

## EVOLUTION R185SMS+

# Evolution Power Tools R185SMS+ Sliding Miter Saw Instruction Manual

Model: R185SMS+

## 1. IMPORTANT SAFETY INFORMATION

Always read and understand all safety warnings, instructions, illustrations, and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire, and/or serious injury. Save all warnings and instructions for future reference.

- Wear eye protection, hearing protection, and a dust mask.
- Ensure the workpiece is securely clamped before cutting.
- Keep hands clear of the blade area.
- Disconnect power before making adjustments or changing blades.
- Use only blades recommended for this tool and material.

## 2. PRODUCT OVERVIEW

The Evolution R185SMS+ Sliding Miter Saw is designed for versatile cutting across various materials including steel, aluminum, wood (with embedded nails), plastic, and more. It features patented multi-material cutting technology, an optimized gearbox, and a blade system for extended motor and blade life.



Figure 2.1: Overview of the Evolution R185SMS+ Sliding Miter Saw, showcasing its compact design and dust collection bag.

### Key Features:

- **Multi-Material Cutting:** Cuts steel, aluminum, wood with embedded nails, plastic, and more.
- **Adjustable Angles:** 0-45 degree bevel capacity and 50-50 degree miter settings for diverse cuts.
- **Powerful Motor:** 1500W optimized gearbox and blade system.
- **Laser Cutting Guide:** For enhanced accuracy.
- **Included Accessories:** Premium TCT blade, carry handle, 3-piece clamp, dust collection bag.

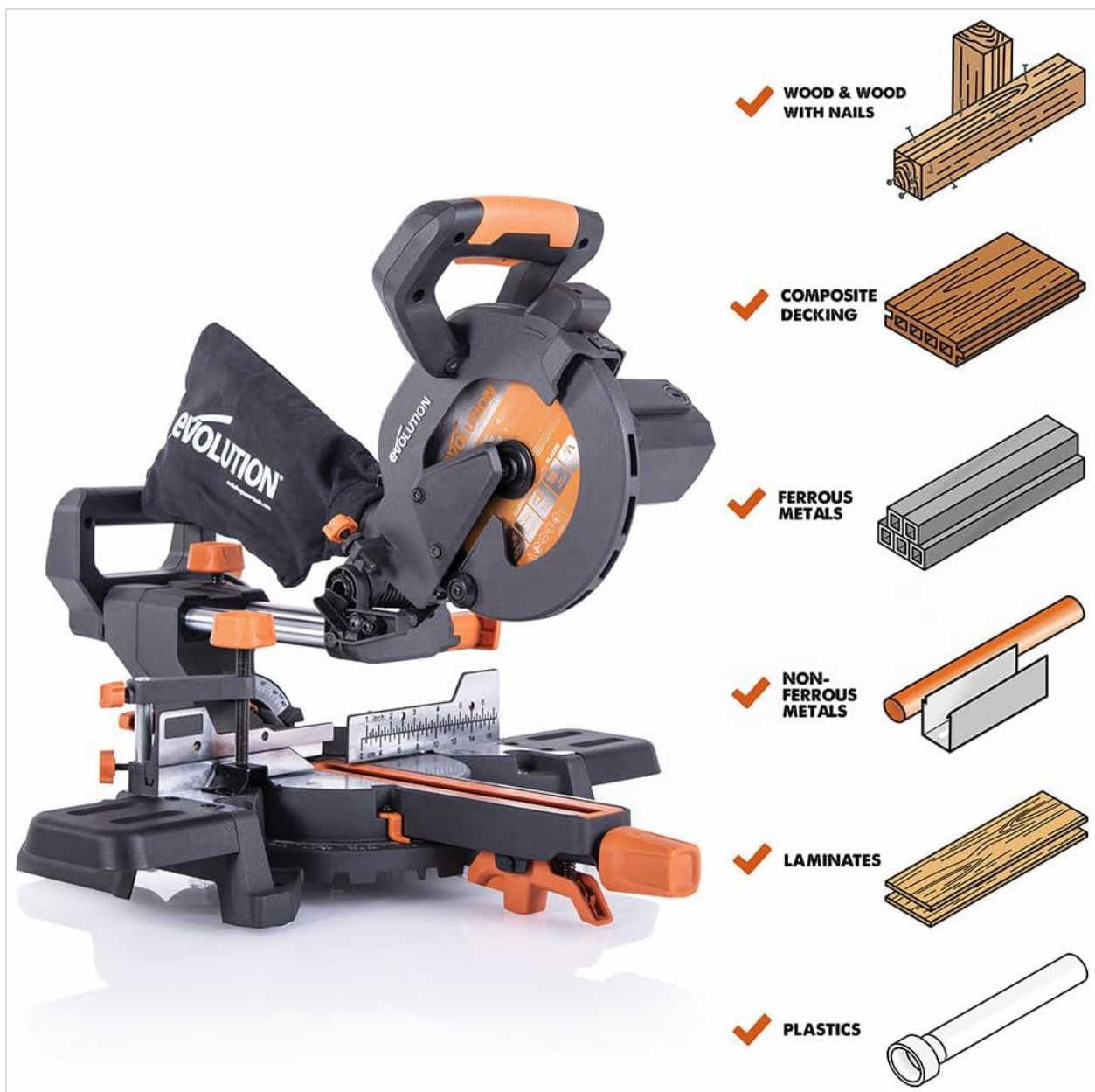


Figure 2.2: Diagram illustrating the various materials the R185SMS+ can cut, including wood, composite decking, ferrous metals, non-ferrous metals, laminates, and plastics.

## 3. SETUP

### 3.1 Unpacking and Assembly

Carefully remove all components from the packaging. Inspect for any damage. The saw comes partially disassembled for compact packaging. Follow the included assembly instructions to attach the power head to the slider tubes and secure the base. Ensure all locking pins and fasteners are correctly engaged and tightened before use.

### 3.2 Blade Installation

1. Ensure the saw is unplugged from the power source.
2. Press the spindle lock button to secure the blade.
3. Use the provided wrench to loosen the blade bolt.
4. Remove the outer flange and old blade.
5. Install the new blade, ensuring the rotation arrow on the blade matches the arrow on the blade guard.
6. Replace the outer flange and tighten the blade bolt securely. Do not overtighten.

### 3.3 Adjusting Miter and Bevel Angles

The R185SMS+ allows for precise angle adjustments:

- **Miter Angle:** Loosen the miter lock handle, rotate the turntable to the desired angle (up to 50 degrees left or right), and tighten the handle.
- **Bevel Angle:** Loosen the bevel lock knob, tilt the saw head to the desired angle (up to 45 degrees left), and tighten the knob.



Figure 3.1: Visual guide to maximum cutting capacities for various cut types: cross, miter, bevel, and compound.

## 4. OPERATING INSTRUCTIONS

### 4.1 General Cutting Procedure

1. Place the workpiece firmly against the fence and secure it with the clamp.
2. Align the laser guide with your cut line.
3. Start the saw and allow the blade to reach full speed.
4. Slowly lower the blade through the workpiece, maintaining a steady, controlled motion. For sliding cuts, push the saw head forward, lower the blade, and pull back through the material.



5. Once the cut is complete, release the trigger and allow the blade to stop before raising the saw head.



**COMPATIBLE WITH THE EVOLUTION®  
MITER STAND (SOLD SEPARATELY)**

Figure 4.1: An operator using the R185SMS+ miter saw, demonstrating proper stance and material handling. The saw is shown mounted on a compatible miter stand (sold separately).

## 4.2 Multi-Material Cutting Guidelines

The included TCT blade is designed for cutting various materials. When cutting different materials, observe the following:

- **Metal:** Ensure the material is securely clamped. Cut at a consistent, moderate speed. Expect minimal sparks and burrs.
- **Wood:** The blade provides clean cuts in wood, even with embedded nails.
- **Plastic:** Cut at a slower, controlled speed to prevent melting or chipping.

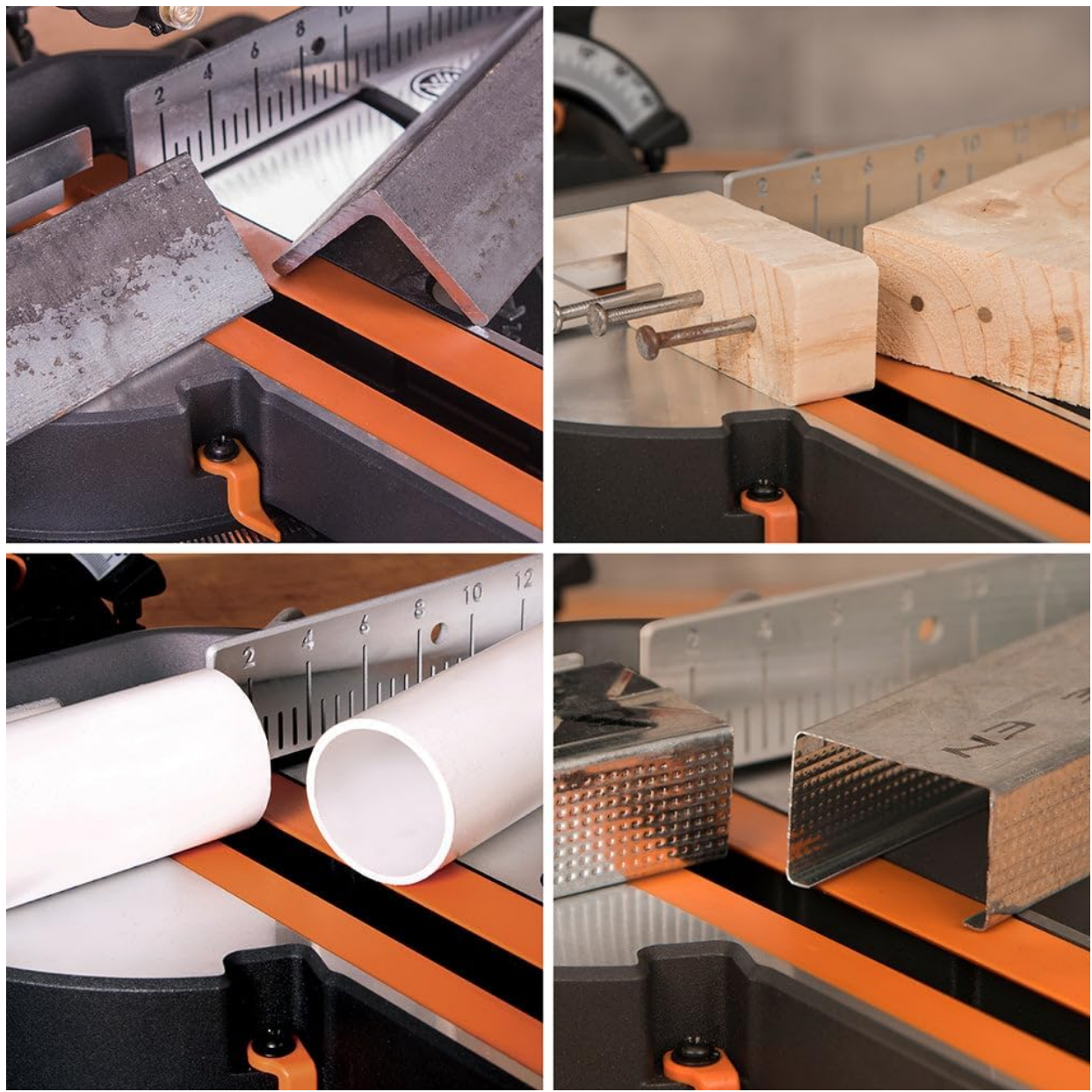
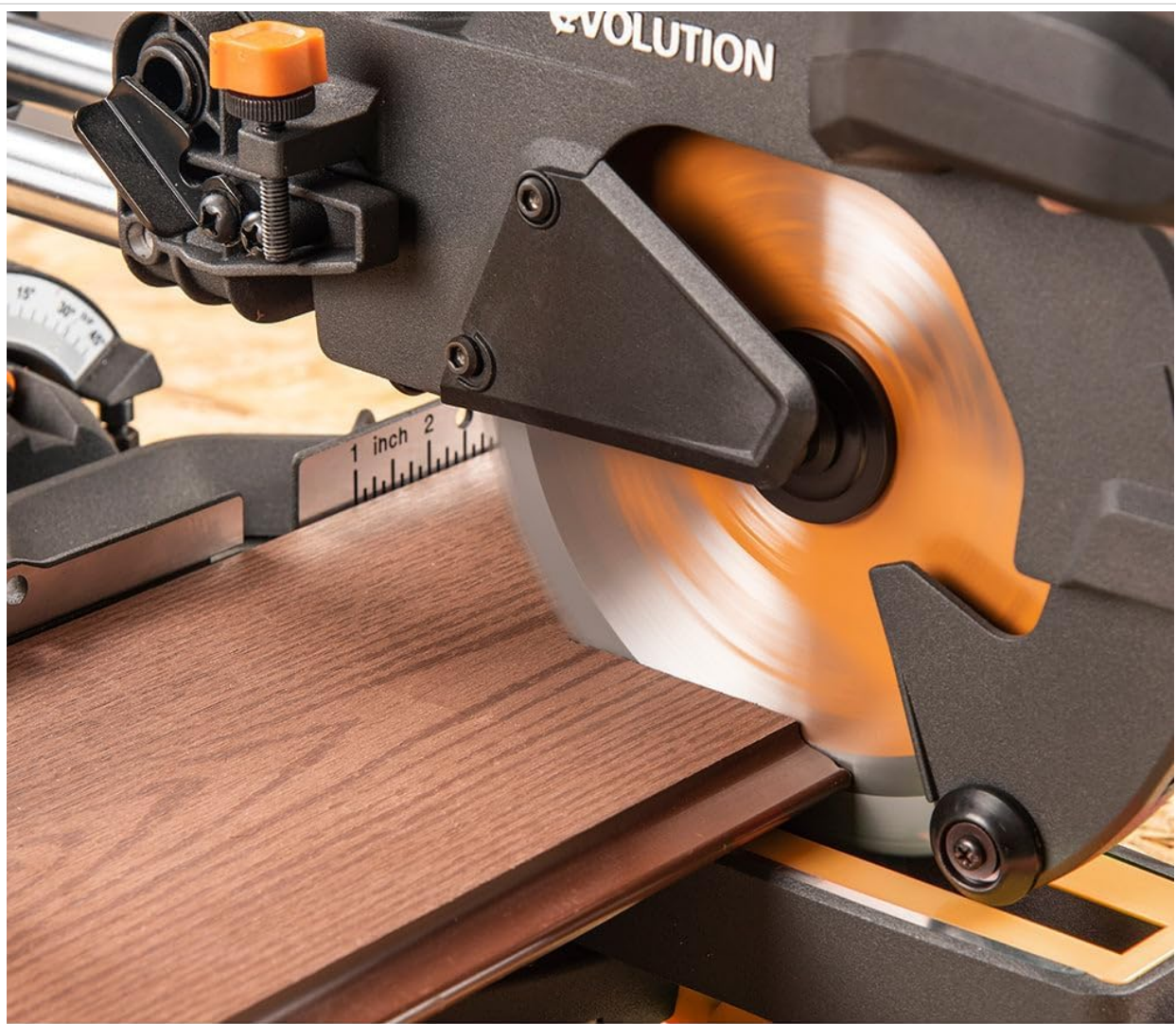


Figure 4.2: Detailed view of the R185SMS+ blade cutting through a metal angle bar, highlighting the clean cut achievable on ferrous metals.





**ACCURATE CUTTING**  
**MAX. DEPTH OF 2-1/4"**

Figure 4.3: Close-up of the saw blade making an accurate cut on a wooden plank, demonstrating precision for woodworking tasks.



Figure 4.4: An individual using the R185SMS+ to cut laminate flooring, illustrating its application in home improvement projects.

## 5. MAINTENANCE

### 5.1 Cleaning

Regularly clean the saw to ensure optimal performance and longevity. Disconnect the power before cleaning.

- Remove dust and debris from the motor vents using compressed air.
- Wipe down all surfaces with a damp cloth. Avoid using harsh chemicals.
- Empty the dust collection bag frequently.

### 5.2 Blade Care

Inspect the blade before each use for sharpness and damage. A dull or damaged blade can cause kickback and poor cut quality. Replace blades as necessary.

## 6. TROUBLESHOOTING



Common Issues and Solutions:

- **Saw does not start:** Check power connection, ensure the safety switch is engaged, and inspect the power cord for damage.
- **Inaccurate cuts:** Verify miter and bevel angle settings. Check if the blade is securely installed and not warped. Calibrate the laser guide if necessary.
- **Excessive sparks/smoke during cutting:** The blade may be dull or incorrect for the material. Reduce cutting speed.
- **Blade wandering:** Ensure the workpiece is clamped tightly. Check for blade damage or looseness.

For issues not listed here, contact Evolution Power Tools customer support.

7. SPECIFICATIONS

Feature	Specification
Brand	EVOLUTION
Model Number	R185SMS+
Power Source	Corded Electric
Voltage	120 Volts
Wattage	1200 watts
Blade Diameter	7-1/4 inches (185mm)
Blade Material	Tungsten Carbide
Miter Angle	50 Degrees Left / 50 Degrees Right
Bevel Angle	0-45 Degrees Left
Product Dimensions	48"L x 24"W x 12"H
Item Weight	Approximately 0.01 Ounces (Note: This weight appears to be an error in the source data and should be disregarded for practical purposes.)
Included Components	Blade, Dust bag
UPC	849713090379, 849713081421

8. WARRANTY AND SUPPORT

8.1 Warranty Information

This Evolution Power Tools R185SMS+ Sliding Miter Saw comes with a**3-Year Limited Manufacturer's Warranty**. This warranty covers defects in materials and workmanship under normal use. Please retain your




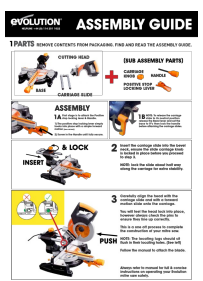
proof of purchase for warranty claims.


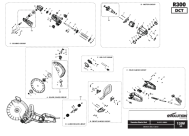
8.2 Customer Support

For technical assistance, warranty claims, or to order replacement parts, please contact Evolution Power Tools customer support:

- **Website:** Visit the official Evolution Power Tools website for support resources.
- **Phone:** Refer to your product packaging or the official website for regional contact numbers.

Related Documents - R185SMS+

	<p><a href="#">Evolution RAGE5-S Table Saw: Original Instructions and Safety Guide</a></p> <p>This comprehensive instruction manual from Evolution Power Tools details the RAGE5-S table saw. It covers safety procedures, assembly, operation, maintenance, and specifications for this woodworking tool. Available in English, Spanish, and French.</p>
	<p><a href="#">Evolution R210 CMS Compound Miter Saw - User Manual and Specifications</a></p> <p>Comprehensive user manual for the Evolution R210 CMS Compound Miter Saw, including setup, operation, safety instructions, specifications, and maintenance. Features detailed diagrams and technical information.</p>
	<p><a href="#">Evolution S355 MCS Mitre Saw: Original Instructions and Safety Guide</a></p> <p>Comprehensive operating and safety instructions for the Evolution S355 MCS mitre saw. Learn about assembly, safe operation, maintenance, specifications, and troubleshooting for this powerful cutting tool.</p>
	<p><a href="#">Evolution Mitre Saw Assembly Guide: Step-by-Step Instructions</a></p> <p>This guide details the assembly process for the Evolution mitre saw, covering part identification and initial setup steps for safe and effective use.</p>

	<p><a href="#">Evolution R255SMS-DB &amp; R255SMS-DB+ Sliding Mitre Saw Manual</a></p> <p>Comprehensive instruction manual for the Evolution R255SMS-DB and R255SMS-DB+ sliding mitre saws, covering safety, operation, specifications, and maintenance.</p>
	<p><a href="#">Evolution R300 DCT 300mm Disc Cutter Service Parts List</a></p> <p>Detailed service parts list for the Evolution R300 DCT 300mm Disc Cutter, including part numbers, descriptions, and quantities for all components.</p>