

MOBILE STAIRCLIMBER
T09 "ROBY"
USE AND MAINTENANCE



Keep Up AS
Solegladveien 20
1352 Kolsås
www.ramper.no
Tel: 22060800
post@keepup.no

CE DECLARATION OF CONFORMITY

The Manufacturer:

VIMEC, Via Parri n. 7, 42045 Luzzara (R.E.) ITALY

declares on its own responsibility that the mobile Stairclimbers for the transport of person on wheelchair model:

T09

comply with the following European Directives:

- Directive 89/336 "Electromagnetic Compatibility" as modified by Directive 92/31/CE
- Directive 93/42 "Medical Devices" (Category I)

Managing Director



Ing. Pier Franco Linari

Luzzara, 01/02/2006

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USE AND MAINTENANCE

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STAY SAFE!

ATTENTION

This symbol indicates important instructions for safety.



While all the instructions are important, please pay particular attention to these.

Carefully read this manual before undertaking the assembly, use and maintenance of the unit.

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Pay due care and attention while operating this machine to minimise the risk of accidents.

Follow all the instructions for the T09 including all the stickers applied to the unit.

Immediately replace any damaged stickers.

Only trained staff are to operate the unit.





Observe the Training level for different activities with reference to the following symbols:

O Trained operator

OS Manufacturers authorised agent

The unit should only be used by a RESPONSIBLE ADULT who is trained in all operating functions described in this manual.

1) UNIT AND MANUFACTURER IDENTIFICATION

 	
I - 42045 LUZZARA (RE) Via Parni, 7 - Tel. 0522/970666 - Fax. 0522/970618	
Tipo/Type/Type/Typ/Typo Matr./Num./Serial Nr/Fabrik. Nr/Matr Anno Fabbr./Produit en/Years/Bajahr/Año Port./Capac./Load/Tragfah./Carga util Alim./Alim./Power/Spa./Alim. Basam./Carter/Base/Unterg./Basam. Kg Man./Guidon/Handl./Lenk./Manil. Kg	T09 N° --- --- Kg 130  (VIA/Hz) 230 / 3 / 50 37 10
Port./Capac./Load/Tragfah./Carga util 130 kg 	
Matr./Num./Serial Nr/Fabrik. Nr/Matr --- ---	Matr./Num./Serial Nr/Fabrik. Nr/Matr --- ---

2) SERVICE

To arrange a service for your T09 stairclimber, please contact **Keep Up AS** on **+4722060800**

Or **post@keepup.no**

3) DESCRIPTION OF UNIT

3.1) Description

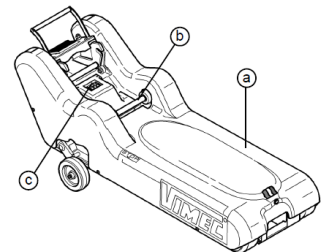
Chassis - Fig. 1/a
It is composed of:

- light alloy frame & plastic cover

It contains:

- Motor & gearbox
- Tracks;
- Transit wheels for level surface use;
- Electrical control system.
- Battery;
- Integral battery charger.

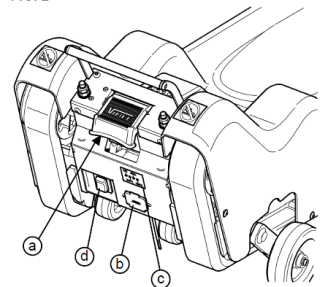
FIG. 1



On the chassis control panel you can find the following:

- Control handle release lever (Fig. 2/a);
- Plug for battery charger (Fig. 2/b);
- Battery charge condition indicator led (Fig.2/c).
- Rocker switch to drive base unit (Fig. 2/d);

FIG. 2

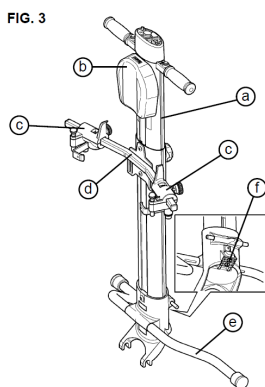


Control handle - Fig. 3/a

The control handle secures the wheelchair onto the stairclimber while on the stairs or on landings. The control handle also has the main controls to drive the mobile stairclimber.

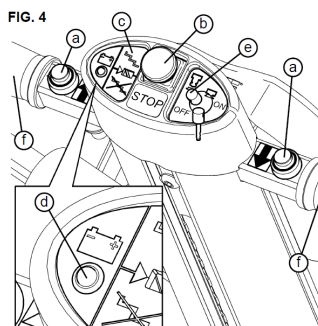
It contains:

- Wheelchair attachment clamps (Fig. 3/c);
- Height and width adjustable attachment clamp cross member (Fig. 3/d);
- Wheelchair wheels support cross member (Fig. 3/e);
- Adjustable headrest (Fig. 3/b);
- Automatic electrical connector for the chassis (Fig. 3/f).



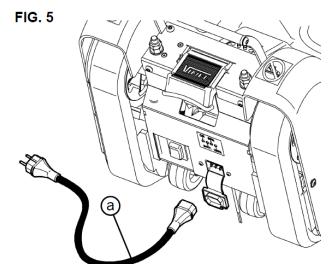
The drive control panel (Fig.4/f) includes:

- Up / Down pushbuttons (Fig. 4/a);
- Emergency stop switch (Fig. 4/b);
- Gradient indicator (Fig. 4/c);
- Battery discharge indicator (Fig. 4/d):
 - Flat battery - slow flash;
 - Motor high temperature – fast flash;
 - Motor jammed - double fast flash compared to motor high temperature.
- "ON/OFF" key (Fig. 4/e).



Battery charger on machine

Recharge the battery after use of mobile stairclimber to maintain the battery condition when the unit is not used. Technical data and the use and maintenance instructions are listed in the manual enclosed with the battery charger.



3.2) Main precautionary measures for wheelchair mounting.

Wheelchair clamping to the Control Handle

- Lock knobs clamping levers with return spring (Fig.6/a).
- Hand wheel of the wheelchair clamping cross member with return spring (Fig. 6/c).
- Clamping hand wheel (Fig. 6/b).

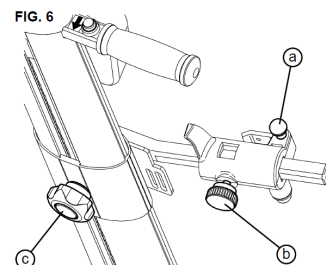
3.3) Main precautionary measures for operation on stairs.

- Optical indicator of maximum gradient (Fig. 4/c).

3.4) Warning and instructions

Always comply with the following warnings and instructions:

- Always fasten safety belts.
- Use both hands whenever using the T09.
- Do not leave the unit loaded.
- Details for the wheelchair loading.





3.5) Operating position

The operator should always be behind the Control Handle, firmly holding the handles (Fig. 4/f).

3.6) Components

- Chassis (Fig. 1\A).
- Control Handle (Fig. 3\A).
- Charge cable (Fig. 5/a).

3.7) Technical standards

The unit complies with the following standards:

STANDARD 93/42/CEE

Concerning medical devices.

STANDARD 89/336

Electromagnetic compatibility as modified by Standard CE 92/31.

4) TECHNICAL DATA

- Drive gear

Irreversible Worm Screw reduction gear	Ratio 1/50
Toothed belt with rubber tracks	HTD-8M
Driving pulley	z=40
Transit wheels for the transfer on the level	n° 4 wheels on ball bearings

- Performance

Running direction	Forward/Backward
Speed (upwards/downwards)	5 m/min.
Capacity	1 person with wheelchair
Rated load	130 kg
Geometrical features of the stair	See Fig. 8

- Environmental conditions

Temperature	0° - +45°C
Humidity -max.	90%

- Overall dimensions

Machine body	See Fig. 7
Control Handle	See Fig. 7

- Weight

Machine body	kg 37
Control Handle	kg 10

- Electrical installation

D.C. Motor Brushless	24V
Electrical input	25 A
Battery charger on machine	230V AC 50 Hz to 24V DC 3A
Non spillable AGM battery	2x 12V 12Ah
Battery recharge time	8 hours from flat
Fuse	40 A

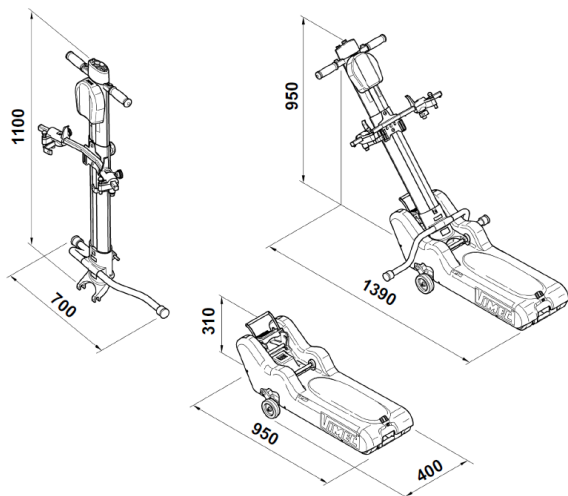
- Controls

Timed start push button (Forward/backward)	Delay of 1 second
Emergency stop push button	(Fig. 4/b)

- Indicators

Battery charge display	(Fig. 4/d)
Gravity gradient visual signal	(Fig. 4/c)

FIG. 7



5) Permitted use of the unit

5.1) Permitted use

Mobile stairclimber Model **T09**, has been designed for the transport of disabled persons on manual self propel wheelchair on staircases with the following features:

- **Environment:** Indoor/outdoor
- **Steps:** Parallel, without coatings
- **Gradient:** Maximum 35° (Fig. 8/a)
- **Step-riser height:** Maximum 180 mm, min. 100 mm (Fig. 8/A)
- **Step nose radius:** From 0 to 20 mm (Fig. 8/R)
- **Attendant:** Always present and with the following characteristics:
A physically and mentally suitable adult, familiar with the operation of the equipment and maintenance instructions.

5.2) Unsuitable environments

Environment:	Potential problems
Use on staircases with gradient over 35°:	Instability, tracks skidding
Use on steps with riser height over 180 mm:	Instability, tracks skidding
Use on steps with riser less than 100 mm:	Tracks skidding
Use on steps with a nose radius higher than 20 mm:	Tracks skidding
Un-trained operator:	Potential Instability
Transport of Power chairs	Not suitable
Transport of people or things not seated on the wheelchair	Not suitable
Use on wet or icy stairs:	Instability, tracks skidding
Use in water or in rain:	Electric installation failure
Use on staircases with non parallel steps:	Instability, lateral tilting



WARNING: DO NOT MODIFIY FOR UNINTENDED USES.

6) TRANSPORT

6.1) Handling

The dismantled unit can be carried or for loading / unloading. The base section can be carried by using the handles on either end (Fig. 9/a and b).

- Base weight complete with battery:** 37 Kg
- Control Handle weight:** 10 Kg

For ergonomic reasons, the base will need to be lifted by two people.

6.2) In When not in use:

- Place the machine in a dry room.
- Cover to protect from dust / dirt.
- Never leave the machine open to the weather.

6.3) Position of the centre of mass (Fig. 10/a)

It is located between the Control Handle and the chassis when assembled.

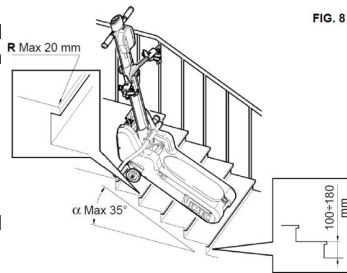


FIG. 8

7) PREPERATION FOR USE

7.1) Initial Set up.

Before setting up, read the manual carefully.

Package opening

- Cut the protective film by using a knife. Do not cut or heat the box.
- Take care not to damage the surfaces of the unit.
- Clean the unit, taking away all residual packaging and dust.

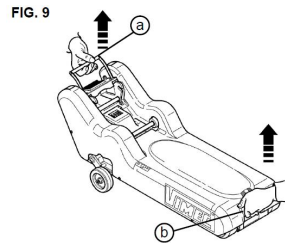


FIG. 9

7.2) Disposal of package material

Dispose of the packaging responsibly.

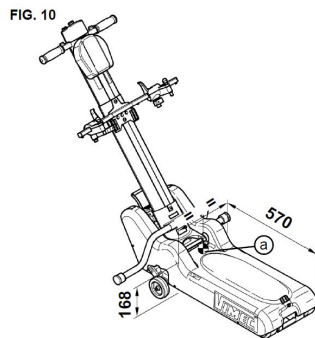


FIG. 10



7.3) Preliminary checks

Checks to carry out before using:

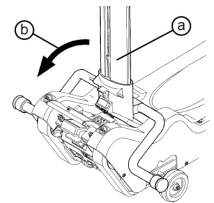
Competence: OS - Manufacturers authorised agent.

MACHINE CHECK: Check the following for correct function.

Control Handle:

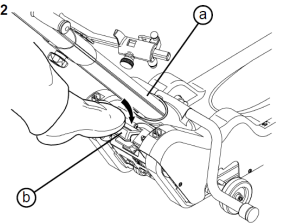
- Correct clamping of the Control Handle (Fig. 11):
- Wheel chair catches (Fig. 6/a): Smoothness, safe return to the lock position.
- Safety belts: Condition, security and catch operation.

FIG. 11



- Controls: Correct action of the controls; Correct timing of the controls; Efficiency of the emergency stop (Fig. 4/b).

FIG. 12

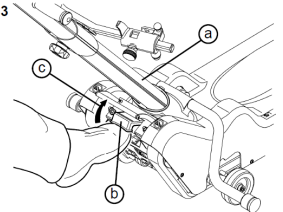


- Indicators: Efficiency of the battery charger signal (Fig. 4/d); Efficiency of the gradient indicator (Fig. 4/c).

Machine body:

- Battery charger: Voltage and frequency as in paragraph 7.5.

FIG. 13



7.4) Environmental conditions for the operating location.

- Temperature: From 0 °C to +45 °C
- Humidity: Max 90%



7.5) Electrical connection

The input for the battery charger is an IEC socket. The user should connect the battery charger to a supply conforming to the standards for the civil use electrical units, equipped with an appropriate switch.

Battery charger data:

- Input Voltage: 230V ac.
- Frequency: 50 Hz
- Output Voltage: 24 V dc / 3A

8) PREPARATION FOR DAILY USE

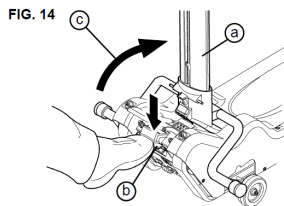
8.1) Control Handle assembly and clamping

- a) Place the control handle (Fig. 11/a) carefully on the mounting bar (Fig. 11/b) on the base.
- b) Incline the control handle (Fig. 12/a) as shown by the arrow (Fig. 11/b) until it is locked to the base.
- c) Once the control handle is locked (Fig. 12/a), protect the release lever pushing on the cover (Fig. 12/b).



WARNING: Ensure that the safety cover is in its proper position. In this position, the safety switch is activated and the Control Handle is locked in the work position. To switch on the machine, insert the key (Fig. 4/e); the push buttons (Fig. 4/a) on the

Control Handle allows the operating of the tracks forwards - backwards.
* If the red cover is not in its proper position, drive of the machine is inhibited.



8.2) Control Handle release

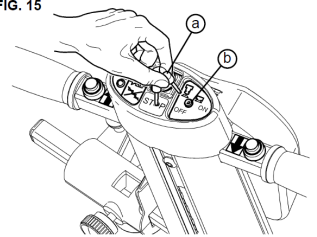
To release the control handle (Fig. 13/a), lift the red safety cover (Fig.13/b) and then, while the release pedal (Fig. 14/b) is being pressed, push the control handle (Fig. 14/a) forward as shown by the arrow (Fig. 14/c).



8.3) Wheelchair clamping

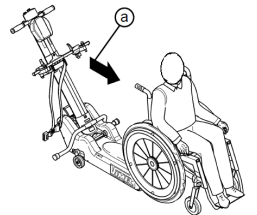
a) Insert the key (Fig. 15/a) for stair climber activation into its appropriate socket (Fig. 15/b).

FIG. 15



b) Lock the wheelchair brakes. By pressing down on the control handle, tilt the mobile stairclimber back onto its transit wheels and push it under the wheelchair (Fig. 16/a).

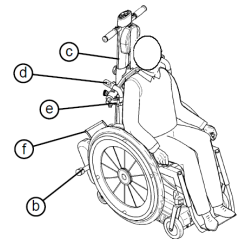
FIG. 16



c) Holding the control handle (Fig. 13/a), lift the red cover (Fig. 13/c) with your foot, exposing the handle release lever (Fig. 13/b).

d) Press the lever (Fig. 14/b) downwards in order to release the control handle (Fig. 14/a) and, push it forward (Fig. 14/c), bring it to the wheelchair seat back (Fig. 16/c).

e) Unscrew (Fig. 17/b) the knob (Fig. 17/a) placed on the rear face of the control handle, push the metallic central pushbutton (Fig. 17/c) and slide the arms (Fig. 17/d) until they are brought under the handgrips of the wheelchair (see Fig. 16).



NOTE: Carry out this operation holding the crosspiece as shown in Fig. 17/e.

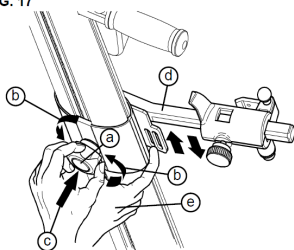
f) Adjust the handle clamp width (Fig. 18/a) according to the wheelchair handle width: unscrew the knob (Fig. 18/b) and move the handle clamp sideways (Fig.18/c). Repeat for the other side.

g) Grasp the plunger (Fig. 19/a) by hand and lift it. Then swing the hook (Fig.19/b) past the plunger and hook it to the wheelchair frame (see Fig.16/e), then release the plunger and ensure that the hook can't open, Repeat for the other side.. Finally, tighten the knobs (Fig. 18/b).



IMPORTANT: do not clamp handles or other objects that are not firmly attached to the wheelchair.

FIG. 17

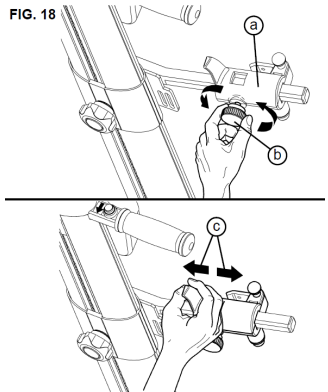


h) Lean the control handle back (Fig. 11/b) until it can be locked to the drive unit. For this operation it's possible to place your foot on the bar provided on the base unit (Fig. 16/f).

i) Close the safety cover (Fig. 12/b) by foot.

j) Now the machine is ready (the green led on the control handle cover will light up when drive switches are pressed and the wheelchair is properly locked and anchored to the stair climber).

FIG. 18



k) Pressing downwards on the control handle the transit wheels are activated and the first step of the flight can be reached to perform the climb or descent (Fig. 27 and 29).



WARNING: Always fasten the seat belt before use.



WARNING: Hold the Control Handle firmly, even when on level ground, when a passenger is on the machine.

8.4) Travel preparation



a) BATTERY:

Check the battery state after having assembled the machine; activating drive for a moment when the machine is empty (with no one on board).

The use of the machine when the indicator led is blinking could damage the battery.



b) SIGNALS:

Do not use the mobile stairclimber on unfamiliar stairs before checking the gradient indicator.

If the gradient indicator does not work, **DO NOT USE THE TRACK MOBILE STAIRCLIMBER!** Call Baronmead operative immediately.



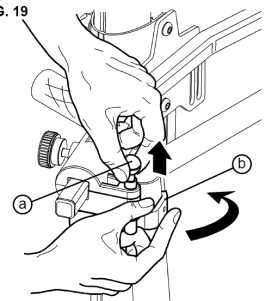
c) EMERGENCY:

Check the emergency STOP operation (red push-button on control panel).

- Press the push-button: the drive controls should be inhibited.
- Reset the push-button pulling it out.

If the emergency STOP does not work, **DO NOT USE** the mobile stairclimber! Call Baronmead operative immediately.

FIG. 19



Do not move the mobile stairclimber with a person on board before carrying out all operations described in paragraph 8.3.



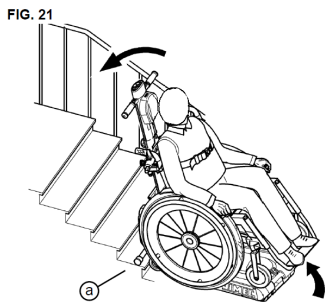
NEVER LEAVE THE MACHINE UNATTENDED WITH A PASSENGER ON BOARD.

8.5) Manual operation on level surfaces

To move quickly over longer distances and to turn the machine, it is necessary to operate manually:

a) Using the Control Handle as a lever, raise the tracks off the ground to allow the machine to roll on its transit wheels.

b) Push the unit in the desired direction.



8.6) Stair gradient check



This check should be done on all new locations.

a) Check that the step riser is not greater than 180 mm (Fig. 8).

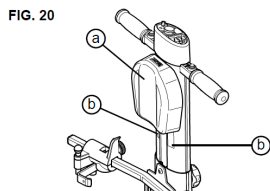
b) Operating manually, without person on board, on approaching the first stage of the stair to travel, press the push button control (Fig. 4/a), travel on a section of stair, release the push button and make sure that the gradient indicator placed (Fig. 4/c) on the Control Handle is green (Gradient under 35°). If the indicator is red (Gradient above 35°), it is not possible to travel on that staircase.

Green indicator: correct gradient

Red indicator: excessive gradient

8.7) Headrest adjustment

To adjust the headrest (Fig. 20/a): Remove the headrest and adjust it using two Velcro stripes (Fig. 20/b).



WARNING: THE MOBILE STAIRCLIMBER OPERATOR DETERMINES THE STABILITY OF THE UNIT. TO AVOID UNSTABLE CONDITIONS PLEASE FOLLOW THE POINTS BELOW.

8.8) Operation on staircase



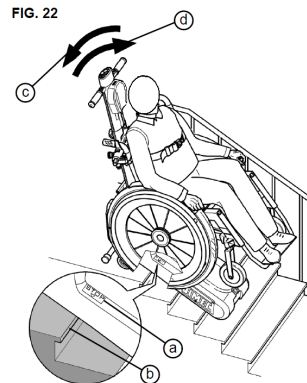
The unit should be always placed so as the control handle is towards the upward side. If during the stair operation, the mobile stairclimber continues to operate when the push button is released, press the emergency STOP red push button on the Control Handle control panel. Afterwards follow section 8.9.

8.8.1) Stair ascent operation

a) Operate manually as in section 8.5. Advance the mobile stairclimber with the person on board to the first step of the flight (Fig. 21/a).

- If you must travel just one flight, position the mobile stairclimber in the middle of the staircase.

- If there is more than one flight of stairs, travel as near the inside handrail as possible or near the inside wall; this position makes manual operation on landings easier.



The mobile stairclimber should be perpendicular to the steps; it is not possible to travel on staircases diagonally.

b) Press the "up" push button holding the Control Handle firmly with two hands, travel up the flight until the STOP sticker (Fig. 22/a) aligns with the nose of the last step (Fig. 22/b).

c) Release the drive button, and lower the Control Handle slowly (Fig.22/c). If the staircase comprises two or more flights, operate manually and approach the second flight. Repeat the previous operation.

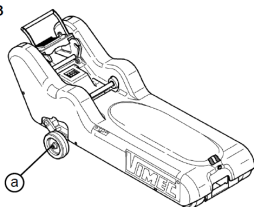


WARNING: The lugs on the tracks can slide on the step nose during operation and while resting on the staircase. In extreme circumstances, this could cause the mobile stairclimber to tip forward. For this reason, firmly hold the Control Handle firmly, even when stationary, whenever a passenger is transported.

8.8.2) Stair descent operation

a) Operate manually as in section 8.5. Approach the first step (Fig. 22/b) of the flight you must travel on, until the mobile stairclimber has arrived with the message STOP at the beginning of the flight (Fig.22/a).

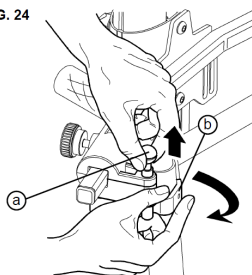
FIG. 23



- Stair with one flight:
Locate at the centre of the staircase, with the machine placed in axis to the staircase.

- Stair with more flights:
Place the unit towards the stair well inner edge, taking care of being in square with the staircase (see 8.8.1a).

FIG. 24



WARNING: The machine should be always perpendicular to the step.

b) Raise the Control Handle (Fig. 22/d) until the tracks have touched the lower step, press the downwards push button and travel down the stairs taking care to hold the Control Handle firmly in both hands.

c) At the end of each flight, the side mobile wheels (Fig.23/a) will automatically position for the next manual operation.

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WARNING: there is the possibility that the track lugs may slide on the nose of the stair during the operation of the mobile stair climber. This could cause the mobile stairclimber to tip forward. For this reason, firmly hold the Control Handle, even when on level ground, when the user is transported.

8.9) Emergency stop on the staircase



In case of an emergency stop on a staircase flight, do not release the control handle

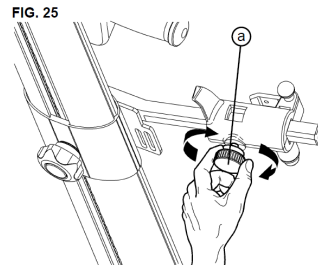


When the unit is locked, make sure of the vehicle stability before leaving the Control Handle.



If the track mobile stairclimber stops in the upward direction due to discharged battery, it is possible to rescue the passenger by reversing the direction and bringing him to the lower level.

FIG. 25



8.10) Passenger release

a) At the end of the journey, release the Control Handle.

b) Push the Control Handle forwards until the wheelchair touches the ground.

c) Raise plunger (Fig. 24/a) and retract red lever (Fig. 24/b) outwards. Loosen handwheels (Fig. 25/a).

d) Lower the Control Handle and re-clamp it to the chassis.

e) Remove the mobile stairclimber manually from under the wheelchair.

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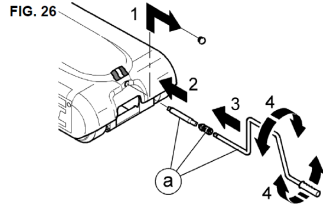
8.11) Passenger recovery



IMPORTANT: in case of an emergency stop on the stairs, it is absolutely forbidden to release the Control Handle. If the mobile stairclimber stops when in the upward direction due to discharged battery, it is possible to rescue the transported user by reversing the direction and bringing him back to the lower level.



WARNING: if it's not possible to come back to the lower floor, move the machine by using the handle control device for its handling (Fig.26/a) supplied in equipment.



9) MAINTENANCE

The unit requires maintenance and service by an approved operative every six months.

It is very important to check the following parts regularly:

Competence level: O - Trained operator

Detail / Component	Check frequency
a) Rubber tracks	monthly
b) Control Handle clamping	monthly
c) Wheelchair clamping	monthly
d) Battery	before every use
e) Control Handle connector	monthly
f) Electrical loom & fuses	monthly
g) Indicators	before every use
h) Emergency STOP switch	before every use

The tests to carry out for every point a).....f) are the following:

a) The tracks must not show any wear or cuts or lugs excessive wear.

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b) Make sure that the wheelchair release mechanism is intact and in working order.

c) The batteries are sealed and maintenance free. They must be kept on charge by connecting the battery charger using the cable supplied, during the periods when the machine is inactive.

d) Check the IEC charger socket is undamaged.

e) Check that the status light on the control handle is activated shortly after pressing the up / down buttons.

f) Check the emergency STOP red button operation. Push the red button: the controls should be deactivated. Reset the push button pulling it upwards.



If the result of every check is not positive, contact BARONMEAD agent. See chapter 2.

9.1) Periodic cleaning of the unit

Competence: O - Trained operator

Frequency: Quarterly

In operations that require the removal of the covers, switch off at the mains and remove the charge cable before proceeding.

In order to maintain reliable operating, it is necessary to keep the machine clean both inside and out.

Cleaning instructions:

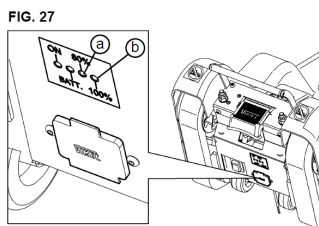
- Turn off the mains supply and remove the power cable.
- Remove the covers by unscrewing the 8*fixing screws.
- Remove dust, dirt and grease marks.

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- At the end of cleaning, replace the covers and reconnect the mains connector.

Battery charger:

When the battery charger reaches the yellow led (Fig.27/a) the machine can be used because the battery has reached the 3/4 of its charge. Every 7 or 8 partial charges it's good thing, in order to save the battery, to carry out the complete battery charge until the green led is reached (Fig.27/b) (after about 11 hours of charge).



It's not possible to use the machine while charging the battery.

9.2) Defects - Possible causes - Possible cures

Competence: O - Trained operator

Defects	Possible causes	Possible cures
The unit does not move in either direction.	Starting key	Insert the ON/OFF key
	Emergency STOP "in"	Pull out
	Handle lock up (fig. 14)	Press down
	Discharged battery	Recharge
	Damaged battery	Replace
	Discharged battery	Safety lock out at a charge percentage of 10%

If the malfunction persists, contact a BARONMEAD operative.

10) UNEXPECTED MOVEMENT AND NOISE OF THE UNIT

a) Unexpected movement

As every staircase can have different pitch, occasionally the T09 will move downward slightly while operating due to the track lug not engaging fully with the stair nose this is:

- infrequent with moderate acceleration;

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-momentary disruption for the operator and passenger as the next lug locates on the stair nose.

This does not affect the safe operation of the machine.

b) Aerial noise: less than 70 db.

11) INFORMATION ABOUT PARTS AND MATERIALS DISPOSAL

a) Rubber and plastic materials disposal

Dispose of used parts responsibly in accordance with the local regulations in force; contact your local council if in doubt.

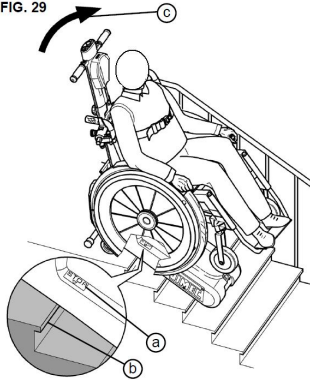
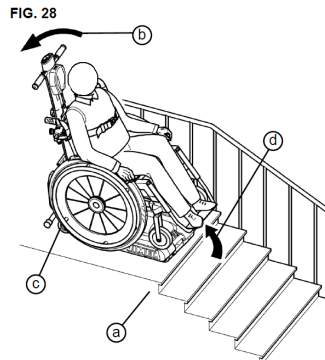
b) Battery disposal

Where possible, recycle batteries at an authorised recycling site, if this facility is not available, dispose of responsibly in accordance with the local regulations in force, contact your local council if in doubt.

12) Instruction Summary

12.1) Descent

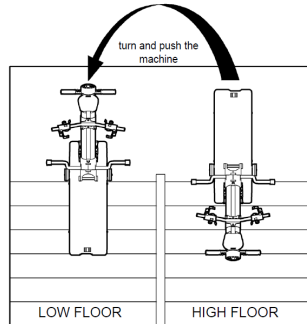
1st phase: Once the wheelchair is properly locked (the green light must be lighted up on the panel), by a soft pressure downwards (Fig. 28/b), on the control handle, lift the nose of the machine (Fig.28/d), activating the transit wheels (Fig. 28/c). In this way it's possible, with little effort, to move



the machine to the edge of the first stair of the flight (Fig. 28/a).

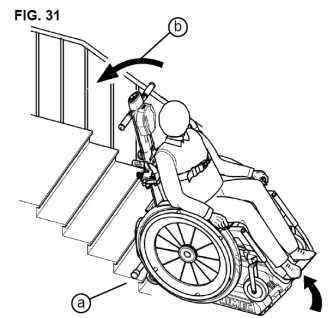
2nd phase: Activate the down pushbutton until the STOP sticker (placed on the base of the cover) lines up (Fig.29/a) with the edge of the first stair (Fig.29/b).

FIG. 30



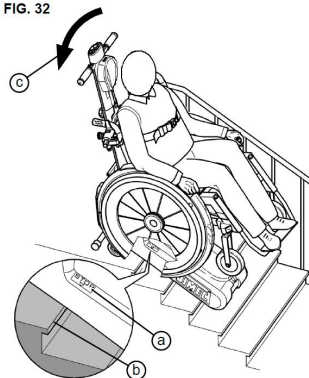
3rd phase: gently tilt the machine forward (Fig. 29/c) until the tracks are resting on the stairs. Now, press the down pushbutton (remember that the start is delayed of about one second), the machine will start to descended the stairs.

4th phase: When end of the flight is reached, drive until the machine is flat, press the control bar downwards again to activate the transit wheels, then at the same time, push and turn the machine placing it again on the edge of the first stair of the next flight (see Fig. 30), paying attention to stop on the STOP. Now the 3rd phase can be carried out again.



WARNING: ALWAYS HOLD THE CONTROL HANDLE FIRMLY!

FIG. 32



12.2) Climb

1st phase: Remember that moving the machine on the plane it's required to exert a soft pressure downwards on the control handle (Fig. 31/b), bring the machine to the first stair of the flight (Fig. 31/a) taking care of keeping the machine square to the staircase.

2nd phase: Now keeping the up pushbutton pushed (remember that the start is delayed of about one second), start the climb.

3rd phase: Once the last stair is reached, stop the machine when the STOP sticker (placed on the base of the truck) (Fig. 32/a) aligns with the edge of the stair (Fig.32/b), then gently lean the machine onto the landing, tilting the machine as shown in Fig. 32/c.

4th phase: When the top of the flight is reached, once the machine is flat, press downwards on the control handle again to activate the transit wheels, then, at the same time, pull and turn the machine bringing it to the first stair of the next flight,

paying attention to place it square to the staircase (see Fig. 33). Now, climb the next flight or, if the final destination is reached, release the wheelchair.



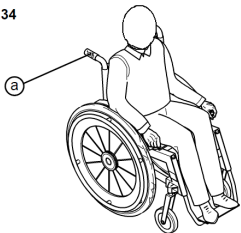
Safety Warning

WARNING: ALWAYS HOLD THE CONTROL HANDLE FIRMLY!

13) REVERSING WHEELCHAIR HANDLE CLAMPS

on the market, there are not only wheelchairs equipped with push handles (Fig. 34/a) but also wheelchairs in which the push handles are replaced by a cross bar (Fig.35/a) placed in the rear part on the seat back. In these cases the safety couplings (Fig. 36/a), because it is equipped with a second hole (Fig. 36/b), can be rotated of 90° so that the red hook (Fig. 36/c) grasps the shackle from below and not sideways, clamping the wheelchair to the control handle with the same

FIG. 34

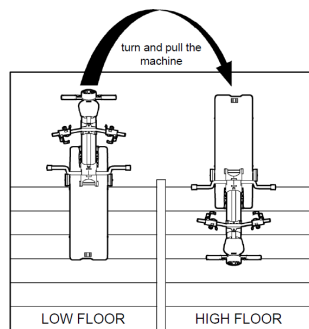


safety of the traditional wheelchairs.

In order to carry out this operation follow this procedure:

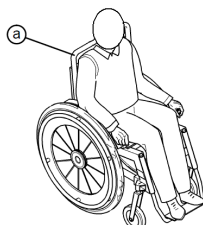
- 1) Remove the clamping screw placed in the end of the control handle arm (Fig.36/d) and loosen the locking hand-wheel (Fig. 36/e);
- 2) Extract the safety clamp (Fig. 36/a) toward the outside (Fig. 36/f);

FIG. 33



36/b), can be rotated of 90° so that the red hook (Fig. 36/c) grasps the shackle from below and not sideways, clamping the wheelchair to the control handle with the same

FIG. 35

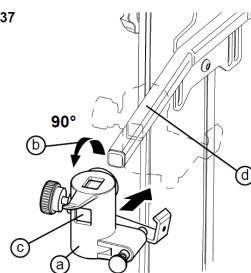


- 3) Rotate the safety coupling (Fig.37/a) by 90° (Fig.37/b), to the left for the left one and to the right for the right one;

- 4) Insert the rotated coupling (Fig. 37/c) onto the arm (Fig.37/d). Rescrew the setscrew into the end of control handle arms.

- 5) Bring the control handle (Fig.38/a) to the seat back of the wheelchair

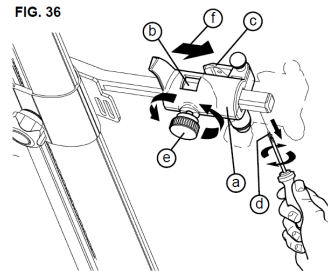
FIG. 37



- 6) Lock the coupling turning the hand-wheel (Fig. 38/f).

- 7) Lift the arms (Fig. 38/g) until the point in which the red hook (Fig. 38/e) is placed in contact to the shackle (Fig. 38/d) is reached.

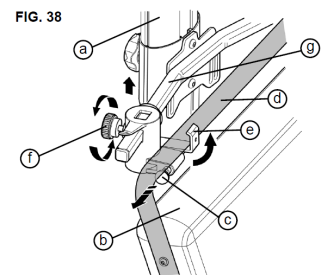
FIG. 36

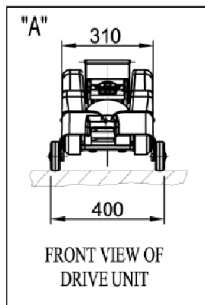
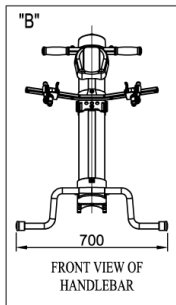
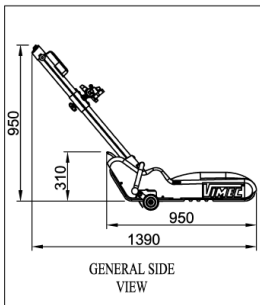
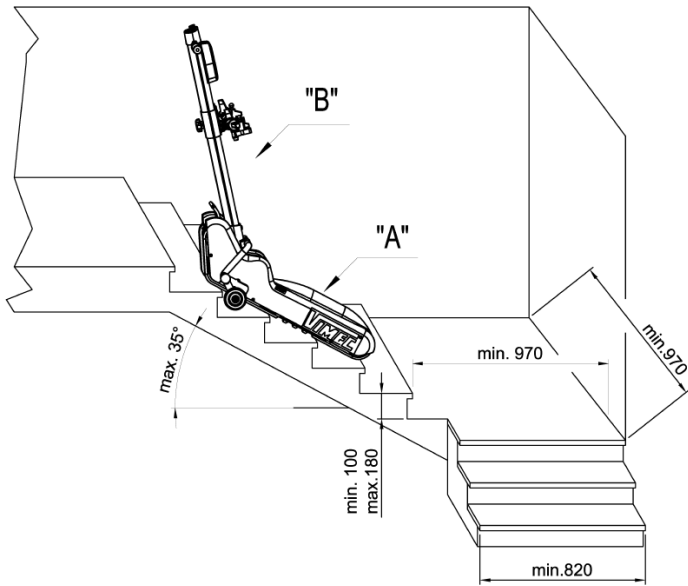


(Fig.38/b). Pull the safety plunger (Fig. 38/c), hook the shackle (Fig. 38/d) using the hook (Fig. 38/e) and release the plunger (Fig. 38/c).

NOTE: ensure that the plunger (Fig. 38/c) is placed under the red hook (Fig. 38/e) so that it can't be released from the wheelchair (Fig. 38/d);

FIG. 38



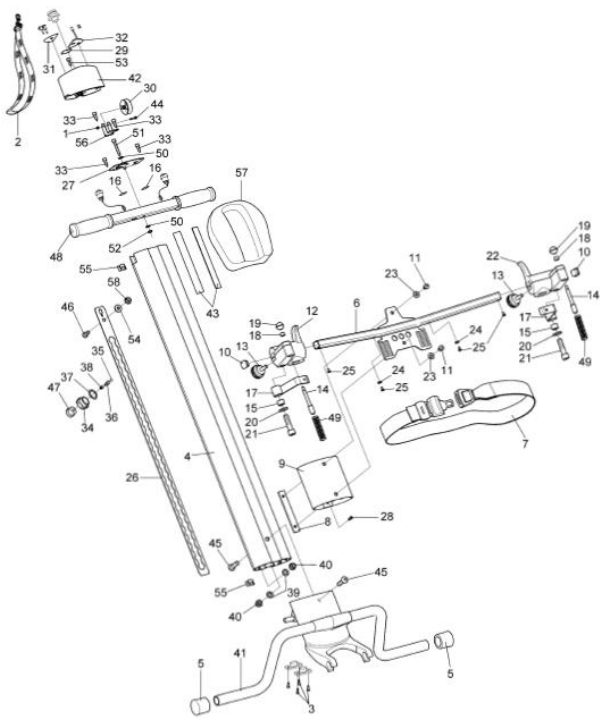


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Base Drive Unit
7801211

Base Drive Unit – 7801211.1

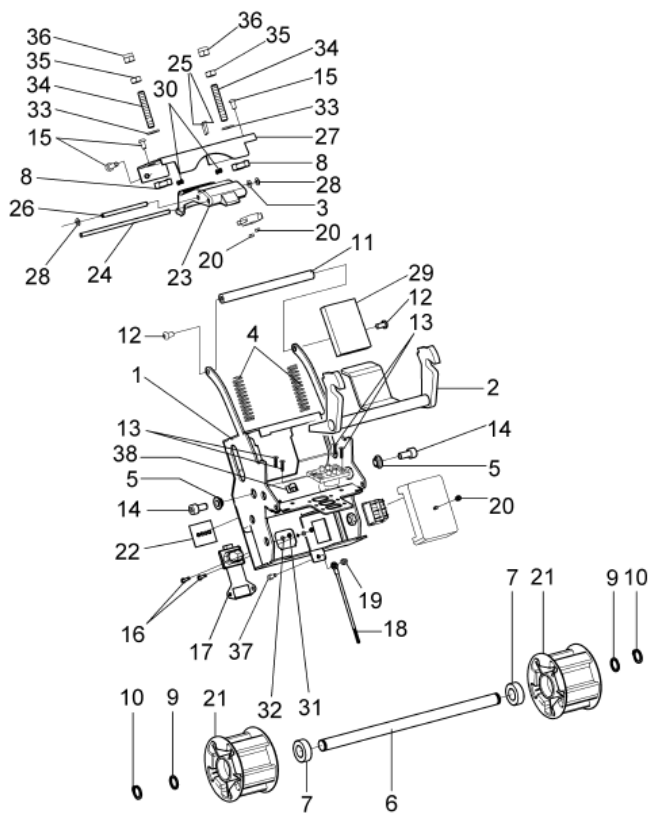
Part	Code	Qty.	Description
1	4294642	1	RH GUIDE
2	4294643	1	LH GUIDE
3	3702021	2	WHEEL
4	3702020	2	WHEEL
5	1004017	2	NO STEP Sticker
6	12389	4	5x15x1 WASHER
7	11062	2	M8x35 SCREW
8	2824457	1	GUARD
9	1304325	1	PIN
10	992004	2	SPACER
11	12041	2	RING
12	6064163	2	VIMEC ADHESIVE LABEL
13	11053	8	M5x12 SCREW
14	12959	2	M8 NUT
15	10433	4	M8x16 SCREW
16	804035	2	PULLEY
17	12956	4	8,4x17x1,6 WASHER
18	1044147	2	WHEEL
19	2864208	1	LH BRACKET
20	2864209	1	RH BRACKET
21	804027	2	PLULLEY
22	10907	4	M6 NUT
23	2864210	2	BRACKET
24	714016	2	SPRING
25	12809	1	6x6x20 TANG
26	12800	2	5x5x50 TANG
27	904262	2	SPACER
28	12170	2	RING
29	2384099	1	DRIVE SHAFT
30	1044146	1	GEARWHEEL
31	992027	2	20x28x1 WASHER
32	12052	4	RING
33	1022095	3	BEARING
34	12906	3	RING
35	1004019	2	STOP ADHESIVE
36	6014005	1	REDUCTION GEAR
37	2384100	1	REDUCTION GEAR SHAFT
38	1044145	1	GEARWHEEL
39	12993	2	M6x30 SCREW
40	10435	6	M8x20 SCREW
41	12807	1	A6x6x45 TANG
42	12909	3	8x32x2,5 WASHER
43	12943	1	5x5x20 TANG
44	10190	4	M6x20 SCREW
45	12373	4	6,4x12,5 WASHER
46	11055	4	M6x35 SCREW
47	2594470	1	PLATE
48	2304758	1	PLATE
49	10079	7	M3x10 SCREW
50	2304761	1	PLATE
51	12992	2	M6x40 SCREW
52	782012	1	ELASTIC BELT
53	7007426	1	EMERGENCY MOVE KIT
54	12956	1	8,4x17x1,6 WASHER
55	6882008	1	PLATE
56	484031	1	CAP
57	1004018	1	ITALY FLAG LABEL
58	10529	4	M5x16 SCREW
59	824005	2	TRACK
60	10396	4	M5x10 SCREW
61	904273	2	SPACER
62	904276	2	SPACER
63	6882004	1	SUPPORT
64	12918	2	A5x5x15 TANG
65	10316	2	8x24x2 WASHER
66	1004021	1	STICKER

Control Handle - 7801212



Part	Code	Qty.	Description
1	10007	1	M3 NUT
2	6064342	1	KEY-RING
3	10673	4	3,5x13 SCREW
4	28941117	1	PROFILE
5	482019	2	SUPPORT TERMINAL
6	4254562	1	WHEELCHAIR WELDED COUPLING
7	782020	1	SAFETY BELT
8	3424422	1	M8 120x18x5 PLATE
9	28941118	1	PROFILE
10	482020	2	CAP
11	11052	2	M8x12 SCREW
12	28941128	1	RH BLOCK
13	4692004	2	M8x25 BALL GRIP
14	1304028	2	PIN
15	164105	2	BUSH
16	1004016	2	ADHESIVE LABEL WITH ARROW
17	2564055	2	BRACKET
18	902007	2	BUSH
19	4692006	2	BALL GRIP
20	12376	2	10,5x21 WASHER
21	10378	2	M10x45 SCREW
22	28941130	1	LH BLOCK
23	12956	2	8,4x17x1,6 WASHER
24	12941	2	WASHER
25	10648	4	4,2x9,5 SCREW
26	2304798	1	PLATE
27	2864941	1	PLATE
28	11053	1	M5x12 SCREW
29	6064329	1	INSTRUMENT BOARD STOP ADHESIVE
30	1044033	1	WHEEL
31	6064309	1	KEY ADHESIVE
32	6064330	1	PLATE
33	10990	4	6,3x19 SCREW
34	4694002	1	BALL GRIP
35	12188	1	RING
36	1304329	1	PIN
37	12984	1	20x28x0,5 WASHER
38	712053	1	SPRING
39	12376	2	10,5x18 WASHER
40	10033	2	M10 NUT
41	28941108	1	SUPPORT
42	874150	1	RUDDER INSTRUMENT BOARD
43	404039	2	VELCRUM
44	10239	1	M3x25 SCREW
45	10945	2	M10x35 SCREW

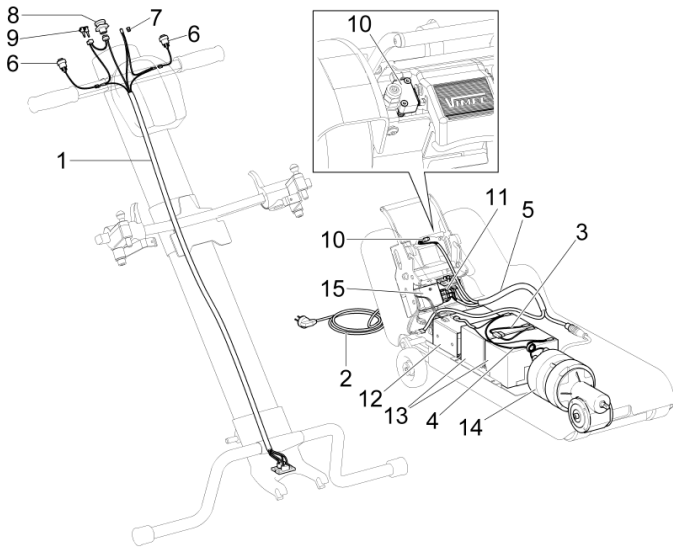
Base / Handle coupling - 7801213



Base / Handle coupling - 7801213.1

Part	Code	Qty.	Description
1	2784359	1	STRUCTURE
2	4004167	1	RUDDER COUPLING/RELEASE DEVICE
3	12372	1	5,5x10 WASHER
4	712044	2	GRIPPING SPRING
5	904260	2	SPACER
6	1304325	1	PIN
7	164047	2	BUSH
8	10023	2	M8 NUT
9	992004	2	SPACER
10	12041	2	RING
11	3084070	1	CONNECTING ROD
12	10679	2	M6x10 SCREW
13	10698	4	3,5x13 SCREW
14	10433	2	M8x16 SCREW
15	11053	4	M5x12 SCREW
16	10081	2	M3x12 SCREW
17	484026	1	CAP
18	2255348	1	SHEATH
19	10005	1	M4 NUT
20	10007	3	M3 NUT
21	804035	2	PULLEY
22	1004014	1	BATTERY CHARGER ADHESIVE LABEL
23	2874195	1	PEDAL COVER
24	1304324	1	PIN
25	10518	2	M3x16 SCREW
26	1304326	1	PIN
27	2304814	1	PLATE
28	12054	2	FIXER
29	484030	1	CAP
30	712045	2	GRIPPING SPRING
31	10001	2	M3 NUT
32	12370	2	3,2x6 WASHER
33	12956	2	8,4x17x1,6 WASHER
34	11060	2	DOWEL
35	12959	2	M8 NUT
36	10027	2	M8 NUT
37	10893	1	M4x12 SCREW
38	6882009	1	PLATE

Loom components –7801215



Part	Code	Qty.	Description
1	2255338	1	SHEATH
2	2262019	1	TAP+CABLE+PLUG
3	2255212	1	SHEATH
4	2255336	1	SHEATH
5	2255337	1	SHEATH
6	2255345	2	PUSHBUTTON
7	1802004	1	5 mm LED-HOLDER
8	1852003	1	PUSHBUTTON
9	1824010	1	PLUG KEY+RING
10	1902023	1	MICROSWITCH
11	1852018	1	PUSHBUTTON
12	8884908	1	FEEDER
13	1702003	2	BATTERY
14	1714092	1	24 V 0,5 Kw MOTOR
15	8884909	1	DISPLAY