



USER MANUAL ST.33



CORDLESS Drilling Machine for rail.

SERIAL NO. _____ DATE OF PURCHASE _____

Congratulations on your purchase of the Safrack ST.33 CORDLESS Drilling Machine. Your model is designed to produce superior holes quickly and efficiently. Through years of experience, constant innovation and development, Saferack AB is committed to provide you with metal cutting tools and products to help you be more productive.

Before operating your new drilling machine, please read all instructions first. These include the Operator's Manual and Warning Label on the unit itself. With proper use, care, and maintenance, your model will provide you with years of effective hole drilling performance.

TO REDUCE THE RISK OF INJURY USER MUST READ AND UNDERSTAND ALL INSTRUCTIONS



Supply of Signalling/Electrification/Track/Safety material

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Symbol	Term, meaning	Explanation
	Read documentation	Be absolutely sure to read and understand the enclosed documentation such as Instruction Manual and the General Safety Instructions.
	Wear ear protection	Use ear protection during operation.
	Wear eye protection	Use eye-protection (safety goggle) during operation.
	Danger/warning/caution	Observe the information in the adjacent text!
	European conformity symbol	Confirms the conformity of the power tool with the directives of the European Community.
	Class of protection I	Product with basic insulation and exposed (touchable), conductive parts additionally connected to the protective earth conductor.
mm	Millimeter	Unit of measure for length, width, height or depth
kg	Kilogram	Unit of measure for the mass
V	Volt	Unit of measure for the electric voltage
A	Ampere	Unit of measure for the electric current intensity
W	Watt	Unit of measure for the output
N	Newton	Unit of measure for the force
min	Minutes	Unit of measure for the time
no	No-load speed	Revolution speed at no-load
1/min	per minute	Unit of measure for number of revolutions, strokes, impacts or oscillations per minute.

GENERAL POWER TOOL SAFETY WARNINGS

Do not use this power tool before you have thoroughly read and completely understood this Instruction Manual and the “General Safety Instructions”, including the figures, specifications, safety regulations and the signs indicating DANGER, WARNING and CAUTION.



WARNING: When using electrical tools basic safety precautions should always be followed to reduce the risk of fire, electrical shock and personal injury including following.

Please also observe the relevant national industrial safety regulations. Non-observance of the safety instructions in the said documentation can lead to an electric shock, burns and/or severe injuries.

This Operator’s Manual and the “General Safety Instructions” should be kept for later use and enclosed with the power tool, should it be passed on or sold.

WORK AREA

1. Keep your work area clean and well lit. Cluttered benches and dark areas invite accidents.
2. Do not operate drilling machine in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Drilling machine may create sparks which may ignite the dust or fumes.
3. Keep bystanders, children, and visitors away while operating a battery drilling machine. Distractions can cause you to lose control.
4. Do not expose drilling machines to rain or wet conditions.

PERSONAL SAFETY

1. Stay alert, watch what you are doing and use common sense when using a drilling machine. Do not use machine while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating magnetic drilling machines may result in serious personal injury.
2. Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts.
3. Avoid accidental starting.
4. Never place hands, fingers, gloves or clothing near cutting area or rotating machine parts.
5. Remove adjusting keys or switches before turning the machine on. A wrench or a key that is left attached to a rotating part of the machine may result in personal injury.
6. Mount the span guard before operating a drilling machine. Span guard prevents loose clothes, jewelry and/or long hair for being caught in the moving parts.
7. Do not overreach. Keep proper footing and balance at all times. Proper footing and balance enable better control of the drilling machine in unexpected situations.
8. Use safety equipment. Always wear eye protection. Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.

MACHINE USE AND CARE

1. Make sure that all parts on the drilling machine is fasten properly.
2. During machine operations, the annular cutter must be cooled and lubricated with good quality cutting or lubrication oil. Remove the slug from the annular cutter after each hole. Caution, the slug may be hot!
3. Use the clamp system to secure the drilling machine to the rail, set the correct clamp force with the tow bolts on the front of the clamp system.
4. Do not use machine if switch does not turn it on or off. Any tool that cannot be controlled with the switch is dangerous and must be repaired. For electrical failures always send the machine to Safetrack or authorized dealers for repair.
5. Disconnect the battery from the machine before making any adjustments, changing accessories, or storing the tool. Such preventive safety measures reduce the risk of starting the tool accidentally.
6. Store idle drilling machines out of reach of children and other untrained persons. Tools are dangerous in the hands of untrained users.
7. Maintain machines with care. Keep cutting tools sharp and clean. Properly maintained tools, with sharp cutting edges are less likely to bind and are easier to control.
8. Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the machine operation. If damaged, have the tool serviced before using. Many accidents are caused by poorly maintained tools.
9. Use only accessories that are recommended by Safetrack for your model. Accessories that may be suitable for one machine, may become hazardous when used on another machine.

SERVICE

1. Tool service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel could result in a risk of injury.
2. When servicing a tool, use only identical replacement parts. Follow instructions in the Maintenance section of this manual. Use of unauthorized parts or failure to follow Maintenance Instructions may create a risk of electric shock or injury.
3. When using this machine, you **MUST** wear ear and eye protection.

ADDITIONAL SPECIFIC SAFETY RULES FOR MAGNETIC DRILLING MACHINES

- Keep your fingers well out of the drill area;
- Avoid touching the drilled core that is automatically ejected by the centering pin when the working procedure is finished. Contact with the core when it is hot, or if it falls, can cause personal injuries;
- Always use the clamp system. Before turning on machine ensure the clamp system is closed securely.
- Do not clamp the drilling machine on small or irregularly shaped objects;
- Always place the machine on a surface that is clear of shavings, chips, swarf and surface dirt;
- Do not turn on the machine until it has been mounted and installed according to these instructions;
- Do not turn on the machine before having checked that the clamp system stand has been tightened firmly to the mounting surface;
- Adjust the table so cutter does not extend into the work piece before drilling. Do not perform any design, assembly or construction activities on the work piece while the machine is turned on;
- Before turning on the machine, make sure the accessory has been mounted correctly;
- Do not use the machine on the same work piece on which electric welders are being used;
- Use only an appropriate cutting fluid. Use a general non-oil-based metal cutting coolant diluted with water;
- Do not use liquid cutting fluids while drilling vertically or overhead. Dip the cutter in cutting paste or apply an appropriate spray for these applications;
- Do not pour cutting fluid into the reservoir while it is mounted in the bracket. Do not allow cutting fluid to enter the drill motor;
- Ensure that metal chips or resinous residue cannot lead to blockage of the function;
- In case of jammed cutter disconnect battery from the machine, remove the reason for the jam before turning on the machine again.

RESIDUAL RISKS

In spite of the application of the relevant safety regulations and the implementation of safety devices, certain residual risks cannot be avoided.

These are:

- Impairment of hearing
- Risk of personal injury from flying particles
- Risk of burns due to accessories becoming hot during operation
- Risk of personal injury due to prolonged use.

MARKINGS ON THE MACHINES

The following pictograms are shown on the tool:



Read instruction manual before use.



Wear ear protection in areas with noise emissions > 80 db(A).



Wear eye protection.

POSITION Serial number

The Serial Number, which also includes the type of machine, the year and month of manufacturing and identification number, is engraved on the frame and the motor unit.

Example:

360 12 11 001

Model type

Year of Manufacture

Month of manufacture

Identification number

Package Contents

The package contains:

- 1 Drilling machine
- 1 Battery pack 37 V /10,5 Ah
- 1 Carrying case
- 2 Rail profiles for std. rails
- 3 Handles
- 1 Allen Key 2.5
- 1 Allen Key 4
- 1 Allen Key 5
- 1 Wrench 8
- 1 Lubrication system
- 1 Drill chuck
- 1 Operators manual
- 1 Exploded drawing
- 1 Safety Ear Protection
- 1 Safety Goggles
- 1 Safety Gloves

TECHNICAL DATA ST.33

ANNULAR CUTTERS	ø 12 - 36 mm
TWIST DRILLS	ø 1 - 13 mm
MAX. DEPTH OF CUT	55 mm
LENGTH	297 mm
WIDTH	112 mm
HEIGHT	420 - 650 mm
STROKE	230 mm
WEIGHT	15 kg
BATTERY	37V / 10,5 Ah Li-ion
CHARGE TIME	90 minutes
SPEED (no load)	506 min ⁻¹
SPEED (loaded)	375 min ⁻¹
SPINDLE	19,05 mm Weldon
CHARGER	110 - 120 V AC / 50-60 Hz 220 - 240 V AC / 50-60 Hz

Emission values for sound and vibration

(Two-figure – specifications as per ISO 4871)

Sound emission

Measured A-weighted sound power level L _{WA} (re 1 pW), in decibels	89
Measuring uncertainty K _{WA} , in decibels	3

A-weighted emission pressure power level measured at the workplace L _{pA} (re 20 µPa), in decibels	89
Measuring uncertainty K _{pA} , in decibels	3

Vibration emission

Rated acceleration, in m/s ²	0.5
Measuring uncertainty K, in m/s ²	1.5

REMARK: The sum of the measured emission value and respective measuring inaccuracy represents the upper limit of the values that can occur during measuring.



Wear ear protection!



WARNING: Never modify the power tool or any part of it. Damage or personal injury could result.

DO NOT use under wet conditions or in presence of flammable liquids or gases.

DO NOT let children come into contact with the machine. Supervision is required when inexperienced operators use this machine.

ASSEMBLY AND ADJUSTMENTS



WARNING: *To reduce the risk of injury, turn unit off and disconnect the battery before installing and removing accessories, before adjusting or changing set-ups or when making repairs. Be sure the switch is in the OFF position. An accidental start-up can cause injury.*

INITIAL OPERATION

Check the machine for possible damage; Before using the machine, you must carefully check protective devices or slightly damaged components to ensure they are operating perfectly and as intended.

Check that moving are in perfect working order and do not jam and check whether parts are damaged. All parts must be correctly installed and fulfill all conditions necessary to ensure perfect operation of the machine.

Damaged protective devices and parts must be repaired or replaced according to specifications by Safetrack or any authorized Safetrack dealer.

BATTERY PACK

Charge the battery before use. If performance diminishes, recharge the battery pack.

The ideal storage temperature is between 10° and 30°C.

REMOVING AND INSERTING THE BATTERY PACK

Removal

Press both buttons on the side of the battery pack and take out the battery pack from its position.

Inserting

Slide in the battery pack completely until it engages.

Keep the battery charged. If the drilling machines aren't use or stored, charge the battery every 3 month.

FITTING THE LUBRICATION SYSTEM

The lubrication system can be used for horizontal drilling applications.

1. Mount the cooling tank on the side off the clamp system.
2. Connect the hose to the nipple on the spindle drive shaft.

In order to use the lubrication system, it must be filled with a sufficient amount of cutting fluid.

1. Make sure the flow regulator is closed;
2. Unscrew the cap;
3. Fill the container with cutting fluid;
4. Screw the cap back on.



WARNING: Do not use the system in vertical or overhead drilling applications.

Only use Carbide tipped track drill bits, Regular drill bits make the drilling machine work harder and depletes the battery quicker.

INSERTING AND REMOVING AN ACCESSORY



Remove the battery pack from the machine before any adjustments, conversions or servicing are performed.



Do not use deformed or damaged tools. Before use, always check tools such as core drills for deformities or damage.



Do not use accessories that have not been specified or recommended by Safetrack for this machine. The ability to attach the accessory to your machine does not guarantee safe operation.



Securing or positioning a tool incorrectly can cause hazardous situations due to parts breaking or being blown off.



If the tool is jammed: Press the RED switch "O" to switch off the motor unit.
Remove the annular cutter from the borehole.

The tool holder accepts annular cutters with a 19,05 mm Weldon shank with one or more flats.



WARNING: The teeth of a cutter are very sharp and can be dangerous.

TURNING MACHINE ON AND OFF

THE CONTROL PANEL

The control panel on your battery rail drilling machine is designed for maximum operating facility and safety.

1 - The ON Switch (GREEN):

This (upper) switch is used to switch the motor unit On ("I");

2 – The OFF Switch (RED)

This (lower) switch is used to switch the motor unit Off ("O");

3 - The Main power Switch (WHITE):

This switch is used to turn on the main power. The indicator has two collors:

- GREEN – SAFE for use
- Alternately lightning up RED and GREEN and making a beeping sound – Not safe for use.

In order to operate properly, the machine has to be turned on following the procedure as described below.

DRILLING A HOLE

Now that you have read the explanatory information and safety recommendations above, you are ready to actually start drilling. Follow these steps for best drilling result:

- 1 Use the tip of the pilot pin to determine the center of the hole to be drilled.
- 2 Fasten the clamp on and verify that the drill is in the right position and that the machine is pushed tight against the rail.
- 3 If your machine is equipped with an auto coolant system, open the valve to release the oil. If your machine does not have an auto coolant system, fill the holes of the spindle with oil.
- 4 Turn the motor on at the highest setting and allow it to run at full speed.
- 5 Turn the arms to start drilling. Apply only a slight pressure when the Annular Cutter touch the metal. Do not push the TCT Cutter with force into the metal.
- 6 Apply a regular pressure while drilling. The drilling performance does not improve by putting more pressure on the feed handles. Too much pressure will overload the motor and your Annular Cutter will break or will worn sooner. ***Let the cutter do the job and give it time to cut the metal!!!***
- 7 Adjust the oil supply when necessary, if your drill does not have an auto coolant system, stop drilling regularly, refill the holes of the spindle and continue drilling.
- 8 Apply less pressure when the drill cuts through the material.
- 9 Turn the arms to put the motor in highest position and turn off the motor unit.
- 10 Remove the burr, metal chips and clean the cutter and surface without getting injuries.
Caution: The metal piece drilled out can be sharp and very hot!!

DRILLING WITH TCT CUTTERS

TCT cutters only cut material at the periphery of the hole, rather than converting the entire hole to shavings. As a result, the energy required to make a hole is lower than for a twist drill.

When drilling with an TCT cutter, it is not necessary to drill a pilot hole.



WARNING: Do not touch the cutter or the parts close to the cutter immediately after operation, as they may be extremely hot and cause burns to the skin. Ensure nobody is in the work area where the metal core is ejected.

DRILLING CONDITIONS

The ease with which material can be drilled depends on several factors including tensile strength and abrasion resistance. Whilst hardness and/or strength is the usual criterion, wide variations in machineability can exist among material showing similar physical properties.

The drilling conditions are dependent on requirements for tool life and surface finish. These conditions are further restricted by the rigidity of the tool and the work piece, lubrication and machine power available. The harder the material, the lower the cutting speed.

Some materials of low hardness contain abrasive substances leading to rapid cutting-edge wear at high speeds. Feed rates are governed by rigidity of set-up, volume of material to be removed, surface finish and available machine power.

LUBRICATION

IN HORIZONTAL APPLICATIONS

- Adjust the fluid flow as required using the flow regulator;
- Add more cutting fluid if the shavings (metal chips) become blue.

VERTICAL AND OVERHEAD APPLICATIONS

Dip the cutter in cutting paste or apply an appropriate spray.

LUBRICATING THE FEED TRAVEL

The feed travel should be lubricated periodically with grease to ensure smooth operation.

- Raise the motor unit to the highest position possible.
- Lubricate the dove-tail guide way at both sides.
- Lubricate the gear rack.

After repeated use, the gear rack may become loose. If necessary, adjust the 5 self-locking set screws at the left side. Tighten screws in series until the gear rack moves freely in the dove-tail guide but does not allow the motor to wobble.

Cleaning



CAUTION: Blow dirt and dust out of the main housing with dry air as often as dirt is seen collecting in and around the air vents. Wear approved eye protection and approved dust mask when performing this procedure.



CAUTION: Never use solvents or other harsh chemicals for cleaning the non-metallic parts of the tool. These chemicals may weaken the materials used in these parts. Use a cloth dampened only with water and mild soap. Never let any liquid get inside the tool; never immerse any part of the tool into a liquid.

Optional Accessories



WARNING: Since accessories, other than those offered by EUROBOOR, have not been tested with this product, use of such accessories with this tool could be hazardous. To reduce the risk of injury, only EUROBOOR recommended accessories should be used with this product.

Consult your dealer for further information on the appropriate accessories.

MAINTENANCE

Your Safetrack power tool has been designed to operate over a long period of time with a minimum of maintenance. Continuous satisfactory operation depends upon proper tool care and regular cleaning.



CAUTION: To reduce the risk of injury, turn unit off and disconnect battery pack from the machine before installing and removing accessories, before adjusting or changing set-ups or when making repairs. An accidental start-up can cause injury.

Just as every battery drilling machine with moving parts, your Safetrack drilling machine also needs regular maintenance service. A few recommendations follow:

VISUALLY CHECK THE MACHINE FOR DAMAGE

Machine must be checked before operation for any signs of damage that will affect the operation of the machine. Particular notice must be taken of the mains cable, if the machine appears to be damaged it should not be used failure to do so may cause injury or death.



CAUTION : Clean all dirt, dust, metal chips and burrs of your drilling machine

OPERATION OF THE MACHINE

The machines operation must be checked to ensure that all components are working correctly. Replace any defective parts immediately. This prevents properly function parts from being damaged.

ELECTRIC MOTOR

The electric motor is not serviceable and if damaged or worn out need to be replaced.

CHECK MACHINES GREASE

Replacement of grease on the gears is done at every service occasion or during repairs. You unscrew 4 hexagon screws on the cap and loosen the motor by pulling it straight up.

Service intervals around 18 months.

ADJUSTMENT OF SLIDE

An essential requirement of the machine is that the slide can move in a smooth and controlled manner, free of lateral movement and vibration.

This situation can be maintained by periodic adjustment of the slide and is accomplished in the following manner:

1. Place the machine in an upright position and, by means of the capstan, raise the slide to its highest position. Clean the brass rail strips and apply a small amount of light machine oil to the wear surfaces.
2. Commencing with the top screw, loosen both setting nut (#4 on spare part drawing) with included wrench 8 and the setting screw (#5 on spare part drawing) with included Allen key 2.5. Then gently feed in setting screw until slight resistance is encountered. Follow your way down adjusting all setting nuts and screws.
3. Operate the slide up and down a few times to test the movement and make any further necessary adjustments. Try to ensure that all the screws are exerting a uniform pressure on the slide from top to bottom. A perfectly adjusted slide will operate freely up and down without any sideways movement.

REPAIR, MODIFICATION AND INSPECTION

Repair, modification and inspection of Safetrack drilling machines must be done by Safetrack or a Safetrack authorized dealer. The spare parts list will be helpful if presented with the machine to the Safetrack dealer for service when requesting repair or other maintenance.

Safetrack machines are constantly being improved and modified to incorporate the latest technological advancements. Accordingly, some parts (i.e. part numbers and/or design) may be changed without prior notice. Also, due to Safetrack 's continuing program of research and development, the specifications of machines are subject to change without prior notice.

TROUBLE SHOOTING.

Motor do not function	- Battery is low - Battery too hot - Damaged or defective wiring - Defective main power switch - Defective Control Unit
Main power on, the motor does not work	- Damaged or defective wiring - Defective On / Off switch - Defective Control Unit - Defective armature and/or field
Annular cutters break quickly, holes are bigger than the hole cutter	- Clearance in the guide - Bent spindle - Shaft extending from the motor is bent - Bent pilot pin
Motor running roughly and/or seizing up	- Bent spindle - Shaft extending from the motor is bent - Triangular guide not mounted straight - Dirt between spindle and triangular guide
Motor starts running when magnet switch is turned on	- Damage or defective relays in control unit
Motor making a rattling sound	- Gear ring (bottom of the armature) worn out - Gear(s) worn out - No grease in gear box
Motor humming, big sparks and motor has no force	- Armature damaged (burned) - Field burned
Motor does not start or fails.	- Damaged or defective wiring - Dirt in sensor Speed Control Unit - Damaged or defective (sensor) Speed Control Unit - Damage to Armature or field coil
Guiding takes a great deal of effort	- Guide is set too tight - Guide is dry, needs to be greased - Guide/gear- rack/rotation system dirty or damaged
Frame is electrified	- Damaged / defective wiring - Motor seriously dirty
Fuse blows when main power switch is turned on	- Damaged or defective wiring - Wrong value fuse - Defective main power switch - Defective Control Unit
Fuse blows when motor is started	- Damaged or defective wiring - Wrong value fuse - Motor running roughly - Defective Armature and / or Field - Defective Control Unit
Rotation system free stroke too long	- Loose or defective gear-rack - Defective rotation system

NOTE: Please contact Safetrack if there is machine failure and the problem cannot be corrected with one of the above solutions!!

PROTECTING THE ENVIRONMENT



Separate collection. This product must not be disposed of with normal household waste.

Should you find one day that your Safetrack product needs replacement, or if it is of no further use to you, do not dispose of it with household waste. Make this product available for separate collection.



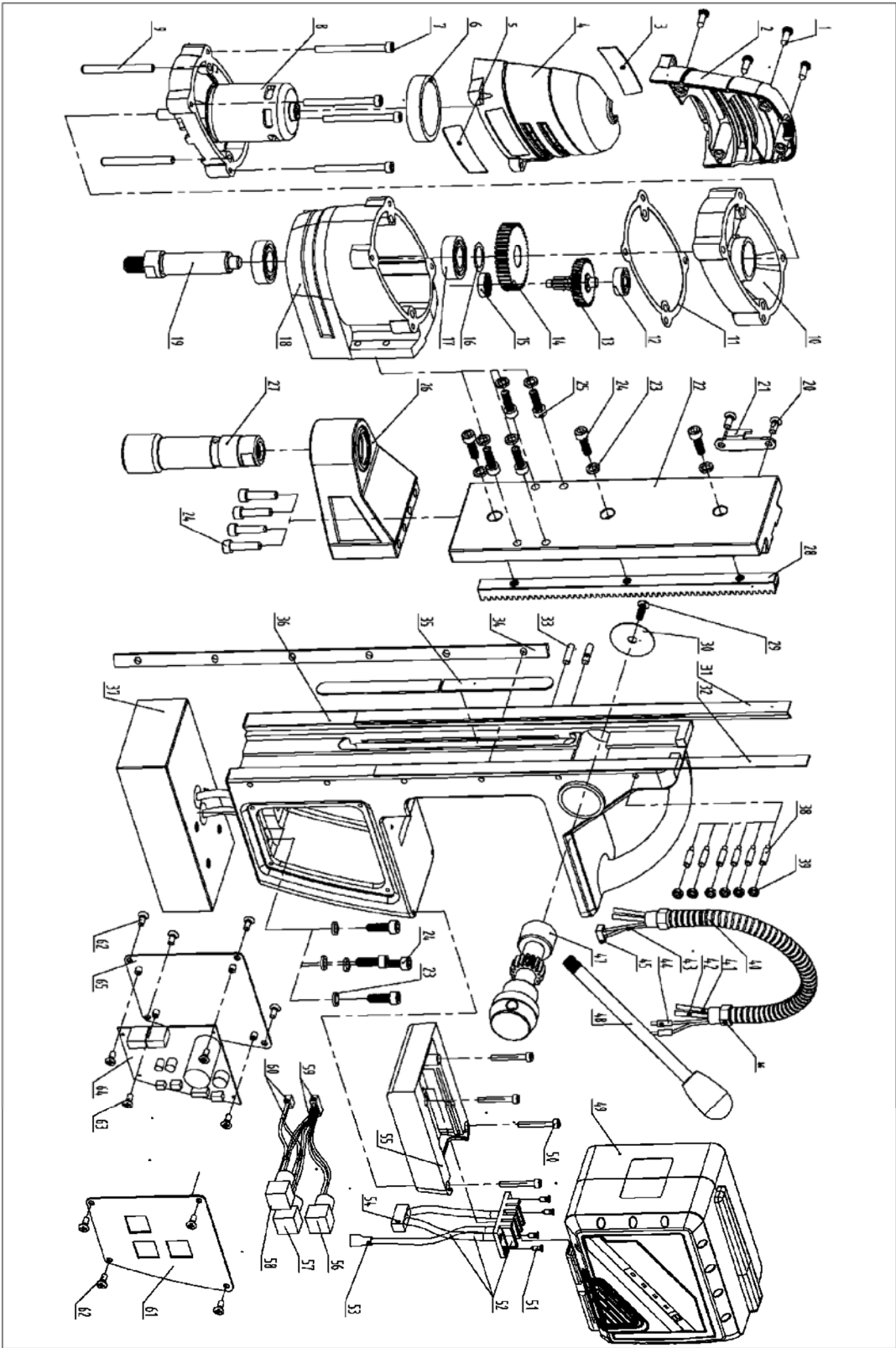
Separate collection of used products and packaging allows materials to be recycled and used again. Re-use of recycled materials helps prevent environmental pollution and reduces the demand for raw materials.

Local regulations may provide for separate collection of electrical products from the household, at municipal waste sites or by the retailer when you purchase a new product.

Spare parts & Exploded view of ST.33

Drawing	Article nr.	Description	Drawing	Article nr.	Description
1	360.1001	Screw	34	360.1034	Pressing strip
2	360.1002	Motorhousing left side	35	360.1035	Wiring cover
3	360.1003	Label (Left side)	36	360.1036	Frame
4	360.1004	Motorhousing right side	37	360.1037	Clampsystem
5	360.1005	Label (Right side)	38	360.1038	Setting Screw
6	360.1006	Sensor Holder	39	360.1039	Setting Nut
7	360.1007	Bolt M5x60	40	360.1040	Motorcable cover
8	360.1008	Motor Assembly	41	360.1041	Wire #1
9	360.1009	Pin 6x60	42	360.1042	Wire #2
10	360.1010	Lower Inner Gear Plate	43	360.1043	Wire #3
11	360.1011	Gasket	44	360.1044	Wire #4
12	360.1012	Bearing 608	45	360.1045	Connector
13	360.1013	1st Gear	46	360.1046	Coupling nut
14	360.1014	Spindle Gear	47	360.1047	Capstan hub
15	360.1015	Bearing 626ZZ	48	360.1048	Arm
16	360.1016	Adaptor ring	49	360.0001	Battery Pack
17	360.1017	Bearing 6003DDU	50	360.1050	Bolt
18	360.1018	Gear Casing	51	360.1051	Screw
19	360.1019	Spindle Drive Shaft	52	360.1052	Battery Contact board
20	360.1020	Bolt M5x10	53	360.1053	Connector
21	360.1021	Tank holder	54	360.1054	Connector
22	360.1022	Slide	55	360.1055	Battery slide base
23	360.1023	Washer 6	56	360.1056	On Switch
24	360.1024	Bolt M6x20	57	360.1057	Off Switch
25	360.1025	Bolt M6x14	58	360.1058	Main power Switch
26	360.1026	Steady	59	360.1059	Wiring + connector
27	360.1027	Spindle	60	360.1060	Wiring + connector
28	360.1028	Rack	61	360.1061	Front Panel Plate
29	360.1029	Screw	62	360.1062	Crimp nut
30	360.1030	Washer	63	360.1063	Screw
31	360.1031	Brass rail (Left side)	64	360.1064	Control Unit
32	360.1032	Brass rail (Right side)	65	360.1065	Rear Panel Plate
33	360.1033	Motor cable protection screw			

Spare parts & Exploded view of ST.33



SAFETY RULES 37V/10,5 Ah LITHIUM-ION BATTERY PACK

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.

- Remove the battery pack from the machine before any adjustments, conversions or servicing are performed.
- Before fitting the battery pack, make sure that the machine is switched off.
- Do not open the battery packs
- Do not place the battery pack or cells on or near fires, heaters, other high temperature locations, or apply heat to the battery.
- Do not pierce the battery with any sharp objects, strike the battery with a hammer, tools, or heavy objects, step on the battery pack, or otherwise damage the outer casing.
- Do not subject the battery pack to strong impacts or shocks.
- Do not expose the battery to water or any other type of liquid, or allow the battery to get wet.
- Do not leave the battery in direct sunlight, and avoid storing spare battery packs inside cars in extreme hot weather. Doing so may cause the battery to generate heat, rupture, or ignite. Using the battery in this manner may also result in a loss of performance and a shortened life expectancy. When a battery becomes too hot, the built-in protection circuitry is activated, preventing the battery from charging further. Heating the battery can destroy the safety devices, and can cause additional heating, rupture or ignition of the battery cells.
- Never short-circuit, reverse polarity, disassemble, damage or heat the battery pack over 100°C (212°F).
- If an exposed lithium-ion battery does start a fire, it may burn even more violently if it comes into contact with water or even the moisture in the air. **DO NOT THROW WATER ON A BURNING LI-ION BATTERY!** A class C fire extinguisher must be used.
- Do not use the Battery Pack if the Battery Pack casing is broken or if a Battery Pack emits an unusual odor, smoke, or excessive heat or leaks any substance. Avoid contact with any substance seeping from the Battery Pack.
- Keep out of reach of children and pets. Exposure to Battery Pack voltage could result in death or serious injury.
- The cells within the Battery Packs contain toxic substances. Do not attempt to open Battery Packs. Do not insert any object into the Battery Packs or use any device to pry at the Battery Pack casing. If you insert an object into any of the Battery Packs’ ports or openings you could suffer electric shock, injury, burns, or cause a fire. Attempting to open the Battery Pack casing will damage the casing and could release toxic and harmful substances, and will render the pack unusable.
- If battery fluid leaks out and comes into contact with your skin, rinse immediately with plenty of water. If battery fluid leaks out and comes into contact with your eyes, wash them with clean water and seek medical attention immediately
- As with all rechargeable batteries, do not charge near flammable materials
- Do not disassemble or modify the battery pack. The battery contains safety and protection devices which, if damaged, may cause the battery to generate heat, rupture or ignite.
- Any modification may damage the battery pack or cells and will invalidate any warranty claim.

If you happen to get any electrolyte from the cells on your skin, wash thoroughly with soap and water. If in your eyes, do not rub. Rinse thoroughly with water and seek medical

OPERATION



CAUTION: *If at any point during the charging process none of the LEDs are lit, remove the battery pack from the charger to avoid damaging the product. DO NOT insert another battery. Return the charger and battery to your nearest service center for service or replacement.*



CAUTION: Charge in a well-ventilated area. Do not block charger vents. Keep them clear to allow proper ventilation.

BATTERY PROTECTION FEATURES

37V/10,5 Ah lithium-ion batteries are designed with features that protect the lithium-ion cells and maximize battery life. Under some operating conditions, these built-in features may cause the battery and the tool it is powering to act differently from nickel-cadmium batteries.

During some applications, the battery electronics may signal the battery to shut down, and cause the tool to stop running. To reset the battery and tool, release the trigger and resume normal operation.

NOTE: To prevent further shut down of the battery, avoid forcing the tool.

If releasing the trigger does not reset the battery and tool, the battery pack is depleted. If depleted, the battery pack will begin charging when placed on the lithium-ion charger.

TO CHARGE

A fully discharged battery pack with a temperature between 0° (32°F) and 65° (150°F) will charge in about an hour.

- Use battery pack only with the recommended Safetrack charger.
- Connect the charger to a power supply. Make sure the power supply is normal household voltage, **240 volts, AC only, 50/60 Hz.**
- Attach the battery pack to the charger by aligning the raised ribs on the battery pack with the grooves in the charger, then slide the battery pack onto the charger. **See Figure 1.**
- Do not place the charger and battery pack in an area of extreme heat or cold. They will work best at normal room temperature.

Note: The charger and battery pack should be placed in a location where the temperature is more than 10° (50°F) but less than 38° (100°F).

- The battery pack will become slightly warm to the touch while charging. This is normal and does not indicate a problem.
- After charging is complete, the green LED will remain on until the battery pack is removed from the charger or charger is disconnected from the power supply.

When batteries become fully charged, unplug the charger from the power supply and remove the battery pack.

CHARGING A HOT BATTERY PACK

If the battery pack is above normal temperature range, the red LED will begin flashing and the green LED will be off. When the battery pack cools down to approximately 65° C, the charger will automatically begin fast charge mode.

CHARGING A COOL BATTERY PACK

If the battery pack is below normal temperature range, the red LED will begin flashing and the green LED will be off. When the battery warms to a temperature of more than 0° C, the charger will automatically begin charge mode.

COLD WEATHER OPERATION

The lithium-ion battery pack can be used in temperatures down to -15° C. Put the battery pack on a tool and use the tool in a light duty application. After about a minute, the pack will have warmed up and begin operating normally.

MAINTENANCE

This battery pack is equipped with lithium-ion rechargeable batteries. Length of service from each charging will depend on the type of work you are doing.

These batteries have been designed to provide maximum trouble-free life. However, like all batteries, they will eventually wear out. Do not disassemble battery pack and attempt to replace the batteries. Handling of these batteries, especially when wearing rings and jewelry, could result in a serious burn.

To obtain the longest possible battery life from RIDGID lithium-ion batteries, we suggest the following:

- Remove the battery pack from the charger once it is fully charged and ready for use.
For battery pack storage longer than 30 days:
- Store the battery pack where the temperature is below 25° C and away from moisture.
- Store battery packs in a 30%-50% charged condition.
- Every six months of storage, charge the pack as normal.

BATTERY PACK REMOVAL AND PREPARATION FOR RECYCLING

To preserve natural resources, please recycle or dispose of batteries properly.

This product contains lithium-ion batteries. Local, state or federal laws may prohibit disposal of lithium-ion batteries in ordinary trash.

Consult your local waste authority for information regarding available recycling and/or disposal options.

WARNING:

Upon removal, cover the battery pack's terminals with heavy-duty adhesive tape. Do not attempt to destroy or disassemble battery pack or remove any of its components. Lithium-ion batteries must be recycled or disposed of properly. Also, never touch both terminals with metal objects and/or body parts as short circuit may result. Keep away from children. Failure to comply with these warnings could result in fire and/or serious injury.

BATTERY CHARGER

CHARGING THE BATTERY

On the battery charger there are two lights (RED and GREEN)

When the RED light flashes the battery is charged (2% - 80%). When the GREEN light flashes the last 20% of the battery is charged.

When the green light stops flashing and remains lit green, the battery is fully charged and ready for use.

CAUTION: When both the RED and GREEN light are simultaneously lit than either the battery charger or the battery its self is too hot. If the RED and GREEN light on the charger are alternately flashing RED/GREEN, there is a general error.

BATTERY CHARGING TEMPERATURE PROTECTION

If the battery reaches 50°C, the charger will stop charging. Error signals: the RED and GREEN light are simultaneously lit RED and GREEN. The charger will start charging again if the temperature of the battery is 45°C or less (Over temperature recovery).

SIGNALS ON THE MACHINE

Signals well-functioning drilling machine

- When the ST.33 drilling machine is well positioned on the work piece, press the main power (white) switch to on the machine. The LED will flash 2x GREEN and then remain lit GREEN.
- When the motor is switched on (green switch), the main power switch will be lit yellow.

Signaling malfunctioning of the drilling machine

- When the (white) main power is flashing RED, the battery is low;
- When the (white) main power is flashing YELLOW, there is over current and the motor will stop.



Supply of Signalling/Electrification/Track/Safety material

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