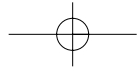


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Instruction Manual

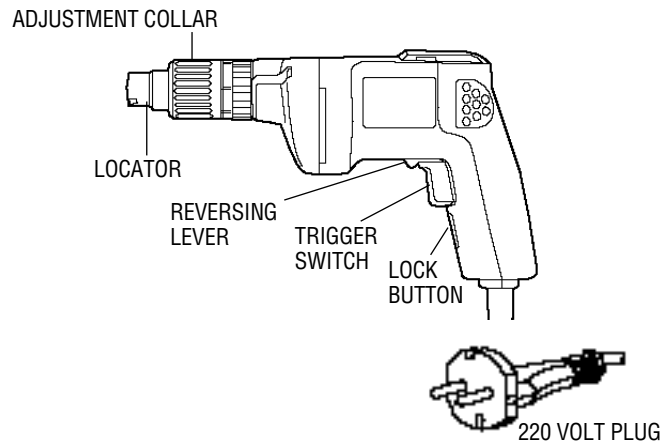
2037-220 • 2038-220 • 2054-220 • 2059-220

Screwdrivers

Getting the most out of your tool.

Please take time to read this manual and pay particular attention to the safety rules we've provided for your protection. If you have any questions about your tool please call:

1-800-9-BD TOOL
(1-800-923-8665)



2037-220	0-4000 RPM	VSR Drywall Screwdriver
2038-220	0-2500 RPM	VSR Drywall Framing Screwdriver
2054-220	0-2500 RPM	VSR Versa Clutch Screwdriver
2059-220	0-2500 RPM	VSR Depth Sensitive Screwdriver

IMPORTANT SAFETY INSTRUCTIONS

WARNING: When using electric tools, basic safety precautions should always be followed to reduce risk of fire, electric shock, and personal injury, including the following:

READ ALL INSTRUCTIONS

Double Insulation

Double insulated tools are constructed throughout with two separate layers of electrical insulation or one double thickness of insulation between you and the tool's electrical system. Tools built with this insulation system are not intended to be grounded. As a result, your tool is equipped with a two prong plug which permits you to use extension cords without concern for maintaining a ground connection.

NOTE: Double insulation does not take the place of normal safety precautions when operating this tool. The insulation system is for added protection against injury resulting from a possible electrical insulation failure within the tool.

CAUTION: WHEN SERVICING USE ONLY IDENTICAL REPLACEMENT PARTS. Repair or replace damaged cords.

Safety Instructions For All Tools

- **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite injuries.
- **CONSIDER WORK AREA ENVIRONMENT.** Don't expose power tools to rain. Don't use power tools in damp or wet locations. Keep work area well lit. Do not use tool in presence of flammable liquids or gases.
- **GUARD AGAINST ELECTRIC SHOCK.** Prevent body contact with grounded surfaces. For example; pipes, radiators, ranges, and refrigerator enclosures.
- **KEEP CHILDREN AWAY.** Do not let visitors contact tool or extension cord. All visitors should be kept away from work area.
- **STORE IDLE TOOLS.** When not in use, tools should be stored in dry, and high or locked-up place — out of reach of children.
- **DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was intended.
- **USE RIGHT TOOL.** Don't force small tool or attachment to do the job of a heavy-duty tool. Don't use tool for purpose not intended.
- **DRESS PROPERLY.** Do not wear loose clothing or jewelry. They can be caught in moving parts. Rubber gloves and non-skid footwear are recommended when working outdoors. Wear protective hair covering to contain long hair.
- **USE SAFETY GLASSES.** Also use face or dust mask if operation is dusty.
- **DON'T ABUSE CORD.** Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges.
- **SECURE WORK.** Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate tool.
- **DON'T OVERREACH.** Keep proper footing and balance at all times.
- **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and if damaged, have repaired by authorized service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean, and free from oil and grease.
- **DISCONNECT OR LOCK OFF TOOLS** when not in use, before servicing, and when changing accessories, such as blades, bits, cutters.
- **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
- **AVOID UNINTENTIONAL STARTING.** Don't carry tool with finger on switch. Be sure switch is off when plugging in.

- **EXTENSION CORDS.** Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. The following table shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.

		Minimum Gage for Cord Sets			
Volts		Total Length of Cord in Feet			
120V		0-25	26-50	51-100	101-150
240V		0-50	51-100	101-200	201-300
Ampere Rating		AWG			
More Than	Not more Than				
0	-	6	18	16	14
6	-	10	18	16	12
10	-	12	16	16	14
12	-	16	14	12	Not Recommended

- **OUTDOOR USE EXTENSION CORDS.** When tool is used outdoors, use only extension cords intended for use outdoors and so marked.
- **STAY ALERT.** Watch what you are doing. Use common sense. Do not operate tool when you are tired.
- **CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless otherwise indicated elsewhere in this instruction manual. Have defective switches replaced by authorized service center. Do not use tool if switch does not turn it on and off.
- **CAUTION:** When drilling or driving into walls, floors or wherever live electrical wires may be encountered, DO NOT TOUCH ANY METAL PARTS OF THE TOOL! Hold the tool only by insulated grasping surfaces to prevent electric shock if you drill or drive into a live wire.

SAVE THESE INSTRUCTIONS

Switch

To start tool, depress the trigger switch, shown in Figure 1. To stop tool, release the switch. The **variable speed trigger switch** permits speed control. The farther the trigger switch is depressed, the higher the speed of the tool.

To lock the switch in the on position for continuous operation, depress the trigger switch and push up the **locking button**. The tool will continue to run. To turn the tool off, from a locked on condition, squeeze and release the trigger once. Before using the tool (each time), be sure that the locking button release mechanism is working freely. Be sure to release the locking mechanism before disconnecting the plug from the power supply. Failure to do so will cause the tool to start immediately the next time it is plugged in. Damage or injury could result. The **reversing lever** is used to reverse the tool for backing out screws. It is located above the trigger, shown in Figure 1. To reverse the screwdriver, turn it off and push the reversing lever to the left (when viewed from the locator). To position the lever for forward operation, turn the tool off and push the lever to the right.

Dead Spindle Action

All B&D screwdrivers provide a dead front spindle to permit fasteners to be located in the driving accessory. Clutches are held apart by light spring pressure permitting the driving clutch to rotate without turning the driven clutch and accessory. When sufficient forward pressure is applied to the unit, the clutches engage and rotate the spindle and accessories. A reversing switch makes it possible to drive or loosen either right or left hand screws.

Accessory Assembly

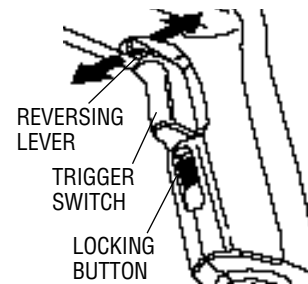
The 1/4" **hex drive ball lock chuck** is used on all depth sensitive and drywall screwdrivers. Assemble accessories by engaging the hex spindle and tapping lightly on the accessory until it snaps in place. Usually pliers are required to remove the accessory by pulling forward. The 1/4" **hex drive quick change chuck** (Figure 2), is used on all versa clutch units. A ball retainer provides positive locking of all accessories in the chuck. Push forward on the ball retainer and hold while inserting or removing accessories. Release for positive accessory retention.

Depth Sensitive Units (2059-220)

To Change Bit Holders:

1. Pull forward on adjustment collar and remove from clutch housing.
2. Pull bit holder straight out with pliers if it is difficult to remove.
3. Push new bit holder into spindle until ball lock snaps in groove in bit holder shank.
4. Replace adjustment collar by snapping over retaining ring.

Figure 1



2

BIT

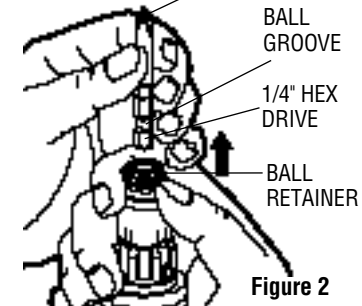


Figure 2

NOTE: Align ribs on inside of depth locator with grooves in clutch housing before snapping into place.

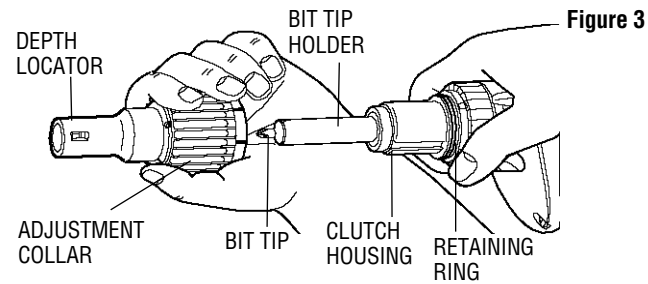
5. Depth locator is removable by unscrewing dust seal.

Changing Bit Tip

1. Pull forward on adjustment collar and remove it from clutch housing. It may be quite stiff. (See Figure 3)
2. Use pliers to remove worn bit and install new bit tip.

Depth Adjustment: Drywall Units (2037-220, 2038-220)

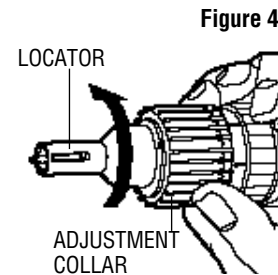
1. Rotate adjustment collar (Figure 4). Clockwise rotation will provide deeper seating of screws.
2. Test drive a fastener in scrap material to determine if fastener is correctly seating.
3. Further adjustment may be necessary to increase or decrease the fastener depth.
4. **To increase depth**, turn adjustment collar so that end of bit extends further from end of locator.
5. **To decrease depth**, turn adjustment collar so that end of bit is closer to the end of locator.



Installing and Changing Nutsetters and Locators

Depth Sensitive Units for Drill Point Screws

1. Select nutsetter size desired.
2. Two locators are supplied, a 9/16" ID for 3/8" nutsetters and 1/2" ID for 5/16" nutsetters (1/2" ID supplied on unit). Match locator to desired size nutsetter or bit holder.
3. Drop nutsetter into nose of locator and wrap end of nutsetter until ball lock snaps in groove in nutsetter shank.
4. To change the nutsetter or locator, pull forward on adjustment collar and remove from clutch housing.



5. Pull nutsetter straight out with pliers if it is difficult to remove.
6. Assemble nutsetter as shown in Figure 5.
7. Reassemble adjustment collar by snapping over ring. **NOTE:** Align ribs on inside of depth locator with grooves in clutch housing.

Depth Adjustment

Depth Sensitive Units for Drill Point Screws

1. For washer head screws: rotate adjustment collar until end of nutsetter is flush with end of locator.
2. For large washer head and sealer screws: adjust as above until nutsetter is recessed approximately 1/16" into the locator.
3. Test drive a fastener in scrap material to determine if seating is correct.
4. Readjust if necessary.

Depth sensitive units have very fine depth settings, each "click" is .007" (One revolution of the locator collar equals .083" change in depth setting).

Versa Clutch Units (2054-220)

External adjustment of all versa clutch units for a wide range of fastener sizes is fast and easy as follows: (See Figure 6)

1. Rotate collar in increase direction (stamped on adjustment collar) to increase the amount of clutch engagement and torque output.
2. Maximum rotation of the collar in the increase direction results in full clutch engagement and maximum torque output and fastener capacity. Any decrease from maximum results in the thrust bearing contacting the bearing stop and limits the clutch engagement, decreasing torque output. Collar and adjustable stop will not screw off clutch housing.
3. Test drive a fastener into a scrap piece to check proper fastener seating. It is normal after a period of use to require a slightly different collar setting due to wear on the clutch faces.

Figure 5

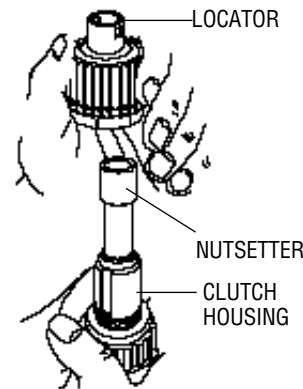
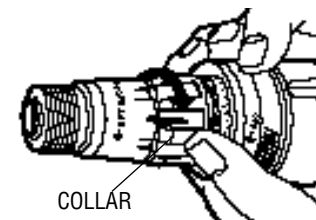


Figure 6



Positive Clutch Units

1. Install proper bit and set screwdriver for correct rotation.
2. Place fastener on bit and contact work.
3. Apply steady pressure on screwdriver to keep clutches engaged and bit in contact with fastener.
4. Upon fastener seating, clutches will ratchet. Disengage bit from fastener.

Depth Sensitive Units (2059-220)

1. Install proper size nutsetter, socket, bit or driving accessory and proper inside diameter locator to prevent fastener wobble.
2. Adjust depth locator.
3. Check for correct rotation, start screwdriver and place fastener in nutsetter, socket, or bit.
4. Contact work piece, applying pressure to keep drilling screws cutting. Upon fastener seating, depth locator will contact work piece causing screwdriver to automatically ratchet, disengaging the driving accessory from fastener.

Depth Sensitive Drywall Units

1. Install drywall bit in bit holder.
 2. Adjust depth locator.
 3. Check for correct rotation, start tool and place drywall screw on bit.
 4. Contact drywall applying forward pressure to drive screw until depth locator contacts work surface. Screwdriver will ratchet automatically.
- (These units will accept all commercially available drywall screws)

Versa Clutch Units

1. Install proper fastener accessory and set screwdriver for correct rotation.
2. Adjust clutch setting.
3. Place fastener in accessory, contact work piece and apply pressure to seat fastener, keeping clutches engaged.
4. Upon fastener seating, the clutches will ratchet. Disengage screwdriver from fastener.

NOTE: With versa clutch, the operator has the ability to “override” clutch ratchet if a fastener hits a wood knot, variable hardness in steel work pieces

or incorrect pilot holes. Increased operator pressure will usually cause the clutches to pick-up and continue to seat the fastener. Further, a quick twist of the collar will change the clutch setting to overcome most driving difficulties and will provide for immediate change in torque output giving the operator the option to drive a range of fastener sizes.

Changing Clutches

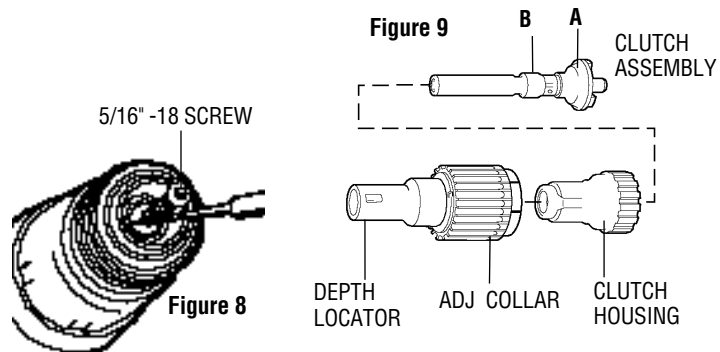
1. Remove clutch housing by unscrewing (left hand thread).
2. Clamp tool or clutch housing in a resilient clamp.
3. Remove round clutch retaining rings with a very small screwdriver (See Figure 8).
4. Install new clutches and new retaining rings.

NOTE: If the output spindle slides toward inside of gear case, remove dead spindle spring and thread a 5/16"-18 bolt or cap screw into end of spindle and lift up to expose retaining ring groove. Reassemble dead spindle spring allowing no more than 1/4" projecting from end of spindle.

5. Relubricate clutches (See Lubrication).

Cleaning

With the motor running, blow dirt and dust out of all air vents with dry air at least once a week. Wear safety glasses when performing this. Exterior plastic parts may be cleaned with a damp cloth and mild detergent. Although these parts are highly solvent resistant, **NEVER** use solvents. **Drywall Scruguns:** Depth locator and adjustment collar should be removed, and drywall dust blown out of clutch housing area at least once a week.



Lubrication

All ball bearings and needle roller bearings are factory lubricated for the life of the bearings. Needle roller bearings receive additional lubrication from the grease in the gear case. Gearing and gear case should be relubricated every 6 months or when gear case is removed for servicing as follows: (more often if the tool is used constantly on production jobs.)

1. Remove 3 gear case screws from front and disassemble gear case.
2. Clean out old grease and thoroughly clean all parts.
3. Relubricate gear box and gearing with the quantity of B&D heavy duty grease as called for on parts bulletin.
4. Reassemble.

Clutches should be lubricated at same time the gearing is lubricated as follows:

1. Remove clutch housing by unscrewing (left hand thread).
2. On drywall, depth sensitive units slip clutch assembly from clutch housing.
3. Lightly brush or coat areas marked A, B, with B&D clutch grease (69251). Coat clutch face inside nose of gear case (Figure 9).
4. On positive and versa clutch units, the clutch assembly will not slip out of clutch housing. It is necessary only to coat the clutch faces on these units.
5. Reassemble clutch housing.

IMPORTANT!

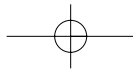
To assure product safety and reliability, particularly for double insulated tools, repairs, maintenance and adjustment (excluding maintenance described in this manual) should be performed by B&D service centers or authorized service centers, using identical B&D replacement parts.

Accessories

Recommended accessories for use with your tool are available at extra cost from your distributor or local service center. A complete listing of service centers is included with your tool.

CAUTION: The use of any non-recommended accessory may be hazardous.

If you need any assistance in locating any accessory call 1-800-9-BD TOOL: (1-800-923-8665) or contact Black & Decker (U.S.) Inc., Consumer Services Department, 626 Hanover Pike, P.O. Box 618, Hampstead, MD 21074.



Every B&D tool is of the highest quality.
If you wish to contact us regarding this product, please call toll free between 8:00am and 8:00pm ET, seven days a week:
1-800-9-BD TOOL
(1-800-923-8665)

NOTES

One Year Free Maintenance

All B&D tools for Industry and Construction are covered under a one year free maintenance program where B&D will inspect your tool for safety and provide necessary maintenance or repairs, including normal wear and tear parts, for one year, FREE OF CHARGE.

Full Warranty

All B&D tools for Industry and Construction are warranted to be free of any defects in materials or workmanship. Upon thorough examination of tool, B&D will repair or replace, at our option, any product that is determined to be defective.

Conditions

The service/safety check and the warranty do not apply to: repairs made or attempted by anyone other than an authorized B&D service location; misuse, abuse, neglect, improper application of the tool; missing parts; or normal wear and tear (after first year of ownership). Please return the complete unit, transportation prepaid, to any B&D factory owned or B&D authorized service center location (list provided with tool or see Yellow Pages under "Tools Electric").

