

OPERATION AND PARTS MANUAL



MODEL CDM1H HAND-HELD CORE DRILL (ELECTRIC MOTOR)

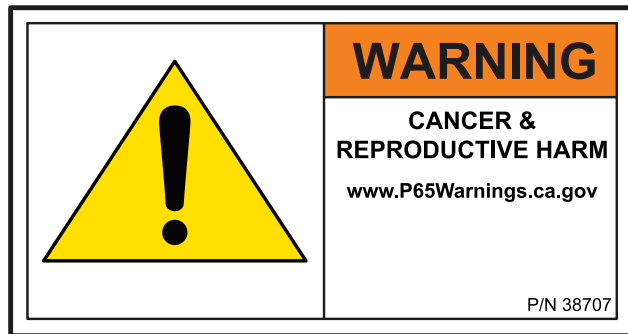
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THIS MANUAL MUST ACCOMPANY THE EQUIPMENT AT ALL TIMES.

PROPOSITION 65 WARNING



SILICOSIS/RESPIRATORY WARNINGS

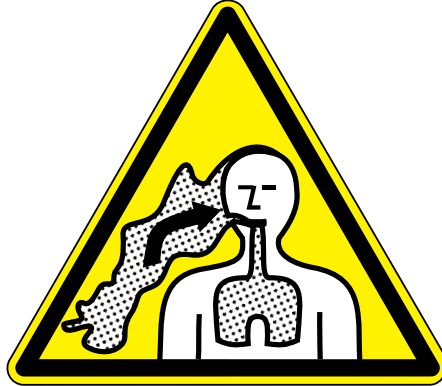
⚠ WARNING



SILICOSIS WARNING

Grinding/cutting/drilling of masonry, concrete, metal and other materials with silica in their composition may give off dust or mists containing crystalline silica. Silica is a basic component of sand, quartz, brick clay, granite and numerous other minerals and rocks. Repeated and/or substantial inhalation of airborne crystalline silica can cause serious or fatal respiratory diseases, including silicosis. In addition, California and some other authorities have listed respirable crystalline silica as a substance known to cause cancer. When cutting such materials, always follow the respiratory precautions mentioned above.

⚠ WARNING



RESPIRATORY HAZARDS

Grinding/cutting/drilling of masonry, concrete, metal and other materials can generate dust, mists and fumes containing chemicals known to cause serious or fatal injury or illness, such as respiratory disease, cancer, birth defects or other reproductive harm. If you are unfamiliar with the risks associated with the particular process and/or material being cut or the composition of the tool being used, review the material safety data sheet and/or consult your employer, the material manufacturer/supplier, governmental agencies such as OSHA and NIOSH and other sources on hazardous materials. California and some other authorities, for instance, have published lists of substances known to cause cancer, reproductive toxicity, or other harmful effects.

Control dust, mist and fumes at the source where possible. In this regard use good work practices and follow the recommendations of the manufacturers or suppliers, OSHA/NIOSH, and occupational and trade associations. Water should be used for dust suppression when wet cutting is feasible. When the hazards from inhalation of dust, mists and fumes cannot be eliminated, the operator and any bystanders should always wear a respirator approved by NIOSH/MSHA for the materials being used.

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NOTICE

Specifications are subject to change without notice.

SAFETY INFORMATION


Do not operate or service the equipment before reading the entire manual. Safety precautions should be followed at all times when operating this equipment. Failure to read and understand the safety messages and operating instructions could result in injury to yourself and others.




SAFETY MESSAGES

The four safety messages shown below will inform you about potential hazards that could injure you or others. The safety messages specifically address the level of exposure to the operator and are preceded by one of four words: **DANGER**, **WARNING**, **CAUTION** or **NOTICE**.


SAFETY SYMBOLS

 **DANGER**

Indicates a hazardous situation which, if not avoided, **WILL** result in **DEATH** or **SERIOUS INJURY**.

 **WARNING**

Indicates a hazardous situation which, if not avoided, **COULD** result in **DEATH** or **SERIOUS INJURY**.




 **CAUTION**

Indicates a hazardous situation which, if not avoided, **COULD** result in **MINOR** or **MODERATE INJURY**.

NOTICE

Addresses practices not related to personal injury.

Potential hazards associated with the operation of this equipment will be referenced with hazard symbols which may appear throughout this manual in conjunction with safety messages.

Symbol	Safety Hazard
	Rotating parts hazards
	Cutting and crushing hazards
	Electric shock hazards

SAFETY INFORMATION

GENERAL SAFETY


⚠ WARNING

- Adherence to the OSHA 2017 Ruling governing Occupational Exposure to Respirable Crystalline Silica, requires that all core drilling operations **MUST BE** conducted with an integrated water delivery system that feeds water to the drill bit.

⚠ CAUTION

- **NEVER** operate this equipment without proper protective clothing, shatterproof glasses, respiratory protection, hearing protection, steel-toed boots and other protective devices required by the job or city and state regulations.



- Avoid wearing jewelry or loose fitting clothes that may snag on the controls or moving parts as this can cause serious injury.
- **NEVER** operate this equipment when not feeling well due to fatigue, illness or when under medication. 
- **NEVER** operate this equipment under the influence of drugs or alcohol.

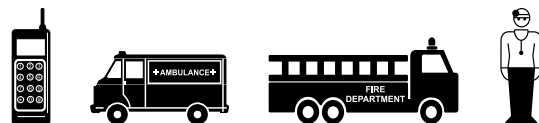


- **ALWAYS** clear the work area of any debris, tools, etc. that would constitute a hazard while the equipment is in operation.

- No one other than the operator is to be in the working area when the equipment is in operation.
- **ALWAYS** check the equipment for loosened threads or bolts before starting.
- **DO NOT** use the equipment for any purpose other than its intended purposes or applications.

NOTICE

- This equipment should only be operated by trained and qualified personnel 18 years of age and older.
- Whenever necessary, replace nameplate, operation and safety decals when they become difficult read.
- Manufacturer does not assume responsibility for any accident due to equipment modifications. Unauthorized equipment modification will void all warranties.
- **NEVER** use accessories or attachments that are not recommended by Multiquip for this equipment. Damage to the equipment and/or injury to user may result.
- **ALWAYS** know the location of the nearest **fire extinguisher**. 
- **ALWAYS** know the location of the nearest **first aid kit**. 
- **ALWAYS** know the location of the nearest phone or **keep a phone on the job site**. Also, know the phone numbers of the nearest **ambulance, doctor** and **fire department**. This information will be invaluable in the case of an emergency.





SAFETY INFORMATION

CORE DRILL SAFETY

DANGER

- **NEVER** operate the core drill in an explosive atmosphere or near combustible materials. The electric motor of this core-drill emits sparks during operation and shut-down. A explosion or fire could result causing severe **bodily harm or even death if the sparks make contact with combustibe or explosive materials**

WARNING

- Accidental starting can cause severe injury or death. **ALWAYS** place the ON/OFF switch in the OFF position. Carrying the core drill with your finger on the power switch may cause accidental starting. 
- Keep hands away from moving parts at all times. 
- **ALWAYS** remove any adjusting keys or wrenches before turing the core drill on. A wrench or key that is left attached to the rotating part of the core drill may result in personal injury.
- **NEVER** touch drill bit cutting edges during operation. Also allow drill bit a sufficient amount of time to cool before touching.

CAUTION

- **DO NOT** overreach. Keep proper footing and balance at all times. Proper footing and balance enables better control of the core drill in unexpected situations.
- **NEVER** point the core drill at anyone in the area when operating.
- **ALWAYS** hold the core drill firmly with both hands when drilling.

- Keep all **inexperienced** and **unauthorized** people away from the equipment at all times.
- Keep bystanders, children and vistors away while operating the core drill. Distractions can cause you to loose control.
- Maintain this equipment in a safe operating condition at all times.
- **ALWAYS** make sure drill bits are installed securely so that it will slip or fall out. It is hazardous to use a core drill with a loose fitted drill bit.
- If a malfunction occurs, immediately unplug the core drill from the power source and correct the problem. If the problem can not be corrected, contact your nearest MQ service center.
- Fix damage to machine and replace any broken parts immediately. **DO NOT** use a defective core drill.
- **ALWAYS** store equipment properly when it is not being used. Equipment should be stored in a clean, dry location out of the reach of children and unauthorized personnel.

NOTICE

- Maintain the core drill and drill bits with care. Keep drill bits sharp. Sharp cutting edges are less likely to bind.
- If drilling into a workpiece that is unattached, use clamps or other means to secure the workpiece so that it will not move. **NEVER** hold the workpiece by hand or against your body.
- **DO NOT** force your core drill. Excerting excessive force while drilling will damage your machine and is hazardous.

SAFETY INFORMATION

ELECTRIC MOTOR SAFETY

CAUTION

- When connecting the core drill to a power receptacle, make sure the receptacle circuit is connected to either a GFCI receptacle or a receptacle protected by a 20 amp circuit breaker.
- This core drill is equipped with a 3-prong male power plug. **DO NOT** use a 2-prong adapter when plugging into a wall outlet. This will defeat the purpose of the ground circuit. If the plug does not fit into the receptacle, contact a qualified electrician to install a 3-conductor wall receptacle (outlet).
- Operate electric motor only at the specified voltage indicated on the nameplate.
- **ALWAYS** test the **ON/OFF** switch on the core drill before operating. The purpose of this switch is to shut down the electric motor.
- **NEVER** cover the air vents on the body of the core drill. **ALWAYS** leave these vents exposed. These vents are essential for the cooling of the electric motor. **NEVER** place tape over the vent to keep out dust.
- **DO NOT** spray water onto electric motor.
- **NEVER** leave the core drill unattended. When not in use always unplug the core drill from power source.
- **ALWAYS** disconnect AC power plug from power source before performing maintenance.
- **ALWAYS** make sure the ON/OFF switch on the electric motor is in the OFF position when not in use.
- **ALWAYS** hold core drill by its insulated gripping handle when performing work. The possibility exists of the drill bit making contact with hidden wiring or its own cord. Contact with a "live" wire can cause electrical shock to the operator.
- **DO NOT** walk around with a plugged in core drill. The possibility exist of your finger accidentally hitting the power **ON/OFF** switch, causing severe **bodily harm or even death**.

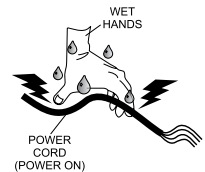


- Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electrical shock if your body is grounded.
- When operating the core drill outside, be sure to use the appropriate outdoor extension cord. This type of extension cord reduces the risk of electrical shock.

Power Cord/Cable Safety

! DANGER

- **NEVER** let power cords or cables **lay in water**.
- **NEVER** *stand in water* while operating the core drill.
- **NEVER** use **damaged** or **worn** cables or cords when connecting equipment to generator. Inspect for cuts in the insulation.
- **NEVER** grab or touch a live power cord or cable with wet hands. The possibility exists of **electrical shock, electrocution or death**.
- Make sure power cables are securely connected. Incorrect connections may cause electrical shock and damage to the core drill.



! CAUTION

- Ensure that cables and cords will not be tripped over.
- Never use the cable to pull out the plug from the power source.

NOTICE

- **ALWAYS** make certain that proper power or extension cord has been selected for the job.
- Protect the cable from heat, oil, and sharp edges.

TRANSPORTING

- **ALWAYS** place the core drill inside its carrying case when work has been completed.
- **ALWAYS** wrap power cord neatly to avoid damage.
- **ALWAYS** place wrenches back into carrying case when work has been completed.

SPECIFICATIONS

Table 1. Specifications	
Model	CDM1H
Motor	110 VAC, 60 Hz @ 2200 RPM
Current	10 amps
Watts	1,350
Applicable Drill Bit Diameter Standard 14" (length) Drill Bits	1 - 3 inch (25 - 76 mm)
Applicable Drill Bit Diameter Cobra™ Drill Bits	1 inch to 6 inches (25-152 mm)
Dry Net Weight	8.81 lbs. (4 Kg.)

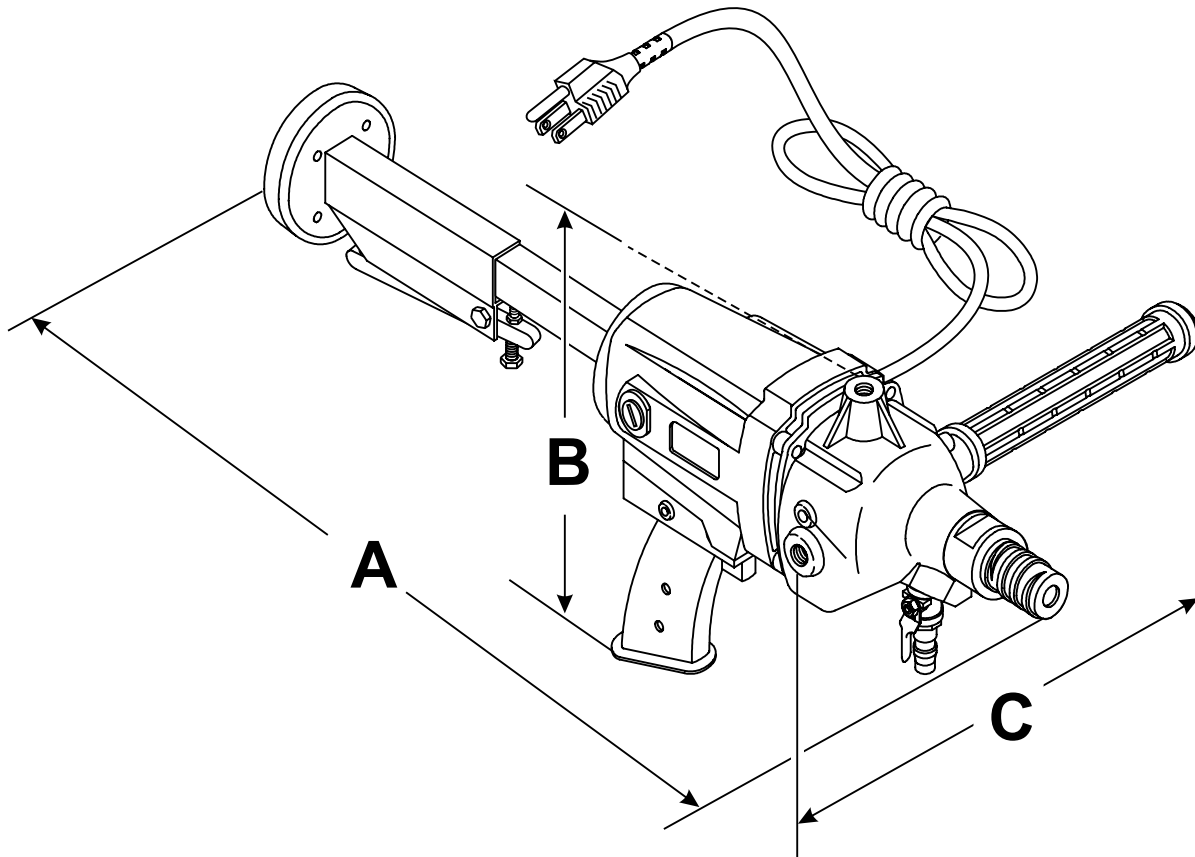


Figure 1. Dimensions

Table 2. Dimension	
Reference Letter	Dimensions
A (Length)	22.25 in. (572 mm)
B (Height)	11.00 in. (279 mm)
C (Width)	10.5 in. (267 mm)

GENERAL INFORMATION

APPLICATION

The MQ CDM1H Hand-held core drill is designed for multiple small to medium core drilling applications. Its lightweight signature and extending shoulder support provides the operator a stable and flexible platform to achieve excellent drilling results in masonry, cured concrete and asphalt.

The unit comes as a complete package ready to accept many types of core bits, and provides (2) adapters so that the drill motor can easily marry up to bits that accept either 5/8"-11 or 1/14"-7 male thread. The drill drive shaft is a male 18mm, and the adapters will be necessary for most core bits.

The drill is powered by an 110VAC 10A universal electric motor with an integrated clutch system.

THE CDM1H COMPRISES

- Hand-held power drill
- Carrying Case
- Two core bit adapters
- Water kit
- Tools for bit connection/removal
- Operations/Parts manual

OPERATIONS

For successful operations; and like any diamond grinding tool, the CDM1H requires the proper diamond core bit to match the material. For core bit options, this drill performs best when the operator selects the correct diamond core bit, and allows the bit to grind at an optimum pace. Pushing the drill past its designed engineering will not expedite the grinding process.

Regardless of the type of core drill bit selected, it is essential to utilize the water kit that comes in the kit. The water kit **MUST BE** connected to the drill motor prior to operations. From the water delivery method, a common garden hose can easily be connected to the drill. The water kit's knife valve provides a means to control the liberal amounts of water necessary to cool the core bit.



WARNING

Adherence to the OSHA 2017 Ruling governing Occupational Exposure to Respirable Crystalline Silica, requires that all core drilling operations **MUST BE** conducted with an integrated water delivery system that feeds water to the core bit.

GENERAL INFORMATION

CORE DRILL BIT SELECTION

The **MOST IMPORTANT** element to drilling is selecting the correct diamond tool. Multiquip offers many choices to properly address your drilling applications. See Table 3 and Figure 2. Contact MQ Sales for further information.

Table 3. Threads/Adapters and Core Bit Combinations		
Item	Part Number	Description
1	CDM1H	Hand-Held Core Drill (male, 18mm drive shaft)
2	ADM1858	Adapter, M18 Female to 5/8"-11 Male
3	Contact MQ Sales	COBRA II Series Core Bits (female 5/8"-11 thread)
4	EXT125811	Extension, 12", 5/8"-11 Female/Male
5	EXT65811	Extension, 6" x 5/8"-11 Female/Male
6	Contact MQ Sales	Cured Concrete & Asphalt Drill Bits, (female 5/8"-11 thread)
7	Contact MQ Sales	Cured Concrete/Asphalt Drill Bits, (female 1/4"-7 thread)
8	AD114758	Adapter, 1 1/4"-7 Female to 5/8"-11 Male
9	EXT121147	Extension, 12" x 1 1/4"-7 Female/Male
10	EXT61147	Extension, 6" x 1 1/4"-7 Female/Male
11	Contact MQ Sales	Blockbuster [Masonry] Series Core Bits, (female 5/8"-11 thread)

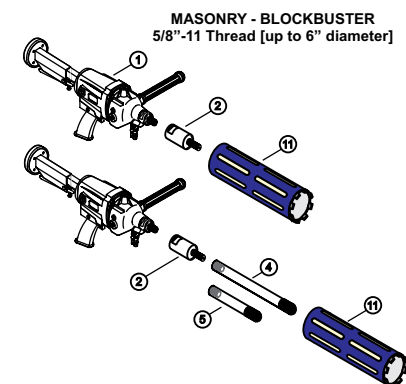
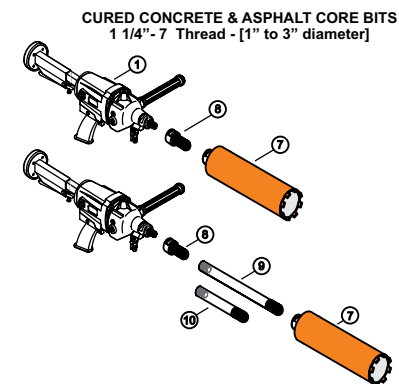
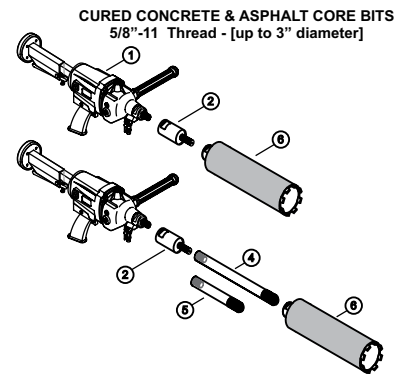
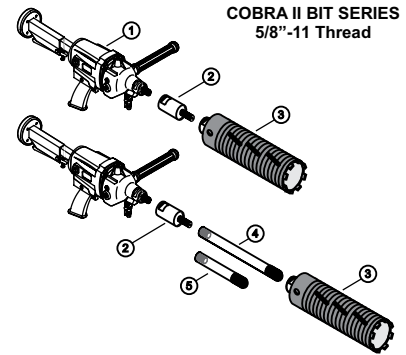


Figure 2. Threads/Adapters and Core Bit Combinations

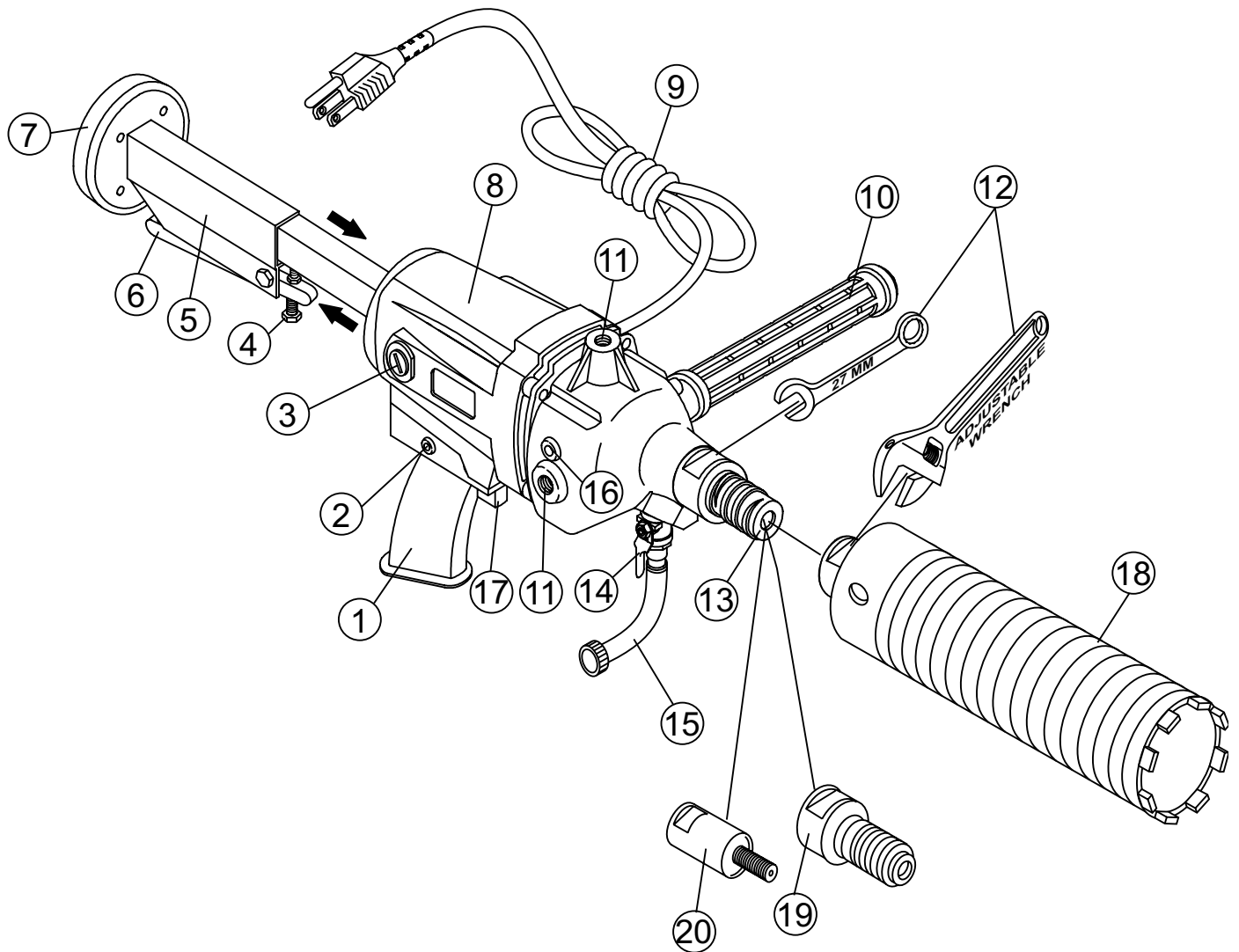


Figure 3. CDM1H Components

COMPONENTS

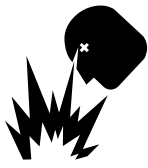
1. **Hand-Grip** — The CDM1H uses a plastic hand grip to guard against possible electric shock. When drilling, hold this grip firmly.
2. **Reset Button** — In the event of an overload press this button. Allow a sufficient amount of time for the electric motor (windings) to cool down before pressing the reset button.
3. **Electric Motor Brush Covers (2)** — Insert tip of a flat blade screwdriver into slot on brush cover, turn counter-clockwise and remove cover to gain access to brushes.
4. **Stock Release Adjustment Screw** — This screw provided tension for the trigger release spring. Adjust the screw for the desire amount of spring tension.
5. **Adjustable Stock** — This stock slides back and forth and is adjustable. It is provided for operator comfort.
6. **Stock Release Lever** — To release the stock and set in position. Squeeze trigger lever and hold, pull back and set in desired position, then release lever.
7. **Rubber Shoulder Pad** — Place this pad against your shoulder or other parts of your body when drilling. Its purpose is to reduce shock and vibration.
8. **Drill Body** — The electric motor and associated components are contain inside the drill body.
9. **AC Power Cord** — Plug this 16 ft. (4.87 meters) power cord into a 115 VAC grounded type receptacle. **NEVER** remove the ground pin from the plug. This will defeat the ground circuit and greatly increase the possibility of electrical shock.
10. **Detachable Rubber Handle** — Insert the detachable rubber handle into the desired port. Tighten securely.
11. **Handle Port** — The CDM1H has 3 handle ports.
12. **Wrenches** — These wrenches (27 mm and adjustable) are used to install and remove the core drill bits.
13. **Main Shaft** — Attach core drill bit to this shaft.
14. **Water Kit** — **MUST** be attached to the drill and utilized for all drilling operations. The female barb end is a common Garden Hose thread, and the knife valve should be adjusted to ensure a liberal flow of clean water is provided to the core bit at all times.
15. **Water Tube/Adapter** — Connect this tube/adapter to a water source. Typically a garden hose.
16. **Grease Plug** — Using a 5 mm hex wrench, remove this plug to add lubrication grease. **DO NOT** over fill.
17. **ON/OFF Trigger** — Squeeze this trigger to start the drill, and release to stop.
18. **Core Drill Bit** — Place bit onto main shaft and tighten securely. Contact MQ sales department for the core drill bit that best fits your application.
19. **Adapter** — 1-1/4" X 7 female to 18 mm male thread for wet drilling bits from 1-1/2 inch diameter and above.
20. **Adapter** — M18 female to 5/8"-11 male.

NOTICE



DO NOT attempt to operate the core drill until the Safety Information, General Information and Inspection sections of this manual have been read and thoroughly understood.

DANGER



NEVER operate the core drill in or around flammable materials. The core drill emits sparks, if contact is made between the sparks and the flammable material, the possibility exists of fire or explosion causing damage to the equipment and severe bodily harm even death!

WARNING

Adherence to the OSHA 2017 Ruling governing Occupational Exposure to Respirable Crystalline Silica, requires that all core drilling operations **MUST BE** conducted with an integrated water delivery system that feeds water to the drill bit.

DRILLING WITH A MQ COBRA™ BIT

Drilling clean holes with the MQ Series COBRA II bits is best supported by an operating technique that involves the unit's pilot bit, and patient operator technique. COBRA II bits can be ordered with or without pilot bits. To overcome "bit chatter", it is highly recommended to utilize the COBRA II pilot bit to provide an anchoring point so the bit can accurately enter the surface of the material. See Figure 4.

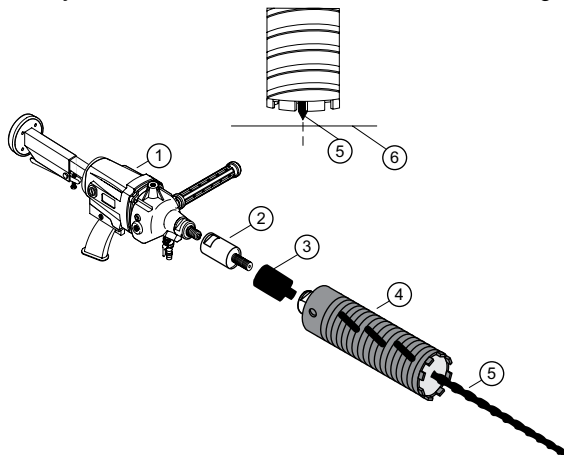


Figure 4. Drilling with an MQ Cobra™ II Core Bit

Thread the 5/8"-11 adapter (2) to the Core Drill (1), thread the COBRA II Bit w/ pilot (3) (4) onto the Drill. The pilot bit acts as an anchoring point so the bit can be introduced into the material (6). Once the hole is started, remove the bit and unthread the pilot bit from the Core Bit. Re-thread the Core Bit back onto the Drill and finish the drilling job.

WARNING



NEVER operate the saw in a confined area or enclosed area structure that does not provide ample **free flow of air**

DRILLING WITH OTHER CURED CONCRETE, ASPHALT AND MASONRY CORE DRILL BITS

Utilizing the proper adapter, the CDM1H will support many standard core drill bits (1" to 3" diameter cured concrete and asphalt – 1" to 6" Blockbuster Cinder Block bits). Because these types of core bits are not designed to use pilot bits, the operator will require practice and technique to ensure clean entry of the bit into the material. 'Bit chatter' can be avoided by mastering an angle-entry approach. Angle the bit (5) 10° to 15° above the surface of the material (6) and slowly introduce and rotate the bit and increase the drill RPM speed. See Figure 5.

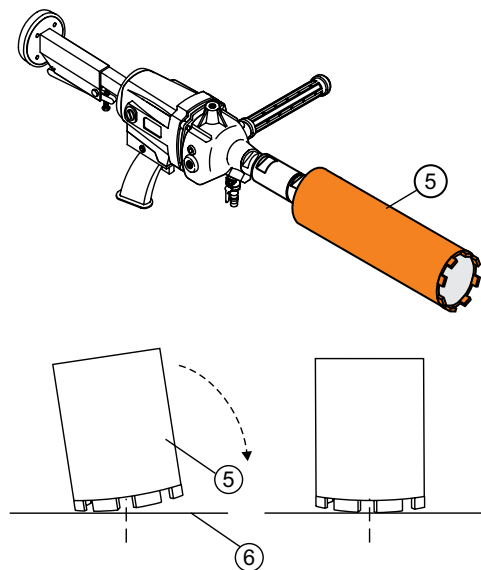


Figure 5. Drilling with a Standard Core Bit

ATTACHING CORE BITS TO THE CORE DRILL

1. Place the core drill and core bit on a suitable workbench or safe flat surface.
2. Before installing the core bit, ensure the core drill power cord is unplugged from electrical power. **NEVER** attempt to install the core bit on a drill that has power applied to it.
3. Choose the proper core bit adapter (5/8"-11 or 1 1/4"-7) that matches the female end of the selected core bit, and thread it onto the drill motor output shaft utilizing the adjustable wrenches provided with the CDM1H (Figure 6).
4. Thread the selected core bit onto the core bit adapter output shaft utilizing the adjustable wrenches provided with the CDM1H.

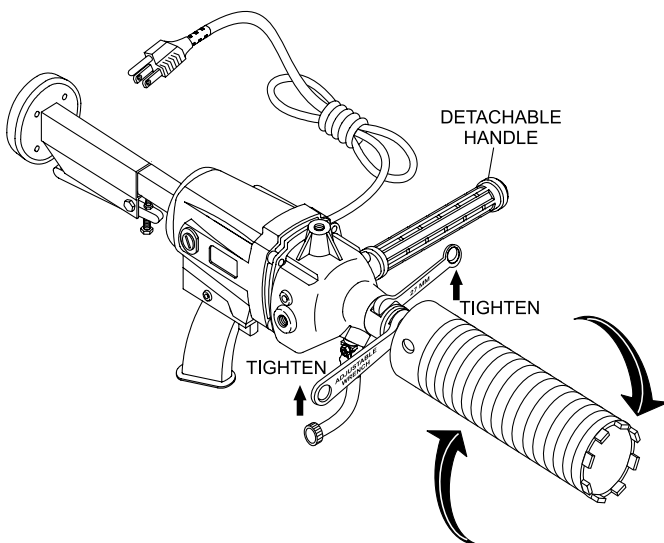


Figure 6. Attaching Core Bits to the Core Drill

CONNECTING WATER TO THE CORE DRILL

WARNING

Adherence to the OSHA 2017 Ruling governing Occupational Exposure to Respirable Crystalline Silica, requires that all core drilling operations **MUST BE** conducted with an integrated water delivery system that feeds water to the drill bit.

1. Attach the Water Kit (supplied) to the core drill as shown in Figure 7. Ensure that the worm-clamps are securely attached to the water valve bib.

2. The water kit is designed to thread onto a standard 3/4" garden hose connection.

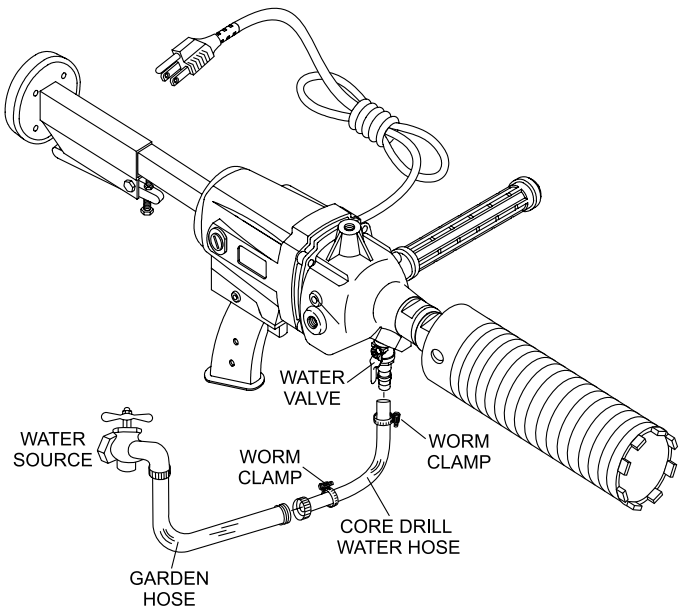


Figure 7. Connecting the Water

ADJUSTING THE STOCK (SHOULDER REST)

3. The CDM1H is supplied with an adjustable stock. This stock can be adjusted by simply squeezing the trigger and sliding the stock back and forth to the desired position (Figure 8).
4. If more spring tension is required (trigger lever), simply adjust the spring tension adjustment bolt until the desired spring tension is obtained.

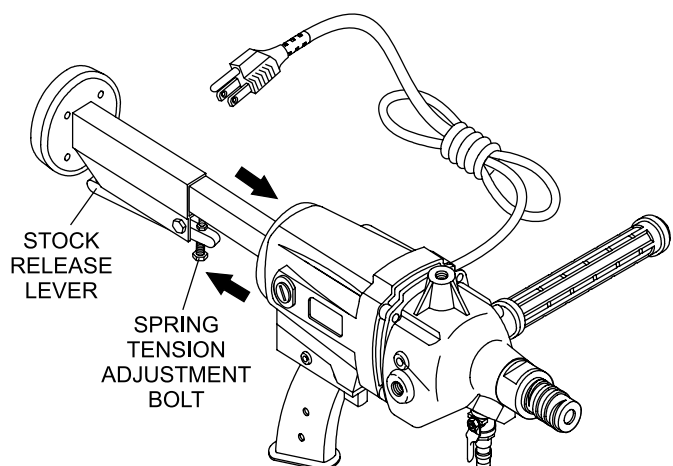



Figure 8. Adjusting the Stock

APPLYING POWER TO THE CORE DRILL

1. This core drill requires 115 VAC, 60 Hz power. Applying power to the drill that is not specified will cause severe damage to the core drill. Always read serial plate tag before applying power to the core drill.
2. The power plug on this core drill is a 3-prong grounded type plug. **ALWAYS** connect this plug to a 3-prong grounded receptacle. **NEVER** plug this device into a 2-prong type receptacle. This will defeat the ground circuit. The use of a 3-prong to 2-prong adapter is strictly prohibited.

WARNING



To avoid accidental starting, **ALWAYS** keep fingers away from the power **OFF/ON** switch when applying power.

3. Connect the core drill's AC power cord to a 115 VAC wall receptacle (Figure 9) that is protected by a 20 amp circuit breaker. For best results connect the power cord to a GFCI receptacle.

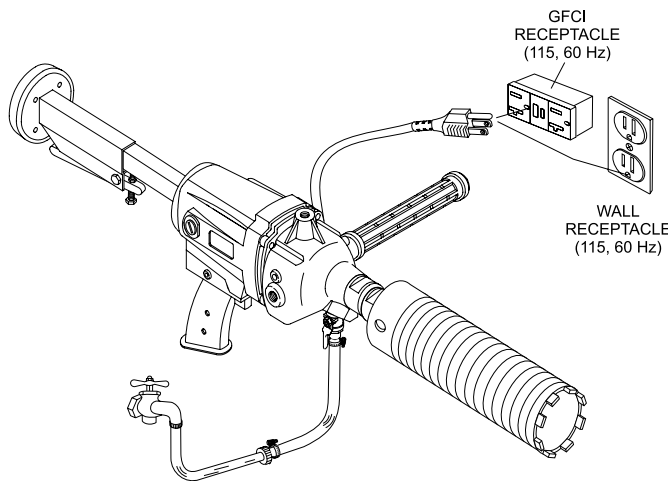
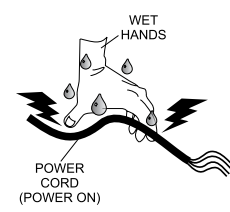


Figure 9. Connecting Power

DANGER



NEVER grab or touch a live power cord with wet hands, the possibility exists of electrical shock, electrocution, and even death!

NEVER use a damaged or worn extension cable when connecting to a power source. Defective cables may cause damage to the saw's electric motor or electrical shock.

NEVER stand in water and touch a live power cord.

Table 4. Cable Selection (60 Hz, 1Ø Operation)

Current in Amperes	Load in Watts At 120 Volts	Maximum Allowable Cable Length			
		#10 Wire	#12 Wire	#14 Wire	#16 Wire
2.5	300	1000 ft.	600 ft.	375 ft.	250 ft.
5	600	500 ft.	300 ft.	200 ft.	125 ft.
7.5	900	350 ft.	200 ft.	125 ft.	100 ft.
10	1200	250 ft.	150 ft.	100 ft.	
15	1800	150 ft.	100 ft.	65 ft.	
20	2400	125 ft.	75 ft.	50 ft.	

CAUTION: Equipment damage can result from low voltage.

BEFORE OPERATING

1. Place the valve on the water source to the ON position, and then turn the water valve on the core drill (Figure 10) to the ON position (down). Verify that water is flowing smoothly and evenly.

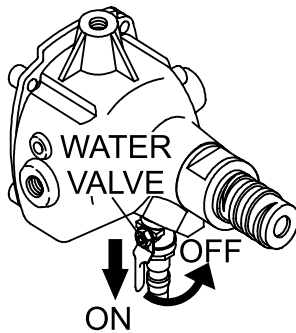


Figure 10. Water Valve (ON Position)

2. If water is not flowing, check all connections and correct the problem.
3. Place the core drill against the surface (Figure 11 and Figure 12) to be drilled. Hold drill firmly, and squeeze the power ON/OFF switch to begin drilling.

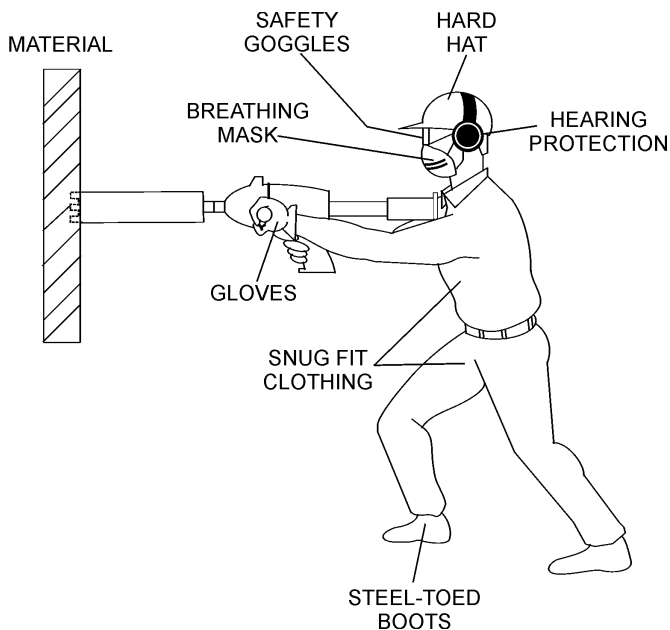


Figure 11. Wall Drilling Application

NOTICE

DO NOT overreach. Keep proper footing and balance at all times. Proper footing and balance enables better control of the core drill in unexpected situations

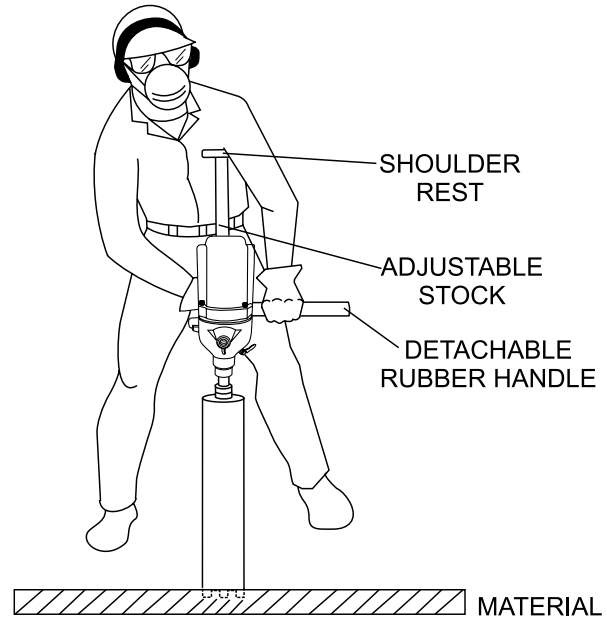


Figure 12. Floor Drilling Application

WARNING

This core drill can whip violently if it comes in contact with rebar or coarse material which would cause the shaft to bind. Be extremely careful at all times when drilling. The possibility exists of the core drill severely twisting the wrist or striking the body with excessive force.

CAUTION

ALWAYS be on the lookout for exposed wiring or buried electrical connections when drilling.

NOTICE

ALWAYS drill with uniform pressure and keep the bit straight. When drilling through steel rebar, reduce the pressure to avoid overloading the motor.

NOTICE

NEVER use the adjustable shoulder stock to pull the bit out of the ground if the bit gets stuck in the hole.

SHUTDOWN

1. Remove the power cord from the wall receptacle or power source.
2. Allow a sufficient amount of time for the core drill bit to cool before attempting to remove it from the core drill.
3. Using the wrenches, remove the core drill bit from the drill.
4. Clean the drill bit with a mild cleaning solution, removing dirt and foreign matter.
5. Once the core drill has been cleaned, place the core drill into its carrying case along with all associated hardware. Be sure to wrap the power cord neatly into the carrying case. This will extend the life of the cord.
6. Store the carrying case out of the reach of children, in a location that is moisture free.

MAINTENANCE

1. The CDM1H basically is maintenance-free. The only maintenance requirement is to periodically check the main gear grease level.
2. Using the supplied 5 mm allen wrench, remove the grease plug as shown in Figure 13n
3. Visually inspect to see if grease is present. It may be necessary to insert a small blade screw driver or similar device into the filler hole to determine if the grease level is low.
4. If the grease level is low, apply 1 shot of lithium base grease, grade N0.1. **DO NOT** over fill.
5. Reinstall grease plug and tighten securely.

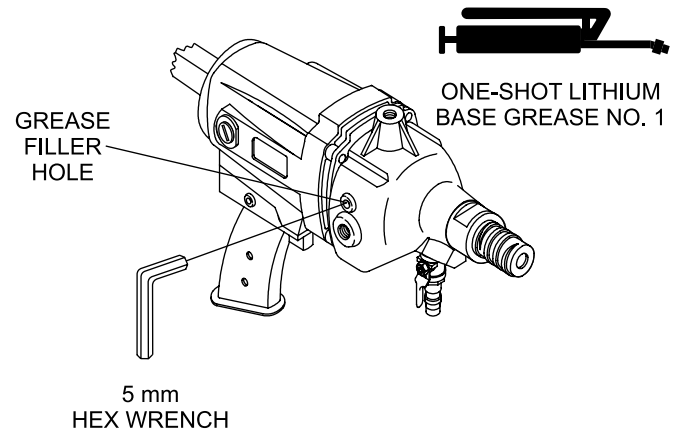


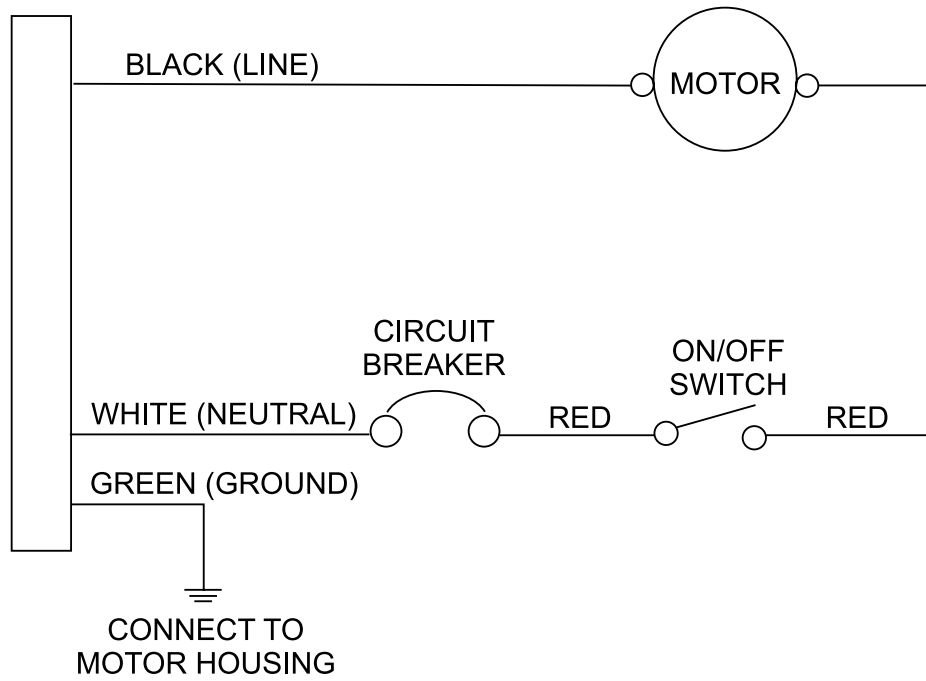
Figure 13. Main Gear Lubrication

TROUBLESHOOTING

Troubleshooting (Core Drill)		
Symptom	Possible Problem	Solution
Bit is stuck.	Steel bar or stone, etc. is caught between core and BIT.	Immediate turn SWITCH OFF.
	Excessive wear, bit tip has become flush with shank.	Try to rotate BIT in both directions using spanner to lift it out. Replace BIT.
Drilling is slow in normal operation.	Waste water is contaminated with steel chip, DRILL is cutting rebar.	Immediately check the waste water. Adjust the pressure on so as not to overload MOTOR.
	BIT is worn.	Immediately check BIT for abrasion. Replace BIT.
	Diamond is not exposed on TIP surface.	Immediately check BIT for abrasion. Dress BIT.
	Chips are deposited on BIT surface.	Immediately check BIT for abrasion. Increase water feed pressure. Dress or Brush BIT with a wire.
	Steel chips are scorched on BIT surface.	Immediately check BIT for abrasion. Remove steel chips.

WIRING DIAGRAM

120 VAC
POWER
SOURCE



EXPLANATION OF CODE IN REMARKS COLUMN

The following section explains the different symbols and remarks used in the Parts section of this manual. Use the help numbers found on the back page of the manual if there are any questions.

NOTICE

The contents and part numbers listed in the parts section are subject to change **without notice**. Multiquip does not guarantee the availability of the parts listed.

SAMPLE PARTS LIST

NO.	PART NO.	PART NAME	QTY.	REMARKS
1	12345	BOLT	1	INCLUDES ITEMS W/%
2%		WASHER, 1/4 IN.		NOT SOLD SEPARATELY
2%	12347	WASHER, 3/8 IN. ...	1	MQ-45T ONLY
3	12348	HOSE	A/R	MAKE LOCALLY
4	12349	BEARING	1	S/N 2345B AND ABOVE

NO. Column

Unique Symbols — All items with same unique symbol (@, #, +, %, or >) in the number column belong to the same assembly or kit, which is indicated by a note in the “Remarks” column.

Duplicate Item Numbers — Duplicate numbers indicate multiple part numbers, which are in effect for the same general item, such as different size saw blade guards in use or a part that has been updated on newer versions of the same machine.

NOTICE

When ordering a part that has more than one item number listed, check the remarks column for help in determining the proper part to order.

PART NO. Column

Numbers Used — Part numbers can be indicated by a number, a blank entry, or TBD.

TBD (To Be Determined) is generally used to show a part that has not been assigned a formal part number at the time of publication.

A blank entry generally indicates that the item is not sold separately or is not sold by Multiquip. Other entries will be clarified in the “Remarks” Column.

QTY. Column

Numbers Used — Item quantity can be indicated by a number, a blank entry, or A/R.

A/R (As Required) is generally used for hoses or other parts that are sold in bulk and cut to length.

A blank entry generally indicates that the item is not sold separately. Other entries will be clarified in the “Remarks” Column.

REMARKS Column

Some of the most common notes found in the “Remarks” Column are listed below. Other additional notes needed to describe the item can also be shown.

Assembly/Kit — All items on the parts list with the same unique symbol will be included when this item is purchased.

Indicated by:

“INCLUDES ITEMS W/(unique symbol)”

Serial Number Break — Used to list an effective serial number range where a particular part is used.

Indicated by:

“S/N XXXXX AND BELOW”

“S/N XXXX AND ABOVE”

“S/N XXXX TO S/N XXX”

Specific Model Number Use — Indicates that the part is used only with the specific model number or model number variant listed. It can also be used to show a part is NOT used on a specific model or model number variant.

Indicated by:

“XXXXX ONLY”

“NOT USED ON XXXX”

“Make/Obtain Locally” — Indicates that the part can be purchased at any hardware shop or made out of available items. Examples include battery cables, shims, and certain washers and nuts.

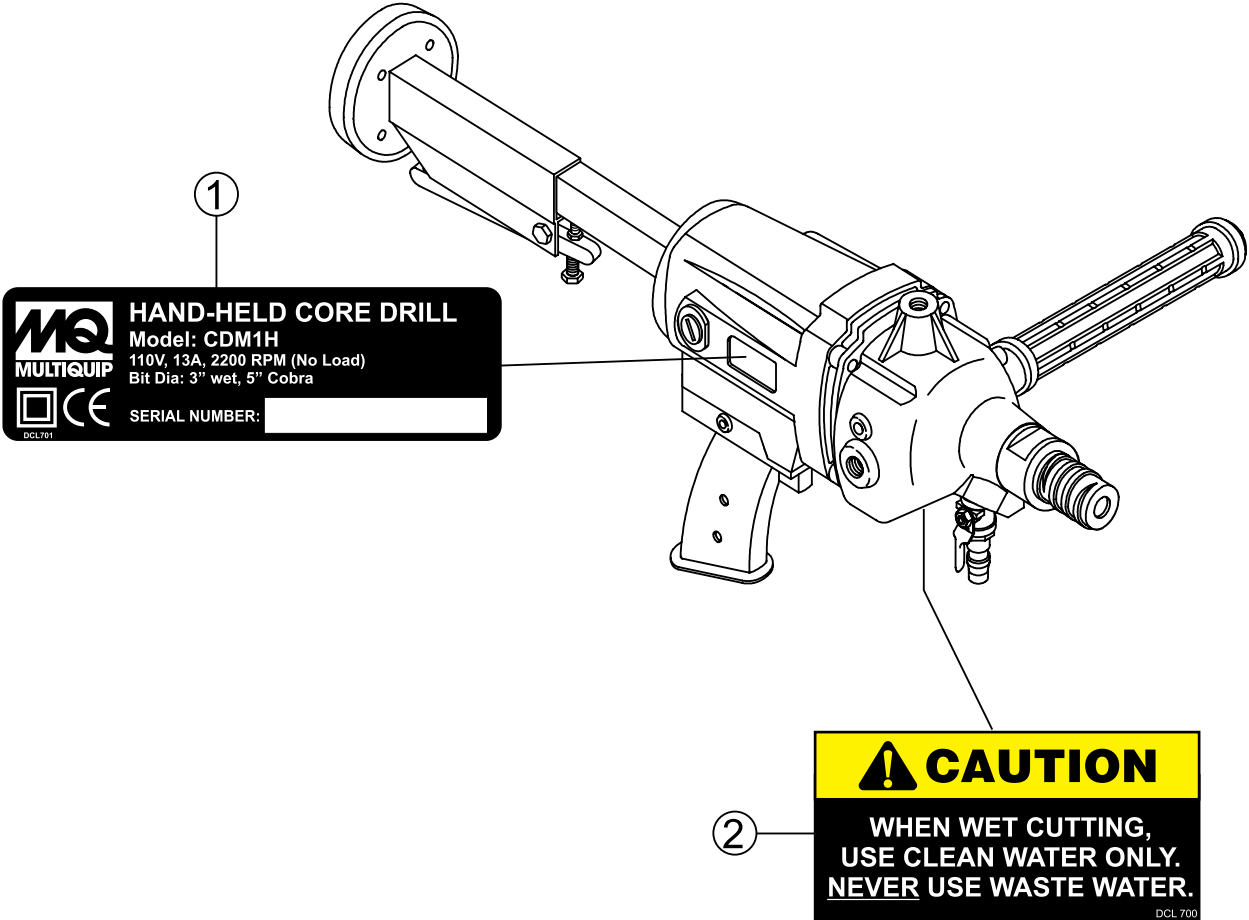
“Not Sold Separately” — Indicates that an item cannot be purchased as a separate item and is either part of an assembly/kit that can be purchased, or is not available for sale through Multiquip.

SUGGESTED SPARE PARTS

CDM1H CORE DRILL 1 TO 5 UNITS

Qty.	P/N	Description
2.....	CD101534	CARBON BRUSH
2.....	CD101560	POWER CORD
2.....	CD101551	POWER SWITCH
2.....	CD101552	CIRCUIT BREAKER
1.....	AD114F58M	ADAPTER, 5/8"-11 MALE THREAD

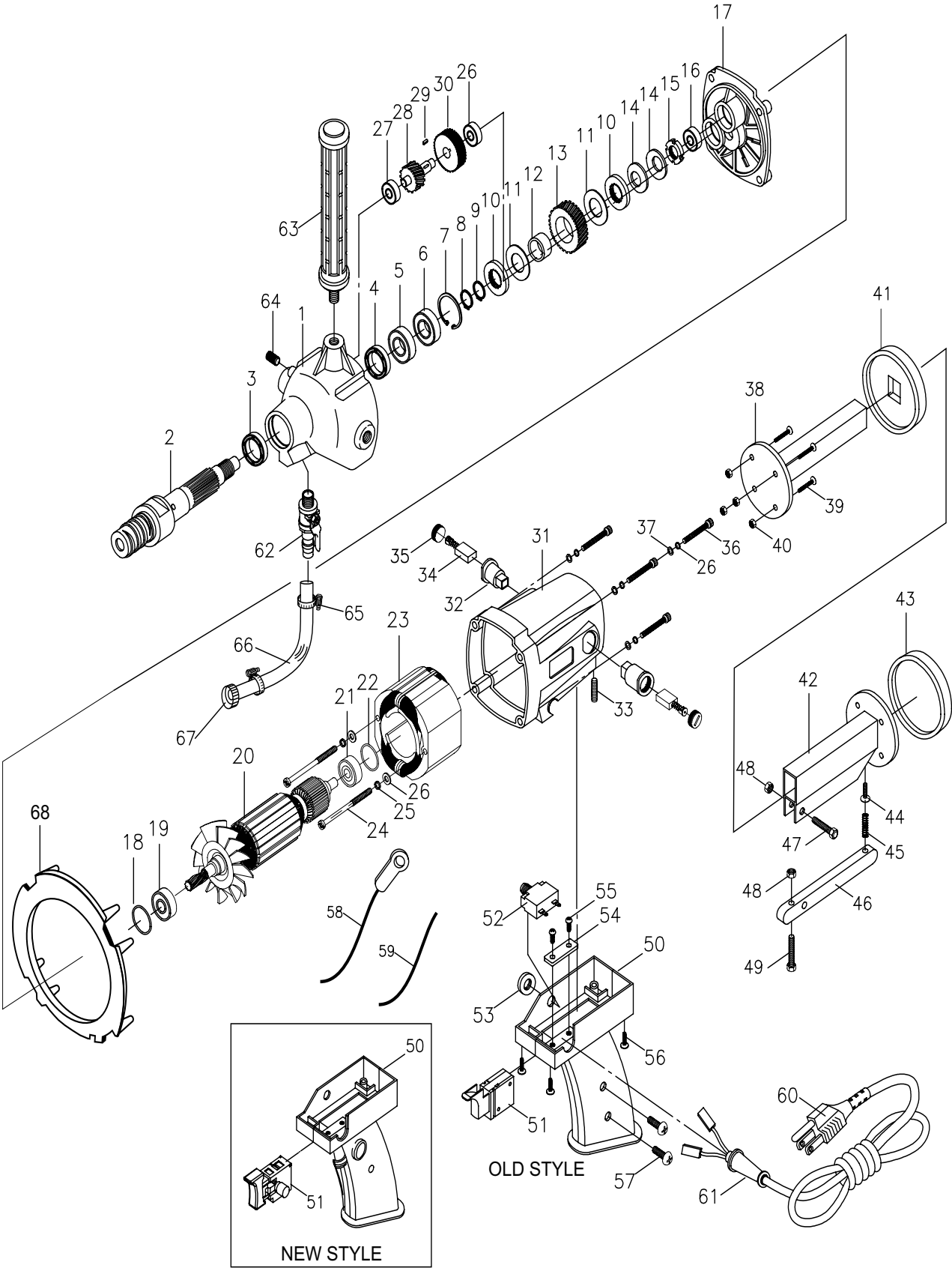
NAMEPLATE AND DECALS ASSY.



NAMEPLATE AND DECALS ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	DCL701	DECAL: MODEL INFORMATION	1	
2	DCL700	DECAL: CAUTION CLEAN WATER	1	

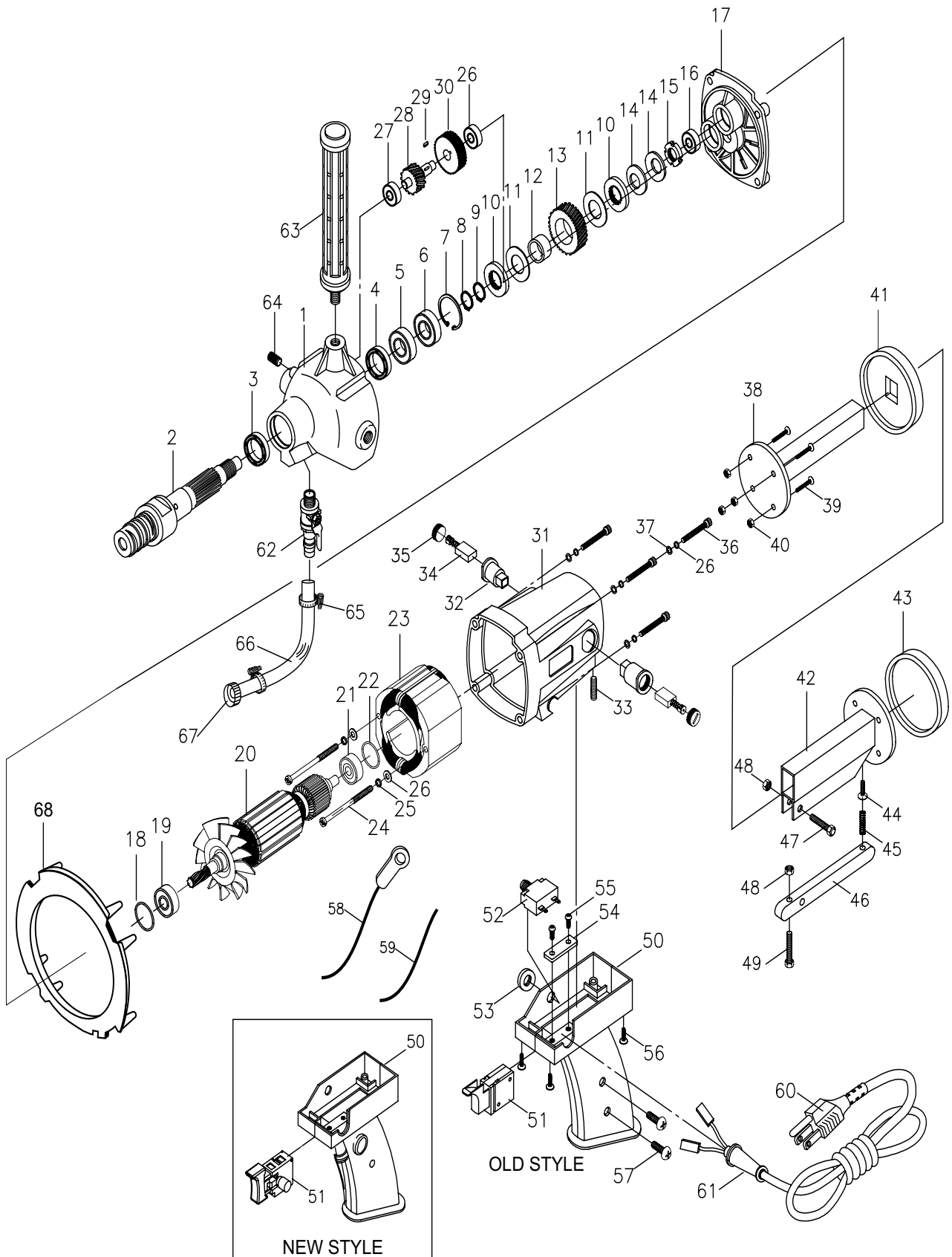
CORE DRILL ASSY.



CORE DRILL ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	CD101501	GEAR CASE	1	
2	CD101502	MAIN SHAFT	1	
3	CD101503	SEAL	1	
4	CD101503	SEAL	2	
5	CD101505	BEARING, 6003LLU	1	
6	CD101506	BEARING, 6003ZZ	1	
7	CD101507	SNAP RING, R35	1	
8	CD101508	SNAP RING, S17	1	
9	CD101509	SNAP RING, S9	1	
10	CD101510	PLATE	2	
11	CD101511	FRICTION PLATE	2	
12	CD101512	METAL COLLAR	1	
13	CD101513	FIRST GEAR	1	
14	CD101514	DISK SPRING	2	
15	CD101515	FINE U-NET	1	
16	CD101516	BEARING, 608ZZ	3	
17	CD101517	DIAPHRAGM	1	
18	CD101518	O-RING	1	
19	CD101519	BEARING, 609LLU	1	
20	CD101520	ARMATURE	1	
21	CD101521	BEARING, 608ZZ	1	
22	CD101522	FILLING RING	1	
23	CD101523	FIELD	1	
24	CD101524	SCREW, 3/16 X 2-1/2"	2	
25	CD101525	SPRING WASHER, M5	2	
26	CD101526	NUT, M5	2	
27	CD101527	BEARING	2	
28	CD101528	SECOND PINION	1	
29	CD101529	WOODRUFF KEY	1	
30	CD101530	SECOND GEAR	1	
31	CD101531	MOTOR HOUSE	1	
32	CD101532	BRUSH TUBE	2	
33	CD101533	SCREW, M5	2	
34	CD101534	CARBON BRUSH	2	
35	CD101535	BRUSH CAP	2	
36	CD101536	SCREW, M5	4	
37	CD101537	SPRING WASHER, M5	4	
38	CD101538	TELESCOPING TUBE	1	
39	CD101539	SCREW, 5/32 X 5/8"	4	
40	CD101540	NUT, M5	4	
41	CD101541	HOLDER	1	
42	CD101542	TELESCOPING TUBE	1	
43	CD101543	HOLDER	1	
44	CD101544	SCREW, 1/8"	1	

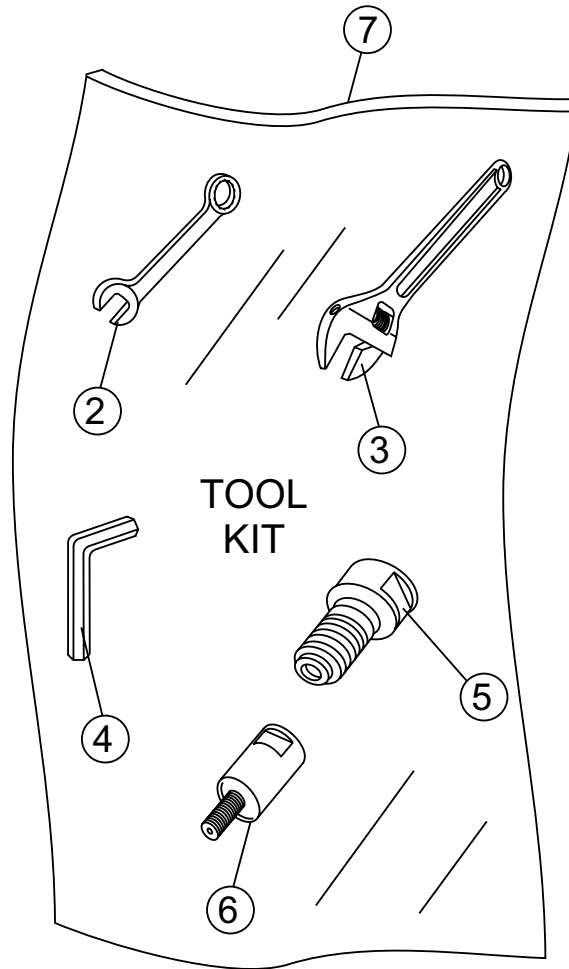
CORE DRILL ASSY. (CONTINUED)



CORE DRILL ASSY. (CONTINUED)

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
45	CD101545	SPRING	1	
46	CD101546	SHIFTER	1	
47	CD101547	SCREW, M6	1	
48	CD101548	NUT, M6	2	
49	CD101549	SCREW, M6	1	
50	CD101550	SWITCH BOX	1	OLD STYLE
50	CD101576	SWITCH BOX W/ LOCK BUTTON HOLE	1	NEW STYLE
51	CD101551	POWER SWITCH	1	OLD STYLE
51	CD101577	POWER SWITCH W/ SPEED LOCK BUTTON .1.....	1	NEW STYLE
52	CD101552	CIRCUIT BREAKER	1	
53	CD101553	WASHER	1	
54	CD101554	CABLE FIX PLATE	1	
55	CD101555	SCREW, 5/32 X1/2"	2	
56	CD101556	SCREW, 5/32 X 1-1/2"	4	
57	CD101557	SCREW, M4	2	
58	CD101558	EARTH CABLE	1	
59	CD101559	CABLE WIRE	1	
60	CD101560	POWER CORD	1	
61	CD101561	FEMALE QUICK DISCONNECT	1	
62	CD2704006	WATER COCK	1	
63	CD101563	HANDLE	1	
64	CD101564	PLUG	1	
65	CD101569	HOSE CLAMP	2	
66	CD101570	PLASTIC WATER HOSE, 4-INCH	1	
67	CD101571	FITTING, BRASS BARB 3/4 X 3/8"	1	
68	CD101608	BAFFLE	1	

CARRYING CASE/TOOLS ADAPTER



CARRYING CASE/TOOLS ADAPTER

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
2#	101566	27 MM WRENCH	1	
3#	101567	ADJUSTABLE WRENCH	1	
4#	101568	5 MM ALLEN WRENCH	1	
5#	ADM181147	ADAPTER, 1-1/4" X 7	1	
6#	ADM1858	ADAPTER, M18 FEMALE to 5/8"-11 MALE	1	
7	CD101575	TOOL KIT.....	1.....	INCLUDES ITEMS W/ #

OPERATION AND PARTS MANUAL

HERE'S HOW TO GET HELP

PLEASE HAVE THE MODEL AND SERIAL
NUMBER ON-HAND WHEN CALLING

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