

FREEDOM

18V Cordless Mini Saw

MODEL FT1003

INSTRUCTION MANUAL

■ **IMPORTANT:** Please read this manual carefully before using your tool. Keep it in a safe place for future reference. Failure to follow instructions may result in serious injury.

FREEDOM 18V CORDLESS MINI SAW

Thank you for choosing Freedom Tools!

Please read this manual carefully before using your new mini saw. Keep it handy for future reference.

WHAT'S IN THE BOX

- Freedom 18V Cordless Mini Saw (FT1003)
- T-Shank Saw Blade
- Instruction Manual

NOTE: Battery pack and charger are sold separately.

INTENDED USE

Your Freedom Cordless Mini Saw is designed for

- Cutting wood up to 1" (25mm) thick
- Cutting steel up to 3/16" (4mm) thick
- Cutting plastic up to 3/16" (5mm) thick
- Tree trimming and pruning
- Cutting PVC pipe
- Flush cutting against walls and surfaces

This tool is NOT intended for

- Cutting masonry, concrete, or stone
- Cutting materials thicker than specified
- Any use not described in this manual

TECHNICAL SPECIFICATIONS

Model Number: FT1003

Voltage: 18V DC

Battery Type: Lithium-Ion

Blade Type: T-Shank (universal fit)

Stroke Rate: 2,100 strokes per minute

Stroke Length: 3/4" (19mm)

Maximum Cutting Capacity

- Wood: 1" (25mm)
- Steel: 3/16" (4mm)

- Plastic: 3/16" (5mm)

Charging Time: 3-5 hours

Weight: Approximately 4 lbs (with battery)

KNOW YOUR MINI SAW - PARTS IDENTIFICATION

1. Saw Blade (T-Shank)
2. Blade Clamp Release Lever (tool-free blade changes)
3. Safety Lock-Off Button
4. Variable Speed Trigger Switch
5. Base Plate (shoe)
6. Battery Pack (18V Li-Ion)
7. Battery Release Buttons
8. Motor Ventilation Slots
9. Rubber Grip Handle
10. Battery Level Indicator

IMPORTANT SAFETY INFORMATION

■ **WARNING: Failure to follow these safety instructions may result in electric shock, fire, serious injury, or death.**

SAVE THESE INSTRUCTIONS - Keep this manual in a safe place for future reference.

GENERAL POWER TOOL SAFETY

WORK AREA SAFETY

- Keep your work area clean and well-lit. Cluttered or dark areas increase the risk of accidents.
- DO NOT operate power tools near flammable liquids, gases, or dust. Power tools create sparks that can ignite fumes or dust.
- Keep children and bystanders at least 10 feet away while operating this tool.

ELECTRICAL SAFETY

- Keep the charger away from rain and moisture.
- Never use the charger if the cord or plug is damaged.
- Keep the charging cord away from heat, oil, sharp edges, and moving parts.
- If you must use an extension cord with the charger, use only cords rated for outdoor use with adequate wire gauge (see chart below).
- If working in damp locations, use GFCI-protected outlets/circuits.

PERSONAL SAFETY

- Stay alert. Don't use power tools when you're tired or under the influence

of drugs, alcohol, or medication.

- Always wear safety glasses or goggles and a dust mask (or respirator) when cutting.
- Wear hearing protection - this saw can be loud during operation.
- Prevent accidental starting. Make sure the trigger is OFF and the lock-off

button is engaged before inserting the battery.

- Don't overreach. Keep proper footing and balance at all times.
- Dress appropriately. Don't wear loose clothing or jewelry. Keep long hair

tied back. Loose items can get caught in moving parts.

- Secure your workpiece with clamps or a vise. Never hold material by hand

while cutting.

TOOL USE AND CARE

• Use the right tool for the job. Don't force a tool to do something it wasn't designed for.

- Don't use the saw if the switch doesn't turn it on and off properly. A tool

that can't be controlled is dangerous and must be repaired.

- Remove the battery before making adjustments, changing blades, or storing

the tool.

- Store the saw out of reach of children. Never let anyone unfamiliar with

power tools or these instructions operate this saw.

- Maintain your tools. Check for damaged parts and any other condition that

might affect operation. Have damaged tools repaired before use.

- Keep blades sharp and clean. Sharp blades cut better and are safer to use.

- Use only accessories recommended for this saw. Using the wrong accessories

can be dangerous.

BATTERY SAFETY

• Only use the Freedom charger that came with this saw. Using the wrong charger can cause fires.

- Only use Freedom 18V battery packs with this saw.

• When the battery is not in the saw, keep it away from metal objects like paper clips, coins, keys, nails, and screws. These can short-circuit the battery terminals and cause burns or fire.

• Under extreme conditions, battery liquid may leak. If it touches your skin, wash immediately with soap and water. If it gets in your eyes, flush with water for 15 minutes and seek medical attention immediately.

SAW-SPECIFIC SAFETY

■ **HOLD THE SAW BY THE INSULATED GRIP AREAS** when cutting where you might hit hidden wiring or the saw's own cord. Contact with a live wire can electrify exposed metal parts and shock the operator.

■ **ALWAYS WEAR A DUST MASK** when cutting. Wood dust and metal particles can be harmful if inhaled.

■ **BLADE HAZARD:** Recently used blades are HOT. Allow to cool before touching or changing.

■ **SECURE YOUR WORKPIECE:** Use clamps or a vise. Holding work by hand or against your body is unstable and dangerous.

■ **LET THE BLADE REACH FULL SPEED** before contacting the material. This prevents kickback and blade damage.

■ **KEEP HANDS AWAY** from the cutting area and blade path at all times.

BATTERY AND CHARGER SAFETY

BATTERY WARNINGS

- DO NOT disassemble, open, crush, bend, puncture, or shred the battery.
- DO NOT expose to fire, excessive heat, or microwave ovens.
- DO NOT immerse in water or other liquids.
- DO NOT short-circuit the battery terminals.
- DO NOT modify or attempt to repair the battery.
- Dispose of used batteries according to local regulations.
- Supervise children around batteries and tools.
- Use only with Freedom chargers and tools.

CHARGER SAFETY

- Read all instructions before using the charger.
- DO NOT expose charger to rain or snow.
- DO NOT use attachments not recommended by Freedom.
- Pull by the plug, not the cord, when disconnecting.
- Keep the cord away from foot traffic and heat sources.
- Use an extension cord only if absolutely necessary.

EXTENSION CORD WIRE GAUGE CHART (for charger use)

Cord Length Wire Gauge (AWG)

0-25 feet 18 AWG

26-50 feet 16 AWG

51-100 feet 16 AWG

101-150 feet 14 AWG

- Use only the supplied Freedom charger.
- Charge only one battery at a time.
- DO NOT attempt to open the charger.
- DO NOT incinerate batteries - they can explode.
- DO NOT charge in explosive atmospheres (near flammable liquids, gases, or

dust).

BATTERY LIQUID CONTACT:

- If battery liquid contacts skin: Wash immediately with mild soap and water.
- If battery liquid contacts eyes: Rinse with water for 3 minutes and seek

medical attention.

- Battery electrolyte contains organic carbonates and lithium salts.

■ **BURN HAZARD: Battery liquid may be flammable if exposed to spark or flame.**

UNDERSTANDING RISKS

Even when used properly, some risks cannot be eliminated

1. Lung damage if you don't wear an effective dust mask
2. Hearing damage if you don't wear hearing protection
3. Health problems from vibration if the tool is used for extended periods

without breaks

■ **ELECTROMAGNETIC FIELD WARNING: This saw produces an electromagnetic field during operation. If you have a pacemaker or other medical implant, consult your doctor and the implant manufacturer before using this tool.**

GETTING STARTED

CHARGING THE BATTERY (FIRST TIME USE)

Before using your saw for the first time, fully charge the battery

1. Insert the battery pack into the charger stand. Make sure the + and - terminals align correctly.
2. Plug the charger into a standard wall outlet (100-240V AC).
3. The indicator light will turn RED, showing the battery is charging.
4. When fully charged (3-5 hours), the indicator light will turn GREEN.
5. Unplug the charger from the wall outlet.
6. Remove the battery from the charger.

IMPORTANT CHARGING NOTES:

- The battery reaches full capacity after 3-5 charge/discharge cycles.
- The charger, adapter, and battery will feel warm during charging - this is normal.
- Always unplug the charger from the wall BEFORE disconnecting the battery (fire hazard prevention).

BATTERY MAINTENANCE:

- Recharge when you notice reduced performance. Don't continue using a weak

battery.

- Recharge at least every 6 months, even if not in use.
- DON'T overcharge. Remove the battery after 5 hours maximum.
- DON'T recharge immediately after charging. Let the battery rest for at least

15 minutes.

- If storing the saw for a long time, recharge the battery before use.
- If charging multiple batteries, wait at least 15 minutes between charges.
- NEVER leave a charging battery unattended.

INSTALLING THE BATTERY

1. Align the battery pack with the battery slot on the saw handle.
2. Slide the battery in until it clicks into place.
3. To remove: Press both battery release buttons and pull the battery out.

BLADE INSTALLATION AND REMOVAL

■ **CAUTION: Recently used blades may be HOT. Allow to cool before handling.**

■ **ALWAYS REMOVE THE BATTERY before changing blades.**

INSTALLING A BLADE

1. Remove the battery from the saw.
2. Turn the blade clamp release lever counterclockwise to its full open position.
3. Insert the T-shank blade into the blade holder from the front. Push it in as far as it will go.
4. Release the blade clamp release lever. It will automatically lock the blade in place.
5. Tug on the blade to make sure it's secure.

REMOVING A BLADE

1. Remove the battery from the saw.
2. Turn the blade clamp release lever counterclockwise to its full open position.
3. Pull the blade straight out from the front.
4. Release the blade clamp release lever.

■ **Dispose of worn or damaged blades safely. Wrap in cardboard or heavy paper before discarding.**

BLADE SELECTION GUIDE

Use only T-SHANK blades with this saw. The blade package will specify

- TPI (Teeth Per Inch): More teeth = smoother cut, fewer teeth = faster cut

- Material type: Wood, metal, plastic, etc.

WOOD CUTTING BLADES:

- 6-10 TPI: Fast, rough cuts in softwood
- 10-14 TPI: General purpose wood cutting
- 14+ TPI: Fine, smooth cuts in hardwood

METAL CUTTING BLADES:

- 18-24 TPI: For cutting steel, aluminum, copper, and other metals
- Use bi-metal blades for longer life

PLASTIC CUTTING BLADES:

- 10-14 TPI: For PVC, acrylic, and other plastics

BLADE ORIENTATION - TWO CUTTING MODES

Your Freedom Mini Saw can cut in two different orientations

FORWARD MODE (Standard)

Blade teeth face FORWARD, away from the saw body.

Use for

- Most cutting applications
- Cutting boards and lumber
- General purpose work
- Maximum visibility of cut line

BACKWARD MODE (Inverted)

Blade teeth face DOWNWARD, toward the base plate.

Use for

- Flush cutting against walls or floors
- Cutting in tight spaces
- Reducing tear-out on top surface
- Cutting close to obstacles

To switch modes: Simply remove the blade and reinstall it in the opposite orientation.

OPERATING YOUR MINI SAW

BEFORE EACH USE - SAFETY CHECK

- Inspect the blade for damage, cracks, or dull teeth
- Make sure the blade is properly installed and secure
- Check that the battery is fully charged and locked in place
- Ensure the base plate is clean and undamaged
- Verify the trigger and lock-off button work properly
- Wear safety glasses, dust mask, and hearing protection

STARTING THE SAW

This saw has a two-step safety system to prevent accidental starting

1. Press the LOCK-OFF BUTTON on either side of the handle.
2. While holding the lock-off button, squeeze the TRIGGER.
3. The saw will start running.
4. Once running, you can release the lock-off button. The saw will continue

running as long as you hold the trigger.

5. To stop: Release the trigger.

■ There is NO lock-on feature. You must hold the trigger to keep the saw running.

VARIABLE SPEED CONTROL

The trigger is variable speed

- Squeeze lightly = Slower cutting speed
- Squeeze fully = Maximum cutting speed (2,100 SPM)

Use slower speeds for

- Starting cuts
- Cutting metal
- Cutting curves
- Better control

Use maximum speed for

- Straight cuts in wood
- Cutting plastic
- Faster material removal

CUTTING TECHNIQUES

GENERAL CUTTING PROCEDURE

1. Mark your cut line clearly with a pencil.
2. Secure the workpiece firmly with clamps. Make sure the cut area overhangs the work surface so the blade won't hit the table.
3. Install the appropriate blade for your material.
4. Put on safety glasses, dust mask, and hearing protection.
5. Install the battery.
6. Position the base plate firmly against the workpiece.
7. Align the blade with your cut line (don't touch the material yet).
8. Start the saw and let it reach full speed.
9. Slowly guide the saw forward into the material. Let the blade do the work - don't force it.
10. Keep the base plate flat against the workpiece throughout the cut.
11. At the end of the cut, release the trigger before lifting the saw away.

CUTTING WOOD

BLADE RECOMMENDATION: 10 TPI or higher, thin kerf blade

TECHNIQUE:

- Secure the wood with clamps
- Place the base plate firmly against the wood
- Start the saw before touching the wood
- Use steady, even pressure
- Don't force the saw - let the blade cut at its own pace
- For thick wood, use a slower feed rate

PREVENTING TEAR-OUT:

- Cut with the "good" side facing down
- Use a fine-tooth blade (14+ TPI)
- Apply masking tape along the cut line
- Use backward blade orientation for less tear-out on top

CUTTING CURVES:

- Use a narrow blade designed for curves
- Cut slowly and carefully
- Don't twist the blade - make relief cuts if necessary

TREE TRIMMING AND PRUNING

BLADE RECOMMENDATION: 6-10 TPI wood cutting blade

TECHNIQUE:

- Hold the base plate firmly against the branch
- Cut as close to the trunk as possible to minimize branch movement
- For thick branches, make a relief cut on the underside first to prevent

bark tearing

- Be aware of branch tension - it may pinch the blade
- Never cut branches above your head
- Watch for falling branches

■ **SAFETY: Wear safety glasses, gloves, and a hard hat when trimming trees.**

CUTTING METAL

BLADE RECOMMENDATION: 18-24 TPI bi-metal blade

TECHNIQUE:

- Secure the metal firmly - it must not vibrate
- Use a slower cutting speed
- Apply light, steady pressure
- Don't force the blade - this reduces blade life and can cause breakage
- Let the blade cool periodically on long cuts

CUTTING THIN SHEET METAL:

- Clamp thin plywood underneath the metal
- This prevents vibration and tearing
- Produces a cleaner cut

CUTTING METAL PIPE:

- DON'T cut straight through like wood
- Instead, cut around the circumference of the pipe
- Only one section of the blade should contact the pipe at a time
- This prevents blade pinching

LUBRICATION:

- Apply a thin film of cutting oil along the cut line
- This makes cutting easier and extends blade life
- For aluminum, use kerosene instead of oil

CUTTING PLASTIC

BLADE RECOMMENDATION: 10-14 TPI blade

TECHNIQUE:

- Secure the plastic firmly
- Use medium speed
- Apply light pressure
- Cut slowly to prevent melting from friction heat
- Let the blade cool if you notice melting

TYPES OF PLASTIC:

- PVC pipe: Use wood-cutting blade, medium speed
- Acrylic: Use fine-tooth blade, slow speed to prevent cracking
- Polycarbonate: Use fine-tooth blade, slow speed

FLUSH CUTTING

For cutting close to walls, floors, or other surfaces

1. Install the blade in BACKWARD MODE (teeth facing down).
2. Position the base plate flat against the surface.
3. Guide the saw carefully along the surface.
4. The blade will cut flush with the surface.

APPLICATIONS:

- Cutting off door jambs for flooring installation
- Trimming PVC pipes flush with walls
- Cutting cable ducts against floors or ceilings
- Removing protruding nails or screws

OPERATING TIPS FOR BEST RESULTS

DO

- ✓ Use sharp blades - they cut faster and safer
- ✓ Match the blade to the material
- ✓ Secure your workpiece firmly
- ✓ Keep the base plate flat against the material
- ✓ Let the saw reach full speed before cutting
- ✓ Use steady, even pressure
- ✓ Wear safety glasses and a dust mask

✓ Take breaks to let the saw cool on heavy use

DON'T:

- ✗ Force the saw - let the blade cut at its own pace
- ✗ Twist or bend the blade during cutting
- ✗ Cut materials thicker than the saw's capacity
- ✗ Use damaged or dull blades
- ✗ Hold the workpiece by hand while cutting
- ✗ Touch the blade immediately after cutting (hot!)
- ✗ Use the saw without the base plate
- ✗ Operate with a low battery (poor performance)

MAXIMIZING BATTERY LIFE

- Fully charge before first use
- Don't completely drain the battery
- Recharge when you notice reduced performance
- Use the correct blade for the material
- Don't force the saw - this drains the battery faster
- Store the battery in a cool, dry place
- Recharge every 6 months if not in use

PREVENTING BLADE BREAKAGE

- Use the correct blade for the material
- Don't force or twist the blade
- Avoid cutting nails or screws (use bi-metal blade if unavoidable)
- Don't use damaged blades
- Support the workpiece properly to prevent binding
- Release trigger if blade gets stuck

MAINTENANCE AND CLEANING

■ **ALWAYS REMOVE THE BATTERY BEFORE MAINTENANCE OR CLEANING!**

AFTER EACH USE:

- Wipe the saw with a dry or slightly damp cloth
- Remove sawdust and debris from the base plate
- Check the blade for damage
- Remove the blade if storing for more than a few days

REGULAR MAINTENANCE:

- Keep the ventilation slots clean and free of dust
- Use compressed air to blow out dust from the motor area
- Inspect the power cord on the charger for damage
- Check that all screws and fasteners are tight
- Inspect the blade clamp mechanism for wear

CLEANING:

- Use only a dry or slightly damp cloth
- NEVER use water, solvents, gasoline, paint thinner, or harsh chemicals
- Don't spray cleaners directly on the saw
- Clean the base plate with a soft brush

BLADE CARE:

- Remove pitch and resin buildup with blade cleaner
- Store blades in a dry place
- Dispose of damaged blades safely

STORAGE:

- Store in a cool, dry place
- Remove the battery if storing for more than 30 days
- Keep out of reach of children
- Store in the original case or a secure location
- Store blades separately in a safe container

REPAIRS:

- For your safety, all repairs must be performed by an authorized Freedom service center
- Use only genuine Freedom replacement parts
- Never attempt to disassemble the saw or battery pack

TROUBLESHOOTING

PROBLEM: Saw won't start

- Check that battery is fully charged and installed correctly
- Make sure you're pressing the lock-off button AND trigger simultaneously
- Try a different battery if available
- Check that the trigger moves freely
- Let the saw cool down if it's been used heavily

PROBLEM: Saw runs but cuts poorly

- Replace with a sharp blade - dull blades cut poorly
- Use the correct blade for the material
- Recharge the battery - low battery reduces power
- Don't force the saw - let the blade cut at its own pace
- Check that blade is installed correctly and fully seated

PROBLEM: Blade won't stay locked in place

- Make sure you're using T-shank blades (not U-shank)
- Push the blade in as far as it will go before releasing the lever
- Check that the blade clamp mechanism isn't damaged
- Clean debris from the blade holder
- Contact service center if problem persists

PROBLEM: Excessive vibration

- Replace bent or damaged blade
- Secure workpiece more firmly
- Use correct blade for the material
- Don't force the saw
- Check that all screws are tight

PROBLEM: Blade breaks frequently

- Don't force or twist the blade
- Use correct blade for the material (metal blade for metal, etc.)
- Support workpiece properly to prevent binding
- Use bi-metal blades for cutting metal or nails
- Reduce cutting pressure

PROBLEM: Battery drains quickly

- Fully charge the battery
- Battery may be old - consider replacement
- Use sharp blades - dull blades drain battery faster
- Don't force the saw
- Let battery cool between charges

PROBLEM: Cut is not straight

- Keep base plate flat against workpiece
- Don't force or twist the saw
- Use a straightedge guide for long cuts
- Replace bent or damaged blade
- Secure workpiece firmly

PROBLEM: Saw overheats

- Let saw cool for 15 minutes
- Don't force the saw - use less pressure
- Use a sharp blade

- Keep ventilation slots clear
- Take breaks during heavy use

SPECIFICATIONS SUMMARY

Model: FT1003

Type: Cordless Reciprocating Mini Saw

Voltage: 18V DC

Battery: Lithium-Ion

Blade Type: T-Shank (universal)

Stroke Rate: 2,100 strokes per minute

Stroke Length: 3/4" (19mm)

Cutting Capacity (Wood): 1" (25mm)

Cutting Capacity (Steel): 3/16" (4mm)

Cutting Capacity (Plastic): 3/16" (5mm)

Charging Time: 3-5 hours

Charger Input: 100-240V AC, 50/60Hz

Weight (with battery): Approx. 4 lbs

DISPOSAL AND RECYCLING

■ DO NOT throw this tool or batteries in household trash!

Electronic waste and batteries contain materials that can harm the environment.

Please recycle

- Take to a local recycling center that accepts electronics
- Contact your local waste management authority for collection information
- Return to a Freedom Tools dealer that accepts old tools
- Check www.call2recycle.org for battery recycling locations

ACCESSORIES AND REPLACEMENT PARTS

RECOMMENDED BLADES:

Wood Cutting

- FT-BLADE-W10: 10 TPI general purpose wood blade
- FT-BLADE-W14: 14 TPI fine finish wood blade
- FT-BLADE-W6: 6 TPI fast cutting blade

Metal Cutting

- FT-BLADE-M18: 18 TPI bi-metal blade
- FT-BLADE-M24: 24 TPI bi-metal blade for thin metal

Multi-Purpose

- FT-BLADE-MP: Multi-material blade for wood, plastic, and soft metals

Available at Freedom Tools dealers or online at [website]

SYMBOLS AND LABELS

The following symbols may appear on your tool

■ Warning symbol - Read manual V Volts ~ Alternating current ■ Direct current ■ Recycling symbol ■ Wear hearing protection ■ Wear eye protection ■ Wear gloves ■ Wear dust mask ■ Electric shock hazard ■ Fire hazard ■ Hot surface warning

Thank you for choosing Freedom!

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