

OPERATOR'S MANUAL CUSTOMER SERVICE CHECKBOOK

Valid for "e-max" versions:



e-max 90S

e-max 110S

e-max 120S

Dear Vmoto e-max riders,

We are pleased that you have chosen one of our brand name vehicles and we welcome you warmly into the large group of Vmoto e-max riders.

This operator's manual contains tips about

- correct handling
- inspections and service intervals

for your e-max scooter.

For your safety and in order to guarantee comfortable riding, we recommend that you carefully read this operator's manual before using your vehicle.

For problem free -operation and maintaining the value of the vehicle ensure professional servicing, follow all the established maintenance and driving tips in this handbook and have all servicing carried out by an authorised e-max specialised dealer at the correct time intervals as specified in this manual.

We wish you an enjoyable and safe riding experience!

1. Safety tips

Before use:

Check the scooter to make sure that:

- the charger is unpacked
- there is enough power in the battery
- the lights and horn are functioning
- there is enough tyre pressure and tread
- the brakes are functioning correctly, especially that the brake fluid is full and the seal of the braking system and brake pads are in order
- the steering movement is smooth
- no loosen screws or parts

While driving:

1.1 Clothing

- Always drive with a well fitting helmet
- Wear tight fitting and comfortable clothing
- Wear appropriate footwear (no sandals or slippers)

Under some conditions, open or loose clothing can have an adverse affect on driving safety!

1.2 Riding style

- Ride with foresight and consideration
- Always keep both hands on the handlebars while riding
- When riding around bends, the rider and passenger (when applicable) should lean with the scooter into the curve
- Ride with exceptional care on poor or wet surfaces
- Use the booster function only when needed, e.g. when quick acceleration is required or on a hill
- Pay attention to any unusual noises or handling of the scooter

1.3 Loading of objects and passengers

- Use only the rear storage box, the storage compartment under the seat or loading hook when transporting objects
 - Do not exceed the approved total weight
 - The scooter is certified for a maximum of 2 people!
-
- Maximum load in the top case: 5 kg
 - Maximum load in the storage compartment under the seat: 5 kg
 - Maximum load for hooks: 3 kg
 - Certified total weight 90S / 110S / 120S: 300 kg / 331kg / 331kg

After trip:

- Check to see whether the battery needs charging

Riding on a partially charged or empty battery will significantly reduce its life.

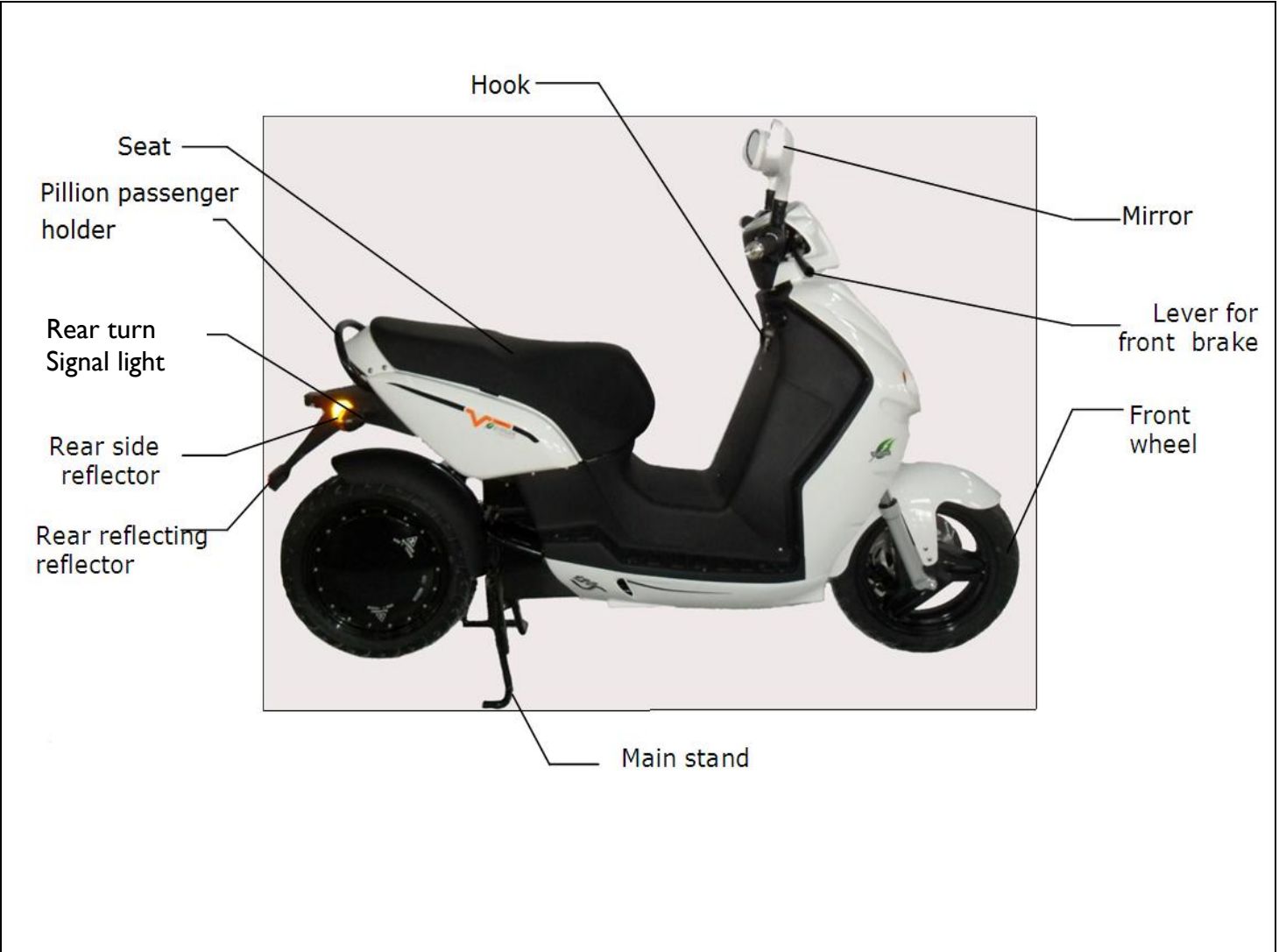
You can increase the life of the battery by using only the original e-max charger every time you charge the scooter.

Overcharging the battery is impossible as the charging unit switches off when the maximum charge is reached.

2. Attachments and Controls

Remark: This picture shows the 120S





2.1 Ignition switch

Possible switch positions:

OFF position:

- All functions off
- Steering lock not engaged
- Scooter can be moved
- Work on the scooter is possible without risk



Key in the ignition and in "Drive" position:

- All functions are ready for use
- Scooter is ready for drive
- In this position, the key cannot be removed



Warning: No engine noise!! Throttle active!!

Steering lock in position, "Handlebar locked":

- Turn handlebar to the left until it stops
- Press the key one time inside and release (key moves out by itself), now turn key to the position, "Handlebar locked" and remove key
- All functions are turned off
- Scooter has limited movement



2.2 Speedometer / LCD Display

After being switched on, a welcome text appears (if activated) in the display. In case of a malfunction: see 3.4 for the respective information. As soon as this has disappeared and no further malfunction notification appears, the scooter is ready for use.



Symbols in the display:

KmP: Trip odometer function: pressing the mode switch longer than 3 seconds sets it to zero

KmT: Total kilometre function: a short press on the mode switch changes the display to the current battery Voltage

V: Display for the current battery Voltage: a quick press of the mode switch changes the display to the total kilometre function

E□□□□: Battery capacity, max. 6 fields. When only one field is still visible, max. 2-5 km range

A□□□□: Current power consumption, max. 6 fields (120S no such function, it'll show the messages below).

For 110S and 120S only:

Normal: Default status when turn on scooter. Moderate power consumption and acceleration, and moderate vehicle speed and mileage. Recommended for level ground.

Max: Greater power consumption and excels in acceleration. Under this mode, the vehicle speed is faster while the driving mileage is shorter. Recommended while overtaking vehicle or driving uphill.

Eco: Minor power consumption and slower acceleration with extensive driving mileage. Recommended while battery power is insufficient or driving a long distance.

2.3 Left Switch Unit

2.3.1 High Beam switch

Position 1:

When the low beam is switched on, press the switch down will activates the high beam as long as pressure is applied

- The blue high beam LED is displayed on the speedometer

Position 2:

When the low beam is switched on, pressing the switch up switches the high beam on permanently

- The blue high beam LED is displayed on the speedometer

2.3.2 Indicator switch

Setting indicator: Slide the switch to the left or right switches on the indicators

- Audible signal

Turn off indicator: press white button

2.3.3 Horn

Pressing the yellow switch sounds the horn



2.3.4 Reverse switch

Forward drive:

Release the Reverse switch, normal position

Reverse drive:

While pressing the Reverse switch turn the throttle to drive backwards.

The maximum reverse speed is limited to 3 km/h.

Between forward and reverse drive the scooter must be stopped for 0.5 sec. to drive in another direction.



2.4 Right switch Unit

2.4.1 Mode Switch

- Short press: Display in speedometer changes from trip odometer (KmP) + battery voltage to total odometer (KmT) + KmP
- Hold for min. 3 seconds: Trip odometer is set to 0 km

2.4.1 Light Switch

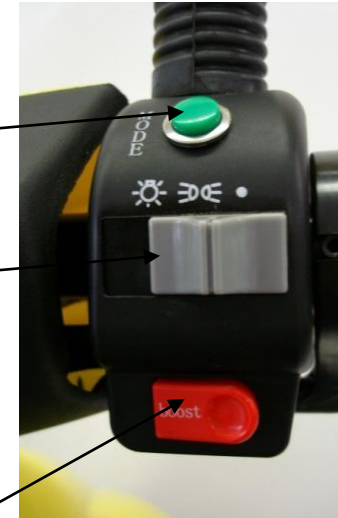
- Right position: All lights are switched off
- Middle position: Front parking lights, rear lights and speedometer illumination are switched on
- Left position: Parking lights, low beam/high beam, rear lights and speedometer illumination are switched on

2.4.1 Boost Switch 90S

- A single press will increase power but not maximum speed
- Active for 60 seconds, then it must be pressed again (if required)
- Is only effective when the scooter is driving at a minimum of 1.5 km/h
- Can also be pressed when standing still, then power is increased when the scooter reaches a minimum of 1.5 km/h
- Frequent use decreases the range

110S and 120S

- Press boost switch can switch among Normal, Max or Eco mode.



2.5 Throttle

Turning the throttle changes the speed.

- Avoid turning it too quickly for a smoother ride
- If the throttle is not used, a safety function will switch off after 180 seconds when the key position is in "Drive"

To activate:

Turn the throttle a full turn and then use it normally

or

set the key switch to "Off" and back to "Drive".



Warning:

In the "Drive" position the throttle is active immediately!!

There is no engine sound when stopped!!

2.6 Seat lock / storage compartment

- To open the seat, put the key in and turn
- To lock, lower the seat and press down until it snaps into place
- Never put keys in the compartment and then close the seat
- Max. load in the compartment is 5 kg



2.7 Charging Plug

- The charging plug is located in the storage compartment (to open compartment see 2.6)
- After charging return the plug to its specially designed holder
- After charging the charging plug and charger must be disconnected!



2.8 Mirror

- Before riding, ensure the mirrors are adjusted correctly
- Fine adjustment is possible by moving the mirror inside its plastic casing
- For safety clean the mirrors regularly!



2.9 Centre/Main Stand

The main stand holds the scooter in an upright position

Use the main stand

- for a long stop
- when the ground is too unstable for the side stand
- for servicing

Placing the scooter on the centre/main stand

- Grasp the passenger holder with your right hand as indicated
- Hold the scooter with your other hand on the left handle bar grip
- Place your foot on the main stand and press it down while lift up and move backwards the scooter with the hand



2.10 Side Stand

The side stand holds the scooter in a slightly angled position

Placing the scooter on the centre/main stand

- Move the scooter to a firm surface
- Fold out the side stand with the right foot and
- To fold the stand in, set the scooter upright and using your right foot, return the side stand into place out the side stand with the right foot and



Note:

When the side stand is out and the key is in position "Drive"

- the throttle is disabled
- following message appears in the LCD: "Side stand out"
- and the orange warning LED is on

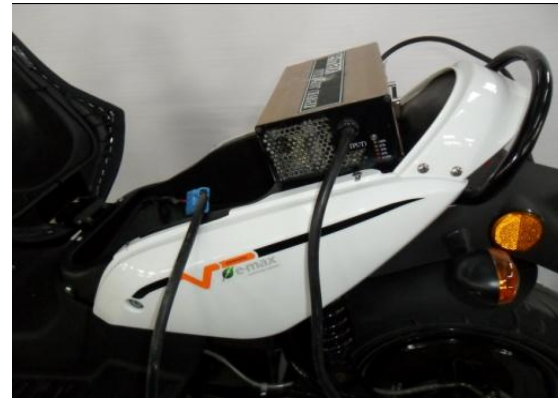
2.11 Hook

- To use the hook, turn to the right and fold out
- A load of up to 3 kg can be hung on the hook



2.12 Charger

- Batteries are charged with the e-max charger
- A safety plug with a 13-16A fuse is needed for the connection
- It is not possible to over charge the batteries
- A 500W (90S) or 1000W (110S) charger is always included in the delivery



Note:

When the charger is connected

- do not turn the key switch to the "Drive" position
- be absolutely certain that the charger is not connected when using the scooter
- Charging the battery while its temperature is more than 50°C may result in deformation of the battery. The same situation could also happen if the battery is kept in an environmental temperature over 50°C.
- Charge scooter every 3 months if they are in storage or unused
- Don't park scooter directly in sunlight.
- The scooter should not be used until 70% has been reached
- Frequent charging of the battery increases its life significantly

Warning:

- Only use e-max charger or warranty will be voided
- When outside temperature lower than -5°C:
Move scooter to a place with higher environmental temperature than -5°C, Wait 1-2 hours until scooter warms up after driving or parking outside, then charge the battery in a place with environmental temperature higher than -5°C.
- When outside temperature higher than 25°C:
Wait 1-2 hours till scooter cool down after driving or parking in the sun, then charge the battery in a place without direct sun and temperature lower than 35°C.

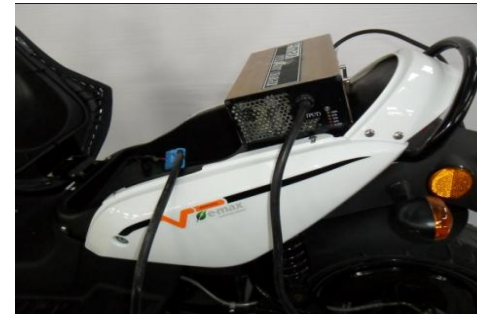
Connecting the charger:

- Open the seat as described in sections 2.6 and 2.7
- Take the blue charging plug out of the holder and connect the charger as seen in the photograph

Note:

The plug only fits in one direction, therefore it is not possible to connect it incorrectly

- Connect the charger to the mains

**Starting charge process:**

- Press the switch on the charging unit to position 1
- The fan will start and the respective LED of the battery charge level will be displayed



LED displays:

- $\leq 30\%$ Battery has less than 30% of its capacity
- 50% Battery has 50% of its capacity
- 70% Battery has 70% of its capacity
- 85% Battery has 85% of its capacity
- 100% Battery has 100% of its capacity after finishing the pulse charging process (fan stays off permanently)

**Charging Times:**

500W charging unit (included in delivery of 90S):

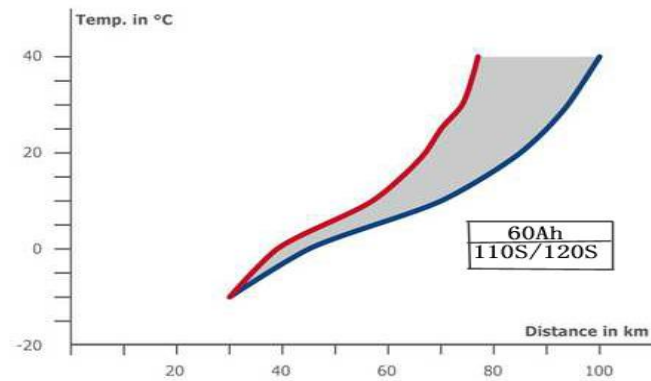
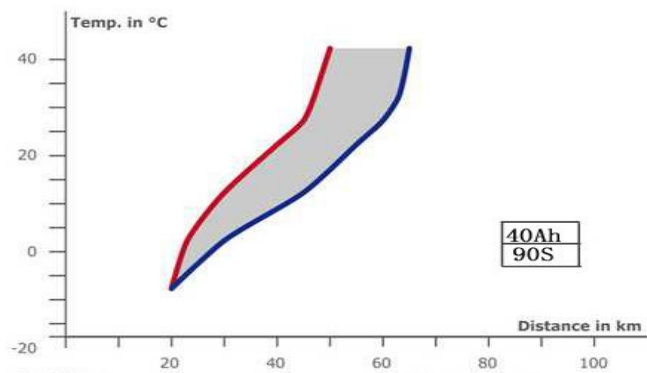
- 30-100% approx. 3 hrs
- 100% approx. 1.5 hrs

1000W charging unit (included in delivery of 110S):

- 30-100% approx. 3.5 hrs
- 100% approx. 1.5 hrs

Note:

When the 100% LED lit the charger will start the "Impulse-Charging" procedure. The fan starts and stops frequently. This process "balance" the batteries to the same voltages. This process will never stop and the user can stop it by turning off the power switch of the charger. Running in this "Impulse-Charging" over night is not a problem. Otherwise the charger should not be connected to the scooter for more than 2 days.



Conditions:

- max. speed limited at 45 km/h
- flat rural road
- windless
- weight of rider 75 kg
- use of booster max. 5 times

maximum — blue line
 minimum — red line
 Range between maximum and minimum — grey shaded area

3. Malfunctions

For the malfunctions described here, we assume that only the end components are the cause of the malfunction. If the fault still occurs after the end component has been replaced, then it is necessary to pay a visit to your dealer.

3.1 Lights

3.1.1 Indicators

If a lamp is faulty, then the indicator frequency is twice as fast.

Front indicator bulb: Should only be changed by the dealer. It is necessary to remove the main panels!

Rear indicator bulb: Unscrew and remove the cross-head screw from the indicator cover. Replace the faulty bulb (12V, 21W).

3.1.2 Front lights

Should be changed by the dealer only. It is necessary to remove the main panels!

3.1.3 Rear light or brake light

Unscrew and remove the cross-head screw from the rear light. Replace the faulty lamp (12V, 5/21W).

3.1.4 License plate lighting

Unscrew and remove the cross-head screw from the license plate lighting. Replace the faulty lamp (12V, 5W).

3.2 Tyres

The air pressure can be checked and adjusted if necessary at any service station.

Normal air pressure: 2.8 bar

If the tyres are worn or faulty, they may only be changed by the dealer.

Note:

Too low air pressure or worn tyres may affect handling and range!

3.3 Brakes

Squealing noises while braking indicate worn brake pads or that there is a foreign object (e.g. a stone) in the brakes.

In this instance contact your dealer.

3.4 Malfunction messages in the speedometer display

<i>Display Text</i>	<i>To overcome this problem:</i>
Accel protection at Power On	Release accelerator and turn key switch to "Off" and then to "Drive"
Battery empty recharge!	Batteries are empty and must be charged immediately. Range of approx. 2-3 km with automatically reduced power (max. 660W).
-- Warning -- side stand out	Fold side stand in
Error high temperature	Electronics are too hot. Drive on carefully
Stop scooter high temperature	Electronics are too hot. Wait until electronics have cooled down and the display shows normal conditions
Stop scooter battery empty	Driving is impossible. Battery must be charged

With all other messages that appear, turn the key switch to "Off" and then turn it back to "Drive".
If the message remains, then a visit to the dealer is necessary.

4. Vehicle maintenance

All parts of a motorbike are equally at risk of corrosion because of aggressive pollutants in the air and from the effects of salt on the road. It is the responsibility of the user to adequately protect the vehicle from these factors. This will help to maintain the value of the vehicle and any warranty claims.

- Clean painted chassis parts with finish restorer and treat the rubber parts with special rubber care products
- Clean the vehicle regularly (**do not use a high pressure cleaner**)
- Clean aluminium parts with a protective spray (e.g. Motoplast) in order to prevent oxidation. Carefully remove existing spots of corrosion on aluminium with appropriate steel wool containing soap
- Always oil or grease frame and metal parts. This reduces corrosion
- Never remove insects with an insect sponge or any similarly hard object
- A vehicle that is constantly parked outdoors must be covered with a protective covering in order to prevent weathering of painted panels, as well as to prevent cracking of seats and other plastic parts
- **Do not use a high pressure cleaner!!**
Water particles could lead to contact problems in the electronics
- Seats, instrument panels, indicators, rear light and weather protection screens as well as hardened dirt and insects are to be cleaned with an insect remover, not with an insect sponge as this can result in scratches

5. Shipment Inspection

The following inspection work was carried out before delivery of the vehicle to the customer:

- charge batteries (note battery guidelines) and check contacts
- check tyre pressure and correct if necessary
- check all main screws for the stipulated torque
- check screws, nuts and fastening points
- check motor mountings, stand mountings, suspension struts, fork and steering-head bearing
- check the functioning of the front and rear wheel suspension
- check that all operating parts are in working order
- check lights / headlight setting
- check directional stability
- check front and rear brakes
- test drive

Date, Signature, Stamp
Authorized "e-max" Dealer

6. Vehicle delivery

Vehicle identification number:

Date of delivery:

Day	Month	Year
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90S 110S 120S 25km/h 45km/h 65km/h

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Dealer Number:

Name: _____

Street: _____

City: _____

Postcode: _____

Telephone: _____

Email: _____

Dealer Stamp:

This document is the foundation for the processing of warranty applications. Warranty applications cannot be processed if warranty documents are not filled out or are incomplete!

7. Warranty Information

1. Liability for warranty cases is determined by the legal regulations beginning at the time of delivery to the end user (two years)
2. Defects that are not reported to an authorised VMOTO / e-max dealer within this time period are not subject to warranty claims
3. Wearing parts, such as glass panes, light bulbs, tyres, brake discs, brake pads are none warranty parts
4. VMOTO Australia, subsequently referred to as VMOTO, shall decide whether faulty parts will be replaced or repaired
5. There is no warranty claim if
 - a) the end user has treated the vehicle contrary to regulations, especially by overloading the vehicle
 - b) the end user has had even one of the inspections stipulated in the customer service check book or a repair performed by a workshop that is not authorised by VMOTO
 - c) the vehicle has been modified or changed in any way or fitted with parts that are not part of the equipment of the vehicle that is expressly certified by VMOTO
 - d) the vehicle has been used in a motor sport event
 - e) the operating, maintenance, and service instructions stipulated in this manual have not been followed
6. Agreements that differ from the above guarantee conditions must be confirmed in writing by e-max to be effective

I accept the guarantee conditions in this booklet.

The vehicle was received in perfect condition.

The dealer explained the guarantee conditions to me.

Date, Signature
Customer

8. 500 km Inspection

This inspection must be performed in a time period that is 100 km either before or 100 km after being due, and no later than 1 year from the date of delivery.

- charge batteries (note battery guidelines) and check contacts
- check tyre pressure and correct if necessary
- check all main screws for the stipulated torque
- check screws, nuts and fastening points
- check motor mountings, stand mountings, suspension struts, fork and steering-head bearing
- check the functioning of the front and rear wheel suspension
- check that all operating parts are in working order
- check lights / headlight setting
- check directional stability
- check front and rear brakes
- test drive

500 km inspection (+/- 100km)

performed at km _____

Date, Signature, Stamp
Authorized "e-max" Dealer

8.1 Inspections

This inspection must be performed in a time period that is 100 km either before or 100 km after being due, and no later than 1 year after the previous inspection.

<p style="text-align: center;">Inspection 5,000 km</p> <p>km: _____</p> <hr/> <p style="text-align: center;">Date, Signature, Stamp Authorized "e-max" Dealer</p>	<p style="text-align: center;">Inspection 10,000 km</p> <p>km: _____</p> <hr/> <p style="text-align: center;">Date, Signature, Stamp Authorized "e-max" Dealer</p>	<p style="text-align: center;">Inspection 15,000 km</p> <p>km: _____</p> <hr/> <p style="text-align: center;">Date, Signature, Stamp Authorized "e-max" Dealer</p>
<p style="text-align: center;">Inspection 20,000 km</p> <p>km: _____</p> <hr/> <p style="text-align: center;">Date, Signature, Stamp Authorized "e-max" Dealer</p>	<p style="text-align: center;">Inspection 25,000 km</p> <p>km: _____</p> <hr/> <p style="text-align: center;">Date, Signature, Stamp Authorized "e-max" Dealer</p>	<p style="text-align: center;">Inspection 30,000 km</p> <p>km: _____</p> <hr/> <p style="text-align: center;">Date, Signature, Stamp Authorized "e-max" Dealer</p>

8.1 Inspections (continued)

This inspection must be performed in a time period that is 100 km either before or 100 km after being due, however and no later than 1 year after the previous inspection.

<p style="text-align: center;">Inspection 35,000 km</p> <p>km: _____</p> <hr/> <p style="text-align: center;">Date, Signature, Stamp Authorized "e-max" Dealer</p>	<p style="text-align: center;">Inspection 40.000 km</p> <p>km: _____</p> <hr/> <p style="text-align: center;">Date, Signature, Stamp Authorized "e-max" Dealer</p>	<p style="text-align: center;">Inspection 45.000 km</p> <p>km: _____</p> <hr/> <p style="text-align: center;">Date, Signature, Stamp Authorized "e-max" Dealer</p>
<p style="text-align: center;">Inspection 50.000 km</p> <p>km: _____</p> <hr/> <p style="text-align: center;">Date, Signature, Stamp Authorized "e-max" Dealer</p>	<p style="text-align: center;">Inspection 55.000 km</p> <p>km: _____</p> <hr/> <p style="text-align: center;">Date, Signature, Stamp Authorized "e-max" Dealer</p>	<p style="text-align: center;">Inspection 60.000 km</p> <p>km: _____</p> <hr/> <p style="text-align: center;">Date, Signature, Stamp Authorized "e-max" Dealer</p>

8.2 Odometer

<p style="text-align: center;">Odometer changed</p> <p>Displayed mileage is not the total mileage!</p> <p>km: _____</p> <hr/> <p style="text-align: center;">Date, Signature, Stamp Authorized "e-max" Dealer</p>	<p style="text-align: center;">Odometer changed</p> <p>Displayed mileage is not the total mileage!</p> <p>km: _____</p> <hr/> <p style="text-align: center;">Date, Signature, Stamp Authorized "e-max" Dealer</p>	<p style="text-align: center;">Odometer changed</p> <p>Displayed mileage is not the total mileage!</p> <p>km: _____</p> <hr/> <p style="text-align: center;">Date, Signature, Stamp Authorized "e-max" Dealer</p>
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9. Repair tips

Your e-max dealer would like to give you comprehensive advice and service your vehicle competently.

Here are some tips for smooth proceedings if an inspection or repair has to be carried out.

1. Only let an authorised "**e-max**" dealer service your vehicle
2. Make an appointment with the workshop manager
3. Explain the work that has to be done on the vehicle or make a list
4. If something is unclear please talk to your workshop manager
5. Give clear instructions
6. Ask about the expected costs in advance
7. Leave your telephone number so that the workshop manager can reach you in case there are any necessary questions
8. Set a price limit for any necessary additional work
9. Speak openly about any unclear items with your "**e-max**" dealer
10. Comply with the **regular inspection intervals of your e-max vehicle**

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