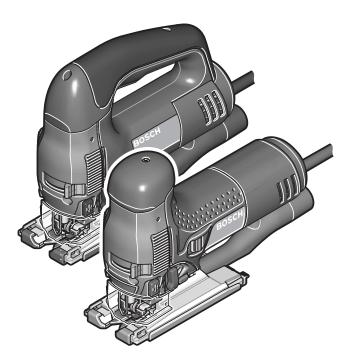
IMPORTANT: Read Before Using IMPORTANT : Lire avant usage IMPORTANTE: Leer antes de usar



**1590EVS** 

**1591EVS** 

Operating/Safety Instructions Consignes de fonctionnement/sécurité Instrucciones de funcionamiento y seguridad



# BOSCH

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# 1-877-BOSCH99 (1-877-267-2499) www.boschtools.com

For English See page 2 Parlez-vous français? Voir page 13 ¿Habla español? Ver página 24 A WARNING Read all instructions. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury. The term "power tool" in all of the warnings listed below refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

## SAVE THESE INSTRUCTIONS

### 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.

**Do not use AC only rated tools with a DC power supply.** While the tool may appear to work, the electrical components of the AC rated tool are likely to fail and create a hazard to the operator. If operating the power tool in damp locations is unavoidable a Ground Fault Circuit Interrupter (GFCI) must be used to supply the power to your tool. GFCI and personal protection devices like electrician's rubber gloves and footwear will further enhance your personal safety.

#### **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 inattention while operating power tools may result in serious personal injury.

Use safety equipment. Always wear eye protection. Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.

Avoid accidental starting. Ensure the switch is in the off-position before plugging in. Carrying power tools with your finger on the switch or plugging in 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 these devices can reduce dustrelated hazards. Keep handles dry, clean and free from oil and grease. Slippery hands cannot safely control the power tool.

#### 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 the battery pack 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.

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. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tools 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 and in the manner intended for the particular type of power tool, 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.

Use clamps or other practical way to secure and support the workpiece to a stable platform. Holding the work by hand or against your body is unstable and may lead to loss of control.

Empty dust container frequently, especially when sanding wood with polyurethane, varnish, shellac or similarly coated surface. Fine particles of sanding dust may self ignite and cause 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.

Develop a periodic maintenance schedule for your tool. When cleaning a tool be careful not to disassemble any portion of the tool since internal wires may be misplaced or pinched or safety guard return springs may be improperly mounted. Certain cleaning agents such as gasoline, carbon tetrachloride, ammonia, etc. may damage plastic parts.

# SAVE THESE INSTRUCTIONS

# **Safety Rules for Jigsaws**

Hold tool by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord. Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator. Do not drill, fasten or break into existing walls or other blind areas where electrical wiring may exist. If this situation is unavoidable, disconnect all fuses or circuit breakers feeding this worksite. Never leave the trigger locked "ON". Before plugging the tool in, check that the trigger lock is "OFF". Accidental start-ups could cause injury.

**Be aware of the location and setting of the switch "Lock-ON" button.** If the switch is locked "ON" during the use, be ready for emergency situations to switch it "OFF", by first pulling the trigger then immediately releasing it without pressing the "Lock-ON" button.

Keep hands away from cutting area. Do not reach under the material being cut. The proximity of the blade to your hand is hidden from your sight.

Keep hands from between the gear housing and saw blade holder. The reciprocating blade holder can pinch your fingers.

**Do not use dull or damaged blades.** Bent blade can break easily or cause kickback.

Before starting to cut, turn tool "ON" and allow the blade to come to full speed. Tool can chatter or vibrate if blade speed is too slow at beginning of cut and possibly kickback.

Secure material before cutting. Never hold it in your hand or across legs. Small or thin material may flex or vibrate with the blade, causing loss of control.

Make certain all adjusting screws and the blade holder are tight before making a cut. Loose adjusting screws and holders can cause the tool or blade to slip and loss of control may result. When removing the blade from the tool avoid contact with skin and use proper protective gloves when grasping the blade or accessory. Accessories may be hot after prolonged use.

A WARNING Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- · Lead from lead-based paints,
- Crystalline silica from bricks and cement and other masonry products, and
- Arsenic and chromium from chemicallytreated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

# Symbols

**IMPORTANT:** Some of the following symbols may be used on your tool. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the tool better and safer.

Symbol	Name	Designation/Explanation		
V	Volts	Voltage (potential)		
A	Amperes	Current		
Hz	Hertz	Frequency (cycles per second)		
W	Watt	Power		
kg	Kilograms	Weight		
min	Minutes	Time		
s	Seconds	Time		
Ø	Diameter	Size of drill bits, grinding wheels, etc.		
n <sub>0</sub>	No load speed	Rotational speed, at no load		
/min	Revolutions or reciprocation per minute	Revolutions, strokes, surface speed, orbits etc. per minute		
0	Off position	Zero speed, zero torque		
1, 2, 3, I, II, III,	Selector settings	Speed, torque or position settings. Higher number means greater speed		
0	Infinitely variable selector with off	Speed is increasing from 0 setting		
<b>→</b>	Arrow	Action in the direction of arrow		
$\sim$	Alternating current	Type or a characteristic of current		
	Direct current	Type or a characteristic of current		
$\overline{\sim}$	Alternating or direct current	Type or a characteristic of current		
	Class II construction	Designates Double Insulated Construction tools.		
÷	Earthing terminal	Grounding terminal		
$\triangle$	Warning symbol	Alerts user to warning messages		
	Ni-Cad RBRC seal	Designates Ni-Cad battery recycling program		



This symbol designates that this tool is listed by Underwriters Laboratories.



This symbol designates that this tool is listed to Canadian Standards by Underwriters Laboratories.

This symbol designates that this tool is listed by Underwriters Laboratories, and listed to Canadian Standards by Underwriters Laboratories.



This symbol designates that this tool complies to NOM Mexican Standards.

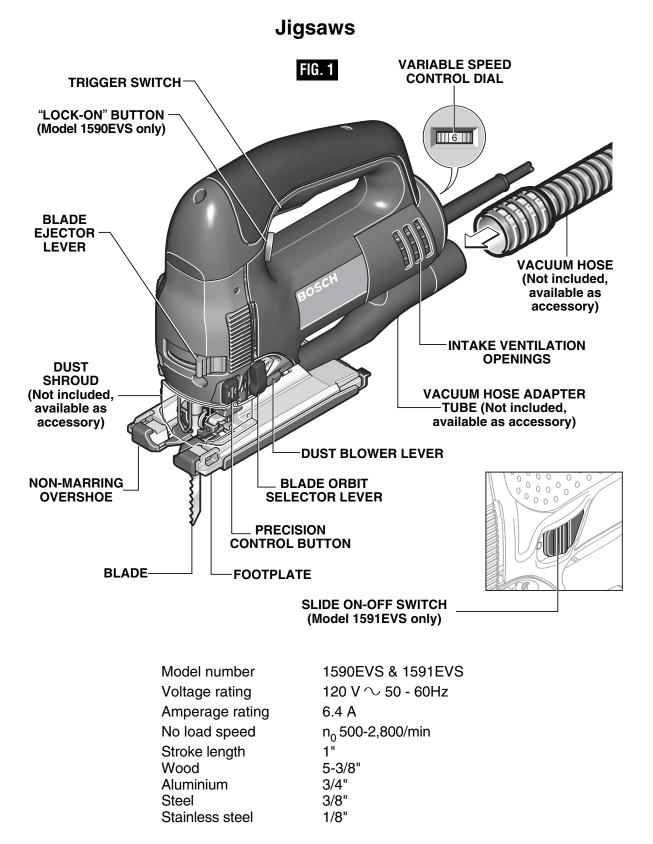


This symbol designates that this tool is listed by the Canadian Standards Association.



# **Functional Description and Specifications**

A WARNING Disconnect the plug from the power source before making any assembly, adjustments or changing accessories. Such preventive safety measures reduce the risk of starting the tool accidentally.



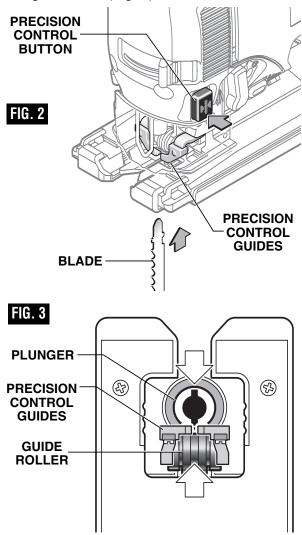
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# Assembly

#### **BLADE INSTALLATION AND REMOVAL**

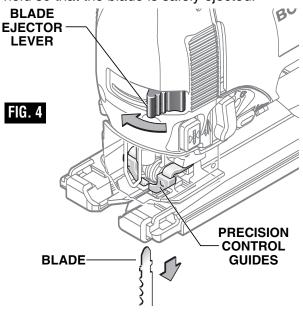
This jigsaw is equipped with the Bosch "One Touch" tool-less blade changing system. This system makes changing blades simple and fast.

Insert the saw blade (teeth in cutting direction) until it latches in the plunger (Fig. 2.) When inserting the saw blade, the back of the blade must rest in the groove of the guide roller (Fig. 3).



**Note:** If the saw blade cannot be inserted into the plunger, the slots of the blade holder are not positioned as shown, or because the precision control guides are shut, push the blade ejector lever briefly to the front and release (Fig. 4).

To change the saw blade, push the ejector lever to the center stop; this releases the precision control guides and ejects the saw blade (Fig. 4). When changing the blade, tool should be held so that the blade is safely ejected.



The precision control guides were designed to improve vertical cut accuracy of the saw blade.

To use this feature simply press the precision control button to close the guides for precision control. The saw blade is now guided laterally by the precision control guides which enables precision cuts.

**PRECISION CONTROL** 

The precision control guides can be used for all applications, including bevel cuts. Precision control is recommended for cuts in thick wood, as the cutting angle is maintained and run-out of the saw blade is reduced. Refer to Operating Tips for more information.

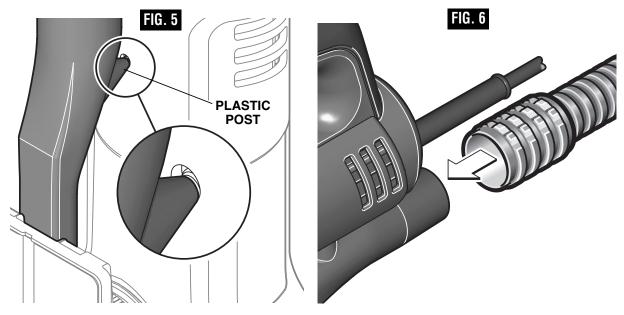
# DUST EXTRACTION

#### (Not included, available as accessory)

A vacuum hose adapter tube and dust shroud (optional accessory) can be attached for dust and chip extraction. The vacuum hose adapter tube serves as the connector to the vacuum hose.

**ATTENTION:** The vacuum hose adapter must only be used with dust shroud when connected to a vacuum.

To use this feature, attach vacuum hose adapter tube to footplate. When inserting the adapter tube into the footplate be sure that the plastic post of the adapter tube engages into the corresponding hole on the housing (Fig. 5). For vacuuming, a Bosch Air Sweep vacuum hose (optional accessory) can be directly connected to the vacuum hose adapter tube (Fig. 6). For maximum vacuum dust pick up, dust shroud must be attached.



#### ATTACHING NON-MARRING OVERSHOE

Your tool is equipped with a protective plastic overshoe that protects finer surfaces.

To attach, hook overshoe over front of metal footplate and snap into place at rear of footplate (Fig. 7).

#### **ANTI-SPLINTER INSERT**

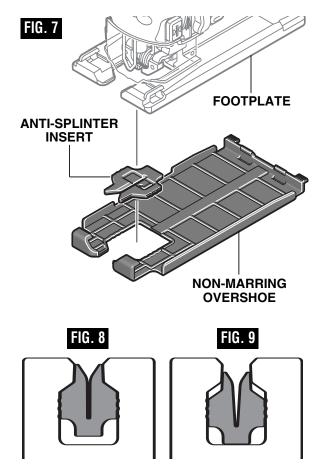
To minimize splintering of the top surface of the material being cut, place the anti-splinter insert in the blade opening of the footplate (Fig. 7).

The anti-splinter insert can be inserted into the footplate in two positions.

For narrow saw blades, place the insert completely to the front of the opening (Fig. 8).

For wider saw blades, place the insert completely to the rear of the opening (Fig. 9).

**Note:** This insert will only work with blades that have ground sides such as T301CD, T101B, T101D, and T101DP.



# **Operating Instructions**

#### PLUNGER SPEED

The jigsaw cutting speed or stroke rate required depends on the material being cut, the type of blade being used, and the feed rate preferred by the operator.

The best speed for a particular application is largely determined by experience though as a general rule, slower speeds are for denser materials and faster speeds for softer materials.

Note that when the jigsaw is used at low speed settings for an extended length of time, the motor temperature will rise due to slower speeds of the internal cooling fan. In such cases, it is necessary to occasionally run the tool at full speed for a few minutes to keep the motor running at high efficiency.

#### TRIGGER SWITCH WITH "LOCK-ON" BUTTON (Model 1590EVS only)

Your jigsaw can be turned "ON" or "OFF" by squeezing or releasing the trigger. Your jigsaw is also equipped with a "Lock-ON" button located just above the trigger that allows continuous operation without holding the trigger (Fig. 1).

TO LOCK SWITCH ON: Squeeze trigger fully, depress button and release trigger.

TO UNLOCK THE SWITCH: Squeeze trigger and release it without depressing the "Lock-ON" button.

**A WARNING** If the "Lock-ON" button is continuously being depressed, the trigger cannot be released.

#### SLIDE ON-OFF SWITCH (Model 1591EVS only)

The tool is switched "ON" by the switch button located at the side of the motor housing. The switch locks in the "ON" position, a convenience for continuous operation (Fig. 1).

TO TURN THE TOOL "ON" slide the switch button forward.

TO UNLOCK THE SWITCH, slide the switch button backward.

#### CONSTANT RESPONSE CIRCUITRY

The internal electronic feedback system provides a "soft start", which will reduce the stresses that occur from a high torque start. The system also maintains the selected speed under load for maximum efficiency.

#### VARIABLE SPEED DIAL

Your Jigsaw is equipped with a variable speed dial. The blade stroke rate may be adjusted during cutting operation by presetting the dial on or between any one of the six numbers.

#### Setting SPM rating (strokes per minute)

1	500
2	500-800
3	500-1400

- 4 500-1900
- 5 500-2400
- 6 500-2800

#### **BLADE ORBIT SELECTOR LEVER**

Maximum cutting efficiency can be obtained by adjusting the blade orbit selector lever to suit the material being cut.

The following chart will help you determine which setting to use for your application. This chart is intended as a guideline only, and test cuts in scrap material should be performed first to determine the best setting.

#### Setting O



Hard materials such as metals or thin sheet metals. This setting can be used with knife blades, grit edge blades, rasp work and down cutting blades.



#### Setting 1

Soft materials where cleaner cutting or delicate scrolling work is performed.

#### Setting 2



Medium density materials such as harder woods or particle board.

#### Setting 3

Soft materials such as wood, plastics, etc. and when fast cutting is more important than a clean cut.

#### **CHIP BLOWER**

Your jigsaw is equipped with a two position chip blower to help keep the cutting line clear of chips.

By adjusting the chip blower lever the force of the discharge air may be altered as follows;



#### **BLOWER SWITCHED ON**

For working with wood, plastic and similar materials that produce large amounts of sawdust.



#### **BLOWER SWITCHED OFF**

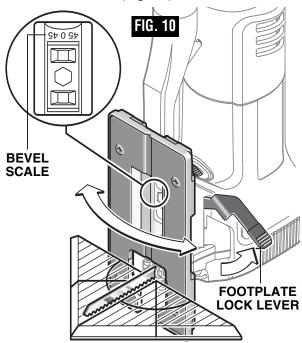
For working with metals and when cooling agents are used, or with dust collection accessory.

#### FOOTPLATE ANGLE ADJUSTMENT

The footplate may be tilted to allow angle cuts up to  $45^{\circ}$  in either direction (Fig. 10).

To adjust footplate, remove dust shroud if used, open footplate lock lever and slide the footplate slightly forward towards the front of tool, then rotate to desired angle (Fig. 10).

**Note:** If the footplate cannot be adjusted or you have difficulty after the footplate lock lever has been released, rotate tension wheel in the "-" direction (Fig. 11).



The detent slots will hold the footplate firmly at  $45^{\circ}$ , and there are additional position marks for  $15^{\circ}$ ,  $22.5^{\circ}$  and  $30^{\circ}$  angles. Intermediate angles may be set with a protractor (Fig. 10).

After positioning the footplate close the footplate lock lever to securely tighten the footplate adjustment (Fig. 10).

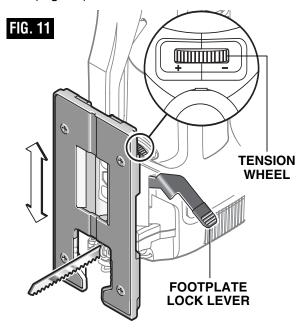
**Note:** If the lock lever does not securely tighten the footplate after the lever is closed, open lock lever and rotate the tension wheel in the "+" direction until desired tension has been achieved (Fig. 11).

#### **FLUSH CUTTING**

To allow the saw to make a perpendicular cut close to a vertical surface, the footplate may be repositioned as follows.

Note that when the footplate is retracted in this manner, only  $90^{\circ}$  cuts are possible, and the optional cutting guide and anti-splinter insert guide may not be used.

To adjust footplate, remove dust shroud and anti-splinter insert, open footplate lock lever move the footplate back in the  $0^{\circ}$  alignment slot (Fig. 11).



**Note:** If the footplate cannot be adjusted or you have difficulty after the footplate lock lever has been released, rotate tension wheel in the "-" direction (Fig.11).

After positioning the footplate close the footplate lock lever to securely tighten the footplate adjustment (Fig. 11).

**Note:** If the lock lever does not securely tighten the footplate after the lever is closed, open lock lever and rotate the tension wheel in the "+" direction until desired tension has been achieved (Fig. 11).

#### **TOOL TIPS**

Always be certain that smaller workpieces are securely fastened to a bench or other support. Larger panels may be held in place by clamps on a bench or sawhorses. To begin a cut, clearly mark the cutting line, and rest the front of the footplate on the work. Engage the switch, and move the blade into the work using only enough forward pressure to keep the blade cutting steadily. Do not force, as this will not make the saw cut faster; let the blade do the work.

Choose blades carefully, as the ability of the jigsaw to follow curves, provide smoother finishes, or faster cutting is directly related to the type of blade used (See your Bosch Dealer).

For tight curves it is best to use a narrow or scroll blade.

When sawing metal or similar materials, shut off chip blower and apply coolant/lubricant alongside the cutting line.

When cutting thick wood, use the precision control button for increased lateral guidance of the saw blade.

#### **PLUNGE CUTTING**

Plunge cutting is useful and time-saving in making rough openings in softer materials. It is not necessary to drill a hole for an inside or pocket cut. Draw lines for the opening, hold the saw firmly, tilt it forward so that the toe of the saw foot rests on the work, but with the blade well clear of the work. Start the motor, and then very gradually lower the blade. When it touches, continue pressing down on the toe of the saw foot slowly pivoting the saw like a hinge until the blade cuts through and the foot rests flat on the work. Then saw ahead on the cutting line. We do not recommend plunge cutting with a scroll blade.

To make sharp corners, cut up to the corner, then back up slightly before rounding the corner. After the opening is complete, go back to each corner and cut it from the opposite direction to square it off. Do not try to plunge cut into hard materials such as steel.

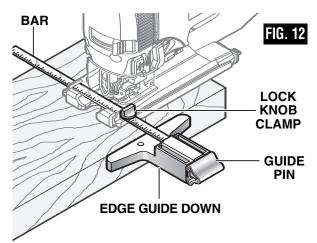
#### CIRCLE AND PARALLEL CUTTING GUIDE (Not included, available as accessory)

This accessory is available at an extra cost. It is used for fast and accurate straight and circle cutting (Fig.12).

#### PARALLEL CUTTING

1. Insert bar of guide through lock knob clamp, then through the slots provided in foot, from either side of foot with the edge guide facing DOWN (Fig. 12).

2. Hook lock knob clamp onto edge of footplate, adjust fence to desired width, and securely tighten lock knob clamp (Fig. 12).

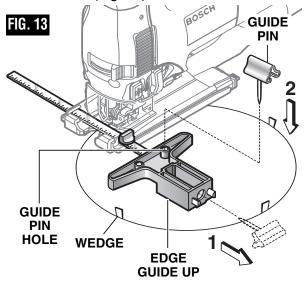


#### CIRCLE CUTTING

1. Before attaching the guide, draw a circle and predrill a 13/64" center hole in workpiece.

2. Drill or plunge cut near the circles edge, turn saw off and disconnect the plug from power source.

3. Attach guide to saw with edge guide facing UP as shown (Fig. 13).



4. Remove guide pin from end of guide, push pin through hole provided in guide, then into center hole of workpiece.

5. Measure the distance from the selected hole to the blade to be equal to the circle radius.

6. Insert plug into power source, hold the saw firmly, squeeze trigger and slowly push the saw forward. To make a hole, cut from inside the circle; To make wheels or discs, cut from the outside.

Cutting Tip: Cut slowly so the blade will stay straight in the cut. Place small wedges in the cut as shown in Fig. 13, to keep the inner circle from spreading when near the end of the cut.

# Maintenance

#### Service

A WARNING Preventive maintenance performed by unauthorized personnel may result in misplacing of internal wires and components which could cause serious hazard. We recommend that all tool service be performed by a Bosch Factory Service Center or Authorized Bosch Service Station.

#### TOOL LUBRICATION

Your Bosch tool has been properly lubricated and is ready to use. It is recommended that tools with gears be regreased with a special gear lubricant at every brush change.

#### **CARBON BRUSHES**

The brushes and commutator in your tool have been engineered for many hours of dependable service. To maintain peak efficiency of the motor, we recommend every two to six months the brushes be examined. Only genuine Bosch replacement brushes specially designed for your tool should be used.

#### BEARINGS

After about 300-400 hours of operation, or at every second brush change, the bearings

should be replaced at Bosch Factory Service Center or Authorized Bosch Service Station. Bearings which become noisy (due to heavy load or very abrasive material cutting) should be replaced at once to avoid overheating or motor failure.

#### Cleaning

A WARNING To avoid accidents always disconnect the tool from the power supply before cleaning or performing any maintenance. The tool may be cleaned most effectively with compressed dry air. Always wear safety goggles when cleaning tools with compressed air.

Ventilation openings and switch levers must be kept clean and free of foreign matter. Do not attempt to clean by inserting pointed objects through openings.

A CAUTION Certain cleaning agents and solvents damage plastic parts. Some of these are: gasoline, carbon tetrachloride, chlorinated cleaning solvents, ammonia and household detergents that contain ammonia.

# Accessories

A WARNING If an extension cord is necessary, a cord with adequate size conductors that is capable of carrying the current necessary for your tool must be used. This will prevent excessive voltage drop, loss of power or overheating. Grounded tools must use 3-wire extension cords that have 3-prong plugs and receptacles.

**NOTE:** The smaller the gauge number, the heavier the cord.

RECOMMENDED SIZES OF EXTENSION CORDS 120 VOLT ALTERNATING CURRENT TOOLS

Tool's	Cord Size in A.W.G.			Wire Sizes in mm <sup>2</sup>				
Ampere Rating	Cord Length in Feet 25 50 100 150			Cord Length in Meters 15 30 60 120				
3-6	18	16	16	14	0.75	0.75	1.5	2.5
6-8	18	16	14	12	0.75	1.0	2.5	4.0
8-10	18	16	14	12	0.75	1.0	2.5	4.0
10-12	16	16	14	12	1.0	2.5	4.0	—
12-16	14	12	—	_	—	—	—	—

- \* Non-marring overshoe
- \* Anti splinter insert
- \* 3 Assorted blades
- \*\* Dust extraction kit, includes vacuum hose adapter tube ,vacuum hose, and dust shroud.
- \*\* Circle and parallel cutting guide
- \* Carrying case (Models 1590EVSK & 1591EVSK only)

(\*= standard equipment) (\*\*= optional accessories)