## sioux <br> 9410/9420 <br> Cordless Drill/Driver



## Safety Information

## IMPORTANT SAFETY INSTRUCTIONS

This manual contains important safety and operating instructions for the SIOUX 9410 and 9420 Cordiess Drill/Drivers. Refer to the information in this manual often for safe operation.

## Read All Instructions

Read, understand and follow all safety messages and instructions in this manual and on the test equipment. Safety messages in this section of the manual contain a signal word, a three-part message, and, in some instances, an icon. An icon, when present, gives a graphical description of the potential hazard.

## General Drill/Driver Cautions

SIOUX Tools Inc. cannot anticipate or provide safety warnings and cautions to cover every situation that may be encountered when operating, servicing or repairing this tool. It is the responsibility of operators and servicing technicians to be knowledgeable about the procedures, tools and materials used, and to satisfy themselves that the procedures, tools and materials will not compromise their safety.

Do not attempt to operate this tool until you have thoroughly read and completely understood all instructions, safety rules contained in this manual. Failure to comply can result in accidents involving fire, electric shock or serious personal injury. Save this manual and review it frequently for continued safe operation and to instruct others who may use this tool.

To reduce the risk of fire, electric shock and personal injury while using power tools always follow basic safety precautions, including the safety messages in this section.

Remember that this tool is always in an operating mode because it does not have to be plugged into an electrical outlet.

## A warning



Flammable vapors can cause explosion.
Do not use near flammable liquid, vapors or gases. Explosion or flames can cause injury.

Power tools generate noise.
Wear hearing protection, user and bystander.
Prolonged exposure to noise can cause hearing loss.

Power tools vibrate during use.
Avoid prolonged exposure to vibration.
Prolonged exposure to vibration can cause injury.

Risk of electric shock.

- Guard against electrical shock by preventing body contact with grounded surfaces.
- Do not use near flammable vapors.
- Be sure that there are no concealed power cables inside walls, ceilings, or floors before drilling.
- Store tools when not being used in a high, dry and locked area that can not be accessed by children.
- Do not allow bystanders to contact tool or extension cord.
Electric shock can cause injury.

Improper use of power tools and accessories can cause broken tools.
Read instructions before operating power tools.
Broken tools can cause injury.

Risk of entanglement.

- Avoid starting tool unintentionally. Do not carry the tool with finger on the trigger. Be sure switch is off when installing battery pack or bits.
- Store tools when not being used in a high, dry and locked area that can not be accessed by children.
- Do not wear loose clothing and jewelry while operating tool. Loose clothes and jeweiry can be caught in moving parts.
- Wear protective hair covering to contain long hair.
- Keep work area clean and well lit.
- Do not overreach. Keep proper footing and balance at all times.
- Stay alert and use common sense when operating tool. Do not operate tool when tired.
- When operating in heights, be aware of things below and around you.
- Do not allow bystanders to contact tool or extension cord.
Entanglement in moving parts can cause injury.


## Battery

A WARNiNG


Risk of electric shock and fire.

- Cover the battery pack terminals with heavy adhesive tape after removing the battery pack.
- Do not attempt to destroy or disassemble the battery pack or remove any of its components.
- Do not touch both terminais with metal objects or body parts, as short-circuit may occur.
Electric shock or fire can cause injury.

Risk of explosion or fire.

- Do not store the tool and battery in locations where the temperature may reach or exceed $104^{\circ} \mathrm{F}$ ( $40^{\circ} \mathrm{C}$ ).
- Do not charge battery when temperature is below $50^{\circ} \mathrm{F}\left(10^{\circ} \mathrm{C}\right)$ or above $104^{\circ} \mathrm{F}\left(40^{\circ} \mathrm{C}\right)$.
- Do not incinerate the battery, even if severely damaged or completely exhausted. The battery may explode in fire.
- Do not charge using an engine generator or DC power source.
Explosion or flames can cause injury.


Risk of electric shock.

- Do not disassemble the battery.
- Do not short circuit the battery.
- Charge battery pack only with the charger provided.
- Disconnect battery pack when not in use, before servicing and when changing accessories.
- Do not charge using an engine generator or DC power source.
Electric shock or fire can cause injury.


## Battery Recycling

4 warning
Risk of burn.
Battery leakage may occur under conditions of extreme usage or temperature.

- If liquid comes in contact with skin, wash quickly with soap and water, then lemon juice or vinegar.
- If liquid gets in eyes, wash with a boric acid solution and seek medical attention immediately. Burns can cause injury.


## Charger

## A warning



Risk of electric shock and fire.

- Use only the charger designated for the tool. Use:
- 9412 for the 9410 Cordless Drill/Driver, and
- 9422 for the 9420 Cordless Drill/Driver.
- Do not expose charger to rain or to snow.
- Do not allow vents of the charger housing to become covered or clogged during use.
- Use of an attachment not recommended or sold by the battery charger manufacturer may result in a risk of fire, electric shock, or injury to persons.
- Never attempt to connect two chargers together.
- The charger operates on standard household electrical power. Do not use any other voltage.
- Consecutive charging may cause overheating. Wait 15 minutes for charger to cool when charging batteries consecutively.
- Do not insert foreign objects into hole for battery in charger stand.
- Pull by plug rather than cord when disconnecting charger.
- Be sure the cord is not stepped on, tripped over, damaged or stressed.
- Do not use an extension cord used unless absolutely necessary. If an extension cord must be used, make sure that the:
- Pins on the plug of the extension cord are the same number, size and shape as those of the. plug on the charger,
- Extension cord is properly wired and in good electrical conditions, and
- Wire size is large enough for AC ampere rating of charger as follows.

| Ampere rating <br> (on face plate) | $0-2.0$ | $2.1-3.4$ |
| :--- | :--- | :--- |
| Cord Length | Wire Size (AWG) |  |
| $25^{\prime}$ | 18 | 18 |
| $50^{\prime}$ | 18 | 18 |
| $100^{\prime}$ | 18 | 16 |

Recommended Minimum AWG Size for Battery Charger Extension Cords

- Do not operate charger with damaged cord or plug. Replace immediately.
- Do not operate charger after it is dropped, received a sharp blow or damaged. Take the charger to an Authorized Service Center.
- Do not disassemble charger. Take the charger to an Authorized Service Center when service or repair is required.
- Unplug charger from outlet before maintenance or cleaning. Turning off controls is not adequate to avoid hazard.
- Read all instructions and safety messages on battery and battery charger before use.
Electric shock or fire can cause injury.


## SAVE THESE INSTRUCTIONS

## 9410/9420 Cordless Drill/Driver

Thank you for buying a SIOUX tool. The 941.0 and 9420 Cordless Drill/Drivers are manufactured to high standards for dependability and, with proper care, will provide years of trouble-free performance.

## Functional Description



Figure 1: 9410/9420 Cordiess Dril/Driver
A - Chuck
B - Torque Control
$C$ - Trigger
$D$ - Forward/Reverse Switch
E - Battery Clip
F - Battery Pack
G - Battery Charger

## Specifications

## Voltage

Chuck Capacity
9.6 V

12V

$$
3 / 8^{\prime \prime}(10 \mathrm{~mm}) \quad 3 / 8^{\prime \prime}(10 \mathrm{~mm})
$$

Drilling Capacities
Steel
Soft Wood
$5 / 16^{n}$ ( 8 mm )
$5 / 8^{\prime \prime}(16 \mathrm{~mm})$ $3 / 8^{\prime \prime}(10 \mathrm{~mm})$ 23/32"(19 mm)

## Weight

$3.25 \mathrm{lbs}(1.47 \mathrm{~kg}) \quad 3.50 \mathrm{lbs}(1.59 \mathrm{~kg})$
Motor

|  | 9.6V DC | 12V DC |
| :---: | :---: | :---: |
| No Load Speed (RPM) |  |  |
| Low | 0-285 | 0-285 |
| High | 0-850 | 0-850. |
| Torque Setting Clutch Positions |  |  |

## Noise Level

Sound Level $\quad 70 \mathrm{~dB}$ or less

## Vibration Level

2.5 meters $/ \mathrm{sec}^{2}$

Charger

| Model Numbers | 9412 | 9422 |
| :--- | :---: | :---: |
| Charging Voltage | 9.6 V | 12 V |
| Input (AC) | $50-60 \mathrm{~Hz}$ | $50-60 \mathrm{~Hz}$ |

## Battery

Model Numbers 94119421
Type Nickel cadmium

## Battery Charging

The battery for this tool is shipped in a low charge condition and must be charged prior to use.

1. Remove the battery from the drill by grasping both sides of the battery and depressing the battery clips.
2. Gently pull the battery from the housing.
3. Insert the battery into the charger, aligning the plus and minus terminals with the respective identification on the charger.
$\stackrel{F}{ }$
Insert the battery fully into the port so the cartridge rests on the charger port floor.
4. Verify that the charging light is red.
5. Remove the battery when the charging light furns green. A green charging light indicates that the battery is fully charged.

Recycle or dispose of exhausted battery properly for safety and to preserve natural resources. This product contains a nickel-cadmium battery that must be disposed of according to local, state or federal laws. Consult your waste disposal authority for information regarding recycling or disposal directions.

## Drilling Tips

$\square$ Pressing down too hard slows drilling performance, damages the bit and shortens service of the drill.

- Grasp the drill firmly and use care when the bit begins to break through a hole. Drill and bit are subject to tremendous force when breaking through a hole.
$\square$ Use only sharp drill bits. When drilling in:
- Wood, use twist drill bits, spade bits, power auger bits or hole saws,
- Metals, use high speed steel twist drill bits, or
- Masonry, (brick cement, cinder block, etc.,) use carbide tipped bits.
- Always securely clamp or anchor material being drilled.
$\square$ When drilling thin materials or materials that are likely to splinter, back up the work piece with a wood block to prevent damaging the material.

Always apply pressure in a straight line with the bit. Use enough pressure to keep the bit drilling, but not hard enough to stall the motor or deflect the bit.
$\square$ When drilling wood with a twist bit for metal, pull the bit out frequently to clear chips from the flutes. Let up on, the pressure just before breaking through the material to get a good, clean hole.
$\square$ When drilling metal, mark the hole location with a center punch to prevent the drill bit from slipping off center when starting to drill the hole. Use a cutting lubricant, like sulfurized cutting oil, when drilling ferrous metals other than iron and brass which should be drilled dry.
$\square$ When drilling hard, smooth surfaces, use the lower speed to start holes without punching. Mark the hole location with a center punch to prevent the drill bit from slipping off center when starting to drill the hole.
$\square$ When drilling in masonry, use carbide tipped masonry bits. Keep even force on the drill. A smooth, even flow of dust indicates the proper drilling rate.

## Using the 9410/9420 Drill/Driver

## Installing and Removing Bits

This drill is fitted with a keyless chuck. No chuck key is required to secure the drill bits.

To install a drill bit:

1. Release the chuck jaws by grasping the rear half of the chuck with one hand. Use the other hand to turn the chuck counterclockwise until the chuck opens to the desired shaft diameter.
2. Insert the bit or accessory about three-fourths of the way into the chuck.
3. Tighten the chuck jaws securely by holding the rear half of the chuck with one hand. Use the other hand to turn the chuck clockwise until the chuck is securely tightened.

## Forward/Reverse Switch

The forward/reverse switch determines the rotating direction of the chuck, either clockwise or counterclockwise.

To change the direction of chuck rotation:

1. Be sure the drill is stopped and not operating.
2. Push the lever to the right or the left. Switch positions viewed from the handle are:

- Forward (F), the chuck rotates clockwise, - Reverse (R), the chuck rotates counterclockwise.

The switch must be in either the forward or the reverse position to operate.

## Trigger

Depress the trigger to rotate the chuck. The lever must be in a forward or reverse position to operate. The trigger can be locked in the OFF position. Locking the trigger in the OFF position helps to reduce the possibility of accidental starting the drill when not in use. Place the lever in the center position to lock the trigger.

Lock the trigger when not in use.

## Torque Control

Adjust the amount of torque by turning the torque adjustment dial. The torque control prevents the heads of smaller diameter screws from twisting off when correctly set. Fastening torque is greater as the numerals are larger. The drill has full torque when set in a drill position. Overloading and stalling the drill at any time can cause motor burnout and can also dramatically reduce battery life.

## Drilling

1. Choose the appropriate bit for the task.
2. Secure the material being drilled in a vise or with clamps to keep it from turning as the drill bit rotates.
3. Set the appropriate speed for the task.
4. Hold the drill firmly and place the bit at the drilling point.
5. Depress the switch trigger to start the drill. Move the drill bit into the work piece. Apply only enough pressure to keep the bit cutting.
6. Do not force or apply side pressure to elongate a hole.

Release the switch trigger immediately if the bit jams in the work piece or the drill stalls. Remove the bit from the work piece and determine the reason for jamming.

## Service

Service of this tool requires extreme care and knowledge. Service should be performed only by a qualified service technician. For service or repair contact an Authorized Service Center. For a list of Authorized Service Centers contact SIOUX Tools Inc., 2901 Floyd Boulevard, Sioux City, Iowa 51102-0507, U.S.A.

- Phone:1-800-722-7290, U.S. and Canada 1-712-252-0525 Fax:1-712-252-4267
- Always check tool for damaged parts before use.
- Replace or repair damaged parts before use. Check alignment of moving parts, binding, moving parts, broken parts, mounting, and any other conditions that may alter operation.
- Have damaged parts properly repaired or replaced by an Authorized Service Center.
- Do not use tool if switch does not turn it on and off.
- Maintain tools. Keep tools dry, clean and free of oil and grease for better and safer performance.


Figure 2: $9410 / 9420$ Cordless Drill/Driver, Exploded View

| Ref | Part No. | Description <br> 1 |
| :--- | :---: | :--- |
| 67554 | Chuck screw |  |
| 2 | 67559 | Spring <br> 3 |
| 67398 | 67604 | Keyless chuck <br> Housing set (left and <br> right)(includes 5) <br> Housing set (left and right) <br> (includes 4) |
| 5 | 67604 | Torque ring plate |
| 6 | 67585 | Steel ring |
| 7 | 67586 | Torque ring |
| 8 | 67587 | Steel ball (16)* |
| 9 | 67588 | Knob |
| 10 | 67589 | Thrust plate |
| 11 | 67590 | 67567 |
| 12 | 67591 | Pushbutton <br> Motor and gear box assembly <br> (9410) (includes 13-1 through |
| 13 |  | 13-20) <br> Motor and gear box assembly |
|  | 67592 | (9420) (includes 13-1 through <br> 13-20) |


| 13-15 | 67593 | Motor assembly (9410) <br> (includes 13-15-1 and 13-15-2) |
| :--- | :--- | :--- |
|  | 67594 | Motor assembly (9420) <br> (includes 13-15-1 and 13-15-2) |
| 14 | 67595 | Variable switch assembly <br> (includes 14-1 through 14-9) |
| 15 | 67575 | Screw |
| 16 | 67566 | Screw (6)* |
| 17 | 67555 | Screw (2)* |
| Not Shown |  |  |
| 9411 | Battery (9410) |  |
|  | 9421 | Battery (9420) |
| 9412 | Charger (9410) |  |
| 9422 | Charger (9420) |  |
| 9413 | Case (9410K and 9420K) |  |
| 67596 | Nameplate (9410) |  |
| 67597 | Nameplate (9420) |  |
| 67598 | Rating label (9410) |  |
| 67599 | Rating label (9420) |  |
| 67600 | Battery label (9410) |  |
| 67601 | Battery label (9421) |  |
| 67602 | Charger label set (9412) |  |
| 67603 | Charger label set (9422) |  |
| 67757 | Ni-Cd battery label |  |

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This pdf incorporates the following model numbers:
9410, 9420


[^0]:    *Order quantity as needed

