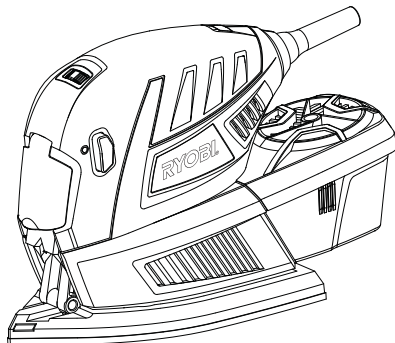


# RYOBI®

## EMS180RV

<b>GB</b>	180W MULTI SANDER	<b>USER'S MANUAL</b>	<b>1</b>
<b>FR</b>	PONCEUSE MULTIFONCTIONS 180W	<b>MANUEL D'UTILISATION</b>	<b>6</b>
<b>DE</b>	180W MULTI-SCHLEIFER	<b>BEDIENUNGSANLEITUNG</b>	<b>12</b>
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<b>IT</b>	LEVIGATRICE MULTIFUNZIONE DA 180W	<b>MANUALE D'USO</b>	<b>24</b>
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**GB** ORIGINAL INSTRUCTIONS | **FR** TRADUCTION DES INSTRUCTIONS ORIGINALES | **DE** ÜBERSETZUNG DER ORIGINALANLEITUNG | **ES** TRADUCCIÓN DE LAS INSTRUCCIONES ORIGINALES | **IT** TRADUZIONE DELLE ISTRUZIONI ORIGINALI | **NL** VERTALING VAN DE ORIGINELE INSTRUCTIES | **PT** TRADUÇÃO DAS INSTRUÇÕES ORIGINAIS | **DK** OVERSÆTTELSE AF DE ORIGINALE INSTRUKTIONER | **SE** ÖVERSÄTTNING AV DE URSPRUNGLIGA INSTRUKTIONERNA | **FI** ALKUPERÄISTEN OHJEIDEN SUOMENNOS | **NO** OVERSETTELSE AV DE ORIGINALE INSTRUKSJONENE | **RU** ПЕРЕВОД ОРИГИНАЛЬНЫХ ИНСТРУКЦИЙ | **PL** TŁUMACZENIE INSTRUKCJI ORYGINALNEJ | **CZ** PŘEKLAD ORIGINÁLNÍCH POKYNŮ | **HU** AZ EREDETI ÚTMUTATÓ FORDÍTÁSA | **RO** TRADUCEREA INSTRUCȚIUNILOR ORIGINALE | **LV** TULKOTS NO ORIGINĀLĀS INSTRUKCIJAS | **LT** ORIGINALIŲ INSTRUKCIJŲ VERTIMAS | **EE** ORIGINALJUHENDI TOLGE | **HR** PRIJEVOD ORIGINALNIH UPUTA | **SI** PREVOD ORIGINALNIH NAVODIL | **SK** PREKLAD POKYNOV V ORIGINÁLI | **GR** ΜΕΤΑΦΡΑΣΗ ΤΩΝ ΠΡΩΤΟΤΥΠΩΝ ΟΔΗΓΙΩΝ | **TR** ORJINAL TALIMATLARIN TERCÜMESİ



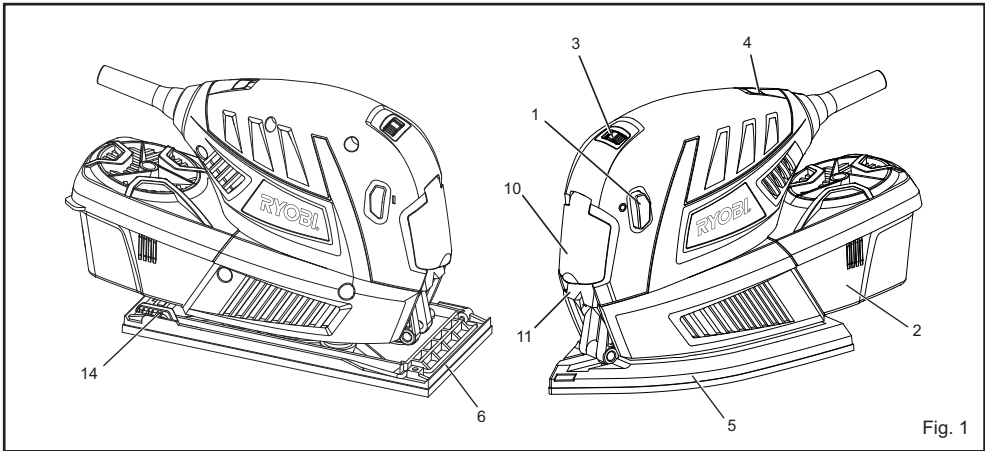


Fig. 1

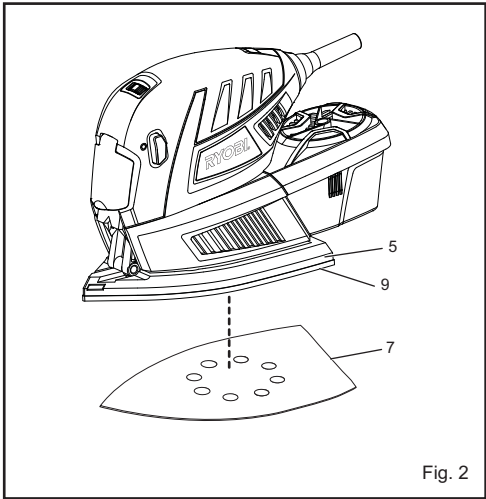


Fig. 2

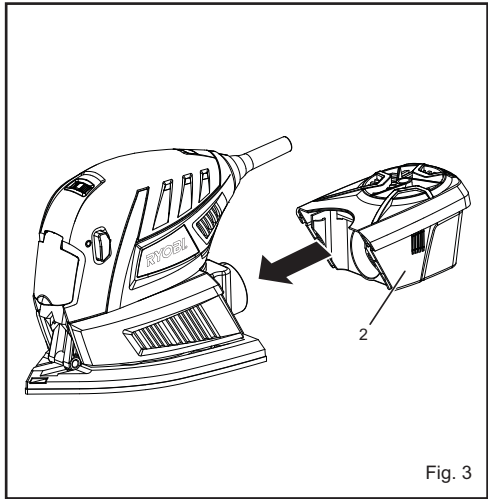


Fig. 3

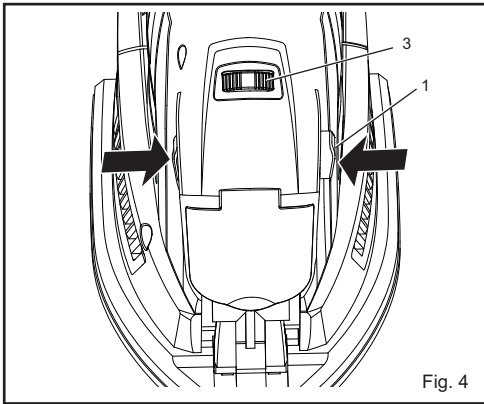


Fig. 4

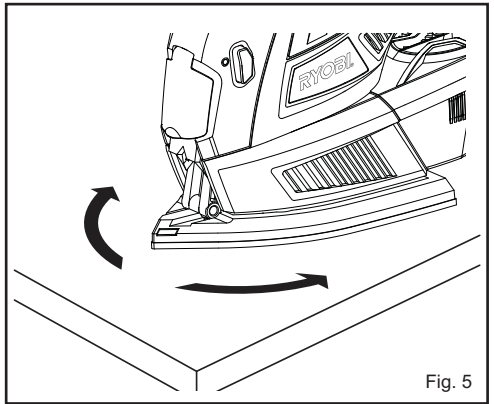


Fig. 5

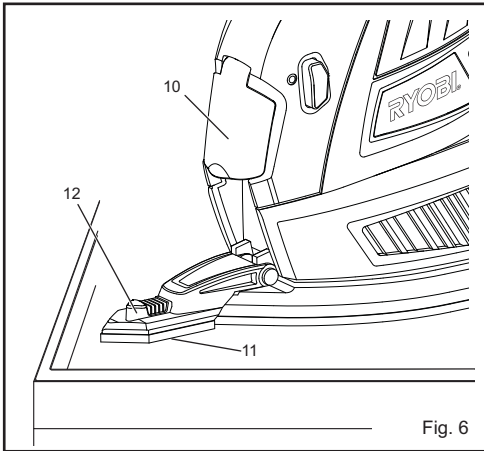


Fig. 6

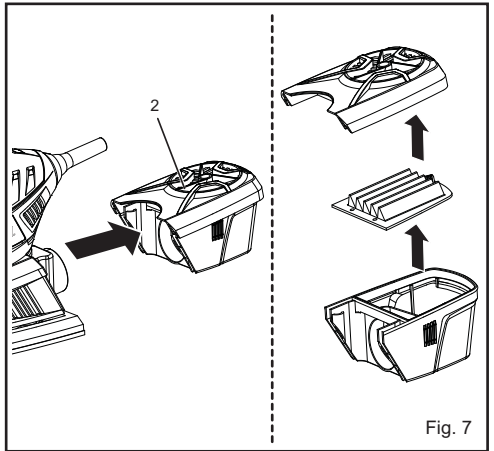


Fig. 7

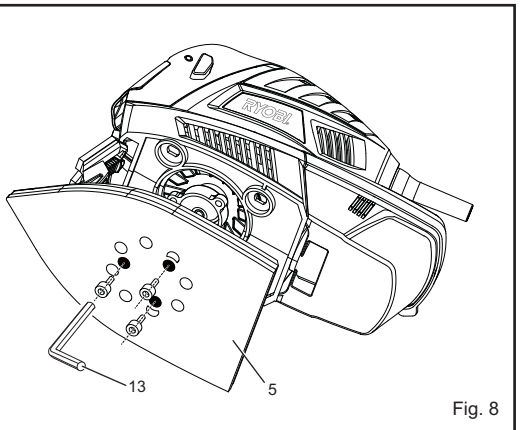
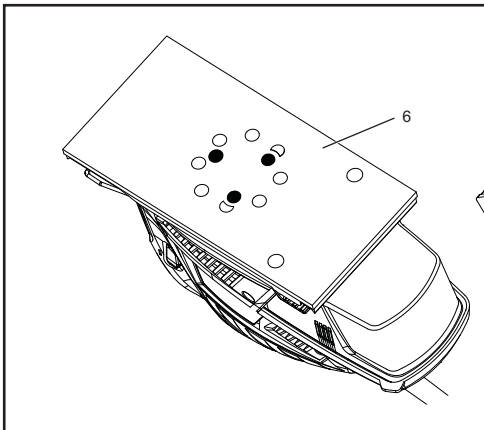
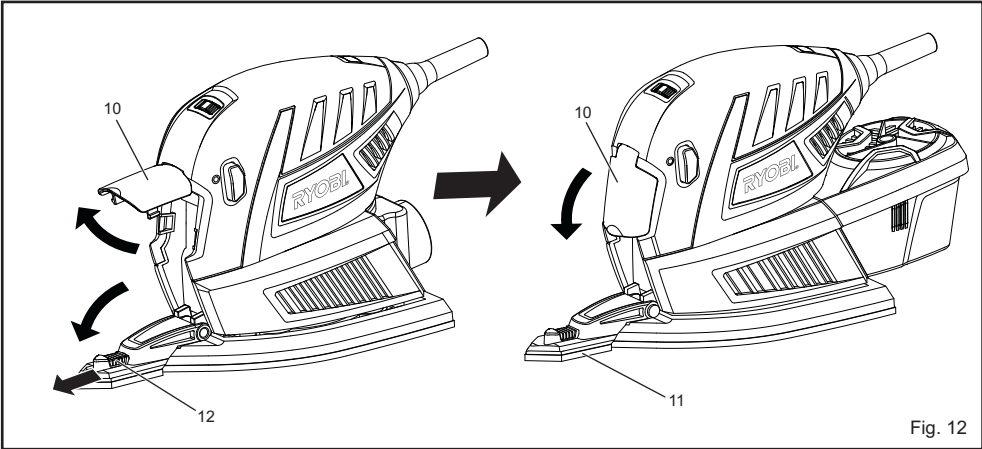
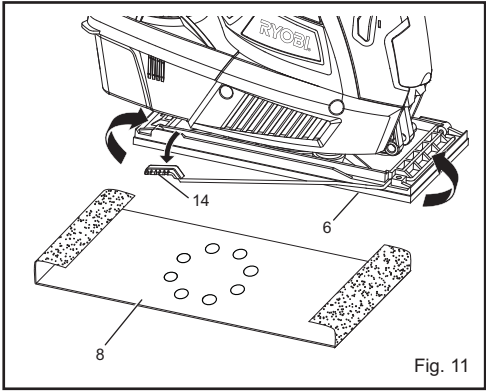
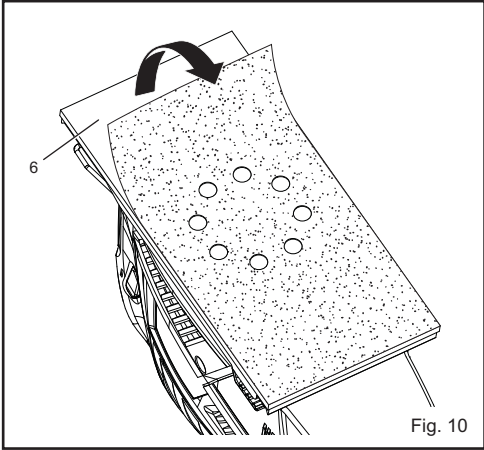
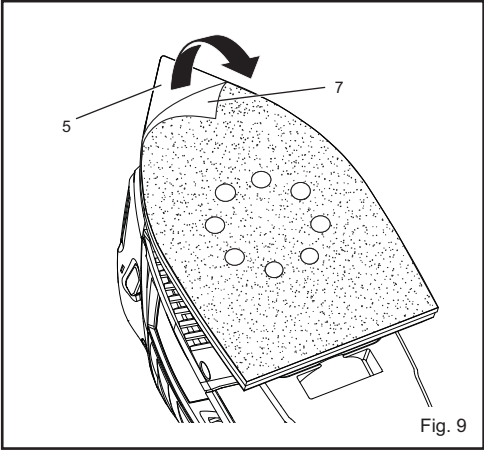


Fig. 8



<b>Important!</b>	It is essential that you read the instructions in this manual before operating this machine.
<b>Attention!</b>	Il est indispensable que vous lisez les instructions contenues dans ce manuel avant la mise en service de l'appareil.
<b>Achtung!</b>	Bitte lesen Sie unbedingt vor Inbetriebnahme die Hinweise dieser Bedienungsanleitung.
<b>¡Atención!</b>	Es imprescindible que lea las instrucciones de este manual antes de la puesta en servicio.
<b>Attenzione!</b>	Prima di procedere alla messa in funzione, è indispensabile leggere attentamente le istruzioni contenute nel manuale.
<b>Let op!</b>	Het is van essentieel belang dat u de instructies in deze gebruiksaanwijzing leest vooraleer u dit toestel in gebruik neemt.
<b>Atenção!</b>	É indispensável que leia as instruções deste manual antes de utilizar a máquina.
<b>OBS!</b>	Denne brugervejledning skal gennemlæses inden maskinen tages i brug.
<b>Observera!</b>	Det är nödvändigt att läsa instruktionerna i denna bruksanvisning innan användning.
<b>Huomio!</b>	On ehdottoman välttämätöntä lukea tässä käyttöohjeessa annetut ohjeet ennen käyttöönottoa.
<b>Advarsel!</b>	Det er meget vigtigt at du leser denne brukerveiledningen før du tar maskinen i bruk.
<b>Внимание!</b>	Перед сборкой и запуском инструмента необходимо ознакомиться с инструкцией по эксплуатации.
<b>Uwaga!</b>	Przed przystąpieniem do użytkowania tego urządzenia, należy koniecznie zapoznać się z zaleceniami zawartymi w niniejszym podręczniku.
<b>Důležitě upozornění!</b>	Nepoužívejte tento přístroj dříve, než si přečtete pokyny uvedené v tomto návodu.
<b>Figyelem!</b>	Feltétlenül fontos, hogy a jelen használati útmutatóban foglalt előírásokat az üzembe helyezés előtt elolvassa!
<b>Atenție!</b>	Este esențial să citiți instrucțiunile din acest manual înainte de operarea acestui aparat.
<b>Uzmanību!</b>	Svarīgi, lai jūs pirms mašīnas darbināšanas izlasītu instrukcijas šajā rokasgrāmatā.
<b>Dėmesio!</b>	Prieš pradėdami eksploatuoti šį prietaisą, svarbu, kad perskaitytumėte šiose instrukcijose pateiktus nurodymus.
<b>Tähtis!</b>	Enne trelli kasutama hakkamist tuleb käesolevas juhendis esitatud juhised kindlasti läbi lugeda.
<b>Upozorenje!</b>	Neophodno je da pročitate ove upute prije uporabe ovog uređaja.
<b>Pomembno!</b>	Pred uporabo tega stroja, obvezno preberite navodila iz tega priročnika.
<b>Dôležité!</b>	Pre prácou s týmto zariadením je dôležité, by ste si prečítali pokyny v tomto návode.
<b>Προσοχή!</b>	Είναι απαραίτητο να διαβάσετε τις συστάσεις των οδηγιών αυτών πριν και τη θέση σε λειτουργία.
<b>Dikkat!</b>	Cihazın çalıştırılmasından önce bu kılavuzda bulunan talimatları okumanız zorunludur.

Subject to technical modifications / Sous réserve de modifications techniques / Technische Änderungen vorbehalten /  
 Sujeto a modificaciones técnicas / Con riserva di eventuali modifiche tecniche / Technische wijzigingen voorbehouden /  
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 Sub rezerva modifațiilor tehnice / Paturam tiesības mainīt tehniskos raksturlielumus / Pasilieikant teisę daryti techninius pakeitimus /  
 Tehnilised muudatused võimalikud / Podložno tehničkim promjenama / Tehnične spremembe dopuščene /  
 Technické zmeny vyhradené / Υπό την επιφύλαξη τεχνικών τροποποιήσεων / Teknik değışiklik hakkı saklıdır

## English

### DESCRIPTION

1. On/off switch
2. Dust collection box
3. Variable speed control selector
4. Live tool indicator
5. Triangular detail pad
6. Sheet pad
7. Triangular detail sanding sheet
8. Non-adhesive sandpaper
9. Quick change hook and loop pad
10. Cover
11. Finger pad
12. Lock
13. Hex key
14. Paper clamp

### SPECIFIC SAFETY INSTRUCTIONS FOR SANDERS

- **Always wear safety goggles and a dust mask when sanding, especially sanding over-head.**
- **The machine is not suitable for wet sanding.**
- **Do not use sanding paper larger than needed.** Extra paper extending beyond the sanding pad can also cause serious lacerations.
- **The dust collection box shall be equipped with the tool. It should be emptied frequently.** To connect dust collection box, insert the adapter of dust box to the dust-collection opening on the rear end of the sander.

#### WARNING

Do not throw sanding dust on an open fire because materials in fine particle form may be explosive.

#### WARNING

A suitable breathing respirator must be worn while sanding lead paint, some woods and metal to avoid breathing the harmful/toxic dust or air.

### SPECIFICATIONS

Voltage	230 V - 240 V ~ 50 Hz
Power	180 W
Orbital minute	6000-12000 min <sup>-1</sup>
Pad size	
Triangular pad	168 x 100 mm

1/3 Sheet pad 185 x 92 mm

Weight 1.4 kg

### FEATURES

#### KNOW YOUR POWER TOOL

See Figure 1.

Your sander is suitable for sanding with coarse, medium and fine grit sandpaper. It will produce a fine, scratch free finish when used to sand with the grain on wood surfaces. It has been designed so that flush corner sanding on three sides of the sander is possible.

Your sander has a comfortable palm grip handle that provides maximum one-hand comfort and reduces operator fatigue during continuous sanding operations.

Before using this product, familiarize yourself with all operating features and safety requirements. However, do not let familiarity with the tool make you careless.

#### SWITCH

This tool is equipped with a simple switch control located near the front of the motor housing.

#### EXCHANGEABLE HOOK AND LOOP BASE PADS

This sander includes 2 base pads which are interchangeable for different applications.

- triangular detail pad for detail sanding
- 1/3 sheet pad for sanding large areas

The hook and loop design allows for quick change of sanding sheets and different pads. It also enables you to easily clean and reuse them.

#### CIRCULAR SANDING ACTION

The oscillating action of your sander produces very quick, small circular motion of the sanding pad. The motion is ideal for producing a fine finished grain.

#### DUST COLLECTION BOX

The dust collection box attaches to the sander and keeps dust to a minimum.

#### VARIABLE SPEED

See Figure 4.

Your sander has advanced electronic features, designed to assist you in getting the maximum use from your sander. By making proper speed selections, your tool can be adjusted to specific sanding needs.

The electronic feature of your tool introduces the flexibility of adjusting the motor speed to required job conditions. An electronic speed control module senses the load applied to the motor and increases or decreases motor voltage to

## English

compensate for and maintain desired RPM. Speed can be set according to the sanding purpose or the surface of the workpiece you will be using. Select clockwise to increase speed for rough surfaces or for quick removal of stock and anti-clockwise to decrease speed for the smaller, delicate sanding applications.

### ASSEMBLY

#### **⚠ WARNING**

The tool should never be connected to a power supply when you are assembling parts, making adjustments, cleaning, performing maintenance, or when the tool is not in use. Disconnecting the tool will prevent accidental starting that could cause serious injury.

### SANDPAPER SELECTION

Selecting the correct size, grit and type of sand paper is an extremely important step in achieving a high quality sanded finish. Aluminum oxide, silicon carbide, and other synthetic abrasives are best for power sanding. Natural abrasives, such as flint and garnet are too soft for economical use in power sanding.

In general, coarse grit will remove the most material and finer grit will produce the best finish in all sanding operations. The condition of the surface to be sanded will determine which grit will do the job. If the surface is rough, start with a coarse grit and sand until the surface is uniform. Medium grit may then be used to remove scratches left by the coarser grit and finer grit used for finishing of the surface. Always continue sanding with each grit until surface is uniform.

#### **⚠ WARNING**

Do not use sander without sandpaper, doing so will damage the cushion.

#### Sheet/pad recommended use

80-grit sanding sheet	Coarse sanding
120-grit sanding sheet	Light sanding
150-grit sanding sheet	Light sanding

### ATTACHING HOOK AND LOOP SANDING DISCS

See Figure 2.

1. Unplug the sander.
2. Align holes in hook and loop type sanding disc with holes in pad, then carefully press fuzzy side of sanding disc against pad as tightly as possible.

**NOTE:** It is recommended that you keep the sanding disc

backing pad clean to provide for best adhesion. Clean occasionally by brushing lightly with a small brush.

### ATTACHING THE DUST COLLECTION BOX

See Figure 3.

The dust collection box provides a dust collection system for the sander. Sanding dust is drawn up through the holes of the sanding disc and collected in the dust collection box during sanding.

1. Unplug the sander.
2. Using a slight twisting motion, firmly slide the dust collection box assembly in the blower exhaust on the sander.

#### **⚠ WARNING**

Exercise caution when using this tool. Careless actions, for even a fraction of a second, can result in serious personal injury.

### APPLICATIONS

You may use the sander for the purposes listed below:

- sanding on wood surfaces
- removing rust from and sanding steel surfaces
- polishing and scrubbing porcelain and metal

#### **⚠ CAUTION**

Keep the cord away from the sanding pad and position the cord so that it will not be caught on lumber, tools, or other objects during sanding.

#### **⚠ WARNING**

Always wear safety goggles or safety glasses with side shields when operating this tool. Failure to do so could result in dust, shavings, or loose particles being thrown into your eyes, resulting in possible serious injury.

### OPERATION

#### TURNING THE SANDER ON/OFF

See Figure 4.

- Turn on the sander: Push the on/off switch to the left.
- Turn off the sander: Push the on/off switch to the right.

#### OPERATING THE SANDER

See Figure 5.

1. Secure the workpiece to prevent it from moving under the sander.

## English

### **⚠ WARNING**

Unsecured workpieces could be thrown towards the operator, causing injury.

### **⚠ WARNING**

Keep your head away from the sander and the sanding area. Your hair could be drawn into the sander causing serious injury.

- Place the sander on the workpiece so that all of the sanding disc surface is in contact with the workpiece.

### **⚠ CAUTION**

Avoid damaging the motor from overheating; be careful not to let your hand cover the air vents.

- Turn on the sander and move it slowly over the workpiece.

**NOTE:** Hold the sander in front and away from you, keeping it clear of the workpiece. Start sander and let the motor build to its maximum speed, then gradually lower the sander onto the workpiece. Move the sander slowly across the workpiece using small circular motions.

**Do not force.** The weight of the unit supplies adequate pressure, so let the sanding disc and sander do the work. Applying additional pressure only slows the motor, rapidly wears sanding disc and greatly reduces sander speed. Excessive pressure will overload the motor causing possible damage from motor overheating and can result in inferior work. Any finish or resin on wood may soften from the frictional heat.

Do not allow sanding on one spot too long as the sander's rapid action may remove too much material, making the surface uneven.

Extended periods of sanding may tend to overheat the motor. If this occurs, turn sander off and wait until sanding disc comes to a complete stop, then remove it from workpiece. Remove your hand from vent area, remove sanding disc, then with your hand removed from vent area, turn sander on and run it free without a load to cool motor.

### **CORNERS AND CREVICES**

See Figure 6.

- For detail sanding such as corners and crevices, use the tip of the sanding pad with small back and forth motions.

### **EMPTYING THE DUST COLLECTION BOX**

See Figure 7.

For more efficient operation, empty the dust collection box when it is no more than half full. Always empty and clean the dust collection box thoroughly upon completion of a sanding operation and before placing the sander in storage.

### **⚠ WARNING**

Collected sanding dust from sanding surface coatings such as polyurethanes, linseed oil, etc., can self-ignite in your sander dust collection box or elsewhere and cause fire. To reduce the risk of fire always empty your dust collection box frequently (10-15 minutes) while sanding and never store or leave a sander without totally emptying its dust collection box. Also follow the recommendations of the coatings manufacturers.

- Unplug the sander.

### **⚠ WARNING**

Failure to unplug the tool could result in accidental starting causing possible serious injury.

- Remove the dust collection box from the sander.
  - Shake out the dust.
  - Reattach the dust collection box to the sander.
- NOTE:** For a more thorough cleaning of the dust collection box, remove dust collection box from frame and shake out dust. Replace dust collection box over frame then install dust collection box assembly on sander.

### **CHANGING THE BASE PADS**

#### **Sheet and triangular pad**

See Figure 8.

- For safety reasons, ensure your tool is unplugged.
- Remove the sanding sheet from the base. Undo the allen screws on the base, using the hex key provided.
- Once all 3 screws have been removed, remove the base.
- When fitting the new base, place the base up to the sander and insert the first screw (do not tighten).
- Insert the remaining 2 screws, then tighten all 3 screws. Tighten up the allen screws opposite to each other.

Place the desired sanding paper on to the base and continue to work.

### **⚠ CAUTION**

Remove the sanding sheet when not in use to prevent warping.

## English

### INSTALLING SANDPAPER

Inspect sandpaper before installing. Do not use if broken or defective.

#### Hook and loop sandpaper

See Figure 9 - 10.

1. Unplug the sander.
2. Align holes in hook and loop type sanding disc with holes in pad, then carefully press fuzzy side of sanding disc against pad as tightly as possible.

**NOTE:** It is recommended that you keep the sanding disc backing pad clean to provide for best adhesion. Clean occasionally by brushing lightly with a small brush.

#### WARNING

Failure to unplug the tool could result in accidental starting causing possible serious injury.

#### Non-adhesive sandpaper

See Figure 11.

1. Unplug the sander.
2. Release the paper clamp. Remove used sandpaper, if any.
3. Insert the new sandpaper under the paper clamp.
4. Clamp the sandpaper in place.

#### ORBITAL MOTION

Orbital motion is ideal for fast cutting action when removing old finishes, smoothing rough wood, cutting stock down to required dimensions or for finishing surfaces to be painted. The sandpaper moves in tiny circles at a very high speed, allowing the sander to move easily.

#### USING THE FINGER PAD

See Figure 11.

1. Open the finger pad cover.
2. Lower the finger pad and lock it in place.
3. Close the finger pad cover.

#### LIVE TOOL INDICATOR

This tool features a live tool indicator which illuminates as soon as the tool is connected to the supply. This warns the user that the tool is connected and will operate when the switch is pressed.

### MAINTENANCE

#### WARNING

The tool should never be connected to a power supply when you are assembling parts, making adjustments, cleaning, performing maintenance, or when the tool is not in use. Disconnecting the tool will prevent accidental starting that could cause serious injury.

#### WARNING

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

#### GENERAL

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

#### WARNING

Do not at any time let brake fluids, gasoline, petroleum-based products, penetrating oils, etc., come in contact with plastic parts. They contain chemicals that can damage, weaken or destroy plastic.

Electric tools used on fiberglass material, wallboard, spackling compounds, or plaster are subject to accelerated wear and possible premature failure because the fiberglass chips and grindings are highly abrasive to bearings, brushes, commutators, etc.. Consequently, we do not recommend that this tool be used for extended work on these types of materials. However, if you do work with any of these materials, it is extremely important to clean the tool using compressed air.

#### WARNING

Always wear safety goggles or safety glasses with side shields during power tool operation or when blowing dust. If operation is dusty, also wear a dust mask.

#### LUBRICATION

All of the bearings in this tool are lubricated with a sufficient amount of high grade lubricant for the life of the unit under normal operating conditions. Therefore, no further lubrication is required.

## English

### CLEANING THE SCRUBBING PADS

To ensure longer life and optimum performance, periodically clean all sanding residue and foreign materials from the scrubbing pads. This can be done simply by rinsing the pad with warm water until all foreign material has been washed away. After cleaning, gently squeeze the pad to remove excess water and allow pad to dry. Always store pads and sanding sheets flat in a cool dry location.

### CLEANING THE SANDING SHEETS

The sanding sheets that came with your sander are made to be re-used. Therefore, it is important that they be cleaned periodically to remove sanding residue and foreign material that can accumulate over time.

To clean sanding sheets, rub the sheets with a hard rubber block. You can also use the clean rubber sole of a shoe.

### ⚠ WARNING

Always remove scrubbing or sanding pad from sander before cleaning. Failure to do so could cause serious personal injury.

### ENVIRONMENTAL PROTECTION



Recycle raw materials instead of disposing of as waste. The machine, accessories and packaging should be sorted for environmental-friendly recycling.

### SYMBOL



Safety Alert

V Volts

Hz Hertz

~ Alternating Current

W Watts

$n_0$  No-load speed

$\text{min}^{-1}$  Revolutions or reciprocations per minute



Orbital diameter



CE Conformity



Double insulation



Wear ear protection



Wear eye protection



Please read the instructions carefully before starting the machine.



Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice.