



Viralka Engineers Pvt Ltd.



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SERVICE MANUAL

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Dear Customer,

Welcome to Viralka Engineers.

Congratulations on Selecting a Pollution free scooter. You are now a proud owner of Viralka scooter which will redefine the concept of mobility. Viralka Electric Vehicles are designed keeping yours need in mind.

- Viralka Electric has a remote key (For anti-theft alarm, Find me,)
- Viralka Electric has Digital speedometer
- Pillion rider backrest (Optional)

This owners manual will guide you to the basic operation, routine maintenance and service policy of Viralka Engineers. Please read carefully.

For service and repair please visit our authorized dealers Enjoy your new ride

Warm Regards
Viralka Engineers

Dealer's Name Dealer's Code

Contact No.....Location.....

Address

Town/City.....State.....Pin code.....

Email.....

**VIRALKA-
SCOOTERS**

**RTO /
NON RTO**

MODELS

GREEN

GREEN PRO

PRIME

VESPA-R

VESPA-S

MAGNUS

VESPA-BS



VIRALKA -BIKES

RZ

JF

V-6

A1-4

DMS

PASSION



DIGITAL SPEEDOMETER



SIDE MIRROR



CENTRAL LOCKING



THROTTLE



SEAT



HEAD LIGHT



BATTERY CHAMBER



DOUBLE DISC BRAKE



SIDE STAND



TAIL LAMP



BLDC
MOTOR



SUSPENSION



Trouble phenomenon and troubleshooting

Number	Failure phenomenon	Cause of failure	Remedy
1	Speed regulation failure or low maximum speed	A. Battery voltage is too low B. Loose connection of speed control handle C. The spring in the speed control handle is stuck or fails	A. Fully charge the battery B. Clamp after recheck C. Find a supplier to replace the spring
2	The motor hub does not work when the power is connected	A. Loose battery wiring B. Power failure left and right brakes C. Loose or damaged motor hub wiring plug	A. Repair again B. Repair again C. Find a professional repair station to repair
3	Insufficient driving range after one charge	A. Insufficient tire pressure B. Insufficient charging or faulty charger C. The battery is aging or damaged D. Many uphill, heavy headwinds, frequent braking and starting, heavy loads	A. Full of gas B. Enough electricity to check whether the charger plug is in poor contact C. Replace the battery
4	Insufficient charger	A. The charger socket falls off or the connection between the plug and the socket is loose B. The fuse in the charger is blown C. The battery pack wiring is off	A. Fasten sockets and connectors B. Replace the fuse C. Welding cable
5	Other failures	A. When you encounter a failure that cannot be rectified by yourself or a failure that cannot be determined under the above guidance B. When the motor hub, controller, charger, and battery pack are damaged	In case of the above situation, please find the supplier's maintenance station, do not open the above parts without authorization, otherwise, the company's warranty will be lost

- j. The vehicle has an under-voltage protection device, which automatically cuts off the power when the battery voltage is insufficient. Please charge it as soon as possible; otherwise it will affect the battery life. When the battery power is exhausted, if it is still driven by electricity, it will seriously damage the battery life.
- k. During the static start process, the voltage will fluctuate greatly, and the voltage indicator will flicker. This phenomenon is normal.
- l. If the intelligent brushless electric vehicle is excessively overloaded or the driving road is very bad during use, in order to better use the parts of the vehicle, the electric vehicle will automatically cut off the power and the motor will stop running. In the case of the above situation, just return the air switch to "no" and then pull up the motor again to restart.

Guarantees Schedule

Sl. No	Description	Warranty
1	Vehicle Standard Warranty*	1 year/7000km
2	Lithium Battery	3 years/25000km
3	Lithium Battery Charger	3 years/25000km
4	VRLA Battery	1 year/7000km
5	VRLA Battery Charger	1 year/7000km
6	Tyre (Unconditional)	5 Years

After-sales service card

Respected user:

In order to protect your legitimate rights and interests, please keep this card properly. When buying a vehicle, please inspect and debug it on the spot, and have the right to request the sales staff to provide correct operation methods and maintenance items.

- Warranty is valid if your Scooter / Bike / E Rickshaw is delivered and timely maintenance should be done from VIRALKA Electric authorised dealer service centre
- Shockers and Lights are not covered under warranty policy
- Plastic parts do not belong to the scope guarantees

Note: Viralka reserves the right to change or withdraw any clauses of the warranty without prior information or notification

POINTS TO BE TAKEN CARE FOR BETTER BATTERY LIFE & MILEAGE



1. Ride the vehicle with economy mode in rural/traffic area for better mileage
2. Charge the batteries approx. Lithium ion 3 to 4 Hrs/Lead Acid 6 to 8 Hrs on daily basis for better battery performance /life
3. Maintain the tyre pressure—front tyre 29 psi and rear tyre 36 psi for better mileage
4. Don't overload the vehicle for better battery life and performance
5. Don't use brake levers while accelerating
6. Do not wash the battery with water or other liquid it can be harmful
7. Don't charge the scooter immediately after riding, let the vehicle cool down for 30 minutes.
8. Keep start key in switch off condition during charging
9. If vehicle is not used for more than 1 Week, keep MCB in off condition

POINTS CUSTOMER SHOULD TAKE CARE

- 1) Always wear the helmet during riding the vehicle.
- 2) Whenever you ride, follow all traffic regulations, especially stop signs, traffic signals, pedestrian crosswalks, etc.
- 3) Please bring the vehicle for service as per schedule
- 4) Always use VIRALKA genuine parts
- 5) Don't use the charger and battery for other application
- 6) Don't open or repair any part yourself. please bring the vehicle to service center in case there is any problem
- 7) Never drop the charger. Dropping, shaking, dragging, or kicking it will cause it to fail.

ABOUT YOUR VEHICLE

You do not require driving license to ride your vehicle and make sure please follow the traffic rules / signals while riding. Your electrical vehicle run on battery that give electric power to the rear wheel motor. A controller device controls all the electrical signals and motor drive.

- Please charge the battery with Only VIRALKA recommended charger.

How to Drive your vehicle – Please follow the below steps:

- Insert the key in Start switch cum steering lock and open the steering lock with rotating the key
- Unmount the vehicle from Side or center stand
- Rotate the key to ON position
- Please ensure the battery charging indication
- Twist the throttle gradually and the scooter will start to move
- To stop use Both brake lever

Guideline

- If you apply brake power will cut off to motor and vehicle will not move or will stop
- It is safer to sit on the vehicle before turning the power ON.
- Please ride carefully.

SAFETY FIRST

- The safe riding is the best driving.
- Use a good quality ISI marked helmet while driving.
- Avoid over speeding and negligent driving to prevent injury to you and to others on the road.
- Please avoid the pot holes and standing water, in case you have crossed standing water bring the Scooter to a dry surface and left the motor running/ rotating for minimum 2 to 3 minutes.
- Sudden throttle will cause a jerky ride as well consume more current which will result in quick discharge of battery and the Vehicle will give low mileage .
- Always carry vehicles registration papers (Register Model)
- Do not allow any modification the scooter.
- Please ensure all electrical connection before riding.
- Please don't remove any reflector from scooter and the reflector should not be covered.





VIRALKA ELECTRIC Vehicle Warranty

VIRALKA gives the following warranty in respect of all new VIRALKA (Model Name) manufactured at their works and sold after pre-delivery inspection, to be free from any manufacturing defect, and undertake to repair or replace free of charge, with in 12 months or running 10000 KM (Except Motor, Controller, Charger batteries. under normal condition of usage, subject to following , terms and conditions .

Motor warranty 18 months, Controller, Converter and Charger 12 months.

Warranty is valid only if :-

- 1) Vehicle is delivered and subsequently serviced by an authorized VIRALKA dealer or Authorized Service center.
- 2) All the free and battery services offered by the company are availed as per frequency and schedule mentioned.

VIRALKA warranty will be not applicable and void if your vehicle is:

- Used for stunts or competitions or jumping.
- Service schedule skip /serviced/ repaired at unauthorized service station.
- Used for carrying more than permissible load.
- Damage parts or any warranty seal sticker remove/broken.
- Any parts observed in dismantles condition.
- Modified /altered for any specific use other than as a personal transport .
- Resold to any other person /company.
- Accidental , Flooding, Fire, Falling objects and natural or man made calamities damages.
- Unauthorized scooter accessories fitted.
- Non functional due to natural wear and tear, ageing, misuse and negligence.
- Not operated /not maintained /no charge /worn item not replaced as per guideline in this manual.
- Non genuine parts used /failure related to Non genuine parts.
- The warranty does not cover any personal injuries or damages of any type to the rider or any other person due to failure of any parts of vehicles.

VIRALKA ELECTRIC Warranty

VIRALKA vehicle's warranty will be not applicable and void if your vehicle is

- Warranty on proprietary items of Indian origin proprietary selected items like tyre & tube, and batteries are warranted by their respective Indian manufacturer and should be claimed on them directly by the customer. VIRALKA will be not liable in any manner to replace them though their dealers will give full assistance in preferring such claims on their Indian manufacturers
- However in case of any of the Imported proprietary items as described above, VIRALKA will cover the warranty obligations .

Other points related to battery warranty

- Warranty of replaced battery will be from original date of purchase. For example a battery set has been purchased on 1st of January. It fails on 1st of august and another battery is given in lieu of it by the company. Then the warranty of the new battery set will remain from 1st January

Warranty Policy for batteries Important Conditions related to battery warranty

LITHIUM-ION

Sl. No.	Warranty period from Date of Invoice	Ah Criteria For Replacement	VIRALKA ELECTRIC . remarks
1	0 to 3 months	30 AH	Replaced with a 30AH set both side transport bear by company
2	4 to 12 months	30 AH	Battery set will be replaced with a 30 AH set or higher battery set
3	13 to 24 months	30 AH	Battery set will be replaced with a 25AH set or higher battery set
4	25 to 36 Months	30 AH	Battery set will be replaced with a 20AH set or higher battery set

LEAD ACID

Sl.	Warranty period from Date of Invoice	Ah Criteria For Replacement by VIRALKA . Remarks
1	0 to 3months	Battery set will be replaced with New battery set.
2	03 to 06 months	
3	07to 09 months	
4	09 to 12 months	

Important Conditions related to battery warranty

A	The batteries are warranted against manufacturing defects & abnormal drop in the Ah values and against any leakages as shown in the table above from the date of sale of battery to customer and not against normal deterioration in their performance. Battery warranty does not cover failures due to accidental damage, misuse or improper care of the batteries
B	Regular servicing of your electric scooter at our Authorized service station is very important. During the service the batteries are also checked for their state of health and corrective action taken to stop any further damage/ permanent failure
C	The scooter's batteries is a special application battery meant only for the electric scooter. Do not use scooter batteries for other purpose
D	Batteries must be kept as cool as possible to ensure the long life and better performance. Batteries become abnormally hot & start bulging if vehicle is driven under overload for long distance, is charged under sunlight, is charged immediately after driving or the charger is kept ON for long period of time even after battery is fully charged
E	The battery life of your vehicle can be substantially extended following simple tips mentioned in the battery care card & owner's manual handed over to you at the time of purchase of vehicle.
F	The battery warranty become null & void in case the conditions mentioned in owner manual are not followed adequately & completely by customer
G	Some battery manufactures may follow their own battery warranty policy. In such case warranty policy of the battery manufactures will override the above battery warranty policy and warranty will be directly provided by the battery manufactures to customer
H	Above warranty policy is applicable for new vehicles fitted with new battery set sold first time to customer. For warranty of any other batteries (Sold in spare, Discount etc.) please refer the separate policy available with dealership
I	For availing warranty Customer will have to handover the defective batteries on FOC basis to VIRALKA ELECTRICAL AUTO TECH PVT LTD. The batteries will be recycled as per government of India guideline

VIRALKA vehicles Warranty



Design Performance parameter of the batteries :

- VIRALKA fitted with new battery gives the stated mileage under standard test conditions.
- Actual mileage of the new batteries may be lower because of factors such as road condition, tyre pressure, gradients, start stop, acceleration, charge level, rider drive method etc.
- Batteries are like a fuel for your VIRALKA and start getting consumed by time. E.g the mileage on day 1 will be the highest and day 30 will be slightly low, day 90 still lower and so on. This is a natural phenomena of the VIRALKA batteries. As a thumb rule there is a 5-7% drop in the design capacity of batteries every 30 days.

Actual performance parameters of the batteries

- The batteries are warranted against manufacturing defects only and not against normal deterioration in their performance. Please read the battery warranty clauses carefully (Ref. page no. . . .09.)
 - The mileage and the condition of your VIRALKA batteries can greatly deteriorate more than that specified above if any of the steps mentioned in this manual is not carried out properly and completely.
 - In case of any warranty claim of batteries requested by the customer the following procedure will be followed to accept or deny the claim related to battery.
 - The VIRALKA battery is a special application battery meant only for the electric vehicle. Do not use EV Vehicle battery for any other application or product.
 - Never short circuit the positive and negative terminals of the battery. It will damage the battery & can cause severe injury and fire
- Range :** many factors govern the mileage that your VIRALKA gives which includes : The charge of the battery, air pressure of the tyres, adjustment of the brake (Dragging brake shoe will adversely affect range), an overloaded vehicles requires more energy to accelerate which result in a loss of range, frequent stop and start usage (full power from a standing start draws the most amperage from the battery)

Procedure and system for setting battery warranty claim

- Claim will be reject if the loss of capacity of batteries is within the normal limits as specified above or in this manual on page no. 10 .The loss of capacity will be checked on the electronic equipment and instruments that is available with the dealer /Company
- In such above cases the customer may request dealer to try and revive the batteries at customer's risk by repeatedly charging / Discharging batteries using special equipments , leveling the batteries and reinstalling batteries in a different orientations . All this will be done on chargeable basis and without any guarantee of revival of the batteries to the design capacity.
- The system of checking and reviving batteries may take few days because of the time required to charge and discharge the batteries .
- The customer may have to leave the Battery Set with the dealer for few day.

Tips for batteries performance

- Batteries are totally packed with seal and dry type batteries .
- Charge the batteries till full charge (Green signal in charger)after every ride and every day. Frequent charging does not harm the batteries
- Batteries need to fully charge and fully discharge once a in the month
- Discharge the batteries before long storage by running the scooter
- Keep batteries cool . Charge under shade . Charge after at least 40 minutes of a long drive
- Start switch should be switch off during charging
- Check fortnightly, any sings of bulging and if so immediately take to your nearest VIRALKA ELECTRIC dealership
- Get the batteries balance by rotating every 03 months from your nearest VIRALKA ELECTRIC.
- Don't use brake levers while accelerating , Do not over load the scooter
- Please keep the batteries from water and do not wash batteries .
- Apply petroleum jelly on terminals while any repair of battery.

Battery Charger

- The charger charge the batteries after use, Chargers are rated in terms of charging current (amps) and battery pack voltage . The charger converts in AC to DC to store power in the battery . This charger can be used with any normal domestic AC plug point (3A To 6 A) . This makes charging of the battery pack easy and Convenient . Moreover , the charger provided along with your electric vehicle is designed to avoid overcharging

How to operate charger

- Put the charger at dry and flat surface
- Insert the 3 pin plug of charger in to wall socket
- 3. Fix the output lead of charger to the charging socket on the vehicles & charger indication glow /blink and switch on the wall socket
- The battery is completely charge when charger show Green light i.e. 100 %.

Warning - In case the out put cable in the charging socket is not fully connected and charger start glowing (20 -100%) blinking .

Note -

- Charging time for Lithium - Ion 3 -4 Hrs /Lead Acid 8-9 Hrs for complete charging.
- Charger to be kept connected for further 1-2 hours.

Important notes about charging your vehicle

- In case of water entry inside the charger the warranty will be null and void.
- The power switch lock must be the OFF position when the VIRALKA ELECTRIC is being charged.
- Before charging ensure that the fan inside the charger is working properly.
- The battery charger supplied with this battery is for indoor use only.
- Avoid any contact with water or other fluids while charging the battery. If the battery charger or any connections get wet immediately unplug the charger and thoroughly dry all components prior charging the battery.

MANUFACTURER'S COPY

Part (B) Delivery Certificates. (To be given by the customer to "VIRALKA ENGINEERS PVT LTD" dealer at the time of taking possession of new vehicle)

Certified that I..... have taken possession of the vehicle bearing Frame No. and Motor No. from M/S..... today in good condition.

I have understood operation, controls and general maintenance instructions including rear wheel removal " The terms of warranty have been explained to me and I agree to abide by the same. I also transfer to "VIRALKA ENGINEERS PVT LTD", free of any interest of third parties, all the rights, participation, credits, permits and benefits associated with or derived from the reduction of greenhouse gases generated by the above mentioned vehicle. I will not sell, negotiate or authorize any person or entity to consider or negotiate on my behalf greenhouse gas emission reduction generated by this vehicle except " VIRALKA ENGINEERS PVT LTD".

I have also received the following items along with my Vehicle with out extra charge. Tool Kit, Mirror Set, Owners' Manual Set of Keys, Battery Charger Location of Tool Kit/Battery Set/Charger & MCB in the vehicle has been shown to me.

I have ridden / checked all functions of vehicle and found the vehicle in perfect working condition to my entire satisfaction. I hereby declared that if any of the free or paid service coupons and battery rotation coupons (VRLA)/Battery test report coupons (Lithium-ion) as per schedule are not availed then warranty will null & void

Customer Signature:

Dealer's Signature and stamp

Delivery Certificate



Owner Manual No.

Customer Details
Customer Name..... Father Name
Contact No.Age GenderLocation
Address
Town/City.....State Pin Code Email
Other Information

Vehicle Details
Chassis No Motor No
Model Date of Sale..... Dealer Code
Battery No.1 Battery No. 2
Battery No.3 Battery No. 4
Battery No.5 Vehicle Colour
Charger No.Controller No.

I have read and understood 1) Details of scooters operations 2) Receivable with Scooter 3) Warranty Policy and service schedule mentioned in this owner's manual which is received by me. You can send me your product information/ Offers / improvements on my mail id

Dealer Signature:

Customer's Signature

1. Confirm the vehicles Motor number & Frame number in the job card
2. Clean the Electric vehicle externally with air following by a soft cloth
3. Check and Adjust the brake
4. Check proper functioning of battery and charger
5. Check for smooth operation and free play adjust if required
6. Check free movement of handle adjust if required
7. Check suspension system / shock absorbers for proper functioning
8. Check functioning system of all the locks with the starting key
9. Check Hub motor and ensure is proper working
10. Check and tighten all nuts and bolts if required
11. Check Main stand , side stand functioning working
12. Check all light and horn
13. Check and correct tyre pressure if required
14. Take a test drive and ensure proper functioning of Electrical vehicles
15. Check speedometer function
16. Clean the Electric vehicle and handover it to customer

DATE OF DELIVERY
DATE OF SERVICE
KMS
REGN. NO.
COUPON. NO.
DEALER / ASC Stamp / sign.

1st Service-Free Coupon VRLA 1600
- 1700 Kms or within 60-70 days
(Whichever is earlier from the date of delivery)



Coupon
No.

Customer Name Contact No.

Address Email

Chassis No. Model

Date of Sale Motor No

Charger No ASC/ Dealer Code

Service Date KMs

Certified that the work narrated overleaf is carried out to my entire satisfaction

Dealer's Signature and stamp

Customer's Signature

1st Free Service

1. Confirm the vehicles Motor number & Frame number in the job card
2. Clean the Electric vehicle externally with air following by a soft cloth
3. Check and Adjust the brake
4. Check proper functioning of battery and charger
5. Check for smooth operation and free play adjust if required
6. Check free movement of handle adjust if required
7. Check suspension system / shock absorbers for proper functioning
8. Check functioning system of all the locks with the starting key
9. Check Hub motor and ensure is proper working
10. Check and tighten all nuts and bolts if required
11. Check Main stand , side stand functioning working
12. Check all light and horn
13. Check and correct tyre pressure if required
14. Take a test drive and ensure proper functioning of Electrical vehicles
15. Check speedometer function
16. Clean the Electric vehicle and handover it to customer

Cost of consumables and Consumable parts not covered under warranty are chargeable to Customers

DATE OF DELIVERY
DATE OF SERVICE
KM S
REGN. NO.
COUPON. NO.
DEALER / ASC Stamp/ sign.

2nd Service-Free Coupon VRLA 3300-3400 Kms

or within 120-130 days

(Whichever is earlier from the date of delivery)



Coupon No.

Customer Name Contact No.

 Address Email

 Chassis No. Model

 Date of Sale Motor No

 Charger No ASC/ Dealer Code

 Service Date KM

Certified that the work narrated overleaf is carried out to my
entire satisfaction

Dealer's Signature and stamp

Customer's Signature

2nd Free Service

1. Confirm the vehicles Motor number & Frame number in the job card
2. Clean the Electric vehicle externally with air following by a soft cloth
3. Check and Adjust the brake
4. Check proper functioning of battery and charger
5. Check for smooth operation and free play adjust if required
6. Check free movement of handle adjust if required
7. Check suspension system / shock absorbers for proper functioning
8. Check functioning system of all the locks with the starting key
9. Check Hub motor and ensure is proper working
10. Check and tighten all nuts and bolts if required
11. Check Main stand , side stand functioning working
12. Check all light and horn
13. Check and correct tyre pressure if required
14. Take a test drive and ensure proper functioning of Electrical vehicles
15. Check speedometer function
16. Clean the Electric vehicle and handover it to customer

DATE OF DELIVERY
DATE OF SERVICE
KM S
REGN. NO.
COUPON. NO.
DEALER / ASC Stamp / sign.

3rd Service-Paid Coupon VRLA 4900-5000
KMs or within 180-190 days
(Whichever is earlier from the date of delivery)



Customer Name Contact No.
.....
Address Email
.....
Chassis No. Model
.....
Date of Sale Motor No
.....
Charger No ASC/ Dealer Code
.....
Service Date KMs
.....

Dealer's Signature and stamp

Customer's Signature

Cost of consumables and Consumable parts not covered under warranty are chargeable to Customers

3rd Free Service

1. Confirm the vehicles Motor number & Frame number in the job card
2. Clean the Electric vehicle externally with air following by a soft cloth
3. Check and Adjust the brake
4. Check proper functioning of battery and charger
5. Check for smooth operation and free play adjust if required
6. Check free movement of handle adjust if required
7. Check suspension system / shock absorbers for proper functioning
8. Check functioning system of all the locks with the starting key
9. Check Hub motor and ensure is proper working
10. Check and tighten all nuts and bolts if required
11. Check Main stand , side stand functioning working
12. Check all light and horn
13. Check and correct tyre pressure if required
14. Take a test drive and ensure proper functioning of Electrical vehicles
15. Check speedometer function
16. Clean the Electric vehicle and handover it to customer

Cost of consumables and Consumable parts not covered under warranty are chargeable to Customers



Customer Name Contact No.

Sr. No.	Date of Repair	KM Covered	Days Covered	Job Card No.	Job Details	Service Dealer