

TOTAL

One-Stop Tools Station

LITHIUM-ION MINI CHAIN SAW

TGSLI2068, TGSU20683, TGSLI20683E, TGSU20683X, TGSU20683-X,
TGSU20683S, TGSU20683H, TGSLI20683M, TGSU20683A, UTGSU20683,
UTGSU20683X, UTGSU20683-X (X stands for 1 to 9)

INDUSTRIAL



TOTAL TOOLS WORLD



20V

ACCESSORY PARTS



- | | | |
|------------------------|-----------------------|--------------------------|
| 1 Chain | 5 Protective plate | 9 Speed control switch |
| 2 Guide plate | 6 Chain guard | 10 Main handle |
| 3 Lock line | 7 Oil tank cover | 11 Cover input interface |
| 4 Sprocket cover plate | 8 Self locking switch | |

SAFETY SPECIFICATION

Application scope of the tool: sawing, pruning branches and cutting some small diameter trees. It is suitable for gardens and outdoors.

• Precautions before operation

1. The use of battery packs and chargers that are not marked or approved by the manufacturer may cause fire or explosion accidents, which may cause serious or fatal injuries and property losses.
2. The use of non-serial battery pack and charger beyond their design specifications will cause serious or fatal injury and property damage.

Battery pack instructions:

Please refer to the battery pack and charger instructions in the battery pack

Charger instructions:

Please refer to the battery pack and charger instructions in the battery pack

• Operator requirements



WARNING!

If the user does not read and understand the manual, it is forbidden to use and connect the chain saw, battery pack and charger. Otherwise, it will cause serious injury or death to users or other people. Read the manual to make sure you understand it and save it for future reference.

Read the manual to make sure you fully understand it and save it for future reference.

Ensure that users fully fulfill the following requirements:

1. When the user operates the chain saw, uses the battery pack and the charger, he must ensure that his physical condition, mental state and psychological state are in normal condition, which is suitable for the operation of the device. If the user has the above-mentioned conditions, please use it under the guidance of the guardian or the person in charge.
2. The user must be an adult.
3. When using the device for the first time, the user should make sure that after receiving the product operation instructions or professional operation instructions, he can operate the device only after carefully reading and understanding the contents.
4. The user shall not use the device under the influence of a cocktail or drug.

Users who use the chain saw for the first time must first carry out necessary sawing exercises on the sawing frame or bracket.

• Dress and protection requirements

WARNING!

1. Dress appropriately, do not wear loose clothes or accessories, keep gloves and hair away from moving parts. Loose clothes, accessories or long hair may be involved in moving parts.
2. There may be dirt or other residual thrown out when the chain saw is working, which may cause physical injury.

- a. Please wear goggles when operating
 - b. It is recommended to wear a protective mask
 - c. Long protective clothing is recommended
3. Falling objects can cause head injuries.
 4. Dust and sawdust will be raised during operation. Dust and sawdust may cause air blockage or allergic reaction.
 5. Improper clothing may hang on branches and branches of trees, which may hinder and affect the use of chain saws. Improper dressing of users can cause serious injury.
 - a. Please wear tight fitting clothes
 - b. Please take off the scarf and jewelry
 6. Users may get close to the running saw chain when using the chain saw, which will cause serious injury to users. Please wear pants with cutting protection level, which is defined by the speed of chain saw.
 7. Users may hurt themselves when sawing wood. Especially when cleaning the machine and chain, the hand will touch the chain and other sharp edges. Please wear protective gloves when working.
 8. Improper shoes may cause slipping or falling. If the saw chain is touched after falling, it may cause injury to the user. Please wear chain saw protective boots. The protection level of protective boots is defined according to the speed of chain saw.

WORKING ENVIRONMENT REQUIREMENTS

- Surrounding environment requirements

1. Bystanders, children and other animals do not realize that sawdust or other debris flying up while the chain saw is working poses a threat to them. Bystanders, children and animals may be seriously injured. Please keep bystanders, children and animals away from the work area.
2. The chain saw is not waterproof and may cause electric shock if used in rain or humid environment. The user will be injured and the chain saw will be damaged. Do not use the chain saw in the rain or wet environment.
3. The motor of the chain saw may produce sparks. In the environment with combustibles or explosives, sparks may cause fire or explosion. These situations can lead to serious injury or death and property damage. Do not work in the environment with combustibles and explosives.

- Machine condition requirements

A chain saw is safe if:

1. The chain is not damaged
2. The chain saw is clean and dry
3. The handle of the chain saw is intact
4. The chain saw trigger switch operates normally
5. The control program works normally and has not been modified
6. The chain of chain saw is filled with lubricating oil

7. The depth of sprocket tooth groove matched with chain should not exceed 0.5mm
8. The assembly of guide plate and chain fully meets the guidance requirements of this manual
9. The guide plate and chain are well assembled
10. Normal chain tension
11. All use original accessories
12. Normal assembly of accessories



WARNING!

If the product no longer meets the safety requirements, the parts can not play their due functions or the safety mechanism can not work normally, these conditions will lead to serious or fatal injury.

1. Only a good chain saw can be used. If the chain saw is dirty or wet, clean and dry it
2. Do not modify chain saw, such as guide plate and chain
3. If the control system does not work properly, do not use the chain saw
4. Only use accessories and accessories provided by the original factory
5. Please install the guide plate and chain in strict accordance with the instructions
6. Please refer to the manual for the installation of accessories
7. Don't put anything in the chain saw

- Safety instructions for guide plate

The guide plate can be used safely if it meets the following conditions:

1. All functions of the guide plate are in good condition
2. The guide plate is not deformed or incomplete
3. There is no obvious change in the groove depth of the guide plate
4. The guide rail is smooth without burr
5. There is no shrinkage or cracking in the groove of guide plate



WARNING!

If the guide plate is not in a safe state, the guide plate can not be well matched with the chain. There is a risk of the chain jumping out of the guide plate, which can cause serious or fatal injury.

1. Only use undamaged guides
2. If the guide groove is less than the minimum depth, replace it with a new one
3. After operating the chain saw, please remove the garbage and debris from the guide plate
4. If you have any questions, please contact the dealer

- Safety instructions for chain

The chain can be used safely if it meets the following conditions:

1. The chain is not broken
2. The edge of chain blade is sharp
3. The cutting depth of the cutting edge of the chain cutter head conforms to the description of the service mark
4. The cutting edge length of the cutter head meets the grinding standard



WARNING!

Parts and accessories can not play their due functions if they fail to meet the safety standards, and the safety devices will fail, which will lead to serious personal injury and even death.

1. Do not use damaged chains
2. Please grind the chain cutter head according to the standard indicated in the manual
3. If you have any questions, please contact the dealer

OPERATION PRECAUTIONS

- Precautions for cutting



WARNING!

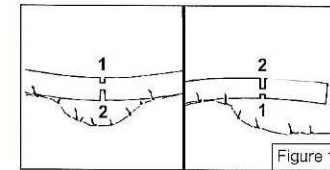
1. In some specific cases, the operator may not focus on the work, the operator may trip, fall and cause serious injury.
 - a. Keep calm and work in a planned way
 - b. Do not use chain saw in dim and low visibility environment
 - c. Please operate your own chain saw
 - d. Do not operate the chain saw higher than your shoulder
 - e. Watch out for obstacles
 - f. When operating the chain saw, please stand in a safe position and keep balance. If you need to work at height, use a lift or a safe scaffold
2. The running saw chain may hurt the user. Please do not touch the moving saw chain. Otherwise, the user may be seriously injured.
3. If the saw chain can not effectively cool down and re tension, the saw chain may jump out of the guide plate and lead to breakage. These can lead to serious injury and property damage.
 - a. Ensure that the saw chain is lubricated properly

- b. Please check whether the tension of the saw chain is proper during operation. If the saw chain is loose, please adjust it in time
4. If the chain saw starts abnormally or runs abnormally in the work, the chain may be in an unsafe state, which may lead to serious personal injury or property loss. Stop working immediately and contact the dealer.
 5. The chain saw will vibrate when it is running.
 - a. Please wear gloves
 - b. Stop and rest in time
 - c. Consult your doctor if you are in poor health
 6. If the running saw chain touches a hard object, it will produce sparks. Sparks can cause fire in combustible environment, which can cause serious injury and property loss. Do not use chain saw in combustible environment.
 6. When the trigger is released, the chain saw will run for a period of time. It is necessary to wait for the chain saw to stop completely, otherwise it may cause serious injury.



WARNING!

If the chain saw is used with the tree tensioned, the guide plate may get stuck. Users will lose control of the chain saw, resulting in serious injury. (Figure 1)



First cut a force relief groove from the tight side (1), and then cut it into the loose side (2).

- Precautions for pruning

1. If the branches under the fallen tree are pruned first, the trunk will not be supported by the branches. Trees can roll, causing serious or fatal injuries.
 - a. Turn the main pole over and trim the branches on it
 - b. Do not stand on the log for pruning

- Precautions for logging

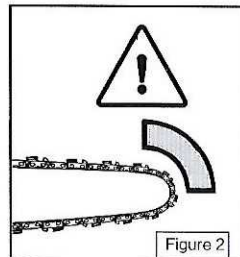
1. Inexperienced personnel are not allowed to approach dangerous logging sites, otherwise serious or fatal personal injury and property damage may result. Please don't cut wood alone.
2. Branches or other objects from a fallen tree may fall on an onlooker. May cause serious or fatal personal injury and property damage.
 - a. Judge the direction of the tree so that it can fall smoothly.
 - b. Bystanders, children and animals are not allowed to stay within 2.5 Tree lengths

- c. Observe the crown of the tree and the crown of the adjacent tree to ensure that there is no interference from the branches when the crown falls
- 3. When the tree falls, the trunk may break or spring towards the operator. May cause serious or fatal personal injury.
 - a. Plan your escape route around you
 - b. Observe the direction of the fallen tree and escape to the planned escape route
 - c. Don't go uphill
- 4. Obstacles in the workplace or escape route will hinder the escape. People fleeing may fall, causing serious or fatal injury.
 - a. Clear the work area and escape route.
- 5. If there is a fixed hinge or stable rope on the trunk, the tree may fall uncontrollably and prematurely, which will cause serious or fatal injury and property loss to the operator.
 - a. Do not use hinges
 - b. Finally, use the stabilizing rope
 - c. If the tree falls ahead of time, please give up logging and follow the escape route
- 6. When cutting, if the head of the guide plate touches an object or the wood clamps and extrudes the chain, it may cause rebound. Sometimes, when the head of the guide plate touches an object, it will form a sudden reaction force, which will spring up the guide plate and rush to the operator, causing injury to the operator.
- 7. If the direction of the tree falling is uncontrollable or falls on top of other trees, and the operator can not complete the logging operation in a controllable way, the logging operation should be stopped and a suitable vehicle should be selected to pull down the tree with a rope.

- Rebound warning

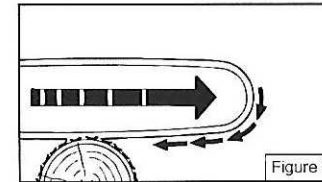
The following conditions may cause the chain saw to rebound:

1. The guide plate head of the running chain saw contacts a hard object or emergency brake.
2. The head of the running chain saw guide is touched.



- Pull warning

When the guide plate is used to cut from top to bottom, the direction of the chain saw pulling force is opposite to that of the operator.

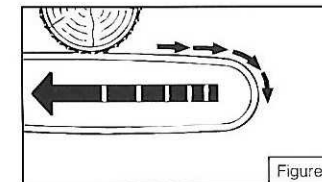


If the running chain saw contacts with a hard object and is clamped, the lithium chain saw will suddenly break away from the operator, and the operator will lose control of the chain saw, causing serious or fatal injury.

- a. Grasp the handle of the chain saw
- b. Operate the chain saw as described in the manual
- c. Keep the guide straight down
- d. Please cut at full speed

- Thrust warning

When the guide plate is used to cut from bottom to top, the thrust direction of the chain saw is towards the operator.



If the running chain saw contacts with a hard object and is clamped, the lithium chain saw will suddenly break away from the operator, and the operator will lose control of the chain saw, causing serious or fatal injury.

- a. Grasp the handle of chain saw with both hands
- b. Operate the chain saw as described in the manual
- c. Keep the guide straight down
- d. Please cut at full speed

CLEANING, MAINTENANCE AND REPAIR

1. In the state of cleaning, maintenance or repair, if the battery pack is not disconnected from the tool, the chain saw may start suddenly, resulting in serious personal injury and property loss.
 - a. Cut off the power
 - b. Remove the working head of the chain saw
 - c. Remove guide plate and chain
2. Corrosive cleaning agents, high-pressure cleaning equipment or sharp cleaning tools may damage chain saws, guides, chains, battery packs and chargers. If the chain saw, guide plate, chain, battery pack and charger cannot be cleaned in the correct way, the relevant parts may no longer function as they should, or the safety device may no longer function, which can cause serious injury.
 - a. Clean the chain saw, guide plate, chain, battery pack and charger according to the instructions.
3. If the chain saw, guide plate, chain, battery pack and charger can not be cleaned and maintained in the correct way, the relevant parts may no longer function as they should, or the safety device may no longer function, which will lead to serious injury.
 - a. Don't try to repair chain saws, battery packs, chargers
 - b. If the chain saw, battery pack and charger need maintenance, please contact the dealer in time
 - c. Maintain the guide plate and chain as described in the manual
4. When cleaning and maintaining the chain saw, the user may be injured by the sharp blade, which may cause personal injury.
 - a. Please wear scratch resistant gloves

INSPECTION ITEMS BEFORE OPERATION

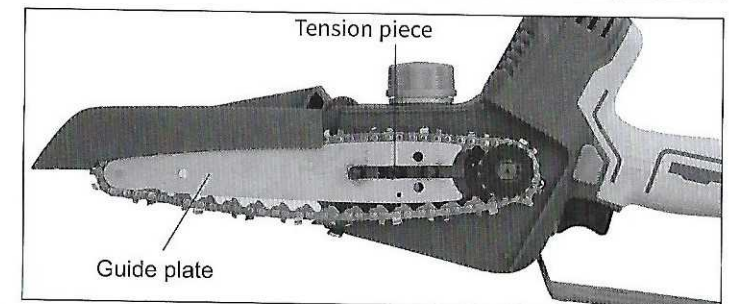
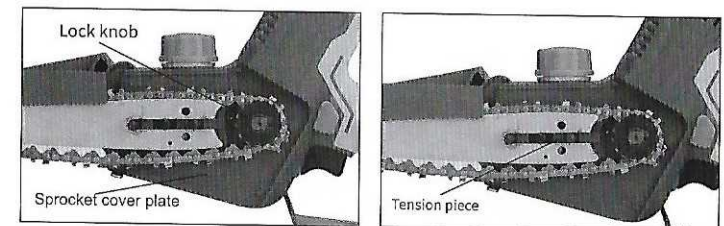
Please check whether the following items are normal before operation:

1. Ensure that the following parts are in a safe condition:
 - a. Chain saw
 - b. Guide plate
 - c. Chain
2. Check the battery pack
3. The battery pack should be fully charged
4. Cleaning chain saw
5. Install the guide plate and chain correctly and tension the chain
6. Add lubricating oil
7. Check the control system
8. If you do not understand the above operation, please do not use the chain saw and contact the dealer as soon as possible

ASSEMBLY OF SAW CHAIN

Be sure to cut off the power remove the battery!

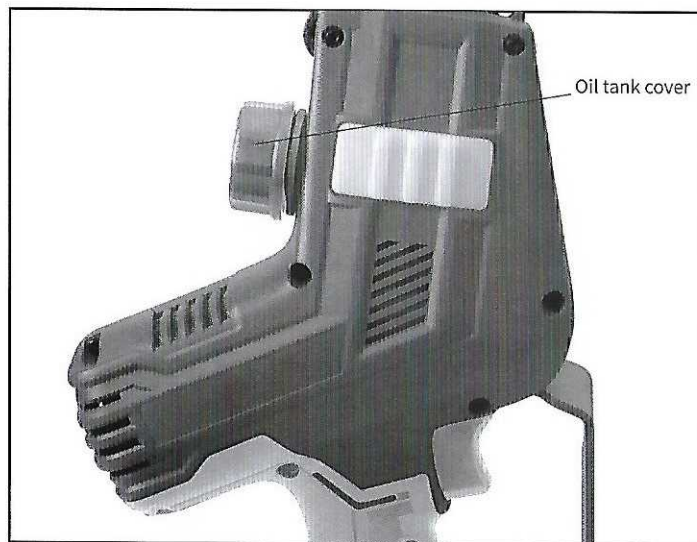
1. Unscrew the nuts with the wrench, Remove the lid
2. Cover the chain on the guide plate and note the correct direction
3. Cover the chain over the sprocket Adjust the tension structure to tighten the chain
4. Press the lid and screw
5. You need to start on and see the chain tightness. If it is too loose, you need to repeat the above steps
6. when a 1KG mass is hanging from the centre if the cutting length along the lower portion of the saw chain, the gap between the saw chain side link and the guide bar is a minimum of 0.017mm per millimetre of guide bar length



- Add lubricating oil

Chain oil can lubricate and cool the chain:

1. Turn off the chain saw and remove the battery pack.
2. Place the chain saw flat on a flat surface with the oil tank cover facing up.
3. Inject proper amount of lubricating oil into the oil tank.
4. Install the battery.
5. Start the chain saw, the multi-functional lubricating oil will be evenly distributed to all parts of the chain saw.
6. The chain is lubricated.



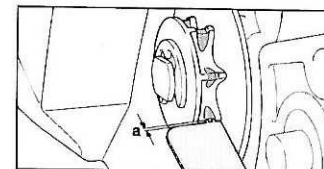
INSPECTION OF CHAIN SAW



Be sure to cut off the power when doing the following operations!

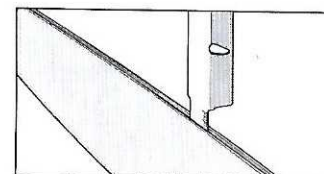
- Inspection of sprocket

1. Turn off the chain saw and pull out the battery pack.
2. Remove the sprocket protection cover.
3. Remove the guide plate and chain.
4. Use a depth gauge to measure the depth of the sprocket groove. (see Figure)
5. If the groove depth exceeds 0.5mm, please do not use the sprocket again, contact the dealer and replace the sprocket as soon as possible.



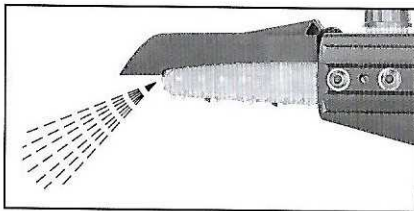
- Inspection of guide plate

1. Turn off the chain saw and pull out the battery pack.
2. Remove the sprocket protection cover.
3. Remove the guide plate and chain.
4. Measure the groove depth of the guide plate, and the groove depth shall refer to the guide plate traffic standard.
5. If the following conditions are met, please replace the guide plate in time:
 - a. The guide plate is damaged
 - b. The measured depth is less than the minimum allowable depth
 - c. The groove of chain saw is deformed and damaged
6. If you have any questions: please contact the dealer in time.



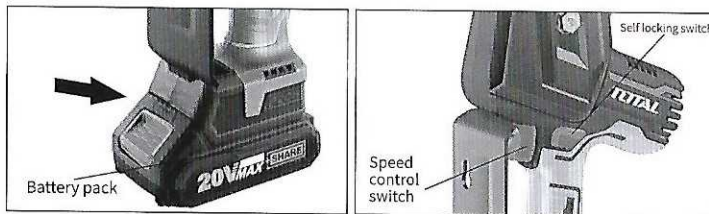
- Detection of lubricating oil output

1. Put the chain saw guide directly above the clean ground.
 2. Start the chain saw. The chain oil is thrown out, and the oil can be clearly seen on the ground directly below the guide plate. It means that the chain saw oil is normal.
- If no oil is seen:
3. Add chain oil.
 4. Check the oil out of the chain again.
 5. If the chain saw still doesn't spray oil. Do not use the chain saw that does not spray oil, please contact the supplier in time, chain oil is indispensable.



- Detection of startup

1. Please make sure that there are no children or other people within 50 feet (15 meters) of the workplace, while paying attention to whether there are animals around.
2. Insert battery pack: push the battery pack into the machine card slot until the battery pack is locked and clicks. Press the power switch for three seconds and hear a "drop".
3. Hold the handle by hand, press the self-locking switch with your thumb, and turn on the speed control switch, and the machine starts normally. (Note: the chain and guide plate cannot contact any object when starting the machine)



OPERATION OF CHAIN SAW

This machine is a single hand saw, suitable for single hand operation. There is only one handle. Do not approach any part of the body during operation

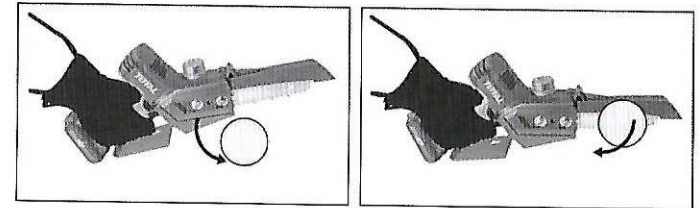
- Operation of timber making



WARNING!

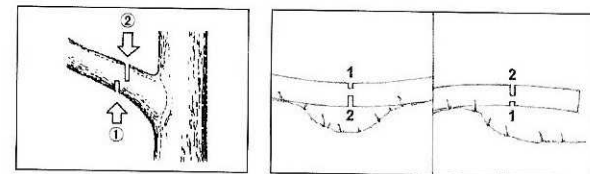
If the chain saw rebounds, the chain saw will spring to the operator. Can cause serious or fatal injury.

- a. When cutting, it is necessary to cut at full speed.
- b. Do not cut with the guide head.
- c. When cutting, keep the chain saw at full speed and the guide plate vertical.
- d. According to the width of the guide plate, the head of the guide plate shall expose the cut trees.
- e. Add the weight of the chain saw to the guide plate.



- Pruning of branches

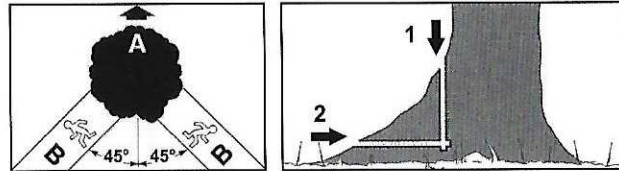
- a. Put the chain saw guide on the branch to be pruned.
- b. Chain cutting at full speed.
- c. Cut the branch with the upper part of the guide plate.
- d. Cut the branch with tension: first cut a small opening (1) on the loose side, and cut continuously under the tension.



- lumbering

1. Confirm escape route

- Escape route (b) is 45° angle in the reverse direction of tree inversion (a).
- Make sure route (b) is free of obstacles.
- The top of the tree can be observed.



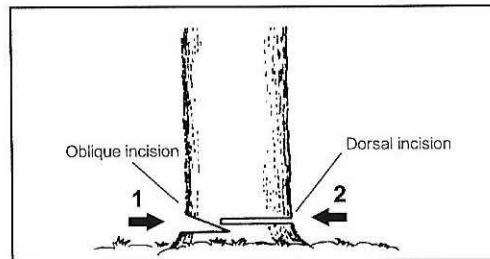
2. Root treatment of cut trees

- Clear obstacles under trees and work areas.
- Clean up the excess parts of the root of the tree.
- If the tree is too large, the root has a thick stump: cut vertically before cutting horizontally, and remove the excess part of the root (as shown in the figure above).

3. Cut out the oblique opening

The oblique cut determines the direction of the tree. Cut an oblique cut on the toppling side of the tree as close to the ground as possible. Cut the cut from 1/5 to 1/3 of the diameter of the trunk horizontally (do not cut the oblique cut too deep), and then cut the diagonal (as shown in the figure below).

- Cut off the whole width of the oblique incision
- The dorsal incision should be made at a height slightly higher than the baseline of the oblique incision. The dorsal incision must be absolutely horizontal, leaving about 1/10 of the stem diameter between the dorsal incision and the oblique incision.
- The fiber of the uncut part of the trunk acts as a hinge. Under any circumstances, do not directly cut the whole trunk, otherwise the direction of the tree dumping cannot be confirmed. Please insert a wedge on the back side incision in time.
- Only plastic or aluminum wedges can be used to keep the dorsal incision. Iron wedges are not allowed when the trunk is disconnected.



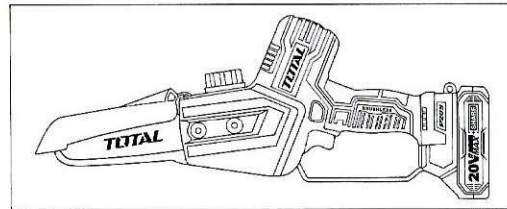
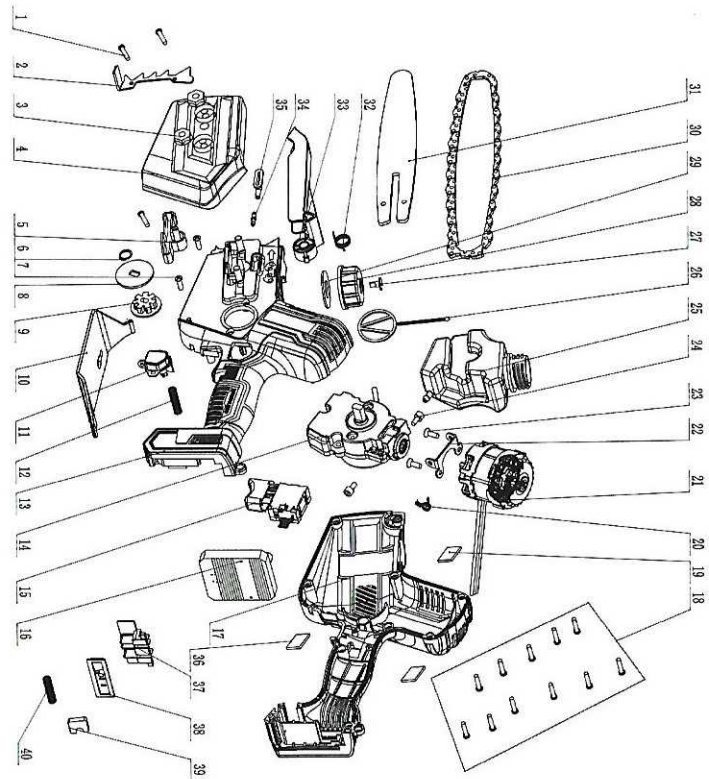
Original instructions

MAINTENANCE SCHEDULE

The following is a list of the maintenance that must be performed on the machine. Most of the items are described in the maintenance section.

Daily maintenance	Weekly maintenance	Monthly maintenance
Clean the outside of the machine.	File off any burrs from the edges of the bar.	Check the connections between the battery and the machine and also check the connection between battery and the battery charger.
Check that the components of the power trigger work safely. (Power trigger lockout and power trigger.)		Empty the oil tank and clean the inside.
The bar should be turned daily for more even wear. Check the lubrication hole in the bar, to be sure it is not clogged. Clean the bar groove. If the bar has a sprocket tip, this should be lubricated.		Blow through the product and battery cooling slots gently with compressed air.
Check that the bar and chain are getting sufficient oil.		
Check the saw chain with regard to visible cracks in the rivets and links, whether the saw chain is stiff or whether the rivets and links are abnormally worn. Replace if necessary.		
Sharpen the chain and check its tension and condition. Check the drive sprocket for excessive wear and replace if necessary.		
Clean the machines air inlet.		
Check that nuts and screws are tight.		
Check that the keypad works correctly and is not damaged.		

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 UTGSLI20683X, UTGSLI20683-X(X stands for 1 to 9) Exploded view



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TGSLI2068, TGSLI20683, TGSLI20683E, TGSLI20683X, TGSLI20683-X,
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 UTGSLI20683X, UTGSLI20683-X(X stands for 1 to 9) Spare part list

No.	Part Description	Qty	No.	Part Description	Qty
1	Screw	3	21	Motor	1
2	Jamb tooth support	1	22	Motor bracket	1
3	Flange nut	2	23	Screw	2
4	Left side cover plate	1	24	Screw	2
5	Tensioning mechanism	1	25	Oil pot	1
6	Elastic ring	1	26	Buckle proof	1
7	Screw	2	27	valve	1
8	Metal plate	1	28	Oil pot cover	1
9	Gear	1	29	Sealing washer	1
10	Hand guard	1	30	Saw chain	1
11	Button	1	31	Guide plate	1
12	Button spring	1	32	Torsion spring	1
13	Left housing	1	33	Saw chain baffle	1
14	Gear box	1	34	Adapter	1
15	Switch	1	35	Rubber column	1
16	Controller	1	36	Filter screen 2	1
17	Right housing	1	37	Electrode base	1
18	Screw	11	38	Display panel	1
19	Filter screen 1	2	39	Plastic pressing plate	1
20	Butterfly buckle	1	40	Tubing spring	1

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