

ATTIVA.6

**USER
MANUAL**
(complete range)

ed.2019/r00





PREFACE

ITALCAR s.r.l. wish to thank you for the purchase of an electric vehicle of the ITALCAR ATTIVA range.

In order to ensure correct operation, use in full safety and maximum reliability of the vehicle, please read and follow carefully the contents of this manual. The recommendation regards both vehicle's users and maintenance operators.

For your safety, please pay particular attention to the text marked with "CAUTION" and "WARNING" symbols

CAUTION

WARNING

electric profession

IMPORTANT MANUAL INFORMATION

The manual, considering the whole range of NEV vehicles, contains also information referred only to some versions and accessories, including optional equipment.

ITALCAR S.r.l. aims to a continuous improvement of its products, therefore it reserves the right to modify, at any time and without notice, the vehicle's characteristics and the information contained in the manual.

This manual shall be considered an informative document and not a contractual document.

CAUTION

Incorrect maintenance and / or modifications to the specific characteristics of the vehicle, without formal authorization from ITALCAR, invalidate any liability of ITALCAR by automatically dropping it on the user.

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ITALCAR, ATTIVA are marks registered by ITALCAR S.r.l.

WARNING

REGULAR AND NON-REGULAR USE

the vehicles must be used as defined in the project phase and stated on the technical data sheet downloadable from the website and / or sent during the quotation.

CAUTION

VEHICLE MANAGEMENT AND TRANSPORTATION

the vehicle must be handled by trained personnel.

For vehicle loading and unloading procedures can be used platforms suitable for normal vehicles.

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0. GENERAL SPECIFICATION & TECHNICAL DATA

| | PLACES/MODEL | DIMENSIONS | WEIGHT (depending on type of battery and accessories installed) |
|----------------------------|-------------------|--|--|
| FLEET / GOLF | 2 / golf | 2400mm x 1200mm x 1800mm | from 450kg to 510kg |
| B2.6 | 2 / rear box | 2800mm x 1200mm x 1800mm | from 550kg to 610kg |
| B4.6 | 4 | 2800mm x 1200mm x 1800mm | from 550kg to 610kg |
| 2.6 | 2 / rear box | 2800mm x 1200mm x 1800mm | from 570kg to 630kg |
| 4.6 | 4 | 2800mm x 1200mm x 1800mm | from 570kg to 630kg |
| 2L.6 (ver. XTR) | 2 / rear box | 3600mm x 1200mm x 1800mm (3600mm x 1400mm x 2150mm) | from 510kg to 670kg |
| 4L.6 (ver. XTR) | 4 / rear box | 2400mm x 1200mm x 1800mm (3500mm x 1400mm x 2150mm) | from 590kg to 710kg |
| 6L.6 (ver. XTR) | 6 | 2400mm x 1200mm x 1800mm (3700mm x 1400mm x 2150mm) | from 630kg to 750kg |
| 8L.6 (ver. XTR) | 8 | 2400mm x 1200mm x 1800mm (4300mm x 1400mm x 2150mm) | from 630kg to 790kg |
| XTR.6 | 2 / rear box 4 | 3000mm x 1400mm x 2150mm | from 670kg to 730kg |
| AMBULANZA | 2 / stretcher | 2400mm x 1200mm x 1800mm | from 450kg to 630kg |

WARNING the above mentioned standard features could change based on specific customer requested set-up

CAUTION conditions different than those specified in this manual and the above table invalidate any liability of ITALCAR by automatically dropping it on the user

0. GENERAL SPECIFICATION & TECHNICAL DATA

| | X.6 range | BX.6 range | FLEET.6 |
|------------------------------|---|--|--|
| batteries: | short chassis: 6x8V long chassis: 8x6V (available LI version) | 6x8V (available LI version) | 6x8V (available LI version) |
| motor: | AC - 48v | DC - 48v | DC - 48v |
| controller: | SEVCON, AC – GEN4 - 450Ah | CURTIS, DC – 1266 - 275Ah | CURTIS, DC – 1266 - 275Ah |
| transmission: | rear, ratio 12,31 (o 16:1 optional) | | |
| steering: | self compensating single reduction rack and pignon | | |
| max speed: | from 22 km/h to 35 km/h on the basis of model | | |
| range: | 80 km (flat road) | | |
| max climbing ability: | from 15% to 25% on the basis of the model and loaded weight | | |
| turning radius: | from 3,5 mt to 4,5 mt on the basis of the model | | |
| chassis: | galvanized steel frame and powder coated | | |
| body: | PP impregnated and painted | | |
| suspensions: | | | |
| front | independent suspensions | | |
| rear | leaf springs with hydraulic shock absorbers | | |
| brakes: | automotive types, double hydraulic circuit on four wheel with hand brake | mechanical on rear wheels with pedal handbrake | mechanical on rear wheels with pedal handbrake |
| front | disc | - | - |
| rear | drum | drum | drum |
| tyres: | 250/50-10 with alu rims (22"x11"-12, XTR version) | | |
| recommended pressure: | 1,7 bar (2 bar, XTR version) | | |
| charger: | Included | | |
| basic configuration: | plexiglass windshield, front & rear lights, turning lights, reverse buzzer, folding rearview mirrors, digital dashboard, horn | | |

WARNING

the above mentioned standard features could change based on specific customer requested set-up

CAUTION

conditions different than those specified in this manual and the above table invalidate any liability of ITALCAR by automatically dropping it on the user

1. DESCRIPTION OF THE VEHICLE

Identification and warranty registration

for any request of service and spare parts, register your vehicle by filling in the on-line form at the following address:
<https://goo.gl/forms/1ZsAUmPTf6rh8iCb2>

or send this page, correctly filled-in, by mail to: aftersales@italcar.com

mail address:

model:

VIN number:

(2° row of the ID plate fixed outside of the battery compartment)

customer's name:

address:

note:

DISCLAIMER PRIVACY - EU R. 679/2016

we inform you that your personal data will be processed only and exclusively by ITALCAR INDUSTRIAL S.r.l. and will not be disclosed to third parties without your prior consent in compliance with EU Reg. 2016/679

I agree with the terms of the processing of my personal data and I declare that I have carefully read the privacy policy and I give my consent to the processing of my personal data on the basis of its purposes ex Articles 13-14 EU Reg. 2016/679

1. DESCRIPTION OF THE VEHICLE

keys



(fig. 1.1)

keys

a pair of keys (fig. 1.1) is delivered with the vehicle. Take care to keep one in a safe place

storage compartement



(fig. 1.2)

- 1. driver's and passenger's side storage compartments
- 2. drink holder
- 3. & 4. storage compartments

WARNING

- in case of temporary abandonment of the vehicle always remove the key to prevent accidental operation of the vehicle. Remember to always insert the handbrake.
- do not leave children on the unattended vehicle.
- never remove the key when the car is moving.

electric propulsion

1. DESCRIPTION OF THE VEHICLE

seats



(fig. 1.4)

(fig. 1.4)
(1) – front seat
fixed longitudinally, it also acts as a cover for the
battery compartment (short vehicles);

(2) – back seat, fix

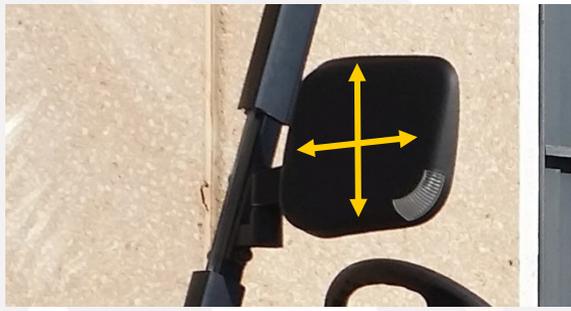
(fig. 1.4) seat can be tilted in order to make
periodic cleaning operations easier and
allow access, to the battery compartment,
by the service. The hinges allow total
removal of the cushion.

WARNING

- installed batteries are LEAD/ACID type
- user must be extremely careful when cleaning and/or checking battery levels. Always wear protective equipment appropriate to the type of operation (gloves, protective glasses).
- do not wear rings or necklaces during these operations.
- if the batteries need to be replaced, we recommend that you contact your local ITALCAR dealer.

1. DESCRIPTION OF THE VEHICLE

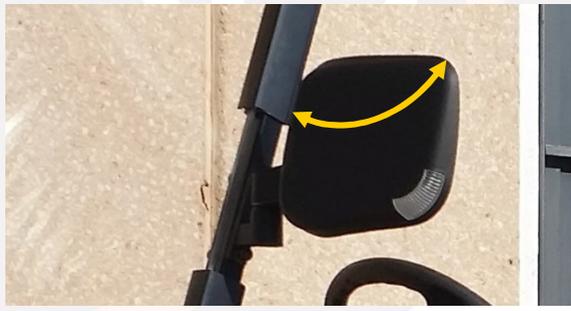
rearview mirrors



(fig. 1.5)

vehicle is equipped with 2 side external mirrors (one each side).

mirror could be manually adjusted (fig. 1.5)



(fig. 1.6)

if necessary, the mirror can be folded (fig. 1.6)

CAUTION

mirrors must always be opened while the vehicle is running.

CAUTION

before starting, the rear-view mirrors must be adjusted so as to guarantee the driver the best obtainable rear field of vision.

electric passion

1. DESCRIPTION OF VEHICLE

rear box (type A)



(fig. 1.7)

some models are equipped with a rear aluminum body (fig. 1.7) type A - short.

models B2.6, 2.6 e 4L.6

rear box is fix (no tipper)

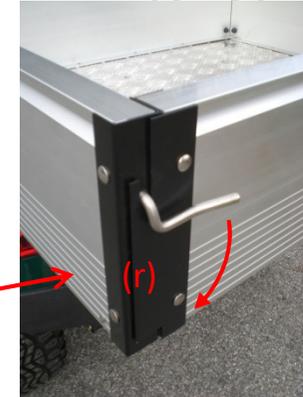
box dimensions are:

900mm x 1100mm x 240mm

all models with cargo

the tailgate is collapsible (fig. 1.7) in order to facilitate unloading operations.

to open and close the tailgate, use the two side handles (r) (fig. 1.8)



(fig. 1.8)

WARNINGS

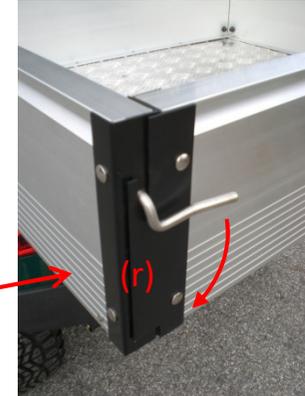
- max load on the cargo is: 150kg.
- before using the vehicle, make sure the load is correctly balanced on the platform.
- before using the vehicle, make sure the load is properly secured to avoid losing it while driving.

1. DESCRIPTION OF THE VEHICLE

Rear box (type B)



(fig. 1.9)



(fig. 1.10)

some models are equipped with a rear aluminum body (fig. 1.9) type B - long.

models 2L.6

rear box is tipper

box dimensions are:

1830mm x 1100mm x 240mm

all models with cargo

the tailgate is collapsible (fig. 1.9) in order to facilitate unloading operations.

to open and close the tailgate, use the two side handles (r) (fig. 1.10)

WARNING

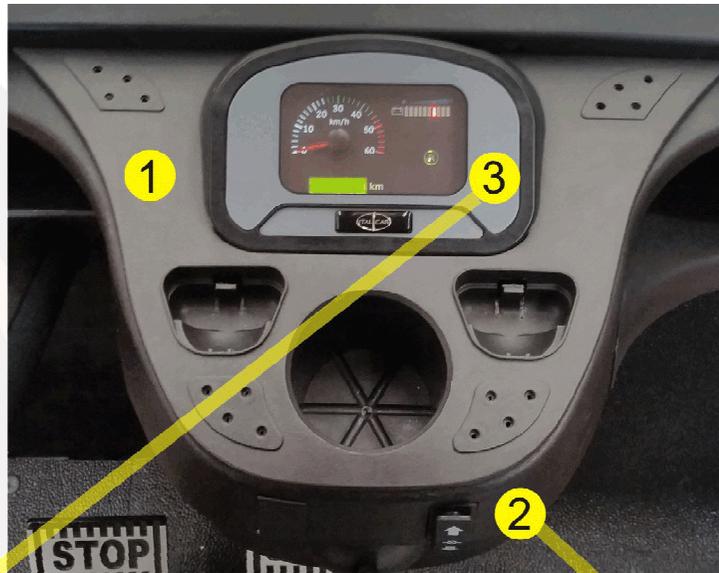
- max load on the cargo is: 400kg.
- before using the vehicle, make sure the load is correctly balanced on the platform.
- before using the vehicle, make sure the load is properly secured to avoid losing it while driving.

2. DASHBOARD AND COMMANDS

dashboard

(fig. 2.1)

- 1. upper dashboard
- 2. lower dashboard
- 3. display



(fig. 2.1)

(fig. 2.1b)

- 2.1 direction selector (F-N-R)
- 2.2 ignition key
- 2.3 standard/sport switch (*)

(*) for **STANDARD** (🐢🌿) driving mode be sure the switch is pressed.
 To activate **SPORT** (🏎️🚩) driving mode release the switch (fig. 2.1a)

(fig. 2.1a)

- 3.1 speed indicator
- 3.2 odometer
- 3.3 battery status indicator
- 3.4 tell-tales and indicators



(fig. 2.1a)

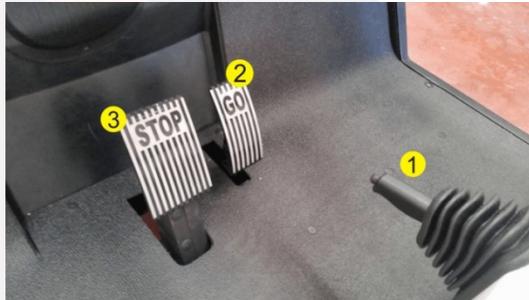


(fig. 2.1b)

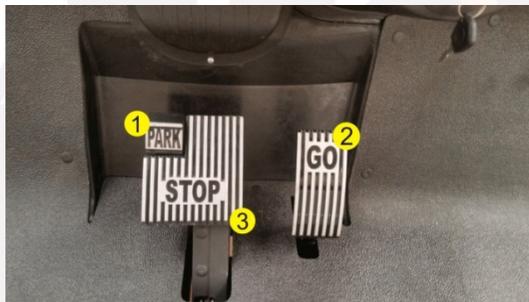
2. DASHBOARD AND COMMANDS

commands

pedals and parking brake
(fig. 2.2) e (fig. 2.2a)



(fig. 2.2) – modelli X.6



(fig. 2.2a) – modelli Fleet e BX.6

left side steering wheel switch
(fig. 2.3)



(fig. 2.3)

1 parking brake

mod. x.6 (fig. 2.2)

to insert the parking brake: pull the lever;

to release the parking brake: press the pushbutton and lower completely the lever

mod. golf & Bx.6 (fig. 2.2a)

to insert the parking brake: fully press the pedal in correspondence of "PARK" brake pedal's part until the pedal's block;

to release the parking brake: slowly press the accelerator pedal

CAUTION

before starting the vehicle, always make sure that the parking brake is released

2 accelerator pedal

used for start, to accelerate and to control the vehicle's speed. The complete release causes an engine braking effect, useful when a slight slowdown is desired.

3 brake pedal

Using this pedal the vehicle will reduce the speed or proportionally stop its run

4.1 horn

4.2 direction indicator lever

4.3 lights lever

2. DASHBOARD AND COMMANDS

lights



(fig. 2.4)

the left steering wheel switch lever controls the lights (fig. 2.4) lights will operate with the key in ON position



(fig. 2.5)

DRL lights (fig 2.5)

with the key in ON position and the light switch (i) fig. 2.4 in **0**- position, the DRL (daytime running lights) are ON



(fig. 2.6)

(fig. 2.6) by turning the light switch one click up to the symbol  the POSITION lights turn on (n.b. the position and the DRL lights are integrated in the same headlight, but the brightness change in intensity, the DRL are brighter) and the other lights remain off.



(fig. 2.7)

(fig. 2.7) by turning the light switch two click up to the symbols  the LOW BEAMS turns on. On the display is shown the  tell-tale (green).



(fig. 2.8)

to flash with HIGH BEAM (fig. 2.8) pull a little the lever switch (i) towards the steering wheel; in this way is possible to make more flashes in sequence.



(fig. 2.9)

to activate the HIGH BEAM (fig. 2.9) pull totally the lever switch towards the steering wheel. On the display is shown the  tell-tale (blue). To deactivate the HIGH BEAM lights pull totally again the lever switch towards the steering wheel.

2. DASHBOARD AND COMMANDS

lights



(fig. 2.10)

direction indicator (fig. 2.10)

with ignition key in ON position

move the lights switch lever:

* up: for right direction

* down: for left direction.

on the display is intermittently shown → or ← tell-tales (green)

WARNING

- the front lights and rear lights are LED and integrated into a single headlight group

display, tell-tales and indicators

display

(fig. 2.11) digital instrument panel with indication of speed, direction indicators, brake light and lights status



(fig. 2.11)

1. lights indicators
2. parking brake indicator
3. direction indicator
4. rear direction indicator light (N.B. the forward indicator does not exist)
5. speed indicator
6. odometer
7. battery status indicator

2. DASHBOARD AND COMMANDS

battery discharge indicator (SOC)

(fig. 2.12) the indicator provides information about the state of battery charge and is located on the dashboard.



(fig. 2.12)

the fully charged battery is indicated through a red LED indicator located at the top (number "1").

as the vehicle is used, the LED light will move down (toward the number "0").

note that in general when the LED will achieve the third lowest light (down) means that your vehicle has reached the minimum security level to put the vehicle under charge without damaging the batteries.

each LED represents 10% of the total charge of the batteries installed as standard.

if any installed batteries other than those fitted as standard is good to know that the indication given by the indicator LED may be distorted.

in addition, the discharge time of batteries is not proportional, eg time from 100% to 80% is far greater than that between 50% and 40% of remaining charge

CAUTION

if you continue using the batteries in discharge conditions (third lowest light), the batteries continue to reduce their capacity until you'll see two alternately flashing diodes on the indicator.

in this condition the batteries will be permanently damaged.

this condition will also be recorded by the electronic control unit, as a misuse of the batteries pack. This information will be collected by service.

2. DASHBOARD AND COMMAND

insights

standard/sport driving mode switch
(fig. 2.13)

for **STANDARD** ( ) driving mode be sure the switch is pressed.

to activate **SPORT** ( ) driving mode release the switch.



(fig. 2.13)

direction selector (F-N-R)
(fig. 2.14)

it has 3 position:

F – front direction

N – middle position – neutral gear

R – rear direction



(fig. 2.14)

ignition key
(fig. 2.15)

it has 2 position:

OFF – all OFF, functionality not available

ON – all ON, functionality available



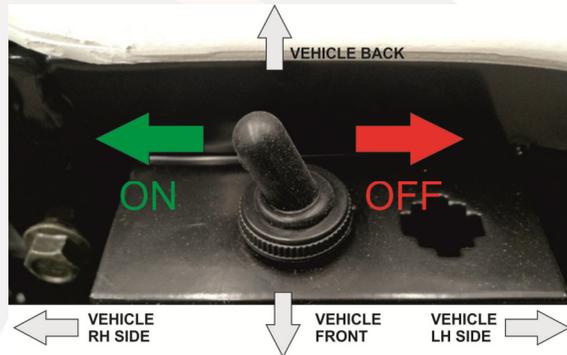
(fig. 2.15)



2. DASHBOARD AND COMMANDS

insights

TOW-RUN (ON-OFF) switch
(fig. 2.16a & 2.16b)



(fig. 2.16a)

this switch is inside the battery compartment

CAUTION

this switch enables the operation of the controller also in off-key position, in order to enable the function of slowing down vehicle in the event of accidental disconnection of the brake

before using the vehicle to make sure that it is in "RUN" position



(fig. 2.16b)

CAUTION

this switch must be set to "TOW" (OFF) in the following three cases:

- when the batteries are recharged (cfr. cap. 4 – rules for charging);
- when the vehicles are not used for a period greater than 2 / 3 days
- when the vehicle have to be towed

WARNING

- any possible towing with the "tow-run" switch on "RUN" will seriously damage motor, controller and differential

3. USE THE VEHICLE

before to go

WARNING

- make sure that the battery charger is not connected to the vehicle;
- adjust the rear-view mirrors;
- place the left foot outside the pedals zone (drive using only the right foot);
- make sure that the ignition key contact is in "all OFF" position, the operation selection lever is in central position (neutral) and the accelerator pedal is free.

start and driving

- * set the "tow-run" switch on "RUN" position;
- * set the ignition key in "all ON" position;
- * display turns on, showing the battery status and you hear from the engine compartment the characteristic "click" of the solenoid that powers the controller;
- * set the selection lever in the position corresponding to the desired direction, Forward - Reverse;
- * release the parking brake;
- * accelerate slightly and move the vehicle

WARNING

- in the first phase of starting it is possible to obtain a considerable acceleration; to avoid accidents, press the accelerator pedal very slowly.
- * to stop, release the accelerator and use brake pedal
before complete stop of the vehicle it is possible to feel a slight trip caused by the energy recovery system operation;
- * apply the parking brake;
- * before leaving the vehicle, set the F&R lever to Neutral position, set the key in "OFF" position and set the «TOW-RUN» switch on "TOW" (OFF) position

CAUTION

if the key-on procedure is done with the F/R switch in F or R direction, controller will not work (protection mode). In that case read the following starting procedure:

- check the F/R switch is in N (neutral) position
- check the hand brake is released
- insert the F or R direction
- start to use the vehicle

if the battery charge status is insufficient, do not attempt to use the vehicle; recharge the battery before using vehicle

3. USE OF THE VEHICLE

driving suggestions

- * we recommend to drive the vehicle with the **STANDARD** driving mode, in order to optimize energy consumption. Using the **SPORT** driving mode reduces the vehicle's range.
- * avoid to frequently drop-off the SOC (state of charge) below 20% (last green mark on the "V" indicator, cfr. fig. 2.9 e 2.10 pag. 16 e 17)
- * to estimate the real range at any time, consider that the traction battery capacity decreases in the time and in particular weather conditions (low temperature) and that the current consumption on uphill roads is much greater than the consumption on flat roads.
- * releasing the accelerator pedal, the vehicle tends to slow down, also on flat roads or in slight downhill roads, as the energy recovery system acts as an engine braking system; however, to stop or to slow down the vehicle, please use the brake pedal.

WARNING

- reduce intentionally the speed on downhill roads and avoid roads with excessive longitudinal (uphill or downhill) and, particularly, lateral slopes;
- reduce intentionally the speed in sharp bends, remembering that the vehicle's center of gravity is relatively high from the ground; this may cause loss of stability and lateral capsizing;
- it is advisable not to drive for a long time with the pedal fully pressed, in order to avoid excessive stress on the traction motor circuits and to reduce the consumption;
- avoid flooded or unstable roads, extreme conditions (mud, snow, ice, very low or very high temperature);
- do not exceed the speed and load limits and not use the vehicle for improper uses (i.e. other condition that those foreseen);
- respect your Country road-code;
- remember that this vehicle does not produce the typical sound of other vehicles, therefore other road users may not be aware that an electric vehicle is approaching!;
- remember that this is an open vehicle, with limited protection for the users: tree branches, flying objects or very near the sides, heavy rain, dust, cold, etc. can cause nuisance, direct damage and dangerous driving conditions; we suggest you do not use the vehicle in the above mentioned circumstances.

first period of use

although a proper break-in period is not required, it is advisable to:

- * limit the speed, no excessive acceleration, no heavy road slopes and heavy load for the first period of use (approximately 30 hours)
- * after this period, perform a careful inspection, following the normal maintenance and check instructions specified in chapter 6.
- * note that during the first period, the battery capacity (AGM), and therefore the range, is lower than stated in the technical data

4. BATTERY CHARGING

recharging instruction

(fig. 4.1)



CAUTION

to proper maintain the battery pack vehicle must be recharged after each use

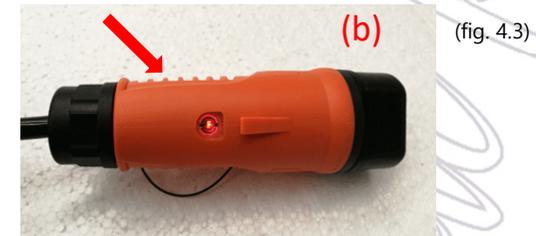
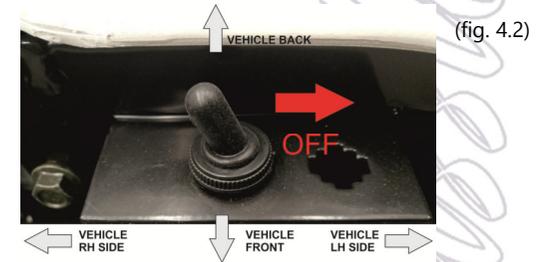
ricaricare il veicolo utilizzando il cavo di ricarica (fig. 4.1) fornito insieme al veicolo.

WARNING

- before proceeding with re-charging, be sure the «TOW-RUN» switch (fig. 4.2) is in OFF (TOW) position and that key switch is in OFF position

- * insert the black schuko plug (a) (fig. 4.1) in the AC wall socket, you will see on the orange plug (b) a small red light switched ON (fig. 4.3 it means that the current is flowing in to the cable);
- * then insert the orange plug (b) in the car charging socket (2) (fig. 4.4) and after a while the charger will start the recharging process.

a complete recharging cycle will keep 8/10 h depending from the batteries DOD (depth of discharge) level.



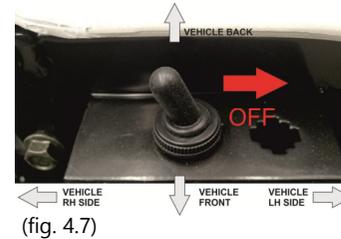
4. BATTERY CHARGING

recharging rules & "out of service period"

CAUTION

WARNING

- * before using the vehicle, perform a complete recharge;
- * before leaving the vehicle "out of service" *it is warmly recommended* to perform a complete recharging cycle;
- * before leaving the vehicle "out of service" *it is warmly recommended* to put both the **key switch** and **TOW-RUN switch** in OFF position (fig. 4.7 & 4.8);



- * in order to avoid performance problems, please do not discharge completely the batteries
fig. 2.9 e 2.10 pag. 16 e 17;

* ***even if not used, if the vehicle remains stopped for a long period, it is advisable to perform:***

- ***for LEAD/ACID models a complete recharge at least every 7 days (once a week)***
- ***for AGM models a complete recharge at least every 7 days (once a week)***
- ***for LITHIUM models a complete recharge at least every 30 days (once a month)***

- * in some specific cases it will be possible perform some partial recharge (not less than 2h);
- * charge the batteries only when the vehicle is in key-OFF position with red button in OFF position and with the ignition key completely extracted;
- * do not recharge batteries in areas with risk of fire, explosion or flammability;
- * do not smoke nearby;
- * recharge the vehicle in a dry place (in order to avoid short circuit or electric shocks) and well ventilated (in order to avoid any harmful fumes)
- * allow an appropriate ventilation to the charger when it works (recharging time) by open the seat under which is positioned.

5. PRESERVING AND CLEANING THE VEHICLE

to ensure a good operation and keeping of the aesthetic characteristics, please follow some rules for the use and preservation of your vehicle:

- * most of the body parts is made of ABS plastic, polypropylene (injection) or fiberglass, painted;
- * chassis and main mechanic parts are manufactured in steel with anti-corrosion process;
- * to avoid deformation and damages of the body elements and of their coating, do not apply excessive pressure on the panels and avoid contact with objects that may cause scratches or other damage;
- * avoid chassis and body contact with corrosive substances – sea water, solvents, acids, etc;
- * for soft coatings (seats, etc.) and rubber carpets, avoid contact with aggressive physical-chemical agents;
- * plastic panels or other sensitive parts – internal and external – shall not be subject to the direct action of intense heat or flames, that may cause serious damages and risk of fire;

cleaning and washing the vehicle

- * use appropriate non-aggressive cleaning and washing methods and materials;
- * avoid using hydro-cleaners with excessive pressure and directing the water jet towards the seals, the plastic components, the seat's coating, the chassis and, particularly, towards the electrical system;
- * maintain the painted surfaces in good conditions, washing them frequently with tepid or cold water and neutral detergent;
- * vinyl seats and plastic or rubber coatings cleaning requires delicate detergent solutions, applied with a sponge or a soft brush, and then removed with a moistened cloth;
- * remove any accumulation of mud (that may contain highly corrosive substances such as salt or fertilizers) under the body, as it may rapidly deteriorate the metal chassis.

6. MAINTENANCE AND REPAIRS

CAUTION

maintenance / overhaul / repair operations shall be performed by qualified personnel, after having read and understood the warnings shown on this manual.

maintenance of some components must be performed more frequently on vehicles used in heavy-duty conditions or in harsh environment (very low or very high temperature, dust, humidity, etc.) or with frequent use at maximum load.

battery maintenance

lead/acid with/without refilling system

in order to access to the battery compartment you need to fold-up the front seat (or rear depending on the model) cfr. pag. 9

vehicle uses lead – acid batteries, in their standard version. Check the electrolyte level of each battery element, after charging, and if necessary top up ***with distilled water*** up to the level defined by the battery's manufacturer (generally approx. 10-15 mm above the plates level);

follow the safety instructions issued by the battery's manufacturer;

clean the batteries and the cable terminals;

smear the battery terminals with a specific protection compound, available on the market;

for aspect connected with battery recharging, refer to chapter . 4

WARNING

- before any intervention on the batteries, make sure that the traction system and all electric accessories are shut down (ignition key extracted);
- never disconnect the battery terminals while a circuit is being charged;
- lead batteries are heavy. Use suitable lifting methods and instruments to handle the batteries, paying attention not to tilt them; the electrolyte may cause burns and damages;
- the battery electrolyte may cause serious burns to the eyes and to the skin;
- if the acid gets in contact with the body or the eyes, rinse with abundant clean water and require immediate medical assistance. The acid electrolyte can be neutralized using a solution of baking soda in water;
- to add distilled water to the batteries, always wear protective equipment, with certified goggles.
- the appropriate certified channels (COBAT) shall be used for exhausted battery disposal.

6. MAINTENANCE AND REPAIRS

electric traction system maintenance

WARNING

- in case of maintenance / overhaul / repair operations on electric traction system, please refer to your dealer.

vehicle's general maintenance

wheels

- * assemble / disassemble the wheels only after having correctly lifted the vehicle;
- * insert carefully the rim on the hub and screw the nuts crossways with the recommended torque of approximately 115Nm
- * use only the nuts supplied with the vehicles or replace it with original ATTIVA's spare parts.

tires

- * check periodically (visually) the tires conditions and the inflating pressure (cold tires), recommended value: 1.7 bar (2 bar for XTR models);
- * always use the anti-dust plug of the inflating valve;
- * use only tires of the type and size shown on the official vehicle's card;
- * assemble / disassemble the tires on the rims using suitable equipment, or in specialized workshops.

CAUTION

this vehicle, for available space reason, is not equipped with the spare wheel. In case of tire pierce use the "tire repair spray can" supplied with the vehicle.

we kindly ask you to scrupulously follow the instructions on the product packaging before proceeding to the repair; furthermore, after the repair, we advise you not to overdo the speed and to stop after a few kilometers to check the repair.

we remind you that this tool has to be considered as temporary and emergency and that is suitable for limited dimensions holes and not for big tearing.

moreover, as soon as possible, we suggest you to go to the tire shop in order to professionally check the tire and provide to its restoration or replacement.

6. MAINTENANCE AND REPAIRS

vehicle's general maintenance

brakes

- * pay particular attention to any performance reduction of the braking system (extended braking distance, pedal operation elasticity, difficult vehicle blocking on slopes using the parking brake, etc.) and immediately refer to your Italcara Dealer in case of malfunction signs, even if minor;
- * refer to your Italcara Dealer in order to periodically check the residual thickness of the braking gaskets (pads and shoes) and, if necessary, ask to replace the components using only original spares;
- * refer to your Italcara Dealer in order to periodically check the level of braking system fluid and, if necessary, top up using only type DOT4 fluid;
- * in case of air inside the hydraulic system, refer to your Italcara Dealer in order to purge the braking system.

steering

- * refer to your Italcara Dealer in order to periodically check the steering wheel mechanic response or any jamming of the steering mechanism;
- * periodically check the wear of the front wheels in checking also the alignment of the tires and, if necessary, refer to your Italcara Dealer in order to correct it.

CAUTION

for maintenance activities or general interventions, follow the general professional and safety prescriptions applicable for specialized car-repair workshops;

pay particular attention to any signs of vehicle malfunction, avoiding improvising to solve them;

in case of doubt, please refer to your Italcara Dealer or, if necessary, to our head office technicians.

6. MAINTENANCE AND REPAIRS

occasional intervention on the vehicles

car lift

CAUTION

- * vehicle lifting shall be carried out with particular care;
- * the fall of the vehicle from a lifting jack may cause extremely serious injuries, even lethal;
- * before lifting, make sure that the vehicle is standing on a solid and flat surface;
- * to lift the vehicle, place the jacks and metal stands only in the foreseen points, in direct contact with the vehicle's structural parts;
- * use extreme care, as the vehicle may be instable during lifting;
- * the wheels that are not lifted must be blocked to the ground in both directions, using proper wheel's blocks;

WARNING

- * DO NOT intervene under a vehicle when it is supported only by a jack, in that case please refer to your Italcara Dealer.

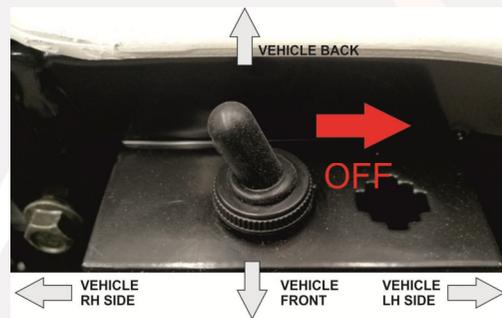
6. MANUTENZIONE E RIPARAZIONI

car towing

WARNING

the vehicle is not designed to be towed (unless it is to be loaded on a tow truck and/or for very short part of road) or to tow something for short tracks.

before towing the vehicle, be sure that the emergency TOW-RUN switch is in OFF (TOW) position (fig. 6.1) and that the key switch is in OFF position; towing the vehicle with the red button and key switch in ON position will cause an irreparable damage on motor and controller;



(fig. 6.1)

scheduled maintenance

maintaining the vehicle in good working order and, for the period prescribed by law, the right to benefit warranty assistance services are conditioned by a scrupulous execution of scheduled maintenance operations at ITALCAR Assistance Service network or at other authorized workshops.

the scheduled maintenance service can be performed on the basis of a specific time lapses or on the basis of the treaded kilometers. If during the execution of the maintenance intervention, in addition to the operations already foreseen, it were the need for further repairs, the latter may be carried out only following your explicit consent.

CAUTION

in the event of anomalies (even minor ones) we advise you to contact the ITALCAR Assistance Service network without waiting for the next scheduled maintenance.

6. MAINTENANCE AND REPAIRS

recommended periodical check

| | ALWAYS | DAILY | WEEKLY | QUARTERLY | YEARLY |
|---|-------------------------------------|-------------------------------------|--|-------------------------------------|-------------------------------------|
| battery pack SOC (state of charge) – regular use <i>(N.B. cfr. chapt. 4 recharging rules)</i> | | <input checked="" type="checkbox"/> | | | |
| battery pack SOC (state of charge) - occasional use <i>(N.B. cfr. chapt. 4 recharging rules)</i> | | | <input checked="" type="checkbox"/> or monthly in case of LI battery pack | | |
| visual check of lights, indicators and display tell-tales | | | | <input checked="" type="checkbox"/> | |
| visual check of brake pads and shoes | | | | <input checked="" type="checkbox"/> | |
| check tire wear and pressure | | | | <input checked="" type="checkbox"/> | |
| visual check of wiper blade wear | | | | <input checked="" type="checkbox"/> | |
| visual vehicles body status | | | | | <input checked="" type="checkbox"/> |
| visual check of interior condition, coating and rubber parts | | | | | <input checked="" type="checkbox"/> |
| report any minor operating faults to the Italcara Dealer Service Network, without waiting for the next scheduled inspection | <input checked="" type="checkbox"/> | | | | |

USER

6. MAINTENANCE AND REPAIRS

recommended scheduled maintenance 36 months plan

| KM MONTHS | 4000 4 | 8000 8 | 12000 12 | 16000 16 | 20000 20 | 24000 24 | 28000 28 | 32000 32 | 36000 36 |
|--|-----------|-----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| battery pack status (terminals tight and oxidation, conservation status, various connectors) | C | C | C | C | C | C | C | C | C |
| battery charger status | C | C | C | C | C | C | C | C | C |
| battery replacement | | | | | (1) | | | | |
| accelerator pedal | C | C | C | C | C | C | C | C | C |
| brake pedal (stroke / effort) | C+(A)(2) | C+(A)(2) | C+(A)(2) | C+(A)(2) | C+(A)(2) | C+(A)(2) | C+(A)(2) | C+(A)(2) | C+(A)(2) |
| front brake pads | C+(R)(2) | C+(R)(2) | C+(R)(2) | C+(R)(2) | C+(R)(2) | C+(R)(2) | C+(R)(2) | C+(R)(2) | C+(R)(2) |
| rear brake shoes | C+(R)(2) | C+(R)(2) | C+(R)(2) | C+(R)(2) | C+(R)(2) | C+(R)(2) | C+(R)(2) | C+(R)(2) | C+(R)(2) |
| parking brake lever (stroke / effort / efficiency) | C+(A)(2) | C+(A)(2) | C+(A)(2) | C+(A)(2) | C+(A)(2) | C+(A)(2) | C+(A)(2) | C+(A)(2) | C+(A)(2) |
| lights, tell tales functionality | C | C | C | C | C | C | C | C | C |

(1) = the replacement depends from use, recharging cycles
(cfr. chapt. 4 recharging rules)
(2) = if necessary

(A) = adjust
(C) = check
(R) = replace

**AUTHORIZED
WORKSHOPS**

6. MAINTENANCE AND REPAIRS

recommended scheduled maintenance 36 months plan

| KM MONTHS | 4000 4 | 8000 8 | 12000 12 | 16000 16 | 20000 20 | 24000 24 | 28000 28 | 32000 32 | 36000 36 |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| hydraulic brake system and level visual check | C+(B)(2) |
| brake fluid replacement | - | - | - | - | - | R | - | - | - |
| controller diagnostic | - | - | C | - | - | C | - | - | C |
| general inspection of mechanical parts | C+(G)(2) |
| front axle end bolts | C+(T)(2) |
| steering gear box, steering column, cardan joint, wheel bearing's noisiness | C+(T)(2) |
| wiper blade wear control and windscreen washer fluid levels | - | - | C | - | - | C | - | - | C |
| tire pressure, visual check tire wearing and toe-in, wheel nut tightening check | C+(I)(T)(2) |
| visual vehicles body status | - | - | C | - | - | C | - | - | C |
| visual check of interior condition, coating and rubber parts | - | - | C | - | - | C | - | - | C |

(2) = if necessary
(B) = bleeding
(C) = check

(G) = grease
(I) = inflate
(T) = tight

**AUTHORIZED
WORKSHOPS**

7. INFORMATION ABOUT THE DEMOLITION OF THE VEHICLE



The vehicle is composed of different components and materials. The user must contact an authorized demolisher in order to comply with the provisions of the laws in force for waste disposal

electric passion

8. WARRANTY

1. Terms of warranty

1.1 ITALCAR INDUSTRIAL S.r.l., hereinafter "ITALCAR", guarantees that the products sold to the Customer (hereinafter "Customer"), and listed in the Offer Form accepted and signed by the Customer (hereinafter "Product/s") are free from flaws and functional defects, for a time of 12 months from the Products' delivery date or for a time of 24 months in case the Customer is a consumer within the scope of article 3 of the Consumers Code.

1.2 ITALCAR undertakes, after the lodging of a claim by the Customer, and upon request by this latter, to amend the flaws or the functional defects during the whole warranty time, bearing all costs of workmanship connected to the repair of the vehicle or replacing the defective components at its own cost, also bearing the spare parts' shipping costs to the licensed assistance center.

1.3 a functional defect of the product is a defect that emerged notwithstanding compliance with ordinary precautions, and the fact that the vehicle has been used for the purposes to which it has been built, and the Customer complied with the use of the vehicle according to the corresponding users' manual.

1.4 The warranty is valid as of the date of delivery of the Product to the Customer and expires on the 365th day following such date (or on the 730th day in case of customer-consumer according to art. 3 Consumers' Code). The date of delivery (hereinafter "Delivery") is the date in which the Product/s are collected at the ITALCAR plant in Rivalta di Torino according to art. 2 of the General Terms of Sales.

1.5 The warranty on vehicles on which a warranty claim was already satisfied shall continue up to the expiry of the warranty time on the main good (vehicle).

2. Warranty extension

2.1 ITALCAR furthermore guarantees that the following third-party-built components are free from flaws for a time of 12 months (or 24 months in case of customer-consumer according to art. 3 Consumers' Code) from the Delivery of the Product:

- batteries,
- battery charger,
- control unit,
- engine.

2.2 the warranty on the said components shall be valid and enforceable by the Customer only if the defective components are original and have not been modified or altered or repaired by any person not authorized by ITALCAR.

2.3 If a warranty claim for flaws or defects in the components is lodged within the term set forth in the following section 3, and the flaws have emerged within the term of 12 months (or 24 months in case of customer-consumer according to art. 3 Consumers' Code) from the Delivery of the Product, ITALCAR undertakes to replace them or to repair them bearing all costs of workmanship, the cost of repair of the components or replacing them and bearing the spare parts' shipping costs to the licensed assistance center.

3. Lodging of a claim

3.1 The lodging of a warranty claim for flaws or functioning defects of the Product/s shall be made by the end user, in written form, by means of a registered letter sent to the ITALCAR headquarters or a PEC (certified e-mail) at the following address italcarindustrialsrl@pec.it, within:

- a) 8 (eight) days from the discovery of the flaw, for non-apparent flaws or functioning defects, if the discovery is made by the professional Customer;
- b) 2 months from the discovery of the flaw, for non-apparent flaws or functioning defects, if the discovery is made by the consumer Customer.

The lodging shall in any case take place within the warranty terms under 1.1. above.

8. WARRANTY

3.2 In order to seek amendment of the flaws and functioning defects, the Customer must resort to a licensed assistance center. No reimbursement will be made for expenses incurred by the Customer if he resorts, in order to seek repair of the vehicle or replacement of any defective part, to a non-ITALCAR-licensed mechanics' workshop or has repaired personally the vehicle. The list of licensed assistance centers is provided by ITALCAR upon written request to the following address, or via telephone at the following numbers:

Telephone +39.011.904.0225
Fax + 39.011.903.2986
E-mail: postvendita@italcar.com

3.3 After lodging the warranty claim in the terms of law with ITALCAR and after contacting the licensed assistance center, the Customer shall be bound to:

- a) show, upon request of the assistance center the warranty certificate named "Identification and Registration of Vehicle Warranty", and the vehicle's registration.
- b) Abstain from altering or manipulating the vehicle in any way.

4. Technical procedure for performance under warranty

4.1 The licensed assistance center, after detecting the flaws or malfunctioning shall be bound to fill in and transmit to ITALCAR, via e-mail or fax, the form "worksheet – non conformity report", also noting down, if this is the case, the validity of the guarantee (or else).

4.2 Should ITALCAR hold that the flaws or defects reported do fall within the scope of the warranty, it will confirm the warranty claim in writing, via e-mail or fax, to the licensed assistance center, and to authorize the repair or replacement of the defective or faulty parts also sending the spare parts, at its own cost, in those terms set forth in the claim confirmation.

4.3 Should ITALCAR deem necessary to examine the defective parts, before performing the replacement under warranty, it shall be entitled to require the licensed assistance center to ship the defective parts. ITALCAR will then proceed to ship to the licensed assistance center the spare parts or the repaired ones, charging the cost of shipment and of the parts on the recipient(s), advancing to the assistance center an order confirmation for the spare parts, that will list the parts' price, the quantities and the payment terms. Should ITALCAR, after examination of the parts, detect the existence of the claimed flaws, and that such flaws fall within the scope of the warranty, it shall further issue a credit note, in favor of the assistance center, concerning the replaced components already charged.

5. Exclusion of warranty

5.1 The warranty does not cover damages:

- a) caused by accident, id est being the consequence of an external, direct and violent event mechanical in nature;
- b) caused by intentional and willful acts, taking form the owner, in particular in case of theft, unauthorized use, robbery and misappropriation, damages caused by the action of storms, hail, lightening, earthquakes or floods, fire and explosion;
- c) caused by wary events of any nature, civil war, riots, strikes, lockout, seizure or state action of any other nature or by nuclear power.

5.2 The warranty does not cover damages:

- a) caused as a consequence of taking part to sportive car races or following the corresponding tests;
- b) occurring as a consequence of the fact that the vehicle has been loaded with loads exceeding the maximum allowed ones as set by the manufacturer, or with a towed load that exceeds the towable load as set by the manufacturer;
- c) occurring as a consequence of the use of lubricants or consumables not apt or due to the lack thereof;
- d) causes by the alteration of the original build of the vehicle or by the addition of further components manufactured by other manufacturers or accessories not approved by the manufacturer.

8. WARRANTY

5.3 The warranty does not furthermore cover damages:

- a) Occurring as a consequence that during the time of validity of the vehicle's warranty the maintenance works, or any manufacturer-suggested or prescribed were not performed at a licensed assistance center;
- b) Caused by untimely report of the occurred damage and by the late delivery to (or request of assistance from) the licensed assistance center in order to perform the repair;
- c) Caused by non compliance with the warnings given by the manufacturer concerning the use of the vehicle.

5.4 Replacement or repair of the parts listed hereafter, subject to ordinary wear and tear due to use, falls in any case outside the scope of the warranty, unless such parts are affected by manufacturing flaws; in such case the Customer must resort directly to the manufacturer of the specific component identified in the Vehicle's user's manual.

- Traction batteries (e.g.: drop in battery life, sulfating, explosion due to lack of maintenance with liquid refill; leakages);
- Cables;
- Fuses;
- wipers;
- bulbs;
- mats;
- handles ;
- rubber coating of pedals;
- wheel covers ;
- tires ;
- brakes;
- windscreen and windows;

6. Governing Law – Jurisdiction

6.1 The present Terms of Guarantee are governed by Italian law. The Parties agree that any dispute that might arise between them concerning the interpretation, performance or termination of the present contract and, anyway, related to it, shall be subject to the exclusive jurisdiction of the Courts of Torino; in case the Customer is a consumer, the courts of the place of residence of the consumer shall have jurisdiction according to articles 17 and following of Regulation (EU) No 1215/2012 of the European Parliament and of the Council of 12 December 2012 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters.