

Ryobi ½” Drill-Driver (PSBDD01)

The Ryobi drill-driver is used for drilling holes in a variety of materials, and for driving screws into or out of the material. The following rules must be observed when using it.



- Students must have taken the Baum Family Maker Space basic lab orientation and safety training.
- This is a YELLOW category equipment. Students must have received additional training specific for this piece of equipment from Maker Space staff or qualified student workers.
- Do not use the drill-driver if you are unsure about any aspect of its operation.
- Eye protection must be used at all times when using the drill-driver.
- The drill-driver can throw off particles that it has removed from the material it is drilling into. It is advised that you wear a shop apron to protect your clothing.
- Before using it make sure you have familiarized yourself with the location and action of the trigger switch to start it, and the operation of the forward/reverse switch.
- Do not have any loose clothing above the level of material the drill-driver will be used on.
- Long hair must be tied back in such a way that it cannot reach the drill-driver during operation. Make sure this cannot happen if you turn your head away from the drill-driver thereby bringing the back of your head closer to the drill-driver.
- Only use drill bits that have been provided by the lab staff or approved by them for use.
- Do not use drill bits that are dull or not straight.
- Make sure the drill-driver's chuck has been securely tightened around the drill bit before starting to do any drilling. Do not turn on the drill-driver if the drill bit is loose.
- If drilling a hole, make sure the forward/reverse switch is in the forward position (pressed in on the right side) so the bit is rotating in the correct direction to drill the hole.
- Before applying the drill-driver to a work surface, turn it on briefly to get a feel for holding it while it is running.
- Always maintain a firm grip on the drill-driver when using it and keep it under control when it is contacting the material to be drilled.
- If any type of unsafe condition is noted, notify the lab manager or your professor. If necessary, place a sign on the drill-driver warning other to not use it due to the problem.

Please refer to the manufacturer's manual on the following pages for additional information on the operation of the Ryobi drill-driver.



OPERATOR'S MANUAL

MANUEL D'UTILISATION

MANUAL DEL OPERADOR

ONE+ BRUSHLESS COMPACT

1/2 in. DRILL/DRIVER

PERCEUSE-VISSEUSE DE 13 mm (1/2 po)

COMPACTE ET SANS BALAI ONE+

TALADRO/DESTORNILLADOR COMPACTO SIN

ESCOBILLAS DE 13 mm (1/2 pulg.) ONE+

PSBDD01

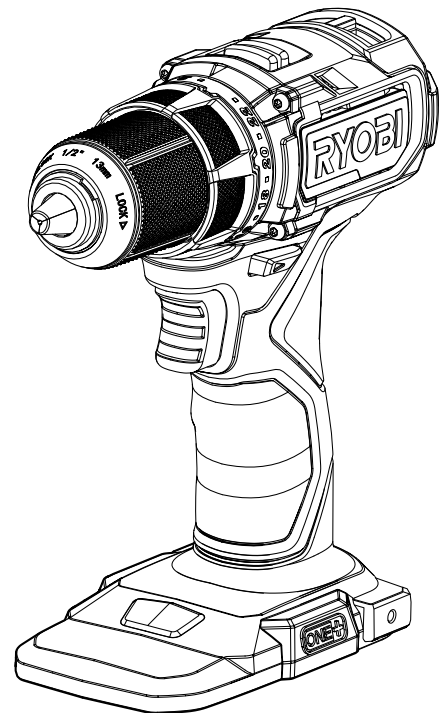


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WARNING:

To reduce the risk of injury, the user must read and understand the operator's manual before using this product.

**SAVE THIS MANUAL
FOR FUTURE REFERENCE**

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AVERTISSEMENT :

Pour réduire les risques de blessures, l'utilisateur doit lire et veiller à bien comprendre le manuel d'utilisation avant d'utiliser ce produit.

**CONSERVER CE MANUEL
POUR FUTURE RÉFÉRENCE**

ÍNDICE DE CONTENIDO

■ Advertencias de seguridad para herramientas eléctrica.....	2-3
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ADVERTENCIA:

Para reducir el riesgo de lesiones, el usuario debe leer y comprender el manual del operador antes de usar este producto.

**GUARDE ESTE MANUAL
PARA FUTURAS CONSULTAS**

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.

Save all warnings and instructions for future reference.

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

WORK AREA SAFETY

- **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- **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.
- **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

ELECTRICAL SAFETY

- **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 risk of electric shock.
- **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
- **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.
- **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.
- **Use this product only with batteries and chargers listed in tool/appliance/battery pack/charger correlation supplement 987000-432.**

PERSONAL SAFETY

- **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 inatten-

tion while operating power tools may result in serious personal injury.

- **Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to 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.
- **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.
- **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- **Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewelry or long hair can be caught in moving parts.
- **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.
- **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.
- **Do not wear loose clothing or jewelry.** Contain long hair. Loose clothes, jewelry, or long hair can be drawn into air vents.
- **Do not use on a ladder or unstable support.** Stable footing on a solid surface enables better control of the power tool in unexpected situations.

POWER TOOL USE AND CARE

- **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.
- **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- **Disconnect the plug from the power source and/or remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.

GENERAL POWER TOOL SAFETY WARNINGS

- **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.
- **Maintain power tools and accessories. 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.
- **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- **Use the power tool, accessories and tool bits etc. 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.
- **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.
- **When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another.** Shorting the battery terminals together may cause burns or a fire.
- **Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.** Liquid ejected from the battery may cause irritation or burns.
- **Do not use a battery pack or tool that is damaged or modified.** Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, explosion or risk of injury.
- **Do not expose a battery pack or tool to fire or excessive temperature.** Exposure to fire or temperature above 265° F may cause explosion.
- **Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions.** Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

BATTERY TOOL USE AND CARE

- **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
- **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.

SERVICE

- **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.
- **Never service damaged battery packs.** Service of battery packs should only be performed by the manufacturer or authorized service providers.

DRILL/DRIVER SAFETY WARNINGS

SAFETY INSTRUCTIONS FOR ALL OPERATIONS

- **Hold the power tool by insulated gripping surfaces, when performing an operation where the cutting accessory or fasteners may contact hidden wiring.** Cutting accessory or fasteners contacting a “live” wire may make exposed metal parts of the power tool “live” and could give the operator an electric shock.

SAFETY INSTRUCTIONS WHEN USING LONG DRILL BITS

- **Never operate at higher speed than the maximum speed rating of the drill bit.** At higher speeds, the bit is likely to bend if allowed to rotate freely without contacting the workpiece, resulting in personal injury.
- **Always start drilling at low speed and with the bit tip in contact with the workpiece.** At higher speeds, the bit is likely to bend if allowed to rotate freely without contacting the workpiece, resulting in personal injury.
- **Apply pressure only in direct line with the bit and do not apply excessive pressure.** Bits can bend causing breakage or loss of control, resulting in personal injury.




ADDITIONAL SAFETY INSTRUCTIONS

- **Know your power tool. Read operator’s manual carefully. Learn its applications and limitations, as well as the specific potential hazards related to this power tool.** Following this rule will reduce the risk of electric shock, fire, or serious injury.
- **Always wear eye protection with side shields marked to comply with ANSI Z87.1 when assembling parts, operating the tool, or performing maintenance.** Following this rule will reduce the risk of serious personal injury.







- **Protect your lungs. Wear a face or dust mask if the operation is dusty.** Following this rule will reduce the risk of serious personal injury.
- **Protect your hearing. Wear hearing protection during extended periods of operation.** Following this rule will reduce the risk of serious personal injury.
- **Battery tools do not have to be plugged into an electrical outlet; therefore, they are always in operating condition. Be aware of possible hazards when not using your battery tool or when changing accessories.** Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
- **Do not place battery tools or their batteries near fire or heat.** This will reduce the risk of explosion and possibly injury.
- **Do not crush, drop or damage battery pack. Do not use a battery pack or charger that has been dropped or received a sharp blow.** A damaged battery is subject to explosion. Properly dispose of a dropped or damaged battery immediately.
- **Batteries can explode in the presence of a source of ignition, such as a pilot light.** To reduce the risk of serious personal injury, never use any cordless product in the presence of open flame. An exploded battery can propel debris and chemicals. If exposed, flush with water immediately.
- **Under extreme usage or temperature conditions, battery leakage may occur. If liquid comes in contact with your skin, wash immediately with soap and water. If liquid gets into your eyes, flush them with clean water for at least 10 minutes, then seek immediate medical attention.** Following this rule will reduce the risk of serious personal injury.
- **Save these instructions.** Refer to them frequently and use them to instruct others who may use this tool. If you loan someone this tool, loan them these instructions also.

SYMBOLS

The following signal words and meanings are intended to explain the levels of risk associated with this product.

SYMBOL	SIGNAL	MEANING
	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, that, if not avoided, may result in minor or moderate injury.
	NOTICE:	(Without Safety Alert Symbol) Indicates information considered important, but not related to a potential injury (e.g. messages relating to property damage).

Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the product better and safer.

SYMBOL	NAME	DESIGNATION/EXPLANATION
	Safety Alert	Indicates a potential personal injury hazard.
	Read Operator's Manual	To reduce the risk of injury, user must read and understand operator's manual before using this product.
	Eye Protection	Always wear eye protection with side shields marked to comply with ANSI Z87.1.
	Wet Conditions Alert	Do not expose to rain or use in damp locations.
	Recycle Symbol	This product uses lithium-ion (Li-ion) batteries. Local, state or federal laws may prohibit disposal of batteries in ordinary trash. Consult your local waste authority for information regarding available recycling and/or disposal options.
V	Volts	Voltage
min	Minutes	Time
	Direct Current	Type or a characteristic of current
n_0	No Load Speed	Rotational speed, at no load
.../min	Per Minute	Revolutions, strokes, surface speed, orbits etc., per minute

ASSEMBLY

WARNING:

Do not use this product if it is not completely assembled or if any parts appear to be missing or damaged. Use of a product that is not properly and completely assembled or with damaged or missing parts could result in serious personal injury.

WARNING:

Do not attempt to modify this product or create accessories or attachments not recommended for use with this product. Any such alteration or modification is misuse and could result in a hazardous condition leading to possible serious personal injury.

- If any parts are damaged or missing, please call 1-800-525-2579 for assistance.

OPERATION

WARNING:

Do not allow familiarity with this product to make you careless. Remember that a careless fraction of a second is sufficient to inflict serious injury.

WARNING:

Always remove battery pack from the tool when you are assembling parts, making adjustments, cleaning, or when not in use. Removing battery pack will prevent accidental starting that could cause serious personal injury.

WARNING:

Always wear eye protection with side shields marked to comply with ANSI Z87.1. Failure to do so could result in objects being thrown into your eyes and other possible serious injuries.

WARNING:

Do not use any attachments or accessories not recommended by the manufacturer of this product. The use of attachments or accessories not recommended can result in serious personal injury.

APPLICATIONS

You may use this product for the purposes listed below:

- Drilling in all types of wood products (lumber, plywood, paneling, composition board, and hard board), ceramics, plastics, fiberglass, laminates, and metals; driving screws into wood and drywall with screwdriver bits

OVERLOAD PROTECTION

When the tool is forced or the motor is overloaded, the tool will automatically shut off. To reset the tool, release the trigger and resume operation. If the tool still does not resume operation, remove and reinsert the battery. Do not force the tool.

HIGH TEMPERATURE PROTECTION

Li-ion battery packs are equipped with a high temperature protection feature that automatically deactivates the tool when it is overheated. To resume operation, allow the tool to cool and then squeeze the trigger.

INSTALLING/REMOVING BELT HOOK OR BIT HOLDER (NOT INCLUDED)

See Figure 1, page 10.

The belt hook and bit holder are interchangeable. They may be installed on either side of the base.

- Align hole in belt hook or bit holder with hole in tool's base.
- Install screw to secure belt hook or bit holder in place.
- To uninstall, remove screw and then belt hook or bit holder.

OPERATION

VARIABLE SPEED SWITCH TRIGGER

See Figure 2, page 10.

The variable speed switch trigger delivers higher speed with increased trigger pressure and lower speed with decreased trigger pressure.

To turn the drill **ON**, depress the switch trigger. To turn it **OFF**, release the switch trigger and allow the chuck to come to a complete stop.

NOTE: A whistling or ringing noise coming from the switch during use is a normal part of the switch function.

NOTE: Running at low speeds under constant usage may cause the drill to become overheated. If this occurs, cool the drill by running it without a load and at full speed.

DIRECTION OF ROTATION SELECTOR (FORWARD/REVERSE/CENTER LOCK)

See Figure 2, page 10.

Set the direction of rotation selector in the **OFF** (center lock) position to lock the switch trigger and help prevent accidental starting when not in use.

Position the direction of rotation selector to the left of the switch trigger for forward drilling. Position the selector to the right of the switch trigger to reverse the direction.

NOTE: The drill will not run unless the direction of rotation selector is pushed fully to the left or right.

NOTICE:

To prevent gear damage, always allow the chuck to come to a complete stop before changing the direction of rotation.



WARNING:

Battery tools are always in operating condition. Lock the switch when not in use or carrying at your side, when installing or removing the battery pack, and when installing or removing bits.

INSTALLING/REMOVING BATTERY PACK

See Figure 3, page 10.

- Lock the switch trigger.
- Insert the battery pack into the product as shown.
- Make sure the latches on each side of the battery pack snap into place and that battery pack is secured in the product before beginning operation.
- Depress the latches to remove the battery pack.

For complete charging instructions, see the operator's manuals for your battery pack and charger.

INSTALLING/REMOVING BITS

See Figures 4 - 5, page 11.

The arrows on the keyless chuck indicate which direction to rotate the chuck body to tighten or release the drill bit.

Do not use a wrench to tighten or loosen the chuck jaws.

- **To install bits**, lock the switch trigger.
- Open or close the chuck jaws until the opening is slightly larger than the bit size you intend to use.
- Raise the front of the drill slightly and insert the drill bit.



WARNING:

Make sure to insert the drill bit straight into the chuck jaws. Do not insert the drill bit into the chuck jaws at an angle, then tighten. This could cause the drill bit to be thrown from the drill, resulting in possible serious personal injury or damage to the chuck.

- Rotate the chuck sleeve to close and tighten the chuck jaws.



WARNING:

Do not hold the chuck sleeve with one hand and use the power of the drill to tighten the chuck jaws on the drill bit. The chuck sleeve could slip in your hand, or your hand could slip and come in contact with the rotating drill bit. This could cause an accident resulting in serious personal injury.

- **To remove bits**, lock the switch trigger and open the chuck jaws.
- The bit provided with the drill can be placed in the storage area, located on the base of the drill.

LED LIGHT

See Figure 6, page 11.

The LED light, located on the front of the tool base, illuminates when the switch trigger is depressed.

If the drill is not in use, the time-out feature will cause the light to start fading and then shut off.

The LED light illuminates only when there is a charged battery pack in the tool.

TWO-SPEED GEAR TRAIN

See Figure 7, page 11.

- Select low speed **(1)** for applications requiring higher power and torque, such as driving screws and drilling in metal.
- Select high speed **(2)** for fast drilling or driving applications or for drilling in wood or masonry.

OPERATION

NOTICE:


Never change speeds while the tool is running. Failure to obey this caution could result in serious damage to the drill.

NOTE: If you have difficulty changing from one speed range to the other, turn the chuck by hand until the gears engage.

ADJUSTING TORQUE

See Figure 7, page 11.

Rotate the adjustment ring to the proper torque setting for the type of material and size of screw you are using.

- 1 - 4 For driving small screws
- 5 - 8 For driving screws into soft material
- 9 - 12 For driving screws into soft and hard materials
- 13 - 16 For driving screws into hard wood
- 17 - 23 For driving large screws
-  For heavy drilling

DRILLING/DRIVING SCREWS

See Figure 8, page 11.

- Check the direction of rotation selector for the correct setting (forward or reverse).
- Use low **(1)** speed for high torque applications and high **(2)** speed for fast drilling or driving applications. Refer to **Two-Speed Gear Train** and **Adjusting Torque**.
- Secure the workpiece in a vise or with clamps to keep it from turning as the bit rotates.
- Hold the drill firmly and place the bit at the point to be drilled, or where the screw is to be driven.



WARNING:

Do not drive a screw where there is likely to be hidden wiring behind the surface. Contact with a “live” wire will make exposed metal parts of the tool “live” and possibly shock the operator. If you must drive a screw where hidden wire may be present, always hold tool by insulated gripping surfaces (handle) when performing the operation to prevent a shock to the operator.

- Depress the switch trigger to start the drill.

- Move the bit into the workpiece, applying only enough pressure to keep the bit cutting or driving the screw. Do not force the drill or apply side pressure to elongate a hole. Let the tool do the work.



WARNING:

When drilling, be prepared for binding at bit breakthrough. When these situations occur, drill has a tendency to grab and kick opposite to the direction of rotation and could cause loss of control when breaking through material. If not prepared, this loss of control can result in possible serious injury.

- With hard, smooth surfaces, use a center punch to mark the desired hole location. This will prevent the bit from slipping off-center as the hole is started.
- If the bit jams in the workpiece or if the drill stalls, stop the tool immediately. Remove the bit from the workpiece and determine the reason for jamming.

NOTE: This drill has an electric brake. When the switch trigger is released, the chuck stops turning.

WOOD AND METAL DRILLING

For maximum performance, use high speed steel bits for wood or metal drilling. Select drilling mode. Begin drilling at a very low speed to prevent the bit from slipping off the starting point.

Wood Drilling

- Increase the speed as the drill bit bites into the material.
- When drilling through-holes, place a block of wood behind the workpiece to prevent ragged or splintered edges on the back side of the hole.

Metal and Steel Drilling

- Use a light oil on the drill bit to keep it from overheating. The oil will prolong the life of the bit and increase the drilling action.
- Maintain a speed and pressure which allows cutting without overheating the bit. Applying too much pressure will:
 - Overheat the drill;
 - Wear the bearings;
 - Bend or burn bits; and
 - Produce off-center or irregular-shaped holes.
- When drilling large holes in metal, start with a small bit, then finish with a larger bit.

MAINTENANCE



WARNING:

When servicing, use only identical replacement parts. Use of any other parts could create a hazard or cause product damage.

GENERAL MAINTENANCE

Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use. Use clean cloths to remove dirt, dust, oil, grease, etc.

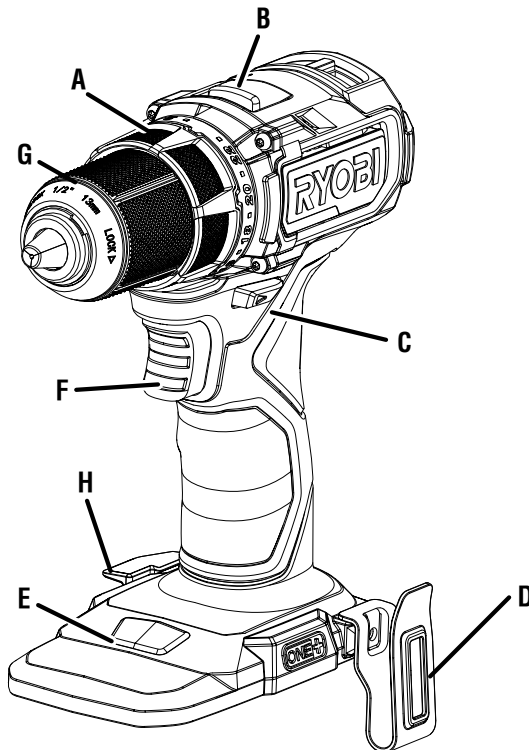
TROUBLESHOOTING

LED LIGHT FUNCTIONS

TOOL STATUS	LED LIGHT SCENARIO	ACTION REQUIRED
Normal	Solid Light (No Flashes)	No Action Needed
Low Battery	3 Flashes	Replace Battery
Excessive Force	6 Flashes	Wait 5 Seconds
Over Temperature	9 Flashes	Let Tool Cool Off

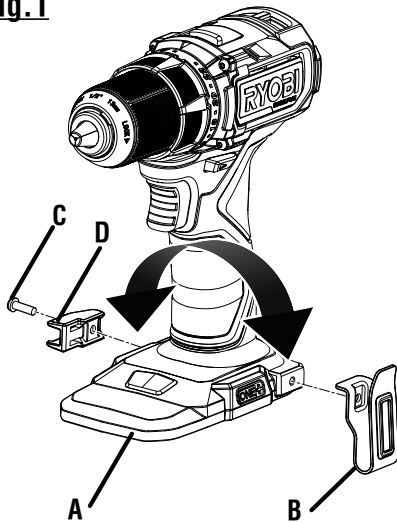
*More than 9 flashes will result in the need to remove the battery and reinsert a few minutes later.

**NOTE: ILLUSTRATIONS START ON PAGE 10
AFTER FRENCH AND SPANISH LANGUAGE SECTIONS.**



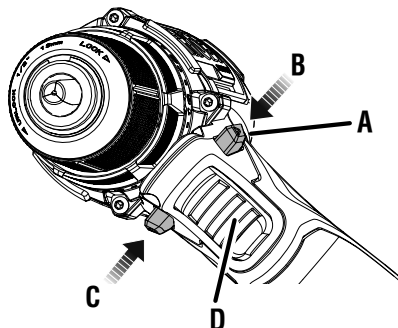
- A - Torque adjustment ring (bague de mode de percussion, anillo selector del modo de taladrado de percusión)
 B - Two-speed gear train (high-low) [réducteur à deux vitesses (élevé/faible), engranaje de dos velocidades (alta-baja)]
 C - Direction of rotation selector (forward/reverse/center lock) [sélecteur de sens de rotation (sélecteur de sens de rotation / verrouillage central), selector de sentido de rotación (adelante, atrás, seguro en el centro)]
 D - Bit holder (not included) [porte-embout (non inclus), soporte de brocas (no incluida)]
 E - LED light (lampe dél, luz de diodo luminiscente)
 F - Variable speed switch trigger (gâchette de commande de vitesse variable, interruptor de gatillo de velocidad variable)
 G - Keyless chuck (mandrin sans clé, portabrocas de apriete sin llave)
 H - Belt hook (not included) [crochet de ceinture (non inclus), gancho para el cinto (no incluida)]

Fig.1



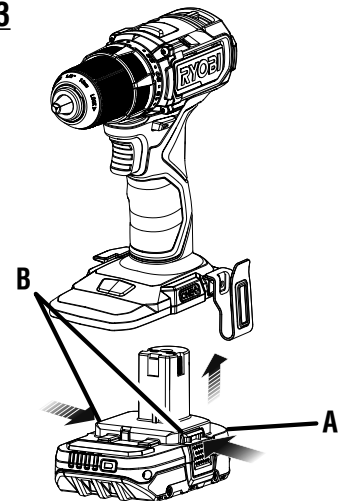
- A - Base (base, base)
 B - Belt hook (not included) [crochet de ceinture (non inclus), gancho para el cinto (no incluida)]
 C - Screw (vis, tornillo)
 D - Bit holder (not included) [porte-embout (non inclus), soporte de brocas (no incluida)]

Fig.2



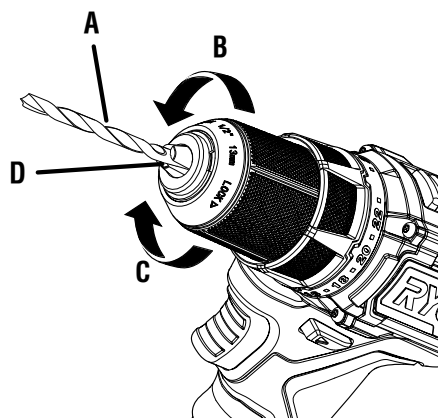
- A - Direction of rotation selector (forward/reverse/center lock) [sélecteur de sens de rotation (sélecteur de sens de rotation / verrouillage central), selector de sentido de rotación (adelante, atrás, seguro en el centro)]
 B - Reverse (arrière, adelante)
 C - Forward (avant, atrás)
 D - Variable speed switch trigger (gâchette de commande de vitesse variable, gatillo del interruptor de velocidad variable)

Fig.3



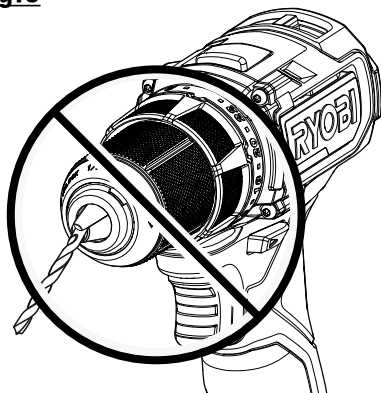
- A - Battery pack (bloc-piles, paquete de baterías)
 B - Depress latches to release battery pack (appuyer sur le loquet pour libérer le bloc-piles, para soltar el paquete de baterías oprima el pestillo)

Fig.4



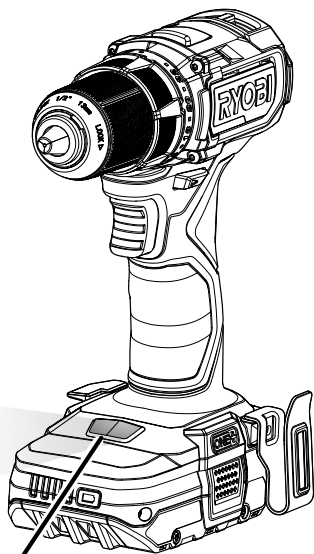
- A - Drill bit (foret, broca)
B - Unlock (desserrage, desasegurar)
C - Lock (serrage, asegurar)
D - Chuck jaws (mors du mandrin, mordazas del portabrocas)

Fig.5



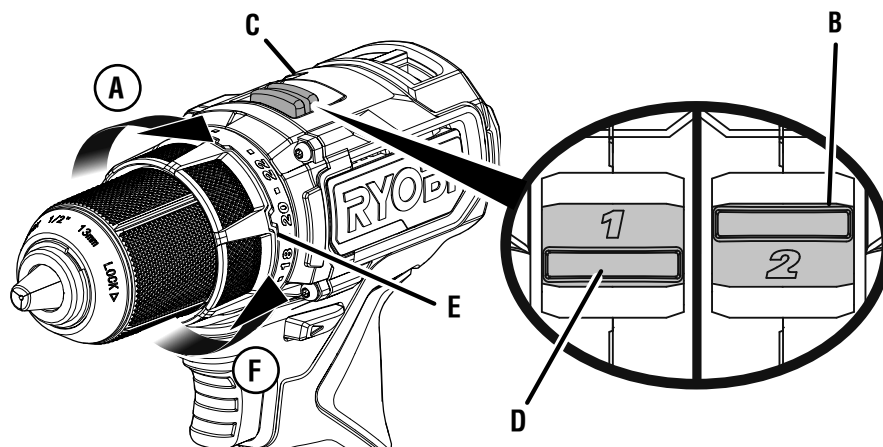
**WRONG/INCORRECT/
FORMA INCORRECTA**

Fig. 6



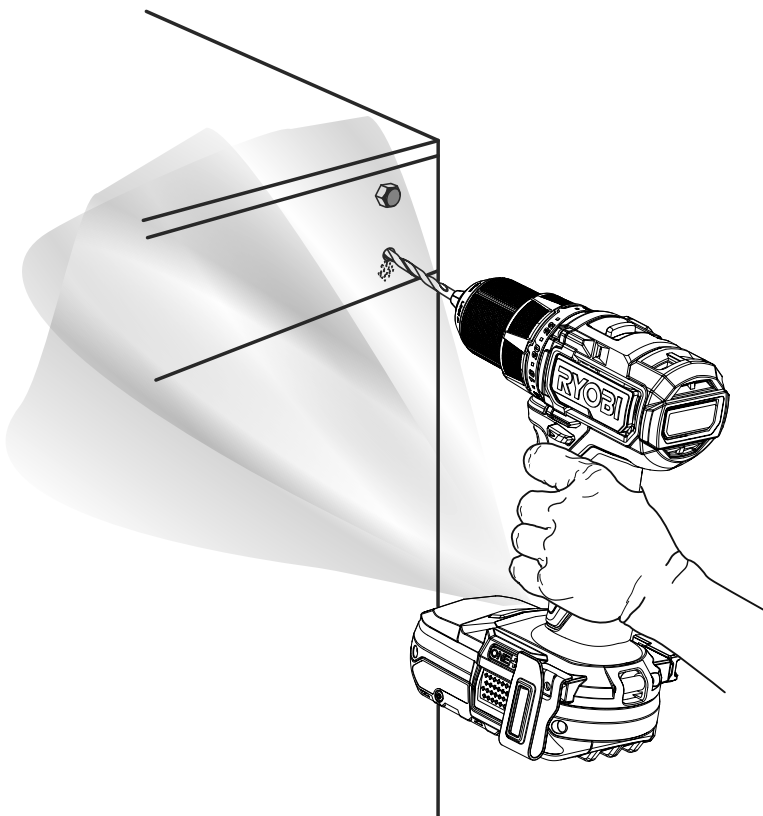
- A - LED light (lampe DÉL, luz de diodo luminiscente)

Fig.7



- A - To increase torque (pour augmenter le couple, para aumentar la fuerza de torsión)
B - High (2) speed (haute vitesse, alta velocidad)
C - Two-speed gear train (high-low) [réducteur à deux vitesses (élevé/faible), engranaje de dos velocidades (alta-baja)]
D - Low (1) speed (basse vitesse, baja velocidad)
E - Adjusting ring (bague de réglage, anillo de ajuste)
F - To decrease torque (pour réduire le couple, para disminuir la fuerza de torsión)

Fig. 8





OPERATOR'S MANUAL
MANUEL D'UTILISATION / MANUAL DEL OPERADOR
ONE+ BRUSHLESS COMPACT 1/2 in. DRILL/DRIVER
PERCEUSE-VISSEUSE DE 13 mm (1/2 po) COMPACTE
ET SANS BALAI ONE+
TALADRO/DESTORNILLADOR COMPACTO SIN ESCOBILLAS DE 13 mm
(1/2 pulg.) ONE+
PSBDD01

To request service, purchase replacement parts,
locate an Authorized Service Center or obtain Customer or Technical Support:
Visit **www.ryobitools.com** or call **1-800-525-2579**

If any parts or accessories are damaged or missing, do not return this product to the store.
Call **1-800-525-2579** for immediate service.

Please obtain your model and serial number from the product data plate.
This product is covered under a 3-year limited Warranty. Proof of purchase is required.

MODEL NUMBER* _____ SERIAL NUMBER _____

**Model number on product may have additional letters at the end. These letters designate
manufacturing information and should be provided when calling for service.*

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Pour faire une demande de réparations ou obtenir des pièces de rechange, trouver un
Centre de réparations agréé pour obtenir un soutien technique ou le Service à la clientèle :
Visiter **www.ryobitools.com** ou en téléphonant au **1-800-525-2579**

Si des pièces ou accessoires sont manquantes ou endommagées, ne pas retourner
ce produit au magasin. Appeler immédiatement au **1-800-525-2579** pour obtenir de l'aide.

Inscrire les numéros de modèle et de série inscrits sur la plaque d'identification du produit.
Ce produit est couvert par une garantie limitée de trois (3) ans. Une preuve d'achat est exigée.

NUMÉRO DE MODÈLE* _____ NUMÉRO DE SÉRIE _____

**Le numéro de modèle sur le produit peut contenir des lettres supplémentaires à la fin. Ces lettres désignent
les informations du fabricant et doivent être fournies lors d'un appel de demande de service.*

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Para obtener servicio, comprar piezas de repuesto, localizar un centro
de servicio autorizado y obtener Servicio o Asistencia Técnica al Consumidor:
Visite **www.ryobitools.com** o llame al **1-800-525-2579**

Si hay alguna pieza ou accesorios dañada o faltante, no devuelva este producto a la tienda.
Llame al **1-800-525-2579** para servicio técnico inmediato.

Obtenga su modelo y número de serie de la placa de datos del producto.
Este producto está cubierto con una garantía limitada de 3 años. Se solicita prueba de la compra.

NÚMERO DE MODELO* _____ NÚMERO DE SERIE _____

**El número de modelo que figura en el producto podría tener letras adicionales al final. Estas designan información
de fabricación y deben suministrarse cuando llame para obtener asistencia o servicio.*

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