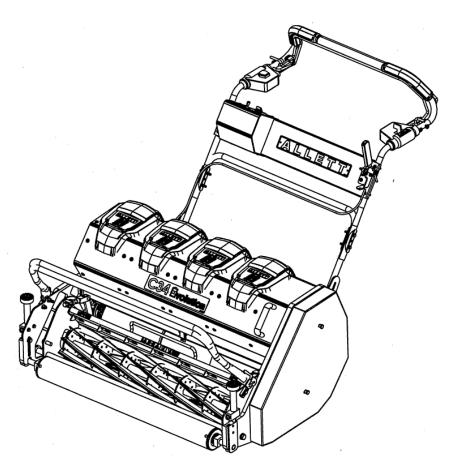


C34 EVOLUTION



OPERATOR MANUAL

(AM81687-A ISSUE 14/1/20)

English version

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READ THIS MANUAL BEFORE USING AN ALLETT C34 EVOLUTION BATTERY POWERED CYLINDER MOWER.

YOUR SAFETY IS INVOLVED

IT IS ESSENTIAL THAT OPERATORS STUDY THIS DOCUMENT FOR THEIR OWN SAFETY.

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1.0 Introduction

The C34 Evolution is designed predominantly as a lawn mower. However, the base unit has the ability to accept a range of interchangeable cartridges to cover a number of professional turf management tasks.

The base unit is powered by two 72-82V 1000W brushless DC motors. One motor powers the land roll and a second powers the interchangeable cartridge via a toothed timing belt drive.

The C34 mowers are designed for the management of high quality turf. Use in any way other than that stated is considered contrary to the intended use. Compliance and strict adherence to the conditions of operation, service and repair as specified in this manual also constitute essential elements of the intended use.

The way in which the C34 mowers are operated and maintained will have a profound effect on their performance and reliability.

A C34 mower should be operated, serviced and repaired only by persons who are familiar with its particular characteristics and who are familiar with the relevant safety procedures.

The safety precautions outlined in this manual and all other generally recognised regulations on safety must be observed at all times.

Any modifications carried out to a C34 mower will relieve Allett Limited of liability for any resulting damage or injury.

This manual is based on information available at the time of publication.

Allett Limited reserves the right to amend product specifications without prior notification.

1.1 Model type and serial number

The model can be found in two places:

- 1. On the top cover of the mower.
- 2. On the serial number plate located on the right side of the mower chassis.

The serial number can be found on the serial plate.

Please enter your information below				
	ALL	ett		AM81696 allett.co.uk
		IRE, ST18 OPF	IDUSTRIAL ESTATE TEL: +44 (0) 18 MANUFACTURED I	, HIXON, 89 271503
Model:			SERIAL NO C34E/1 - 19	
	YEAR	WEIGHT KG	IP RATING	
	2019	163	IPX4	
Serial Number:	VOLTAGE DC 82V	POWER W 2 x 1000		

Original Instructions – English

Safety Notes

Important! Warning! Read these instructions carefully, be familiar with the controls and the proper use of the lawnmower. Keep these instructions for future reference.

Explanation of symbols on the lawnmower:



General hazard safety alert



Read instruction manual



Beware of thrown or flying objects



Keep bystanders at a safe distance from machine



Switch off and remove isolation key before adjusting, cleaning and before leaving the lawnmower unattended for any period.



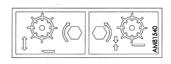
Sharp blade(s). Beware of severing toes or fingers.



Wait until all machine components have completely stopped before touching them. The blades continue to rotate after the machine is switched off, a rotating blade can cause injury.



Never allow children to use the lawnmower, children should be supervised to ensure they do not play with the machine. Always remove the isolation key, even when in storage.



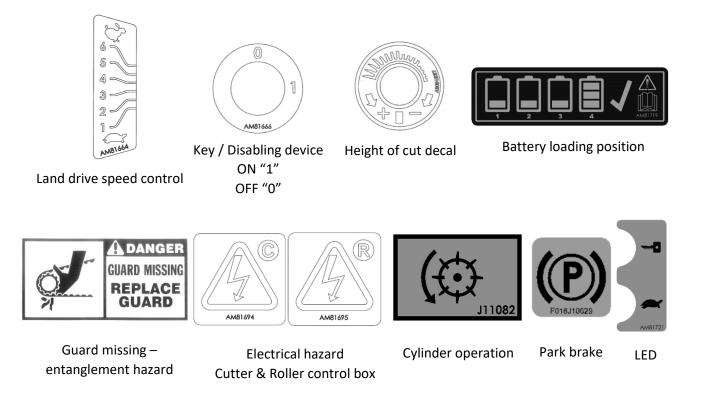
Bottom blade to cylinder adjustment



Flying debris, keep bystanders away. Warning, sharp blades, do not touch rotating blades. The blades continue to rotate after the mower is switched off



Cylinder mode switch: backlap, fast cylinder speed, slow cylinder speed & reverse drive



Never allow people unfamiliar with these instructions to use the lawnmower.

Local regulations may restrict the age of the operator.

This machine is not intended for use by children or by persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge unless they have been given supervision or instruction concerning the use of the machine by a person responsible for their safety.

Never mow while people, especially children or pets, are nearby.

The operator or user is responsible for accidents or hazards occurring to other people or their property.

Do not operate the lawnmower when barefoot or wearing open sandals, always wear substantial footwear and long trousers.

Thoroughly inspect the area where the lawnmower is to be used and remove all stones, sticks, wires, bones and other foreign objects.

Before using, always visually inspect to see that the blades, blade bolts and cutter assembly are not worn or damaged.

Replace worn or damaged blades and bolts in sets to preserve balance.

Mow only in daylight or in good artificial light.

Avoid operating the lawnmower in wet grass, where feasible.

Walk, never run.

Mowing on banks can be dangerous:

Mow across the face of slopes – never up and down.

- Always be sure of your footing on slopes or wet grass.

- Exercise extreme caution when changing direction on slopes.

- Do not mow excessively steep slopes.

 Use extreme caution when stepping back or pulling the lawnmower towards you. Never mow by pulling the mower towards you.

Stop the blades if the lawnmower has to be tilted for transportation when crossing surfaces other than grass and when transporting the lawnmower to and from the area to be mowed.

Do not tilt the machine when starting or switching on the motor, except if the machine has to be tilted for starting in long grass. In this case, do not tilt it more than absolutely necessary and tilt only

the part which is away from the operator. Always ensure that both hands are in the operating position before returning the machine to the ground.

Never operate the appliance with defective guards or shields, or without safety device, for example deflectors and/or grass catchers in place.

Switch on the lawnmower according to instructions and with feet well away from the blades.

Disengage all blade and drive clutches before starting the motor.

Keep clear of discharge opening at all times.

Always stand clear of the discharge zone when operating the machine.

Never pick up or carry the lawnmower while the motor is running.

Do not put hands or feet near, or under, rotating parts while the lawnmower is being operated. Be careful during adjustment of the lawnmower to prevent entrapment of the feet and hands between moving blades and fixed parts of the lawnmower.

Always wear gloves if carry out maintenance near the sharp blades

Remove the isolation key and batteries:

whenever you leave the machine

- before clearing a blockage
- before checking, cleaning or working on the lawnmower
- after striking a foreign object. Inspect the lawnmower for damage and make repairs as necessary
- if the lawnmower starts to vibrate abnormally (check immediately).
- when in storage or being folded for storage

- Before transporting the machine

Keep all nuts, bolts and screws tight to be sure that the lawnmower is in safe working condition.

Check the grass catcher frequently for wear or deterioration.

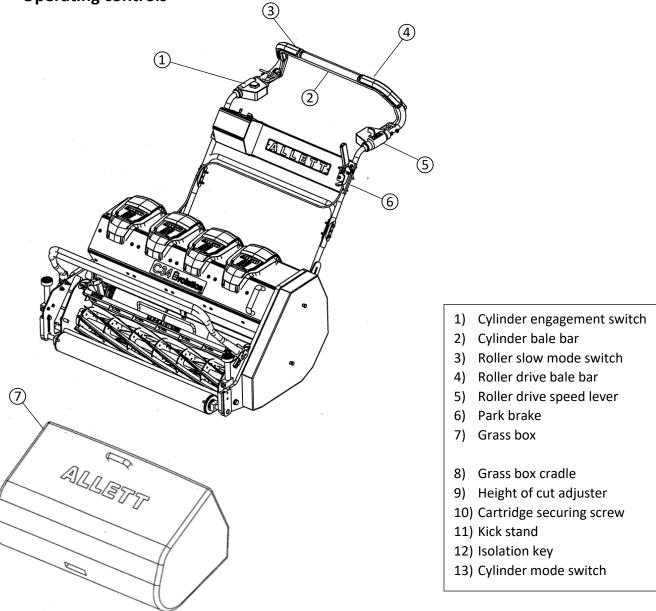
Replace worn or damaged parts for safety.

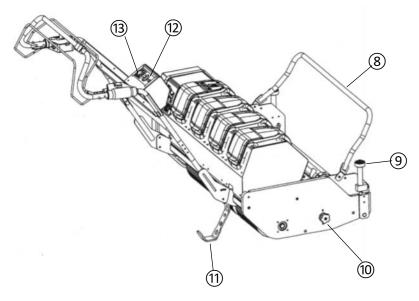
Ensure replacement parts fitted are approved

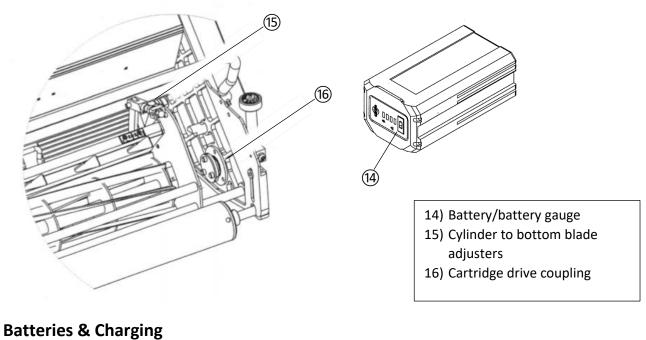
Technical Data

Designation:	C34 Evolution
	Cylinder lawnmower
Machine type	C34E/1
Rated power	2 x 1000W
Voltage (Max V)	82V Li-ion
Blade width (cm)	86
Height of cut (mm)	10-50
Self-propelled	\checkmark
Weight (kg)	163kg
Protection Class	II (Double insulated)

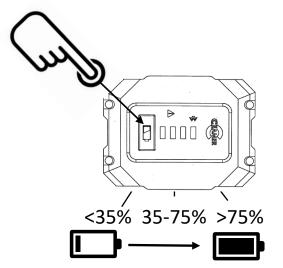
Operating controls







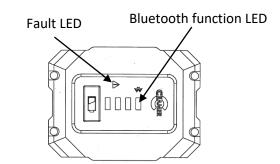
Checking battery capacity



Press the battery capacity indicator button. The lights will illuminate according to the battery's capacity level. See table below:

Lights	Capacity
3 Green Lights	The battery is at more than 75% capacity
2 Green Lights	The battery is between 35-75% capacity
1 Green Lights	The battery is between than 20-35% capacity
1 Green flashing light	The battery is between 10-20% capacity
The lights go out	The battery requires charging immediately

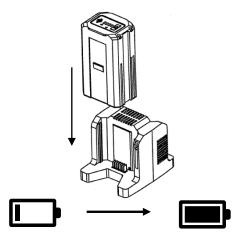
Battery features



The RED fault LED will illuminate and flash if the battery is over or under temperature. The battery will not work until the temperature returns to normal. Move the battery pack to a position where the air temperature is above 5°C or below 52°C.

To activate the Bluetooth press the battery capacity indicator button. The Bluetooth LED will flash when the Bluetooth function is activated. When the Bluetooth function is connected to the phone APP the Bluetooth LED will remain on. For more details on how to download the phone APP see the battery manual.

Charging the battery



NOTE: The battery is not shipped fully charged. It is recommended to fully charge before use to ensure that maximum run time can be achieved. This lithium-ion battery will not develop a memory and may be charged at any time. In normal conditions a 6Ah battery can be fully charged in 90minutes. To achieve the 90minute charge the battery charger contains a cooling fan which can be heard when the charger is in operation. To charge a battery proceed as follows:

- 1. Plug the charger into a Mains AC power outlet.
- 2. Insert 1 or 2 batteries into the charger.
- 3. When the battery is fully charged, the green LED will illuminate, unplug the charger.

When charging 2 battery packs the 2 batteries are charged separately. The charger will charge one battery first. After one battery is fully charged, it will charge the other battery.

The charger used is a diagnostic charger. The Charger LED Lights will illuminate in a specific order to communicate the current battery status. They are as follows:

LED Status	Description
Blinking Green	Charging
Solid Green	Fully charged
Solid red	Over temperature
Blinking red	Charging fault

False defect note:

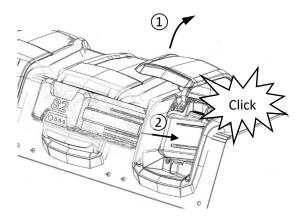
When the battery is inserted into the charger, and the status LED flashes RED, remove the battery from the charger for 1 minute, then reinsert. If the status LED flashes green then the battery pack is good. If the status LED is still blinking RED, remove the battery pack and unplug the charger. Wait 1 minute and plug the charger back in and reinstall the battery pack. If the status LED blinks GREEN then the battery pack is good. If the status LED is still blinking RED is still blinking RED then the battery pack is defective and needs to be replaced.

For further information please refer to the charger manual.

For best results, the battery should be charged in a location with a temperature between 7°C (43°F) and 40°C (104°F).

When using multiple chargers in one location budget that each charger needs a supply of 230V AC at 2.5A input.

Inserting the battery into the mower

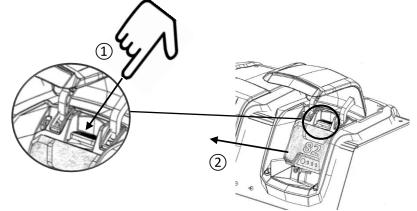


1. Lift and hold up the battery compartment lid.

2. Place the battery in the dock. Align ribs on battery with grooves in the battery compartment. Make sure the battery release button CLICKS in place and that battery is fully seated and secured in the dock and the lid is closed before beginning operation.

Removing the battery from the mower

- 1. Press and hold the battery release button
- 2. Remove the battery from the dock



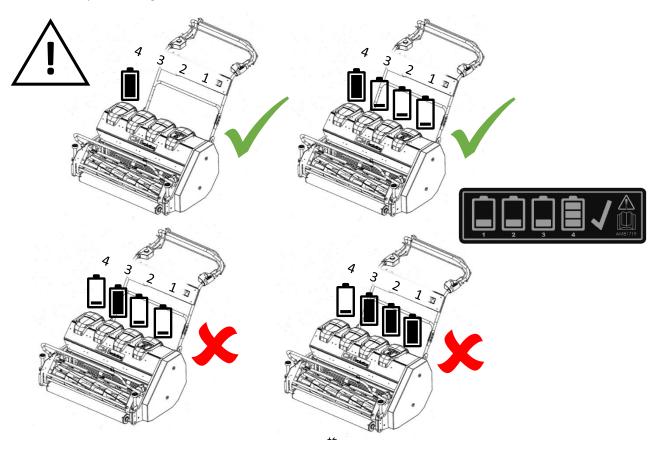


Battery connection

The mower can operate on a single battery if necessary. One battery may be replaced with a fully charged unit if required, all 4 batteries do not need to be replenished at the same time.

For the mower to operate correctly and to achieve the best performance:

- Always make sure there is a battery located in the end position (No. 4) on the operator's right-hand side.
- Try to make sure the battery in the end position (No. 4) on the operator's right has an equal or higher charge than the other batteries.
- When changing the batteries always swap the battery in the end position (No. 4) on the operators right first.



The batteries are protected from cross charging by a 7.5A fast blow fuse, this will prevent any damage or an unsafe condition occurring should the advice above not be followed. If this fuse fails it must be replaced with a fuse of a similar rating. Please use Allett part reference AM81723 as a replacement.

Usage time

The area of cut and therefore battery duration is dependent on your turf conditions or the operation being carried out. Mowing at a low height in wet, dense grass will reduce the run time. To increase battery life, it is recommended to:

- 1. Only take ¹/₃ of the plant height off in a single cut, this will mean mowing frequently at least once per week.
- 2. Keep the blades sharp and regularly serviced. Blunt or damaged blades will decrease battery life.

Following the recommendations above in dry conditions your mower should cover an area of approximately one football pitch (500-700m²) or run for 2 hours on a new, fully charged battery.

Battery & charger recommendations

Remove or turn off the key before inserting the battery into the lawnmower.

Do not allow the battery pack or charger to overheat. If they are warm, allow them to cool down. Recharge only at room temperature.

Do not place the battery pack in; freezing conditions, direct sun light or in a warm environment. Keep at normal room temperature, for example do not place near a radiator.

If the battery is not charged for a long time; charge the battery for 2 hours every 2 months.

Do not recharge non-rechargeable batteries with the charger.

The battery pack cells may develop a small leak under extreme usage or temperature conditions. If the outer seal is broken and the leakage gets on your skin:

- Use soap and water to wash immediately.
- Neutralise with lemon juice, vinegar, or other mild acid.
- If leakage gets in your eyes, flush immediately with clean water for at least 15 minutes and seek medical attention.

The charger is for indoor use only.

Protect the batteries against moisture and water.

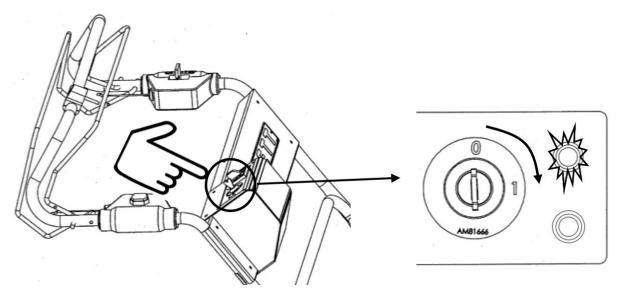
If while using the battery it emits an unusual smell, feels hot, changes colour, changes shape or appears abnormal in any other way immediately discontinue use. If the battery cracks or breaks, with or without leaks, do not recharge it and do not use. Dispose of it (See "Disposal" section) and replace with a new battery pack. Do not attempt to repair.

Use only Allett battery Ref: AM81688 - 72V Nominal 6Ah 432Wh 82V MAX (CR 82V430) Use only Allett charger Ref: AM81704 – Twin port mains battery charger 2900486 (82C2)

Please refer to the Battery and Charger manual for further information.

Starting & Stopping

Starting

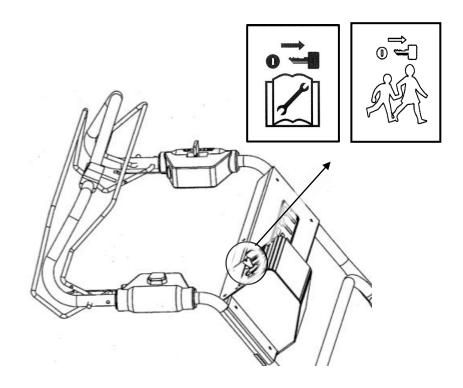


Turn the key switch / disabling device clockwise to position "1". The red LED will illuminate. An audible click can be heard this is the contactor powering up the high voltage circuit.

Stopping & Disabling device

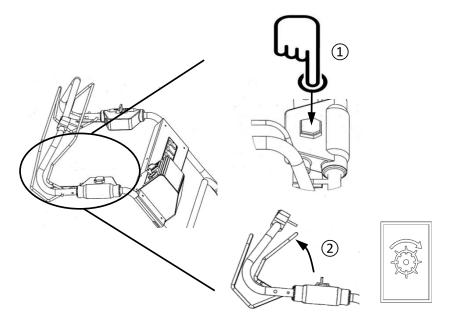
The key switch cuts power to the motor controllers. When the key is in "0" position or removed the cylinder and land drive will not operate.

Battery-operated products do not have to be plugged into an electrical outlet; therefore, they are always in operating condition. Be aware of possible hazards when using the lawnmower, always remove the key switch / disabling device when leaving the lawnmower unattended and never let children play with the machine. Following this rule will reduce the risk of serious injuries.



Cylinder controls

Starting & Stopping the cylinder



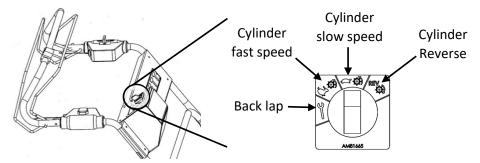
Starting:

- 1) Press and hold the safety button
- 2) Move the cylinder bale bar towards the handle. The cylinder will start to rotate

Stopping:

Release the cylinder bale bar and the cylinder will stop.

Selecting cylinder modes



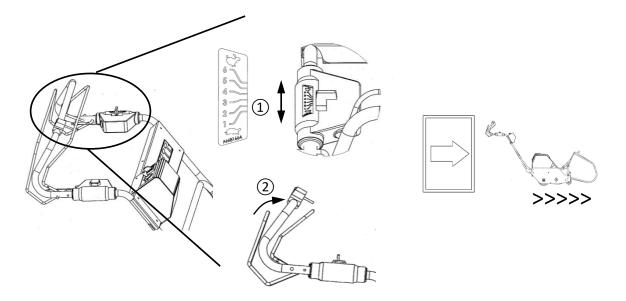
The 4 position rotary switch on the handle bar allows the operator to select 4 cylinder operational modes. These modes are designed to improve cylinder mowing and turf maintenance tasks.

The following table lists the cylinder operational modes that can be selected:

Cylinder mode	Use
Back lap	Built in back lapping function if optional safety back lapping switch is purchased
Cylinder fast speed	Use for wet, dense or heavy grass
Cylinder slow speed	Use for light dry grass
Cylinder reverse	Use with specially designed cartridge options for effective scarifying

Land drive controls

Starting & forward speed control

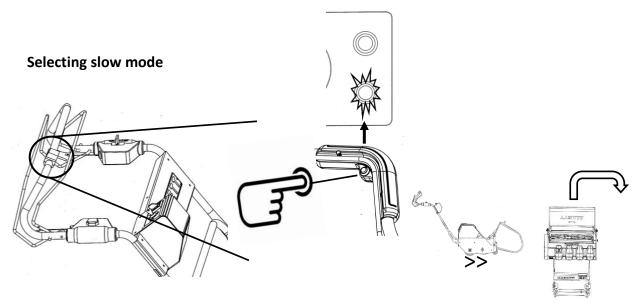


Starting:

- 1) Select the forward travel speed using the land drive speed lever
- 2) Move the land drive bale bar towards the handle. The lawn mower will start to move forwards

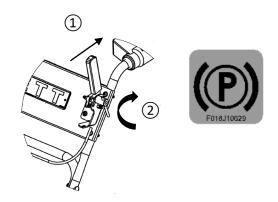
Stopping:

Release the land drive bale bar and the lawn mower will stop.



For easy and controlled turns press the handle bar mounted SLOW MODE SWITCH. The green LED will illuminate to notify you that Slow mode has been engaged. This slows the mowers forward speed allowing you to make a controlled turn. To return to normal forward speed for mowing press the slow mode switch again.

Applying the park brake



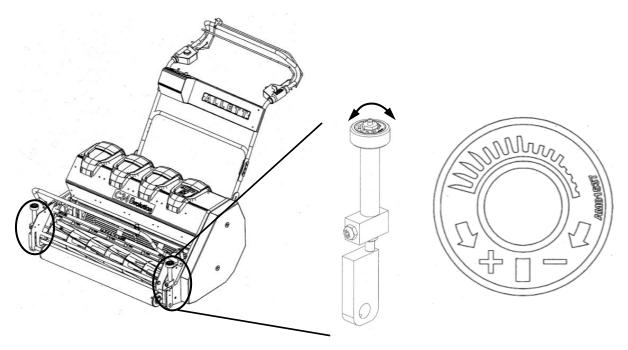
To apply the park brake pull the RED lever towards you and secure in place with the screw lock.

Adjustments & Maintenance

STOP - Remove the key and the batteries before making any adjustments and wear gloves if you are working near the blades

Note: To ensure long and reliable service, carry out the following maintenance regularly. Regularly check for obvious defects such as a loose, dislodged or damaged blade, loose fixings, and worn or damaged components. Check that covers and guards are undamaged and correctly fitted. Carry out necessary maintenance or repairs before using. Clean the exterior of the machine thoroughly using a soft brush and cloth. Do not use water, solvents or polishes. Remove all debris, especially from around the motor. If the mower should happen to fail despite the care taken in manufacture and testing, repair should be carried out by an Approved service agent.

Height of cut adjustment



The height of cut is set by altering the position of the front roller. Two adjusters are provided to level the front roller.

Turn the height of cut adjustment knob clockwise to lower the height of cut

Turn the height of cut adjustment knob anti-clockwise to raise the height of cut

Use of the height bar

It is recommended to use a height bar to accurately measure the height of cut on each side of the mower. To do this proceed as follows:

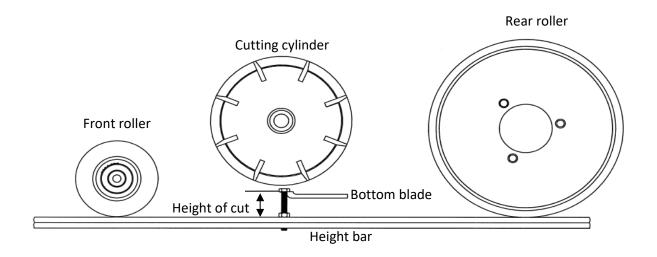
WARNING - blades are sharp, always wear gloves

For a cutting cylinder cartridge:

- 1) Set "on cut" first, refer to section below
- 2) Adjust and lock the bolt on the height setting bar to your desired height of cut
- 4) Tilt the mower back and wedge securely

5) With the height setting bar near one end of the bottom blade, locate the bolt head on top of the bottom blade and under the rear roller

- 6) Adjust the front roller so that it makes contact with the height setting bar
- 7) Move the height setting bar to the other end of the bottom blade and repeat steps 5 & 6



For all other turf maintenance cartridges:

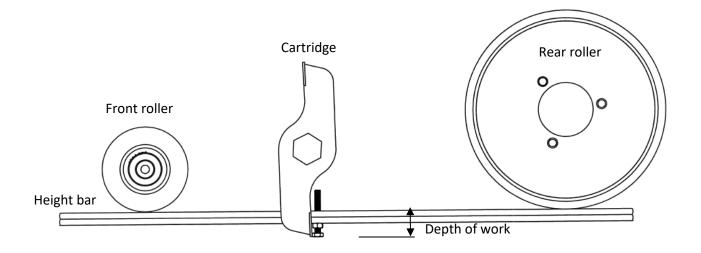
1) Adjust and lock the bolt on the height setting bar to your desired working height or depth

2) Tilt the mower back and wedge securely

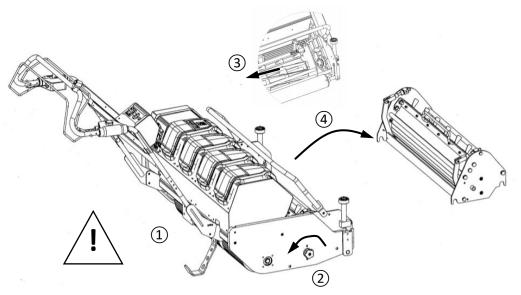
3) With the height setting bar near one edge of the cartridge, position one end against the rear roller

4) Adjust the front roller so that it contacts the height setting bar and the head of the bolt lines up with the blade/tine/bristle

5) Move the height setting bar to the other end of the cartridge and repeat steps 3 & 4



Changing a cartridge



WARNING: When the cartridge has been removed the lawn mower can tip back. Use the kick stand provided to prevent an accident.

WARNING: Always remove the Key / Disabling device from the mower before changing a cartridge

WARNING: Blades are sharp always wear gloves and appropriate foot wear

To remove a cartridge, proceed as follows:

- 1) Remove the key / disabling device & lower the kick stand
- 2) Undo the cartridge locking screw
- 3) Slide the cartridge away from the drive coupling
- 4) Lift the cartridge out of the machine

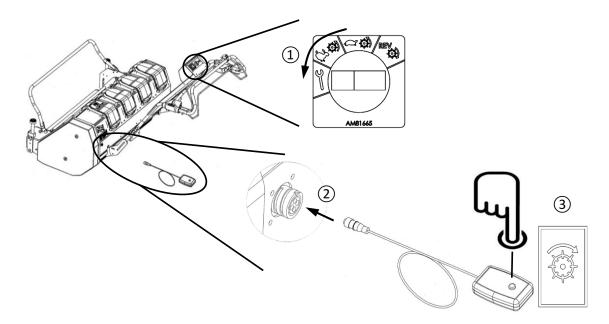
To install a cartridge:

Lift the cartridge into the mower so that it sits on both cross rails Align the teeth on the drive coupling, use the indicator marks to help Slide the cartridge to engage with the drive coupling Secure the cartridge with the locking screw.

Some cartridges weigh over 25kg, obtain assistance if required and observe best practice lifting techniques (get help when needed, lift with legs and maintain a straight back posture)

Back-lapping (option)

Use back lapping sparingly to correct a chipped or slightly damaged blade. Back-lapping should not replace a regular regrind at an authorised Allett dealer



- 1) Turn the cylinder mode switch to the back-lap position
- 2) Plug the optional hand-held safety switch into the back ap port on the rear of the lawn mower
- 3) Press and hold the switch, the cylinder will start to rotate in a backwards direction (opposite to normal grass cutting direction) at a much-reduced speed.

Releasing the safety button will stop the cylinder rotation.

Apply fine cutting paste to the cylinder using a suitable long handled brush and wear appropriate gloves as the blades are sharp. Gradually set the bottom blade to evenly contact the cylinder. Run the cylinder for 5-10 minutes adjusting as necessary.

Thoroughly wash off any grinding paste after back-lapping has been completed.

Grease points

Quick height adjusters require 1 pump of grease every 2 weeks, the rest of the mower is lubricant free.



Adjusting the bottom blade - setting "on cut"

For grass cutting cylinder cartridges only.

The bottom blade is correctly adjusted when the cutting cylinder lightly brushes the bottom blade as the cylinder is turned. Contact should be made across the full width of the bottom blade.

The blades act like a pair of shears, as a test correctly adjusted blades will cleanly cut a piece of good quality writing paper across the width of the blade. The bottom blade should be adjusted if the grass is not cut cleanly and evenly.

WARNING - Blades are sharp always wear gloves

To set the cutting cylinder cartridge on cut:

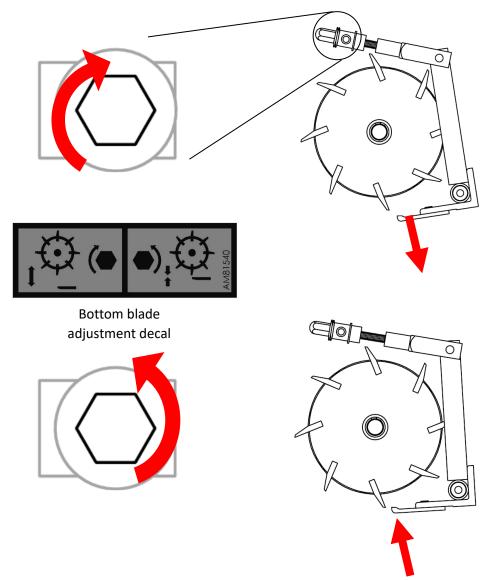
1) Tilt the mower back and wedge securely

2) Turn the adjuster screws anti clockwise to move the bottom blade closer to the cylinder

Turn the adjuster screws clockwise to move the bottom blade further from the cylinder

3) When adjusting the bottom blade, frequently check progress by cutting a piece of

paper

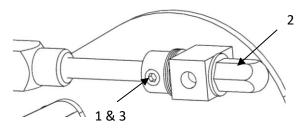


Do not over tighten the bottom blade - the cylinder should be able to spin freely

If you are still unable to cleanly cut paper, inspect the bottom blade and cylinder. If they appear, rounded, damaged or excessively worn they may need to be reground or replaced. New bottom blades should always be reground attached to the bottom blade carrier. For bottom blade grinding angles see the section below.

The bottom blade adjusters can sometimes become very tight and may be hard to turn. If this is the case:

- 1) Slacken off the grub screw on the collar
- 2) Rotate the adjuster anti-clockwise 1/8th of a turn
- 3) Tighten the grub screw

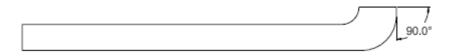


Bottom blade grinding angles

For cylinder cutting cartridges only. The cutting performance of the mower is highly dependent on the condition of both the cylinder and bottom blade. Poorly maintained parts will lead to a poor quality of cut.

Newly fitted bottom blades will need to be ground when bolted to the blade carrier to ensure a perfectly flat cutting edge.

It is advisable that grinding/reconditioning is carried out by an authorised Allett dealer to the angles shown below.



Inspection of safety critical components

The below parts are critical to the safe operation of your lawnmower, before each use check that:

When the park brake is engaged the mower cannot move.

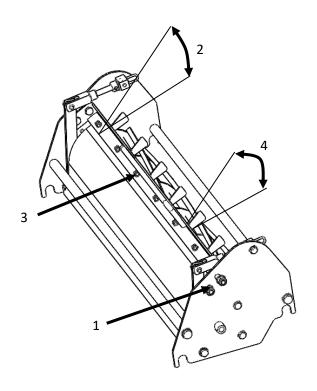
The guards, deflectors and the grass box are in good condition and secured in place.

When the bale bars are released the cylinder/cartridge and land roll drive stop immediately.

Delivery plate and fins

The delivery plate on the cylinder cartridge and the grass deflector veins can be adjusted to alter the grass trajectory into the grass box.

- 1) Loosen the 4 delivery plate screws
- 2) Adjust the delivery plate up or down then tighten the screws
- 3) Loosen each grass deflector locking screw
- 4) Individually adjust the deflector left or right then tighten the screws

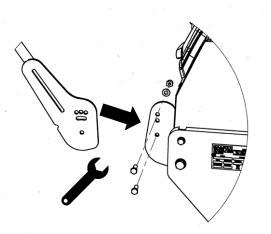


9.0 Vibration reduction

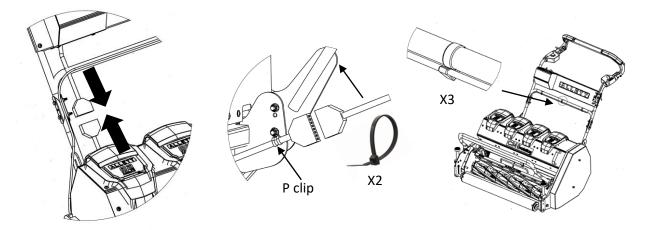
Best practices for reducing vibration emission:

A well-maintained mower with an accurately ground and balanced cylinder are recommended to limit vibration emission. Forcing the mower to cut longer grass than intended or setting cartridges to work at great depths or on unsuitable surfaces will result in higher levels of vibration and wear.

Assembly



Attach the handle bar assembly to the mower using the 4 x M8 screws and the Nyloc nuts provided. Torque the fasteners to 25Nm. The cable for the park brake has been left attached to the mower for your convenience. After assembly check the handbrake is operational and adjust if necessary.



Connect the wiring plug for the handle bars to the mower plug and secure the cable with the P clip and two cable ties provided. Finally clip the handbrake cable to the handle bar cross bar using the 3 plastic clips provided.

Handle bar height adjustment

The lower handle has a set of holes at the pivot to give height adjustment, select the corresponding hole to give the height you are most comfortable with.

Grass box

Lower the grass box hoop and plate the grass box over the hoop

Cleaning & Storage

Clean the mower, battery and charger with a soft dry brush or cloth, paying attention to the cooling fins on the end of the motor and charger. If the grass box or interchangeable cutting cartridge are removed from the lawnmower they may be cleaned with water from a hose. Lubricate the cutting cylinder with a light oil to displace any water after cleaning and when storing at the end of the season.

Remove the battery and isolation key, store both machine, battery and charger in a safe, cool and dry place, avoiding areas of high humidity.

At the end of the season do not store the battery in the mower. Keep it in shady, cool and dry conditions.

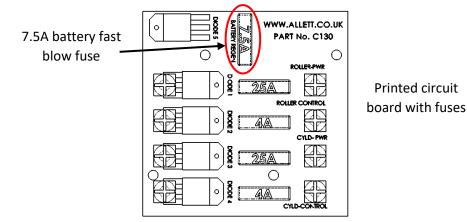
Protective circuit & Fuses

The lawn mower contains a protective circuit. This is designed to protect the motor from damage during a stall. After a stall of 3 seconds the mower will stop. A soft start function is also used, please allow the blades 3 seconds to get to full speed before mowing.

An over current and temperature cut out is also used, if the mower is forced to work hard the circuit will reduce, then cut the power to protect the motor. If the mower stops unexpectedly before continuing raise the height of cut or cultivate at a shallower depth. If the mower will not restart let it cool down for 30 minutes before restarting.

In total 5 fuses protect the electronic controls, 2 x 4A blade fuses for the hand controls and 2 x 25A main fuses for each motor. The 5th fast blow fuse protects the battery in the end dock position (See section on Battery Connection) The fast blow fuse prevents abnormal cross charging and high regenerative currents being fed into the battery causing potential damage. Regenerative currents will arise during a normal motor stop event. It is important that if the mower needs to be moved not under its own power i.e. if being towed all 4 batteries MUST be removed.

All fuses are fitted in the enclosure on the operator's right hand side under the main cover.



Should the mower develop a fault and stop working, turn it on and off again at the key switch. If the fault persists the controllers have built in diagnostics that provide the user with a series of flash codes. Each number of flashes corresponds to a specific fault condition. Please make note of the number of red flashes then the orange flashes before contacting an Allett representative or authorised dealer.

Fault finding & Flash codes

The following table gives checks and actions that you can perform if your machine does not operate correctly. If these do not identify/remedy the problem, contact your service agent.

Symptom	Possible cause	Remedy
Machine fails to	The isolation key is not inserted	Insert isolation key & turn on so RED LED illuminates
operate	The battery is not fully inserted	Make sure the battery clicks into place
	The battery is not charged	Charge the battery
	Speed control lever is in slow position	Move lever to fast position
	Cylinder mode switch is in backlap position	Select either cylinder fast or slow mode
	2 actions required to start cylinder	Press safety button and squeeze bale bar
Machine functions	Load on motors too high causing current limit to	Raise height of cut, reduce depth of cultivation task,
intermittently or	be triggered.	reduce forward speed.
stops during use	Battery too hot – RED LED flashes on battery	Allow batteries to cool. Raise height of cut, reduce
		depth of cultivation task, reduce forward speed.
	Battery has discharged	Charge the battery
Machine leaves	Cutting blade blunt	Contact service agent
ragged finish	Blades off cut	Adjust blades
	Grass too high/dense	Raise height of cut
	Cylinder running in reverse	Turn cylinder mode switch to forwards direction
Machine labours or	Height of cut too low	Increase height of cut
slows	Blades adjusted too tight	Adjust blades
	Forward speed too fast for task	Reduce forwards speed
Cutting blade not	Cutting blade obstructed	Clear obstruction
rotating	Blades too tight	Slacken off blade adjuster screws
	Cutting blade damaged	Contact service agent
	Belt slipping or damaged	Contact service agent
Land drive does not engage	Speed control lever is in slow position	Move lever to fast position
Excessive	Cutting blade damaged	Contact service agent
vibration/noise	Cutting blades not adjusted evenly	Adjust blades
Poor collection	Mowing in wet conditions	Allow grass to dry, use faster speed
	Motor speed too fast/slow	Increase/decrease motor speed
Cylinder will only	No battery in right hand dock	Make sure a fully charged battery is the right hand
restart if the key		dock
switch is cycled on and off	7.5A fast blow regen fuse blown	Check fuses

FAULT DESCRIPTION	FAULT	FAULT	EFFECTS
	CODE	CODE	
	RED	ORANGE	
Severe undervoltage	1	2	If the current draw of the motor is very high the voltage will
			drop causing this warning
Undervoltage cutback	1	2	If the voltage drops to a very low level the controller will shut down
Severe Overvoltage	1	3	This can occur if the regen current is prevented from going
0			into the battery, check the fast blow fuse and make sure
			that a battery is present in the right hand dock
Overvoltage cutback	1	3	As above
Controller over	1	4	Temperature is critical, controller will cut off. Allow to cool
temperature cutback			& try to reduce machine loading.
Controller severe	1	4	Warning that controller is too cold, move to warmer
under temperature			environment.
Controller severe over	1	4	Warning that controller is too hot, allow to cool & try to
temperature			reduce machine loading.
Motor over	1	5	Warning that motor is too hot, allow to cool & try to reduce
temperature			machine loading.
Throttle	2	1	The throttle pot is gear driven from the speed lever, it may
			have lost position or gone over limit. Check throttle
			percentage on programmer or measure Ohms output to see
			if it changes when the lever is moved.
HPD sequencing	2	1	This should be turned OFF in the programme. If ON the
			throttle has to be on slow before a drive direction command
	2	2	(bale bar) is pressed
Main contactor welded	2	2	If you don't hear the contactor click ON this may have
			occurred. An abrupt tap with something can free the contacts. This is rare however.
			More likely to be another fault has caused the controller to
			prevent the contactor opening or an open connection on
			low current side of contactor.
			It could be that the main 20A fuse or 4A key circuit fuse has blown.
Main contactor did not	2	2	As above
close	2	2	
Main driver fault	2	2	This can occur if the regen current is prevented from going
			into the battery. Check the fast blow fuse and make sure
			that a battery is present in the right hand dock.
Pre-charge failed	2	2	As above
Encoder	2	3	Hall sensors (5 wire plug on motors) loose or disconnected
Stall detected	2	3	Cylinder or roller blocked, Park brake on
Motor open	2	4	3 wire plug on motor loose or disconnected
EM Brake driver fault	2	5	This driver can fault when the regen current is prevented
			from going into the battery, check the fast blow fuse and
			make sure that a battery is present in the right hand dock
Parameter mismatch	8	1	Programme change has caused a fault
Parameter change	8	1	Programme change has caused a fault
Motor temp sensor	1	5	Motor temperature hot cut back

Disposal

Product, accessories and packaging should be sorted for environment-friendly recycling. The plastic components are labelled for categorised recycling.

Do not dispose of electrical power tools, batteries or chargers into household waste!

According to the European Directive 2002/96/EC on waste electrical and electronic equipment and 2006/66/EC on waste batteries it is EU law that power tools which are no longer suitable for use must be separately collected and sent for recovery in an environmentally-friendly manner.

The following toxic and corrosive materials are in the batteries used with this lawnmower: Li-ion - Toxic

When disposing of damaged or end of life batteries cover the battery terminals with heavy duty adhesive tape to avoid; injury, risk of fire, explosion or electric shock.

All toxic materials must be disposed of in a specific manner to prevent contamination of the environment. Before disposing of damaged or worn out Lithium ion battery packs, contact your local waste disposal agency, or the local Environmental Protection Agency for information and specific instructions. Take the batteries to a local recycling and/or disposal centre, certified for Li-ion disposal.

EU Declaration of Conformity

We: Allett Ltd

Of: Regal House, Airfield Industrial Estate, Hixon, Staffordshire, ST18 OPF, UK

Declare that equipment: Category 32 Electric battery lawnmower

conforms to the essential requirements of the following directives and their amendments:

2006/42/EC, 2014/30/EU, 2000/14/EC (the conformity assessment procedure followed was in accordance with Annex VI of the Noise Directive) and has been designed and manufactured to the following standards: BS EN 60335-1, BS EN 60335-2-77.

Typically, the A-weighted noise level of the product is:

Model number	Sound	Measured	Guaranteed sound
	pressure level	Sound power	power level
	at operator	level	2000/14/EC
	ear		
C34 Evolution	71 dB(A)	81 dB(A)	84 dB(A)

Vibration emission values (triaxial vector sum) determined according to BS EN 60335-2-77 static tests

Model number	Vibration	Uncertainty (K)
C34 Evolution	<2.5 m/s ²	1 m/s²

Technical file at: Allett Ltd, Staffordshire, ST18 OPF

I hereby declare that the product described under "technical data" has been tested and found to comply with the relevant sections of the above referenced specifications. The unit complies with all essential requirements of the directives.

Place: Stafford, February 2019

Signature:

Austin Jarrett Position: Managing Director

Guarantee

Allett guarantees this product against manufacturing defects. We will repair (or replace at our option) if a manufacturing defect occurs within the guarantee period if it has not been subjected to rental/hire use.

The guarantee period is 2 years for parts and labour costs from the date of purchase.

To obtain a repair under this guarantee:

- Take your lawnmower to an Allett approved service agent
- Show your dated proof of purchase
- Show the guarantee page

This guarantee does not apply if:

- The product has been resold by the original purchaser (this does not apply in the Republic of Ireland) or has been used under hire.
- The product has been modified to change the manufacturers specification, or if non-genuine spares have been fitted
- If any previous repair has been undertaken by anyone other than an Allett approved service agent
- The fault is due to maladjustment, abuse, neglect or accidental damage
- The fault is due to lack of lubrication or maintenance
- The failure is due to normal wear

For a full list of parts not covered by Warranty please refer to our current Warranty terms and conditions which are available upon request.

Serviceable parts life is dependent on regular servicing and they are not therefore normally considered by the guarantee.

The cost of routine maintenance of the product is not covered by the guarantee.

It is in your best interest to follow the operating instructions for your lawnmower as a properly cared for product should give many years of excellent service cutting grass.

Always insist on genuine Allett spares or parts. Any non-genuine parts fitted within the Warranty period will result in your manufacturing Warranty becoming null and void. Any damage caused to the product through the fitting of parts not made or approved by Allett is not covered by the guarantee.

Your statutory rights are not affected by this guarantee.

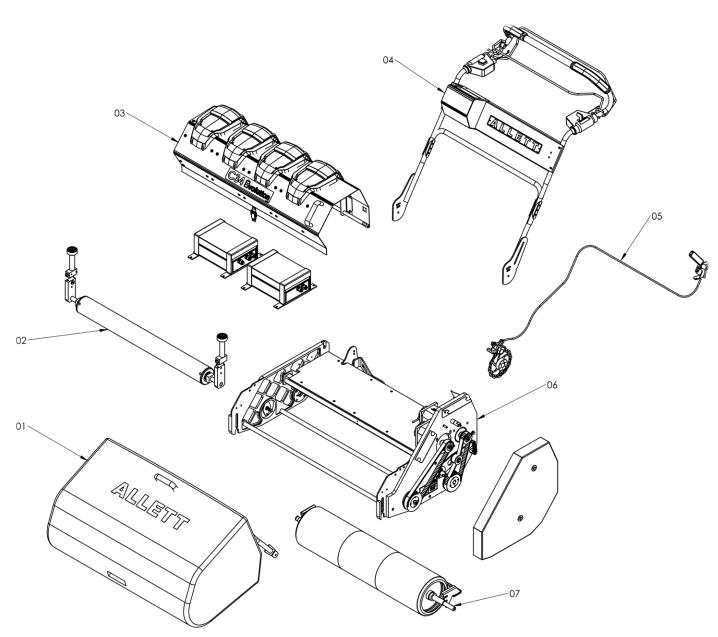
When the time comes to dispose of this product please consider the environment and take it to a recognised recycling facility.



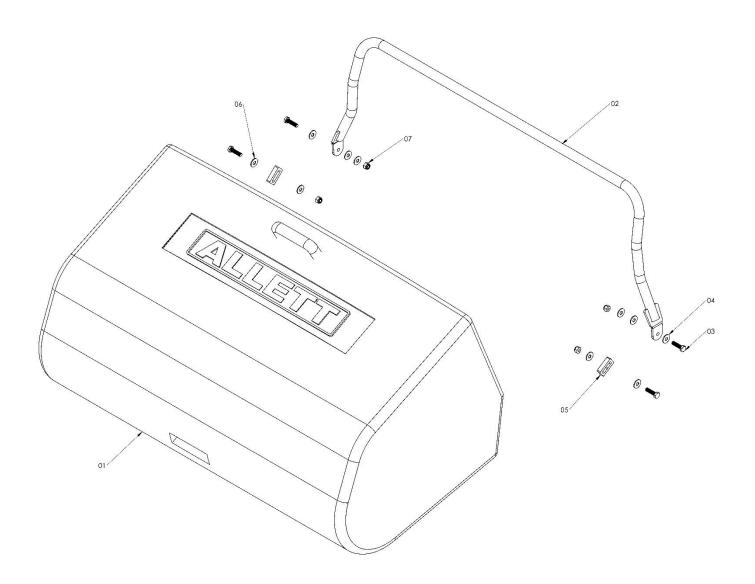
C34 EVOLUTION



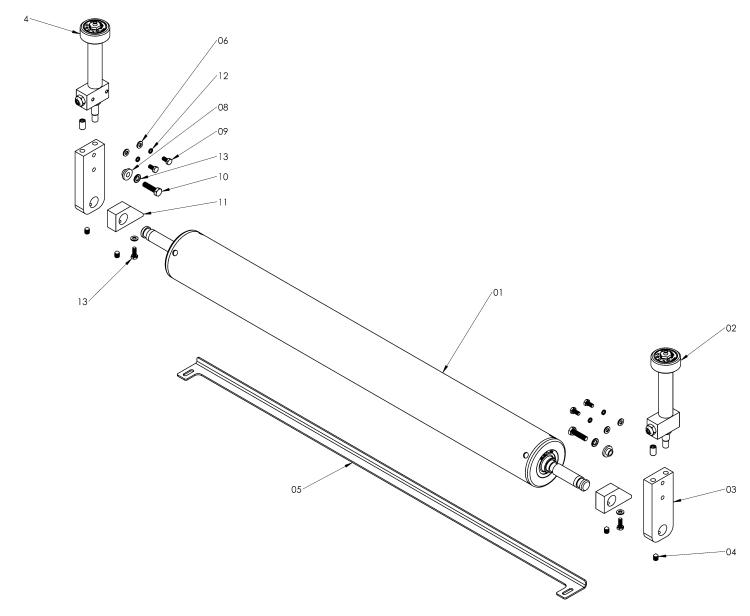
PARTS MANUAL



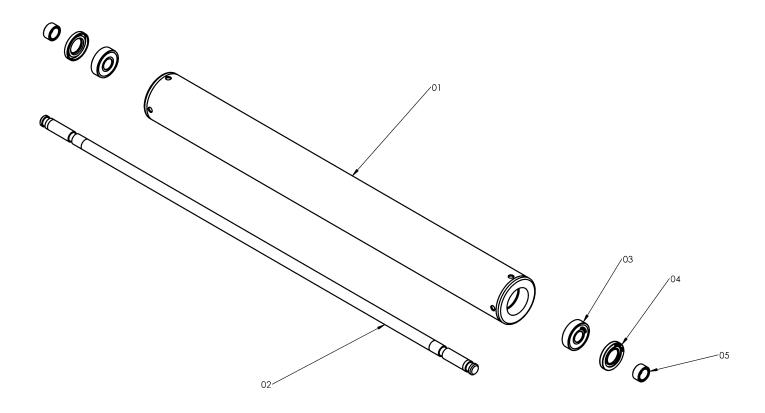
ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
01	GRASSBOX ASSEMBLY	N/A	1
02	FRONT ROLLER ASSEMBLY	N/A	1
03	BATTERY HOOD AND CONTROL BOX	N/A	1
04	HANDLE ASSEMBLY	N/A	1
05	BRAKE ASSEMBLY	N/A	1
06	MAIN CHASSIS ASSEMBLY	N/A	1
07	REAR ROLLER ASSEMBLY	N/A	1



ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
1	GRASSBOX ASSEMBLY	C085	1
2	C34 GRASSBOX CARRIAGE FAB	C337	1
3	SET SCREW M8 x 30	SM830	4
4	WASHER M8 FORM C	WM8C	6
5	C34 GRASSBOX BUFFER	C1733	2
6	WASHER M8 FORM A	WM8A	4
7	NUT M8 NYLOC	NM8	4

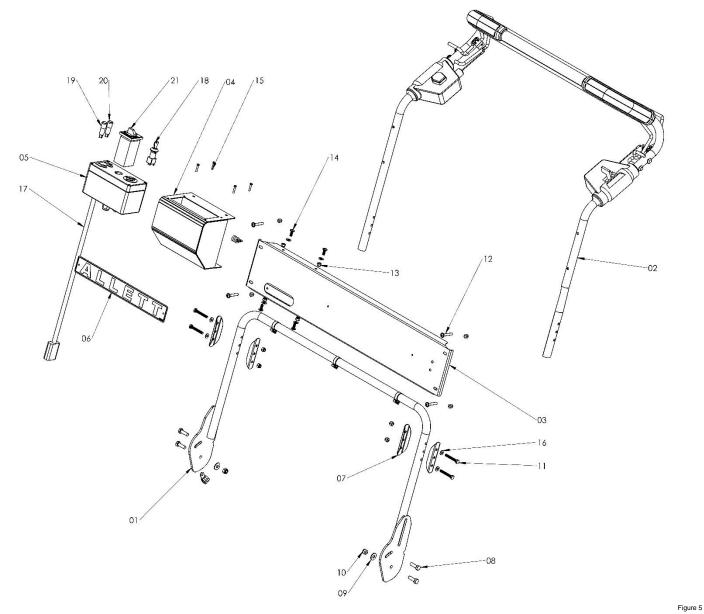


ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
01	F/ROLLER & SHAFT ASSY	BSG212	1
02	LH QUICK HEIGHT ADJUSTER	C094	1
03	34" ROLLER ANCHOR	C1757	2
04	GRUB SCREW M8 x 8	ACGM8	4
05	SCRAPER BAR C34	C1847	1
06	WASHER M6 Form A	WM6	6
07	SPRING WASHER M6	SWM6	4
08	ROLLER ANCHOR TOP HAT	C1758	2
09	M6 X 12 SET SCREW	SM612	4
10	SET SCREW M8 x 30	SM830	2
11	C34E FRONT ROLLER SCRAPER BRACKET	C1847	2
12	SPRING WASHER M8	SWM8	2
13	SET SCREW M6 x 16	SM616	2
14	RH QUICK HEIGHT ADJUSTER	C093	1

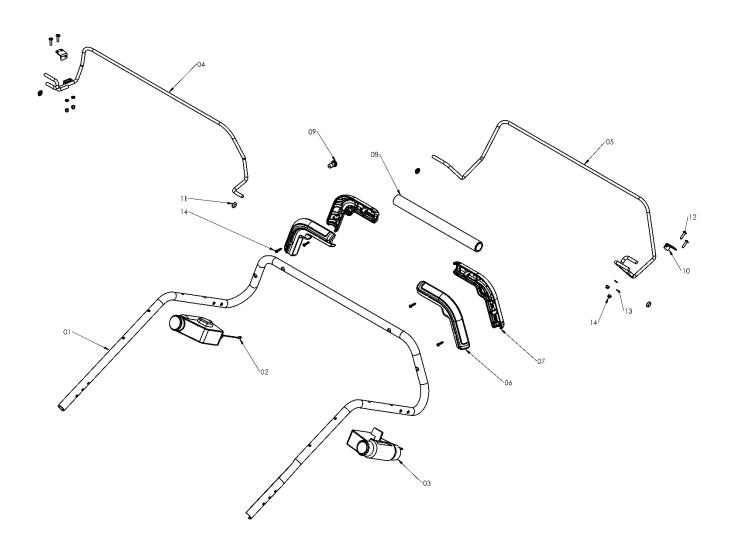


ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
01	BU/C34 FRONT ROLLER FAB	BSG212	1
02	C34 LI-ION F/ROLLER SHAFT	C1719	1
03	BEARING 20mm 6304 2RS	AM81089	2
04	20 DIA BEARING GREASE SEAL	AM81596	2
05	C34 ROLLER SEAL COLLAR	BSG1410	2

MAIN HANDLE ASSEMBLY

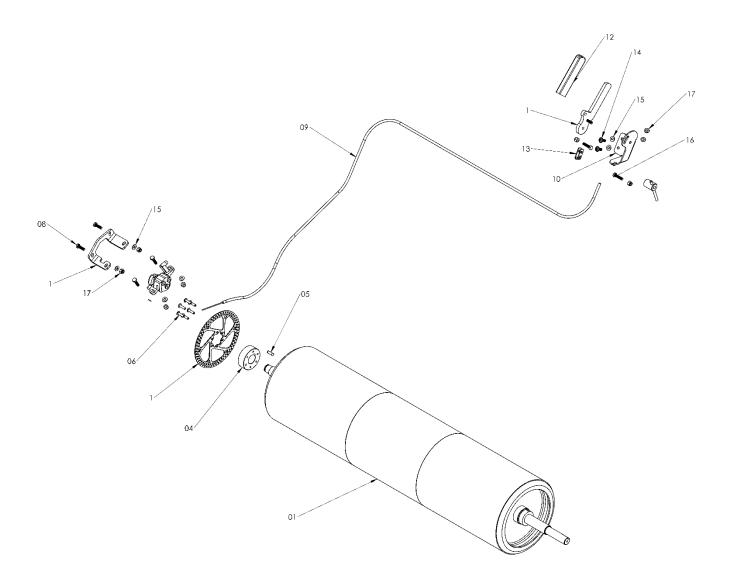


ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
01	LOWER HANDLE BAR FAB	C393	1
02	TOP HANDLE ASSY	C120	1
03	HANDLE BAR CROSS PANEL	C1774	1
04	SWITCH ENCLOSURE MOUNT	C1775	1
05	HANDLE BAR SWITCH CONSOLE ASSY	C126	1
06	ALLETT MEDIUM 356 X 50 DECAL	AM81621	1
07	HANDLE REINFORCEMENT	C1803	4
08	SET SCREW M8 x 25	SM825	2
09	WASHER M8 FORM A	WM8	2
10	NUT M8 Nyloc	NM8	2
11	SET SCREW M6x45	SM645	4
12	SOCKET BUTTON HEAD FLANGED M6 X 20	M6X40_SDF	4
13	NUT M6 NYLOC	NNM6	12
14	HEX SET SCREW	M6X16_SDF	4
15	PAN HEAD M4x20	M4x20 PAN HEAD	4
16	WASHER M6 Form A	WM6	12
17	HANDLE BAR CONNECTOR CABLE	C118	1
18	KEY SWITCH	C1785	1
19	RED LED ASSY	C131	1
20	GREEN LED ASSY	C132	1
21	CYLINDER MODE SWITCH	AM81725	1

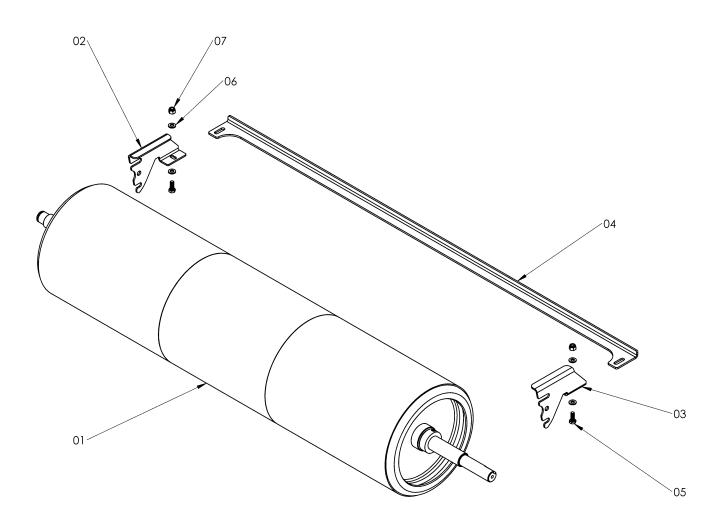


ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
01	UPPER HANDLE LOOP	C1773	1
02	CYLINDER HANDLE SWITCH	C125	1
03	ROLLER HANDLE SWITCH	C124	1
04	CYLINDER BALE BAR ASSY	C103	1
05	ROLLER BALE BAR ASSY	C104	1
06	HANDLE_BOTTOM	C1875	2
07	HANDLE_TOP	C1874	2
08	FOAM SLEEVE	C1879	1
09	SLOW SWITCH ASSY	C134	1
10	BAIL BAR ADJUSTOR BRACKET	C1822	2
11	SECURING CAP	F016T48990	4
12	M5 X 20 SOCKET BUTTON HEAD FLANGED	M5X20_SDF	4
13	WASHER M5 FORM A	WM5	4
14	SCREW	F016T49429	4

Original Instructions – English

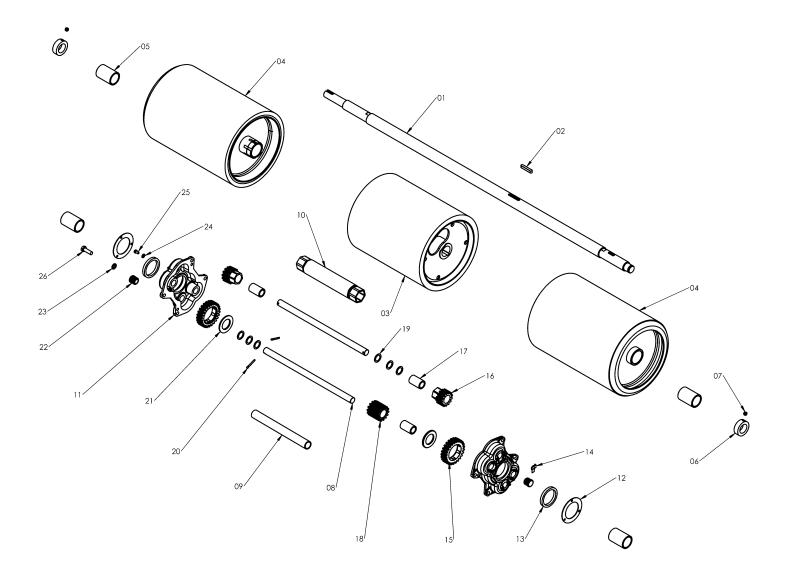


ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
01	34" R/ROLLER	F016J11595	1
02	BRAKE DISC	AM81692_DISC	1
03	BRAKE CALIPER	AM81692_CALIPER	1
04	BRAKE HUB	C1841	1
05	KEY 6X6X20 FORM A	AM81500	1
06	M5 X 20 SOCKET BUTTON HEAD FLANGED	M5X20_SDF	6
07	CALIPER BRACKET	C1852	2
08	M6 X 20 SOCKET BUTTON HEAD FLANGED	M6X20_SDF	4
09	BRAKE CABLE	C1848	1
10	BRAKE LEVER BASS PLATE	BSG1089	1
11	BRAKE LEVER	BSG045	1
12	FLAT CAP	AM81140	1
13	YOKE ANCHOR POINT	BSG1024	1
14	M6 X 20 SOCKET BUTTON HEAD FLANGED	M6X20_SDF	2
15	WASHER M6	WM6	6
16	SET SCREW M6 x 25 ZC	SM625	2
17	NUT M6 NYLOC	NM6	6
18	SCREWLOCK BODY FAB	BSG046	1

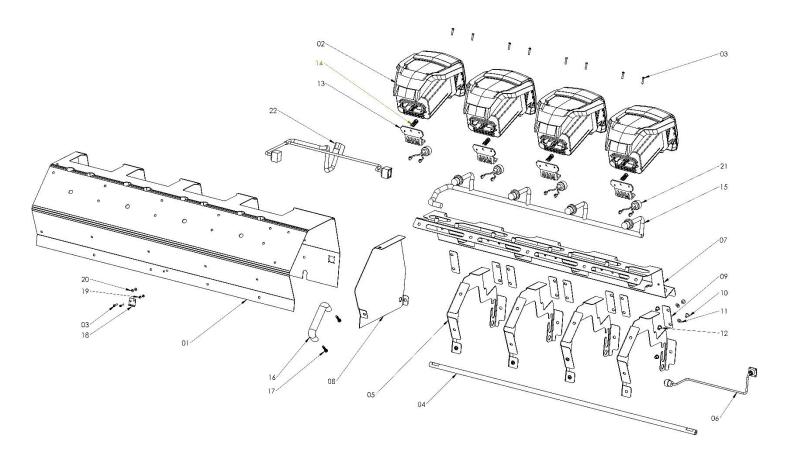


ITEM NO.	DESCRIPTION	PART NO.	QUANTITY	
01	34" R/ROLLER	F016J11595	1	
02	C34E REAR ROLLER SCRAPER BRACKET RHS	C1846	1	
03	C34E REAR ROLLER SCRAPER BRACKET LHS	C1844	1	
04	SCRAPER BAR C34 FRONT SCRAPER	C1631	1	
05	SET SCREW M6 x 20	SM620	2	
06	WASHER M6 FORM C	WM6	4	
07	NUT M6 NYLOC	NM6	2	

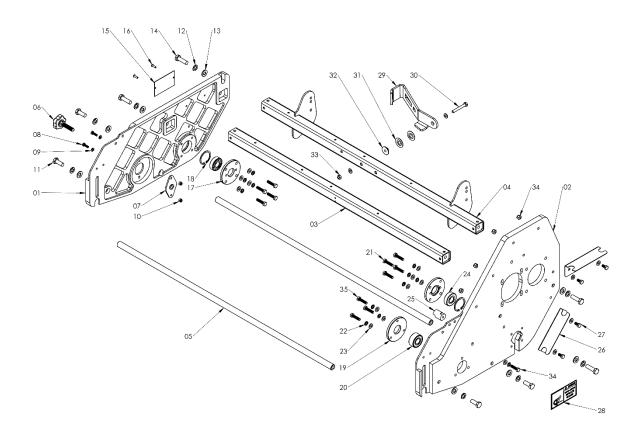
Original Instructions – English



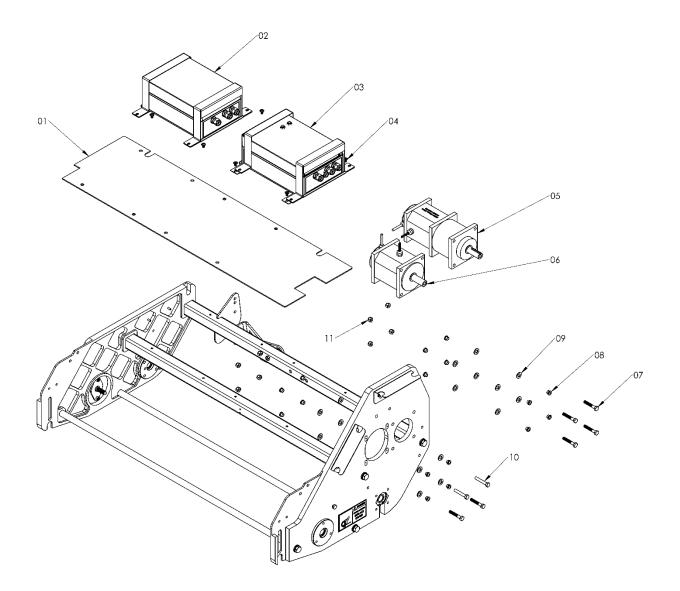
ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
01	C34 LI-ION R/ROLLER SHAFT	C1718	1
02	KEY	F016L12503	1
03	CENTRE DRUM ASSEMBLY	F016J11599	1
04	REAR ROLLER OUTER	F016J11540	2
05	BUSH	F016L12497	4
06	BAR- REAR ROLLER LOCKING COLLAR	BSG016	2
07	GRUB SCREW M8 x 8	ACGM8x8	2
08	DIFFERENTIAL SHAFT	F016L12550	2
09	DISTANCE TUBE	F016L12552	1
10	PINION COUPLING TUBE	F016L66171	1
11	DIFFERENTIAL GEAR COVER	F016Z20532	1
12	COVER PLATE	F016L12499	2
13	FELT WASHER	F016L12500	2
14	TAB WASHER	F016L12474	2
15	DIFFERENTIAL GEAR WHEEL	F016L12502	2
16	DIFFERENTIAL PINION	F016L12551	2
17	BUSH	F016L12422	3
18	DIFFERENTIAL PINION	F016L13870	1
19	WASHER	F016L13236	6
20	SPLIT PIN	F016L12399	2
21	THRUST WASHER	F016L12501	2
22	PLUG HANDLE BLANKING SMALL T40	F016T48526	2
23	SPRING WASHER	SWM8	8
24	LOCKING WASHER	F016L10274	6
25	SCREW 10-24 UNC x 3/8 CHS HD	F016L20489	6
26	SET SCREW M8 x 25	SM825	8



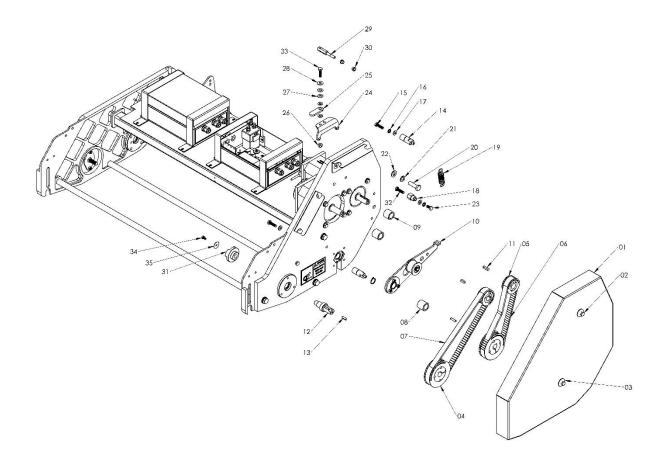
ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
01	COVER	C1764	1
02	82V BATTERY DOCK	82V BATTERY DOCK	4
03	M4x20 PAN HEAD	M4x20 PAN HEAD	10
04	BATTERY DOCK HINGE BAR	C1766	1
05	BATTERY DOCK RIB	C1855	4
06	BACK LAPPING KIT	C129	1
07	BATTERY DOCK CROSS BAR FAB	C1769	1
08	BATTERY DOCK END COVER	C1767	1
09	BATTERY DOCK CLAMP	C1765	8
10	M6x10 Socket Dome Flange Screw	F016J11022	42
11	WASHER M6 Form C	WM6C	16
12	M6 REDUCED HEAD HEX RIVNUT	F016J11067	42
13	BATTERY CONNECTOR	AM81681	4
14	BATTERY CONNECTOR SPRING	AM81682	4
15	BATTERY LOOM ASSY	C133	1
16	HANDLE	EL1086	1
17	SET SCREW M6 x 30 ZC	SM630	2
18	C34E TOGGLE LATCH LOWER LATCH PIECE RS 368-2920	C1811 LOWER LATCH PIECE	1
19	M4 NYLOC NUT	M4 NYLOC	2
20	M4 FLAT WASHER FORM A	WM4A	2
21	BATTERY TERMINAL WIRES	C128	4
22	HANDLE BAR CONNECTOR CABLE ASSY	C118	1



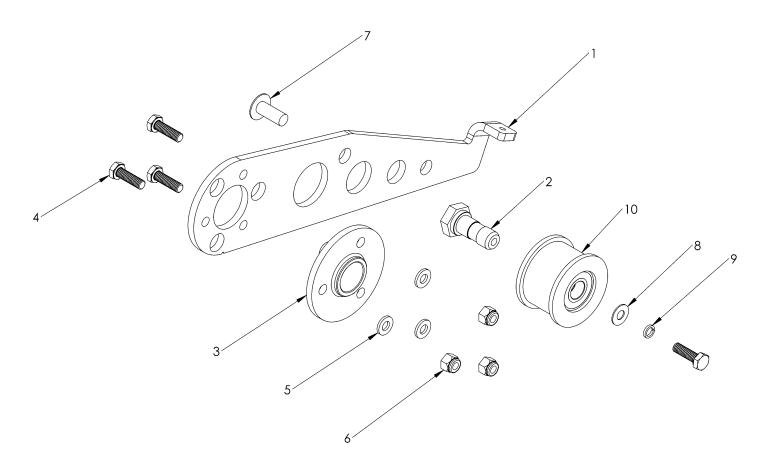
ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
01	DRIVE SIDE PLATE RHS	C1714	1
02	DRIVE SIDE PLATE LHS	C1713	1
03	FRONT CHASSIS RAIL FAB	C392	1
04	CHASSIS RAIL FAB	C391	1
05	CHASSIS CROSS BAR	C1793	2
06	C34E CART LOCKING WHEEL ASSY	C105	1
07	LOCATING BOSS PLATE	C238	1
08	M6x10 SOCKET DOME FLANGE SCREW	M620SDF	2
09	WASHER M6 Form A	WM6	2
10	NUT M6 NYLOC	NNM6	2
11	SET SCREW M12 X 30	SM1230	4
12	SPRING WASHER M12 Z/C	SWM12	8
13	WASHER M12	WM12	8
14	SET SCREW M12	SM1240	4
15	PRO ELECTRIC SERIAL PLATE	AM81696	1
16	POP RIVET4.8 DIA X16mm STEEL	PR4820	2
17	R/ROLLER BEARING CAP	C1783	2
18	DIA 47 INTERNAL CIRCLIP	AM81572	2
19	CYL BEARING CAP	C1784	2
20	BEARING ANGULAR CONTACT	AM81436	1
21	SET SCREW M8x35	SM835	12
22	SPRING WASHER M8	SWM8	12
23	PLAIN WASHER M8 FORM C	WM8	16
24	BEARING	f016l13786	1
25	LOCATING STOP BOSS	C1154	1
26	GUARD BRACKET	C1798	2
27	SET SCREW M8 X 20	SM820	4
28	Guard Missing Decal	T000493	1
29	KICK STAND	C1843	1
30	SET SCREW M8 X 70	SM870	1
31	1/2" BELVILLE WASHER	AM81649	2
32	KICKSTAND SPACER	C1747	1
33	NUT M8 PLAIN	NM8	1
34	SET SCREW M8 x 40	SM840	1
35	SET SCREW M8 x 35	SM835	3



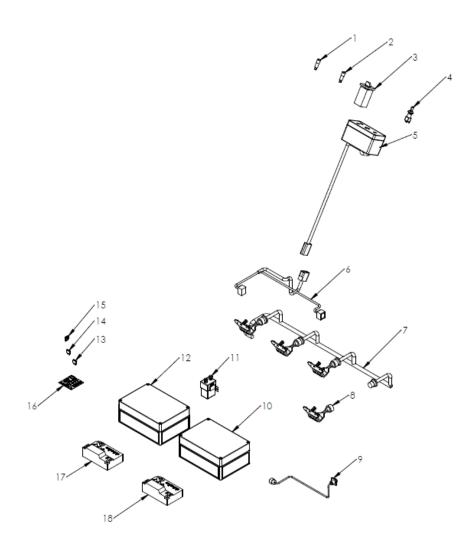
ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
01	DECK BASE LION	C1788	1
02	ROLLER CONTROL BOX ASSY	C115	1
03	CYLINDER CONTROL BOX ASSY	C116	1
04	M6x20 SOCKET DOME FLANGE SCREW	M6X20_SDF	8
05	ROLLER GPE G'BOX 400RPM 112 MOTOR	AM81652	1
06	CYLINDER GPE 2400RPM 112 MOTOR	AM81651	1
07	SET SCREW M8x45	SM845	6
08	TOP HAT INSULATOR	C1756	16
09	M10 FORM A WASHER	WM10 FORM A	16
10	SET SCREW M8x50	SM850	2
11	NUT M8 NYLOC	NNM8	8



ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
01	SIDE COVER	C1796	1
02	CAPTIVE NUT	C1802	2
03	WASHER M10 FORM G	WM10G	2
04	38T TIMING PULLEY	AM81656	2
05	22T TIMING PULLEY	AM81655	2
06	TIMING BELT ROLLER	AM81660	1
07	TIMING BELT CYL	AM81658	1
08	R/ROLLER PULLEY SPACER	C1804	2
09	ROLLER MOTOR PULLEY SPACER	C1827	1
10	R/ROLLER TENSIONER ASSY	C096	1
11	6 x 6 x 25 KEY	AM81465	2
12	DRIVE SPINDLE	C1790	1
13	KEY 6X6X20 FORM A	AM81500	2
14	TENSIONER/GUARD BOSS	C1800	2
15	SET SCREW M8 x 25	SM825	3
16	SPRING WASHER	SWM8	2
17	M8 PLAIN WASHER	WM8	2
18	SPRING ANCHOR	C1801	1
19	CLUTCH SPRING	F016J11461	1
20	M12 BOLT/SET SCREW	SM1240	1
21	SPRING WASHER M12 Z/C	SWM12	1
22	WASHER M12	WM12	1
23	Set screw M8 x 16 ZC	SM816	1
24	MOTOR TENSIONER BRACKET	C1791	1
25	TUNNEL GUARD PROP	C1817	1
26	NUT M8 Nyloc	NNM8	1
27	3-8 BELLEVILLE WASHER	3-8 BELLEVILLE WASHER	2
28	M8 FLAT WASHER FORM C	WM8C	1
29	MOTOR TENSIONER	C1782	1
30	TOP HAT INSULATOR	C1756	2
31	CARTRIDGE COUPLING	C1815	1
32	SET SCREW M8 x 20	SM820	1
33	SET SCREW M8 x 30	SM830	1
34	SET SCREW M6 x 12	SM612	1
35	M6 MUD GUARD WASHER	M6 MUD GUARD WASHER	1



ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
01	TENSIONER ARM	C1799	1
02	IDLER BOSS	C1794	1
03	REAR ROLLER BEARING	F016L61256	1
04	HEX SET SCREW	SM620	4
05	WASHER M6	WM6	3
06	NUT M6 NYLOC	NNM6	3
07	M8X20 CUP SQ BOLT	M820BHSS	1
08	WASHER M6 FORM D	WM6D	1
09	SPRING WASHER M6	SWM6	1
10	IDLER PULLEY ASSY	C091	1
-	BAR - CUTTER CLUTCH JOCKEY	BSG1033	1
-	BEARING 12mm 6001 2RS	AM82104	2
-	INTERNAL BEARING SPACER TWIN	BG1048	1



ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
01	RED LED ASSY	C131	1
02	GREEN LED ASSY	C132	1
03	CYLINDER MODE SWITCH	AM81725	1
04	KEY SWITCH C/W KEY	C1785	1
05	HANDLE BAR SWITCH CONSOLE ASSY (Includes 1-4)	C126	1
06	HANDLE BAR CONNECTOR CABLE ASSY	C118	1
07	4 BATTERY LOOM ASSY	C133	1
08	BATTERY TERMINAL ASSY	C128	4
09	BACK LAP ASSY	C129	1
10	CYLINDER CONTROL BOX ASSY (includes 11 & 18)	C116	1
11	CONTACTOR	AM81673	1
12	ROLLER CONTROL BOX ASSY (includes 11 & 17)	C115	1
13	FUSE 4A	EL1085	2
14	FUSE 25A	AM81722	2
15	FUSE 7.5A	AM81723	1
16	PCB BOARD ASSY	C130	1
17	CONTROLLER - ROLLER	AM81672R	1
18	CONTROLLER - CYLINDER	AM81672C	1

Your nearest dealer:

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