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1.0 General Safety Instructions

WARNING!

Do not operate the tool before reading this user manual. If breakdown, malfunction, or damage occurs, contact the distributor or manufacturer immediately.

WARNING!

Failure to follow all safety warnings and instructions may result in electric shock, fire, and/or serious injury.

CAUTION!

Only persons trained and qualified should attempt the installation, operation and diagnosis of this equipment. This cordless power tool is designed for tightening and loosening fasteners and other similar applications. The tool should only be used if the equipment is protected from exposure to explosive environments, excessive or corrosive moisture, dust, dirt, ambient temperatures, vibration and impacts.

WARNING!

The operator bears sole responsibility for any damage caused by inappropriate use. The generally recognized accident prevention regulations and the accompany safety instructions must be observed.

2.0 General Operating Instructions

RAD TOOLS ARE SAFE AND RELIABLE. NOT FOLLOWING PRECAUTIONS AND INSTRUCTIONS OUTLINED HERE CAN RESULT IN INJURY TO YOU AND YOUR FELLOW WORKERS.

NEW WORLD TECHNOLOGIES INC. IS NOT RESPONSIBLE FOR ANY SUCH INJURY.

2.1 Special Safety Information

B-RAD Tools have been designed with safety in mind however as with all tools you **MUST** observe all general workshop safety practices and specifically the following;

- Before using your new tool, get familiar with all its accessories and how they work.
- **ALWAYS** wear safety goggles and gloves when the tool is in operation.
- Keep your body parts clear of the reaction arm and the contact point.
- **NEVER** exceed the maximum tool rated torque. Failure to do this voids warranty.
- Make sure the reaction arm snap ring is securely in place to hold the reaction arm or blank in place.
- **ALWAYS** support the tool in use. The tool must be supported at all times in order to prevent unexpected release in the event of fastener or component failure.

2.2 Setting Direction of Rotation

Only operate the rotational direction switch and transportation switch when the motor is at standstill.

R = Right-Hand Rotation Selected

L = Left-Hand (Reverse) Rotation Selected

0 = Central setting is the Transportation Position (switch-on lock engaged)

2.3 Action of Reaction

2.31 Reaction Arm Height

Ensure the height of the socket is even with the height of the reaction arm as seen below in **figure 2.31A**. The height of the socket cannot be shorter or higher than the height of the reaction arm as seen below in **figure 2.31B**.

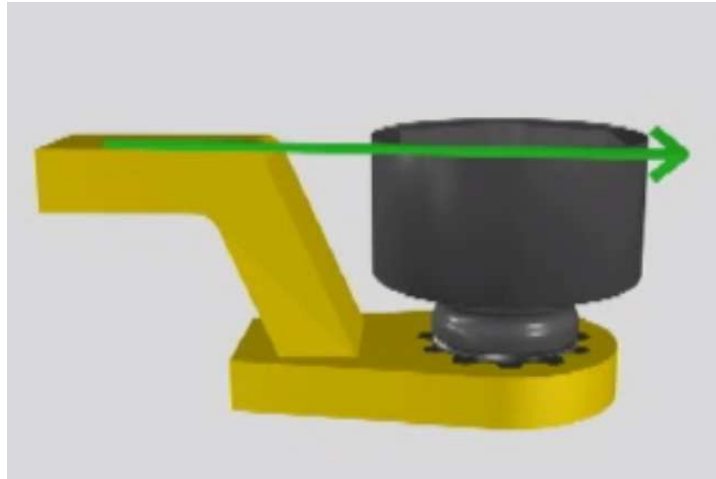


Figure 2.31A

CORRECT: The reaction arm and socket are even height.

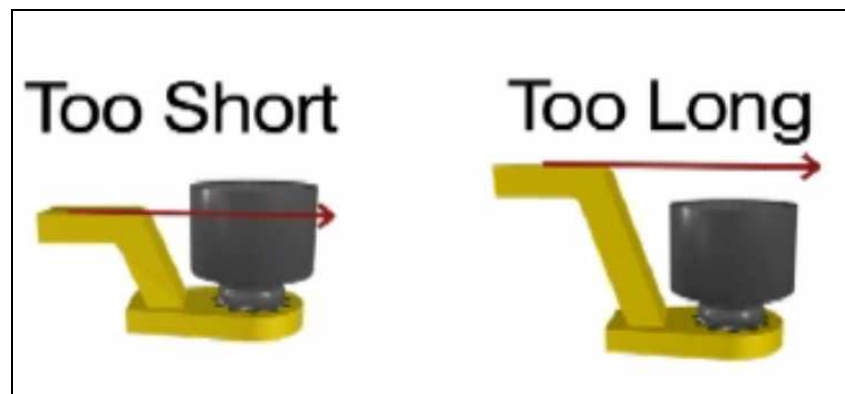


Figure 2.32B

INCORRECT: The leg of the reaction arm is too short on the left side, and too long on the right side.

IMPROPER REACTION WILL VOID WARRANTY AND CAN CAUSE PREMATURE TOOL FAILURE.

2.32 Reaction Arm Foot

Ensure the foot of the reaction arm aligns with the length of the nut as seen in **figure 2.32A**. The length of the foot cannot be shorter or longer than the nut as seen in **figure 2.32B**.

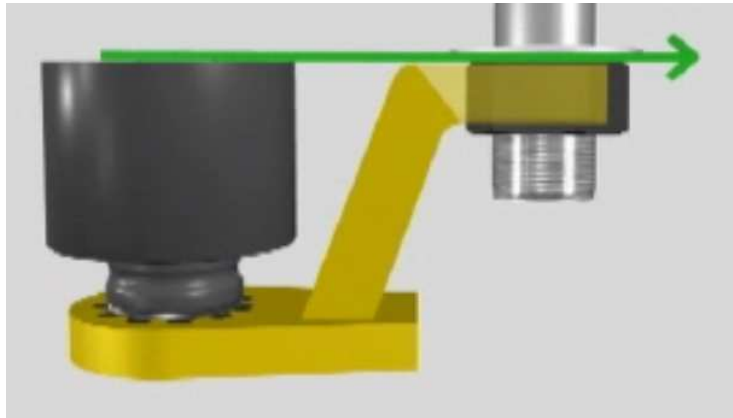


Figure 2.32A

CORRECT: The foot of the reaction arm aligns with the length of the nut.

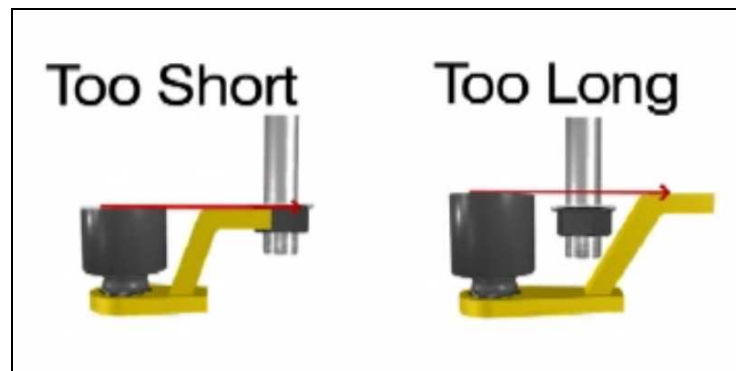


Figure 2.32B

INCORRECT: The foot of the reaction arm is too short on the left side, and too long on the right side.

Please contact New World Technologies Inc or your local RAD Authorized distributor for custom reaction arms.

2.33 Reaction Points

Ensure the reaction arm reacts off the middle of the foot as seen in **Figure 2.33A**. Do not react off the heel of the reaction foot as seen in **figure 2.33B**.

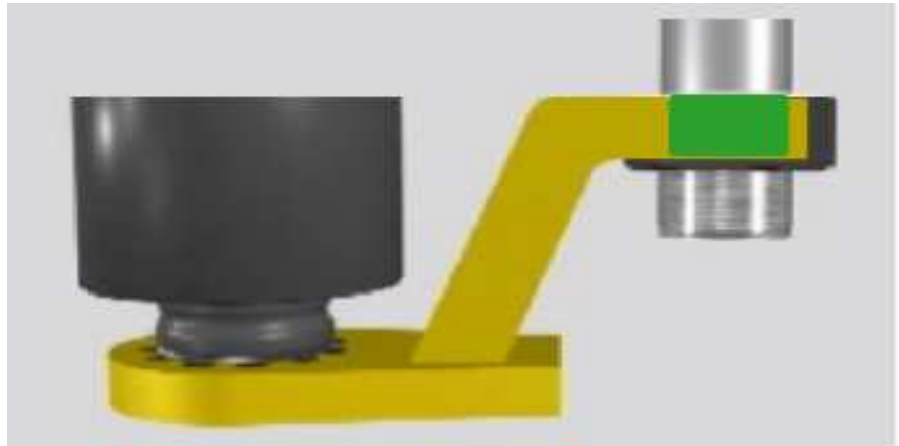


Figure 2.33A

CORRECT: Reaction arm is reacting off the middle of the reaction arm's foot.

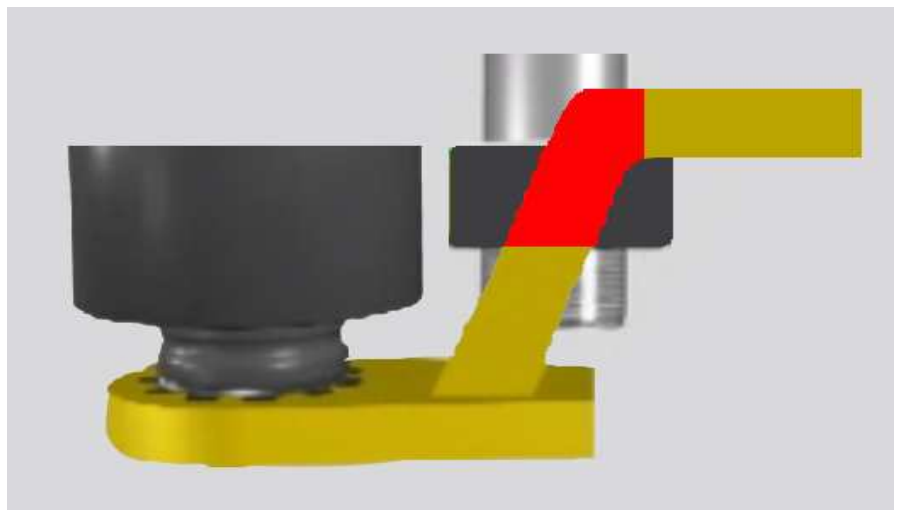


Figure 2.34B

INCORRECT: Reaction arm is reacting off the heel of the reaction arm. This can cause premature tool failure.

CAUTION!

Keep your hand and body parts clear of the reaction arm and barrel when the tool is in operation.



2.4 Installing the Reaction Arm

Ensure the reaction arm and snap ring are installed securely to hold the reaction arm in place. Make sure the reaction arm is in contact with a solid reaction point before you operate the tool. Keep your body parts clear of the reaction arm when the tool is in operation.

When the tool is in operation the Reaction Arm rotates in the opposite direction to the Output Square Drive and must be allowed to rest squarely against a solid object or surface adjacent to the bolt to be tightened (**See Figure 2.4.1**).

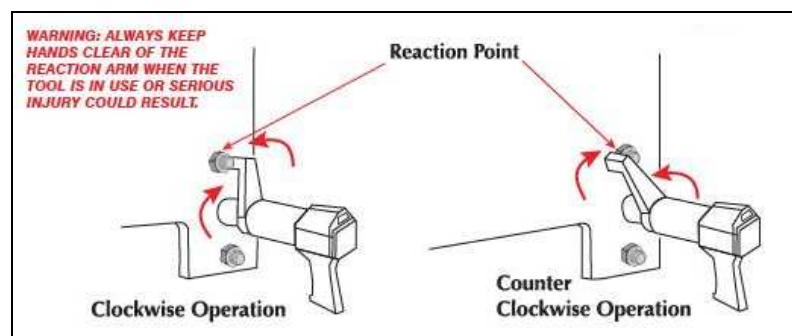


Figure 2.4.1 – Reaction Point

2.5 Setting Torque

Your B-RAD tool comes fully calibrated with a quick reference torque chart label on the barrel of the tool (Figure 2.5.1). Simply rotate the Quick Grip Torque (Figure 2.5.2) to the desired torque setting reference number which can be seen on the torque chart. Once this is done, select forward or reverse and you are ready to torque when you depress the trigger. When the tool reaches the desired torque, the clutch mechanism will slip. When this happens, release the trigger immediately. Damage will result to the tool if the clutch is allowed to slip for extended periods of time.

- 1) Select the torque range based on the amount of Ft.lbs or Nm required as seen on the torque chart label. **Figure 2.5.1**
- 2) Place the dial at the correct torque setting. The torque is now set. **Figure 2.5.2**



Figure 2.5.1 – Chart



Figure 2.5.2 – Torque Settings

- 3) The B-RAD High (2) and Low (1) switch must be set to High (2) setting. The tool has been calibrated to this setting. The number 2 is visible when in this setting as seen in **Figure 5.2.3**.



Figure 2.5.3

NOTE: The mechanical B-RAD is not intended to be a precision torque product. Please consider the E-RAD or Digital Series for precision controlled torque.

3.0 Battery Packs and Charger

CAUTION!

Before initial use, check that the voltage and frequency stated on the rating plate match the figures for your own electrical supply.

WARNING!

Unplug charger immediately if the cable or charger is damaged. Unplug immediately if any sign of smoke or flames.

WARNING!

To reduce risk of injury, charge only rechargeable OEM batteries, other types of batteries may burst causing personal injury and damage.

WARNING!

Do not submit the casing to impact or drill into the casing. Do not throw battery packs or charger in fire or immerse in water! Keep battery packs dry. Keep away from moisture. Use Indoors Only. Do not use any damaged or deformed battery packs. Do not touch battery pack contact terminals or short-circuit them.

WARNING!

RAD chargers should only be operated between 32-120 degrees Fahrenheit (0-49 degrees Celsius). Keep away from moisture.

WARNING!

RAD battery packs should only be charged when battery temperature is between 32–120 degrees Fahrenheit (0-49 degrees Celsius)

WARNING!

Slightly acidic, flammable fluid may leak from defective Li-ion battery packs. If battery fluid leaks out and comes into contact with your skin, rinse immediately with plenty of water. If battery fluid leaks and comes into contact with your eyes, wash them with clean water and seek medical treatment immediately.

Lithium Ion Battery Chargers are to be used exclusively for charging RAD 18V Lithium Ion Battery packs with the maximum capacity of 4AH. The user bears sole responsibility for any damaged caused by inappropriate use. The generally recognized accident prevention regulations and the safety instructions which accompany them must be adhered to.

3.1 Battery Charger

Before initial use, check that the voltage and frequency stated on the rating plate match the figures for your own electrical supply.

Before using the charger for the first time, check that the ventilation slits are clear. Minimum clearance from other objects is 2 inches.

3.1.1 Self Test

Connect to electrical supply, the red and green indicator lights up for approximately 1 second.

3.1.2 Standby Mode

Once the self test is completed, the indicator lights are off.

3.1.3 Battery Pack Charging

Insert the battery pack into the charging shaft socket; push it to the back until it engages.

3.2 Battery Packs

Charge the battery pack before use. Only once it has been charged and discharged five times (charging cycles) does the battery pack reach its full charging capacity. You may store charged Lithium-ion battery packs and recharge them after an interval of no more than six months.

If performance of battery pack diminishes, recharge the battery pack.

3.2.1 Removing and Inserting the Battery Pack

Removal:

Press in the release button and remove the battery pack.

Inserting:

Slide in the battery pack until it engages.

3.3 Battery Pack Faults

3.3.1 Warning Indicator Stays On

The battery pack is not being charged. The temperature is too high or too low. If the temperature of the battery pack is between 32–120 degrees Fahrenheit (0–49 degrees Celsius) the charging process begins automatically.

3.3.2 Warning Indicator Flashes On

The battery pack is defective, remove from charger immediately.

Short circuit between the charging contacts, check charging shaft socket for foreign bodies.

The battery fails to charge, contacts may be dirty. Remove the battery pack, clean the contacts and replace the charger.

Note: In the case of prolonged activity of electromagnetic disturbances, the battery charger ends the charging process prematurely for safety reasons. Remove the plug and plug in again after 2 seconds.

4.0 Accessories

Only use original RAD Accessories.

To assist in selecting correct accessories, please note model of your tool and contact your RAD authorized dealer.

Available items:

| ITEM# | DESCRIPTION |
|-------|-------------------------------------------------|
| 16089 | LTX LI-ION CHARGER, EU PLUG |
| 16090 | LTX LI-ION CHARGER, GB PLUG |
| 16091 | LTX LI-ION CHARGER, USA/CDN PLUG |
| 16092 | LTX LI-ION CHARGER, AU/NZ PLUG |
| 18795 | LTX 18V B-RAD LI-ION BATTERY 3.0AH (MECHANICAL) |

PLEASE CONTACT US FOR CUSTOM REACTION ARMS.

5.0 Repairs

Repairs to electrical tools must be carried out by a qualified electrician. Any RAD electrical power tool in need of repair can be sent to our address listed below or your local RAD Authorized Repair Center.

Please accompany the tool for repair with reaction arm and a full description of the fault. We reserve the right to make alterations in line with advances in technology.

CAUTION!

Repairs to any RAD power tool must be carried out by a qualified electrician only, Warranty VOID otherwise.

6.0 Contact

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