ADJUSTMENTS AND INSPECTIONS

READ THE USE AND MAINTENANCE HANDBOCK

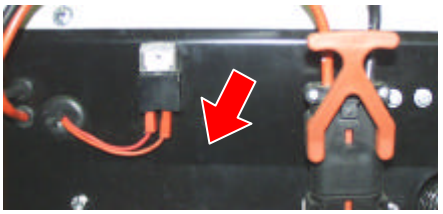
Inspection of the electrical circuit

Check the functionality of the electrical layout:

1. Remove the battery connections
2. Check the cleanness and the connections of the batteries bridging cables.
3. Verify the connection and the tightness of the power cables: remote control switches, fuses, motors, etc.
4. Restore the battery connection
5. Check the control lights and switches:
6. Check the switch with control light for the brush motor
7. Check the switch with control light for the solenoid valve (optional)
8. Check the switch with control light for the suction motor
9. Check the funcioning of the hourmeter (optional)

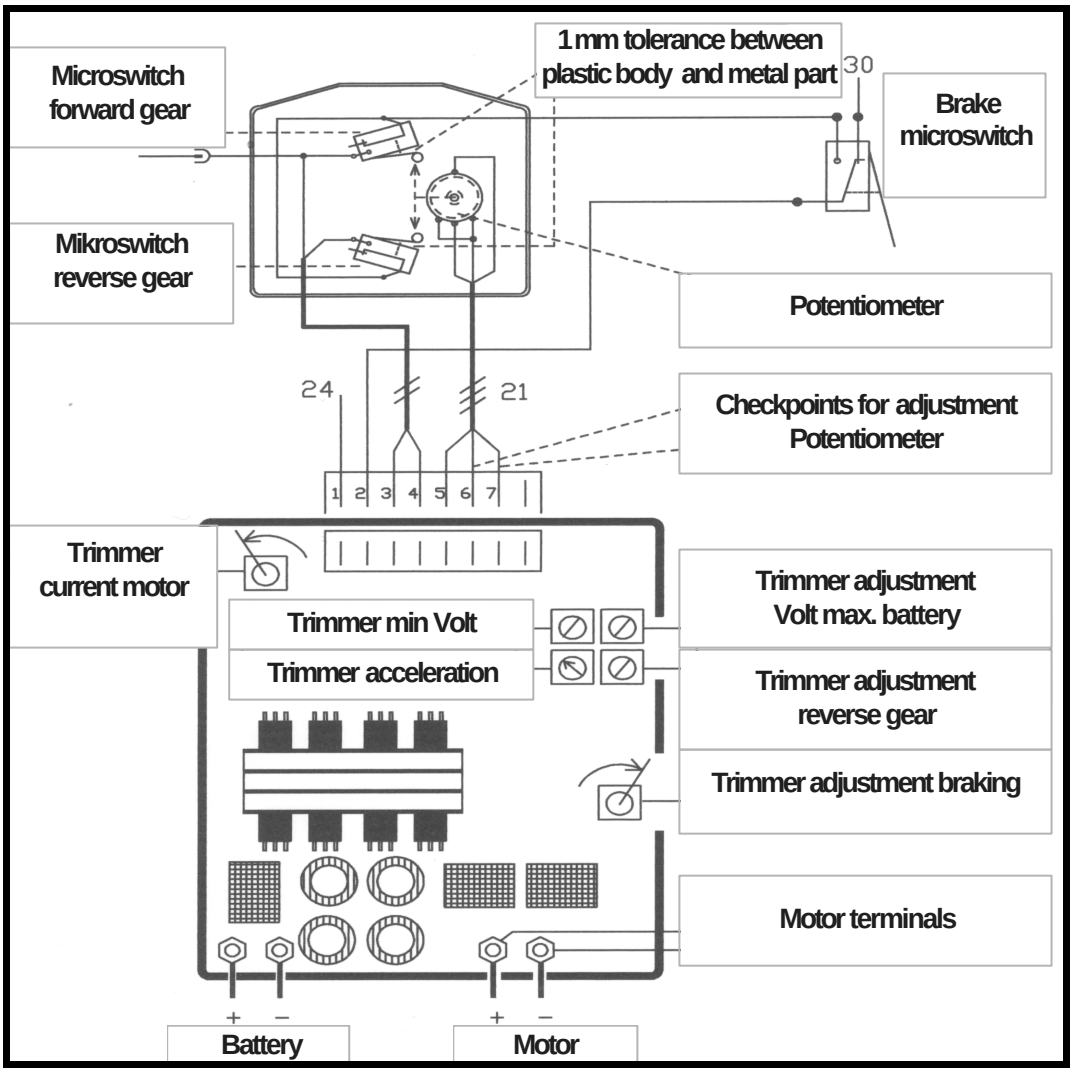
Check the function of the Chopper (traction)*:* forward-, reverse-gear, acceleration and brakes

1. If the ***LED Alarm*** gives some blinking signals see ***page 2***.
2. If necessary set the Chopper-card as follows:



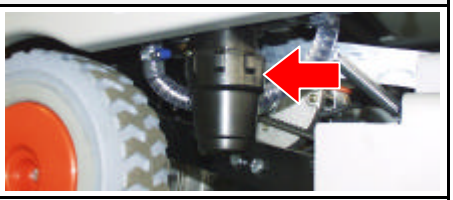
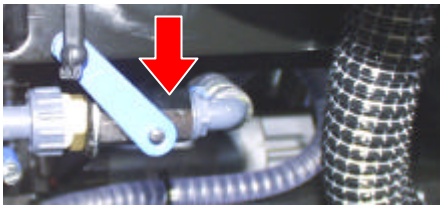
- ? Lift at least one traction wheel on a security stand
- ? Position the scale to ohm. Insert the holdfast of the tester between the pins 6 and 7 (cable 21) of the chopper card connection. Check, when the micro switches of forward and reverse gear snaps, that the indicated resistance values are similar (deviation up to 10 ohms and between the limits of 50 and 80 ohms). Check, if the values of the potentiometer are similar also at the end scale.
- ? If the values are different adjust the potentiometer by turning the pinion's shaft. Therefore unscrew the nut and fix it afterwards.
- ? Turn the *Trimmer for the* adjustment of the motor current clockwise until stop.
- ? Turn the *Trimmer for the regulation of the brake power clockwise until stop, so that the machine, starting with max. speed, stops within* ***one meter*** after release.
- ? Position the scale of the tester to Volt and connect the clamps with the motor-connections. Bringing the acceleration lever to max., the voltage should raise from 0V to max. 36V within 3-4 seconds. Otherwise correct by turning of the Trimmer.
- ? *Adjustment Trimmer min. voltage*: Check, when the micro switch in forward or reverse gear is activated, the motor voltage 3-5 V is, otherwise adjust the Trimmer min. voltage.
- ? *Adjustment Trimmer max. battery voltage*: Check with max. speed, if the voltage on the motor clamps correspond with the max. battery voltage and decreases immediately when you release the handle bar. Otherwise adjust the Trimmer max. voltage battery.
- ? Position the scale of the tester on Volt and connect the clamps with the motor connections. Adjust the Trimmer speed reverse gear, so that at max. speed in reverse gear the Tester indicates 17-18 V. Adjust the speed by turning the Trimmer.

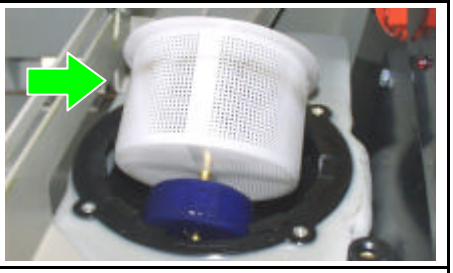
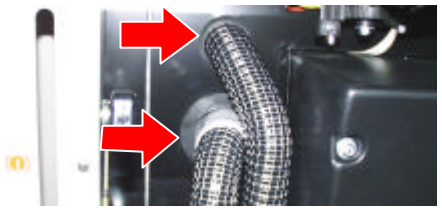
✍ **FOR EASIER COMPREHENSION REFER TO THE SCHEME ON PAGE 2.**

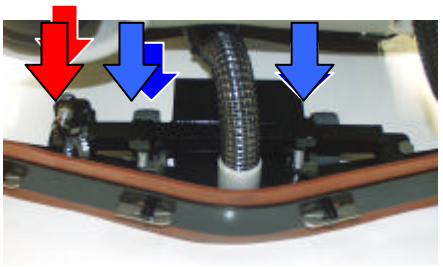
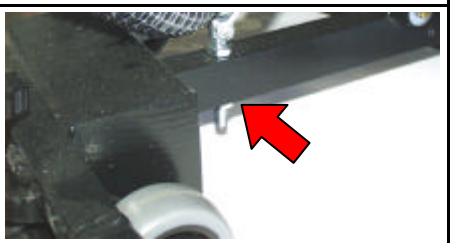


Blinkings	Description Alarms
1	Chort circuit MOSFET or traction relay active when switching on the machine or when resting
2	Microswitch forward gear active when switching on the machine
3	Microswitch backward gear active when switching on the machine
4	Potentiometer not reset when switching on (> 0.3V)
5	Damaged potentiometer or wrong execution (> 4.7V)
6	Microswitch forward and backward gear are activated simultaneously
Permanent	Thermal protection

Notes
1. The signalling alarms does not permit the activation of the traction after that the machine is switched on.
2. The alarms 5, 6 and the thermal alarm lead to the stop of the machine, when they occur during the drive.
3. If several alarms occur, the alarm, which occurred chronological at first, is indicated as first alarm and the others will be memorised. After the elimination of the first cause the following alarm will appear.
4. In order to reset bring the potentiometer and the microswitch forward-/reverse gear in resting position.

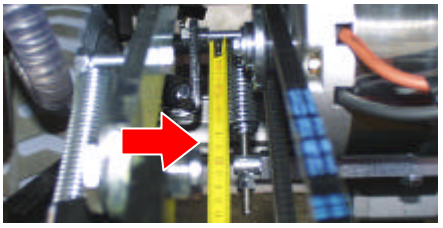
Inspection Water Supply	
1. Check the cleanliness and positioning of the ***solution filter.*** 2. Fill completely with water the solution tank.	
3. Try the tightness of the hoses and the adjustment of the water ***cock.*** 4. Check that the detergent solution, when the cock is open, arrives with continuity onto the floor and uniformly onto the two brushes	

Inspections suction	
1. Check the cleanness of the **float-filter**.	
2. Check the tightness of the recovery tank **cover**.	
3. Check the connections and tightness of the **suction hose** and the **squeegee hose**. 4. Check the cleanness and the tightness of the **squeegee hose** to the tank connection. 5. Check the tightness of the exhaust pipe and plug.	

Squeegee adjustment	
1. Loose completely the adjusting ***knobs*** for the wheels height. 2. Set the inclination adjuster for the back rubber, with squeegee in working conditions, so that it has an uniform inclination on the whole squeegee length. 3. Adjust the wheels height with the corresponding **knobs** and check that the rubber has an inclination about 30°-45° and is not pressed to much on the floor nor lifted. The rubber must have an uniform inclination on the whole length of the squeegee.	
4. Check the lifting height, if necessary adjust the **tie rod** and block it then with the adjuster nur. Check that the movement of the chain is so free to permit the squeegee to remain on the floors in curves.	

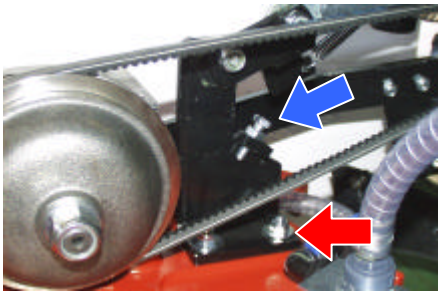
Brush adjustment

1. Adjust the **traction spring** of the motor – belt to a length of 86/90 internal the screw *M8.*

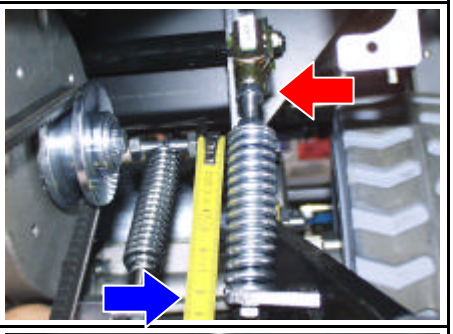


2. Adjustment inclination under working conditions: let down the brushes, lose the nuts, replace the **third support point** foreward or backwasds, so that the brushes touch during the downwards movement at the same time (see point 3) the floor with the back part and remain lifted in the front about 5/8mm.
3. Adjust the **stop screw** of the third point, so that the joint does not rest on the suppor of the third point.

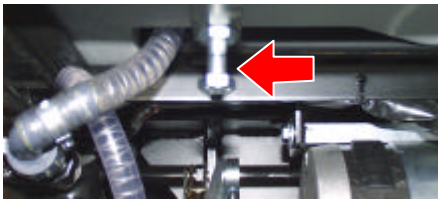
Attention: an excessive foreward inclination of the brushes leads to the tendency of the machine to pull to the right and an unequal brush consumption.



4. Adjustment lifting arms and spring pressure: if the brush base does not rest on the floor in the right way lose the **adjuster nut of the fork,** adjust the two lifting arms through the adjuster screws right and left. Afterwards block the adjuster nuts. Check if the **pressure spring** with the brush base free on floor (not under pressure) have a compression of 78/80mm; if necessary adjust with the upper lock nuts.

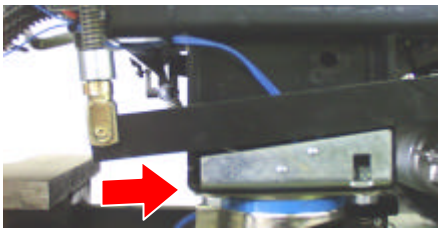


5. Adjustment inclination with lifted brush base: adjust the **screw M10** (support arm third point) so that with the brush base completely lifted, the cover does not touch the tank or the frame, Fix the adjuster nut.

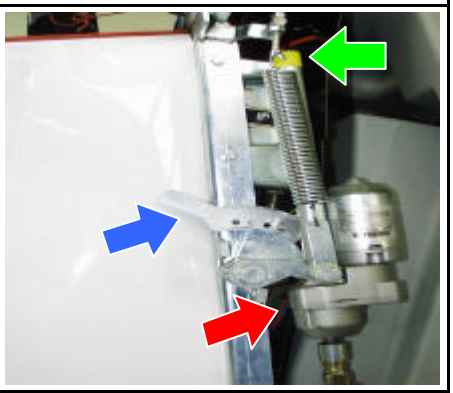


Adjustment actuator movement (optional)

1. Bend the metal lever of the microswitch so that the upwards movement of the brush base is blocked when the *control lever* has a distance of about 5 mm to thel **microswitch support**.

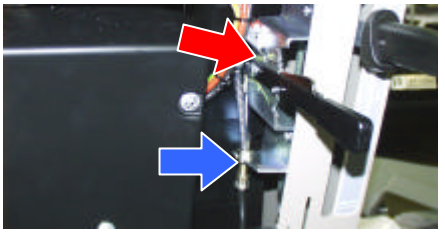


2. Bring the **adjuster lever** in position of the notch with the max. pressure, let down the brush base until the microswitch of movement ens snaps and check that in this situation the **worm** can move again 10mm of movement, otherwise adjust the setted charge on **spring tie rod**.

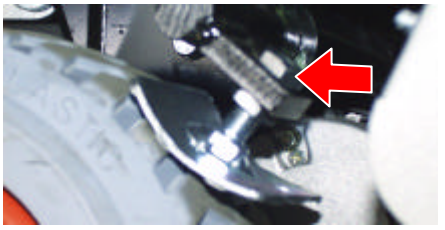


Brake adjustment

1. Adjustment of the hand and working brake: Check, if the **lever** does not snap more than 3-4 times. If necessary adjust the right range through the ***adjuster nuts of the brake cable.***

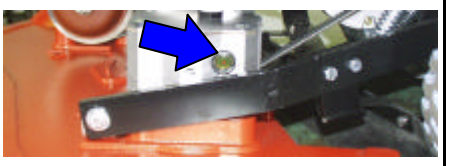


2. Adjustment ***brake pads***: check the braking uniformity, with the brake inserted and traction, try to turn the machine to the right and to the left, checking that, the wheels remain blocked in the same way. Fix the **adjuster nuts**.

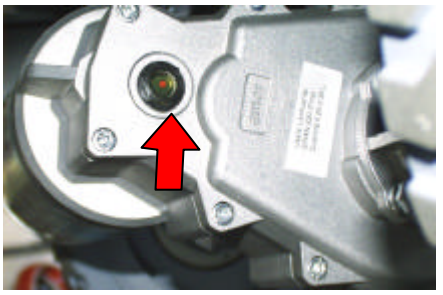


Oil reduction gears

1. Brush reduction gears (Omnia 32/42): check that the oil in the reduction assembly arrive at the **transparent level control plu** (should not exceed it). Use SHELL OMALA 460 (oil quantity kg 0.35).
   Top up from the *upper plug*.



2. Traction motor reduction gear: check that the oil in the reduction gear assembly arrives at the **transparant level plug** (should not exceed it). If necessary top up with oil **SHELL** OMALA 220 o **FINA** GIRAN 220, (oil quantity: 0.25 - 0.35 liter).



Final inspection

Check all funtions:
- scrubbing and suction;
- foreward- and reverse gear;
- inversion braking and release braking;
- working brake;
- emergency and parking brake.