use 2 to 5 times. If the usage time is extremely short even after repeated charging and use, it may indicate the end of the battery life, and we recommend you purchase a new battery.

17. FAILURE DIAGNOSIS

If "Failure diagnosis" does not work, please contact the distributor where you purchased the product.

Also, it may cause by the storage battery, so please bring the charger and storage battery together.

■ Wrench body

Failure symptoms	Cause	How to deal
Pulling the switch does not start	Battery is low	Storage batteries need to be recharged
Wrench shutdown	Battery is low	Please charge the battery.
	Overloaded during tightening	The motor will automatically stop when the wrench overloaded. Check the tightening status and eliminate the cause of overload.
	The storage battery or wrench body has become overheated	Cooldown the storage battery and the wrench body sufficiently.
Battery can be not installed	The storage battery is not the specified one.	Use a specified multi-volt storage battery.

18. FEATURES

- New DC brushless motor is used.
- With remaining storage capacity display.
- Torque Control Box Installed.
- Enable to control torque in both CW/CCW direction.

19. SPECIFICATIONS

■ Wrench Body

Model	CNR30-UC CNB30-UC	CNR50-UC CNB50-UC	CNR80-UC CNB80-UC	CNR120-UC CNB120-UC	CNR210-UC CNB210-UC
Max Torque (lbf·ft)	220	370	600	900	1550
Controllable Torque Range (lbf·ft)	110~220	150~370	250~600	360~900	750~1550
Repeated Accuracy※	±5%				
No-load Speed(min ⁻¹)	32	22	17	10	5
Weight(kg)	4.9	5.5	5.9	7.4	8.9
Motor	DC brushless motor				
Storage Battery	DC36V				

※Repeated accuracy is the percentage of variation of tightening torque under the same torque setting and operational condition.

●The weight excludes the socket, reaction bar and the cord.

Model	Approximate number of tightening per full-charged battery(4.0Ah)
CNR30-UC／CNB30-UC	220lbf·ft : about 240 tightening
CNR50-UC／CNB50-UC	370lbf·ft : about 200 tightening
CNR80-UC／CNB80-UC	600lbf·ft : about 180 tightening
CNR120-UC／CNB120-UC	900lbf·ft : about 140 tightening
CNR210-UC／CNB210-UC	1550lbf·ft : about 80 tightening

20. AFTER SALES SERVICE

- Please use correctly according to the precautions written on the instruction manual, cordless wrench body, accessories, etc.
- For more information about after-sales service, please contact the distributor where you purchased the product.
- When contacting distributor, please report in detail the model, serial number, date of purchase, voltage, and fault conditions.



CAUTION

- **Do not use wrench when malfunction, deficiency in wrenches' performance, personal injury or property loss is foreseen.**

If possible, prepare backup wrenches beforehand.

TONE® **TONE CO., LTD.**



6-25, KOTOBUKICHO, KAWACHINAGANO-SHI,
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● Specifications and the design are subject to change without notice. ●