

User Manual**FB-CSE-2016/2418**

All '**FarmBoy**' products are sold without any warranty or guarantee. Please satisfy yourself before buying this product. No returns, exchanges or refunds allowed.

We recommend the use of a VOLTAGE STABILIZER for safety and longer life of the product

Note: *The purchase is not contingent upon a product demonstration. The purchaser shall satisfy himself with the product, including any product demonstration or verification of any function, before buying. KisanKraft Limited or its authorized dealers, including online sellers, shall not be liable to give any on-site demonstration after purchase of any of the product.*

KisanKraft Limited

(Formerly known as KisanKraft Machine Tools Pvt. Ltd.)

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Wide Range of Products for Every Need



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Many of our products have BIS: ISI certification.



KisanKraft has a large range of products to serve the farmers. A list of our products is given below:

<p>Brush Cutters and Accessories</p> <ul style="list-style-type: none"> Brush Cutter/Power Weeder Backpack Brush Cutter Tea Pruner Pole pruner with Engine Reaper Attachment Blades-Circular Blades (2 & 3 points) Baffle Nylon Rope Tap & Go <p>Chainsaws</p> <ul style="list-style-type: none"> Petrol Chainsaw Electric Chainsaw Chain Sharpening Machine <p>Engines and Water Pumps</p> <ul style="list-style-type: none"> Engine –Diesel-(Horizontal) Engine –Diesel(Vertical) Engine-Kerosene Water Pump with Petrol Engine Water Pump with Kerosene Engine Water Pump with Diesel Engine <p>Hand Tools</p> <ul style="list-style-type: none"> Secateurs Folding Saw Garden Rake Garden Shovel Hedge Shear Lopper Telescopic Hedge Shear Telescopic Lopping Shear Tree Pruner Telescopic Steel Pipe & Fruit Picker Bag Sheep Shear <p>Garden Tools</p> <ul style="list-style-type: none"> Electric Pressure Washer Hedge Trimmer Lawn Mower (Electric, Petrol & Manual) Leaf Blower 	<p>Cultivators and Accessories</p> <ul style="list-style-type: none"> Petrol and Diesel <p>Sprayers and Accessories</p> <ul style="list-style-type: none"> Battery Sprayer Portable Power Sprayer Trolley Sprayer Manual Knapsack Sprayer Manual Pressure Sprayer Rose Cans Hose Crimping Machine HTP Sprayer HTP Delivery Hose HTP Hose Reel HTP Stand HTP Gun / Lance(Brass Rod) Knapsack Power Sprayer Mister / Duster / Granuel Spreader HTP Sprayer Set with Diesel Engine HTP Sprayer Set with Kerosene Engine Fogging Machine <p>Milking Machine</p> <ul style="list-style-type: none"> Wood Shredder Fodder Ensiling Chaff Cutter Fodder Grinder Chaff Cutter Fodder Mini Chaff Cutter <p>Harvester</p> <ul style="list-style-type: none"> Maize Sheller Maize Sheller + Dehusker Maize Combine Harvester Onion Digger Carlotti Italy Tea Leaf Harvester Sugarcane Combine Harvester Sugarcane Leaf Stripper <p>Transplanter and Post Hole Digger</p> <ul style="list-style-type: none"> Paddy Transplanter (2 & 8 Rows) Transplanter-Vegetable & Tobacco Post Hole Digger(4" to 14" Augers)
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BEFORE GETTING STARTED

The instructions contained in WARNING within this manual marked with a symbol  concern critical points which must be taken into consideration to prevent possible serious bodily injury and for this reason you are requested to read all such instructions carefully and follow them without fail. After reading, preserve this manual for further reference.

SAFETY SYMBOLS

Note:



WARNING

This mark indicates instructions which **must** be followed in order to prevent accidents which could lead to serious bodily injury or death.







IMPORTANT







This indicates instructions which must be followed else may lead to mechanical failure, breakdown, or damage.

NOTE



This indicates hints or directions to use the product.

Key to symbols

	Read owner's manual before operating this machine
	Always wear: <ul style="list-style-type: none"> • Approved protective helmet • Approved hearing protection • Protective goggles or a visor
	Use the chain saw with both the hands
	WARNING! Kickback danger
	WARNING/Attention
	Both of the operator's hands must be used to operate the chainsaw

	Contact with the guide bar tip with any object must be avoided
	Tip contact may cause the guide bar to move suddenly upward and backward (so called kickback), which may cause serious injury.
	Never operate a chain saw holding it with one hand only
	Wear gloves to protect your hands
	Wear safety boots to protect your feet
	Never cut with the tip of blade, as this may result in kickback and person injury

Electric Chainsaw:

	Do not expose to rain (Electric Machinery)
	Remove Plug from mains immediately if the cable is damaged or cut

For safe operation and maintenance, many symbols are carved on the machine. According to these indications, please be careful not to make any mistake.

Part No	Part Name	Part No	Part Name
28	Screw 4X10 Star	83	connect wire (3)
29	Middle cover	84	Spring(Switch Push rod)
30	Screw ST 5x35	85	connect wire (4)
31	Screw ST 5x16	86	Screw ST 5x30
32	Right handle insert part	87	Front Handle
33	Tension spring	88	Transmission Housing
34	Sprocket	89	O ring
35	E shield ring	90	Screw ST 4X16
36	End cap	91	oil output mouth
37	Locating sleeve	92	switch
38	Nut-M8 Flanged	93	oil pipe(From Tank)
39	N/A	94	oil tank connect head
40	N/A	95	oil tank connection plug
41	Tension Block	96	sponge(connect head)
42	Tension screw	97	Aeration Jet
43	Seal ring (Right handle insert part)	98	Buy # 101
44	Seal ring (End cap)	99	Buy # 101
45	Bolt Bar	100	Buy # 101
46	Rubber(Bolt Bar)	101	oil pump Assy
47	Screw ST 5x35	102	Screw ST 3X12
48	Dental plate	103	oil pipe
49	Screw ST 5x16	104	Front Damper
50	Screw ST 4x14	105	Pin Front Damper
51	Stator	106	oil tank
52	Screw ST 4x60	107	Buy # 110
53	Wind shield plate	108	Buy # 110
54	Bearing	109	oil tank cover ring
55	Armature	110	oil tank cover Assy

Part No	Part Name	Part No	Part Name
1	Cable	56	Nut M-8 Nylon
2	Cable press plate	57	Bearing-608 RS
3	Screw ST 4X12	58	Big Gear
4	Cable sheath	59	Shaft Sleeve
5	Screw ST 5X16	60	Stopping Torsion Spring
6	Screw ST 4X14	61	output shaft
7	Right handle	62	Bearing-6000 RS
8	PC board	63	brake shaft
9	Switch button	64	brake spring
10	Self-lock spring	65	washer
11	Capacitance	66	Screw 3x6 Star
12	Switch	67	Gear Half Cover
13	Self-lock button	68	connection rod
14	Screw ST 3X6	69	brake rod press plate
15	Translucent mask	70	gear insert part
16	Translucent mask fix seat	71	Screw 4x8 (CSK)
17	Bar	72	Screw ST 4x16
18	Chain	73	fix board
19	Bar sheath	74	brake spring plate
20	Left handle	75	Screw ST 3X10 (SPL)
21	Switch push rod	76	Screw ST
22	Brush cover	77	Oil Pump Fix Board
23	Brush holder	78	Nut-M8 Flanged
24	Carbon brush	79	Gear Wheel-Rotor
25	Housing	80	Bearing-6000 RS
26	Handle fixed plate	81	connect wire (1)
27	Screw ST 5x16	82	connect wire (2)

SAFETY INSTRUCTIONS

1. Read this owner's manual carefully to understand how to operate this unit properly.
2. You should never use the product when under the influence of alcohol, when suffering from exhaustion or lack of sleep, when suffering from drowsiness as a result of having taken cold medicine, or at any other time when a possibility exists that your judgment might be impaired or that you might not be able to operate the machine properly and in a safe manner.
3. Avoid running the engine indoors. The exhaust gases contain harmful carbon monoxide
4. Never use the product under circumstances like those described below:
 - a) When the ground is slippery or when other conditions exist which might make it not possible to maintain a steady posture
 - b) At night, at times of heavy fog, or at any other times when your field of vision might be limited and it would be difficult to gain a clear view of the area.
5. During rain storms, during lightning storms, at times of strong or gale-force winds, or at any other times when weather conditions might make it unsafe to use this product
6. When using this product for the first time, before beginning actual work, learn to handle it from skilled worker.
7. Lack of sleep, tiredness, or physical exhaustion results in lower attention spans, and this in turn leads to accidents and injury. Limit the amount of time of using the machine continuously to somewhere around 10 minutes per session and take 10 - 20 minutes of rest between work sessions. Also try to keep the total amount of work performed in a single day under 2 hours or less.
8. Be sure to keep this manual handy so that you may refer to it later whenever any questions arise.
9. Always be sure to include this manual when selling, lending, or otherwise transferring the ownership or the product.
10. Never allow children or anyone unable to fully understand the directions given in this manual to use this product

WORKING GEAR AND CLOTHING

- a) When using the product, you should wear clothing and protective equipment as follows.
 - Helmet
 - Protection goggles or face Protector
 - Thick work gloves
 - Non-Slip-sole work boots
 - Ear protectors
- b) And you should carry with you.
 - Attached tools and files.
 - Properly reserved fuel and chain oil.
 - Things to notify your Working area (Rope, WARNING signs)
 - Whistle (for collaboration or emergency)
 - Hatchet or saw (for removal of obstacles)
- c) Never use the product when wearing pants with loose cuffs, when wearing sandals, or when barefoot.

Warning considering handling of fuel

- The engine of this product is designed to run on a mixed fuel, which contains highly flammable Petrol. Never store cans of fuel or refill the fuel tank in any place where there is a boiler stove, wood fire, electrical sparks, welding sparks or any other source of heat or fire which might ignite the fuel.
- Smoking while operating the product or refilling its fuel tank is extremely dangerous. Always be sure to keep lit cigarettes away from the product at all times.
- When refilling the tank always turn off the engine first and take a careful look around to make sure that there are no sparks or open flames anywhere nearby before refueling.
- If any fuel spillage occurs during refueling, use a dry rag to wipe up spills before turning the engine back on again.
- After refueling, screw the fuel cap back tightly onto the fuel tank and then carry the product to a spot 3m or more away from where it was refueled before turning on the engine.

Kickback:

Warning: Kickback may occur when the nose or tip of the guide bar touches an object, or when the wood closes in and pinches the saw chain in the cut. The tip contact in some cases may cause a lightning-fast reverse action, kicking the guide bar rapidly back towards the operator. PINCHING the saw chain along the BOTTOM of the guide bar may PULL the saw forward, away from the operator.

Pinching the saw chain along the top of the guide bar may push the guide bar rapidly back towards the operator. Either of these reactions may cause you to lose control of the saw, which could result in serious injury to the user.

How to minimize kickback: The following precautions should be followed to minimize kickback.

- GRIP SAW FIRMLY:** Always hold the chain saw with your right hand on the rear handle and your left hand on the front handle. Holding the chainsaw with a reversed hand configuration increases the risk of personal injury and should never be done.
- Keep proper footing and balance at all times.
- Do not let the nose of the guide bar come in contact a log, branch, ground or other obstruction.
- Do not overreach and do not cut above shoulder height. This helps prevent unintended tip contact and enables better control of the chainsaw in unexpected situations.
- Use devices, such as low-kickback chain, guide bar nose guards, chain brakes and special guide bars, which reduce the risks associated with kickback.
- Only use replacement bars and chains specified by the manufacturer. Incorrect replacement bars and chains may cause chain breakage and/or kickback.
- Do not rely exclusively on the safety devices built into your saw. As a chain saw user, you should take several steps to keep cutting jobs free from accident or injury.

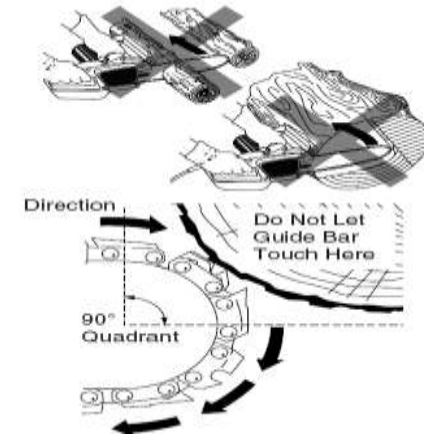
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Part No	Part Name	Part No	Part Name
29	Switch button	78	Brake rod 88mm
30	Push rod spring (0.8*42mm)	79	Connection block
31	Cable & Plug	80	Gear box with bearing
32	Cable sheath	81	Screw ST4.2X40
33	Screw ST4.2X8	82	Shield ring 15
34	Press plate	83	Washer
35	Connector Cable	84	O ring $\varnothing 2 \times \varnothing 4$
36	switch (1)	85	worm
37	Button spring	86	Oil output mouth
38	Self-lock button	87	Oil Pipe Circlip-6
39	Capacitance (0.33uf)	88	Oil output pipe 80mm
40	sponge	89	Buy # 87
41	switch (2)	90	Oil pump assy
42	M8 nut	91	M4X6 screw
43	Washer 8 ($\varnothing 8 \times \varnothing 24$)	92	Bar
44	Screw ST2.9X6	93	Cam plate
45	Washer	94	Chain
46	Brake spring Plate	95	Bar sheath
47	Left handle	96	Screw M5X10
48	Brake Handle	97	Output Oil Connection Seal Ring
49	Screw M8X45 Hex)		

- h) With a basic understanding of kickback you can reduce or eliminate the element of surprise. Sudden surprise contributes to accidents
- i) Cut at high engine speed.

Kickback safety devices on this saw.
This saw has a low-kickback chain and reduced kickback guide bar, both items reduce the chance of kickback, kickback can still occur with this saw. Properly install front hand guard, this item can reduce injuries from kickback, do not remove the front hand guard; do not replace front hand guard with a substitute.



⚠ WARNING:

BEWARE OF: ROTATIONAL KICKBACK: Kickback can lead to dangerous loss of control of the chain saw and result in serious or fatal injury to the saw operator or to anyone standing close by. Always be alert because rotational kickback and pinch kickback are major chain saw operational dangers and the leading cause of most accidents.

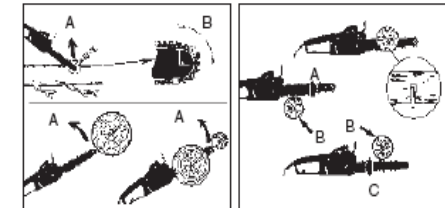


Fig. 2A

Fig. 2B

Rotational Kickback (Fig. 2A)
A = Kickback path
B = Kickback reaction zone

THE PUSH (PINCH KICKBACK) AND PULL REACTIONS (Fig. 2B):
A = Pull,
B = Solid objects,
C = Push

For Electric chainsaw:

Read and understand all the instructions. Failure to follow the instructions listed below may result in electric shock, Fire and /or serious injury. The term "power tool" in all of the warnings below, refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool

Work area

- Keep work area clean and well lit. Please note that cluttered and dark areas invite accidents.

- Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
- Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

Electrical safety

- Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce the risk of electric shock.
- Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
- Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.

Personal Safety:

- Avoid accidental starting. Ensure the switch is in the off position before plugging in. Carrying power tools with your finger on the switch or plugging in power tools that have the switch on invites accidents.
- Remove any adjusting key or wrench before turning the power tools on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts, loose clothes, jewellery or long hair can be caught in moving parts.
- If devices are provided for the connection of dust extraction and connection facilities ensure these are connected and properly used, use of these devices can reduce dust related hazards.

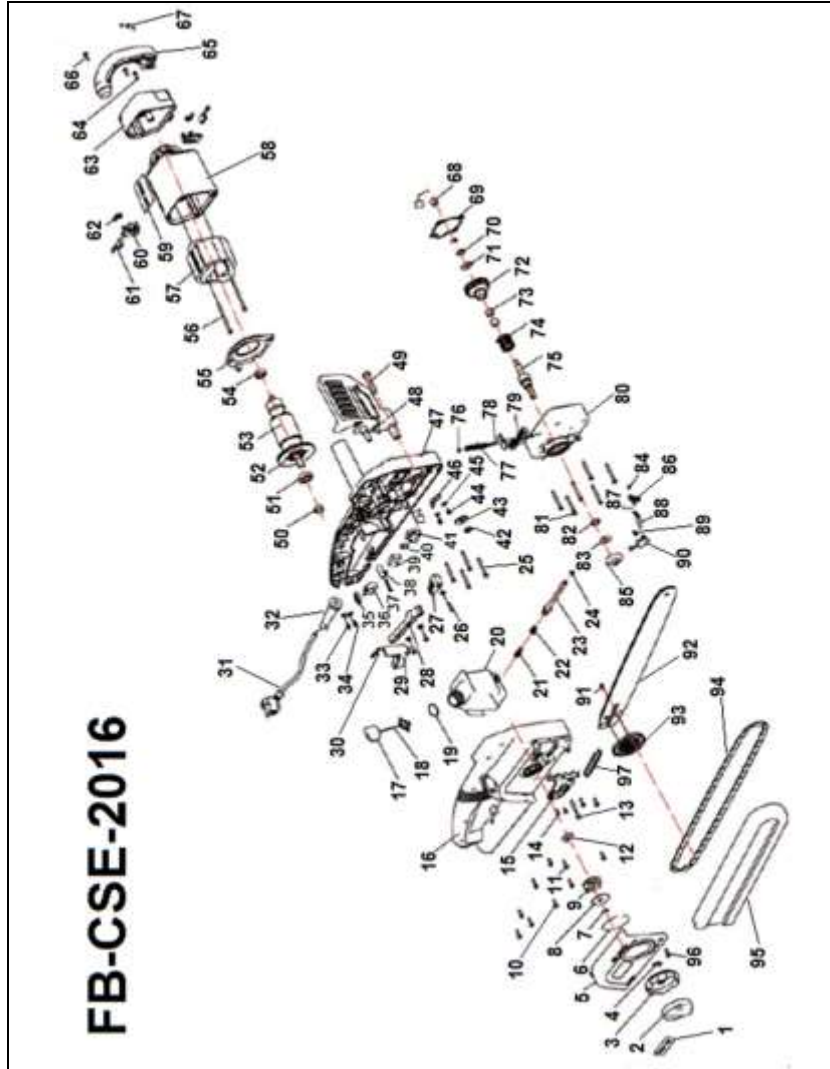
Power tool use and care:

- Do not force the power tool. Use the correct power tool for your application the correct power tool will do the job better and safer at the rate for which it was designed.
- Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- Disconnect the plug from the power source before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
- Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.

Part No	Part Name	Part No	Part Name
1	N/A	50	Plastic ring
2	Hand wheel	51	Bearing 6001
3	Adjust wheel	52	Fan
4	Circlip \varnothing 10X \varnothing 1	53	Armature
5	Sprocket cover	54	Bearing 608
6	\varnothing 55X \varnothing 2 shield ring	55	wind shield ring
7	65Mn shield ring 10	56	Screw ST4.2X65
8	Sprocket washer	57	Stator (\varnothing 85X52)
9	Sprocket with washer	58	Housing
10	Screw ST4.2X16	59	Name brand
11	Screw ST3X10	60	Brush holder
12	Wool Washer	61	Carbon brush
13	Screw ST4.2X50	62	Spring (carbon Brush)
14	Screw ST4.2X12	63	Rear cover
15	Dental Plate	64	Screw ST4.2X16
16	Right handle	65	Side handle
17	Oil tank Cap	66	Screw ST4.2X35
18	Buy # 17	67	Screw ST4.2X14
19	Gasket Oil tank Cap	68	Needle bearing HK0810
20	Oil Tank	69	N/A
21	Oil Pipe Grommet	70	Washer 0.5X \varnothing 10X \varnothing 15
22	Oil filter spring	71	Washer 0.5X \varnothing 10X \varnothing 23
23	Oil Pipe	72	Helical gear
24	Oil Pipe Circlip-8	73	Needle bearing HK1010
25	Screw ST4.2X40	74	Torsion spring
26	Screw ST4.2X12	75	Output shaft
27	Block	76	Washer 5
28	Push rod (Big)	77	Brake spring (0.8*42mm)

PARTS DIAGRAM & LIST

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- Maintain power tools, check for misalignment or binding of moving parts. Breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- Use the power tool. Accessories and tool bits, etc., in accordance with these instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from intended could result in a hazardous situation.

Service

- Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained

ADDITIONAL SAFETY RULES FOR ELECTRIC CHAIN SAWS

Note: For safety reasons the electric chain saw is shipped with chain brake fully engaged, this brake must be released before the saw becomes operational.

1. **Keep work area clean.** Cluttered areas invite injuries. Do not start cutting until you have a clear work area, secure footing, and a planned retreat path from the falling tree
2. **Consider the work area environment**
Use extreme caution when cutting small sized brush and sapling, as slender material may catch the saw chain and be whipped toward you or pull you off balance. Do not operate a chainsaw on a tree unless you are specifically trained to do so. When cutting a limb that is under tension be alert for spring back. When the tension in the wood fibers is released the spring loaded limb may strike the operator and/or throw the chainsaw out of control.
3. **Store the idle chain saw:** When not in use, tools should be stored in a dry, high or locked up place, out of reach of children.
4. **Do not force the chain saw:** The chain saw will do a better and safer job when used at the rate for which it was intended.
5. **Use the right tool:** Cut only wood. Do not use the chainsaw for purposes for which it was not intended. For example, do not use the chain saw for cutting plastic, masonry, or non-building materials.
6. **Carrying the saw:** Carry the saw by the front handle with the saw stopped. Keep your finger off the switch, and make sure that the guide bar and saw chains are to the rear.
7. **Secure work:** Use clamps or a vice to hold the work.
8. **Maintain the chain saw with care:** Inspect the chain saw cords periodically and, if damaged, have them repaired by an authorized service facility. Keep the cord, clear of the chain and operator at all times. Never carry the saw by the cord or pull it to disconnect from receptacle. Keep the cord from oil and sharp edges. Inspect the extension cords periodically and replace if damaged. Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Keep handles dry, clean and free from

- oil and grease. Improperly tensioned or lubricated chain may either break or increase the chance of kickback.
9. **Disconnect the chain saw:** Disconnect the chain saw when not in use, before servicing, and when changing accessories and attachments such as saw chain and guard.
 10. **Remove adjusting keys and wrenches:** Form the habit of checking to see that keys and adjusting wrenches is removed from the tool before turning it on.
 11. **Avoid unintentional starting:** Do not carry a plugged-in tool with a finger on the switch. Ensure switch is off when plugging in.
 12. **Use outdoor extension leads:** Use only extension cords that are intended for outdoor use and which are so marked.
 13. **Stay alert:** Watch what you are doing. Use common sense. Do not operate the chain saw when you are tired.
 - Keep all parts of the body away from the saw chain when the chain saw is operating.
 - Before you start the chainsaw, make sure the saw chain is not contacting anything.
 - A moment of inattention while operating chain saws may cause entanglement of your clothing or body with the saw chain.
 14. **Check damaged parts:** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, free running of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service centre unless otherwise indicated in this instruction manual. Have defective switches replaced by an authorized service facility. Do not use the tool if the switch does not turn it on and off.
 15. Always keep proper footing and operate the chain saw only when standing on fixed, secure and level surface. Slippery or unstable surfaces such as ladders may cause a loss of balance or control of the chain saw.
 16. Maintain a firm grip, with thumbs and fingers encircling the chain saw handles, with both hands on the saw and position your body and arm to allow you to resist kickback forces. Kickback forces can be controlled by the operator, if proper precautions are taken. Do not let go of the chain saw.
 17. **Power supply:** Connect the chain saw to correct voltage; be sure that the voltage supplied is the same as that specified on the nameplate of the tool.
 18. DO NOT operate a chain saw that is damaged, improperly adjusted, or not completely and securely assembled. Be sure that the saw chain stops moving when the trigger is released.
 19. DO NOT attempt operations beyond your capacity or experience.
 20. DO NOT operate a chain saw with one hand! Serious injury to the operator, helpers, or bystanders may result from one-handed operation. A chain saw is intended for two-handed use.
 21. TO REDUCE potential for electric shock, do not operate the saw on wet or slippery surfaces, or during snow storms, rain storms, and other adverse weather conditions.

- Fix the bar in a way so that the chain can slide.
- Fit the file in a file holder and place it over the tooth at 35°
- File forward only until all the worn part of the tooth has been eliminated.
- Count the file movements made on the first tooth and do the same on all the others (both right and left).
- After some sharpening the delimiting device on the chain will exceed the height of the cutting teeth, file the exceeding part by means of a flat file to round off the depth of the delimiting device.

IMPORTANT: Ensure that the chain is replaced before stretching to exceed the maximum adjustment of the chain saw bar.

'Deep' Filing should be performed with an electric file, we advise to use a service centre to perform this operation.

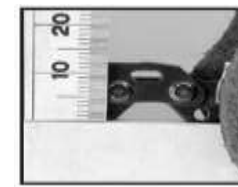
Ensure that the chain slides smoothly over the bar when pulled with hands, periodically sharpen chain and check the chain tension.

Bars with sprockets need frequent greasing which can be performed as follows:

- Fill a syringe or similar device with grease for bearings.
- Each time the saw is used, grease through the hole provided near the bar tip until the grease penetrated onto the tip.

After 3 times of sharpening the chain yourself have it professionally sharpened, this will ensure that all the teeth are even.

To avoid damage to the motor, do not keep the chain saw running if the chain is lodged in the wood.



MAINTENANCE

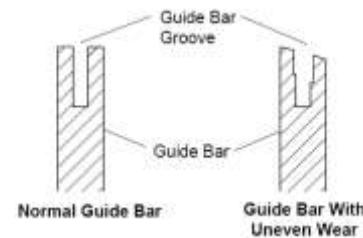
Cleaning saw body:

WARNING:

1. Unplug chain saw from power source before servicing else severe injury or death could occur from electrical shock or body contact with moving chain.
2. Cutting edges of chain are sharp, use protective gloves when handling the chain.
3. Do not submerge saw in any liquids.
4. Do not use products that contain ammonia, chlorine, or abrasives.
5. Do not use chlorinated cleaning solvents, carbon tetrachloride, kerosene, or gasoline.
6. Keep saw body clean, use a soft cloth dampened with a mild soap and water mixture, to wipe the saw body.

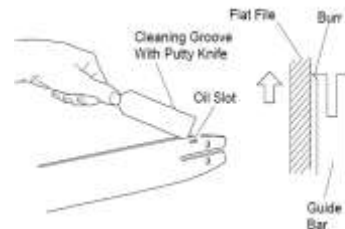
Care of guide bar :

1. Uneven bar wear causes most guide bar problems which is caused by incorrect sharpening of chain cutter and depth gauge settings.
2. When bar wears unevenly, it widens guide bar groove. Thereby the saw will not cut straight. Replace the guide bar if this occurs.
3. Inspect guide bar before sharpening chain. A worn or damaged guide bar is unsafe, will damage chain, making it cutting harder.



Normal guide bar maintenance :

1. Remove guide bar from the chain saw.
2. Remove sawdust from guide bar groove periodically.
3. Use putty knife or wire to clean oil slots every day after use.
4. Remove burrs from sides of guide bar. Use flat file to make side edges square
5. Replace guide bar when bar is bent, cracked or inner groove of bar is badly worn.



CHAIN SHARPENING:

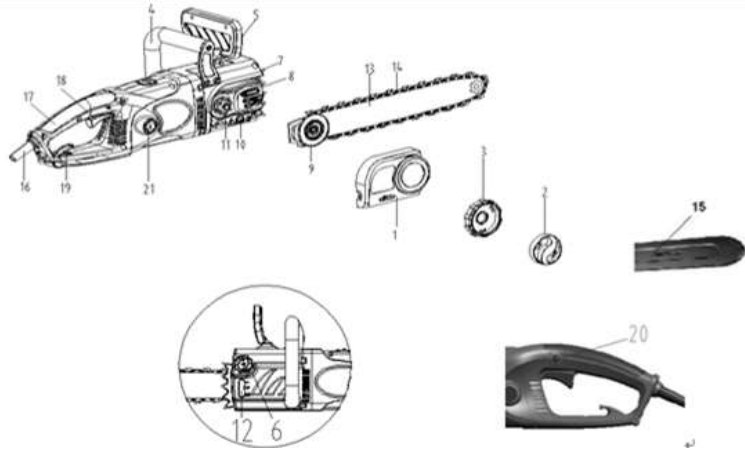
WARNING: Always ensure that the tool is switched off and the plug is removed from the power point before making any adjustments or maintenance procedures.

The chain requires sharpening when the chain saw does not cut appropriately. This operation is performed as follows:

- Extend the chain bar.

22. Keep the handles dry, clean, and free of oil or grease.
23. DO NOT allow dirt, debris or sawdust to build up on the motor or outside air vents.
24. Follow the manufacturer's sharpening and maintenance instructions for the saw chain. Decreasing the depth gauge height can lead to increased kickback.
25. Cut at high motor speeds.
26. Operation of a chain saw should be restricted to mature, properly instructed individuals.
27. DO NOT FORCE a small saw to do a job requiring a heavier duty unit.
28. Examine the electrical switches. Do not use the chainsaw if the switches do not properly turn on and off. Do not attempt to make any repairs to the electric switches. Take your saw to an Authorized Service Center.
29. Maintain extension cords inspect the extension cords periodically and replace if damaged. Only use power cords that are suitably marked for outdoor use.
30. DO NOT operate your chain saw near or around flammable liquids or gases, whether in or out of doors. An explosion and/or fire may result.
31. All chain saw service, other than the items listed in the user manual safety and maintenance instructions should be performed by a competent chain saw personnel. Do not attempt to repair it yourself; there are no user serviceable parts inside.
32. NEVER REMOVE, modify or make inoperative any safety device furnished with your unit. The CHAIN BRAKE®/Hand Guard is a major safety feature. The saw will not run when the CHAIN BRAKE® is tripped.
33. It is intended for infrequent use by homeowner's, cottagers and campers, and for such general applications such as clearing, pruning, cutting firewood, etc. It is not intended for prolonged use. If the intended use involves prolonged periods of operation, this may cause circulatory problems in the user's hands due to vibration. It may be appropriate to use a saw having an anti-vibration feature.
34. When felling, keep at least 2 tree lengths between yourself and your fellow workers.
35. Keep everyone, especially children and pets, away from the area of operation. Never allow children to operate the appliance. Turn off the unit immediately if you are approached.
36. The first time user should request an experienced operator in the use of the chainsaw and the protective equipment, and should behave the initial practice cutting logs on a sawhorse or cradle. However, according to the initial practice, you could follow the barking Saw horse in this manual.
37. Safety Recommendation: In the interest of personal safety it is highly recommended when using the Chainsaw, that is used in compliance is checked by inspection approved residual current device (RCD).
38. When the power cord is damaged the customer should bring to the Manufacturer or customer service for repair.

PARTS OVERVIEW



- | | | |
|-------------------|----------------------|-------------------------|
| 1. Sprocket cover | 8. Dental Plate | 15. Bar cover |
| 2. Nut | 9. Cam Plate / Wheel | 16. Cable |
| 3. Adjust wheel | 10. Middle Cover | 17. Rear handle |
| 4. Front handle | 11. Sprocket | 18. On/off switch |
| 5. Brake | 12. Oil Level Gauge | 19. Cord retention hook |
| 6. Oil Tank Cap | 13. Guide Bar | 20. Lock-off button |
| 7. Brake plate | 14. Chain | 21. Carbon brush cover |

TECHNICAL SPECIFICATION

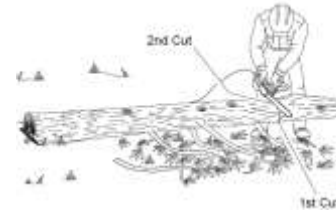
Chainsaw Model	FB-CSE-2016	FB-CSE-2418
Weight [Ⓢ]	5.8kg	5.6 Kgs
Dimensions [Ⓢ]	580x410x235mm	565x360x235mm
Voltage	230V ~50 Hz	
Power	2000 W	2400 W
Oil tank capacity	110 ml	90 ml
No Load Speed	13.6 m/sec	14 m/sec
Brake Time	< 0.12 sec	
Max cutting length	395 mm	445 mm
Sprocket	7T	
Saw chain type	Semi Chisel	
Saw chain pitch	9.53mm	
Saw chain gauge	1.27mm	
Guide bar kind	7 Teeth x 9.53mm	
Guide bar size	16"	18"
Oil feeding system	Automatic pump with adjuster	
Sound pressure level (LpA)	93 dB(A) k =3 dB(A)	106 dB(A) k =3 dB(A)
Sound power level (Law)	106 dB(A) k =3 dB(A)	110 dB(A) k =3 dB(A)
Vibration	3.25 m/s ² k =1.5 m/s ²	7.5 m/s ² k =1.5 m/s ²
Recommended value of the voltage stabilizer	2.5kW	3kW

NOTE: Specifications are subject to change without notice.
[Ⓢ]: Weight and Dimensions are "without guide bar and chain"

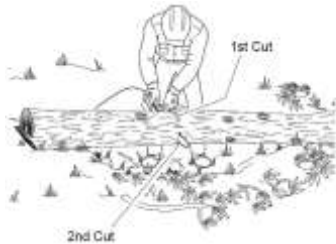
- If necessary, raise the log or section off the ground, do this by using limbs, logs, chocks, etc.
- When cutting through log, maintain control by reducing cutting pressure near the end of cut, do not relax your grip on chain saw handles, and do not let moving chain touch the log, release trigger to turn the saw off before moving the saw.

Log supported on one end :

Make first cut on underside of the log Use top of the guide bar to make this cut. Cut 1/3 through diameter of log. This cut will keep section from splintering when cut. Make the second cut directly above the first cut. Cut down to meet first cut, this cut will keep the log from pinching guide bar and chain.



Log supported on both ends: Make the first cut from above the log, cut 1/3 through diameter of log, this cut will keep section from splintering when cut. Make second cut on underside of log. Directly under first cut. Use the top of guide bar to make this cut. Cut till first cut is met. This will keep log from pinching guide bar and chain.



OPERATION

Mounting the chain bar:

- Place the chainsaw on the floor or table.
- Loosen the nut on sprocket cover, and remove sprocket cover.
- Place the chain in the groove of the bar, pay attention to the correct running direction, as shown by the running direction symbol.



- Place the chain links around the chain wheel and put the bar on the sprocket. The bar and the support plate need to form an angle so that the one locating pegs fit into the slotted hole of the bar as shown in the figure below.



- Fitting the cover and tighten nut on sprocket cover.

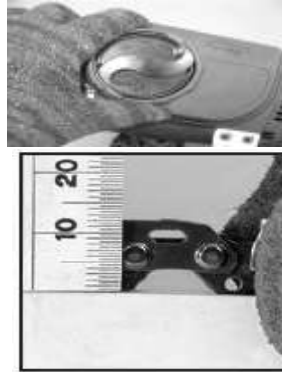


Setting the chain saw tension:

- Loosen the nut by turning it anti-clockwise approximately 1-2 turns



2. Turn hand wheel in a clockwise direction until the correct chain tension is reached
3. The correct tension is reached when the chain in the middle of the bar can only be raised by approximately 3-4 mm.
4. Tighten the nut by turning it clockwise.
5. Check whether all chain links lie correctly in the guide tracks of the bar.



Filling the oil:

Note: The chain saw is shipped without oil in it; the chain saw must never be used without oil or with an oil level that is below the indicator.

Warning: Always ensure that the chainsaw is switched off and the plug is removed from the power point before making any adjustments.

1. Remove oil cap

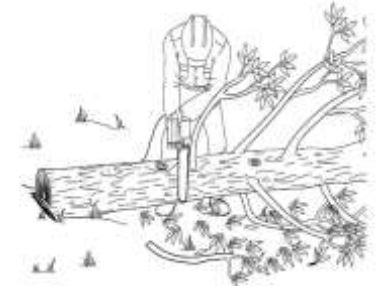


2. Fill oil tank with SAE # 30 motor oil.
Note: For temperatures below 30°F, use SAE # 10 oil. For temperatures above 75 °F, use SAE # 40 oil.



LIMBING A TREE: Limbing is removing branches from a fallen tree.

1. Make sure your footing is firm, keep feet apart.
2. Divide your weight evenly on both feet, do not remove larger limbs under tree that support log off ground.
3. Remove each limb with one cut. Clear the cut limbs from work area often, this will help maintain a safe work area.
4. Make sure you start your cut where limb will not pinch saw during cutting.
5. To avoid pinching, start cut on freely hanging limbs from above the limb, start cut on limbs under tension from under the limb, if pinching occurs then turn the saw off, lift limb and remove the saw.



BUCKING A LOG: Bucking a log is cutting a log into sections **Warning:**

1. If on slope, make sure log will not roll downhill, secure log by using wooden stakes, drive wooden stakes into ground on downhill side of log. Stand on uphill side of log while cutting, log may start to roll after the cut.
2. Never try cutting through two logs at a time as this could increase the risk of kickback.
3. While cutting a log
 - Never hold the log with your hand; leg or foot.
 - Never allow another person to hold the log.
 - Turn off and unplug saw before moving from one place to another.



Follow the directions below to buck a log:

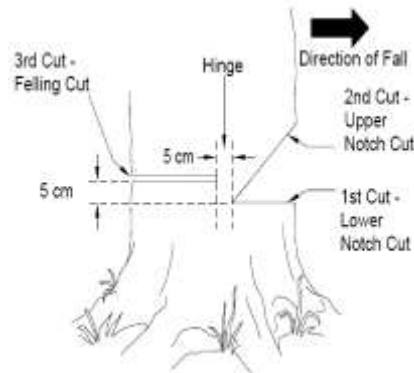
1. Entire length of the log on the ground.
2. Cut the log from the top.
3. Make sure your footing is firm, keep feet apart, divide your weight evenly on both the feet, stand slightly to the left of the saw, this keeps your body from being in direct line with chain.

- Before felling a tree.
- Before felling, inspect the tree, make sure there are no dead limbs or branches that may fall on you. Study natural lean of tree, location of larger branches and wind direction. This will help you judge which way the tree will fall.
- Clear work area around tree.
- Plan and clear a retreat path before felling make retreat path opposite to planned direction of fall of tree and at 45° angle
- Remove dirt, stones, loose bark, nails, staples, and wire from tree where you will make felling cuts.
- Stay on uphill side when felling tree. Tree could roll or slide downhill after falling.

Felling procedure: Felling notch-

A properly placed felling notch will determine the direction the tree will fall, place felling notch on side of tree in direction you want the tree to fall. Follow the directions below to create a felling notch.

- Make lower notch cut as close to ground as possible. Hold saw to guide bar is horizontal, cut 1/3 the diameter of tree trunk. Note: always make this horizontal lower notch cut first. If you make this cut second, tree can pinch chain or guide bar.
- Start upper notch cut the same distance above first cut as first cut is deep.
- Remove tree trunk wedge created by notching cuts.



Example: If lower notch cut is 20 centimeters deep, start upper notch cut 20 centimeters above it, cut down ward at 45° angles, the upper notch cut should meet end of lower notch cut.

Felling cut: Make felling cut five centimeters higher than lower notch cut and on opposite side of tree. Keep felling cut parallel to lower notch cut. Cut towards notch.

WARNING: Do not cut all the way through tree. Leave about five centimeters of tree diameter uncut directly behind felling notch; this uncut portion acts as a hinge, the hinge helps keep tree from twisting and falling in wrong direction (as shown in the figure above). As felling cut nears hinge, tree should begin to fall.

Note: If needed, drive wedges into felling cut to control direction of fall. If tree settles back and pinches chain, drive wedges into felling cut to remove saw. Only use wedges made up of wood, plastic, or aluminum, never use wedge made of steel. This could cause kickback and damage the chain.

When tree begins to fall: Quickly remove saw from felling cut, release trigger to turn the saw off. Put saw down and exit area using retreat path.

- Check the oil level periodically, through the oil level indicator.
 - Tighten oil cap firmly for good seal, this will avoid oil seepage from tank.
 - Wipe off excess oil.
- Note: It is normal for oil to seep when saw is not in use. Empty oil tank after each use to prevent seepage



CHECKING THE AUTOMATIC OIL FUNCTION: Check the automatic operation of the chain lubrication by pointing the tip of the switched -on saw towards a piece of paper laying on the ground, if a patch of oil appears and becomes larger, then the automatic oil function is working. If there are no traces of oil even though the oil tank is full then the automatic oil function is not working.

If the automatic oil function is not working. Remove the chain bar and clean out the oil ways of the chainsaw and chain bar, or reassemble. If the chainsaw is still not working take it to an authorized service centre.

Note:

- Never try cutting through two logs at the same time, always cut only one log at a time.
- Do not bury guide bar nose or try plunge cut (boring into wood using guide bar nose)
- Watch for shifting of wood or other forces that may pinch the chain.
- Use extreme caution when reentering a previous cut.
- Use low-kickback chain and guide bar supplied with this chain saw. Always replace these parts with chains and guide bar listed in this manual.
- Never use dull or loose chain, keep chain sharp with proper tension.
- Do not hand sharpen chain on automatic chain sharpening (fast sharp) models
- Avoid jamming:** Always cut into the compression wood first until the cut starts to close. Always make the compression cut beneath if the log or limb is suspended from one end, and on top if it is supported at both ends, cut from the other side towards the compression cut, make a habit of using a wedge to prevent the compression cut jamming tight on the chainsaw blade.
- Extension cord support:** During the use of the chainsaw the extension cord will continually be pulled as you move from one area to another. A cord retention hook has been provided on the housing of the chainsaw to assist in preventing the electrical connection between the extension cord and chainsaw plug being forced apart.

Note: The support is for the extension cord, and not the cable from the chainsaw.

 - To fit the extension cord to the support, make a tight loop in the extension cord, approximately 300mm (1 foot) from the socket on the extension cord.
 - Fit the loop into the rectangle recess in the back portion of the chainsaw.
 - Push the loop all the way through the housing by approximately 25 mm.

- d) Push each side of the loop downwards so that each side of the loop fits over the cord retention hook.
- e) To seat the cable firmly, gently pull one of the two lengths of extension cable on the right hand side of the chainsaw.
- f) After, and only after the cable is correctly seated, plug the chainsaw plug into the socket of the extension cable.

START UP:

1. Remove the bar cover
2. Release the chain brake by pulling the front hand guard. Firmly towards the back of the electric chain saw until a click is heard, to check the chain brake has been released, you should be able to move the chain by hand.
3. Connect the cable to the power.



Note: Ensure the brake is working efficiently. Check its operation every time you use the chain saw before commencing work with it.

Warning:

1. The on/off switch ever be depressed before pulling back the front hand guard.
2. Hold the electric chain saw by its grip with both the hands.
3. To start the chain saw, press the lock-off button on the trigger switch.
4. To stop the chain saw, release the trigger switch.
5. Hold the electric chain saw with both the hands until the chain is completely still.

OPERATING THE ELECTRIC CHAIN SAW:

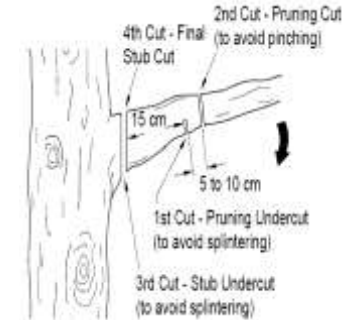
While cutting, always:

1. Run the chainsaw motor at full revs, this makes the job safer, as there is less chance of pull-in or kick-back.
2. Position your body to the left of the chainsaw so if it kicks back uncontrollably, it goes over your right shoulder.
3. Keep a firm grip with your left hand on the front handle, with your thumb securely below the handle. The swivel of your wrist in a kick-back situation will activate the chain brake.
4. Make sure the chain is tensioned correctly.
5. Observe the size of wood shavings; if they become dusty your chain could need sharpening.

TRIMMING A TREE (PRUNING):

Warning:

1. Avoid kickback; kickback can result in severe injury or death,
2. Do not operate chain saw if you are:
 - On a tree.
 - On a ladder or any other unstable surface
 - In any awkward position
 - Likely to lose control of saw causing severe injury.
3. Do not cut limbs higher than your shoulders.



Trimming a tree is the process of cutting limbs from a living tree, make sure your footing is firm, keep feet apart. Divide your weight evenly on both the feet. Follow directions below to trim a tree.

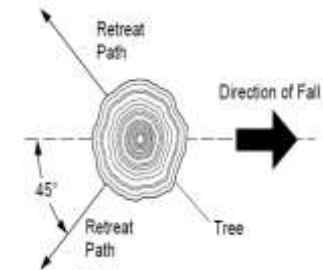
- a) Make first cut 15 centimeters from tree trunk on underside of limb, use top of guide bar to make this cut. Cut 1/3 through diameter of limb.
- b) Move five to ten centimeters farther out on limb, make second cut from above limb. Continue cut until you cut limb off.
- c) Make third cut as close to tree trunk as possible on underside of limb stub. Use top of guide bar to make this cut. Cut 1/3 through diameter of stub.
- d) Make fourth cut directly above the third cut. Cut down to meet third cut, this will remove limb stub.

CAUTION: Seek professional help if facing conditions beyond your ability.

FELLING A TREE (cutting down a tree)

Warning:

1. Avoid kickback; kickback can result in severe injury or death,
2. Do not fell a tree without ample skill or expert help.
3. Keep children, animals, and bystanders away from area when felling a tree.
4. If two or more persons perform bucking and felling operations at the same time, maintain ample distance (at least twice the height of tree being felled) between operations;



When felling a tree, be aware of your surroundings, do not endanger any person, strike utility lines, or cause property damage, if a tree strikes utility lines contact utility company immediately.

Caution:

1. Seek professional help if facing conditions beyond your ability.
2. Felling is the process of cutting down a tree. Make sure your footing is firm, keep feet apart, and divide your weight evenly on both feet. Follow directions below to fell a tree.