

BULLDAWG™

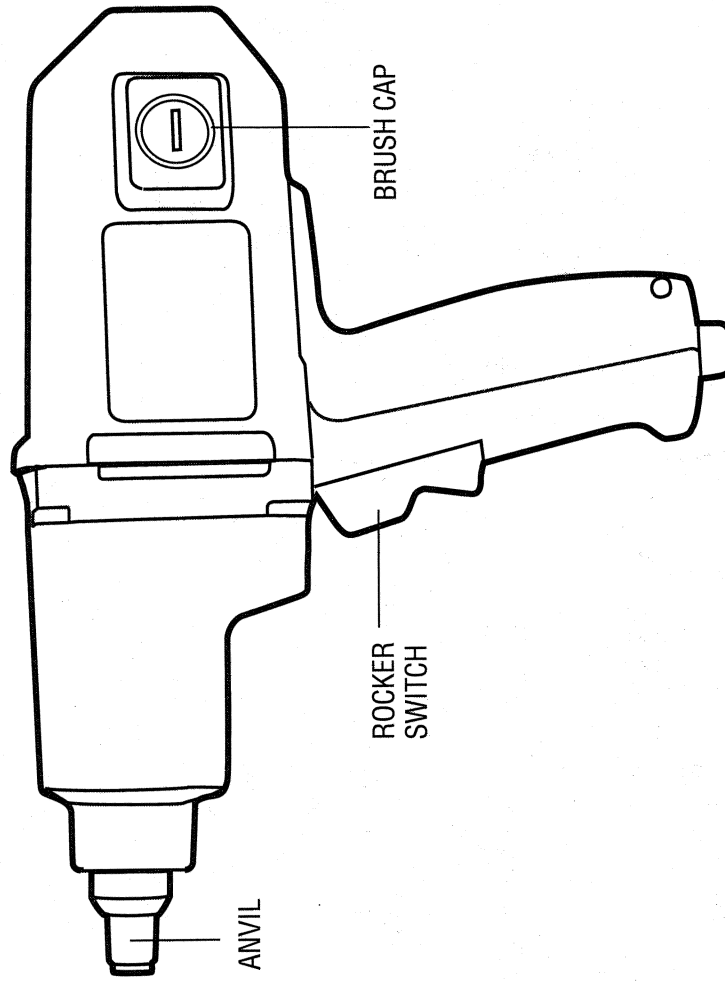
Instruction Manual
2670 • 2670G • 2675 • 6513
Impact Wrenches

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. Don't forget to send in your owner's registration card. If you have any questions about your tool please call:

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

- 2670** 1/2" (13mm) Impact Wrench with Detent Pin Retainer
- 2670G** 1/2" (13mm) Impact Wrench with Detent Pin Retainer and Grounded Cordset
- 2675** 3/4" (19mm) Impact Wrench with Detent Pin Retainer
- 6513** 1/2" (13mm) Impact Wrench with Hog Ring Retainer



FOR YOUR SAFETY - ALL TOOLS

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.

1. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite injuries.
2. **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.
3. **GUARD AGAINST ELECTRIC SHOCK.** Prevent body contact with grounded surfaces. For example: pipes, radiators, ranges, refrigerator enclosures.
4. **KEEP CHILDREN AWAY.** All visitors should be kept away from work area. Do not let visitors contact tool.
5. **STORE IDLE TOOLS.** When not in use, tools should be stored in dry, and high or locked-up place – out of reach of children.
6. **DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was intended.
7. **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, for example, don't use circular saw for cutting tree limbs or logs.
8. **DRESS PROPERLY.** Do not wear loose clothing or jewelry. They can be caught in moving parts. Non-skid footwear is recommended when working outdoors. Wear protective hair covering to contain long hair.
9. **USE SAFETY GLASSES.** Also use face or dustmask if operation is dusty.
10. **DON'T ABUSE CORD.** Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges.
11. **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.

12. **DON'T OVERREACH.** Keep proper footing and balance at all times.
13. **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for better and safe performance. Follow instructions for lubricating and changing accessories. Keep handles dry, clean, and free from oil and grease.
14. **DISCONNECT TOOLS** when not in use, before servicing, and when changing accessories.
15. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
16. **AVOID UNINTENTIONAL STARTING.** Don't carry plugged in tool with finger on switch. Be sure switch is off when plugging in.
17. **OUTDOOR USE EXTENSION CORDS.** When tool is used outdoors, use only extension cords intended for use outdoors and so marked.
18. **STAY ALERT.** Watch what you are doing. Use common sense. Do not operate tool when you are tired.
19. **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 by an authorized service center unless otherwise indicated in this manual. Have defective switches replaced by authorized service center. Don't use tool if switch does not turn it on and off.
20. **DO NOT OPERATE** portable electric tools near flammable liquids or in gaseous or explosive atmospheres. Motors in these tools normally spark, and the sparks might ignite fumes.

SAVE THESE INSTRUCTIONS FOR FUTURE USE

Double Insulation (2670, 2675, 6513)

This unit is double insulated to permit use on non-grounded circuits. This means that it is constructed throughout with two separate layers of electrical 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 all tools, **USE ONLY IDENTICAL REPLACEMENT PARTS.** Repair or replace damaged cords.

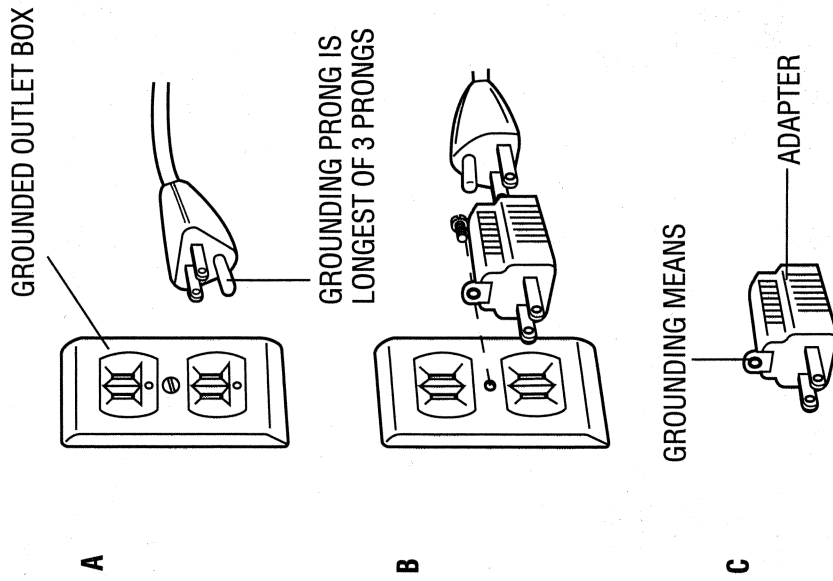
Grounding (2670G)

This tool should be grounded while in use to protect the operator from electric shock. The tool is equipped with an approved three-conductor cord and three prong grounding type plug to fit the proper grounding type receptacle. The green (or green and yellow) conductor in the cord is the grounding wire. Never connect the green (or green and yellow) wire to a live terminal.

If your unit is for use on less than 150 volts, it has a plug like that shown in Figure A. An adapter, Figures B and C, is available for connecting Figure A plugs to two-prong receptacles. The green-colored rigid ear, lug, etc, must be connected to a permanent ground such as a properly grounded outlet box. **ADAPTER SHOWN IN FIGURES B&C IS NOT FOR USE IN CANADA.**

We recommend that you never disassemble the tool or try to do any rewiring in the electrical system. Any repairs should be performed by only B&D authorized service centers. Should you be determined to make a repair yourself, remember that the green colored wire is the "grounding" wire. Never connect

this green wire to a "live" terminal. If you replace the plug on the power cord, be sure to connect the green wire only to the grounding (longest) prong on a 3-prong plug. Never remove the grounding prong.



Extension Cords

Double insulated tools have 2-wire cords and can be used with 2-wire or 3-wire extension cords. Tools that have 3-wire cords requiring grounding must only be used with extension cords that have 3-prong grounding type plugs and 3-pole receptacles. Only round jacketed extension cords should be used, and we recommend that they be listed by Underwriters Laboratories (U.L.) (C.S.A. in Canada). If the extension will be used outside, the cord must be suitable for outdoor use. Any cord marked as outdoor can also be used for indoor work. The letters "W" or "WA" on the cord jacket indicate that the cord is suitable for outdoor use.

An extension cord must have adequate wire size (AWG or American Wire Gauge) for safety, and to prevent loss of power and overheating. The smaller the gauge number of the wire, the greater the capacity of the cable, that is 16 gauge has more capacity than 18 gauge. When using more than one extension to make up the total length, be sure each individual extension contains at least the minimum wire size. To determine the minimum wire size required, refer to the following chart.

CHART FOR MINIMUM WIRE SIZE (AWG) OF EXTENSION CORDS

NAMEPLATE RATING-AMPS	TOTAL EXTENSION CORD LENGTH - FEET							
0 - 10.0	25	50	75	100	125	150	175	200
10.1 - 13.0	18	18	16	16	14	14	12	12
13.1 - 15.0	16	16	14	14	14	12	12	12
	14	14	12	12	12	12	12	—

Before using an extension cord, inspect it for loose or exposed wires, damaged insulation, and defective fittings. Make any needed repairs or replace the cord if necessary. B&D has extension cords available that are U.L. (C.S.A. in Canada) listed for outdoor use.

TOOL OPERATION

Motor

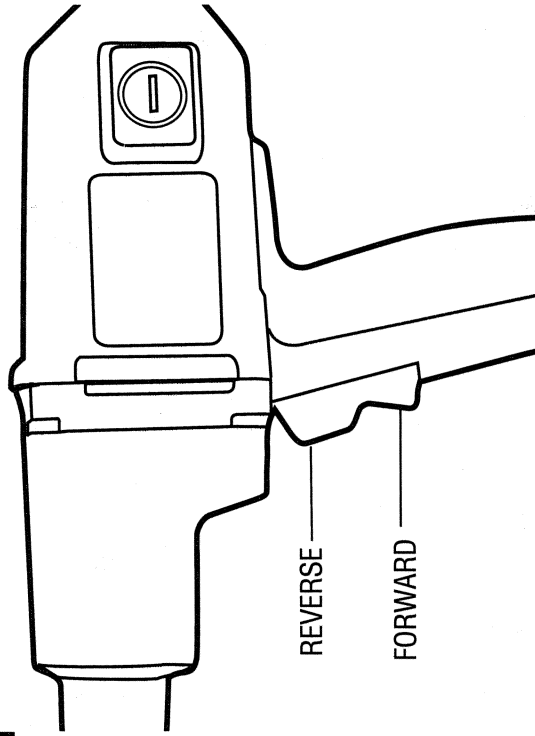
Your B&D tool is powered by a B&D built motor. Be sure your power supply agrees with the nameplate marking.

Voltage decrease of more than 10% will cause loss of power and overheating. All B&D tools are factory tested; if this tool does not operate, check the power supply.

Switch

(Figure 1) Pressing the bottom part of the switch runs the tool in forward (right hand thread) direction. Pressing the top of the switch reverses motor direction. This allows "rocking" fasteners to break them loose.

Figure 1



Anvil with Detent Pin (2670, 2670G, 2675)

To install a socket on the anvil, align the hole in the side of the socket with the detent pin on the anvil. Press the socket on until the detent pin engages in the hole. To remove a socket, depress the detent pin through the hole, using a small, pointed object, and pull the socket off.

Anvil with Hog Ring (6513 only)

To install a socket on the anvil, push firmly. To remove a socket, pull firmly.

Impact Time

Many variables exist that will cause the torque available on any fastener to vary considerably. The optimum impact time is about 6 seconds.

Capacity

1/2" impact wrenches use sockets with 1/2" square drive ends and 3/4" impact wrenches use sockets with 3/4" square drive ends. Both sizes of impact wrenches are capable of driving the same range of hex impact sockets available.

In particularly heavy duty usage, the 3/4" drive impact wrench has an extra long anvil that will resist breakage.

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.

Lubrication

Your tool was properly lubricated before leaving the factory. In from two to six months, depending upon use, take or send your tool to a B&D authorized service center for a complete cleaning, inspection and relubrication.

Tool used constantly on production or heavy duty jobs or exposed to heat may require more frequent lubrication. Tools "out of service" for long periods should be relubricated before being put back into service.

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.

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)

One Year Free Maintenance

All B&D tools for Industry and Construction are covered under a service/safety check 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").

These symbols on the nameplate mean the product is listed by Underwriters Laboratories, Inc. and certified by the Canadian Standards Association.



Black & Decker (U.S.) Inc. • 701 East Joppa Road, Towson, Maryland 21286

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