



Operator's manual

TX-05



ATTENTION! DON'T USE THE MACHINE WITHOUT READING THE OPERATOR'S MANUAL



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RECEIPT OF THE MACHINE

AS SOON AS THE MACHINE IS UNPACKED PLEASE CHECK THE MACHINE AND BE SURE THAT EVERYTHING IS OK AND THAT NO DAMAGES HAPPEN DURING TRANSPORTATION.

BE SURE THAT ALL THE PARTS HAVE BEEN SHIPPED .

FOR ANY PROBLEMS CONTACT IMMEDIATELY THE MANUFACTURER.

INTRODUCTION

THIS MACHINE CAN TOW TROLLEYS FOR A MAXIMUM OF 500 Kg WITHOUT ANY PROBLEM.

THIS MACHINE CAN BE EQUIPPED WITH FRONT MOP KIT .

THIS KIT IS ABLE TO CLEAN ANY KIND OF FLOOR.

THE BEST PERFORMANCES CAN BE GARANTEE ONLY USING PROPERLY THE MACHINE .

PLEASE READ CAREFULLY THE INSTRUCTION

THE MACHINE CAN BE USED ONLY FOR THIS PURPOSE

Keep always this manual for future reference



TECHNICAL DESCRIPTION

Length	1250 mm
Width	680 mm
Height	980 mm
Wheels	3
Wheel diameter	310 mm
Traction	Electric
Weight without batteries	60 Kg
Battery compartment (LxWxH)	350 x 300 x 250 mm
Batteries specifications	No.2 x12 volt – 95 Amp.
Power	24 volt –350 W or 24 volt – 600 W
Service	Foot pedal
Parking brake	lever
Max forward speed	9 Km / h
U turn	2000 mm



GENERAL INFORMATION

MANUFACTURER RESPONSABILITIES

The manufacturer Ing.O.Florentini is not responsible for any failures, accidents, etc due to the not correct use of the machine .

The same applies to any change , modifications or installation of any accessory not authorized.

Ing.O.Florentini is not responsible for any damage caused by:

- ?? Natural calamity
- ?? Wrong operation
- ?? No maintenance

The manufacturer is not responsible for any changes not authorized

CLAIMS

Ing.O.Florentini needs to receive the follow information

- ?? Model of the machine
- ?? Serial number
- ?? Year
- ?? Defected fault description
- ?? Checks that have been done
- ?? Any other information considered useful for this purpose

Ing. O. Fiorentini S.r.l. 50030 Piancaldoli (Fi)		MADE IN ITALY	CE
Mod.	S.N.		2003
V	Hz.		
Kg	A	W	



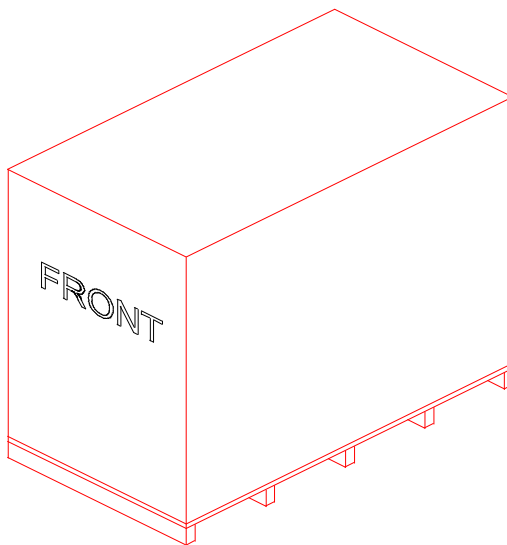
Fig. 1



TRANSPORTATION

HANDLING OF PACKED MACHINE

The machine is supplied packed on pallet, closet and made by plywood or paper board.



UNPACKING THE MACHINE

1. Cut the straps .
2. Remove the clips on the paper board base
3. In case of package made by plywood remove the clips on the sides and on the base of each panel
4. Remove the other clips fastening the machine
5. Bring the machine at ground level

HANDLING OF UNPACKED MACHINE

1. Check the unpacked machine and mount the batteries(pag7)

RULES TO BE RESPECTED FOR CORRECT USE

The machine is studied for only one person, so is forbidden to carry another one.
It is important to use the machine carefully and to take care of people around .
When the vehicle is not used is necessary to use the parking brake.
Never carry more than the authorized weight



INSTRUCTION FOR USE

OPERATOR QUALIFICATION

The machine can be used only by an authorized operator .
The operator must be instructed in a proper way .

VEHICLE INSPECTION

It is important that the machine is keep in a good condition and that all maintenance is done properly.

- ✂✂ Check the vehicle status and the wheel pressure
- ✂✂ Check the batteries autonomy
- ✂✂ Check the stop performances in both direction
- ✂✂ Check turning performance

If the machine has any problem , please stop immediately the machine and call the person in charge of maintenance

BATTERY ASSEMBLING

- ✂✂ Remove the battery compartment cover
- ✂✂ Put the batteries in the compartment(fig 3)
- ✂✂ Connect the batteries using the cables(fig3A)
- ✂✂ Put the battery compartment cover

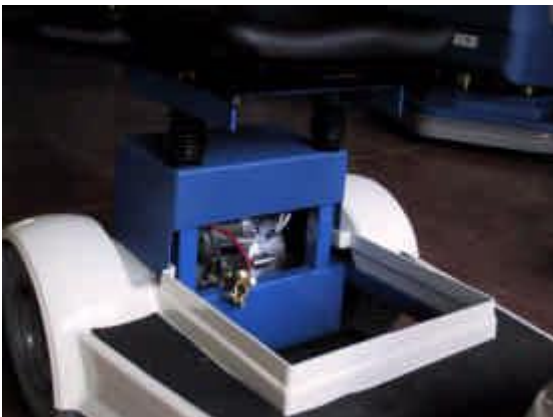


Fig. 3



Fig. 3-A

CONTROLS DESCRIPTION



Fig. 4

1	Parking brake lever	Pulling the lever the parking brake is in function
2	Disconnected parking brake lever	Pushing together with service brake lever
3	High speed lamp	Is switched on when the high speed is choose
4	Battery indicator	It shows the batteries autonomy
5	Forward and backward switch	When the switch is in forward position the machine goes in front , when in backward position the machine goes back
6	Acceleration control	For acceleration turn the hand grip.
7	Main switch	To switch on the machine put the switch on position. To switch off put the switch off position
8	High speed switch	When the switch is on position the high speed is connected
9	Steering adjustment	The operator can chose the wished position



USE

Before using the vehicle understand very well all the functions and read the instruction manual

Main Switch:

The vehicle is equipped with a main switch placed on the steering. To use the vehicle put the switch ON position. To stop the vehicle put the switch OFF position

Steering:

The steering and the handle bar are similar to the scooter ones.

To turn left go in anti clock position. To turn right go clock position

The vehicle has a very short radius and it is very important in order to have excellent maneuverability with less speed

When is necessary to turn please moderate the speed!!

Acceleration hand grip:

The acceleration hand grip is placed on the right position of the steering and is similar to the scooter ones.

Turning the hand grip the vehicle is moved .

Foot pedal brake:

The service brake is placed on the left side of the operator.

N.B. In order to use in a proper way the parking brake (placed on the left side of the steering) please push completely the foot pedal brake (Fig. 4).

Steering adjustment:

It is very simple to adjust the steering position by the lever placed on the steering itself (fig. 5).



Fig. 5

Seat adjustment lever:

Placed on the right position , allows the operator to chose the wished position



Fig. 6

Seat adjustment lever



BATTERIES

The electric vehicle use batteries

On the dashboard(fig4) there is batteries indicator that shows the batteries autonomy

Green led on: battery charged

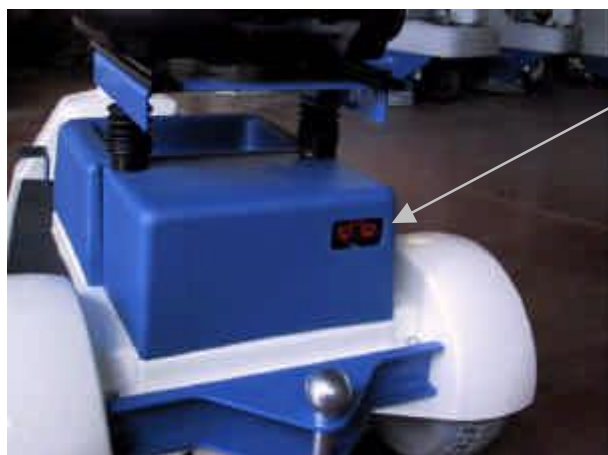
Yellow led on : battery half charged

Red led on: battery discharged

The machine is equipped with a system that stop the machine when the batteries autonomy is 20% in order to save the batteries life

IMPORTANT:

IS VERY IMPORTANT TO RECHARGE THE MACHINE IN OPEN AREA IN ORDER TO AVOID ANY KIND OF PROBLEMS, NEVER SMOKE CLOSE TO THE MACHINE WHEN THE BATTERIES ARE IN CHARGING



Charger connection

Fig. 7

BATTERY TECHNICAL DETAILS

POWER	2x12 V.
AMPERE/H	95 A/h
DIMENSION (LxWxL.)	230 x 175 x 305 mm



MAINTENANCE

It is important to check time to time the vehicle in order to keep the machine in perfect working condition.

All the follow inspection must be done without any extra weight and without any mope accessories:

WEEKLY:

- ✍✍ Check the battery liquid level
- ✍✍ Check the wheel pressure (4 Bar)
- ✍✍ Check the normal functionality of the mechanical parts of the vehicle
(Brakes, Steering, Acceleration)

MONTHLY

- ✍✍ Check the batteries cable .

EVERY 6 MONTHS

- ✍✍ Check the traction motor carbon brush.
- ✍✍ Check the all mechanical parts are ok and the electric connection.

CLEANING

Always keep the machine in good condition .
Never use high pressure machines to clean it.

DICHIARAZIONE-DECLARATION-DECLARATION-ERKLÄRUNG- DECLARACION

DICHIARAZIONE CE DI CONFORMITÀ
DECLARATION OF CONFORMITY
DECLARATION DE CONFORMITE
ÜBEREINSTIMMUNGSERKLÄRUNG
DECLARACION DE CONFORMIDAD

ING. O. FIORENTINI s.r.l.
Loc. Rombola
50030 PIANCALDOLI (FI) ITALIA

Dichiara sotto la propria esclusiva responsabilità che la macchina:
Declares under its own responsibility that the machine :
Déclare sous sa responsabilité exclusivement que la machine :
erklärt unter ausschließlich eigener Verantwortung, daß die Maschine :
declara bajo su propia y exclusiva responsabilidad que la máquina :

FIORENTINI

Modello/model/modele/modell/modelo
Matricola/serial number/numero
matricule/serienummer/numero matricula
Anno/year/année/jahr/ano

2010



Fabbricata nel rispetto delle direttive e decreti :
and moreover is built according to the directives and decrees :
et est fabriquées à, en outre, conformément aux directives et ou décrets :
und daß sie unter Einhaltung folgender Verordnungen und/oder Dekrete hergestellt worden (sind) :
y que además ha sido fabricada en conformidad con las directivas y/o decretos :

2006/42/CE/EC/EG-

Direttiva macchina: Machines Directive: Maschinen Richtlinie: Directive machines:

2004/108/CE/EC/EG-

Compatibilità elettromagnetica: Electro Magnetic Compatibility: Elektromagnetische Verträglichkeit: Compatibilité électromagnétique:

2002/95/CE/EC/EG-

Restrizione sostanze pericolose: Restrictions of Dangerous Substances Beschränkung der gefährlichen Mitteln: Restriction des substances dangereuses

2003/10/CE/EC/EG

Protezione da rumore: Exposure of Workers to Noise: Gefährdung der Arbeitnehmer durch Geräusch: Exposition des travailleurs aux Bruits:

È conforme alle seguenti norme :
conform to the following laws :
est conforme aux norms :
mit den folgenden Normen übereinstimmen :
está conforme a las siguientes normas :

EN 12100-1- EN 12100-2

Norme applicate: Harmonized Standard Applied: Angewandte harmonisierte Normen: Normes Harmonisées Appliquées :

Ing. O. Fiorentini S.r.l.

Il titolare/chairmen/gérant

Ing. O. Fiorentini

Piancaldoli

Luogo e data

Firma

O. Fiorentini

In caso di modifiche apportate alla macchina questa dichiarazione non è più valida

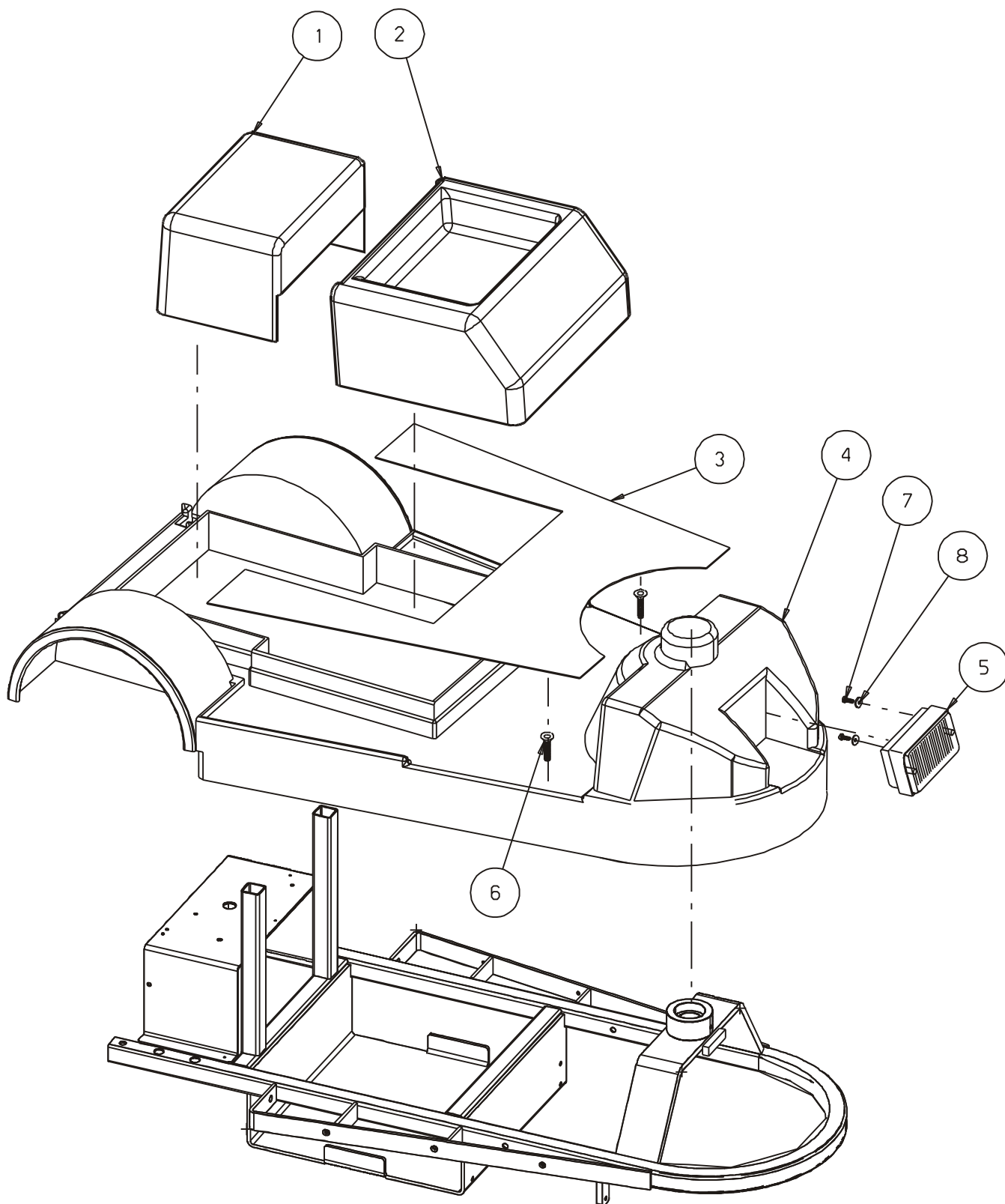
Manuale parti di ricambio
Spare part
Pieces Detachees
Ersatzteile

TX-05



TX-05

TAV. 1

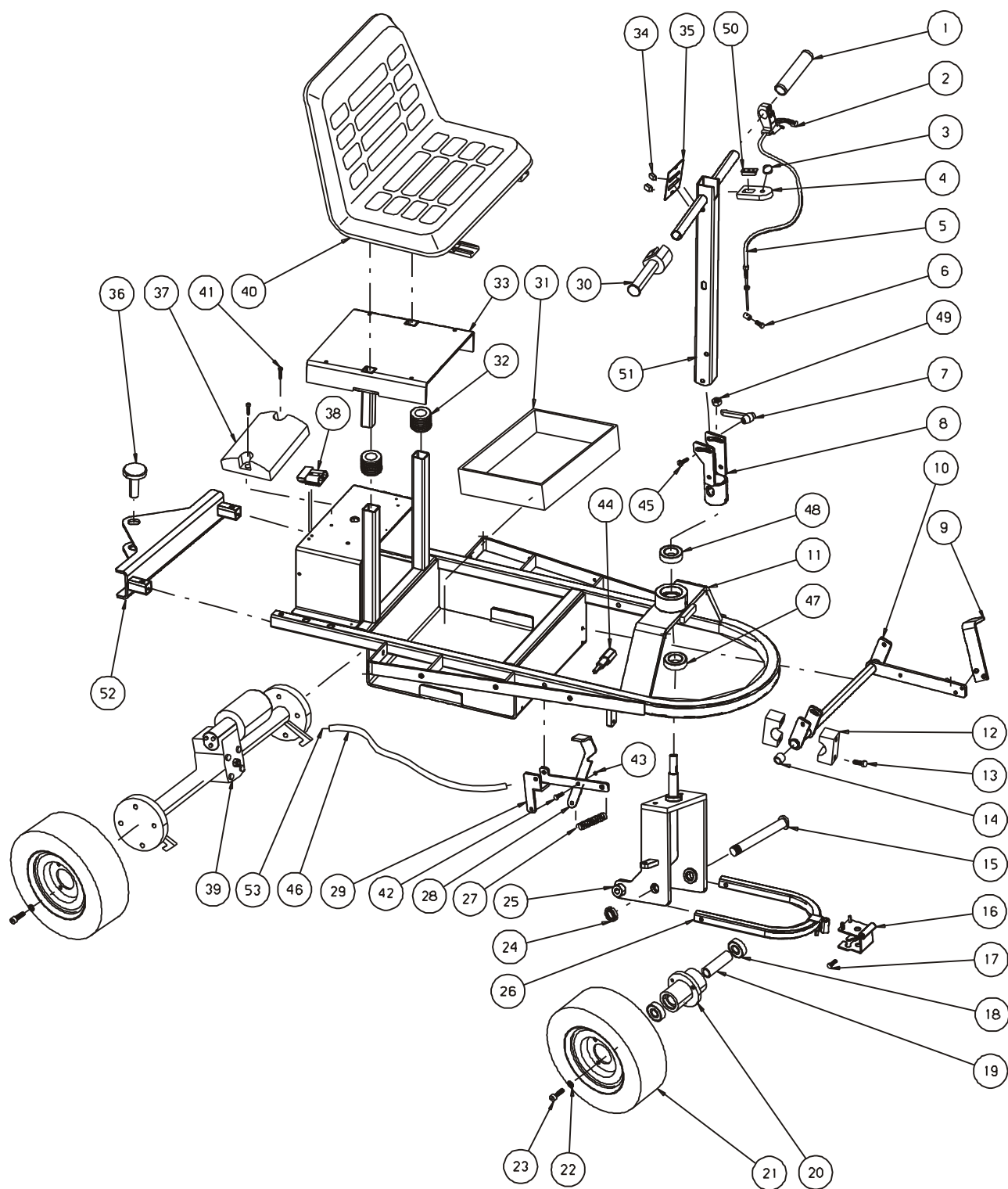




POS.	CODICE	Qta	Descrizione	Description	Description	Beschreibung
01-001	MT-CO502	1	COPERCHIO SCHEDA ELETTRONICA TX05	ELECTRONIC CARD COVER	COUVERCLE PLATINE ELECTR.	DECKEL
01-002	MT-CO502	1	COPERCHIO BATTERIE TX05	BATTERIES COVER	COUVERCLE BATTERIES	BATTERIENDECKEL
01-003	MT-BP504	1	TAPPETO GOMMA GRANARISO 3mm. PER TX	RUBBER FOOTBOARD	MARCHEPIED	GUMMITRITTBRETT
01-004	MT-CO502	1	COFANO COPRITELAIO TX05	FRAME COVER	COUVERTURE PLASTIQUE	RAHMESDECKEL
01-005	MT-PY294	1	FANALE ANTERIORE DX/SX UBF34	FRONT LIGHT	FEUX	VORDERLEUCHTE
01-006			BULLONERIA	BOLTS AND SCREWS	BOULONS	SCHRAUBEN
01-007			BULLONERIA	BOLTS AND SCREWS	BOULONS	SCHRAUBEN
01-008			BULLONERIA	BOLTS AND SCREWS	BOULONS	SCHRAUBEN

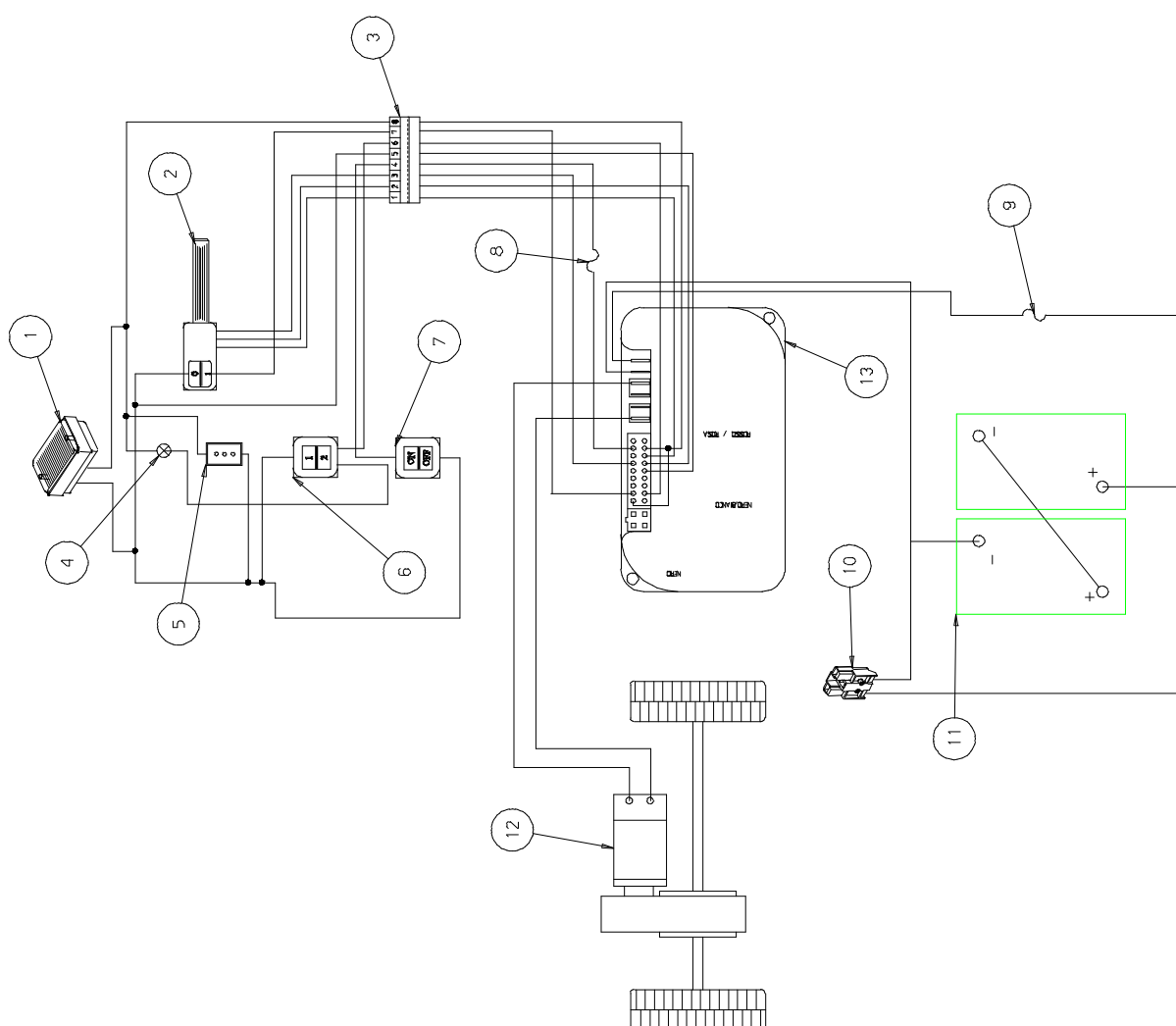
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TAV. 2





POS.	CODICE	Qta	Descrizione	Description	Description	Beschreibung
02-001	MT-MI5104	1	MANOPOLA SINISTRA	LEFT KNOB	POIGNEE GAUCHE	KNAUF
02-002	MT-LV296	1	LEVA FRENO PER TUBO 22mm	BRAKE LEVER	LEVIER FREIN	BREMSESHEBEL
02-003	MT-PY541	1	LED DI SEGNALEZIONE HIGH SPEED	HIGH SPEED LED	TEMOIN HAUTE VITESSE	HOHE GESCHWINDIGKEITSANZEIGER
02-004	MT-CO503	1	PLANCIA IN PLASTICA TX05	PLASTIC DASHBOARD	TABEAU DE BORD	PLASTISCHE TAFEL
02-005	MT-MI509	2	CAVO FRENO A MANO TX05	PARKING BRAKE CABLE	CABLE FREIN A MAIN	PARKIERBREMSESKABEL
02-006			BULLONERIA	BOLTS AND SCREWS	BOULONS	SCHRAUBEN
02-007	MT-VP048	1	POMELLO LEVA DI BLOCCAGGIO FEMM.M8	KNOB	POMMEAU	KNAUF
02-008	MT-ST100	1	STAFFA SUPPORTO MANUBRIO TX05	HANDLEBAR BRAKET	SUPPORT GUIDON	LENKSTANGESBÜGEL
02-009	MT-LV100	1	PEDALE FRENO	BRAKE LEVER	PEDALE DU FREIN	BREMSESHEBEL
02-010	MT-AL100	1	ALBERO FRENI	BRAKES SHAFT	ARBRE FREINS	BREMSESWELLE
02-011	MT-TP100	1	TELAIO COMPLETO TX05	FRAME	CHASSIS	RAHME
02-012	MT-SU069	4	SUPPORTO LEVERISMI SVASATO	SUPPORT	SUPPORT	STÜTZE
02-013			BULLONERIA	BOLTS AND SCREWS	BOULONS	SCHRAUBEN
02-014	MT-BN003	2	BOCCOLA NYLON DIAM.mm. 19,05	NYLON BUSH	DOUILLE	NYLONBUCHSE
02-015	MT-PE013	1	PERNO FORCELLA RUOTA STERZANTE	ROTATING WHEEL PIN FORK	PIVOT FOURCHE ROUE DIR.	RADGABELSTIFT
02-016	MT-ST100	1	ATTACCO MOP	MOP ATTACHMENT	ATTACHE MOP	MOPSANSATZ
02-017	MT-PE100	1	PERNO AGGANCIO MOP	MOP ATTACHMENT PIN	PIVOT ATTACHE MOP	STIFT DES MOPSANSATZES
02-018	MT-CS015	2	CUSCINETTO A SFERE 6304 2RS	BALL BEARING	ROULEMENT A BILLES	KUGELLAGER
02-019	MT-DT089	1	DISTANZIALE CUSCINETTI	BEARINGS SPACER	ENTRETOISE ROULEMENTS	LAGERSABSTANDSTÜCK
02-020	MT-RP013	1	MOZZO RUOTA ANTERIORE PER RUOTA C/P	FRONT WHEEL HUB	MOYEAU ROUE AVANT	VORDERRADSNABE
02-021	MT-RT089	3	RUOTA PNEUMATICA ANTITRACCIA	WHEEL	ROUE	RAD
02-022			BULLONERIA	BOLTS AND SCREWS	BOULONS	SCHRAUBEN
02-023			BULLONERIA	BOLTS AND SCREWS	BOULONS	SCHRAUBEN
02-024	MT-DD259	1	GHIERA AUTOBLOCCANTE M20X1	RING NUT	COLLIER	RING
02-025	MT-SU100	1	TUBOLARE DI SUPPORTO MOP	MOP SUPPORT TUBULAR	SUPPORT MOP	RÖHRENFÖRMIGER MOPANSATZ
02-026	MT-FR100	1	FORCELLA	FORK	FOURCHE	GABEL
02-027	MT-ML009	1	MOLLA De=11/Df=1,3/Lm=38/Lt=55 T.2	SPRING	RESSORT	FEDER
02-028	MT-LV100	1	PEDALE SOLLEVAMENTO MOP	LIFTING MOP LEVER	PEDALE SOULEV.MOP	MOPHUBHEBEL
02-029	MT-PT100	1	PIASTRA ATTACCO PEDALE MOP	MOP ATTACHMENT LEVER	PLAQUE ATTACHE PEDALE	BLECH
02-030	MT-PY517	1	COMANDO AVANZ.COMPRESE MANOPOLE	FORWARD SWITCH	COMMANDE D'AVANCEMENT	DAUMENKNOPF
02-031	MT-SB030	1	VASCHETTA BATTERIE IN PLASTICA TX05	PLASTIC BATTERY FLOAT	LOGEMENT BATTERIES	PLASTIKBATTERIENRAUM
02-032	MT-MV5055	2	SOFFIETTO PER TX05	BELLOWS	CAOUTCHOUC	FALTENBALG
02-033	MT-PT100	1	SUPPORTO SEDILE TX05	SEAT SUPPORT	SUPPORT SIEGE	SITZSTÜTZE
02-034	MT-IN041	2	INTERRUTTORE BIPOLARE	BIPOLAR SWITCH	INTERRUPTEUR	ZWEIPOLIGSCHALTER
02-035	MT-PT100	1	PIASTRINA PORTAINTERRUTTORI	SWITCHES HOLDER SHEET	PLAQUE	SCHALTERSTRÄGER
02-036	MT-SP250	1	SPINA GANCIO POSTERIORE (ZINC.)	PIN	BLOC CROCHET DE TRACTION	STIFT
02-037	MT-PY251	1	KIT REG.VELOC.CURTIS 1228-2420 24V	SPEED REGULATOR	REGLAGE VITESSE	GESCHWINDIGKEITSREGLER
02-038	MT-PY533	1	SPINA CARICA BATTERIA SBE 80 A	BATTERYCHARGER PLUG	FICHE BATTERIE	BATTERIELADEGERÄTSTECKER
02-039	MT-MO132	1	MOTORIDUT.CON DIFFERENZ.S21 R1/25 T	RATIOMOTOR	MOTO- REDUCTEUR	GETRIEBEMOTOR
02-040	MT-MI015	1	SEDILE COMPLETO DI GUIDE	SEAT	SIEGE	SITZ
02-041			BULLONERIA	BOLTS AND SCREWS	BOULONS	SCHRAUBEN
02-042			BULLONERIA	BOLTS AND SCREWS	BOULONS	SCHRAUBEN
02-043			BULLONERIA	BOLTS AND SCREWS	BOULONS	SCHRAUBEN
02-044	MT-PE100	1	PERNO BLOCCAGGIO MOP	MOP PIN	PIVOT BLOC MOP	MOPSTIFT
02-045	MT-PE100	1	PERNO BLOCCAGGIO MANUBRIO	HANDLEBAR PIN	PIVOT BLOC GUIDON	STIFT DER LENKSTANGE
02-046	MT-MI509	1	GUAINA PER CAVO SOLLEV.MOP L=550	SHEATH	GAINE	KABELMANTEL
02-047	MT-CS500	1	CUSCINETTO 30204 J2/Q	BEARING	ROULEMENT	LAGER
02-048	MT-CS050	1	CUSCINETTO A SFERE 6204 ZZ	BALL BEARING	ROULEMENT A BILLES	KUGELLAGER
02-049	MT-DD208	1	DADO M16	NUT	ECROU	SCHRAUBENMUTTER
02-050	MT-PY378	1	INDICATORE CARICA BATTERIA 24V	BATTERYCHARGER	INDICATEUR DE CHARGE	BATTERIELADEGERÄTSANZEIGER
02-051	MT-SU100	1	MANUBRIO TX05	HANDLEBAR	GUIDON	LENKSTANGE
02-052	MT-LM100	1	GANCIO DI TRAINO	HOOK	CROCHET DE TRACTION	HAKEN
02-053	MT-MI509	1	CAVO SOLLEVAMENTO MOP 3 X 49	LIFTING MOP CABLE	CABLE SOUL. MOP	MOPHUBSKABEL





POS.	CODICE	Qta	Descrizione	Description	Description	Beschreibung
03-001	PY294	1	FARO ANTERIORE	FRONT LIGHT	PHARE AVANT	VORDERLEUCHTE
03-002	PY5174	1	ACCELERATORE	ACCELERATOR	ACCÉLÉRATEUR	GASHEBEL
03-003	PY2523	1	CONNETTORE A 8 VIE	8-WAY-CONNECTOR	CONNECTEUR À 8 SORTIES	8-POLIGER-ANSCHLUSS
03-004	PY541	1	SPIA ALTA VELOCITA'	HIGH SPEED PILOT LIGHT	TEMOIN HAUTE VITESSE	HOHE GESCHWINDIG
03-005	PY378	1	INDICATORE CARICABATTERIA	BATTERYCHARGER INDICATOR	INDICATEUR DE CHARGE	BATTERIELADEGERÄTANZEIGER
03-006	IN041	1	INTERRUTTORE ALTA VELOCITA'	HIGH SPEED SWITCH	INTERRUPTEUR HAUTE VITESSE	HOHE GESCHWINDIG
03-007	IN041	1	INTERRUTTORE GENERALE	GENERAL SWITCH	INTERRUPTEUR GÉNÉRAL	SCHALTER
03-008	PY5118	1	FUSIBILE 15A	FUSE (15A)	FUSIBLE	SICHERUNG (15A)
03-009	PY5007	1	FUSIBILE 50A	FUSE (50A)	FUSIBLE	SICHERUNG (50A)
03-010	PY533	1	PRESA CARICABATTERIA	BATTERYCHARGER OUTLET	PRISE CHARGEUR	BATTERIELADEGERÄTSTECKDOSE
03-011	BT069	2	BATTERIA 12V	BATTERY (12V)	BATTERIE 12V	BATTERIE (12V)
03-012	MO2503	1	MOTORE DI TRAZIONE	TRACTION ENGINE	MOTEUR DE TRACTION	ANTRIEBSMOTOR
03-013	PY2516	1	SCHEDA ELETTRONICA	CONTROLLER	PLATINE ELECTRONIQUE	PLATINE



Serial Number:

Date of shipment:

Distributed By:

ING. O. FIORENTINI s.r.l.

FILIALI:

20132 MILANO – Fax. 02/2592779

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Via Carlo Carrà 13 – Tel. 06/22754040-2275060

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