

# Dynamics 440-M/B1

## Dynamics 840-M/B1



**Nilfisk**  
**ALTO**  
*Why Compromise*

<b>(D)</b>	<b>Betriebsanleitung .....</b>	<b>2</b>
<b>(GB)</b>	<b>Operating Instructions .....</b>	<b>8</b>
<b>(USA)</b>	<b>Operating Instructions .....</b>	<b>14</b>
<b>(F)</b>	<b>Notice d'utilisation .....</b>	<b>20</b>
<b>(NL)</b>	<b>Gebruiksaanwijzing .....</b>	<b>26</b>
<b>(I)</b>	<b>Istruzioni sull'uso .....</b>	<b>32</b>
<b>(N)</b>	<b>Driftsinstruks .....</b>	<b>38</b>
<b>(S)</b>	<b>Bruksanvisning .....</b>	<b>44</b>
<b>(DK)</b>	<b>Driftsvejledning .....</b>	<b>50</b>
<b>(SF)</b>	<b>Käyttöohje .....</b>	<b>56</b>
<b>(SLO)</b>	<b>Navodilo za uporabo .....</b>	<b>62</b>
<b>(HR)</b>	<b>Uputstvo za rad .....</b>	<b>68</b>
<b>(SK)</b>	<b>Prevádzkový návod .....</b>	<b>74</b>
<b>(CZ)</b>	<b>Provozní návod .....</b>	<b>80</b>
<b>(PL)</b>	<b>Instrukcja obsługi .....</b>	<b>86</b>
<b>(H)</b>	<b>Kezelési utasítás .....</b>	<b>92</b>
<b>(E)</b>	<b>Instrucciones de manejo .....</b>	<b>98</b>
<b>(P)</b>	<b>Instruções de operação .....</b>	<b>104</b>
<b>(GR)</b>	<b>Οδηγίες λειτουργίας .....</b>	<b>110</b>
<b>(TR)</b>	<b>İşletme kılavuzu .....</b>	<b>116</b>



## FOR YOUR OWN SAFETY

Before putting the cleaner into operation, be sure to also read the enclosed operating instructions thoroughly and keep them close at hand for future reference.

The cleaner may only be used by persons trained in its use and expressly authorised to use it.

## GENERAL

Operation of this cleaner is subject to the applicable national regulations.

In addition to these operating instructions and the binding regulations on accident prevention applicable in the country of use, the generally acknowledged technical rules for safe and correct working must also be observed.

Any method of work endangering health or safety is forbidden!

## HEALTH-ENDANGERING DUSTS \*)

This cleaner is not suitable for picking up health-endangering dusts.

## FIRE AND EXPLOSION HAZARD



The following materials must not be picked up with the cleaner:

- Hot materials (glowing cigarettes, hot ashes, etc.)
- Inflammable, explosive or aggressive fluids (e.g. petrol, solvents, acids, alkalines, etc.)
- Inflammable, explosive dusts (e.g. magnesium or aluminium dust, etc.).

## APPLIANCE PLUG SOCKET

Before connecting any appliance to the appliance plug socket, the cleaner must always be switched off.

If appliances are connected to the appliance plug socket, ensure that these appliances are also switched off when being connected to the appliance plug socket.

## CAUTION!

**The operating instructions and the safety precautions contained therein must be observed when using appliances connected to the appliance plug socket of the cleaner.**

## USING FOR THE FIRST TIME

Before using the cleaner for the first time, check that it is in a good and safe condition.

Plugs and connectors of mains leads must be at least splash water-proof. Check the mains connection and mains plug.

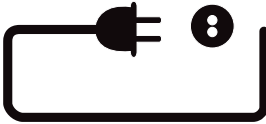
Inspect the mains lead at regular intervals for damage or signs of ageing. Use the cleaner only when the mains lead is in a good and safe condition.

**(Damaged mains leads present a danger of electric shocks!)**

Use the cleaner only with an undamaged filter element.

## DURING OPERATION

Take care not to damage the mains lead (e.g. by driving over, pinching or dragging). Pull out the mains plug only directly at the plug, i.e. not by pulling at the mains lead.



Before picking up liquids, the filter bag must be removed and the function of the float switch checked.

If foaming is observed, stop work immediately and empty the tank.

## MAINTENANCE AND REPAIR

**CAUTION!**  
**Before cleaning and servicing the cleaner, always remove the mains plug.**

Carry out only maintenance operations described in these operating instructions. Use only original Wap spare parts.

Do not make any technical modifications to the cleaner.

**CAUTION!**  
Your safety could be endangered as a result!

**For all other maintenance and repair work, please contact the Wap Service department or an authorised specialist workshop!**

## ELECTRICAL EQUIPMENT

Check the rated voltage of the cleaner before connecting it to the mains power supply. Ensure that the voltage specified on the rating plate corresponds to the local mains voltage.

When connected to the mains power supply with a mains lead of type H 07 RN-F 3G 1.5 mm<sup>2</sup>, the cleaner may also be used outdoors.

When using an extension lead or replacing the mains lead, the lead type specified by the manufacturer must always be used.

We recommend that the power supply to the cleaner be connected via an earth-leakage circuit breaker which interrupts the power supply either if the earth leakage current exceeds 30 mA for 30 ms, or it contains an earthing test current circuit.

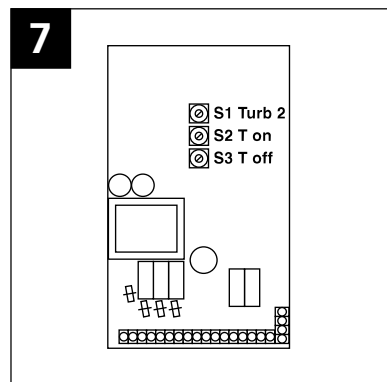
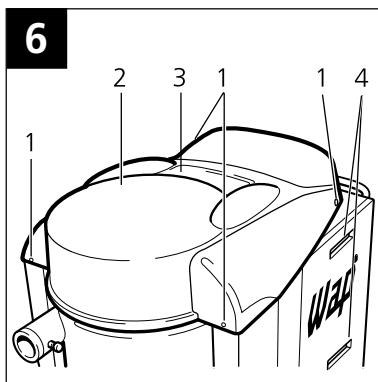
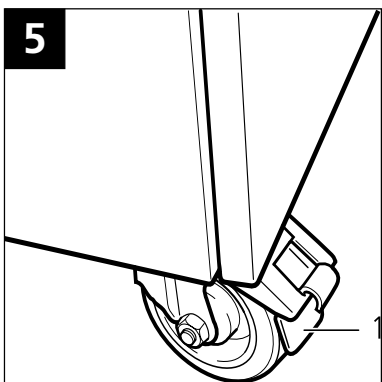
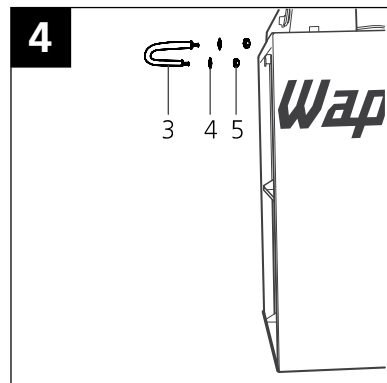
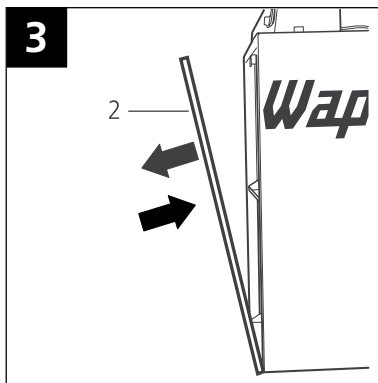
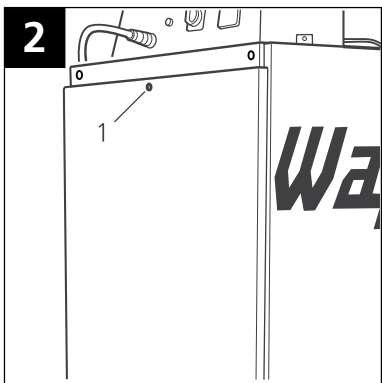
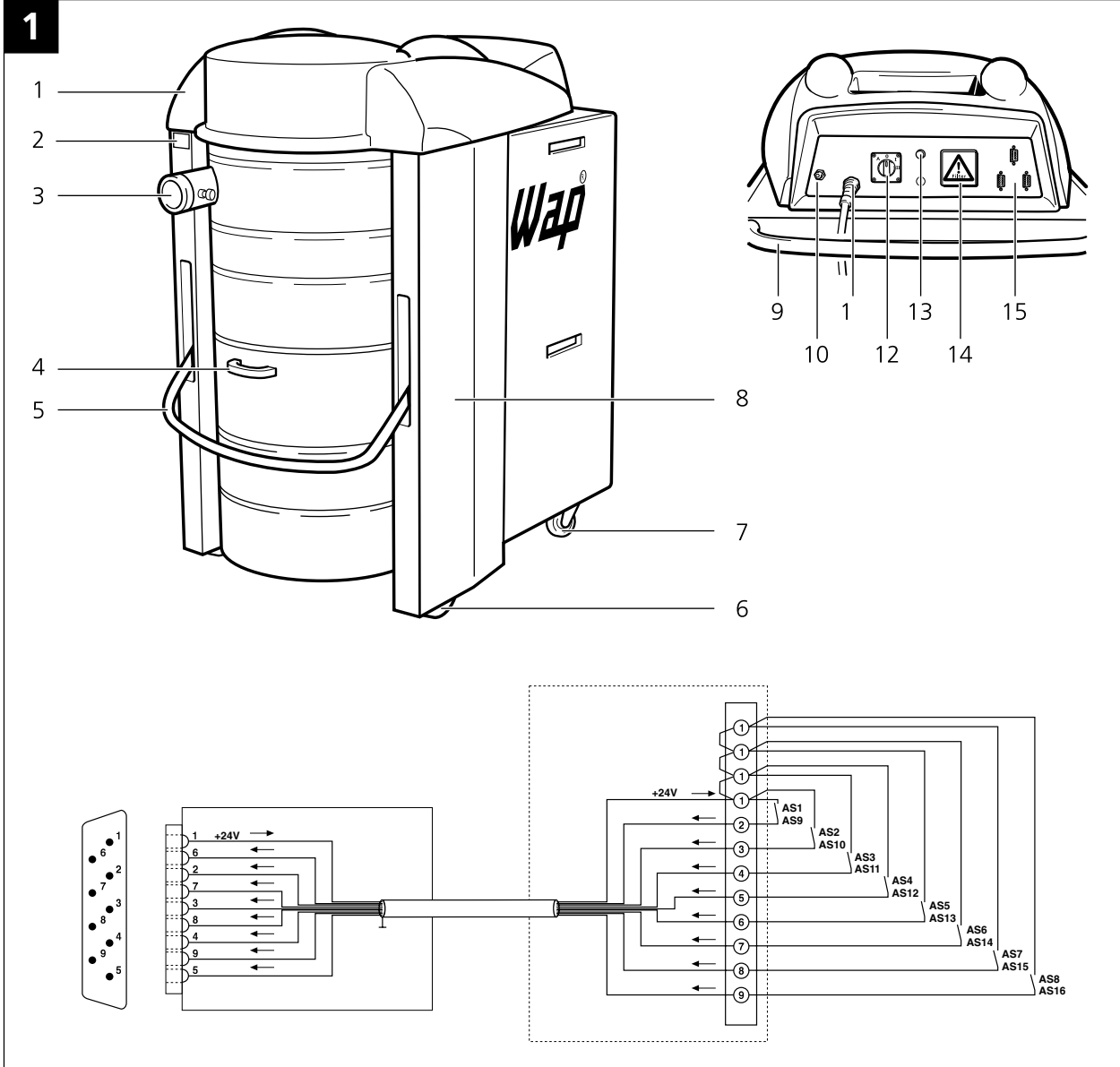
When using an extension lead, observe the minimum cross-sections of the leads:

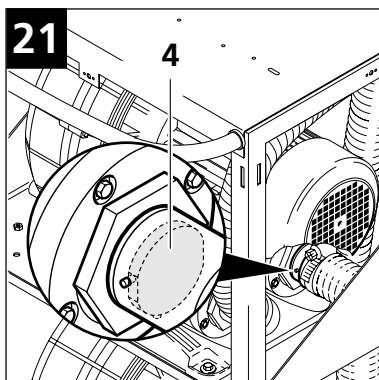
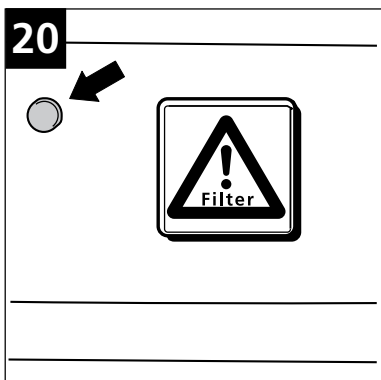
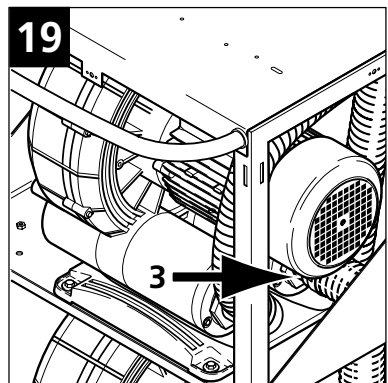
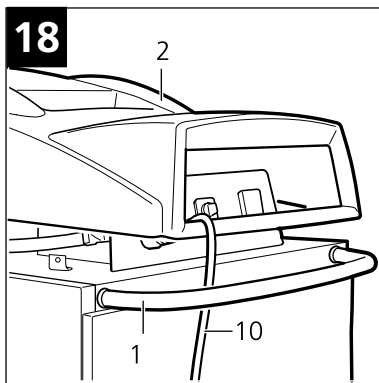
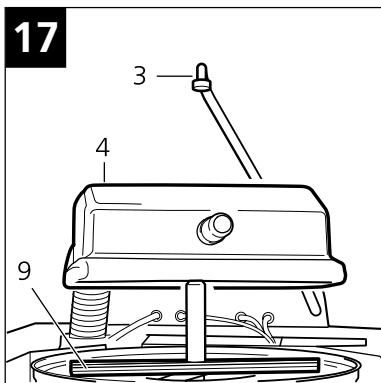
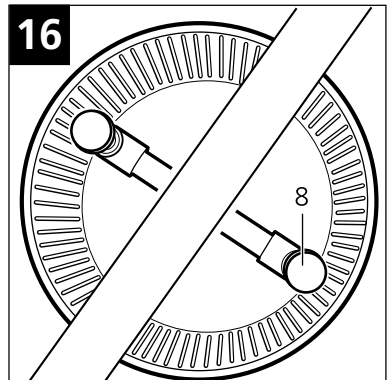
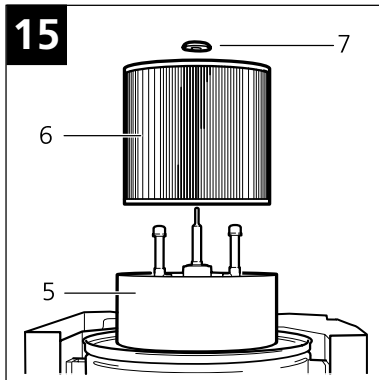
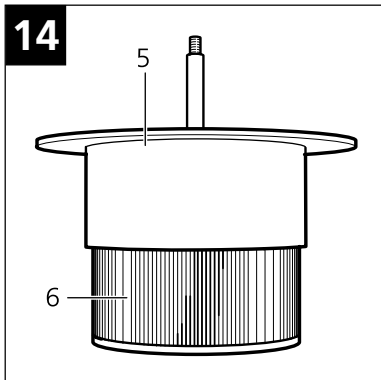
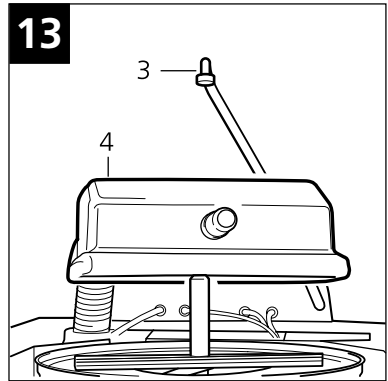
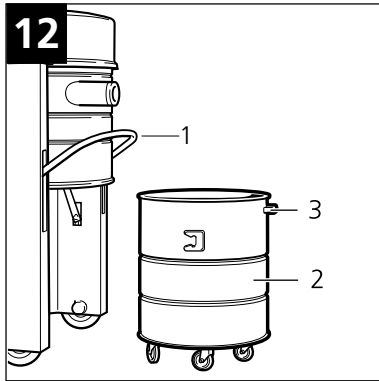
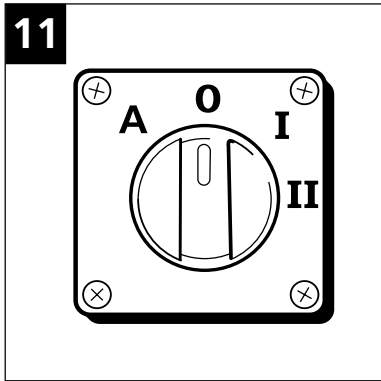
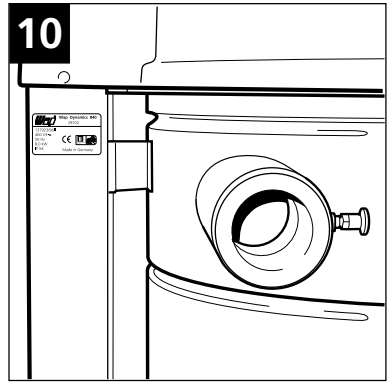
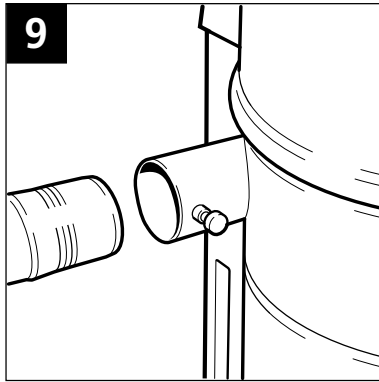
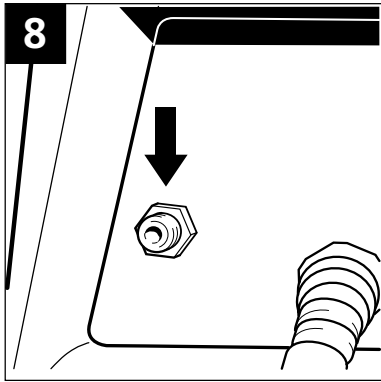
Cable length m	Cross-section mm <sup>2</sup>
up to 20	1.5
20 to 50	2.5

Always arrange the current-carrying parts (plug sockets, plugs and connectors) and lay extension leads so that the protection class of the cleaner is maintained.

**CAUTION!**  
Never spray the top section of the cleaner with water: Danger for persons, danger of short circuits.

The latest edition of the IEC Regulations must be observed.







**PLEASE READ THE OPERATING INSTRUCTIONS AND OBSERVE THE ENCLOSED SAFETY PRECAUTIONS!**

### DESCRIPTION (Fig. 1)

- 1 Cover
- 2 Rating plate
- 3 Inlet fitting
- 4 Tank
- 5 Tank lock
- 6 Fixed castors
- 7 Swivel castors with brake
- 8 Chassis
- 9 Handle
- 10 Compressed-air connection
- 11 Power cable
- 12 Main switch
- 13 Fault lamp
- 14 Acoustic filter warning
- 15 Connections for automatic mode

### APPLICATION

The *Dynamics 440 S/840-MIB1* is an industrial vacuum cleaner of usage class M and is thus suitable when used properly for vacuuming up dry, non-flammable dusts with a lower toxic limit  $> 0.1 \text{ mg/m}^3$ .

The safety vacuum cleaner is also approved for picking up dry, flammable dusts in explosion classes St1, St2 and St3 in zone 11 (Model 1).

The safety vacuum cleaner is not suitable for picking up and removing explosive substances or other substances or liquids of the same nature within the meaning of §1 of the Explosive Substances Act, or mixtures of flammable dust and liquids.

#### CAUTION!

The vacuum cleaner must not be set up in gas explosion hazard areas (e.g. paint shops).

### USE AS AN INDUSTRIAL VACUUM CLEANER

(Switch position I or II)

The safety vacuum cleaner is suitable for picking up dry, flammable dusts in Zone 11 (see ElexV, § 2(4)), but is not approved for removing dust from machining equipment.

Only use the approved accessories with a bleeder resistor of max.  $1 \text{ M}\Omega$ !

### USE AS A DUST REMOVER

(Switch position A)

The safety vacuum cleaner is suitable for removing dry, flammable dusts in zone 11 (see ElexV, § 2(4)), on condition that the possibility of effective ignition sources being picked up is absolutely precluded.

Use conductive suction devices. Machining equipment must be electrostatically earthed.

### INSPECTIONS AND APPROVALS

Electrotechnically tested by the German SLG.

Based on the test in accordance with EN 60335-1 / EN 60335-2-69, the vacuum cleaner is suitable for **increased loading during commercial use.**

At a filter surface load  $\leq 200 \text{ m}^3 \times \text{m}^{-2} \times \text{h}^{-1}$  the vacuum cleaner has a permeability of  $< 0.5 \%$  and thus corresponds to the usage class „M“ due to its other equipment.

The filter paper of the filter cartridge has been tested by the German BIA as per ZH 1/487, Para. 2. The mean permeability is certainly less than  $0.1 \%$  at a velocity in blower stream of  $0.05 \text{ m/sec}$ .

Electrotechnical tests must be conducted as per VDE 0105 in accordance with the regulations of the German Accident Prevention Regulation (VBG4) and as per DIN VDE 0701 Parts 1 and 3. These tests are required in accordance with DIN VDE 0702 at regular intervals and following servicing or changes.

### USE/OPERATION

#### PREPARING THE VACUUM CLEANER, MOUNTING THE HANDLE

- Pull mains plug.
- Release the quick-lock screw (1) of vacuum cleaner rear panel by turning  $90^\circ$  (Fig. 2).
- Tilt back vacuum cleaner rear panel (2) and unhook (Fig. 3).
- Push the handle (3) into the holes provided.
- Push on washers (4), screw on the nuts (5) and tighten them (Fig. 4).
- Hook in vacuum-cleaner rear panel (2) and tilt forward (Fig. 3).
- Lock vacuum-cleaner rear panel by pressing in quick-lock screw (1) (Fig. 2).

#### SETTING UP VACUUM CLEANER

The vacuum cleaner must be set up on a firm surface. The surface must be able to safely support the weight of the vacuum cleaner and must be vibration-free.

#### CAUTION!

When setting up the vacuum cleaner, a minimum distance of  $500 \text{ mm}$  must be maintained to the surrounding walls or objects.

#### CAUTION!

At an ambient temperature from  $25 \text{ }^\circ\text{C}$  sufficient air circulation (cooling) must be provided at the set-up location.

- Set up vacuum cleaner at desired location.
- Lock swivel castors on vacuum cleaner by pressing brake (1) (Fig. 5).

## SETTING AUTOMATIC MODE

The settings on the automatic mode circuit board are made by Wap customer service to customer specifications before delivery.

**CAUTION! Changes may only be made by qualified electricians.**

## AUTOMATIC SYSTEM CIRCUIT BOARD

The automatic system circuit board controls filter cleaning.

The values for standby mode (switch from **0** to **Auto**) are fixed in the factory:  
30 x 10 secs. ON - 10 secs. OFF

Adjustable cleaning times are described below.

## REMOVING THE COVER (Fig. 6)

- Pull mains plug.
- Release the four quick-lock screws (1) of cover (2) by turning 90° and pull off.
- Lift off the cover (2) and draw out the mains connection lead.

## AUTOMATIC FILTER CLEANING (Fig. 7)

The cleaning time is set with switch S2 (T on).

Switch S2 set to **0**:  
cleaning function is switched off.

Switch S2 set to **1** to **9**:  
Cleaning time 1 to 18 seconds

### Example:

Switch position **5**:  
5 x 2 secs. = 10 secs.

The interval between two filter cleaning operations is set with the switch S3 (T off).

The possible settings are 0 to 15: this represents 0 to 6 min. 25 secs. (the setting must be multiplied by 25).

### Example:

Switch setting **9**:  
9 x 25 secs. = 225 sec. = 3 min. 45 secs.

## CONTACT LOOP CONTROL (Fig. 7)

The point at which the second turbine is switched on, is set with switch S1 (Turb. 2) (*Dynamics 840 S* only).

Switch S1 (Turb. 2) can be set between 0 and 15.  
As soon as the number of active suction points is higher than the set value, the second turbine is switched on.

## FITTING THE COVER (Fig. 6)

- Move cover (2) into position. No lines may be visible in area of exhaust air outlet (3).
- Lock cover by pressing in four quick-lock screws (1).

## CONNECTING COMPRESSED AIR HOSE (Fig. 8)

## CONNECTING SUCTION HOSE (Fig. 9)

Pull locking pin to connect or remove the suction hose.

## CONNECTING REMOTE CONTROL

The connection is made at the two lower sub-D sockets, on the right suction points 1 to 8, on the left suction points 9 to 16.

The wires must be connected as shown in the circuit diagram (*Fig. 1*).

**CAUTION! If you are in any doubt, contact Wap customer service.**

## ELECTRICAL CONNECTION

The operating voltage indicated on the rating plate must correspond to the mains voltage (*Fig. 10*).

- Insert plug of power cable into a properly installed CEE outlet (clockwise phase sequence, connected load 3 x 16 A). Make sure vacuum cleaner is switched off.

- To connect the control leads, use the metal coupling only, part no. 28628. Lay the control lead, part no. 29750 (available by the metre) so that it is protected against fire.

## VACUUMING



**Never vacuum up flammable materials or liquids.**

## OPERATING VACUUM CLEANER, BEFORE SWITCHING ON (Fig. 6)

Before switching the vacuum cleaner on, check that the exhaust air outlet (3) is free and the cooling air inlet (4) of the motor is not covered or blocked and clear if necessary.

## SWITCHING VACUUM CLEANER ON/OFF (Fig. 11)

- Operate unit switch: Switch position **I**:  
Vacuum cleaner runs with one turbine.

Switch position **II**:  
Vacuum cleaner runs with two turbines (*Dynamics 840-M/B1* only).  
First run vacuum cleaner in position **I**, then switch to position **II**.

Switch position **A**:  
Vacuum cleaner in automatic mode. Control voltage 24 V DC - safety extra-low voltage.

### NOTE!

If no vacuum power is required, the vacuum cleaner is in the wait mode, i.e. no turbine runs.

GB

## FOLLOWING WORK

Switch position **0**:  
Vacuum cleaner is switched off (**Fig. 11**).

- If the vacuum cleaner is not required for a longer period of time, pull the mains plug out of the electrical outlet.
- Disconnect compressed air hose (**Fig. 8**).

## CARE/MAINTENANCE

### IMPORTANT SAFETY PRECAUTIONS

**CAUTION!**  
**Always pull out the mains plug before performing cleaning or maintenance work on the vacuum cleaner.**

Only carry out maintenance work described in these operating instructions and use only genuine Wap spare parts.

Do not make any technical changes to the vacuum cleaner.

**CAUTION!**  
**Changes of this type could endanger your safety.**

**Please contact Wap Customer Service or an authorised workshop for further maintenance and repair work.**

### MAINTENANCE SCHEDULE

#### **As required**

- Empty tank
- Replace filter element

#### **Annually**

- A technical dust inspection must be carried out at least once a year by the manufacturer or an individual commissioned by the manufacturer, e.g. for damage to the separator, tightness of the appliance, correct function of the controls.

## EMPTYING TANK (**Fig. 12**)

- Switch off vacuum cleaner by setting main switch to **0** position.
- Swing bar (1) of tank lock upward; tank is lowered.
- Roll out tank (2).
- Remove disposal bag, close tightly and dispose of it in accordance with legal regulations.
- Insert new disposal bag.
- Roll in tank (2). Handle (3) must face toward front.
- Swing bar (1) of tank lock downward; tank is raised and locked.

**Part no. for disposal bag 29727**

## CHANGING FILTER ELEMENT

- Pull mains plug.
- Unlock four quick-lock screws (1) of cover (2) by turning 90° and pull off (**Fig. 6**).
- Lift off cover (2) and thread out power cable.
- Disconnect connection hose of filter blow-off (3) (**Fig. 13**).
- Lift off cover (4) upward and lay toward rear on vacuum cleaner (**Fig. 13**).
- Pull out filter carrier ring (5) with filter element (6) (**Fig. 14**).
- Lay filter carrier ring (5) upside down on vacuum cleaner.
- Screw off hand screw (7).
- Pull off filter element (6) upward (**Fig. 15**).
- Dispose of used filter element in accordance with legal regulations.

**Part No. for filter element: 34931.**

- Insert new filter element centred.

- Make sure filter blow-off (8) turns freely (**Fig. 16**).
- Fit hand screw and tighten.
- Remount filter carrier ring (5) with filter element (6) (**Fig. 14**).
- Fit cover (4), making sure that notches in cover are located over supports (9) of filter carrier ring (**Fig. 17**).
- Screw on connection hose of filter blow-off (3) and tighten (**Fig. 17**).
- Fit cover (2) (**Fig. 18**).
- Guide power cable (10) through opening of cover (2) and under handle (11) (**Fig. 18**).
- Move cover (2) into position. No lines may be visible in area of exhaust air outlet (3) (**Fig. 6**).
- Lock cover by pressing in four quick-lock screws (1) (**Fig. 6**).



## FAULT DISPLAYS

### FLASHING FAULT LAMP (Fig. 20)

If the rotating field of the power supply lead is incorrectly connected, the circuit breaker prevents the vacuum cleaner from being switched on.

- Switch off vacuum cleaner and pull mains plug.
- Have connection outlet connected according to standard (clockwise rotating field) by electrician.

### CONTINUOUSLY LIT FAULT LAMP (Fig. 20)

Overcurrent fuse and/or temperature monitoring unit for turbine exhaust air has/have been triggered.

- Leave vacuum cleaner switched on and wait until fault lamp goes out, then switch off.
- Make sure exhaust air outlet and cooling air inlet of motors are not blocked and clear if necessary.
- Switch on vacuum cleaner again.

### ACOUSTIC FILTER WARNING

The filter element is extremely dirty.

- Clean filter element or replace (see Section **Changing filter element**).
- Suction nozzle blocked, clean suction nozzle.
- Suction hose blocked, clean suction hose.

## CHECKING EXHAUST-AIR FLAP (Dynamics 840-M/B1 only)

Exhaust-air flap of stopped turbine is jammed.

- Release quick-lock screw (1) of vacuum-cleaner rear panel by turning 90° (Fig. 2).
- Tilt back vacuum-cleaner rear panel (2) and unhook (Fig. 3).
- Check exhaust-air flap (3) of stopped turbine (Fig. 19).
- Bond paper piece onto bolt (4) of exhaust-air flap (Fig. 21).
- Switch vacuum cleaner to position **I**, then to position **II**. Flap must move.
- If exhaust-air flap does not move, switch off vacuum cleaner and free up exhaust-air flap.
- Check for smooth movement by switching vacuum cleaner to position **I** first, and then to position **II**. If exhaust-air flap still does not move, switch off vacuum cleaner and inform Wap Customer Service.
- Hook in vacuum-cleaner rear panel (2) and tilt forward (Fig. 3).
- Lock vacuum-cleaner rear panel by pressing in quick-lock screw (1) (Fig. 2).

Fault	Cause	Remedy
≠ Motor does not run	<ul style="list-style-type: none"> <li>&gt; Mains plug not plugged in</li> <li>&gt; Circuit breaker of connection outlet has been tripped</li> <li>&gt; Circuit breaker tripped due to wrong rotating field</li> <li>&gt; Overcurrent protection or temperature monitoring unit has been triggered</li> <li>&gt; Automatic mode only:               <ul style="list-style-type: none"> <li>- Contact loop of automatic system not closed</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Plug mains plug into outlet</li> <li>• Reset circuit breaker</li> <li>• See section <b>Electrical connection</b></li> <li>• See section <b>Continuously lit fault lamp</b>. If overcurrent protection or temperature monitoring unit triggers repeatedly, inform Wap Customer Service</li> <li>• Check contact loop(s) or contact points</li> </ul>
≠ Reduced suction power	<ul style="list-style-type: none"> <li>&gt; Suction nozzle blocked</li> <li>&gt; Suction hose blocked</li> <li>&gt; Filter cartridge dirty</li> <li>&gt; Exhaust-air flap of stopped turbine jammed</li> </ul>	<ul style="list-style-type: none"> <li>• Clean suction nozzle</li> <li>• Clean suction hose</li> <li>• Replace filter element. See Section <b>Changing filter element</b>.</li> <li>• See Section <b>Checking exhaust-air flap</b>.</li> </ul>



## EG - Konformitätserklärung

Wap Reinigungssysteme GmbH & Co.  
Guido-Oberdorfer-Straße 2-8  
D-89287 Bellenberg

**Erzeugnis:** Schmutzsauger  
**Typ:** *Dynamics 440-M/B1 - Dynamics 840-M/B1*

**Beschreibung:** 400 V 3~, 4000 W

**Die Bauart des Gerätes entspricht folgenden einschlägigen Bestimmungen:**  
EG-Maschinenrichtlinie 89/392/EWG  
EG-Niederspannungsrichtlinie 73/23/EWG  
EG-Richtlinie EMV 89/336/EWG

**Angewendete harmonisierte Normen:**  
EN 292  
EN 60335-2-2  
EN 60335-2-69  
EN 50081, EN 50082

**Angewendete nationale Normen und technische Spezifikationen:**  
DIN EN 60335-1  
IEC 335-2-69  
DIN VDE 0700 T 205

ppa. Rau, Dipl. Ing. (FH)  
Leitung Forschung und Entwicklung

Bellenberg, 03.02.1997



## Déclaration de conformité CE

Wap Reinigungssysteme GmbH & Co.  
Guido-Oberdorfer-Straße 2-8  
D-89287 Bellenberg

**Produit:** Aspirateurs de saletés  
**Type:** *Dynamics 440-M/B1 - Dynamics 840-M/B1*

**Description:** 400 V 3~, 4000 W

**La construction de l'appareil est conforme aux réglementations afférentes suivantes:**  
Directive CE relative aux machines 89/392/EWG  
Directive CE relative à basse tension 73/23/EWG  
Directive CE EMV 89/336/EWG

**Normes harmonisées appliquées:**  
EN 292  
EN 60335-2-2  
EN 60335-2-69  
EN 50081, EN 50082

**Normes nationales et spécifications techniques appliquées:**  
DIN EN 60335-1  
IEC 335-2-69  
DIN VDE 0700 T 205

ppa. Rau, Dipl. Ing. (FH)  
Direction Recherche et Développement

Bellenberg, 03.02.1997



## EU Declaration of Conformity

Wap Reinigungssysteme GmbH & Co.  
Guido-Oberdorfer-Straße 2-8  
D-89287 Bellenberg

**Product:** Vacuum Cleaner  
**Type:** *Dynamics 440-M/B1 - Dynamics 840-M/B1*

**Description:** 400 V 3~, 4000 W

**The design of the unit corresponds to the following pertinent regulations:**  
EC Machine Directive 89/392/EWG  
EC Low-voltage Directive 73/23/EWG  
EC EMV Directive 89/336/EWG

**Applied harmonised standards:**  
EN 292  
EN 60335-2-2  
EN 60335-2-69  
EN 50081, EN 50082

**Applied national standards and technical specifications:**  
DIN EN 60335-1  
IEC 335-2-69  
DIN VDE 0700 T 205

ppa. Rau, Dipl. Ing. (FH)  
Head of Research and Development

Bellenberg, 03.02.1997



## Dichiarazione di conformità CE

Wap Reinigungssysteme GmbH & Co.  
Guido-Oberdorfer-Straße 2-8  
D-89287 Bellenberg

**Prodotto:** Aspiratore per sostanze sporche  
**Tipo:** *Dynamics 440-M/B1 - Dynamics 840-M/B1*

**Descrizione:** 400 V 3~, 4000 W

**La costruzione dell'apparecchio è conforme alle seguenti direttive specifiche:**  
Direttiva CE sulle macchine 89/392/EWG  
Direttiva CE sulla bassa tensione 73/23/EWG  
Direttiva CE sulla compatibilità elettromagnetica 89/336/EWG

**Norme armonizzate applicate:**  
EN 292  
EN 60335-2-2  
EN 60335-2-69  
EN 50081, EN 50082

**Norme nazionali applicate e specifiche tecniche:**  
DIN EN 60335-1  
IEC 335-2-69  
DIN VDE 0700 T 205

ppa. Rau, Dipl. Ing. (FH)  
Direttore Ricerca e Sviluppo

Bellenberg, 03.02.1997



## EG-Verklaring van overeenstemming

Wap Reinigungssysteme GmbH & Co.  
Guido-Oberdorfer-Straße 2-8

**Produkt:** Vuilzuiger  
**Type:** *Dynamics 440-M/B1 - Dynamics 840-M/B1*

**Beschrijving:** 400 V 3~, 4000 W

**De constructie van het apparaat voldoet aan de volgende van toepassing zijnde voorschriften:**  
EG-machinerichtlijn 89/392/EWG  
EG-laagspanningsrichtlijn 73/23/EWG  
EG-richtlijn EMV 89/336/EWG

**Toegepaste geharmoniseerde normen:**  
EN 292  
EN 60335-2-2  
EN 60335-2-69  
EN 50081, EN 50082

**Toegepaste nationale normen en technische specificaties:**  
DIN EN 60335-1  
IEC 335-2-69  
DIN VDE 0700 T 205

ppa. Rau, Dipl. Ing. (FH)  
Chef onderzoek en ontwikkeling

Bellenberg, 03.02.1997



## Atestado de conformidad de la UE

Wap Reinigungssysteme GmbH & Co.  
Guido-Oberdorfer-Straße 2-8  
D-89287 Bellenberg

**Producto:** Aspirador de suciedad  
**Modelo:** *Dynamics 440-M/B1 - Dynamics 840-M/B1*

**Descripción:** 400 V 3~, 4000 W

**La construcción de la máquina corresponde a las siguientes normas específicas:**  
R. de la UE para máquinas 89/392/EWG  
de la UE para baja tensión 73/23/EWG  
R. de la UE para la compatibilidad electromagnética 89/336/EWG

**Normas armonizadas aplicadas:**  
EN 292  
EN 60335-2-2  
EN 60335-2-69  
EN 50081, EN 50082

**Normas nacionales aplicadas y especificaciones técnicas:**  
DIN EN 60335-1  
IEC 335-2-69  
DIN VDE 0700 T 205

ppa. Rau, Dipl. Ing. (FH)  
Director Investigación y Desarrollo

Bellenberg, 03.02.1997



## Atestado de conformidade da UE

Wap Reinigungssysteme GmbH & Co.  
Guido-Oberdorfer-Straße 2-8  
D-89287 Bellenberg

**Produto:** Aspirador de sujidades

**Modelo:** Dynamics 440-M/B1 - Dynamics 840-M/B1

**Descrição:** 400 V 3~, 4000 W

**A construção da máquina corresponde às seguintes normas específicas:**

Directiva UE para máquinas	89/392/EWG
Directiva UE para baixa tensão	73/23/EWG
Directiva para a compatibilidade eletromagnética	89/336/EWG

**Normas harmonizadas aplicadas:** EN 292  
EN 60335-2-2  
EN 60335-2-69  
EN 50081, EN 50082

**Normas nacionais aplicadas e especificações técnicas:** DIN EN 60335-1  
IEC 335-2-69  
DIN VDE 0700 T 205

ppa. Rau, Dipl. Ing. (FH)  
Diretor de Pesquisas e Desenvolvimento

Bellenberg, 03.02.1997



## Δήλωση ανταπόκρισης ΕΟΚ

Wap Reinigungssysteme GmbH & Co.  
Guido-Oberdorfer-Straße 2-8  
D-89287 Bellenberg

**Προϊόν:** μηχανής αναρρόφησης

**Τύπος:** Dynamics 440-M/B1 - Dynamics 840-M/B1

**Περιγραφή:** 400 V 3~, 4000 W

**Ο κατασκευαστικός τύπος της συσκευής ανταποκρίνεται στους ακόλουθους σχετικούς κανονισμούς:**

Οδηγία περί μηχανών ΕΟΚ	89/392/ΕΟΚ
Οδηγία χαμηλών τάσεων ΕΟΚ	73/23/ΕΟΚ
Οδηγία περί ηλεκτρομαγνητικής συμβατότητας	89/336/ΕΟΚ

**Εφαρμοσθείσες εναρμονισμένες προδιαγραφές:** EN 292  
EN 60335-2-2  
EN 60335-2-69  
EN 50081, EN 50082

**Εφαρμοσθείσες εθνικές προδιαγραφές και τεχνικοί προσδιορισμοί:** DIN EN 60335-1  
IEC 335-2-69  
DIN VDE 0700 T 205

Διπλ. Μηχ. Α. Ραυ  
Υπεύθυνος ερευνητικού τμήματος

Bellenberg, 03.02.1997



## EF-konformitetserklæring

Wap Reinigungssysteme GmbH & Co.  
Guido-Oberdorfer-Straße 2-8  
D-89287 Bellenberg

**Produkt:** Smussoppsugeren

**Type:** Dynamics 440-M/B1 - Dynamics 840-M/B1

**Beskrivelse:** 400 V 3~, 4000 W

**Apparatets konstruksjonstype er i samsvar med følgende gjeldende bestemmelser:**

EF-maskindirektiv	89/392/EEC
EF-lavspenningsdirektiv	73/23/EEC
EF-direktiv elektromagnetisk kompatibilitet	89/336/EEC

**Anvendte harmoniserte standarder:** EN 292  
EN 60335-2-2  
EN 60335-2-69  
EN 50081, EN 50082

**Anvendte nasjonale standarder og tekniske spesifikasjoner:** DIN EN 60335-1  
IEC 335-2-69  
DIN VDE 0700 T 205

ppa. Rau, Dipl. Ing. (FH)  
Leder forskning og utvikling

Bellenberg, 03.02.1997



## EG-försäkran om överensstämmelse

Wap Reinigungssysteme GmbH & Co.  
Guido-Oberdorfer-Straße 2-8  
D-89287 Bellenberg

**Produkt:** Smuttsugaren

**Typ:** Dynamics 440-M/B1 - Dynamics 840-M/B1

**Beskrivning:** 400 V 3~, 4000 W

**Apparatens konstruktion motsvarar följande tillämpliga bestämmelser:**

EG-maskindirektiv	89/392/EWG
EG-lågsämningsdirektiv	73/23/EWG
EG-direktiv EMK	89/336/EWG

**Tillämpade harmoniserade normer:** EN 292  
EN 60335-2-2  
EN 60335-2-69  
EN 50081, EN 50082

**Tillämpade nationella normer och tekniska specifikationer:** DIN EN 60335-1  
IEC 335-2-69  
DIN VDE 0700 T 205

ppa. Rau, Dipl. Ing. (FH)  
Ledare för forskning och utveckling

Bellenberg, 03.02.1997



## EF-overensstemmelsesattest

Wap Reinigungssysteme GmbH & Co.  
Guido-Oberdorfer-Straße 2-8  
D-89287 Bellenberg

**Produkt:** Smudssugeren

**Type:** Dynamics 440-M/B1 - Dynamics 840-M/B1

**Beskrivelse:** 400 V 3~, 4000 W

**Konstruktionen af dette apparat opfylder følgende gældende bestemmelser:**

EF-maskindirektiv	89/392/EØF
EF-lavspændingsdirektiv	73/23/EØF
EF-direktiv vedr. elektromagnetisk fordragelighed	89/336/EØF

**Anvendte harmoniserede standarder:** EN 292  
EN 60335-2-2  
EN 60335-2-69  
EN 50081, EN 50082

**Anvendte tyske standarder og tekniske specifikationer:** DIN EN 60335-1  
IEC 335-2-69  
DIN VDE 0700 T 205

ppa. Rau, Dipl. Ing. (FH)  
Leder forskning og udvikling

Bellenberg, 03.02.1997



## EY-Vaatumustenmukaisuusvakuutus

Wap Reinigungssysteme GmbH & Co.  
Guido-Oberdorfer-Straße 2-8  
D-89287 Bellenberg

**Tuote:** Likaimurin

**Tyyppi:** Dynamics 440-M/B1 - Dynamics 840-M/B1

**Kuvaus:** 400 V 3~, 4000 W

**Tämän laitteen rakenne vastaa seuraavia määräyksiä:**

EY-konedirektiivi	89/392/EWG
EY-pienjännittdirektiivi	73/23/EWG
EY-direktiivi EMV	89/336/EWG

**Käytetyt harmonisoidut normit:** EN 292  
EN 60335-2-2  
EN 60335-2-69  
EN 50081, EN 50082

**Käytetyt kansalliset normit ja tekniset spesifikaatiot:** DIN EN 60335-1  
IEC 335-2-69  
DIN VDE 0700 T 205

ppa. Rau, Dipl. Ing. (FH)  
Kehtyis- ja tutkimusjohtaja

Bellenberg, 03.02.1997



**TECHNICAL DATA**

		<b>Dynamics 440-M/B1</b>	<b>Dynamics 840-M/B1</b>
Voltage	volts	400	400
Frequency	Hz	50	50
Power connection		3-phase w/o neutral, clockwise phase sequence	3-phase w/o neutral, clockwise phase sequence
Connected load max.	watts	4000	2 x 4000
Connected load (IEC)	watts	3300	2 x 3300
Volume flow (air)	max. m <sup>3</sup> /h	432	774
	max. l/min	7200	12900
Vacuum	max. hPa	230	230
Filter surface area	m <sup>2</sup>	5	5
Filter blow-off	%	99.9	99.9
Compressed air (oil, water and dust-free)			
Flow pressure before solenoid valve	bar	3.5 - 4	3.5 - 4
Flow pressure after/without solenoid valve	bar	1	1
Air consumption (at atmospheric pressure)	m <sup>3</sup> /h	35 - 40	35 - 40
Measuring surface sound pressure level at 1 m distance as per DIN 45 635, Part 1 (4/84) in open field at maximum volume flow	dB(A)	70	72
Tank volume	l	100	100
Power cable	m	5	5
Suction hose diameter	mm	70	70
Width	mm	750	750
Depth	mm	1250	1250
Height	mm	1350	1350
Weight	kg	195	245
Protection class		I	I
Protection type (splash-proof)		IP 54	IP 54
Radio-interference suppression level		EN 55014 EN 61000-3-2 EN 61000-3-3 EN 55104	EN 55014 EN 61000-3-2 EN 61000-3-3 EN 55104

**ACCESSORIES, ADDITIONAL EQUIPMENT**

Filter element	Part No. 34931
Filter element „Special“, filter element with non-stick coating	Part No. 26736
Disposal bag	Part No. 29727

Please see the „Accessories, Vacuum-Cleaner and Safety Vacuum-Cleaner Systems“ chapter of our catalogue for the wide range of accessories available for this vacuum cleaner.

**WAP SERVICE**

**WARRANTY**

Our General Conditions of Sale and Delivery apply for the warranty and warranty period.

**COMPANY ADDRESS**

Wap  
Reinigungssysteme GmbH & Co  
Guido-Oberdorfer-Str. 2-8  
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# Nilfisk ALTO

Why Compromise

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