



Owner Instructions

Original Instructions

Warning! Read instructions before using the machine



Chargerless Machine



NACECARE

TTV - 5565 / 200T

Scrubber Dryer - Operator Instructor Manual

Variable Speed - Start / Stop Trigger



Before continuing, please refer to Quick Set Up Guide on Page 8



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1. Operator control panel (see page 4)
2. Charger inhibit lead
3. Clean-water tank fill point
4. Floor-tool raise / lower lever
5. Clean-water tank emptying hose & fill level
6. Floor-tool vacuum hose
7. Brush deck-lifting Pedal
8. Extra brush load Pedal
9. Semi parabolic floor-tool
10. Brush deck (aluminium)
11. Chemical dosing tank (5 litre)
12. Chemical dosing Pump

13. Water pump
14. Gel batteries
15. 40 Amp battery fuses x2
16. Clean Water Filter
17. Waste water emptying hose
18. Top tank hood release catches
19. Top tank (waste water)
20. Bottom tank (clean water)
21. Adjustable side skirt
22. Control handle (Variable Speed - start / stop trigger)
23. Top tank hood
24. Basket Filter

Control Panel Overview



| | |
|----|--|
| 1 | Variable Speed - Start / Stop Trigger |
| 2 | Speed Control |
| 3 | Forward / Reverse Switch |
| 4 | Water Flow Rate Adjustment |
| 5 | Hi - Lo Button |
| 6 | Recovery Tank 'Full' Indicator |
| 7 | Main Control On / Off Key |
| 8 | Chemical Mix Adjustment |
| 9 | Off Aisle Vacuum Button / Whisper mode |
| 10 | Battery Charge Level Indicator |
| 11 | Hours Meter toggle Button |
| 12 | Brush Pressure / Load Indicator |
| 13 | Emergency Stop Button |

For full easy to follow instructions on control panel set up and use, see machine operation page 14.

Rating label

- 1 Company name and address
- 2 Machine Description
- 3 Voltage Frequency
- 4 Weight
- 5 Max Gradient
- 6 Machine yr/ wk / serial number
- 7 Noise Level
- 8 Hand Arm Vibration

PPE (Personal Protective Equipment)

That may be required for certain operations.



Ear Protection



Safety Footwear



Head Protection



Safety Gloves



Dust/Allergens Protection



Eye Protection



Protective Clothing



Caution Floor Sign

Note: A risk assessment should be conducted to determine which PPE should be worn.

Specification

| Transaxle | Brush Motor | Vac Motor | Speed | Brush Sizes | Pad sizes | Gross Weight (Full) | Protection Class | Floor Tool size | Net Weight |
|-----------------|----------------|-------------------------|---|-------------------------------|---|---------------------|---|---------------------------|------------|
| 600W | 400W / 400W | 600W | 4.2Kph | 11.02 inch 13 inch | 11.02 inch 13 inch | 820 lbs | IPX4 | 1050 | 632.7 lbs |
| Run Time | Water Capacity | Nuchem Capacity | Water Flow rate | Nuchem Mix | Transit Speed | Cleaning Speed | Noise Max decibel level at 1 meter | Maximum Climbing Gradient | |
| 3.5 Hrs | 22.5 gall | 1.32 gall | 0.13 G/ Min 0.264 G/ Min 0.528 G/ Min 0.793 G/ Min | 100:1 75:1 50:1 25:1 | 0-4.2Kph | 0-4.2Kph | 68.6 @ 1.0m 64.0 dB @ 1.7m (Uncertainty: 0.2 dB(A)) | Scrubbing 9% | |
| Scrub Widths | Brush Speed | Scrub Pressure Standard | Scrub Pressure Heavy | Scrub Pressure Extra Heavy | Dimensions | | Hand Arm Vibration | | |
| 21.6 to 26 inch | 200 Rpm | 37.4 lbs | 66 lbs | 110.2 lbs | Width = 23 inch Length = 55.2 inch Height = 44.7 inch Floor tool = 41.3 inch | | 0.44m/s ² | | |

Information for Scrubber Dryer.



ORIGINAL INSTRUCTIONS
READ MANUAL BEFORE USE

| Component | Interval | Inspect for |
|----------------|-----------------|---|
| Brushes | DAILY | Bristle damage, wear, drive collar wear |
| Squeegee Blade | BEFORE EACH USE | Wear, cracks, splits |
| Filters | BEFORE EACH USE | Clogging and debris retention |
| Tanks | AFTER EACH USE | Rinse dirty water tank after use |

Caution

Read the instruction manual before using the appliance.
This product meets the requirements of IEC 60335-2-72

Warning

As with all electrical equipment care and attention must be exercised at all times during its use, in addition to ensuring that routine and preventative maintenance is carried out periodically in order to ensure its safe operation. Failure to carry out maintenance as necessary, including the replacement of parts to the correct standard could render this equipment unsafe and the manufacturer can accept no responsibility or liability in this respect. When ordering spare parts always quote the Model Number / Serial Number specified on the Rating Plate. Warning do not use on slopes exceeding 9%.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

This product does not have a factory installed Numatic battery charger, then it is the responsibility of the owner and user of the product to ensure that the charging system and battery combination are compatible, fit for purpose and safe to use.

Note

This machine is also suitable for commercial use, for example in hotels, schools, hospitals, factories, shops and offices for other than normal housekeeping purposes.

Caution

This machine is not suitable for picking up hazardous dust.
Do not use on surfaces having a gradient exceeding that marked on the appliance.
The machine is not to be stored outdoors in wet conditions.
This machine is for indoor use only.

Do's and Dont's

DO ensure only competent persons unpack/assemble the machine.
DO keep your machine clean.
DO keep your brushes in good condition.
DO replace any worn or damaged parts immediately.
DO ensure that the work area is clear of obstructions and / or people.
DO ensure that the working area is well illuminated.
DO pre-sweep the area to be cleaned.

DON'T use steam cleaners or pressure washers to clean the machine or use in the rain.
DON'T attempt machine maintenance or cleaning unless the power plug has been removed from the supply outlet.
DON'T allow any inexperienced repairs. Call the experts.
DON'T leave the brush pad on the machine when not in use.
DON'T allow the machine to be used by inexperienced or unauthorised operators or without appropriate training.
DON'T use the machine without the solution tanks properly positioned on the machine, as shown in the instructions.
DON'T expect the machine to provide trouble-free, reliable operation unless maintained correctly.
DON'T lift or pull the machine by any of the operating triggers - Use the main handle.
DON'T remove the handle from the machine except for service and repair.

Warning

Only use brushes provided with the appliance or those specified in the instruction manual.

The use of other brushes may impair safety.

A full range of brushes and accessories are available for this product.

Only use brushes or pads which are suitable for the correct operation of the machine for the specific task being performed.

It is essential that this equipment is correctly assembled and operated in accordance with current safety regulations. When using the equipment always ensure that all necessary precautions are taken to guarantee the safety of the operator and any other persons who may be affected.

Wear non-slip footwear when scrubbing. Use a respiratory mask in dusty environments.

The machine, while charging, must be positioned so that the mains plug is easily accessible.

When cleaning, servicing or maintaining the machine, replacing parts or converting to another function the power source shall be switched off.

Battery operated machines shall be disconnected by removing the fuses.

In order to prevent unauthorised use of the machine the power key must be removed after use.

Machines left unattended shall be secured against unintentional movement.

Operators shall be adequately instructed as to the correct use of the machine.

When detergents or other liquids are used, read the manufacturer's instructions.

Precaution when working with batteries

1. Always wear protective clothing e.g. face visor, gloves and overalls when working with batteries.
2. Whenever possible always use a properly designated and well-ventilated area for charging. Do not smoke or bring naked flames into the charging area.
3. Remove any metallic items from hands, wrists and neck i.e. rings, chains etc. before working on a battery.
4. Never rest tools or metallic objects on top of the battery.
5. When charging is complete disconnect from the mains supply.
6. The batteries must be removed from the machine before it is scrapped.
7. The machine must be disconnected from the supply when removing the battery.
8. To remove the batteries:- Disconnect machine from the mains supply (if charging) and ensure batteries are switched off with circuit disconnect switch (see page 17). Disconnect hoses from separator and tanks. Remove separator and tanks . Unscrew battery strap fixings and remove. Undo battery terminals and remove. Remove batteries.
9. The batteries are to be disposed of safely and in accordance with the battery directive.
10. Only use genuine NUMATIC replacement batteries.
11. Do not allow the batteries to become fully discharged; it may not be possible to recharge them.
12. Do not allow one battery to be discharged separately to the other.
13. Do not mix batteries from different machines.
14. The batteries fitted to this product are Valve Regulated Lead Acid (VRLA) gel electrolyte type. The fitting of any other type of battery may cause a safety hazard.

Battery Care

1. Always recharge the batteries after use. This can be done at any time its not necessary to wait until they are fully discharged; they do not develop a "memory".
2. Do not store the machine with the batteries discharged.



Please read before commencing any operation.

After the removal of all the packaging, carefully open and check the contents of the start up pack (Fig.1).



1

Contents:
1 x Operator Manual
2 x Keys
3 x 40 amp fuses (1 x spare)
1 x Maxi fuse-puller



Fig.1

Use Handle Grip when raising or lowering the top waste tank.



2



Fig.2



Lift top tank assembly to reveal battery compartment, ensuring you use the handle grip provided (Fig.1).

Fit battery fuses (contained in start-up pack) into the battery fuse holders as illustrated (Fig.2).

Note: Wear suitable gloves when inserting fuses.

Note: Ensure that no metal objects come into contact with battery terminals while the batteries are exposed. When inserting the first fuse you may notice a spark, this is normal.

3

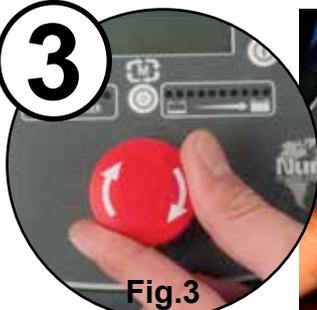


Fig.3



Fig.4



Fig.5

Ensure the Emergency Stop button is released (Fig.3).

Insert key into master control on/off and turn quarter-turn clockwise to the 'On' position.

Ensure that the forward/reverse switch is set to forward position (Fig.4).

Select the slow speed setting.

Depress control handle with both hands and slowly drive machine off of the pallet (Fig.5), this control panel has been designed with a built in variable speed control trigger.

When the machine is removed and in a safe position, turn key back to the off position (Fig.6).



Fig.6



ALWAYS ENSURE THAT THE MACHINE IS SWITCHED OFF BEFORE MAKING ANY ADJUSTMENTS



Fitting the floor-tool



Fig.7



Fig.8



Fig.9



Fig.9a

Lower the floor-tool arm by moving the release lever to the lower position (Fig.7).
 Push floor-tool onto the holder and secure with the easy-fit securing pin (Fig.8).
 Push waste collection pipe onto the floor-tool; ensure a tight fit (Fig.9).
 Note: Raise floor-tool again before driving to the cleaning area (Fig.9a).

Owning the TTV-5565 scrubber dryer is like having 2 machines in one. With two width settings the operator can quickly adapt the machine to any cleaning situation; without the need for any tools. The machine can be set to clean anything from a narrow corridor to a large warehouse. The TTV-5565 is a totally versatile machine. (see Fig.10)



Fig.10

Setting the width adjustment

Adjustment of the Brush deck must take place with the deck in the raised position.

Lift the Deck locking knob located at the front of the machine. (see Fig.11), then pull the side pod at the handle position to expand or close to contract the deck to the desired width - 26 inch (see Fig.11a) or 22 inch (see Fig.11b).



Fig.11

Note: Remove the brushes before adjusting width!



Fig.11a



Fig.11b

Note: Use 2x 13 inch Brush size for 26 inch setting.

26 inch

Note: Use 2x 11 inch Brush size for 22 inch setting.

22 inch

Fitting the brushes



Fig.12

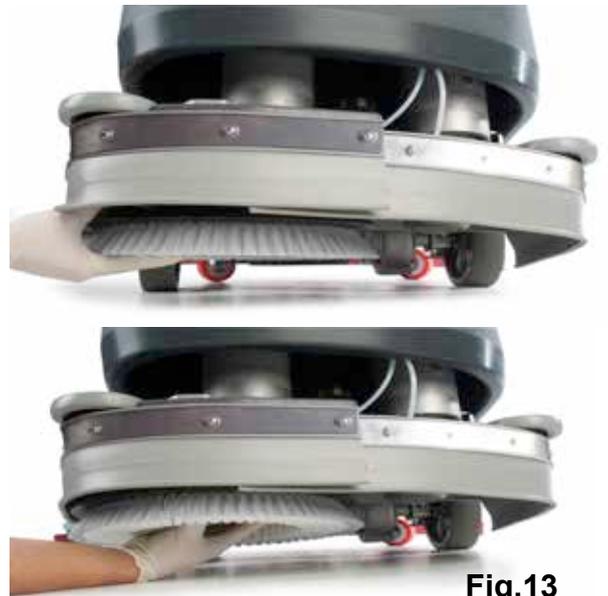


Fig.13

**Featuring the new OBS (Octagonal Brush System);
The brushes simply push-fit up onto the chucks making fitting and removal a simple process.**

Ensure the Brush deck is set to the appropriate width for the brushes being used (Fig.11a/11b).

Slide the brush under the brush deck (Fig.12).

Fit the brushes onto the OBS drive chuck (Fig.13)

Safety gloves are recommended for the changing of used brushes.

Note:

Check the deck width setting is correct with the selected brushes before use.

Filling the clean-water tank

The TTV-5565 is equipped with a large capacity 22.5 gall clean-water tank allowing, for large areas to be covered in a single fill.



Fig.14



Fig.15



Fig.16



Fig.17



Fig.17a

To fill the clean-water tank, extend the hose located to the rear of the machine in the centre of the removable filler cap, see (Fig.14). Pull out hose, (Fig.15). Open the stopper (Fig.16) and place hose under water tap, or use a hose to commence filling, (Fig.17).

Or the tank can be filled by unscrewing the filler cap and using a bucket or similar container (Fig.17a).

Note: Great care must be taken to ensure that contaminants (leaves, hair, dirt, etc.) are not allowed to enter the clean-water tank during the filling process. If using a bucket or similar, ensure it is always clean and free from debris.

Fill-level indicator



Fig.17b

The water level in the clean water tank can be measured using the scale on the rear of the machine (Fig.17b).

The clean water bottom tank holds 22.5 gall.





When handling and mixing chemicals.

Always ensure that chemical manufacturers safety guidelines are followed. Only use chemicals recommended for use in auto scrubber-dryers.



Chemical dosing system

The TTV-5565 scrubber dryer has an optional automatic chemical-dosing system. Simply fill the 1.32 gall chemical dosing bottle and the machine will deliver the correct mix ratio as set by the operator, depending on the floor and cleaning conditions.

Fig.18



Fig.19



Fig.19a



Fig.19b

To fill the chemical-dosing bottle, first make sure the top waste tank is fully drained then, lift up the waste-water tank (Fig.18), remove the dosing bottle, unscrew the bottle cap (Fig.19) and fill with appropriate cleaning chemical, or fit your own chemical container, reusing the original Numatic container cap 1.5 inch / 1.65 inch (Fig.19a). Refit dosing bottle (Fig.19b) and replace bottle cap, and carefully lower waste-water tank.

After use, ensure the chemical dosing tank is emptied, cleaned and refilled with clean water. The dosing pipes also need to be cleaned and flushed through with clean water for at least 60 seconds after use.

Note: always ensure that the waste-water tank is empty before lifting.



Important

Do not operate machine unless the Operator Manual has been read and fully understood.



The machine is now ready to be moved to the cleaning site.



Before performing the cleaning operation, place-out appropriate warning signs and sweep or dust-mop the floor.

Lowering the floor-tool



Fig.20



Fig.21

After preparing the floor (see previous section), we are now ready to set the controls to suit the cleaning conditions. Before any settings can be applied, ensure the brush deck is lowered (see Fig.23). Move the floor-tool lever (see Fig.20), to its lower position (see Fig.21).

Note: The machine will still reverse with the floor-tool in the lowered position, this could possibly damage the blades. Raise the floor-tool before selecting reverse.

Lowering the brush deck

Note: If the brush width has not been set, see 'Setting the width adjustment' on page 10 before proceeding.



Fig.22



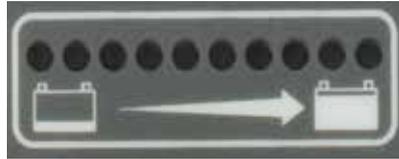
Fig.23

The control for lowering the brush deck can be found to the rear right of the machine (Fig.22). Lower the brush deck by moving the left hand release lever to the upper position (see Fig.23).

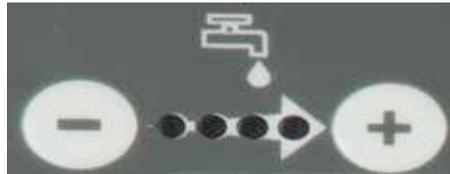
Setting the Cleaning Controls



Insert the key into the master control on/off and quarter-turn it clockwise to the 'On' position. The battery charge-level indicator will illuminate for 5 seconds.



Set Water Flow Rate as required, depending on floor type and level of soiling.



0.13 G/ Min

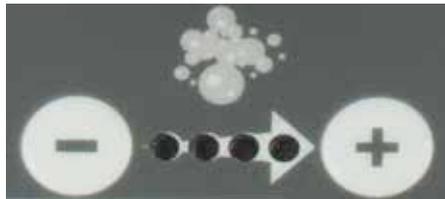
0.264 G/ Min

0.528 G/ Min

0.793 G/ Min



Set automatic Chemical Dosing Mix as required, depending on floor type and level of soiling.



100 : 1

75 : 1

50 : 1

25 : 1



Set desired traction Speed as required, depending on floor type and level of soiling.

Middle speed is the optimum cleaning speed.

Once the Max speed has been set using the knob on the control panel, fine adjustments can be made using the variable control speed trigger.



The TTV-5565 has been fitted with a Hi - Lo mode, this reduces the noise produced by the vacuum motor by 3dB.

To operate the Hi - Lo mode start the machine in the normal way.

When the machine is running normally the Hi - Lo light will NOT be illuminated This means the Vacuum motor is running at 100%.

With the machine running press the Hi - Lo button once the Vacuum motor will reduce speed to 75% of capacity and the Hi - Lo light will illuminate Blue. ●

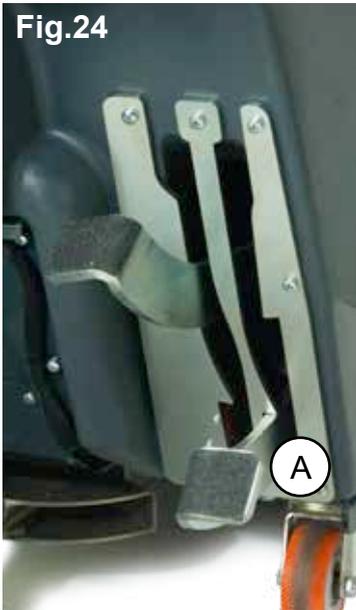
Brush pressure / Load adjustment

The brush load lever is located to the right hand side of the machine.
This option is for hard to clean patches, adding extra pressure to the brushes.

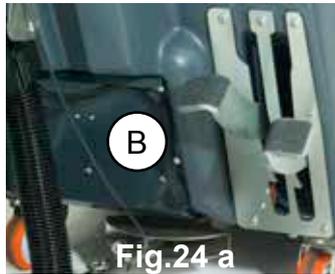


The brush load indicator on the control display shows the pressure applied, when the machine is being operated.

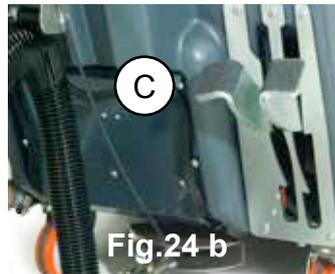
Fig.24



(A) Standard Duty
37.5 lbs Pressure
(Fig.24)



(B) Heavy Duty
66.1 lbs Pressure
(Fig.24a)



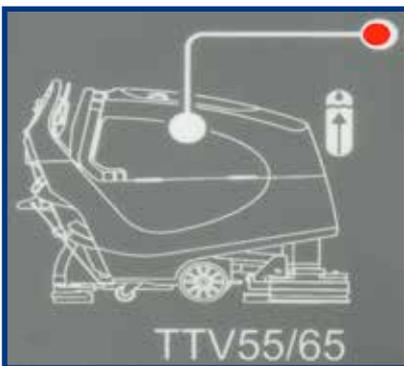
(C) Extra Heavy Scrub
110.2 lbs Pressure
(Fig.24b)

NOTE:

It is recommended this option is NOT used all the time and is for spot cleaning only.
The run-time of the machine may decrease if the load on the brushes is increased.

Machine operation

Waste-water tank fill level warning light



When the waste-water tank becomes full, a red warning light will illuminate on the operator control panel (as illustrated).

The vacuum motor will stop automatically after 5 seconds.

The waste-water tank requires emptying (see page 18).

Emergency-stop button



Fig.25

The TTV - 5565 is equipped with an electronic braking system.

Simply release the hand operated start / stop trigger and the machine will stop.

In an emergency, strike the emergency-stop button.

The machine will be disabled.

To reset, turn Emergency Stop button clockwise (see Fig.25).

After re-setting the emergency stop button, to restart the machine, turn the master control On / Off key to the 'Off' and then 'On' position.

Breakaway floor-tool

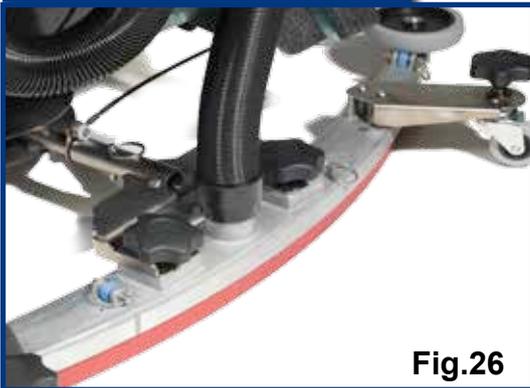


Fig.26

The floor-tool design incorporates a breakaway feature.

Allowing it to safely disengage from its mounting should it become caught on an obstruction, during forward machine movement. (See Fig.26)

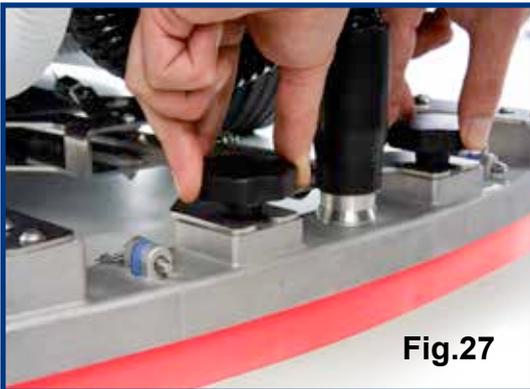


Fig.27

To re-attach the blade to its holder.

First loosen the retaining knobs on the floor-tool body and slide onto the holding bracket.

Tighten retaining knobs to finger tight. (See Fig.27)



ALWAYS ENSURE THAT THE FLOOR IS PRE-SWEPT AND RELEVANT SAFETY SIGNS ARE DISPLAYED.



Machine in use



Fig.28

To operate, turn the master control On / Off key to the 'On' position, select water flow rate, chemical mix (see page 14), lower the floor-tool (see page 13) and select forward (see page 8, Fig.4), press the start / stop trigger.

Vacuum pick-up, water-flow and chemical-dose will turn on automatically and the machine will move forward.

Adjust the speed to suit the conditions using the variable speed control (see page 8).

The clean water / chemical mix is dispersed evenly via 'THRU- FEED' scrubbing brushes.

The waste water is then retrieved by the suction floor-tool (see page 9).

Overlap each scrubbing path by 10cm to ensure an even clean.

Do not operate the machine on inclines that exceed (9%), when full.

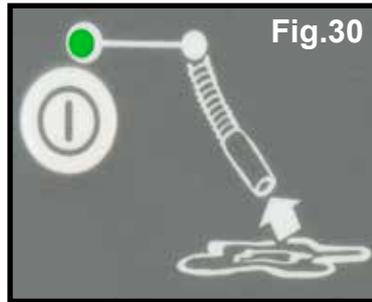
NOTE: Care must be taken to reduce speed when cornering or when manoeuvring around obstacles.



Fig.29

If streaking occurs wipe floor-tool blades clean (see Fig.29). On heavily soiled floors use a 'double scrub' technique. First pre-scrub the floor with the floor-tool in the raised position, allow the chemical time to work then scrub the area a second time with the floor-tool lowered.

Off Aisle Cleaning Kit (optional Extra Accessory) 606182



The optional off-aisle cleaning kit gives added flexibility to the operator.

The kit can be used to clean hard to reach / inaccessible areas.

Return the hose to the floor-tool once finished using the off-aisle facility.

The machine will need to be reset for normal use, when finished using the off-aisle kit.
By simply operating the control handle or pressing the off-aisle button on the control panel.



Regular Maintenance



ALWAYS ENSURE THAT THE MACHINE IS SWITCHED OFF PRIOR TO ANY MAINTENANCE USING THE MASTER CONTROL ON/OFF KEY. REMOVE THE KEY PRIOR TO ANY MAINTENANCE OPERATION.



A

After use, empty waste-water tank using emptying hose and flush-out with clean water. **A**



B

C

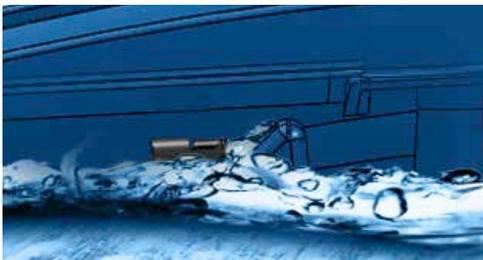


Next remove floor-tool vacuum hose and flush out with clean water. **B**
Next empty clean-water tank, using emptying hose and again flush out with clean water. **C**



Fig.31

Whilst pressing in the top tank hood toggles, remove the hood (Fig.31). The hood also has a sealing-rubber which should be examined at every clean-down. Rinse using clean water, avoiding the vac filter (Fig.31a).



Located in your waste water (top) tank is a full tank switch, this stops your machine from working once the waste water reaches its maximum limit. Sometimes the switch gets clogged and blocked, clean to ensure correct operation (see page 15).

IMPORTANT:

Remove white vac filter and clean if required (**keep dry**) (Fig.31a). Never use the machine without the recommended filter as it may cause damage to the machine (Fig.31a).



Fig.31a



Fig.31b

Remove debris basket filter and rinse using clean water, and refit.

IMPORTANT:

If the debris basket is allowed to become clogged, vacuum performance can deteriorate. (Fig.31b)

The clean-water tank filter is located to the rear of the battery compartment, and should be checked at regular intervals. Unscrew the cap check the filter condition (Fig.31c), rinse and refit. Ensure tank has been emptied and care is taken when working in the vicinity of batteries.



Fig.31 c

NOTE:

ANY SPILLS SHOULD BE WIPED-UP BEFORE THE TOP TANK IS LOWERED.

Changing the Floor Tool Blades



ALWAYS ENSURE THAT THE BATTERY IS DISCONNECTED PRIOR TO ANY MAINTENANCE



The Floor Tool

The TTV range is provided with the aluminium floor-tool shown.

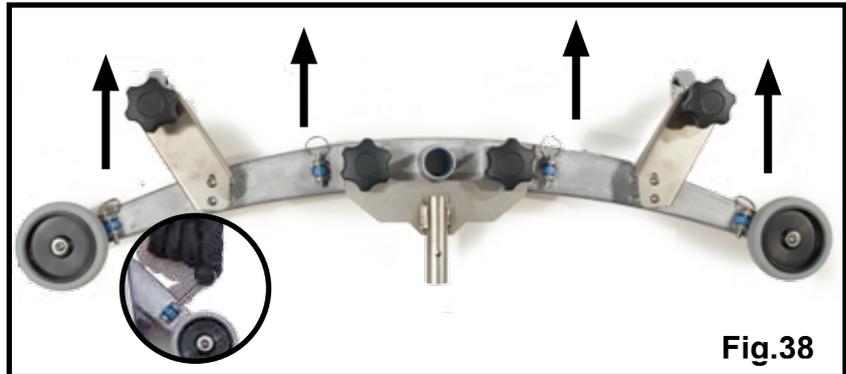


Fig.38

To clean the floor-tool, remove securing-pin and disconnect the lifting strap and remove the floor-tool securing pin pull-free the floor-tool from the rear of the machine. Rinse the floor-tool assembly with clean water and refit.



Fig.39

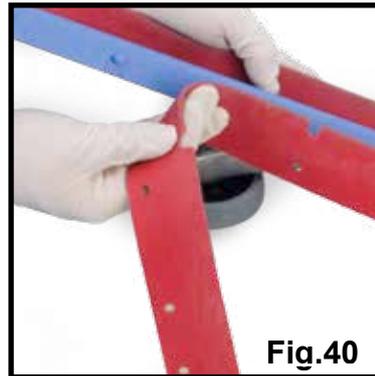


Fig.40

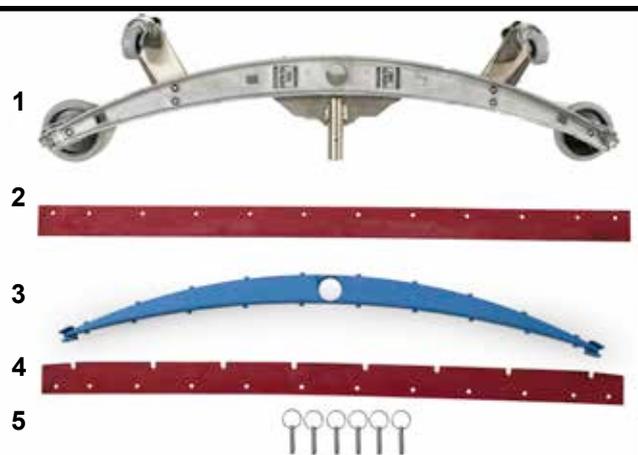
Periodically the floor-tool blades should be examined and checked for wear and damage.

The blade removal is easy. Simply start by removing the four retaining pins (see Fig.38), turn the floor-tool over and separate the blade carrier from the body (see Fig.39). Peel away the blades from their locating lugs (see Fig.40) and examine or renew as required.

Replacement is a reversal of the removal process.

Floor-tool overview

1. Floor-tool main body
2. Rear blade
3. Blade carrier
4. Front blade (slotted)
5. Retaining pins x 4



Note:

Floor Tool adjusters are factory set for optimal performance.
The blades are designed to be reversible, thus extending their useful working life.

Battery Care

The battery meter displays the charge level of the batteries; when fully charged, all meter lights are illuminated. As the machine is used and the batteries are discharged, the meter lights will go out from right to left. If the battery-charge level is allowed to discharge to the point that only the red light remains illuminated, the operator must consider charging the machine. If the battery-charge level is allowed to discharge to the point that only one red light remains illuminated (and begins to flash), all cleaning functions will automatically be disabled and the operator should drive the machine straight to a suitable charge point.

Under normal daily usage:

Recharge batteries after each use regardless of machine operation time.



Located to the rear of the machine is the charger inhibit plug.



Once the charger inhibit plug has been removed the display panel will show 'INHIBITED' and the machine will not operate.



When charged, refit the charger inhibit plug to resume normal use.

Recharge the machine fully after its last use. Do not leave the machine in a discharged state.



Under abnormal use; i.e. leaving the machine without charging for a period of time, we advise that you follow these steps:

If the machine will be standing unused for a period of 30 days or more, then batteries must be fully charged and battery fuses removed using the Maxi fuse-puller provided, prior to this period.



Batteries should be recharged every three months. Charge fully the day before you start using the machine again.





ALWAYS ENSURE THAT THE MACHINE IS ON LEVEL GROUND BEFORE DISENGAGING BRAKE ARM. NEVER DISENGAGE THE BRAKE WHEN THE MACHINE IS ON A SLOPE / GRADIENT.



The TTV-5565 is equipped with a free-wheel function that will enable the operator to move the machine manually if required.



Fig.40

The motor brake is located on the left side of the machine near the rear wheel (see Fig.40).



Fig.41

Pull the arm out (see Fig.41).



Fig.42

Swing to the disengaged position (see Fig.42).

The motor brake will be fully disengaged.

The machine will now be in full free-wheel mode.

WARNING!
WHEN THE BRAKE IS DISENGAGED THE MACHINE IS IN FREE-WHEEL MODE AND HAS NO BRAKE FACILITY.

Note:

None of the other functions on the machine will work whilst in the Free Wheel Mode!
Remember to re-engage the drive when you reach your final destination / before using the machine.

Warning light flashes explained

● Green Flashing Warning light.



| Green Status Indicator | Fault | Possible Cause | Effect on Product | Investigate the Following | Action Required | If fault persists |
|-------------------------------------|-----------------------------|--|---|--|--|-----------------------|
| 1 Flash with pause ● | Batteries voltage low | Batteries not been charged Possible bad connection between batteries, controller, charger or fuses caused by loose connections, damaged wiring, water ingress Not accepting charge due to faulty battery/cell Charger not functioning | Operating time severely reduced or machine will not operate | Check when machine last charged Switch OFF the machine : Remove Fuses Check connections to batteries, charger and fuses for loose wires or screws Check each battery Voltage individually to detect defect unit 10.5V min Check battery voltage and charge current ensuring charger red fault light is extinguished | Charge batteries immediately Tighten loose connections and replace damaged components Replace batteries as required Replace charger | |
| 2 Flashes with pause ●● | Traction motor disconnected | The motor has a bad connection Motor disconnected TCO activated (Thermal cut Out) Motor failed open circuit | Motor will not operate | Check all connections and leads between the motor and controller | Tighten loose connections and replace damaged components - check exhaust clean if necessary. | |
| 3 Flashes with pause ●●● | Traction motor wiring Trip | The motor has a short circuit to a battery | Motor will not operate | Check all connections and leads between the motor and controller | | Contact Service Agent |
| 4 Flashes with pause ●●●● | Battery Lockout | The battery charge level has fallen below the battery lockout level and the controller is inhibiting machine functions | Machine functions not working | Check battery voltage and charge current ensuring charger red fault light is extinguished Check each battery Voltage individually to detect defect unit 10.5V min Remove Charger to operate machine | Charge batteries immediately | |
| 6 Flashes with pause ●●●●●● | Charger Connected | The controller is being inhibited from driving. This may be because the battery charger is connected | Machine functions not working | | | |
| 8 Flashes with pause ●●●●●●●● | Controller Trip | A controller trip is indicated | Machine functions not working | Check all connections and leads | Tighten loose connections and replace damaged components | |
| 9 Flashes with pause ●●●●●●●●● | Brake Deactivated or Failed | Poor brake connections. Brake failure or deactivation | Traction drive disabled | Check brake wiring and brake lever | Replace brake or wiring as necessary. Reactivate brake by engaging brake lever. | |
| 10 Flashes with pause ●●●●●●●●●● | High Battery Voltage | Poor connections between battery controller and traction motor | Machine functions not working | Check each battery Voltage individually to ensure voltage < 14 volts Check connections on controller, batteries and traction motor Check combined battery pack voltage is < 28 volts | | |

LCD Display and fault codes

| LCD Display | Fault | Possible Cause | Effect on Product | Investigate the Following | Action Required | If Fault Persists |
|-----------------------------------|---|--|---|--|---|-----------------------|
| Blank | * No power | * Key switched off * Emergency stop pressed | * Machine will not operate | * Key switched off * Emergency stop pressed | * Switch key on (page 8) * Release emergency stop (page 8) | Contact Service Agent |
| 'OVER CURRENT' | * Brush over current | * Brush pressure to great. * Brush current exceeds 32A * Wrong type of brush for surface | * Vac. Brush, Water & Detergent motors / pump will not operate * Brush LED's all flash in unison until the trigger is released | * Release brush pressure (page 14) * Changed type of brush * Restart machine. | | |
| 'UNDER VOLTS' | * Battery voltage dropped below 21 Volts * Left most Battery LED flashes | * Batteries require recharging. * Faulty cell on battery | * Machine will not operate | * Battery leads and connections | * Charge Batteries. * Replace battery (if cell damaged) | |
| 'TANK FULL' | * Tank full requires emptying | * Waste Tank Float switch activated whilst cleaning or off-aisle mode selected. * Faulty Float switch | * Vac. Brush, Water & Detergent motors / pump will not operate | * Tank full LED illuminated * Top waste tank full | * Empty top waste tank * Replace switch | |
| 'INHIBITED' | | | | | | |
| MACHINE INHIBITED - NO OPERATION. | | | | | | |



Fig.44

To view TTV 5565 run time information turn the key to the 'ON' position.
Press the run-time information button to cycle between the different modes.

- T = Total run-time.
- V = Vacuum total run-time.
- B = Brush total run-time.
- W = Water Pump total run-time.



Trouble-Shooting

| PROBLEM | CAUSE | SOLUTION |
|--------------------------------------|---|---|
| Machine will not operate | Missing or blown fuses Key in the 'Off' position Low battery charge Machine is connected and charging Waste tank full switch stuck or clogged | Fit or replace fuse (page 8) Turn key to 'On' position (page 8) Charge batteries (page 20) Take off charge (page 20) Inspect and clean switch (page 15/18) |
| Vacuum will not operate | Waste-water tank full | Empty waste water tank (page 18) |
| Poor water pick-up | Waste-water tank full Clogged / blocked vacuum hose Loose hose connections Debris basket filter clogged / blocked Separator filter clogged / blocked Poor separator seal Damaged separator seal Damaged / split vacuum hose Damaged floor-tool blades Low battery charge | Empty waste-water tank (page 18) Remove and clean (page 18) Push tight connections (page 18) Remove and clean (page 18) Remove and clean (Page 18) Clean and refit (page 18) Renew (contact service dept) Renew (contact service dept) Renew (contact service dept) Recharge batteries (page 20) |
| No brush / Scrub function | No brushes fitted Brush deck raised | Check and fit (page 10) Lower brush deck (page 13) |
| Little or no water flow | Clean-water tank empty Clean-water tank filter blocked / clogged Incorrect water flow setting Brush deck raised | Fill clean-water tank (page 11) Remove and clean (18) Adjust as desired (Page 14) Lower brush deck (page 13) |
| Little or no dosing solution flow | Chemical dosing tank empty incorrect dosing flow setting | Fill dosing-tank (page 12) Adjust as desired (page 14) |
| Machine just 'stops' while operating | Too much load on the brush system | Reset the machine using the key and decrease the brush load to best suit the floor type (page 15. Fig.23) |

Nacecare Helpline

Failure to rectify the problem or in the event of a breakdown
contact your Nacecare dealer or the Nacecare Technical
helpline +44 (0) 900 1 905 785 0038



Recommended Spare Parts

| | |
|--------|--|
| 303641 | Bottom Tank Dump hose assembly (clean water) |
| 213047 | Top Tank Waste water emptying hose |
| 208335 | Floor tool hose assembly |
| 577697 | Separator hood assembly |
| 206265 | Barrel filter |
| 208417 | Trash basket |
| 237173 | Trash basket lid |
| 391319 | Separator gasket |
| 303953 | Filling cap & hose assembly |
| 208307 | Brush deck skirt (long) |
| 208324 | Brush deck skirt (short) |
| 208167 | Spare key (x2) |

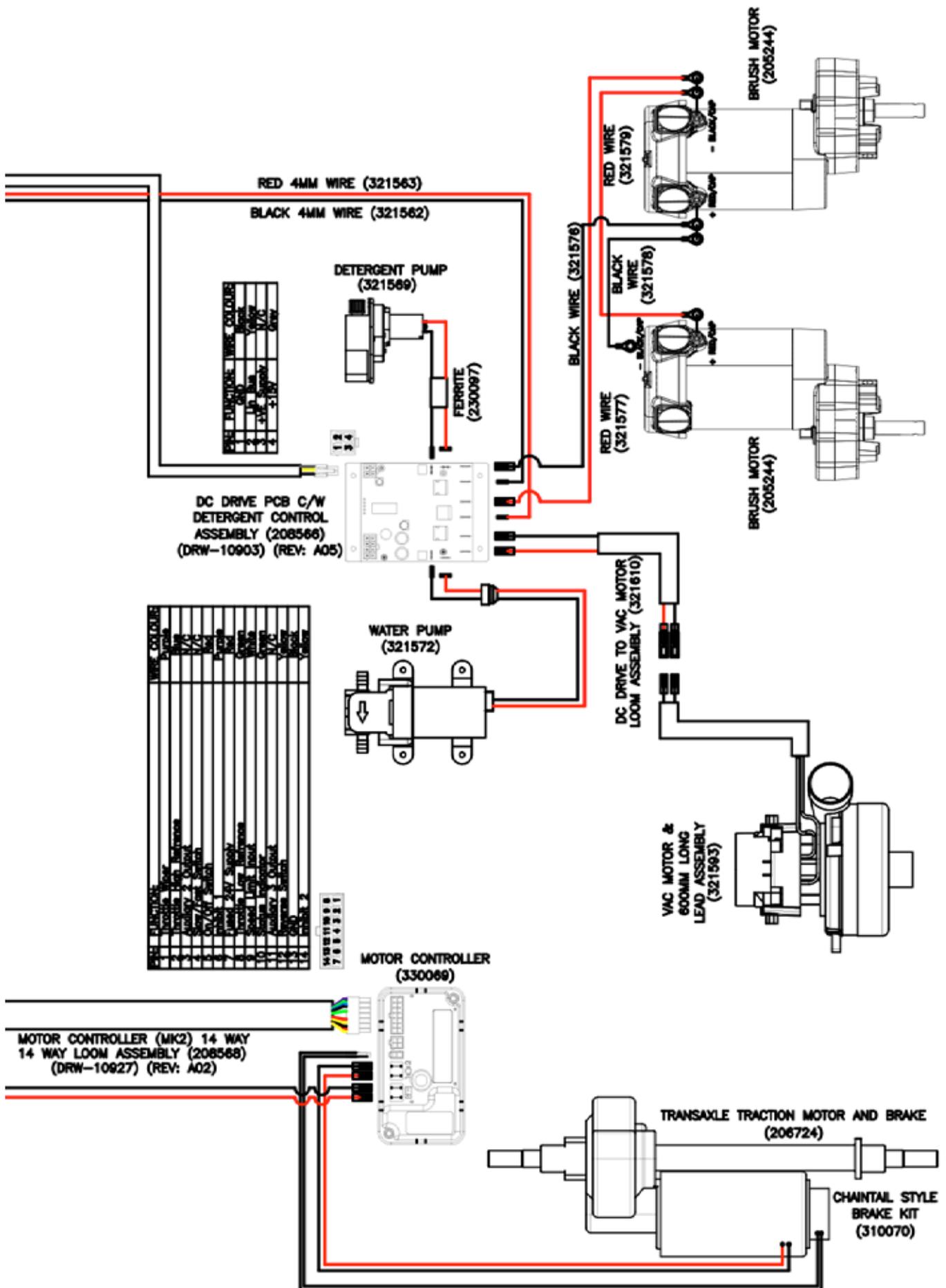
| | |
|--------|------------------------------|
| 606167 | Battery |
| 221047 | 40 Amp fuse |
| 206953 | Detent pin |
| 303827 | 1.5 inch Blue solution cap |
| 304456 | 1.65 inch White solution cap |

Floor Tools

| | |
|--------|--------------------------------|
| 606218 | Floor Tool |
| 606198 | Linatex Blade Set |
| 303871 | Floor Tool bracket (moosehead) |

Brushes

| | | | |
|---|---|---|---|
|  | |  | |
| 606253 | HD Nyloscrub (2 req) 13 inch (STANDARD) | 606252 | HD Nyloscrub (2 req) 11 inch (STANDARD) |
|  | |  | |
| 606174 | Polyscrub (2 req) 13 inch | 606173 | Polyscrub (2 req) 11 inch |
|  | |  | |
| 606172 | Nyloscrub (2 req) 13 inch | 606171 | Nyloscrub (2 req) 11 inch |
|  | |  | |
| 606176 | Long Life (2 req) 13 inch | 606175 | Long Life (2 req) 11 inch |
|  | |  | |
| 606156 | Pad Drive (2 req) 13 inch | 606154 | Pad Drive (2 req) 11 inch |



TTV 5565

Affix Label Here

Product serial number

This machine has been packed with the following:

Charging Lead

Fuses

Isolator Key / Pin

Hose Hook

38 / 32mm Adaptor

Signed



Distributed by:

This Product has been comprehensively inspected and checked during every stage of its manufacture, including an in-depth electrical safety and functionality test.

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