

Operation and Maintenance Instructional Manual

*Automatic Travelator Deep Cleaner
(ET15B Attachment)*

T10



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Rosemor International Ltd reserves the right to make adjustments to the machine and any documentation. This operation and maintenance instruction manual is intended for service personnel only!

Preliminary remarks

Safety and reliability are absolutely essential to guarantee a long and trouble-free service life of the ET15 and T10. In order to fulfil these requirements, the operator must obtain sufficient skill in handling the machine, its maintenance and care. It is therefore vital that the operator receives instruction and training from Rosemor International Ltd specialists before the cleaning machine is started for the first time.

The present operation and maintenance instruction manual represent additional assistance for the operator in obtaining the information necessary for correct and safe use of the cleaning machine.

Rosemor International Ltd customer service centre should be informed immediately if some technical fault in this cleaning machine should occur.

Table of contents	Page
1 Safety instructions.....	5
1.1 Preliminary remarks	5
1.2 Owner's duties	5
1.3 Intended and specified use.....	5
1.4 Who may operate the machine?	5
1.5 Safety for the operator.....	5
1.6 Modifications and changes to the machine	6
1.7 General safety instructions	6
1.8 Safety instructions for mains-operated machines	6
1.9 Information on the warning signs.....	6
1.10 Warning signs and stickers	7
1.11 Product liability.....	7
1.12 Emissions	7
1.13 Sources of danger	7
1.14 Procedure in case of emergency.....	7
2 Description	8
2.1 Technical data	8
2.2 List of reference numbers.....	9
2.3 Location of components	9
3 Operation	10
3.1 Before start-up.....	10
3.2 Filling fresh water	10
3.3 Preparations on site.....	10
3.4 Safety measures on site.....	10
3.5 Preliminary work	10
3.6 Working instructions	10
3.7 Subsequent cleaning	11
3.8 Refilling with fresh water.....	11
3.9 Emptying the dirty-water tanks	11
3.10 Ending the cleaning process	12
4 Maintenance / Care	13
5 Attaching the T10 module.....	14
5.1 Lowering the Wheels on the T10.....	15
5.2 Starting the Cleaning Cycle.....	15
7 Replacing and Maintaining the T10 Brushes	15

1 Safety instructions

1.1 Preliminary remarks

The automatic escalator/travelator deep clean machine ET15B & T10 was manufactured according to state-of-the-art technology and in compliance with all relevant regulations. This, however, does not guarantee that some other unavoidable dangers for persons and property can occur. All personnel working with this machine must therefore read and follow these operating instructions, and in particular the safety regulations, with great care.

These operating instructions must remain at the machine for use by the operator. Each operator must receive thorough instruction on handling and working with the machine.

1.2 Owner's duties

In accordance with EU directive on the use of operating equipment 89/655/EEC Art.6(1) and 7 and EU framework directive 89/391/EEC Art.1(1) and Art. 6(1), the owner of the equipment is obliged to instruct all persons, particularly with regard to safety, who will be authorised to work on assembly, operation, maintenance, repair or dismantling of the machine.

The owner is also obliged in accordance with EU directive on the use of operating equipment 89/655/EEC Art.4a to inspect the machine before start-up, following repair work and following faults or malfunction.

1.3 Intended and specified use

The automatic travelator/travelator deep cleaning machine ET15 & T10 is exclusively intended for basic and maintenance cleaning of indoor and outdoor travelators. Any use beyond this stipulation must be considered as contrary to the manufacturer's intentions. The manufacturer will not be liable for any damage resulting from such work; all risk in this case will be borne exclusively by the operator. Correct use of the machine also includes compliance with the conditions of operation and maintenance stipulated by the manufacturer.

- The automatic travelator/travelator deep cleaning machine ET15 & T10 is not intended, nor suitable for cleaning hazardous or flammable dirt.
- The machine is not fire-proof.
- The machine is also not licensed for use in cleaning public streets and paths.

1.4 Who may operate the machine?

The machine may only be used by persons who have been instructed in its operation and who are expressly authorised to carry out such work. These persons should be at least 18 years old. All relevant accident prevention regulations and other generally recognised rules of safety engineering, industrial medicine and the Highway Code must be strictly observed. Assembly, equipment, maintenance and repair work demand special knowledge and may only be carried out by specially trained experts.

1.5 Safety for the operator

- The user must under no circumstances touch the plug of the power supply with damp hands.
- When the machine is being disconnected from the power network, only the plastic plug itself may be pulled - never pull on the power cable.
- The machine may be repaired or opened only by qualified electricians.



If work on the opened machine within connected current is absolutely necessary, such work may be carried out only by a qualified electrician who is familiar with all attendant dangers and the relevant work stipulations (VDE0100). When work is carried out on machine or parts when live, only tools specially intended for this purpose may be used.

1.6 Modifications and changes to the machine

It is forbidden for reasons of safety to carry out modifications to this machine. Any unauthorised modifications to the machine automatically invalidate all liability claims against the manufacturer for any damage caused by the modified machine.

Original parts and accessories have been specially designed for this machine. Parts and fittings made by other manufacturers have not been tested by us and are therefore not approved for use. Assembly and installation of such parts could impair the safety and the perfect functioning of the machine. Rosemor International Ltd expressly refuses to accept liability for any damage resulting from the use of non-original parts and accessories.

1.7 General safety instructions

- When the machine is not in use, it must always be locked away and the key removed. If it is not possible to lock away the machine, some other suitable measures must be taken to prevent unauthorised use.
- Neither the electrical nor mechanical safety devices on the machine may be changed or put out of action.
- It must be ensured that no other persons, in particular children, are in the vicinity of the machine when it is in operation.
- The machine may only be transported in elevators whose permitted load is adequate for this purpose.

1.8 Safety instructions for mains operated machines

Care must be taken that the mains cable incurs no damage by being crushed, torn, frayed, driven over, etc. ***This connection must be examined regularly for damage***, bare points, scorched areas, etc. *The machine may not be used unless the mains connections are in perfect condition.* The plug must always be disconnected prior to any cleaning or maintenance work on the machine, or when accessories are being fitted and replaced.

When parts, such as brushes, mains connection cables, plugs, etc are being replaced, all technical data provided by the manufacturer

must be observed and only original spare parts used; otherwise safety of the machine could be impaired. If the power cable is damaged, it must be replaced by a service workshop approved by Rosemor International Ltd as special tools are required for such work.

1.9 Information on the warning signs

The purpose of the warning signs used in these operating instructions is to emphasise certain sources of danger in the automatic travelator/travelator deep cleaning machine ET15 & T10.

The following symbols are used in these operating instructions:



Indicates a possibly dangerous situation through contact with parts conducting electricity. Failure to observe these warnings could lead to death or serious injury.



Indicates a possibly dangerous situation. Failure to observe such warnings could lead to serious injury.



Indicates special information for optimum use or to facilitate operation of the machine.

1.10 Warning signs and stickers



Markings, warning signs and stickers may never be removed! Damaged or illegible warning signs and stickers must be replaced or repaired immediately!

1.11 Product Liability

The operator is expressly notified that the machine must be used only for the intended purpose. If the machine is not used for the intended purpose, such use will be at the sole risk and responsibility of the user. Rosemor International Ltd will not accept any liability in such cases.

1.12 Emissions

The A-assessed equivalent continuous sound level of this machine measures 78 ± 2 dB (A).

1.13 Sources of Danger

Be aware of the potential trip hazards that are present when using the T10 attachment. There are trailing hoses and cables between the ET15B and T10, extra care must be taken when moving about this area.



The machine may not be left unattended and unlocked on the travelator. All safety instructions and regulations applicable to the escalator or travelator being cleaned must be strictly observed.

1.14 Procedure in case of emergency

Press the emergency stop button in the event of any problem or emergency, however big or small. This can be reset by rotating the emergency stop button clockwise.

2 Description

2.1 Technical data

Working width:		600 mm
Continuous cleaning:		
Max. air volume of suction:		162 m ³ / h
Low pressure:		300 mbar
Type of current/ frequency:	A.C. current	50 Hz
Rated voltage:		230 V
Rated power input:		1900 W
Power output:	Spindle drive	2 x 180 W
Number of brushes:		10 (4 end piece & 6 'v' piece)
Dimensions	Length	515mm
	Width	600mm
	Height	375mm

2.2 List of reference numbers

1	Retractable Wheels	10	Key switch
2	Handle	11	Touch operation of pump
3	Service hours counter	12	Automatic ON
4	Cycle Selection	13	Mains Cable
5	Suction machine OFF/ON	14	Chemical Hose
6	LOWER machine	15	Vacuum Hose Connection
7	RAISE machine	16	Battery Button
8	Touch operation of brushes	17	Emergency STOP button
9	STOP key		

2.3 Location of components

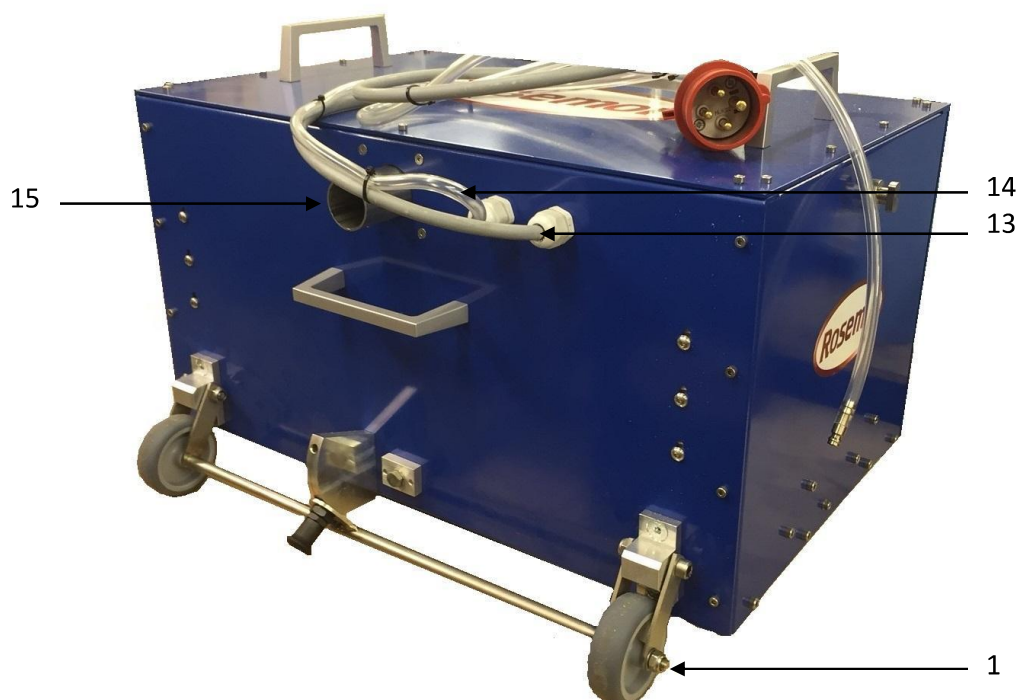


Fig. 1: Location of components

3 Operation

3.1 Before start-up

All local safety regulations and instructions must be observed for each start-up. The travelator must be inspected jointly with the party responsible for the travelator, who should also be informed of any discoloration or paint stains etc. caused by repair and renewal work.

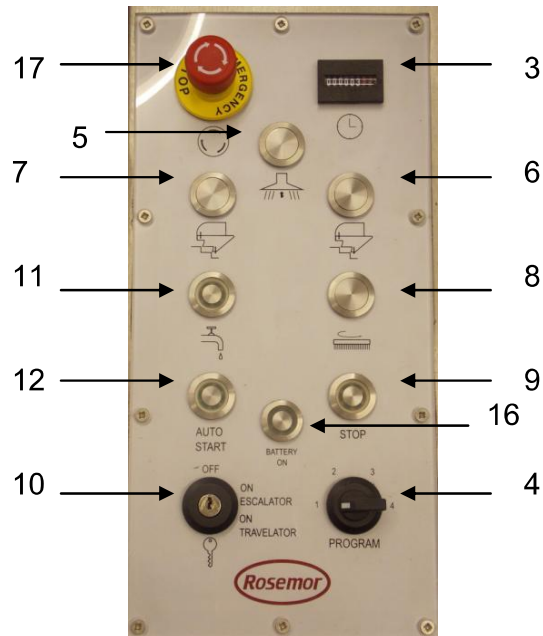


Fig. 2: Control Panel

3.2 Filling fresh water

- Unlock quick release coupling and separate from fresh-water tank
- Draw fresh-water tank forward and withdraw from machine
- Remove lid and fill with a maximum of 10 litres of fresh water and 1 litre of cleaning chemical (RC91)



Each time the fresh-water tank is being refilled, the dirty-water tank MUST also be emptied. See Section 3.14 Emptying the dirty-water tanks on page 16



Fig. 3: Fill up with fresh water

3.3 Preparations on site

The cleaning date should be co-ordinated with the maintenance personnel (possibly process electrician) in charge of the travelator or escalator.

The safety manager should also be informed if necessary.



Have the travelator switched off by the relevant specialists and secured against being switched on by accident!

The operator must plug in the mains cable for the machine, or a suitable socket must be shown to him.

The operator must furthermore obtain instruction on manual control of the travelator or else ensure that some person familiar with the workings of the travelator is available near by at all times.

3.4 Safety measures on site

All unauthorised persons must be prevented from approaching and/or entering the entrances at both ends of the travelator by means of safety measures (e.g. red-and-white barrier chains).

The machine, the transport trolley and, when available, accessories trolley are to be placed in the cordoned-off level area at the end of the travelator to prevent any unauthorised use.

3.5 Preliminary work



All foreign bodies such as: cigarette packages, cans, etc. must always be removed before any work commences!



Any objects jammed in the machine, such as small stones, bits of glass, etc. are a significant impediment to achieving a good result. Care must therefore be taken that all such objects are removed in advance. Handheld cleaning equipment is ideal for this purpose!

Remove any dirt from the grooves in the steps with a hand rake before brushing or sweeping clean.

3.6 Working Instructions



The detergent applied to the travelator surface will lead to danger of slipping! Shoes with non-slip soles must therefore always be worn during work on the stairs!

Scratching or erosion on the travelator steps caused by wear, corrosion or material faults cannot be cleaned by this equipment.

3.7 Subsequent cleaning

Manual cleaning equipment has been developed by Rosemor International Ltd by means of comprehensive practical tests.

With this equipment, any subsequent cleaning that may become necessary, such as major soiling on the edges and the joining areas between two steps, can be carried out easily.



The manual cleaning equipment manufactured by Rosemor International Ltd is particularly suitable for minor subsequent cleaning.



All valid regulations regarding waste water must be strictly observed when the dirty water is being dumped!

- Replace dirty-water tank
- Replace tank cover
- Place in tank and check secure
- Set key switch to position " ON TRAVELATOR "
- Start suction with START/STOP key (5)
- Check fitting of tank cover for air leaks.
- Switch off suction with START/STOP key (5)
- The work can now be continued

3.8 Refilling with fresh water

The operator must carry out regular checks at the transparent PVC chemical tube for fresh water to ensure that the machine is receiving a supply of detergent solution. If bubbles appear in the tube or if no liquid can be seen, the fresh-water tank is empty and must be refilled. Let the machine stand on the travelator and fill fresh water along with cleaning agent according to instructions in Section 3.3



Fig. 14: Remove dirty-water tank



When the fresh-water tank is being filled it is **CRITICAL** that the dirty-water tank is emptied too

3.9 Emptying the dirty-water tanks

(see Fig. 14: Remove dirty-water tank and

- Set key switch to "0" position
- Draw the dirty-water tank
- Remove tank lid with suction tubes and let hang to the side
- Grip tank on the carrying-troughs and dispose of dirty water according to the relevant environment regulations



Fig. 15

3.10 Ending the cleaning process

- Move machine as described in Section 3.11 with the travelator to the lowest completely extended step.
- The machine is then raised over the lifting spindle drive (18).
- If the travelator is going downwards, leave the travelator at the lower end.
- Lift the break to allow the ET15 to roll off the travelator in a safe manner.



It is recommended that escalator key holders must be trained by the escalator supplier in the correct operation of the escalator.

4.0 Troubleshooting and remedy

Fault	Cause	Remedy
Machine can not be started	Lifting spindles (18) are not in with AUTOSTART end position	Press LOWER key (6) once again
Machine cleans poorly	Spray nozzle (37) is blocked	Clean spray nozzle (37)
	Brushes (24) are soiled	Clean brushes (24)
	Brushes (24) are worn	Replace brushes (24)
Detergent return to the machine is too low	Seal strip (22) is defect	Replace seal strip (22)
	Suction basin (21) is set incorrectly	Adjust suction basin (21)
	Stripping Brush (23) is dirty	Remove suction basin (21) and clean stripping brush (23)
Dirt streaks are visible on front travelator face	Stripping Brush (23) is dirty	Remove suction basin (21) and clean stripping brush (23)
	Stripping Brush (23) is worn	Remove suction basin (21) and replace stripping brush (23)
Water residues on travelator	Cover (1) of dirty-water tank (2) does not close tight	Attach cover (1)
		Replace tank cover (1)



If the fault in the machine can not be remedied according to the procedures described in the table above, the customer service of Rosemor International Ltd should be notified and the necessary repair work carried out by its staff.

5.0 Attaching the T10 module

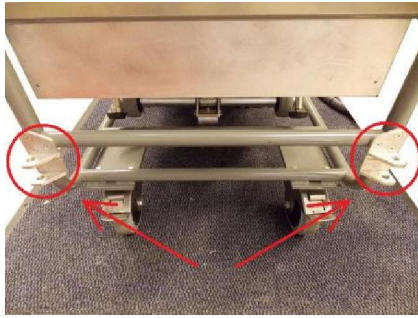


Fig. 27 Supports for T10



Fig. 28 Guide Bars in Position

- Place the guide bars in the trolley brackets (Fig. 27) as shown in Fig. 28
- With the power socket facing the ET15, place the T10 next to the guide bars (Fig. 29).
- Push the guide bars on to the protruding pins as shown in Fig. 30



The T10 has wheels to help you manoeuvre it into place when fixing it to the guide bars.

- Next connect the Chemical hose by pushing firmly until you hear a click. This will indicate it is in position.

These hoses will now need to be connected to the ET15 machine as per Fig. 31

- Connect the Chemical hose by removing the looping chemical hose and pushing the T10 chemical hose firmly until you hear a click.
- Connect the vacuum hose (Fig. 31)
- Connect the power plug as per Fig.31
- Pull tanks out of machine and rest on handle of ET15B (Fig. 29 & 15).



Fig. 29 T10 Position to ET15

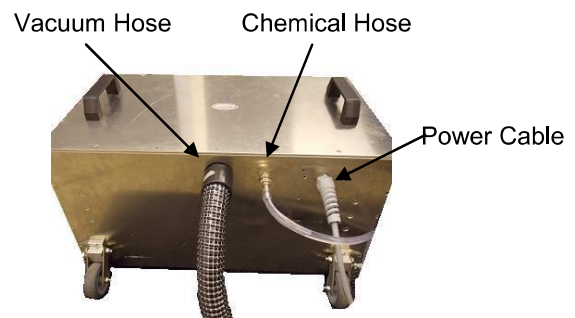


Fig. 30 Connections on the T10

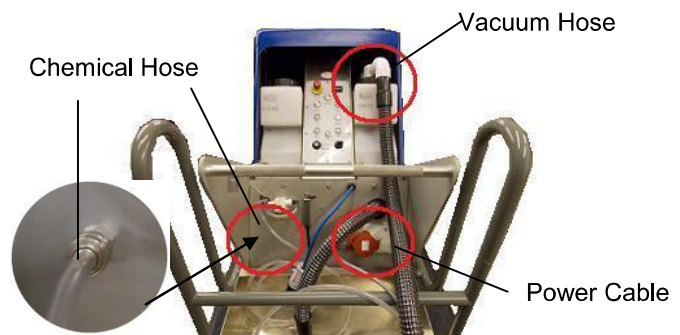


Fig. 31 Connections on the ET15



Fig. 32 Retracting the Wheels

5.1 Retracting the Wheels on the T10

To lower the T10, simply pull the pins located on the wheels (Fig. 32), this will retract the wheel upwards. Do this to all four wheels before moving the T10 onto the moving Travelator.

5.2 Starting the Cleaning Cycle

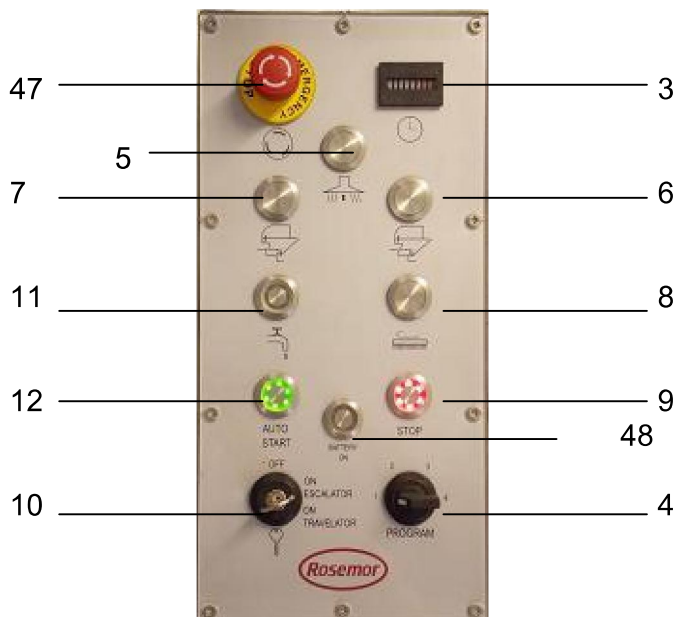


Fig. 33 Control Panel

Once the T10 is in position, turn the key (10) to the "ON TRAVELATOR" until the Auto Start (12) flashes slowly. When turn the key clockwise to "ON TRAVELATOR". The Auto Start should now be flashing faster which indicates it is ready.

Press the Auto Start button (12) which will power up the T10.

Now manoeuvre the T10 on to the Travelator.

7.0 Replacing and Maintaining the T10 Brushes

To maintain or replace the 10 brushes on the T10, turn the machine over (See Fig. 34) and gently clean with a brush and small amount of water.



Fig. 34