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Cordless Riveter

BR200M C€

INSTRUCTION MANUAL

- 1. Safety Precautions
- 2. Preparation Before Using the Cordless Riveter
- 3. Operating the Cordless Riveter
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Thank you for purchasing the "Lobster" cordless riveter.

Do not use the cordless riveter until you have read and understood the descriptions of this manual. Always follow the instructions described in this manual.

Be sure to keep this manual for future reference.

Main body

Model	BR200M	
Power Source	12V DC	
Riveting Capacity	2.4, 3.2, 4.0, 4.8	
Nominal load (max.)	8.5kN	
Weight	1.4kg (Battery pack excluded)	
Dimensions (including battery pack)	300mm (L) x 70mm (W) x 225mm (H)	

■Battery Pack

Model	BP12G	
Storage Battery	Ni-Cd Battery	
Voltage	12V DC	
Capacity	1300mAh	
Battery Life	Approx. 500 charges	
Weight	0.6kg	

■Battery Charger

Model	BC60M -120V	BC60M -230V
Power Source	AC120V 60Hz	AC230V 50Hz
Power Consumption	50W	35W
Power Output	DC15V 1.4A	DC14V 1.4A
Charging time	Approx. 60minutes (Battery Pack BP12G)	
Weight	1.1kg	

Note: The specifications and design may be changed without notice for improvement of the product.

Note: The weight and dimensions shown above are standard values. Therefore, they may include a dimensional error.

1.Safety Precautions

- ◆Before using the cordless riveter, read and understand all the contents of "Safety Precautions".
- ◆The precautions described in this manual are classified into <u>▲Warning!</u> and <u>▲ Caution!</u>. The meaning of them is as follows:

<u>↑ Warning!</u>: Indicates potential danger. Used to indicate that neglecting the procedures or instructions may cause death or severe injury.

Note that neglecting the safety precautions described in <u>A Caution!</u> may cause severe accidents. Always follow all the safety precautions described in <u>AWarning!</u> and <u>A Caution!</u>. The safety precautions are very important information to eliminate or reduce the hazards.

◆ Always keep this manual close at hand for reference whenever necessary.

⚠Safety Precautions for Charging Tools =

⚠ Warning!

- 1. Use only the special charger and battery pack.
 - Do not charge the battery pack using the other charger.
 - Charge only the battery pack described in this manual. Otherwise, the battery pack may burst, resulting in injury and damage.
- 2. Charge the battery pack correctly.
 - Use the power source with the rating displayed. Do not use the power source from the DC power system or engine generator. Otherwise, the battery pack may be heated abnormally, resulting in fire.
 - Charge the battery pack with the temperature of 0 or higher and lower than 40°C. Otherwise, the battery pack may burst and fire may occur.
 - Use the battery pack at the place where is ventilated properly. Do not cover the battery pack and/or charger with a cloth while charging. Doing so may burst the battery pack and cause fire.
- Do not short circuit the terminals of the battery pack. Do not put the battery pack in a nail bag. Doing so may cause short-circuit, resulting in emitting smoke, fire, bursting, and so on.
- 4. Avoid electric shock.
 - Do not touch the power supply plug with wet hands. Doing so may cause electric shock.
- 5. Consider work area environment.
 - Do not use the charging tools, charger, and battery pack in the humid place, wet place, or the place exposed to rain. Doing so may cause electric shock or emitting smoke.
 - Keep work area well lit. Working in the dark area may cause accidents.
 - Do not use the battery pack and charger in presence of flammable liquids or gases. Doing so may cause explode and fire.

6. Use safety glasses.

• Use safety glasses while working. Also use a dustproof mask while working in the environment filled with dusts. Otherwise, cut pieces may enter into the eyes and nose.

7. Turn off the charger, and pull out the battery pack from the main body in the following cases:

- When the cordless riveter is not used and to be repaired.
- In the case that other hazards may be predicted. Operation of the main body may cause injury.

8. Avoid unintentional starting.

• Do not carry the cordless riveter with finger being on the switch. Doing so may operate the main body, resulting in injury.

9. Use the designated accessories and attachments.

- Use only the accessories and attachments described in this manual and our catalog. Otherwise, accidents or injury may occur.
- 10.Do not put the battery pack into fire. Doing so may cause burst and generate toxic substances.

⚠ Caution!

1. Keep work area clean.

• The work stand and the place with dispersed articles may cause accidents.

2. Keep children away.

- Only the operator must touch the charging tools and cord of the charger. Otherwise, injury may occur.
- Only the operator must enter the work area. Otherwise, injury may occur.

3. Store idle tools.

- Store idle tools in a dry and high place where children are inaccessible or the lockable place. Otherwise, injury may occur.
- Do not store the charging tools and battery pack at a place where the temperature may be raised to 50°C or more (e.g., in a metallic box or in the car in summer, etc.). Doing so may cause deterioration of the battery pack, emitting smoke, and fire.

4. Do not force the cordless riveter.

- Use the cordless riveter with the speed suitable for the capability of the charging tool for safe and efficient work. Otherwise, accidents may occur.
- Do not lock the motor while operating the cordless riveter. Doing so may cause emitting smoke and fire.

5. Dress properly.

 Wear rubber gloves and non-slip footwear to perform outdoor work. The slippery gloves and footwear may cause injury.

6. Do not handle the cord of the charger in a rough manner.

- Do not carry the charger by lifting with its cord, and do not disconnect the power plug from a receptacle by pulling the cord.
- Do not expose the cord to heat, oil, and pointed corners.
- Carefully choose the place for charging so that the cord is not stepped on, caught by foot, and damaged by receiving excessive force. Otherwise, electric shock and short-circuit may occur, resulting in fire.

7. Keep correct attitude.

• Always secure your step and keep your balance. Otherwise, you may stumble to be injured.

8. Carefully inspect and maintain the charging tools.

- Lubricate and replace the accessories according to the descriptions in the Instruction Manual. Otherwise, injury may occur.
- Periodically inspect the cord of the charger. If the cord is damaged, request repair to the "Lobster" dealer or our company. Neglecting periodical inspection and necessary repair may cause electric shock and short-circuit, resulting in fire.
- If the extension cord is used, periodically inspect it. If the extension cord is damaged, request repair to the purchased store or our company. Neglecting periodical inspection and necessary repair may cause electric shock and short-circuit, resulting in fire.
- Always keep the grip dry and clean, and be away from oil and grease. Otherwise, injury may occur.

9. Use the extension cord in conformance with outdoor use.

• Use a cabtire cord or extension cord of the cabtire cable when discharging outdoors.

10. Carefully perform charging operation.

- Follow the instructions and procedures and pay attention to the ambient conditions when using the charging tools. A thoughtless action may cause accidents and injury.
- Always use common sense. Otherwise, accidents and injury may occur.
- Do not use the charging tools when you are tired. Doing so may cause accidents and injury.

11.Before using the charging tools, check that each part is not damaged. If any damage is found, request repair.

- Before using the charging tools, check that each part is not damaged, that they work properly, and that they fulfill the specified functions.
- Do not use the charger with the damaged power plug and cord. Do not drop the charger.
 Do not use the damaged charger. Doing so may cause electric shock and short-circuit, resulting in fire.
- Follow the instructions described in the Instruction Manual when replacing the parts and repairing. If the corresponding instructions are not described in the Instruction Manual, request repair to the "Lobster" dealer or our company.
- Do not use the cordless riveter if it does not start and stop by operating the switch. Abnormal operation may cause injury.

12. Request repair to our company.

- If the charging tools are heated or in the abnormal condition, request inspection and repair.
- Do not retrofit the charging tools because they are in conformance with the corresponding safety standards.
- Be sure to request repair to the "Lobster" dealer or our company. If the personnel without knowledge and technology for repairing repair the charging tools, the charging tools may not fulfill the functions enough, and accidents and injury may occur.

= $ilde{\Lambda}$ Safety Precautions for Cordless Riveter =

"Safety precautions" for our charging tools are described in the previous section. Additionally follow the precautions for the cordless riveter described below:

Marning! Marning!

- Always remove the battery pack before performing inspection/maintenance and replacing parts. Otherwise, an intended operation of the cordless riveter may cause injury.
- 2. Do not caulk the rivet exceeding the caulking ability. Doing so may cause accidents and injury.
- 3. Do not view in the nose piece, and use protective glasses. The mandrel of the rivet after cutting may come out.
- 4. Immediately turn off the switch to stop operation if you get yourself into bad physical condition or abnormal sound is heard during operation. Then request inspection and repair to the "Lobster" dealer or our company. Continuing operation in such condition may cause injury.
- Stop operation of the cordless riveter before using the second battery continuously. Otherwise, the cordless riveter may be heated, resulting in burn.

⚠ Caution!

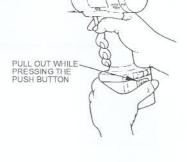
- 1. Do not operate the cordless riveter while the frame head is removed. Doing so may pinch your finger, etc.
- 2. Do not drop any article when working at the high place.
 - Check that there is no personnel under the work area. Dropping the materials, cordless riveter, rivet mandrel after cutting, etc. may cause accidents.
- 3. Dispersion of mandrels after cutting may cause injury.

2. Preparation Before Using the Cordless Riveter

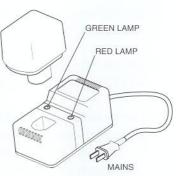
Charging Battery Pack

The battery pack is shipped from the factory already charged. However, it is naturally discharged. Charge the battery pack before using. Charge the battery pack only with the exclusive charger.

- Pull the battery pack in the direction shown in the illustration while pressing the push button of the battery pack to remove the battery pack from the main body.
- Insert the plug of the charger in the power receptacle, and then fully insert the battery pack into the charger. The red lamp lights and charging is started. If both lamps do not light, malfunction of the battery pack is a possible cause. Refer to Section 6, "Indicator Descriptions of the Battery Charger".



The charging circuit turns off automatically, and the green lamp goes on when completely charged. The standard charging time is 60 minutes, however, the charging time slightly changes according to the using condition and temperature. For the battery performance and safety, charge the battery pack with the ambient temperature of 0°C or higher and lower than 40°C. If the red lamp does not go off even if 180 minutes or more passed, malfunction may occur. Bring the charging tools to the "Lobster" dealer.



After completing the charging, take out the battery pack from the charger, and attach it to the cordless riveter firmly until a click sound is heard. Once completely charged, leave the charger 15 minutes or more before starting the next charging.

Nose Piece Selection

Nose piece 3.2mm (1/8") is fitted at the shipment. The nose pieces with other sizes are shipped as accessories. Conform the size to be used, and replace the nose piece with the corresponding one. Wrong size selection of the nose piece will cause jamming the spent mandrel inside. Be sure to use the proper nose piece according to the following table:

Size of nose piece	Applicable rivet
2.4 (3/32")	3-*
3.2 (1/8")	4-*
4.0 (5/32")	5-*
4.8 (3/16")	6-*



[Point]

Remove the battery pack from the cordless riveter before replacing the set nose piece with the other size.

Speed Setting

The cordless riveter is equipped with a two-speed selector lever. The speed can be changed by switching the speed selector lever back and forth.

Select the proper speed according to the size of the rivet to be used. (Refer to Section 7-I.) Using the cordless riveter with an improper speed may cause emitting smoke, resulting in malfunction.

[Point]

Do not change the speed while the motor is rotating.

Firmly set the speed selector lever. Otherwise, the cordless riveter does not work properly even if the motor is operating. If the speed selector lever is difficult to set, idle the motor for 1 to 2 seconds, stop the motor, then set the speed selector lever.

3. Operating the Cordless Riveter

Form a prepared hole (0.1mm to 0.2mm larger than the rivet diameter) correctly in a base material.



2 Insert the main part of a rivet in the prepared hole.



3 Insert the riveter's tip in the mandrel part of the rivet.



Press the switch while lightly pressing the riveter's tip to the base material.



The main part of the rivet is riveted to the base material.



Release the switch when the mandrel is cut. Automatically returned to the original state.

[Point]

If a switch is kept pressed, a clutch becomes effective, and a clutch sound is heard. (This occurs normally.)

Point the riveter tip downward to discharge the cut mandrel from the nose piece.

[Point]

After the mandrel is surely discharged, perform the following revetting. **Do not view in the nose piece.**



4. Inspection/Maintenance

If riveting is performed for a long time, cut pieces of the mandrels and dusts will be collected around the jaw to cause a trouble. Perform periodical inspection/maintenance.

Cleaning inside the frame head (Refer to this section when replacing the replacement parts.)

- If cut pieces are collected, the smoothness of the jaw is impaired, resulting in improper operation.
- Clean once every approximately 1000 ribettings.



- 1 Remove the battery pack from the cordless riveter.
- Remove the frame using a wrench. [Point]

Always perform cleaning after removing the battery pack. If the frame head is loosened without removing a battery pack, the motor will continue operating. Additionally the jaw case may come out to be in the dangerous state.

- Remove the jaw case head using a wrench, and remove the inner parts.
- Clean the removed parts.
- Assemble the inner parts in the reverse procedures of the disassembling procedures.

[Point]

Apply the oil to the back side of the jaw.

- The life of the battery pack is limited. After the battery pack is completely charged correctly, if the number of riveting is extremely reduced, the life of the battery pack has expired. Replace the battery pack with a new one.
- Return the used battery pack to the "Lobster" dealer. Do not dispose of it as domestic refuge, or do not put the battery pack into fire.
- Do not wipe the cordless riveter, battery pack, and charger with thinner, benzine, or volatile equivalent.

[Point]

 Before performing inspection/maintenance, always remove the battery pack from the cordless riveter.

(If the frame head is loosened without removing a battery pack, the motor will continue operating. Additionally the jaw case may come out to be in the dangerous state.)

- Surely assemble the parts, and firmly tighten the fastening parts.
- Jaws are consumables. Replace them periodically.



5. Storing the Idle Cordless Riveter

Store the idle cordless riveter and accessories in a dry place where children are inaccessible. Additionally, if the cordless riveter is stored for a long time, remove the battery pack from the cordless riveter.

6. Indicator Descriptions of the Battery Charger

Charging is automatically started by inserting the battery pack in a charger.

[Normal state]

- Both lamps are not lit.
 The charger is in the waiting condition.
- The red lamp is lit.
- → Charging.
- The green lamp is lit.

 Completely charged.

[Abnormal state]

- If both lamps does not light even if inserting the battery pack in the charger, cool the battery pack, and then insert it again.
- The red lamp does not change from non-lighting to lighting even if inserting the battery pack in the charger, dusts adhered on the terminals of the battery pack is a possible cause.

7. Reference

I.Speed Setting

One of two operation speeds can be selected. Select the proper speed according to the size of the rivet type.

The classification of "HIGH" and "LOW" may change according to the operating conditions. If the motor stops in the "HIGH" speed, use the cordless riveter in the "LOW" speed.

Type(size)	Switching
AP4-	HIGH
AP5-	HIGH
AP6-	LOW
NA3-	HIGH
NA4-	HIGH
NA5-	HIGH
NA6-	HIGH
NCC4-	HIGH
NCC5-	HIGH

Type(size)	Switching
NS3-	HIGH
NS4-	HIGH
NS5-	HIGH
NS6-	LOW
NSA3-	HIGH
NSA4-	HIGH
NSA5-	HIGH
NSA6-	LOW
NSA-C5	HIGH
NSA-C6	LOW

Type(size)	Switching
NSC4-	HIGH
NSC5-	HIGH
NSS5-	LOW
NSS6-	LOW
NST3-	HIGH
NST4-	HIGH
NST5-	LOW
NST6-	LOW

Type(size)	Switching
NTA3-	HIGH
NTA4-	HIGH
NTA5-	LOW
NTA6-	LOW

^{*} Approx. 80 times (NST6-) and approx. 185 times (NSA4-) of riveting can be performed by one charge of the battery pack with sufficient capability. (standard capability)

Type	Material (flange/mandrel)	
AP	Aluminium / Steel	
NA	Aluminium / Aluminium	
NCC	Copper / Copper	
NS	Steel / Steel	
NSA	Aluminium / Steel	
NSC	Copper / Steel	
NSS	Stainless steel / Steel	
NST	Stainless steel / Stainless steel	
NTA	Aluminium / Stainless steel	

size	Rivet diameter	
3-	2.4 (3/32")	
4-	3.2 (1/8")	
5-	4.0 (5/32")	
6-	4.8 (3/16")	

II.Life of the Battery Pack

The standard life of the battery pack is 500 times of charging/discharging.

After the battery pack is completely charged, if the number of riveting is extremely reduced to nearly half of the initial state, the life of the battery pack may be expired. Replace the battery pack with a new one.



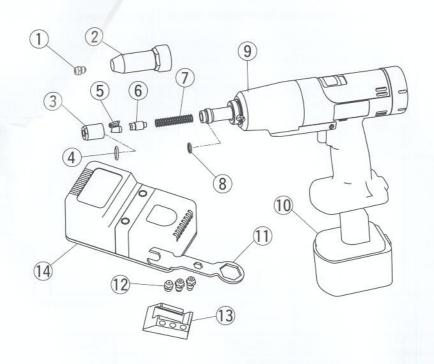
Ni-Cd Ni-Cd Battery When the battery pack is not used for a long time (six months or more), store it in the place 35°C or lower.

After storing for a long time, 4 to 5 times of charging/discharging recover the capacity. (If the battery pack is left without using for a long time, capability may be lowered temporarily.)

The Ni-Cd battery is used for this product. Ni-Cd batteries are recyclable precious resources. When disposing of the used product, return the battery pack as it is to the "Lobster" dealer or our company.

(Always attach caps or apply insulating tapes to the terminals to avoid sKort-circuiting.)

II.Names of Each Part



No.	Parts Name	Code No.
1	Nose piece, 3.2	10028
2	Frame head	40378
3	Jaw case head	10116
4	O-ring P-12	10128
(5)	Ultra-hard jaw (middle)	10281
6	Jaw pusher	10132
7	Jaw pusher spring	40380
8	O-ring S-10	10151
9	Main body	
10	Battery pack BP12G	6929
11)	Wrench A	10141
	Nose piece 2.4	
12	Nose piece 4.0	10029
	Nose piece 4.8	10030
13	Wrench, nose piece holder	40381
	Battery charger	
14)	#Power source AC120V 60Hz #Power source AC230V 50Hz	

IV.Troubleshooting

Check the following items before concluding that a failure has occurred. If the failure remains after checking all items, consult or request repair to our company.

When consulting or requesting repair, check the following items and inform of the using condition, symptom, and so on as in detail as possible.

Symptom	Cause	Countermeasure
A rivet does not enter. Or mandrel cannot be discharged after riveting.	Size selection mistake of nose piece.	Replace the nose piece with proper nose piece suitable for the rivet size.
	Looseness of nose piece or frame head.	Completely tighten using a wrench.
	The contact surfaces of jaw and jaw case head are not smooth (biting).	Clean jaw and inner side of jaw case head, and apply "Lobster" lubricant (or spray lubricant, attached hydraulic fluid, etc.) to the back of jaw.
The number of times of switching operation before	Rivet length is not suitable for using board thickness.	Use proper rivet suitable for the board thickness.
completing riveting increases.	Jaw is worn out.	Replace jaw.
Motor does not stop.	Looseness of frame head	Completely tighten using a wrench.
Motor does not start.	Battery pack is not charged.	Charge battery pack.
	Dusts have adhered to contact part of battery pack and cordless riveter.	Remove dusts.
Riveting capability is lowered even if completely charged.	Life of battery pack has expired.	Purchase a new battery pack.
Charging lamp lights by recharging the battery pack that is completely charged.	It takes time to detect that battery pack is completely charged.	Wait for a while, then charging completion will be indicated.
Noise goes into television and/or radio while charging.	Battery pack is controlled by high frequency.	Charge from another outlet. Be away from television and/or radio.
Charging lamp does not light even if battery pack is inserted.	Dusts have adhered to contact part of battery pack and cordless riveter.	Remove dusts.
	Battery pack is heated.	Charge after battery pack is cooled.
Battery pack cannot be completely charged.	Charged after moving battery pack quickly from cold place to warm place.	Leave it for approx. 1 hour, and charge again.
	Capability of battery pack is lowered temporarily because it is left for a long time.	Refer to Section7-II, "Life of the Battery Pack".

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