GENERAL NOTES

This guide has been edited for the CONSUMER according to directive CE89/392 and its ensuing amendments.

Carefully read the notes contained in this guide since they provide with important directions regarding the safety of assembling, use and maintenance.

Each machine, in accordance with directive CE89/392 and its ensuing amendments, is identified by a specific plate positioned on the frame and containing the following information:

- Manufacturer
- Model
- Manufacturing year
- Serial number
- Power supply voltage
- Working voltage
- Installed power
- Weight

DESCRIPTION OF CONTROLS

1 - Filter-shaker push-button
2 - Main switch (Main broom)
3 - Side broom switch
4 - Centrifugal electric fan switch
CONDITION OF USE

CONSENTED USES

The 24” Battery Vacuum Sweeper is built for cleaning the ground in the following conditions of employment:

a - Environments:  
* Both closed and opened.

b - Working surfaces:  
* Level surfaces enough compact and not much irregular as:
  - Ceramics.
  - Wood.
  - Marble.
  - Concrete.
  - Asphalt.
  - Various plastic materials.
  - Carpets

c - Nature of the materials to remove:  
* Dust.
* Dirt in general.
* Mould and rubble.
* Not excessively heavy or large objects.

NOT CONSENTED USES

a - Environments:  
* In presence of inflammable materials.

b - Working surfaces:  
* With gradients exceeding 2%.
* Particularly irregular.
* Particularly wet.

c - Kind of materials:
* Lighted cigarettes-end or any other material that could cause combustion of debris inside the waste compartment.
* Toxic materials.
* Oils
* Chemical materials.

CAUTION!!!!
Minimum working temperature  -20°C (-4°F)
Maximum working temperature  +40°C (+104°F)
Do not leave the unused machine exposed to UV rays because they could damage the cover.
1- Remove the packing and make sure of the machine integrity.

2- Before using the machine proceed in this way:

2.1 Take from the **Waste Hopper Table B-1** the **Side Broom – Table A-20**

2.2 Unscrew the **screw and washers Table A-24** from the **Gearmotor Table A-15**. Insert the broom on the gearmotor axle having the key slot matching the key, leaving the spacer between the broom and the gearmotor, then fix it with the screw and washers.

2.3 Remove the **Cover Table A-1** unscrewing the four screws that keep it fixed on the machine frame.

2.4 Make sure that the input voltage of the **Battery-charger** corresponds to the input voltage available. The machine leaves the factory set for an input voltage of 120 VAC.

    For input voltages of 210/240 VAC:
    Follow **connections as per Table B – 5**

2.5 Connect the battery terminals paying attention to the correspondence of polarities.

2.6 Provide for the charge of the battery (See the following directions PAGE 4 – **Battery-charger**).

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**MACHINE SETUP**

**State of rest:** the machine can be placed whether with the handle folded down or with the handle in vertical position.
MACHINE STARTING UP AND OPERATION

Main broom
Operating the **switch** *(Figure 1-2)* the main broom **Table C- 14** starts to work reaching immediately the running speed. The lighting of a green LED signals the regular operation.

With the main broom working it is possible to operate:

Side broom
Operating the **switch** *(Figure 1-3)* the side broom will start working.
To adjust the side broom operate on the **knob** *(Table A- 22)*.

Vacuum
Operating the **switch** *(Figure 1-4)* the centrifugal electric motor fan starts to work.

Electric filter-shaker
With the battery connected, the electric filter-shaker is always active.
- The operation takes place pressing the **push-button** *(Figure 1- 1)*.
- With the machine in movement, before operating the filter-shaker, it is suggested to switch-off the vacuum, **switch** *(Figure 1- 4)*.
- With the machine still and the hopper out, switch-off the suction and the main broom, **switch** *(Figure 1 - 2)*, before operating the filter-shaker.

Battery
- The “**discharged battery**” limit is signalled by the lighting of a **red Led** and afterwards by the motors switching off.
- To complete the work switch-off for a while the **switch** *(Figure 1 - 2)*.
- To make use of a further residual of charge, switch-off the **side broom switch** *(Figure 1 - 3)*.

CAUTION: In case of prolonged inactivity of the machine disconnect the battery terminals.

Battery charger
To charge the battery:
- **Make sure that the transformer connections have been set for the suitable voltage from 90 up to 240 volts Figure 3 – Page 9**.
- Use the **cable** already connected to the machine *(Table A- 11)*, insert the plug in any suitable AC. outlet.
- The time required for the complete recharge varies from 8 to 15 hours, depending on the power grid condition.
- During the charge all functions are automatically switched-off.

CAUTION: during the battery charging avoid to have contacts with parts of the circuit concerned by the network voltage.
**Battery**
- The “discharged battery” limit is signalled by the lighting of a red Led and afterwards by the motors switching off.
- To complete the work switch-off for a while the switch (FIG.1-2).
- To make use of a further residual of charge, switch-off the side broom switch (FIG.1-3).

**CAUTION**: In case of prolonged inactivity of the machine disconnect the battery terminals.

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**Battery charger**
To charge the battery:
- **Make sure that the transformer connections have been set for the suitable voltage from 90 up to 240 volts FIG.3 – Page 9.**
- Use the cable already connected to the machine (TAV.A-11), insert the plug in any suitable AC. outlet.
- The time required for the complete recharge varies from 8 to 15 hours, depending on the power grid condition.
- During the charge all functions are automatically switched-off.

**CAUTION**: during the battery charging avoid to have contacts with parts of the circuit concerned by the network voltage.
Maintenance and replacement of the main broom:

a- Cleaning:
Check periodically, according to the use of the machine, the wear conditions of the main broom Table C-14. To carry out this operation, the following tools are needed:
- Heavy-duty gloves.
- Breathing mask.
- Scissors
- Pliers
Switch off the machine. In order to see the main broom:
- Remove the waste container (Table B-1) and the battery (Table A-9).
- Tilt the machine.
- Clean away from the broom any filaments or other.

b- Adjustment:
To adjust the distance of the main broom to the ground, operate the cam Table A-26 from position 1 to position 5.

c- Replacement:
If the broom wear is such to require it, replace the broom:
- Release the driving belt Table A - 14.
- Disassemble the internal flap Table C-13.
- Release the belt Table A- 14.
- Unscrew the eccentric Table C-1
- Remove the broom unit from its housing.
- Remove the two spacers Table C - 2 Table C-3 .
- Remove the pulley-hub Table C-5 and the free hub Table C-6.
- Using a new broom, carry out the operations in reverse order.

Maintenance and replacement of the side broom:
With procedures and tools similar to the above mentioned ones.

a- Adjustment:
- Act on the knob Table A- 22

b- Replacement:
- Unscrew the fastening screw Table A - 24 and replace the broom (Table A-20), paying attention to the flat key that lock the broom to the gearmotor shaft.
Maintenance and replacement of the filter:

To carry out this procedure the following tools are needed:
- Heavy duty gloves.
- Breathing mask.

a- Cleaning / Replacement:
- Withdraw the split pin Table B-11 from the hole of the Pin Table B-11 that hold the filter-support (Table B-10) at the machine frame.
- Remove the filter (Table B-12) and check the wear condition.
- If necessary, replace it.
- If not, proceed to clean it, beating it on the floor and, if possible, blow with compressed air from the upper side at a distance of about 15 cm.
- Reassemble carrying out operations in reverse order.

Maintenance and replacement of the flaps:

- Periodically check the conditions of flaps’ rubbers.

a- Replacement of the front flap rubber:
- Unscrew the rod (Table C-7).
- Unscrew the front strap iron (Table C-9).
- Unscrew the straps iron (Table C-8) -(Table C-10).
- Replace the rubber (Table C-13).
- Reassemble following the same operations in reverse order.

b- Replacement of the side flap’s rubber:
- Unscrew the bus-bar (Table C-11).
- Replace the rubber (Table C-14).

c- Replacement of the back flap’s rubber:
- Unscrew the back strap iron (Table C-9).
- Replace the rubber (Table C-12).
**Maintenance and replacement of the electronic circuit board:**

In case of non-operation of some electrical components, check out the integrity of the fuses:

**Figure 2 - F2**

In case of a non good operation of the function of battery charging, check out the integrity of the fuses:

**Figure 2 - F1**
**Figure 3 - FUN**
**Figure 3 - FUR**

If necessary, replace them with integral ones.

*If this operation does not bring to the drawback elimination, turn to an authorized workshop.*
### TABLE A Spare Parts

<table>
<thead>
<tr>
<th>Veiw</th>
<th>BETCO #</th>
<th>Ref.#</th>
<th>DESCRIPTION</th>
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<td>2</td>
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### TABLE B Spare Parts

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**CONNECTION 90-120v:** Connect colour Black to Point B and colour Brown to Point C

**CONNECTION 200-240v:** Connect colour Brown to Point B and colour Black to Point C