RAD TORQUE SYSTEMS

V-RAD SELECT SERIES

140 - 4.000 Nm

User manual for V-RAD SELECT:

- ***V-RAD SELECT 1400***
- ***V-RAD SELECT 2000***
- ***V-RAD SELECT 4000***

USER MANUAL

Table of contents

GENERAL POWER TOOL SAFETY WARNINGS

WARNING: read all safety warnings and all instructions. failure to follow the warnings and instructions may result in electric shock, fire, and/or serious injury. New World Technologies incorporated is not responsible for any such injury. save all warnings and instructions for future reference.

The term “power tool” in the warnings refers to your mains-operated (corded) power tool.

1. Work Area Safety

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 the 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 the risk of electric shock.
b. **Avoid body contact with earthed (grounded) surfaces such as pipes, radiators, ranges, or refrigerators.** There is an increased risk of electric shock if your body is earthed (grounded).
c. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
d. **Do not abuse the cord. Never use the cord to carry, pull, or unplug the power tool. Keep cord away from heat, oil, sharp edges, and moving parts.** Damaged or entangled cords increase the risk of electric shock.
e. **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
f. **If operating a power tool in a damp location is unavoidable, use a Ground Fault Circuit Interrupter (GFCI) protected supply.** Use of a GFCI reduces 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 personal protective equipment and always wear eye protection.** Protective equipment such as a dust mask, non-skid safety shoes, hard hat, and hearing protection used in appropriate conditions will reduce personal injuries.
c. **Prevent unintentional starting.** Ensure the switch is in the off position before connecting to a power source and/or battery pack, picking up, or carrying the tool. Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.
d. **Keep all body parts clear of moving parts and the reaction contact point.**
e. **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.
f. **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
g. **Dress properly. Do not wear loose clothing or jewellery.** Keep your hair, clothing, and gloves away from moving parts.
h. **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection 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.
b. **Do not use the power tool if the switch does not turn it on and off.** A power tool that cannot be controlled with the switch is dangerous and must be repaired.
c. **Disconnect the power source and/or the battery pack from the power tool before making any adjustments, changing accessories or storing power tools.** Such preventive measures reduce the risk of starting the power tool accidentally.
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. **Power tools must be properly maintained.** Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
f. **Use the power tool and accessories in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those 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 and warranty will not be void.

1. General information

1.1 System Components

RAD Torque Systems B.V. ships the V-RAD SELECT Tool System in a storage case with the following parts:

- V-RAD SELECT (Figure 1.1-1)
- Standard Reaction Arm (Figure 1.1-2) and Snap Ring
- Calibration Certificate
- User Manual

Figure 1.1-1

Figure 1.1-2

1.2 Specifications

1.2.1 Torque Ranges

The following table outlines the torque ranges, in Foot-pounds or Newton-metres, of the available models of V-RAD SELECT:

Tool Model (Imperial)	*Torque Range (ft·lb)*
V-RAD SELECT 1000	100 – 1000
V-RAD SELECT 1500	150 – 1500
V-RAD SELECT 3000	300 – 3000

Tool Model (Metric)	*Torque Range (N·m)*
V-RAD SELECT 1400-M	140 – 1400
V-RAD SELECT 2000-M	200 – 2000
V-RAD SELECT 4000-M	400 – 4000

Table 1.2.1: Torque Ranges

1.2.2 Electrical Specifications

Observe all Electrical Specifications when using the V-RAD SELECT Tool System.

	Units	*120V Model*	*230V Model*
Nominal Input Voltage	VAC	120	230
Minimum Input Voltage	VAC	108	207
Maximum Input Voltage	VAC	132	253
Frequency	Hz	50 / 60	50 / 60
Nominal Input Current	ARMS	9.6	6

Table 1.2.2: Electrical Specifications

1.2.3 Environmental Specifications

CAUTION! Only operate the V-RAD Tool System if the following environmental storage and operation specifications have been met.

Temperature Ranges	***˚C***	***˚F***
Operating Temperature	0 – 35	32 – 95
Storage Temperature	-25 – 70	-13 – 158
Humidity	10% to 90% non-condensing	
Shock	10G according to DIN IEC 68-2-6/29	
Vibration	1G, 10-150Hz according to DIN IEC 68-2-6/29	
Required Operating Conditions	- Non explosive atmosphere - Dry location	

Table 1.2.3: Environmental Specifications

1.2.4 Cycle of Operation

A Cycle of Operation or a Tool Cycle as used in this manual is defined as:

- 5 seconds forward or reverse
- 10 seconds rest

Note: An actual Cycle may vary from the general definition above.

2. Power requirements

The installer of this equipment is responsible for complying with National Electrical Code (NEC) or equivalent and Federal and Local Guidelines and Application Codes that govern protection, Earth Grounding, disconnects, and other current protection for electrical equipment for use in outdoor or indoor applications

2.1 AC Mains Power

DANGER! Electrical Shock can cause serious or fatal injury. Do not touch any power device or electrical connection or remove the V-RAD SELECT cover before ensuring the AC Mains Power has been disconnected and no high voltage is present.

New World Technologies Inc. does not recommend replacing the supplied AC Power Cable.

WARNING! Ensure all AC Mains wiring to the V-RAD SELECT complies with National and Local Electrical Codes. Improper wiring may result in unsafe conditions for equipment and personnel.

The V-RAD SELECT requires model specific 120VAC or 230VAC. Refer to Section 1.2.2 – Electrical Specifications.

3. TOOL SYSTEM

The following sections describe the V-RAD SELECT Handle and the LED display interface.

3.1 Tool Handle

The V-RAD SELECT (Figure 3.1-1) is activated with a Trigger Switch. The Forward/Reverse Switch controls the direction of rotation. The 4-digit LED display shows the Target Torque and the various user menus. The keypad is used to set the desired torque and change tool settings.

1. Trigger Switch
2. Forward/Reverse Switch
3. LED Display (Figure 3.1-2)
4. Three-button keypad and LED unit indicator

Upon receiving your V-RAD SELECT Tool System, please check the following:

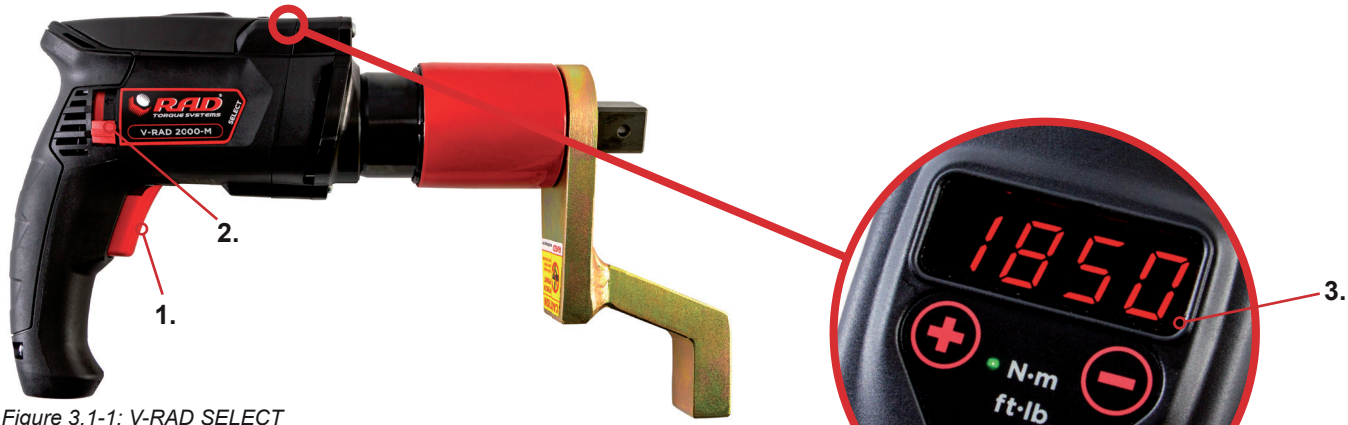


Figure 3.1-1: V-RAD SELECT

Figure 3.1-2: LED Display

1. Check the shipping package condition and report any damage to the carrier that delivered your package.
2. Remove the V-RAD SELECT and accessories from the shipping package and ensure that you have all the components listed above.
3. Do not use the V-RAD SELECT Tool System if the power cord is cut, frayed, or is of the wrong type, or external damage has been done to the gearbox or tool handle.

3.1.1 Trigger Lock

The Trigger Lock is useful when transporting or storing the V-RAD SELECT. The Trigger Lock blocks the On/Off Trigger, disabling the tool. Enable the Trigger Lock while the V-RAD is not in use.

To enable the Trigger Lock:

- Slide the Forward/Reverse Switch to the centre position so that the On/Off Trigger cannot be pressed.

To disable the Trigger Lock:

- Slide the Forward/Reverse Switch to the forward or the reverse position. The On/Off Trigger can be pressed.

3.2 LED Display Interface

The V-RAD SELECT user interface consists of an LED display and three-button keypad (See Figure 3.2-1). The LED display uses four digits to display torque values and the various menus. Use the up and down buttons are used to modify numbers and navigate menus. Use the centre button to enter the Main Menu and set options.

Figure 3.2-1: LED Display Interface

3.3 Power On

Before powering on the V-RAD SELECT:

1. Ensure that the power cord and tool voltage are correct. Do not attempt to use an incompatible power source with the V-RAD SELECT (see Section 1.2.2 – Electrical Specifications).
2. Ensure all loose clothing is kept away from the V-RAD Tool System.
3. Keep the gearbox, reaction arm, and motor components away from yourself when plugging in the V-RAD SELECT.

Turn on the V-RAD SELECT by plugging the power cable into the appropriate outlet. The LED display will show the Target Torque once the unit has powered on. The V-RAD SELECT will be ready to operate immediately. To change the Target Torque and access other user functions, see Section 4 – Interface and Settings.

4. INTERFACE AND SETTINGS

4.1 Changing Torque

CAUTION! The V-RAD SELECT must be calibrated before use. If the V-RAD SELECT does not run or produce the correct torque value, contact RAD Torque Systems B.V. Technical Support (Section 8 – Contact Us) or your RAD Distributor.

When the V-RAD SELECT is powered on, the LED Display will start in Torque Mode (Figure 4.1-1).

Note: If the tool has just been calibrated, the LED Display will show the tool's rated minimum torque.

Figure 4.1-1: Torque Mode Display

When N·m (metric) units are used, the "N·m" indicator will light on the keypad. When ft·lb (imperial) units are used, the "ft·lb" indicator will light. (Refer to Section 4.2.1 – Change the Torque Units)

To change the torque value:

1. Press and hold either the + or - the button until a digit starts blinking. The - (minus) button starts the left- most digit blinking. If you press and hold the - button again, the selected digit moves to the right. The opposite happens with the + (plus) button. If you hold a button down for a couple seconds, the digit stops blinking.

2. Press the + or - button to change the digits one unit at a time. You can select other digits (see Step 1) to fine- tune the torque setting.

3. The selected torque value will be saved and ready after 5 seconds. Alternatively, press the (centre) button to save the torque. The display will flash, indicating that the value is saved.

Select Mode:

The torque may be set in discrete levels from 1 to 50 over the calibrated range instead of using torque units (see Section 4.3 – Unlock Levels for the feature code). Setting 1 is the minimum calibrated torque, setting 50 is the maximum calibrated torque, and the points in between are evenly spaced over the tool's range. When Select Mode is entered, the selected torque value is converted into the corresponding Select value.

4.2 Menu Items

The menu allows you to change torque units, change LED brightness, enter an unlock code, view the program version, and set up the tool configuration. This section refers to the features available in the Basic unlock mode (see Section 4.3 – Unlock Levels). The menu items are described below.

To enter the Main Menu:

- While in Torque mode, hold the (centre) button until the LED under the display starts to blink.
- To move to the next item, press the + button. To go to a previous menu item, press the - button.
- To enter a menu to view the submenu or change values, press the button.
- To change values, press and hold either the + or the - button until one digit starts to blink. Number values can be changed by pressing + or -.
- To exit the menu or submenu, hold the button until the LED under the display starts to blink. If an unlock code was entered, the locked or unlock mode will be displayed before the menu exits (see Section 4.3 – Unlock Levels for a list of codes).

4.2.1 Change the Torque Units

Press the + or the - button to toggle between ***n*** (newton-metres) and ***f*** (foot-pounds) as shown in Figures 4.2.1-1 and 4.2.1-2.
To exit the Unit Select menu, press the button.

The N·m indicator lights when Newton·metre units are used (Figure 4.2.1-3), and the ft·lb indicator lights when foot·pound units are used (Figure 4.2.1-4).

Note: When the units are changed, the torque setting will be converted into the new units.

Figure 4.2.1-1: Units – Nm

Figure 4.2.1-2: Units – ft·lb

Figure 4.2.1-3: Nm Display

Figure 4.2.1-4: ft·lb Display

4.2.2 Change the LED Brightness

The next menu item is “Lite.” The number of lines shown depict how bright the LED Display is (Figures 4.2.2-1 and 2). Use the + and - buttons to change the display brightness.

Figure 4.2.2-1: Lite Menu


Figure 4.2.2-2: LED Brightness

4.2.3 Enter a Lock or Unlock Code

1. The next menu item, “Lock,” allows you to change the set of features that are available to the user (see Section 4.3 – Unlock Levels). The flashing line indicators on the screen keep track of the number of button presses used to enter a code (Figures 4.2.3-1 and 2).
2. Enter a code using thethe + and - buttons. The desired code will depend on which features are needed.
3. Press the button to accept the code and close the menu. When you exit the main menu, the new Unlock level will scroll across the screen.

Figure 4.2.3-1: Lock Menu


Figure 4.2.3-2:
Code Entry – Button Presses

4.2.4 Tool Model

The Tool Model menu shows which gearbox model is selected. The tool model may only be changed by an authorized calibration laboratory.

Figure 4.2.4-1: Tool Model

4.2.5 Lower Limit

The “Lo” menu option displays the lower torque limit of the tool. This option is normally set to 10% of the rated torque and may be increased up to 20% of the rated torque by an authorized calibration laboratory.

Figure 4.2.5-1: Lower Limit

4.2.6 Upper Limit

The “Hi” menu option displays the upper torque limit of the tool. This value can only be set as high as the rated maximum torque, and may be set as low as 80% of the rated torque by an authorized calibration laboratory.

Figure 4.2.6-1: Upper Limit

4.2.7 Serial Number

The last four digits of the unique stamped serial number are displayed in this menu.

Figure 4.2.7-1: Serial Number

4.2.8 Clock and Calendar

The Clock menu flashes the 24-hour time when the menu heading is displayed (Figure 4.2.8-1). You can set the date and time within the menu.

Figure 4.2.8-1: Clock Menu

4.2.9 View Program Version

The program menu (Figure 4.2.9-1) displays the controller firmware version. When you enter the menu, the program version number will scroll across the screen.

Figure 4.2.9-1: Program Menu

4.3 Unlock Levels

The V-RAD SELECT has several access levels which change the operation of the tool and the interface. The access levels are described below. The codes may be entered using the Lock Code menu (see Section 4.2.3 – Enter a Lock or Unlock Code). After the code is entered and the menu is closed, the level is displayed on the LED display. If the wrong code is entered, no message will be displayed after exiting.

Function	Level			
	Locked	Basic		Calibrate
		Select	Torque	
Change units	√	X	√	√
Change LED brightness	√	√	√	√
Enter unlock codes	√	√	√	√
View tool model	√	√	√	√
View low/high torque limit	√	√	√	√
View serial number	X	√	√	√
Set date and time	X	√	√	√
View program version	X	√	√	√
Set torque (units indicated)	X	X	√	√
Set torque level (1 – 50)	X	√	X	√
Change calibration values	X	X	X	√

Table 4.3-1: User Access Levels and Functions

Access Level	***Code***
Locked/Basic	
Select Mode	
Torque Mode	
Calibrate	*Contact Us or your RAD distributor*

Table 4.3-2: Unlock Levels, Features, and Codes

5. GENERAL OPERATING INSTRUCTIONS

CAUTION! Only qualified personnel with training in the safe operation of torque tooling and the V-RAD Tool System should operate this tool. Refer to the Important Safety Notice for more information.

The V-RAD operates in Torque Cycles. The Torque Cycle passes when the Actual Torque reaches the Target Torque, and the Cycle fails if it is interrupted before the Actual Torque reaches the Target Torque. This section will cover how to use the Reaction Arm needed for V-RAD operation and how to conduct a Torque Cycle.

5.1 Reaction Arm

WARNING!

ALWAYS KEEP BODY PARTS CLEAR OF THE REACTION ARM WHEN THE V-RAD SELECT TOOL SYSTEM IS IN USE. SERIOUS INJURY COULD OCCUR.

CAUTION!
Ensure that the Reaction Arm has a solid contact point before operating the V-RAD SELECT Tool System. Improper reaction will void warranty and can cause premature tool failur**E.**

Please contact New World Technologies Inc. or your local RAD Authorized Distributor for information on custom Reaction Arms.

5.2 Assembly

1. Make sure the battery is fully charged.
2. Slide in the battery pack until it engages.
3. Fasten and secure the reaction arm on the jagged side of the gearbox with the retaining ring.

4. Spread the retaining ring open with a screwdriver and place the open side in the groove at the end of the gearbox.

5. Then gradually press the retaining ring until it is completely closed.

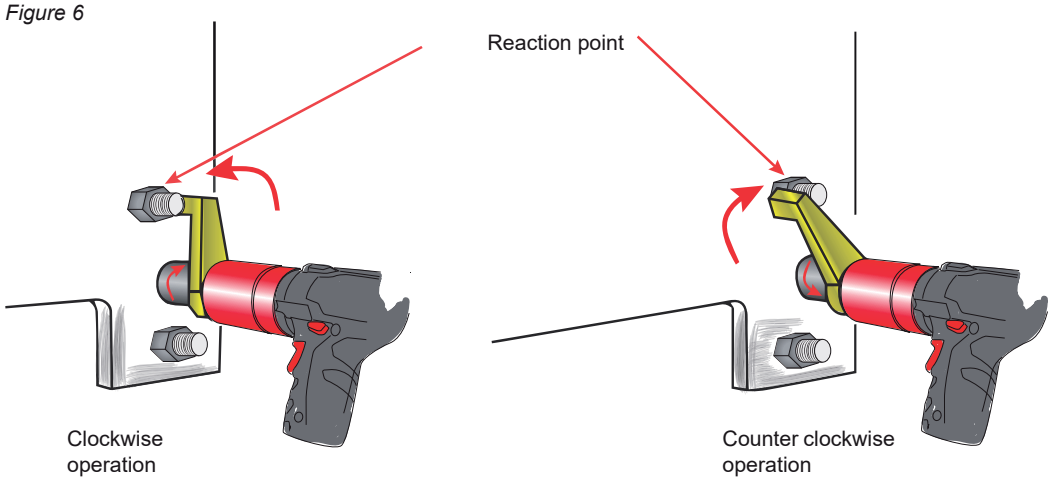
6. To remove the reaction arm, place a screwdriver at the beginning of the retaining ring and spread the retaining ring open. Then pull the retaining ring off and remove the reaction arm.

5.3 Movement of the reaction arm

Installing the reaction arm

Ensure the reaction arm and retaining 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. 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 6.

Figure 6



WARNING: While in use, this tool must be supported at all times in order to prevent unexpected release in the event of a fastener or component failure!

Reaction arm height

Ensure the height of the socket is even with the height of the reaction arm as seen below in Figure 6A. The height of the socket cannot be shorter or higher than the height of the reaction arm as seen below in Figure 6B and Figure 6C.

Figure 6A

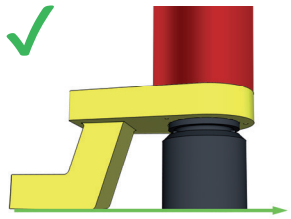


Figure 6B

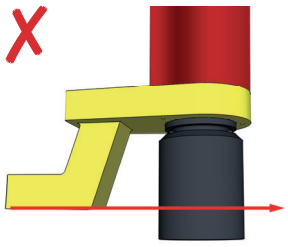
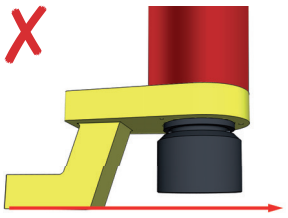


Figure 6C



NOTE: Improper reaction will void warranty and can cause premature tool failure.

Reaction arm foot

Ensure the foot of the reaction arm aligns with the length of the nut as seen in Figure 7A. The length of the foot cannot be shorter or longer than the nut as seen in Figure 7B and Figure 7C.

Figure 7A

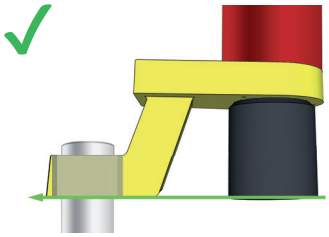


Figure 7B

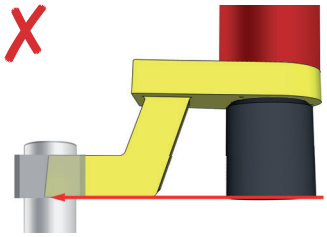
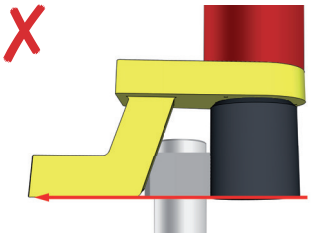


Figure 7C



Reaction point

Ensure the reaction arm reacts off the middle of the foot as seen in Figure 8A. Do not react off the heel of the reaction foot as seen in Figure 8B.

Please contact RAD Torque Systems B.V. or your local RAD authorized distributor for custom reaction arms.

WARNING: Always keep your hand and body parts clear of the reaction arm and barrel when the tool is in operation, see Figure 8C.

Figure 8A

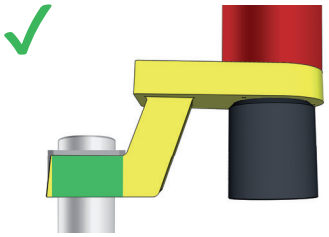


Figure 8B

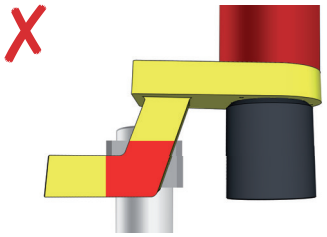
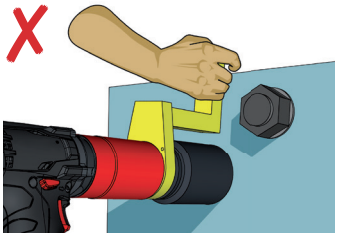


Figure 8C



5.4 Torque Operation

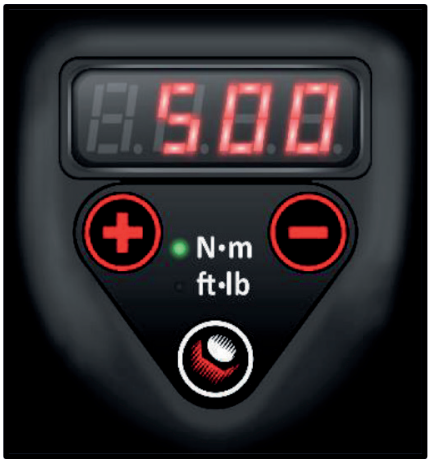


Figure 5.2-1: Torque Mode

To operate the tool in a Torque Cycle:

1. Ensure the tool is in Torque mode (example in Figure 5.2-1).

2. Ensure the LED Display is showing the correct units (see Section 4.2.1 – Change the Torque Units).

3. Change the torque value as desired (see Section 4.1 – Changing Torque). Allow the display to flash after changing the torque, indicating that the torque value is saved and set.

4. The V-RAD SELECT is ready to torque at the displayed setting. Place the V-RAD on the joint system. Ensure the Forward/ Reverse Switch is in the Forward position.

5. Press and hold the On/Off Trigger.
Note: To stop the Torque Cycle at any time, release the On/Off Trigger.

6. When the V-RAD reaches the selected Torque, the tool will stop turning. Release the On/Off Trigger.

6. CALIBRATION

CAUTION!
Only qualified personnel with training in the safe operation of torque tooling and the V-RAD SELECT Tool System should operate this tool. Improper use of the calibration function may result in tool damage. Do not calibrate at Target Torques that result in exceeding the V-RAD SELECT Tool System's Torque Range. Severe tool damage will occur.

This function allows the operator to access the calibration values for the V-RAD. These values should only be modified by a Qualified Calibration Technician and using a Calibration Stand.

6.1 Calibration Menu Navigation

Calibration is only available in the Calibration unlock level. Contact us or your RAD distributor for details.

To enter the Calibration menu:
- Enter the main menu.
- Use the + or the - button to select the "Cal" option.
- Press the (Centre) button to enter Calibration.

To change numeric values within each menu:
- Press the button to enter numeric display mode. Note that the V-RAD SELECT will only operate when the numeric display is shown.
- Press and hold either the + or the - button until a digit flashes. Repeat until the desired digit is flashing, then use the + or - button to change the number.
- To exit the edit mode, press and hold either button. The value will be saved and the cursor will stop flashing.
- To exit the numeric display, press the button.

To advance the menu items:
- Press the + to advance to the next menu item or the - button to return to the previous menu item.
- Note that the saved value inside a menu item will briefly appear on the screen when the menu title is displayed.
- Any changed values will be saved when the menu is advanced.

6.2 Table of Tool Models

Table 6.2 shows which Gearbox setting corresponds to the desired tool model. The gearbox selection is set in factory and may only be changed by an approved calibration laboratory.

Gearbox Designator	Tool Model
G01	20 – 200 ft·lb
G02	30 – 270 N·m
G03	40 – 350 ft·lb
G04	50 – 470 N·m
G05	50 – 500 ft·lb
G06	70 – 700 N·m
G07	70 – 700 ft·lb
G08	100 – 950 N·m
G09	100 – 1000 ft·lb
G10	140 – 1400 N·m
G11	150 – 1500 ft·lb
G12	200 – 2000 N·m
G13	250 – 2500 ft·lb
G14	340 – 3400 N·m
G15	300 – 3000 ft·lb
G16	400 – 4000 N·m
G17	340 – 3400 ft·lb
G18	460 – 4600 N·m
G19	500 – 5000 ft·lb
G20	680 – 6800 N·m

Table 6.2: Calibration Mode Gearbox Values

6.3 Calibration Procedure

To Calibrate the V-RAD SELECT:

1. See Section 4.3 – Unlock Levels to ensure that the Calibration access level is enabled.
2. Attach the V-RAD SELECT to a calibration stand with a torque transducer and torque readout. Ensure the calibration stand units are the same as the V-RAD SELECT units.
3. Before any calibration points are set, warm up the tool near the maximum torque setting.
4. Change to the Cal 1 calibration menu.
5. Press the button to display the torque value and enable the tool.
6. Operate the tool for one torque cycle, letting the tool stop. Record the peak torque measured by the calibration stand transducer.
7. Reverse the tool.
8. Enter the actual measured torque into the Cal 1 value using the procedure in Section 6.1 above.
9. Press the button to exit the value display.
10. Press the - button to move to the next calibration point.
11. Repeat steps 5 – 10 for all eight calibration points.
12. Press and hold the button to exit and save the calibration.

CAUTION! DO NOT operate the V-RAD SELECT Tool System above the rated maximum torque. Overtorquing the tool will cause severe tool damage.

If the units are changed using the Information Menu (see Section 4.2.1 – Change the Torque Units), the calibration values will be converted in the menu.

7. TROUBLESHOOTING

IMPORTANT!
Disassembling or attempting repair will void warranty.

If breakdown, malfunction, or error occurs, contact RAD Torque Systems B.V. Technical Support (refer to Section 8 – Contact Us).

The LED Display may exhibit abnormal behaviour depending on operating conditions, frequency of use, or excessive wear on the Display Module.

The Display Module is designed to withstand normal use over the lifetime of the V-RAD SELECT Tool System; however, as a sensitive electronic device it is susceptible to damage caused by shock, moisture, or excessive force.

8. Warranty

8.1 New tool warranty
(1) RAD B.V. guarantees the proper performance of the goods delivered for a period of twelve (12) months after delivery to the final customer and is limited to fifteen (15) months after the original RAD B.V. calibration date. (2) Excluded from this warranty are electric components of RAD B.V.'s digital tools (e.g. MB-RAD, MV-RAD, E-RAD, SmartSocket™, RT and TV-RAD) which have a twelve (12) month warranty after date of delivery to the final customer with a maximum of nine (9) months after the original RAD B.V. calibration date. Mechanical components of these tools fall under the terms of paragraph 1.

8.2 Repaired tool warranty
(1) Once a tool is beyond its new tool warranty, RAD B.V., for a period of three (3) months from the date of repair, will replace or repair for the original purchaser, free of charge, any part or parts, found upon examination by RAD B.V., to be defective in material or workmanship or both. If any tool or part is replaced or repaired under the terms and conditions of this warranty, that tool or part will carry the remainder of the warranty from the date of original repair. To qualify for the above mentioned warranties, written notice to RAD B.V. must be given immediately upon discovery of such defect, at which time RAD B.V. will issue an authorization to return the tool. The defective tool must promptly be returned to RAD B.V., all freight charges prepaid. When returning a tool, the reaction arm(s) being used with the tool must also be returned.

8.3 Customer cannot invoke a warranty if
(1) the defect, wholly or partly, is due to unusual, inappropriate, improper or careless use of a delivery;
(2) the defect, wholly or partly, is due to normal wear and tear or lack of proper maintenance;
(3) the defect, wholly or partly, is due to installation, assembly, modification and/or repair by the Customer or by third parties;
(4) the delivery is altered, modified, used or processed; (5) the delivery is transferred to a third party;
(6) RAD B.V. has obtained the tool, wholly or partly, from a third party, and RAD B.V. cannot claim compensation under warranty;
(7) RAD B.V. in manufacturing of the tool, has used raw materials, and suchlike on the instructions of the Customer;
(8) the tool has a small deviation in its quality, finishing, size, composition and suchlike, which is not unusual in the industry or if the defect was technically unavoidable;
(9) the Customer has not promptly and correctly fulfilled all obligations under the agreement towards RAD B.V.

9. Contact

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Website: www.radtorque.eu

Notes

RAD®
TORQUE SYSTEMS

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