

**Operating Instructions**  
**WASH:MASTER classic**  
**and**  
**WASH:MASTER classic duo**

Disinfection equipment for flexible endoscopes



CE 0483

**Read the operating instructions before using the equipment for the first time.**

Store the operating instructions near the unit so that all users have access to the instructions at all times.

These Operating Instructions apply to the following products:

WASH:MASTER classic (duo)	REF: 7680-C00
WASH:MASTER classic duo	REF: 7680-C2-V00

The "duo" variant consist of 2 WASH:MASTER classic units of identical design combined to make a single system. As a result, the following instructions and illustrations can be applied to both versions, unless explicitly applied to one or the other.

The WASH:MASTER classic (duo) is a Class IIb / Rule 15 active medical device as defined in Annex IX of Council Directive 93/42/EC of 14 June 1993 concerning medical devices. A Declaration of Conformity can be provided on request.

**Standard and optional accessories**

Use of the WASH:MASTER classic (duo) in accordance with the intended purpose requires special-purpose accessories that are listed under Point 3 and in Appendix II to these Operating Instructions.

All national laws and regulations applicable in the country of use as amended from time to time must be observed and applied.



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## 1. Intended purpose and patient safety

The WASH:MASTER classic (duo) has been designed exclusively for the disinfection of flexible endoscopes.

The WASH:MASTER classic (duo) can be used for disinfecting the following flexible endoscopes with a maximum of 5 channels (jet channel, air/water channel, biopsy channel, suction channel):

Endoscopes made by

- OLYMPUS
- FUJIFILM
- STORZ
- PENTAX
- HUGER (Endo Technik)

Endoscopes made by other manufacturers may also be reprocessed with this unit using appropriate adapters. If you require this option, please contact ENDO-TECHNIK Wolfgang Griesat GmbH direct or an authorised service technician to discuss your individual requirements.

### 1.1 Contraindications

Only use the WASH:MASTER classic (duo) in accordance with the intended purpose.

Do not use the WASH:MASTER classic (duo) for reprocessing endoscopes in the following cases:

- If no information regarding suitability for use with WASH:MASTER classic (duo) is available
- If the endoscope has more than five channels
- If the endoscopes are to be used for examinations in zones that are not microbially colonised
- Bronchoscopes.

If in doubt, please contact the manufacturer of the endoscopes and ENDO-TECHNIK Wolfgang Griesat GmbH.

### 1.2 Important notice when using this equipment

Read the operating instructions before using the WASH:MASTER classic (duo) for the first time and familiarise yourself with the functions and mode of operation of the unit and accessories.

Failure to comply with these operating instructions may result in injury to patients, users and maintenance personnel, and may also result in damage to the unit or endoscope, or the unit and endoscope may stop working completely.

The WASH:MASTER classic (duo) must only be operated by staff that meet the requirements in terms of factual knowledge and have been instructed and trained in safe use of the machine.

- The quality of the processing procedure is to be subjected to regular microbiological checks
- Microbiological hygiene inspections are an integral component of the hygiene schedule

The WASH:MASTER is a disinfecting machine for semi-automatic reprocessing of flexible endoscopes. This unit is used exclusively for disinfecting and neutralising flexible endoscopes after they have been thoroughly manually cleaned. This stage is a completely machine-based reprocessing phase.

Use of manual disinfection systems assumes the following conditions are adhered to:

- The unit is used in accordance with the written standard instructions applicable to manual disinfection processes
- All the cleaning and agents and disinfectants used, as well as the processes used to apply them, must be suitable and material-compatible (in line with their manufacturers' instructions)
- Implementation must be validated.

If reprocessing is done manually, the Operator must demonstrate in writing that both subprocesses, i.e. cleaning and disinfection, are performed to an equivalent standard. Evidence of the equivalence of the method must be demonstrated by the following criteria:

- Comprehensive instructions from the manufacturer regarding manual disinfection in accordance with ISO EN 17664
- Use of a CE certified implement disinfection solution with a suitable range of applicability
- Objective evidence by the Operator of the effectiveness of the disinfection process, in the case of medical devices classified in risk class "semicritical B".

Hygienically safe reprocessing of endoscopes requires regular, mandatory inspection of the reprocessing systems used. The microbiological quality of the final rinsing water and endoscope must be analysed.

Inspections and analyses must take place at regular intervals and if the machine is relocated, repaired or subject to any other changes. If semi-machine-based processes are employed, such as the WASH:MASTER, these inspections should take place once per calendar quarter. In addition, it is essential that the inspection and maintenance intervals prescribed by the manufacturer are adhered to.

### **1.3 Liability & disclaimer**

ENDO-TECHNIK Wolfgang Griesat GmbH is not liable for any damage, direct or consequential, which occurs under the following conditions:

- If the unit or accessories are operated, treated or maintained inappropriately
- If the instructions and specifications set out in these Operating Instructions are not observed
- If repairs, adjustments or modifications to the unit or accessories have been carried out by unauthorised persons
- If the unit has been opened by unauthorised persons
- If the prescribed inspection and maintenance intervals are not observed.

## **2. Safety instructions**

### **2.1 Authorised service technicians**

Only service technicians certified by ENDO-TECHNIK Wolfgang Griesat GmbH are authorised to carry out repairs, adjustments or modifications to the unit and accessories. Authorised service technicians are trained and certified exclusively by WG ENDO-TECHNIK.

### **2.2 Instruction of staff**


On-site training is provided by ENDO-TECHNIK Wolfgang Griesat GmbH or a person authorised by us.

## 2.3 Functional test

Before use, check the equipment to ensure all components are in place and that the WASH:MASTER classic (duo) is working properly. Before using the unit for the first time and after repairs have been carried out always check that the equipment has been installed properly. Function checks are listed in Chapter 5 under "Functional test".

## 2.4 Hazards & risks (general)



**In the event there is serious risk of danger, disconnect the unit from the power supply immediately (pull out the plug).** 

Then call the service technician to remedy the fault and recommission the unit.

### ➤ **Unauthorised opening of the unit**

Live components become exposed when the unit is open and can cause electric shocks if touched. Never open the unit yourself. The unit may only be opened by an authorised ENDO-TECHNIK Wolfgang Griesat GmbH service technician.

### ➤ **Penetration of liquids**

Liquid entering the unit may prevent the unit from working properly and/or present the risk of electric shock. Fluids should therefore never be permitted to enter the unit. Always avoid placing fluids in the vicinity of the electrical components. Do not operate if liquid has penetrated the unit.

### ➤ **Operation in explosion-proof areas**

The unit is not explosion-proof. Operation in areas with explosive gases can lead to severe damage and cause serious injury.

### ➤ **Use of inappropriate accessories.**

The use of inappropriate accessories can cause the unit to operate incorrectly, which may result in injury to patients, users, third parties and service technicians. Use only accessories specified for operation with the WASH:MASTER classic (duo) (see Appendix V).

### ➤ **Faulty fuses**

When replacing a faulty fuse please ensure the new fuse corresponds with the specifications displayed on the unit or set out in these Operating Instructions. The use of incorrect fuses can cause the unit to function incorrectly and may result in injury to users and others.

### ➤ **Faulty unit**

It is generally dangerous to operate a faulty unit. Do not operate the unit if you suspect it to be faulty or if it is known to be faulty. Make sure the unit cannot be operated until checked by an authorised technician.

### ➤ **Transporting and installing the unit**

Since the unit has a high dead weight, it must be lifted, transported and positioned by two people (holding it by the four corners). There are no dedicated lifting aids, as the unit is normally only installed once. The unit may not be used stacked together with or beside other devices. If operation beside or stacked with other units is unavoidable, ensure it can still be used in accordance with its intended purpose in this arrangement.

### ➤ **EMC Directive**

This unit is subject to specific provisions as regards electromagnetic compatibility and must be installed and operated in accordance with the electromagnetic compatibility (EMC) instructions contained in the accompanying documentation. (Refer to Chapter 9)

Portable and mobile high-frequency (HF) communication equipment (e.g. mobile phones) may affect the way the unit functions.

## **2.5 Instructions on operation**



### **Notice**

- Proper use of the WASH:MASTER classic (duo) requires the tank lid to be kept closed. The tank cover must not be opened or closed for the duration of the reprocessing operation.
- In the event of a machine failure (a power outage or machine fault) it is only possible to open the lid if suitable protective action is taken to prevent staff coming into contact with the disinfection solution and to prevent contamination.



### **Notice**

If the WASH:MASTER classic (duo) should be switched off when it is full or if there is a power outage while it is in use, it will be necessary to restart the unit.

- Only endoscopes which have been properly checked for leaks in accordance with their manufacturer's instructions may be disinfected with the WASH:MASTER classic.
- If a leakage tester is used, observe both the instructions issued by the endoscope manufacturer and those issued by the leakage tester manufacturer when performing the leakage test. The testing requirements are contained in the appropriate Operating Instructions.
- The manner in which various endoscope models are attached to the WASH:MASTER classic (duo) is illustrated in Appendix I.
- When operating the WASH:MASTER classic (duo) and while processing flexible endoscopes, observe all local, legally prescribed and generally applicable requirements relating to endoscopy units.

## **2.6 Instructions relating to disinfectants**

- Please refer to the operating instructions supplied with your endoscope for information on disinfectants which are approved for use by the manufacturer of the endoscope.  
If you want to use a disinfectant which is not expressly recommended for use by the endoscope manufacturer, please obtain written evidence of compatibility from either the endoscope producer or the disinfectant manufacturer. Instructions issued by the manufacturer of the endoscope on material compatibility must be followed exactly.
- When disinfecting endoscopes, use only disinfectants whose germicidal, fungicidal, mycogermicidal and virucidal effectiveness have been verified. Disinfectants that have been certified as safe in compliance with applicable guidelines relating to disinfecting medical instruments are suitable. Efficacy in destroying viruses must be separately demonstrated. Observe any locally applicable recommendations.
- Observe the instructions issued by the manufacturers of the chemicals and endoscopes (e.g. effective range of application, concentrations to be used).
- The standard process has been verified using Instru Plus Forte / Dr Deppe, an aldehyde based cleaner. A virucidal effect is achieved using a 3% solution and a soak phase of 15 minutes.
- The disinfectant should be changed according to the manufacturer's instructions or sooner if there is visible contamination.
- When the disinfection solution is replaced, the disinfectant reservoir itself must be thoroughly cleaned and disinfected manually using suitable cloths and surface disinfectant.
- The suction filter in the disinfectant reservoir must be replaced every 14 days.



## 2.7 Instructions on using the printer

- The printer can only be set up by ENDO-TECHNIK Wolfgang Griesat GmbH or a person authorised by us.
- Suitable printers are available from ENDO-TECHNIK Wolfgang Griesat GmbH as optional accessories.
- The printer is connected to a network port or an existing local area network (LAN).
- The printer has its own power supply.  
To ensure trouble-free operation, **do not** switch the printer ON until the WASH:MASTER classic (duo) **has been switched ON**.
- There are pictographs in the paper compartment of the printer to explain how to insert paper. Only use paper that is suitable for use with this printer. Further details are available in Appendix II.

## 2.8 Instructions on maintenance

- Reusable sterile water filters must be autoclaved before they are used the first time and, thereafter, once per week.
- Once a sterile water filter has been autoclaved 10 times or if it has been unused for a period of 4 weeks, the filter (Pall sterile water strainer) must be replaced.
- The service lifetimes given are the results of statistical analysis and may vary depending on local conditions (refer to Chapter 6 "Maintenance and care").
- Our prescribed maintenance interval is 12 months.







### 3. Parts supplied & initial installation








#### 3.1 Parts supplied

##### 3.1.1 Standard scope of delivery

Check the unit and accessories immediately upon delivery to ensure all components are included and look for any visible external damage.

The following components are supplied with the unit as standard (customised orders may differ somewhat):

<ul style="list-style-type: none"> <li>- WASH:MASTER classic (optionally mounted on a cabinet)</li> </ul>	
<ul style="list-style-type: none"> <li>- WASH:MASTER classic (duo)</li> </ul>	
<ul style="list-style-type: none"> <li>- Log printer with mains adapter &amp; two-metre network cable (spare part no. 7210-015)  Refer to instructions at Point 2.7</li> </ul>	
<ul style="list-style-type: none"> <li>- 17 l reservoir for disinfection solution (spare part no. 7880-TA01) Including cable for level sensor</li> </ul>	 
<ul style="list-style-type: none"> <li>- 1 sterile gas/air strainer (service life: 4 weeks, spare part no. 11-2000)</li> </ul>	

- Suction lances (spare part no. 7885-200)	
- Sterile water filter (spare part no. 11-0111)	
- Filling pipe (spare part no. 7006-350).	
- Connection tube for leakage test	
- Shrouded mains cable with earthed plug (spare part no. 5020-010)	
- Connection set for WASH:MASTER classic (duo) (spare part no. 7600-NS0 Fujifilm / Olympus and 7600-NS1 Pentax)	
- Operating Instructions	

### 3.1.2 Optional accessories

Leakage test connector for PENTAX (spare part no. 7526-RF-PE-SET)	
Leakage test connector for OLYMPUS / STORZ / Huger (spare part no. 7526-OL-SET)	
Leakage test connector for FUJIFILM (spare part no. 7526-FU-SET)	
PALL prefilter (spare part no. 11-1005) <b>Note</b> The maximum operating temperature of the liquid to be filtered must not exceed 40°C.	
PALL prefilter cartridge, packaged (spare part no. 11-1105) <b>Note</b> The maximum operating temperature of the liquid to be filtered must not exceed 40°C.	
Wall mount for PALL (spare part no. 11-1006)	
Double gunmetal nipple 3/4" for PALL prefilter (spare part no. 11-1007)	

### 3.1.3 Returning the unit

If you need to return the unit, please use the original packaging. We will not accept responsibility for damages incurred during transport as a result of inappropriate packaging.

## 3.2 Installation

### 3.2.1 Space and infrastructure requirements

Check the following points:

- Is there a dedicated processing room with the aseptic suite separated from the dirty area?
- Sufficient access (min. 62 cm door width) to the processing room?
- Sufficient guaranteed ventilation of the processing room?

Before installing the WASH:MASTER classic (duo), ensure that there is sufficient space on the contaminated side of the reprocessing room for the installation of the unit and that all the required mains and other supplies including a drain pipe are available (see Chapter 7 "Technical Specifications").

To sterilise the sterile water filter for the WASH:MASTER classic (duo), you will need a steam steriliser (autoclave, see Chapter 5 "Service and maintenance") which meets the requirements of EN 13060 and process cycle Type B.

Because the air in the reprocessing room may contain a high level of disinfectant fumes, there must be adequate ventilation or air extraction.

### 3.2.2 Requirements for the supply and quality of water

Check the following points:

- Is there a connection with a  $\frac{3}{4}$  inch external thread?
- Is there a guaranteed water pressure of between 3.5 and 6 bar?
- Is there particle filtering of max. 1 µm pore size?
- Is the water hardness between 8.4 dH and 14 dH?
- Is the pH value of the water between 6.5 and 9?
- Water inlet temperature < 40°C

### 3.2.3 Requirements for the waste water installation

Check the following points:

- Is there a ventilated waste water outlet?
- Is there a U-bend that can be removed for cleaning and with a separate cleaning connection?
- Is the diameter of the waste water pipe at least 40 mm?
- Is the waste water outlet no more than 550 mm above floor level?

### 3.2.4 Requirements for the electrical installation

Check the following points:

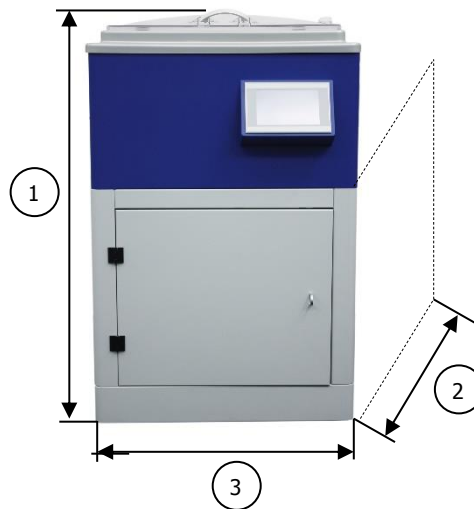
- 230 V mains socket with earthing contact (16 A fused) for the WASH:MASTER classic (duo)?
- 230 V mains socket with earthing contact for the log printer?

### 3.2.5 Installation

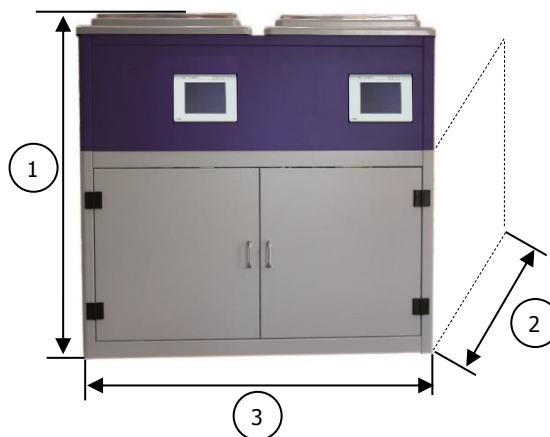
Installation must be carried out by a professional installation company. When installing the equipment, the applicable standards, e.g. EN 1717, must be applied. On-site training is provided by ENDO-TECHNIK Wolfgang Griesat GmbH or a person authorised by us.

The WASH:MASTER classic (duo) may only be used in conjunction with the shrouded mains cable and earthed plug supplied with it (Order No. 5020-010).

### 3.2.6 Machine overview



1	Height including cabinet 1100 mm / without cabinet 460 mm (with lid open, +480 mm)
2	Depth 520 mm
3	Width 770 mm



1	Height including cabinet 1100 mm (with lid open, +480 mm)
2	Depth 520 mm
3	Width 1050 mm

### 3.2.7 Setting up the unit

Ensure the chosen operating environment for the WASH:MASTER classic (duo) is dry and has a relative air humidity of no more than 70% and an ambient temperature between 10°C and 35°C.

Place the unit with its cabinet on a level surface.

### 3.2.8 Electrical connection

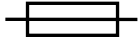

The WASH:MASTER classic (duo) is connected to the mains power supply via the shrouded mains cable and earthed plug supplied.

- The unit is not explosion-proof. Do not operate the unit in an environment which may contain explosive gases.
- The unit must be connected to the mains via an earthed contact.
- Check the label on the back of the unit (or on the right-hand side of the housing) to ensure that the mains voltage is appropriate. If the mains voltage is incorrect the unit may not function properly or could be damaged.






### 3.2.9 General connections




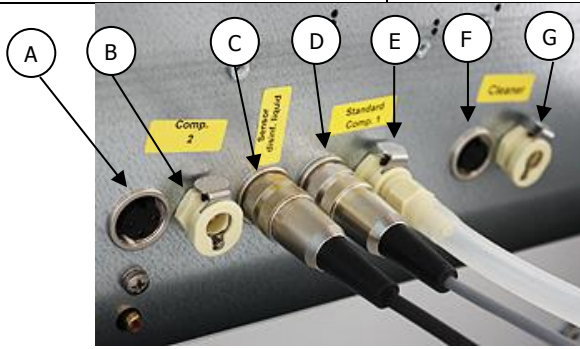
The WASH:MASTER classic (duo) may be used as soon as it has been correctly installed. The procedures outlined below should be carried out the first time the unit is used and then at regular intervals during normal operation.

### 3.2.10 Meaning of the pictographs and symbols used on the machine

	<i>Precision fuse to IEC 60127</i>
	<i>Indicates to the user that it is essential to read the Operating Instructions and note the main, safety related details, such as warnings and precautions.</i>

### 3.2.11 Controls

1	Mains switch ON OFF	switch lights up switch does not light up	
2	Touch-panel		
3	Tank connections  white green red blue blue	jet channel connection biopsy channel connection suction channel connection air channel connection water channel connection	
	Metal left  Metal centre  Metal right	Spare  dosage of component 1 (standard)  dosage of component 2	
	grey chromium black	leakage tester connection connection for suction tube with strainer disinfectant inlet	

4	Sterile water filter and filling pipe		
5	Sterile air filter		
6	Reservoir system for disinfection solution with connections, suction lances and sensors		
7	<p>Connections for lances and sensors on the underside (l to r)</p> <p>A Unused B Unused C Sensor for disinfectant reservoir D Sensor for disinfectant suction lance E Suction tube, suction lance for disinfectant F Unused G Unused</p>		

### 3.2.12 Connecting to the water supply and drain

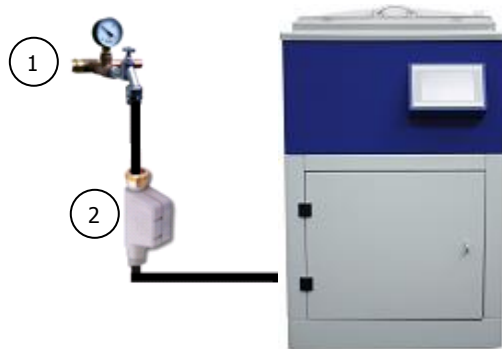
- The WASH:MASTER classic (duo) is connected to a 3/8" drinking water mains supply using the combined connection tube and dirt trap supplied with the unit.
- To connect the WASH:MASTER classic (duo) and run it if the water hardness rating exceeds 14 dH, it is essential to incorporate water softening equipment.
- If the unit is connected to the mains drinking water supply, we recommend using an additional Aqua-Stop device to cut off the water supply to the unit if there is a burst pipe. The maximum water pressure in the mains drinking water supply should not be more than 6 bar. If the pressure is greater, install a pressure reducer.
- The maximum water pressure in the drinking water supply must not exceed 6 bar but must be at least 3.5 bar. If the pressure is higher, it will be necessary to fit a pressure reducing device, which can be purchased locally from your plumbers' supplies.



- Installation must be carried out by a professional installation company. When installing the equipment, the locally applicable standards must be applied (e.g. EN 1717 and DIN 1988-4).

### 3.2.13 Notes

- The WASH:MASTER classic (duo) has a built-in device which prevents any contaminated fluid in the device from being returned into the drinking-water supply. The professionals installing the equipment will be able to advise you on the EN 1717 and DIN 1988-4 standards, which must be adhered to.
- Where the WASH:MASTER classic (duo) is installed in a location where the connections to the drinking water mains supply are difficult to access, we recommend installing an additional stopcock and a PALL prefilter (at least 1 µm) on the workbench to prefilter coarse particles.



1	Stopcock
2	Aqua-Stop cut-off device

- The WASH:MASTER classic (duo) drain hose is connected to a suitable connection on the building's sewage system. The drain leading to the building's sewers must not be higher than 550 mm from the floor.
- The drain tube must have a uniform slope to ensure liquid can drain completely with no sagging in the tube, which would cause liquid to remain in the tube and not be drained.

## 4. Installing and setting up the WASH:MASTER classic (duo)


### 4.1 User login

Before the WASH:MASTER classic can be started and used, it is necessary to log in as a user first.

Users can log in either

- by pressing **Start** if no user has been selected (refer to standard program sequence)


or

- by pressing the  button (see below)

- On the control panel at top right, tap the

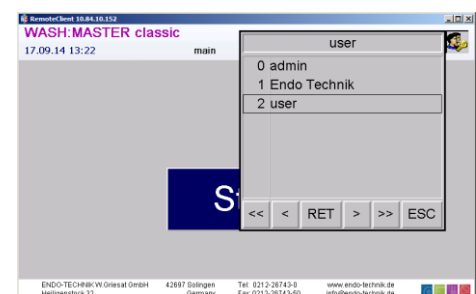
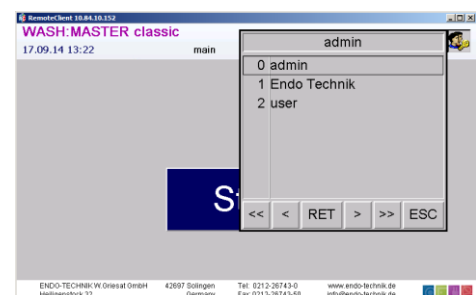
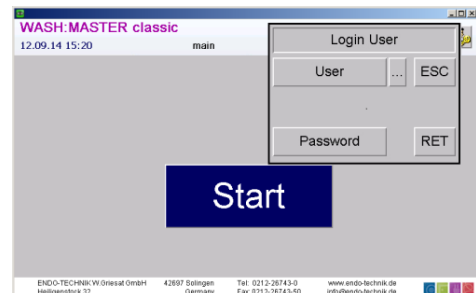
User button .

- Now tap the diaeresis symbol to the

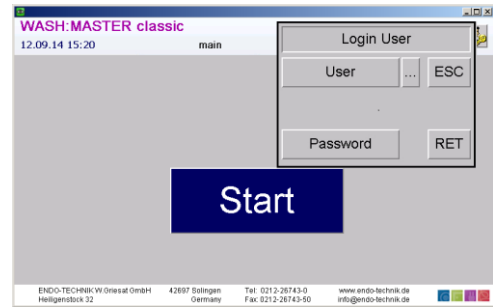
right of the User button .

- Select the required user by navigating up or down with the arrow keys < and >.

- Confirm your selection by pressing **RET**.



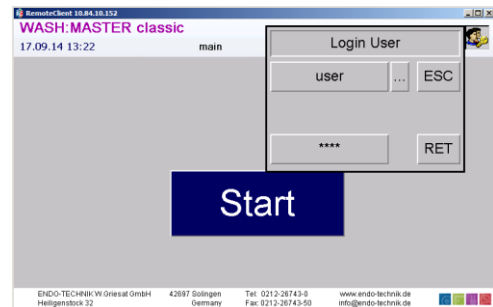
- Here, the standard user ("user") is shown as selected, now enter the password.
- Tap the **Password** button.



- Enter the **password** for this user and confirm by tapping **RET**.
- Note The standard password for the standard user ("user") is "user".



- Now enter the name of the user (here user) and the password (here user). Confirm by tapping **RET**.



- For the next 30 seconds you will be logged in (in our example as the "user" account).
- If no further entry is made in those 30 seconds, the user is automatically logged out for safety reasons.



## 4.2 Setup functions

The setup functions are required for initialising and setting up the WASH:MASTER classic (duo).

The setup functions offer a number of menu options depending on the rights assigned to the current user.

The following menus are available to the user WASH:MASTER classic (duo):

- Administration (refer to 4.2.1.1 to 4.2.1.4)
- Reservoir functions & filter change (refer to 4.2.2.1)

### 4.2.1 Setup functions→Administration

The following settings are possible in the Administration section:

- Creating, editing & deleting users
- Creating, editing & deleting endoscopes
- Modifying the date and time (including adjusting for winter and summer time)
- Changing language options

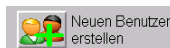
#### 4.2.1.1 Setup functions→Administration→New user

- To access the Administration section for user administration, you have to be logged in as a user (here "user" (refer to 4.1)).

- Tap the ENDO-TECHNIK logo (top right)

- Tap the button marked **Administration**.

- To create a new user, tap



This step is an essential precondition the first time the unit is used. When setting up users, use the names of the people who will use the WASH:MASTER classic (duo).

- After tapping , you will see the "Create User Account" menu.

- Tap the **User** button



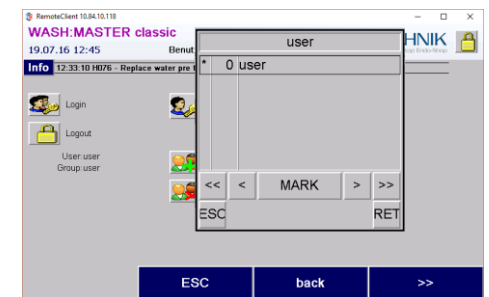
- Now enter the **name** of the user of the WASH:MASTER classic (duo)



- Tap the **Group** button to assign the user the rights associated with that group.



- Use the arrow keys < and > to select the group called **user**, tap **MARK** and confirm by tapping the **RET** button.
- Note Users of the WASH:MASTER classic (duo) can only be assigned the rights associated with the group called "user".



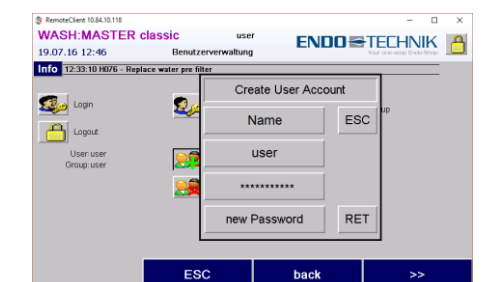
- Once the user name and group have been entered, enter a password for the user.  
Tap the upper button marked **new password**.



- Enter the **password** for this user and confirm by tapping **RET**.



- Now re-enter the **password** for confirmation.  
To do so, tap the lower button marked **new password**.

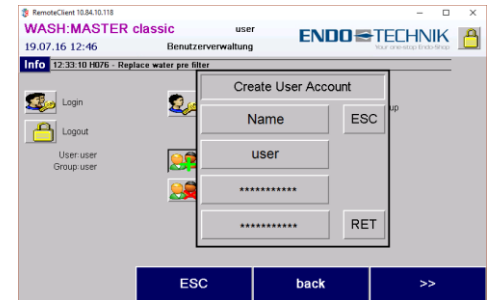


- Re-enter the **same password** for this user and confirm by tapping **RET**.

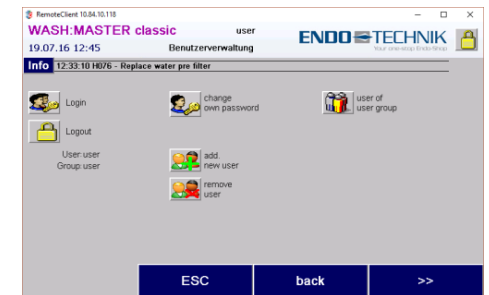



- This completes the date entry stage for a new user.

- To confirm the settings, tap the **RET** button.



- This completes the new user process.
- Repeat these steps to set up all the new users.



- Once you have created all the users for the WASH:MASTER classic (duo) you can log out by tapping  LOGOUT.



#### 4.2.1.2 Setup functions→Administration→Endoscopes

- To access the Administration section for endoscope administration, you have to be logged in as a user (here "user" (refer to 4.1)).

- Tap the ENDO-TECHNIK logo (top right)

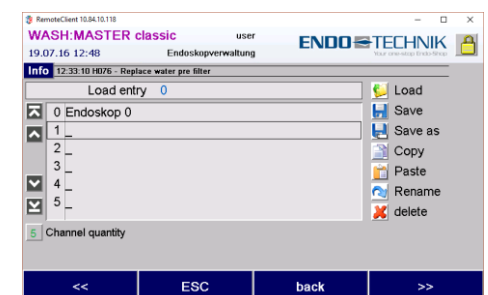
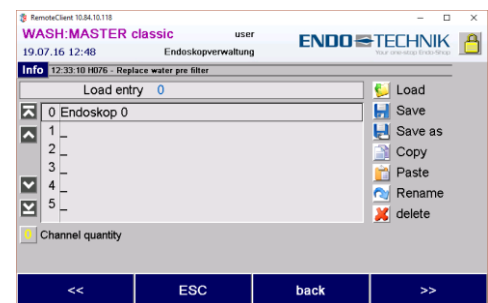
- Tap the button marked **Administration**.

- Tap the >> button (bottom right).
- This opens the **Endoscope administration** page.

- There now follows an example of creating an endoscope entry with other functions relating to endoscope administration.
- To create an endoscope entry, tap a free slot in the endoscope list and then tap **Save as**.

- Enter the type of endoscope and its serial number and confirm by tapping **RET**.

- Enter the **number of channels** of the new endoscope. Make sure the right endoscope is highlighted in the list.
- Tap the **Number of channels** button.



- A numerical keypad appears with the standard preset number (here 5).

#### Note

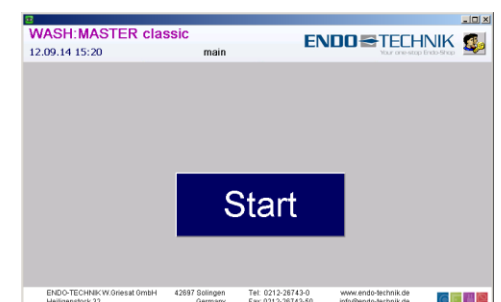
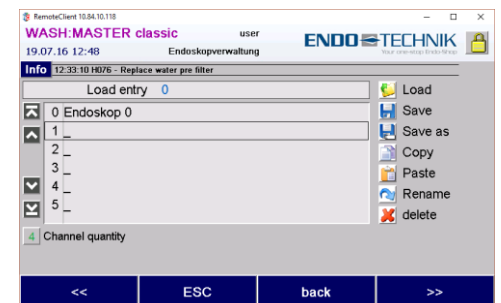
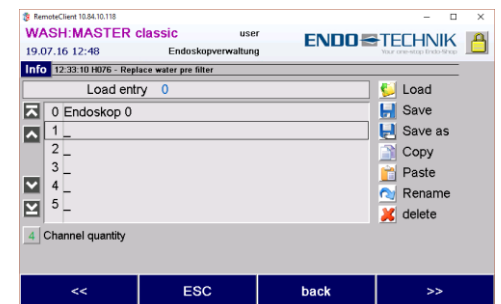
The number of channels refers to the number of connection tubes that are connected to the endoscope when in use.

- Enter the correct **number of channels** (here 4) and confirm with **RET**.

- After completing these entries, save your changes by tapping **Save**.

- There are additional functions available in the endoscope administration section that are self-explanatory.

- After saving, use the **ESC** button to return to the setup menu.





#### 4.2.1.3 Setup functions→Administration→Set date and time

- To access the Administration section for endoscope administration, you have to be logged in as a user (here "user" (refer to 4.1)).

- Tap the ENDO-TECHNIK logo (top right)

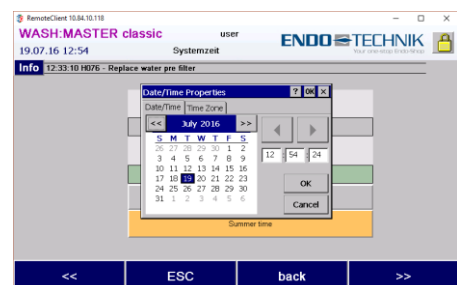
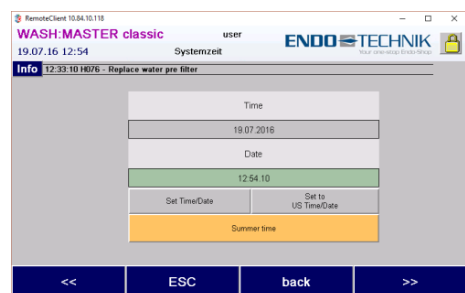
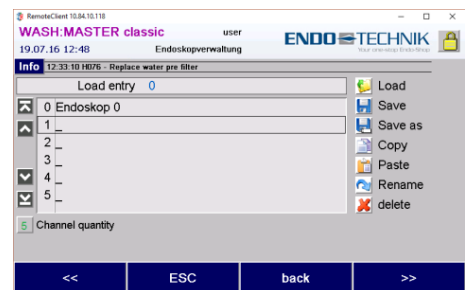
- Tap the button marked **Administration**.

- Tap the >> button (bottom right).
- This opens the **Endoscope administration** page.

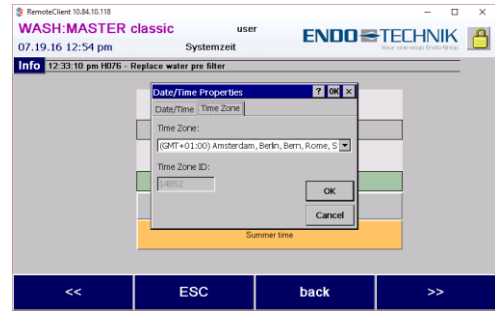
- Tap the >> button (bottom right) again.
- You can now access the section for setting the **System time**.

- Tap **Set date & time** to access the system menu where you can set the current time.

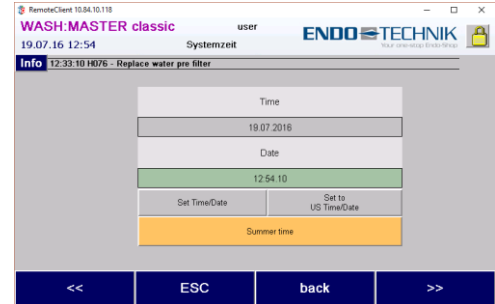
- Set the correct date & time and tap **OK**.



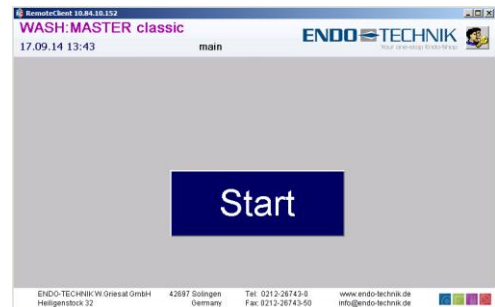
- Besides the date and time, you can select the **Time zone** tab to set the **location** of the WASH:MASTER classic (duo).
- Save your settings by tapping **OK**.



- You can toggle the time and date formats between European and American by tapping the **Change to American time & date** button.
- Use the **Summer time** button to activate the summer time change.



- After saving, use the **ESC** button to return to the setup menu.



#### 4.2.1.4 Setup functions→Administration→Language

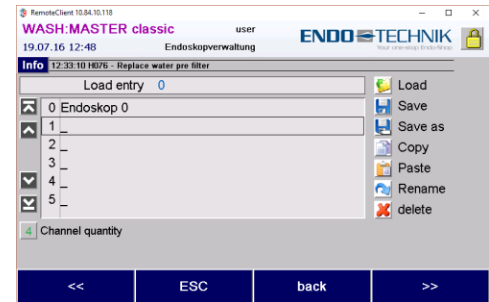
- To access the Administration section for endoscope administration, you have to be logged in as a user (here "user" (refer to 4.1)).
- Tap the ENDO-TECHNIK logo (top right)
- Tap the button marked **Administration**.



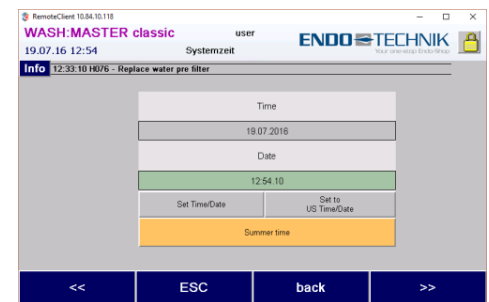
- Tap the >> button (bottom right).
- This opens the **Endoscope administration** page.



- Tap the >> button (bottom right) again.
- You can now access the section for setting the **System time**.



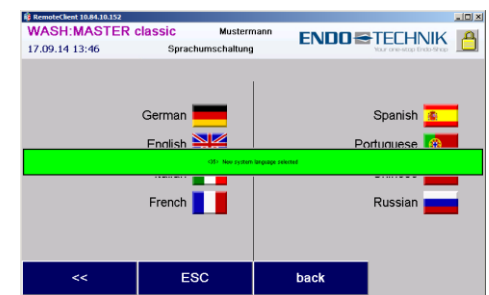
- Tap the >> button (bottom right) again.
- You can now access the section for setting the **Language**.



- Set the preferred system and software language by tapping the appropriate **Country flag**.



- A language change is confirmed by a system message.



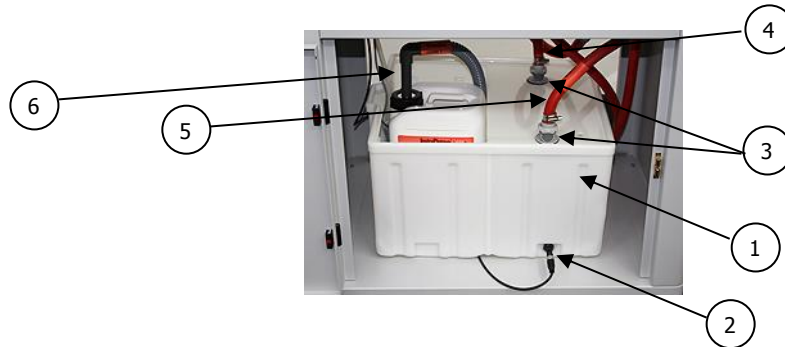
- After saving, use the **ESC** button to return to the setup menu.



#### 4.2.2.1 Setup functions→Reservoir functions and changing the filters

##### Note

In accordance with cleaning and maintenance instructions, the disinfection solution reservoir must be thoroughly cleaned at regular intervals.



1	Disinfection solution reservoir
2	Level sensor (disinfection solution)
3	CPC couplings for tubing at the front & rear
4	Tube including CPC plug for rear
5	Tube including CPC plug for front
6	Suction lance for disinfectant

Please note when dismantling the disinfection solution reservoir how the tubes are connected and how the level sensor is fitted.

The pipe connections are marked as follows:

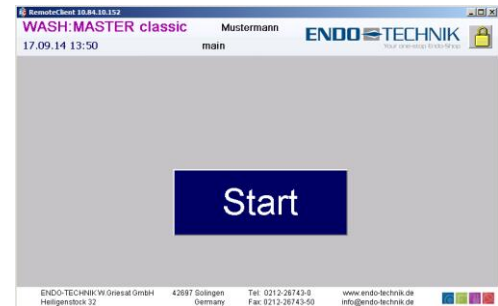
- Front = front pipe
- Rear = rear pipe.

Replacement of the content of the reservoir is, to a large extent, automated. The operation and selection procedures are carried out via the menu in the setup function Reservoir functions and changing the filters.

- To access the Administration section for reservoir and filter functions, you have to be logged in as a user (here "user" (refer to 4.1)).
- Tap the ENDO-TECHNIK logo (top right)
- Tap the button marked **Reservoir & filter functions.**



- After you have manually replaced a filter on the WASH:MASTER classic (duo), confirm that fact by tapping the corresponding button (e.g. sterile water filter)
- The time and date of the replacement are then stored in the WASH:MASTER classic (duo).
- After saving, use the **ESC** button to return to the setup menu.

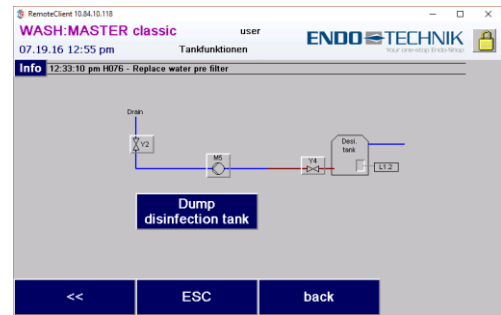


#### 4.2.2.2 Setup functions → Reservoir functions and changing the filters → Draining the disinfectant reservoir

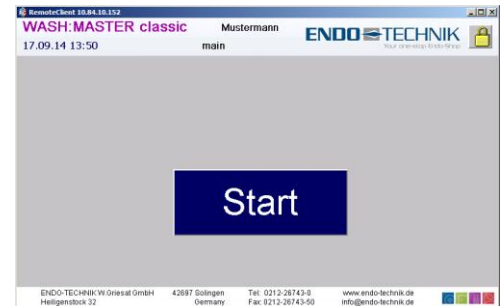
- To access the Administration section for reservoir and filter functions, you have to be logged in as a user (here "user" (refer to 4.1)).
- Tap the ENDO-TECHNIK logo (top right)
- Tap the button marked **Reservoir & filter functions**.
- You will now see the Filter change menu.
- Tap the >> button (bottom right) again.
- You can now access the section for setting the **Reservoir functions**.



- Tap the **Drain disinfectant reservoir** button.



- After saving, use the **ESC** button to return to the setup menu.



## 5. Operating the WASH:MASTER classic (duo)

### 5.1 General instructions for use

The WASH:MASTER classic (duo) provides the opportunity to reuse the disinfection solution.

The entire process must be fully documented.

*For documentation purposes, a log printer is connected to the WASH:MASTER classic (duo) which will document every single program step.*

The printout from the log printer must be stored in a suitable place (in accordance with current archiving rules).

#### 5.1.1 Standard procedure

The standard WASH:MASTER classic (duo) procedure for using WASHMASTER classic is a semi-automated cold disinfection.

The standard procedure consists of rinsing, disinfection and final rinsing.



Leakage test:	3 min.
Rinsing:	4 min. + approx. 4 min. filling and draining
Disinfection:	15 min. Instru Plus Forte 3% + approx. 4 min. filling and draining
Final rinse:	5 min. + approx. 4 min. filling and draining
Total run time:	approx. 39 min.

#### Note

We recommend running a self-disinfection sequence without an endoscope every 24 hours. (refer to Chapter "Self-disinfection cycle for WASH:MASTER classic (duo)").

### 5.2 Functional tests & routine checks to be performed on every working day

For the function test, proceed as follows:

<ul style="list-style-type: none"> <li>➤ Check all connections to the drinking water, drain system and electrical supplies and ensure they are firm</li> <li>➤ Check the strainer has been autoclaved and correctly connected</li> <li>➤ Open the drinking water stopcock</li> </ul>	
<ul style="list-style-type: none"> <li>➤ Switch on the mains switch ① to start the unit</li> </ul> <p>The mains switch will show green. The screen displays the initial menu. Switch on the printer at the rear.</p>	
<ul style="list-style-type: none"> <li>➤ Check the state of the filling level sensor (green LED must light up)</li> </ul>	

- Check the fill level of the disinfectant concentrate (fill level must be at least 1/3)



- Do not use the machine if the functional test cannot be completed correctly. If in doubt, please contact ENDO-TECHNIK Wolfgang Griesat GmbH or a service engineer authorised by us .

### 5.3 Reprocessing endoscopes hygienically using the WASH:MASTER classic (duo)

- Employee health and safety regulations must be observed during all procedures which require contact with disinfectants or in relation to the cleaning and disinfection of endoscopes.
- Throughout all the steps outlined below, it is essential to wear protective clothing, i.e. disposable gloves, mouth and nose masks, goggles and a waterproof protective coat or apron.
- Since it is common for contaminated liquids to splash, it is essential to perform a thorough surface disinfection procedure afterwards.

### 5.4 Preparative tasks

#### 5.4.1 Preparing the sterile water filter

It is essential to sterilise the sterile water filter and the filling tube in an autoclave before it is used for the first time.

The sterilisation method is described in detail in the "Maintenance and care" section.

Connect the water filter (refer to Maintenance and care)



Then the sterile gas strainer must be fitted.





Connect up the colour-coded connection tubes in the tank.



## 5.4.2 Preparing the disinfection solution

Open the canister of disinfectant.  
Remove the lid of the standard canister (DIN 51 plug) and replace it with the suction lance.

Ensure the suction lance reaches to the bottom of the canister and the lid is firmly screwed on.



### ⚠ Note

When mixing the disinfectant solution, ensure there is no endoscope inserted in or connected to the machine. Start up the WASH:MASTER classic (duo) without an endoscope.

### ⚠ Notice

Ensure the leakage tester tube is not connected.

### ⚠ Notice

The WASH:MASTER classic (duo) must only be used in conjunction with compatible disinfectants.

## 5.5 Processing

### 5.5.1 Manual reprocessing

### ⚠ Notice

Manual reprocessing of an endoscope must be carried out before every machine-based reprocessing sequence.

- After the examination of a patient has been concluded, the endoscope has to be precleaned in accordance with the procedures prescribed by the manufacturer of the endoscope.
- The contaminated endoscopes are transferred direct to the contaminated side of the processing room in closed transport trays.
- They are then subjected to a manual leakage test in accordance with the manufacturer's instructions.
- Next, the endoscope is subjected to manual brush cleaning using the appropriate adapter and manual cleaning set provided by the corresponding endoscope manufacturer to fill the channels with cleaning solution.

## 5.5.2 Reprocessing steps using the WASH:MASTER classic (duo)

### ➤ Leakage test

The leakage test checks the endoscope in advance for leaks. If a leak is detected, the program is aborted with an error message. The leakage test is always carried out.

### ➤ Rinsing

Rinsing aims to remove any residues after manual brush cleaning. Throughout the rinsing process, the endoscope is continuously checked for any signs of leaks.

### ➤ Disinfection

During the disinfection phase, the endoscope is continuously rinsed with disinfection solution and monitored.

### ➤ Final

**rinsing**

The final rinsing stage is for removing all the last residues of disinfection solution.



### Notice

It is also possible to run just the disinfection followed by neutralisation of the endoscope

## 5.6 Connecting the endoscope to the WASH:MASTER classic (duo)

- Connect up the tubes in the disinfection tank to the channels of the endoscope using appropriate adapters. Observe the colour-coded markings on the connection tubes (see table and illustrations below).

Endoscope channel	Colour coding	Tank connection
Jet channel	white	1st connection from left
Biopsy channel	green	2nd connection from left
Suction channel	red	3rd connection from left
Air channel	blue	4th connection from left
Water channel	blue	5th connection from left
Suction channel	yellow	front Luer lock connection
Leakage test connector	grey	grey



### Notice

- Apart from channel openings on the distal end of the endoscope, no air bubbles should emanate from any part of the endoscope. Air bubbles forming on any other part (e.g. on the control head) are an indication that the endoscope is leaking. The machine will switch off automatically.
- If the machine does not switch off (e.g. if you have omitted to connect up the leakage test tube), tap the "Stop" button on the touchscreen and, after the tank has drained, tap "Acknowl." before examining the endoscope.

For information on repairing the fault please refer to the "Troubleshooting" section.






### Notice

- Please follow the manufacturer's instructions exactly when preparing the disinfectant solution and observe the specified concentration and exposure times.
- Not allowing the disinfection solution sufficient time to soak will impair the effectiveness of the disinfection process.


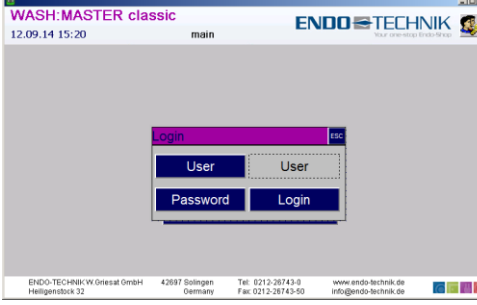
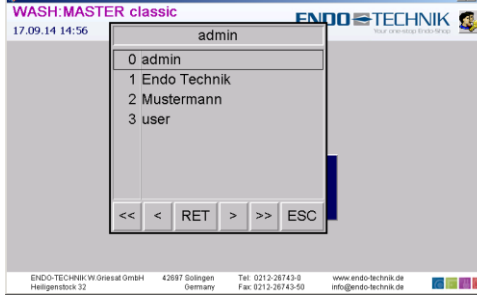
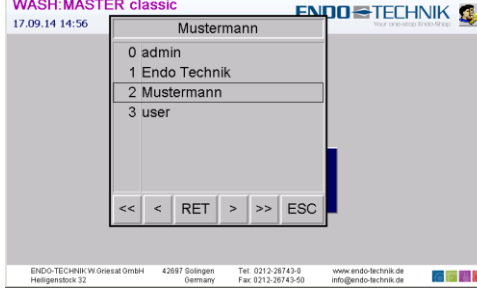
## 5.7 Reprocessing endoscopes with the WASH:MASTER classic (duo)

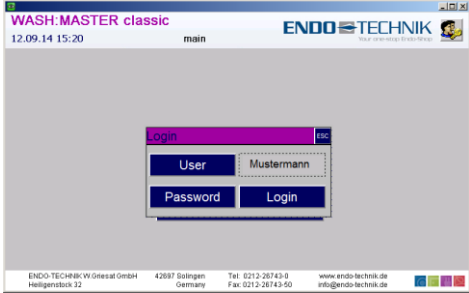
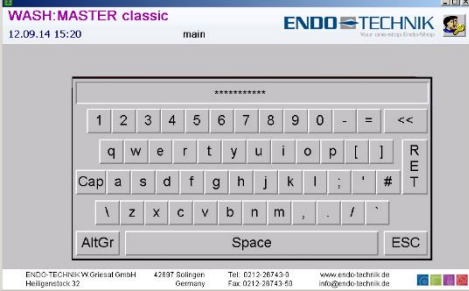
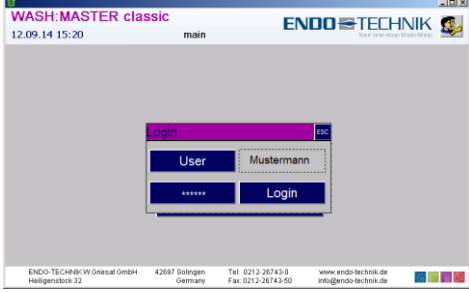



Program sequence  
(rinsing, disinfection, final rinsing)





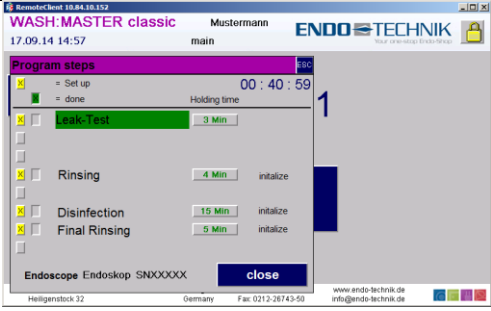
General notes on rinsing, disinfection and final rinsing:

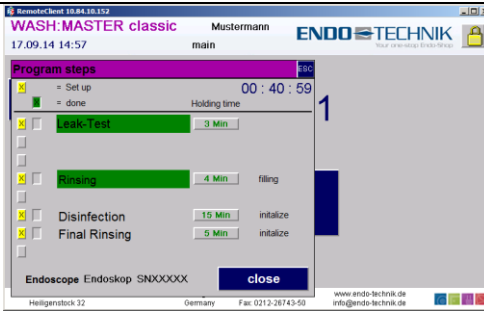
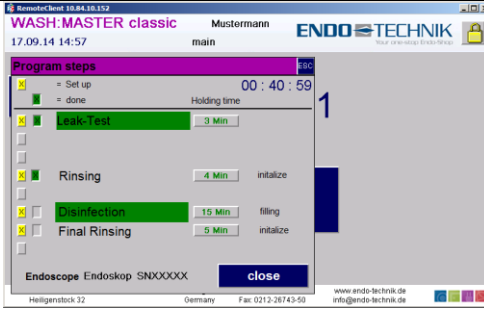
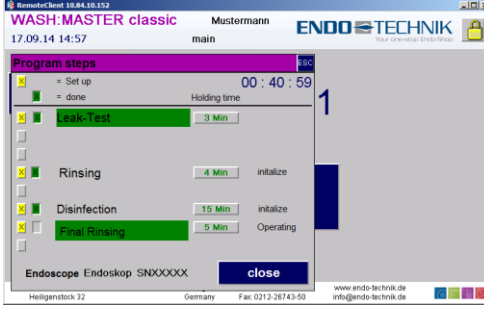
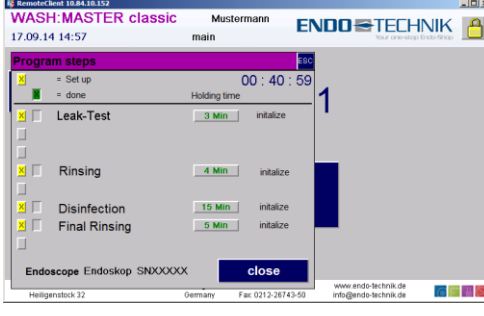
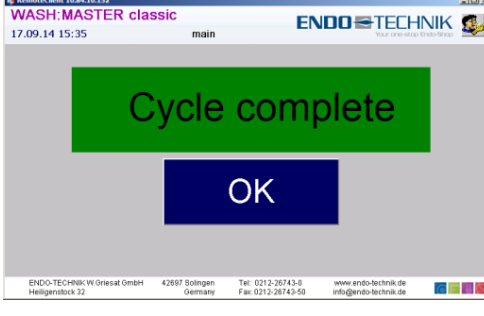
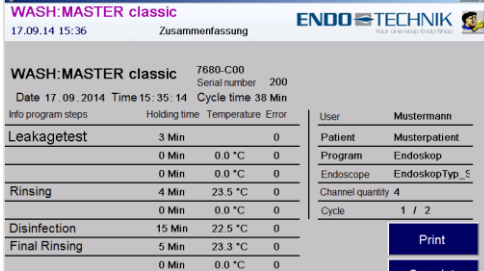
-  The standard program must not be interrupted.
-  Interrupting the process by tapping the Stop button during the disinfection program will generate an error and the process is reset.
-  If the process is interrupted, the endoscope will not be correctly disinfected and the disinfection program will have to be repeated.

The normal program sequence with all the necessary inputs by the user, status displays and results is shown below:

<p>➤ Tap the <b>Start</b> button.</p>	
<p>➤ Tap the <b>User</b> button</p>	
<p>➤ From the list of users, use the arrow keys &lt; and &gt; to select the user of the WASH:MASTER classic (duo).</p>	
<p>➤ The screenshot shows a sample user.</p> <p>➤ Confirm the selection with <b>RET</b>.</p>	

<p>➤ Tap the <b>password</b> button</p>	
<p>➤ Enter the password for this user and confirm by tapping <b>RET</b>.</p>	
<p>➤ After entering the user details, tap the <b>Log in</b> button.</p> <p>➤ This gives you access to the <b>Endoscope selection</b> page.</p>	
<p>➤ Use the ▲ and ▼ keys to select the required <b>endoscope</b> or tap it to select it direct.</p> <p>➤ As an option, you can enter the <b>name of the patient</b>. Tap the empty display field beside the word Patient.</p>	
<p>➤ Enter the patient's name and confirm by pressing "<b>Enter</b>".</p>	
<p>➤ Check to see that</p> <ol style="list-style-type: none"> <li>1. The right endoscope has been selected.</li> <li>2. The right patient's name has been entered.</li> </ol>	

<ul style="list-style-type: none"> <li>➤ Check these points again: <ol style="list-style-type: none"> <li>1. The right endoscope</li> <li>2. The right patient</li> <li>3. The endoscope has been correctly connected up, including the leakage tester and the right adapter</li> <li>4. The lid has been firmly closed.</li> </ol> </li> <li>➤ To initiate the program sequence, tap <b>Start</b>.</li> </ul>	 
<ul style="list-style-type: none"> <li>➤ <b>The reprocessing sequence with the WASH:MASTER classic (duo) is now active.</b></li> <li>➤ The remaining time for the automatic process is displayed.</li> <li>➤ Tap the <b>Step</b> button to see the details of each program step.</li> </ul>	
<ul style="list-style-type: none"> <li>➤ The program can be aborted by tapping <b>Stop</b>.</li> </ul> <p>⚠ If the process is interrupted, the endoscope will not be correctly disinfected and the disinfection program will have to be repeated.</p>	
<ul style="list-style-type: none"> <li>➤ The screen shows the program steps selected with their soak phases.</li> <li>➤ The colour marking also shows which program steps are currently active. (here <b>Leakage test</b>)</li> </ul>	

<ul style="list-style-type: none"><li>➤ The next program step (here <b>Rinsing</b>) will follow automatically in accordance with the prescribed specifications or settings. Once a step has been completed this is indicated by a green X.</li><li>➤ Besides the individual steps, the related sub-steps are also shown (here Filling).</li></ul>																																	
<ul style="list-style-type: none"><li>➤ As the WASH:MASTER classic (duo) progresses to the next step, the colour highlighting (here Rinsing) moves on to the next step (here <b>Disinfection</b>).</li></ul>																																	
<ul style="list-style-type: none"><li>➤ Finally, the endoscope receives a <b>Final rinsing</b> phase.</li></ul>																																	
<ul style="list-style-type: none"><li>➤ At the end of the process (and during the automated process) the display of the steps on-screen can be suppressed by tapping <b>close</b>.</li></ul>																																	
<ul style="list-style-type: none"><li>➤ The reprocessing sequence has now finished.</li><li>➤ Tap <b>OK</b> to view a summary of the operation and print out the reprocessing parameters and data.</li></ul>																																	
<ul style="list-style-type: none"><li>➤ You are now in the <b>Summary</b> of the reprocessing operation.</li><li>➤ You can now print the summary of the reprocessing operation by tapping <b>Print</b>.</li></ul>	 <table><tr><th>Info program steps</th><th>Holding time</th><th>Temperature</th><th>Error</th></tr><tr><td>Leakagetest</td><td>3 Min</td><td>0</td><td>0</td></tr><tr><td></td><td>0 Min</td><td>0.0 °C</td><td>0</td></tr><tr><td>Rinsing</td><td>4 Min</td><td>23.5 °C</td><td>0</td></tr><tr><td></td><td>0 Min</td><td>0.0 °C</td><td>0</td></tr><tr><td>Disinfection</td><td>15 Min</td><td>22.5 °C</td><td>0</td></tr><tr><td>Final Rinsing</td><td>5 Min</td><td>23.3 °C</td><td>0</td></tr><tr><td></td><td>0 Min</td><td>0.0 °C</td><td>0</td></tr></table>	Info program steps	Holding time	Temperature	Error	Leakagetest	3 Min	0	0		0 Min	0.0 °C	0	Rinsing	4 Min	23.5 °C	0		0 Min	0.0 °C	0	Disinfection	15 Min	22.5 °C	0	Final Rinsing	5 Min	23.3 °C	0		0 Min	0.0 °C	0
Info program steps	Holding time	Temperature	Error																														
Leakagetest	3 Min	0	0																														
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	0 Min	0.0 °C	0																														



➤ View of a typical printout.

Note that this requires the printer to have been properly set up and switched on.  
Instructions are available in Chapter 2.7.

WASH:MASTER classic		7680-C00	
		Seriennummer 200	
Datum	17.09.2014	Zeit	15:35:14
Laufzeit	38 Min		
Schritt	Einwirkzeit	Temperatur	Fehler
Leakagetest	3 Min		0
	0 Min	0.0 °C	0
	0 Min	0.0 °C	0
Spülen	4 Min	23.5 °C	0
	0 Min	0.0 °C	0
Desinfizieren	15 Min	22.5 °C	0
Schlusspülung	5 Min	23.3 °C	0
	0 Min	0.0 °C	0
Benutzer	Mustermann		
Patient	Musterpatient		
Programm	Endoskop		
Endoskop	EndoskopTyp_SNXXXXX		
Kanalanzahl	4		
Chargen	1 / 2		

➤ If any errors are displayed during the program sequence, proceed as given in Appendix 3.

## 5.8 Finishing the semi-automated reprocessing operation

Wearing new disposable gloves, remove the endoscope from the WASH:MASTER classic (duo).

- Disconnect the tubes and adapters from the endoscope.
- Remove the leakage tester tube from the endoscope. It is not permitted to leave this tube lying in the tank. Leave it hanging outside the tank.
- Remove the endoscope from the tank.

### Instructions for longer periods of inactivity

- Remove all the connection tubes from the WASH:MASTER classic (duo) and hang them up for storage.
- If the unit is not to be used for a longer period (e.g. overnight), switch the WASH:MASTER classic (duo) off at the mains ①.
- Wipe the machine down with disinfectant.
- The endoscope and all its channels must be fully dried.

During the course of the day, it is perfectly sufficient to purge with air to clear the liquids from the channels of the WASH:MASTER classic (duo).

ENDO-TECHNIK W.Griesat GmbH offers a suitable compressor (AIR:MASTER - spare part no. 7000-K01) for drying all endoscope channels. Further details on the use of the compressor are available from the Operating Instructions for that unit.

## 5.9 Transport / drying / storage

- Transfer the reprocessed endoscopes to the examination room or storage cabinet in a transport container.
- We recommend drying with the AIR:MASTER compressor before storing in a closed cabinet or direct air flushing and storage in the DRY:MASTER.



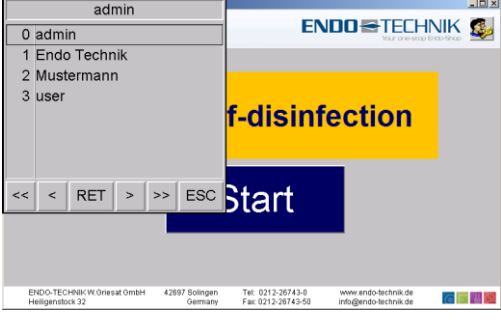
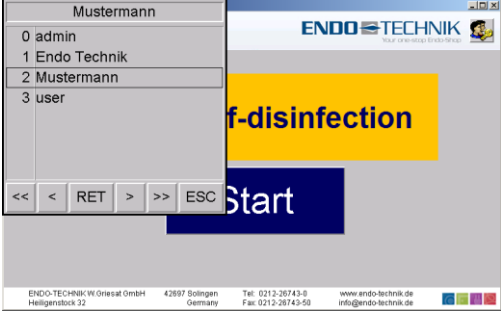
## 5.10 Self-disinfection cycle with the WASH:MASTER classic (duo)

This process runs automatically after the unit has been idle for 24 hours.




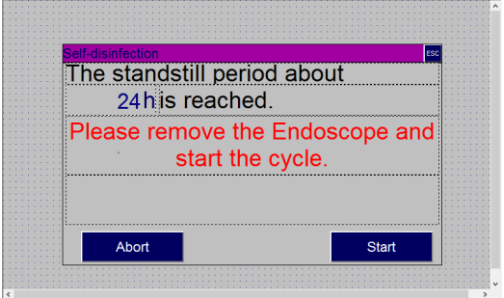



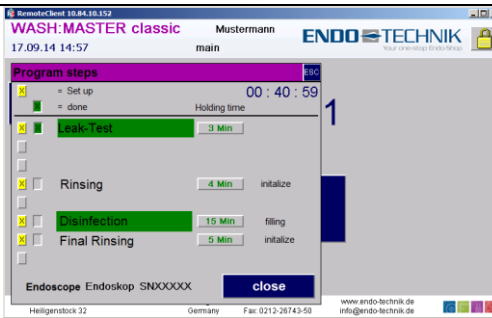
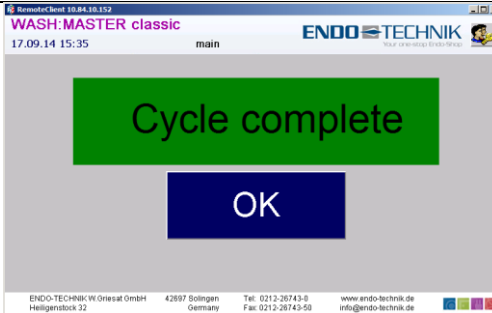
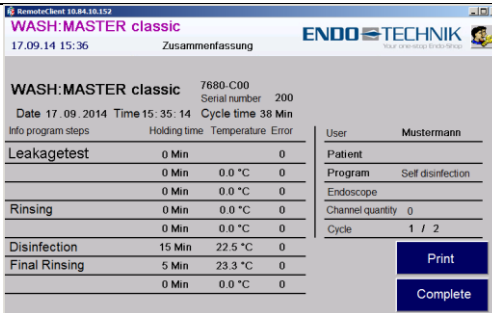

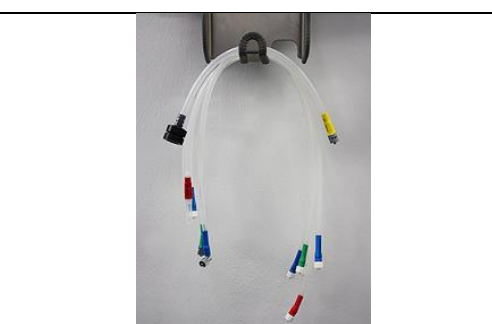
Notice

- To ensure all connection tubes (except the leak testing device tube) are thoroughly disinfected, they must be connected up for the duration of the self-disinfection cycle.
- Ensure that no endoscopes are attached during the self-disinfection cycle and that the leakage tester tube is disconnected.

<ul style="list-style-type: none"> <li>➤ If the period of inactivity for the self-disinfection cycle has been exceeded, the following message appears on the screen to remind users to perform the <b>self-disinfection cycle</b>.</li> <li>➤ Tap the <b>Start</b> button.</li> </ul>	
<ul style="list-style-type: none"> <li>➤ Tap the <b>User</b> button</li> </ul>	
<ul style="list-style-type: none"> <li>➤ From the list of users, use the arrow keys &lt; and &gt; to select the user of the WASH:MASTER classic (duo).</li> </ul>	
<ul style="list-style-type: none"> <li>➤ The screenshot shows a sample user.</li> <li>➤ Confirm the selection with <b>RET</b>.</li> </ul>	



<p>➤ Tap the <b>password</b> button</p>	
<p>➤ Enter the password for this user and confirm by tapping <b>RET</b>.</p>	
<p>➤ After entering the user details, tap the <b>Log in</b> button.</p> <p>➤ You will then see the following display:</p>	
<p>➤ To ensure all connection tubes (except the leak testing device tube) are thoroughly disinfected, they must be connected up for the duration of the self-disinfection cycle.</p> <p>➤ Ensure that no endoscopes are attached during the self-disinfection cycle and that the leakage tester tube is disconnected.</p> <p>➤ Tap the <b>Start</b> button.</p>	
<p>➤ The <b>self-disinfection cycle</b> runs automatically in accordance with preset parameters.</p> <p>➤ During the automated self-disinfection cycle it is still possible to view the individual steps by tapping <b>Step</b>.</p>	

<ul style="list-style-type: none"><li>➤ The screen shows the program steps selected with their soak phases.</li><li>➤ At the end of the process (and during the automated process) the display of the steps on-screen can be suppressed by tapping <b>close</b>.</li></ul>																																																	
<ul style="list-style-type: none"><li>➤ This completes the reprocessing operation / self-disinfection cycle.</li><li>➤ Tap <b>OK</b> to view a summary of the operation and print out the reprocessing parameters and data.</li></ul>																																																	
<ul style="list-style-type: none"><li>➤ You are now in the <b>Summary</b> of the reprocessing or self-disinfection operation.</li><li>➤ You can now print the summary of the reprocessing or disinfection operation by tapping <b>Print</b>.</li></ul>	 <table><tr><th>Info program steps</th><th>Holding time</th><th>Temperature</th><th>Error</th></tr><tr><td>Leakagetest</td><td>0 Min</td><td>0</td><td>0</td></tr><tr><td></td><td>0 Min</td><td>0.0 °C</td><td>0</td></tr><tr><td></td><td>0 Min</td><td>0.0 °C</td><td>0</td></tr><tr><td>Rinsing</td><td>0 Min</td><td>0.0 °C</td><td>0</td></tr><tr><td></td><td>0 Min</td><td>0.0 °C</td><td>0</td></tr><tr><td>Disinfection</td><td>15 Min</td><td>22.5 °C</td><td>0</td></tr><tr><td>Final Rinsing</td><td>5 Min</td><td>23.3 °C</td><td>0</td></tr><tr><td></td><td>0 Min</td><td>0.0 °C</td><td>0</td></tr></table>	Info program steps	Holding time	Temperature	Error	Leakagetest	0 Min	0	0		0 Min	0.0 °C	0		0 Min	0.0 °C	0	Rinsing	0 Min	0.0 °C	0		0 Min	0.0 °C	0	Disinfection	15 Min	22.5 °C	0	Final Rinsing	5 Min	23.3 °C	0		0 Min	0.0 °C	0												
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<ul style="list-style-type: none"><li>➤ View of a typical printout after self-disinfection.</li></ul> <p>Note that this requires the printer to have been properly set up and switched on. Instructions are available in Chapter 2.7.</p>	 <table><tr><th>Schritt</th><th>Einwirkzeit</th><th>Temperatur</th><th>Fehler</th></tr><tr><td>Leakagetest</td><td>0 Min</td><td>0</td><td>0</td></tr><tr><td></td><td>0 Min</td><td>0.0 °C</td><td>0</td></tr><tr><td></td><td>0 Min</td><td>0.0 °C</td><td>0</td></tr><tr><td>Spülen</td><td>0 Min</td><td>0.0 °C</td><td>0</td></tr><tr><td></td><td>0 Min</td><td>0.0 °C</td><td>0</td></tr><tr><td>Desinfizieren</td><td>15 Min</td><td>25.5 °C</td><td>0</td></tr><tr><td>Schlussspülung</td><td>5 Min</td><td>24.2 °C</td><td>0</td></tr><tr><td></td><td>0 Min</td><td>0.0 °C</td><td>0</td></tr></table> <table><tr><td>Benutzer</td><td>Mustermann</td></tr><tr><td>Patient</td><td></td></tr><tr><td>Programm</td><td>Eigendesinfektion</td></tr><tr><td>Endoskop</td><td></td></tr><tr><td>Kanalenzahl</td><td>0</td></tr><tr><td>Chargen</td><td>2 / 2</td></tr></table>	Schritt	Einwirkzeit	Temperatur	Fehler	Leakagetest	0 Min	0	0		0 Min	0.0 °C	0		0 Min	0.0 °C	0	Spülen	0 Min	0.0 °C	0		0 Min	0.0 °C	0	Desinfizieren	15 Min	25.5 °C	0	Schlussspülung	5 Min	24.2 °C	0		0 Min	0.0 °C	0	Benutzer	Mustermann	Patient		Programm	Eigendesinfektion	Endoskop		Kanalenzahl	0	Chargen	2 / 2
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<ul style="list-style-type: none"><li>➤ Connection tubes must always be stored hanging up until they are used again.</li></ul>																																																	

- Archive these printouts as evidence that the self-disinfection cycles have been correctly performed.

- If any errors are displayed during the program sequence, proceed as given in Appendix 3.

## 6. Maintenance and care

Safe operation of this unit can only be guaranteed if the maintenance and service instructions described in this manual are observed at all times.

### **Notice**

The WASH:MASTER classic (duo) must only be used in conjunction with compatible disinfectants.

### **Note**

- We recommend using the WASH:MASTER Enzyme Pro enzymatic cleaner. In manual precleaning, enzymatic cleaner concentration of 0.25% is sufficient. If the endoscope is heavily soiled the concentration may be increased to 0.5%.

The following table provides guidelines for the preparation of enzymatic solutions of various concentrations for disinfectant reservoirs of various sizes:

Concentration of solution	0,25%	0,5%
Concentrated enzymatic detergent [ml]	42.5 ml	85 ml

### **Sterilising the sterile water filter, filling pipe and silicone tube before their first use with the WASH:MASTER.**

- Remove the sterile water filter from its original packaging.
- Clean the filling pipe and silicone tube before sterilisation.
- Open the two venting valves on the sterile water filter.
- Place the sterile water filter, filling pipe and its silicone tube in suitable sterile packaging.
- Then sterilise these items in a Class B autoclave.
- Set a universal programme or gentle care programme.

<b>Universal programme</b>		
Temperature	Pressure	Hold time
134°C	3.1 bar	5 min.
<b>Gentle care programme</b>		
Temperature	Pressure	Hold time
121°	2.1 bar	20 min.

- If sterilisation is performed outside the institute, we recommend using double film outers to prevent the normal outer package from being contaminated.

### Fitting the sterile water filter

- To ensure the sterile water filter remains free from bacteria while in storage there should be no contact with the filter intake and discharge.
- After thoroughly disinfecting your hands, put on new disposable gloves to fit the strainer.
- Attach the sterile water filter to the quick-release coupler on the WASH:MASTER classic (duo). The arrows marked on the strainer show the direction of the water flow entering the strainer.
- To open the quick-release coupler on the WASH:MASTER classic, pull back the knurled sleeve.



- Press the filter intake against the quick-coupler and push it into position.
- Slide the sheath up until the quick-release coupler clicks into place.
- Pull the filter to ensure it is fitted correctly and firmly.
- Slide the filling pipe over the filter outlet.
- Unscrew the venting valves by one turn to vent the sterile water filter.

### **Daily**

- Clean and disinfect the disinfection tank and lid thoroughly at least once per working day after use and after every period of 24 hours if not used, and then dry the tank and lid properly.
- If the disinfection tank and lid are visibly soiled, the unit should be disinfected and cleaned more often.
- If the lid is not sufficiently disinfected and cleaned, this can result in the disinfection tank becoming recontaminated.
- Do not use aggressive detergents or solutions containing alcohol to clean the WASH:MASTER classic (duo) housing. To clean the outer housing, use only a damp cloth together with a paint-friendly cleaner and disinfectant (observe the instructions issued by the manufacturer of the cleaner and / or disinfectant). The tank and lid must be disinfected with a surface disinfectant.

### **Weekly**

#### **Disinfectant solution**

- With both semi-automatic and manual reprocessing, make a note of the date when the disinfection solution was mixed, e.g. on the side of the tray. The disinfectant solution should be changed according to the manufacturer's instructions or sooner if there is visible turbidity.
- Gastrosopes and colonoscopes should always be reprocessed in separate WASH:MASTER classic units.
- If the gastroscope is reprocessed first and then the colonoscopes, the disinfection solution should be changed daily.
- When reconnecting the reservoir, ensure the tubes and fill level sensors are correctly connected.

### Leakage tester connection tube

- O-rings for connection to the leak tester must be greased weekly.



### Hinges on the lid

- Lubricate the hinges on the lid with silicone oil



### Sterile water filter, filling pipe and silicone tube

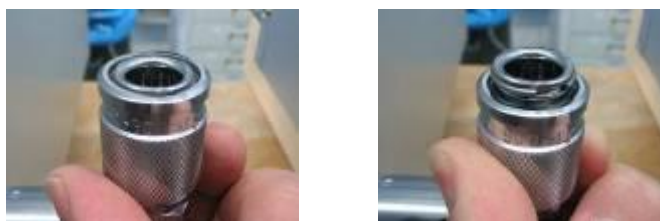
- Every 7 days, the **sterile water filter**, the filling tube and silicone tube must be resterilised in a **Class B autoclave** that meets the requirements of EN 13060, Process Cycle B, i.e. one which allows a fractionated vacuum process .
- The **sterile water filter** may only be resterilised in the autoclave 10 times. The number of times the filter is resterilised is recorded in the Service Logbook (refer to Appendix).
- The maximum of 10 resterilisation processes and reuse of the filter are based on historical values where the drinking water used is of normal quality (DIN 38409: carbonate hardness 7 - 21 °dH (water hardness rating of 2 or 3), substances in suspension < 10 mg/l, TrinkwV 2001: opacity < 1.0 NTU). Where the mains drinking water is known to have a relatively high level of particles in suspension or rust particles, it will be necessary to monitor the filtering effectiveness of the sterile filter to be sure.

To have the actual level of contamination tested, please contact a professional plumber or ENDO-TECHNIK Wolfgang Griesat GmbH or a service technician authorised by us.

- The degree of efficiency of the sterilisation effect of the **sterile water filter**, filling pipe and silicone tube depends on the function and parameters of the steam sterilising unit. According to EN 13060, the function and program cycle of the autoclave must be checked and logged.

### Dismantling the sterile water filter and preparation for sterilisation

- To remove the sterile water filter from the WASH:MASTER classic (duo), pull back the knurled sheath on the quick-release coupler located on the lower connection port (filter intake) and pull the filter up and out.



- Unscrew the air discharge valves on the side of the filter by one turn each (Caution! Some liquid will exit due to the pressure in the system).
- Pour out the residual water from both the intake and outlet.  
It is not necessary to flush the residual moisture in the filter using compressed air.  
On the contrary, doing so might damage the filter membrane.
- Clean the filling pipe and silicone tube before sterilisation.

### Sterilisation of the sterile water filter

- Place the filter, feed pipe and silicone tube in suitable sterile packaging (paper, sheet, pouch or sterilisation container).
- Place the packaged filter, feed pipe and silicone tube in the Class B autoclave.
- Select the appropriate sterilisation cycle (universal or gentle care programme) based on the information set out below:

<b>Universal programme</b>		
Temperature	Pressure	Temperature-holding time
134°C	<b>3.1 bar</b>	5 min.
<b>Gentle care programme</b>		
Temperature	Pressure	Temperature-holding time
121°C	<b>2.1 bar</b>	20 min.

- If sterilisation is performed outside the institute, we recommend using double film outers to prevent the normal outer package from being contaminated.

Sterilisation of the sterile water filter, filling tube and silicone tube should be validated according to the recommendations of the Robert Koch Institute.

### Storing the sterilised instruments

- Depending on the kind of sterile packaging, it is possible to store the water filter, filling pipe and silicone tube for up to six months in a protected, dust-free, environment (refer to DIN 58946, DIN 58953-7+8, DIN EN 868-5).
- The storage times should not exceed manufacturer's recommendations.

#### Fitting the sterile water filter

- To ensure the sterile water filter remains free from bacteria while in storage there should be no contact with the filter intake and discharge.  
Assembly must be carried out **under aseptic conditions**. In this connection, we would remind users to ensure they disinfect their hands thoroughly.
- Attach the sterile water filter to the WASH:MASTER classic (duo) water intake making sure that the arrows on the outside of the filter are pointing in the direction of the water flow.
- Pull back the corrugated sheath to open the quick-release coupler on the WASH:MASTER classic (duo) water intake.
- Press the filter intake against the quick-coupler and push it into position.
- Slide the sheath up until the quick-release coupler clicks into place.
- Pull the filter to ensure it is fitted correctly and firmly.
- Slide the silicone tube over the filter discharge and attach the feed pipe to the other end of the silicone tube.

#### **Every two weeks**

##### **Suction filter**

- Replace the suction tube filter in the disinfecting tank, as well as the suction filter in the disinfectant reservoir, once a fortnight.
- Use only original ENDO-TECHNIK filters as these are calibrated specifically to the WASH:MASTER classic (duo) flow volume.

#### **Warning**

- The prescribed semi-annual and annual services are essential to ensure that this unit works correctly. We recommend you sign a service agreement with ENDO-TECHNIK Wolfgang Griesat GmbH or a service technician authorised by us. This will ensure that all the semi-annual and annual services listed in Appendix V are carried out at the required time. If these regular services are not performed, the warranty on the parts to be serviced will lapse.

#### **Pipes & tubes**

- Both the tubes inside the unit and the connection tubes in the tank must be replaced once a year.



### **Every four weeks** **Change sterile air filter**

- Open the door of the cabinet (if the WASH:MASTER classic (duo) does not have a cabinet, the filter is under the unit)
- Replace the sterile air filter with a new one (spare part no. 11-2000).



### **Semi-annual maintenance**

PALL prefilter (change the filter cartridge, if one is used, depending on water quality)

- Open the housing and remove the filter cartridge.
- If necessary, clean the housing.
- Remove the new filter cartridge from its packaging and insert it into the housing.



## **Processing the endoscope connection tubes**

***The connection tubes may only be used after they have been processed (cleaning / disinfection / sterilisation).***

### **Cleaning**

Detach the connection tubes from the disinfection unit and the endoscope after the endoscope disinfection process.

Make up a cleaning solution in accordance with the instructions supplied by the manufacture of the cleaner in a suitable tank.

Submerge the connection tubes totally in the cleaning solution.

Clean the connection tubes using a brush to remove all visible soiling and residues.

### **Rinsing off the cleaning solution**

Thoroughly rinse the connection tubes in a tank of clean tap water and **flush them with compressed air to dry them.**

### **Disinfection**

Make up a disinfection solution in accordance with the instructions supplied by the manufacturer of the disinfectant in a tank. Aldehyde-based disinfectants and products based on peracetic acid are antiviral agents and are therefore suitable.

Immerse the cleaned connection tubes totally in the disinfection solution and ensure that all the tubes are completely filled inside with disinfection solution and without any air bubbles.

Ensure the **soak times for the virucidal agents** given by the manufacturer of the disinfectant are strictly adhered to.

After the disinfection process, **wear new disposable gloves** to remove the connection tubes from the disinfection solution.

### **Blowing out the disinfection solution**

Blow out the inside of the tubes with sterile compressed air.

**Wear protective gloves and goggles.**

### **Final rinse**

Place the disinfected connection tubes in a tank of water which is sterile and microbiologically stable.

Rinse the connection tubes thoroughly inside and out with microbiologically stable, sterile water.

### **Drying**

Flush the insides of the connection tubes with sterile compressed air until fully dry (recommendation: 0.5 bar). Wipe off the outsides of the tubes with a new, disposable wipe.

After processing of the connection tubes has been completed and before they are used again, they must be checked to see they are functioning correctly.

The processing of the connection tubes is subject to the following criteria:  
after processing, connection tubes must be transparent and flexible. Take careful note of the surface of the tubing. Minor discolouration is acceptable. If major changes are visible in the surface structure (**wear marks**) or compared with a new connection tube, the tube must be replaced with a **new one**.

Leaky and porous tubes must be replaced immediately.

The number of reprocessing activities **must** be recorded.


## 7. Technical data

Mains supply, nominal	230 V
Mains frequency	50 - 60 Hz
Fuses	T 10 A, IEC 127 (2 pieces)
Max. power input	2300 VA
Max. power consumption	10 A
Protection class	I
Dimensions (WASH:MASTER classic (duo)) width x depth x height	750 mm x 520 mm x 1100 mm
Dimensions (WASH:MASTER classic) width x depth x height	1050 mm x 520 mm x 1100 mm
Weight (incl. floor cabinet) WASH:MASTER classic WASH:MASTER classic duo	58 kg 95 kg
Min. pressure water connection	3.5 bar
Max. pressure water connection	6 bar
Capacity of tank	17 litres
Operating conditions ambient temperature	10° C to 35° C
Operating conditions relative humidity	Max. 70%
Classification according to 93/42/EEC	II b (Regulation 15, EU Directive 93/42/EC, Annex IX)
Electrical safety	Complies with EN / IEC 61010-1
EMC	Complies with EN / IEC 60601-1-2:2007

## 9. EMC conditions

Guidelines and Manufacturer's Declaration – electromagnetic interference		
The WASH:MASTER classic (duo) is suitable for operation in an electromagnetic environment as defined below.. The customer or user of the WASH:MASTER classic (duo) should ensure that it is used in a compatible environment.		
Measuring interference levels	Compliance	Electromagnetic environment – guidelines
HF interference to CISPR 11	Group 1	The WASH:MASTER classic (duo) only uses HF energy for internal purposes. As a result, its HF transmission into the surroundings is extremely low and the chance that it will interfere with neighbouring electronic appliances correspondingly improbable.
HF interference to CISPR 11	Class B	The WASH:MASTER classic (duo) is suitable for use in all medical institutes including those in residential areas and those connected directly to a public electricity supply that is also used to feed residential dwellings.
Transmission of harmonics to IEC 61000-3-2	Class A	
Transmission of voltage fluctuations & flicker to IEC 61000-3-3	Complies	

Guidelines and Manufacturer's Declaration – electromagnetic noise immunity			
The WASH:MASTER classic (duo) is suitable for operation in an electromagnetic environment as defined below.. The customer or user of the WASH:MASTER classic (duo) should ensure that it is used in a compatible environment.			
Noise immunity testing	IEC 60601 test level	Compliance level	Electromagnetic environment – guidelines
Discharge of static electricity (ESD) to IEC 61000-4-2	± 6 kV Contact discharge  ± 8 kV Air discharge	± 6 kV Contact discharge  ± 8 kV Air discharge	Floors should be made of wood or concrete or be tiled with ceramic tiles. If the floor is covered with synthetic material, the relative humidity must be in excess of 30%.
Rapid transient electric bursts to IEC 61000-4-4	± 2 kV for power cords  ± 1 kV for input and output lines	± 2 kV for power cords  Not applicable	The quality of the power supply should be equivalent to that typically found in business premises or hospitals.  The WASH:MASTER classic (duo) does not have dedicated infeed and output lines.
Surges to IEC 61000-4-5	± 1 kV Phase-to-phase voltage  ± 2 kV Phase-to-earth voltage	± 1 kV Phase-to-phase voltage  ± 2 kV Phase-to-earth voltage	The quality of the power supply should be equivalent to that typically found in business premises or hospitals.
Voltage dips, Short-duration outages and fluctuations in power supply to IEC 61000-4-11	< 5% UT (> 95% drop-out in UT) for 1/2 period  40% UT (60% drop-out in UT) for 5 periods  70% UT (30% drop-out in UT) for 25 periods  < 5% UT (> 95% drop-out in UT) for 5 s	< 5% UT (> 95% drop-out in UT) for 0.5 period  40% UT (60% drop-out in UT) for 5 periods  70% UT (30% drop-out in UT) for 25 periods  < 5% UT (> 95% drop-out in UT) for 5 s	The quality of the power supply should be equivalent to that typically found in business premises or hospitals.  If the user of the WASH:MASTER classic (duo) requires uninterrupted functions even when the power supply is interrupted, we recommend using the WASH:MASTER classic (duo) in conjunction with an uninterruptible power supply or a suitable battery.
Magnetic field at a supply frequency (50/60 Hz) to IEC 61000-4-8	3 A/m	3 A/m	Magnetic fields in the mains frequency should be within the limits typically found in business premises and hospital environments.
Note: UT is the alternating mains voltage before application of test levels.			

Guidelines and Manufacturer's Declaration – electromagnetic noise immunity			
The WASH:MASTER classic (duo) is suitable for operation in an electromagnetic environment as defined below.. The customer or user of the WASH:MASTER classic (duo) should ensure that it is used in a compatible environment.			
Noise immunity testing	IEC 60601 test level	Compliance level	Electromagnetic environment – guidelines
<p>Conducted HF disturbances to IEC 61000-4-6</p> <p>Radiated HF interference factors to IEC 61000-4-3</p>	<p>3 V effective value 150 kHz to 80 MHz</p> <p>3 V/m 80 MHz to 2.5 GHz</p>	<p>3 V</p> <p>3 V/m</p>	<p>Portable or mobile communication devices should not be brought closer to the WASH:MASTER classic (duo), its leads and wiring than the recommended safe distance as calculated for the transmission frequency according to the equation.</p> <p><b>Recommended safe distance:</b></p> $d = 1.2 \sqrt{P}$ <p><math>d = 1.2 \sqrt{P}</math> for 80 MHz to 800 MHz</p> <p><math>d = 2.3 \sqrt{P}</math> for 800 MHz to 2.5 GHz</p> <p>where <math>P</math> is the nominal power of the transmitter in watts (W) in accordance with the instructions of transmitter manufacturer and <math>d</math> is the recommended safe distance in metres (m).</p> <p>The field strength of stationary radio transmitters should, for all frequencies in accordance with an examination on-site<sup>a</sup> be less than the compliance level.<sup>b</sup></p> <p>In the vicinity of devices displaying the following symbol malfunctions are possible.</p> 
<p>Note 1 At 80 MHz and 800 MHz, the higher frequency range applies.</p> <p>Note 2 These guidelines may not apply in all cases. The spread of electromagnetic signals is influenced by absorption and reflection within buildings, by objects and people.</p>			
<p><sup>a</sup> The field strength of stationary transmitters, such as base stations for cordless phones and mobile land-based radio telephones, amateur radio stations, medium-wave and VHF radio and TV transmitters, cannot be predicted accurately in theory. To assess the electromagnetic environment with regard to stationary transmitters, a study of electromagnetic phenomena at the site should be considered. If the measured field strength at the site at which the WASH:MASTER classic (duo) is being used exceeds the above limits, it should be observed to assess its function in accordance with its intended purpose. If unexpected function observations are made, additional measures may be necessary, such as a different orientation or a change of location of the WASH:MASTER classic (duo) in the building.</p> <p><sup>b</sup> Above a frequency range of 150 kHz to 80 MHz, the field strength should be less than 3 V/m.</p>			



**Warning:**

- Using accessories not listed by us is not permitted and may even result in **INCREASED** transmission (increased effective radiation) or **REDUCED** noise immunity of the unit.

### Recommended separation distances between portable and mobile HF telecommunication devices and the WASH:MASTER classic (duo)

The WASH:MASTER classic (duo) is suitable for operation in an electromagnetic environment in which the HF interference is controlled.. The customer or user of the WASH:MASTER classic (duo) can help to prevent electromagnetic interference by ensuring the minimum safe distances between portable and mobile HF telecommunication devices (transmitters) and the WASH:MASTER classic (duo) are adhered to, as determined by the output of the communication devices as given below.

Nominal power of the transmitter  W	Safe distance, depending on transmission frequency M		
	150 kHz to 80 MHz  $d = 1.2 \sqrt{P}$	80 MHz to 800 MHz  $d = 1.2 \sqrt{P}$	800 MHz to 2.5 GHz  $d = 2.3 \sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23

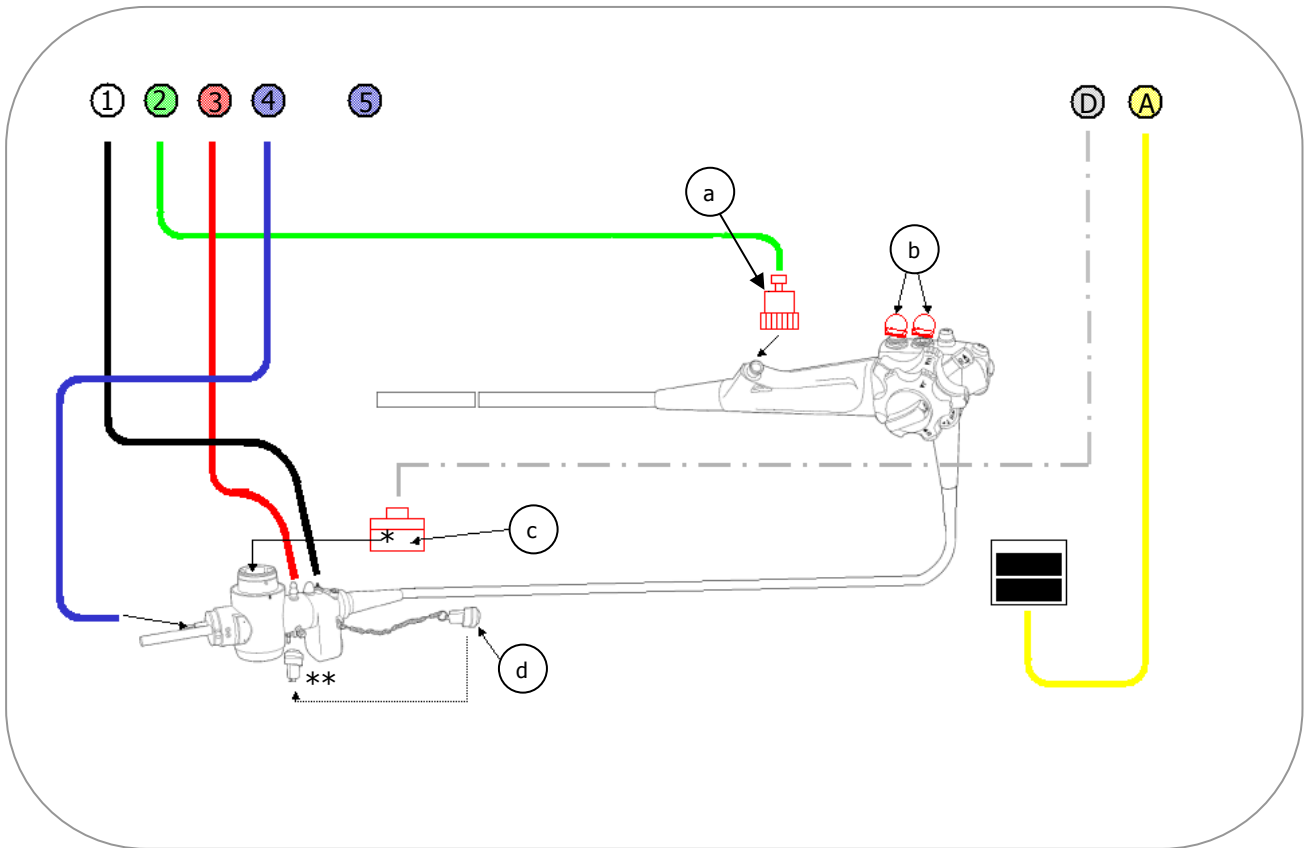
In the case of transmitters whose maximum nominal power is not included in the above table, the recommended safe distance  $d$  in metres (m) can be calculated using the equation applicable to the column, where  $P$  is the maximum nominal power of the transmitter in watts (W) in accordance with the instructions of the manufacturer of the transmitter.

Note 1                      At 80 MHz and 800 MHz, the higher frequency range applies.

Note 2                      These guidelines may not apply in all cases. The spread of electromagnetic signals is influenced by absorption and reflection within buildings, by objects and people.

## Appendix I: Examples for connecting up endoscopes

### A: Connecting to Olympus endoscopes



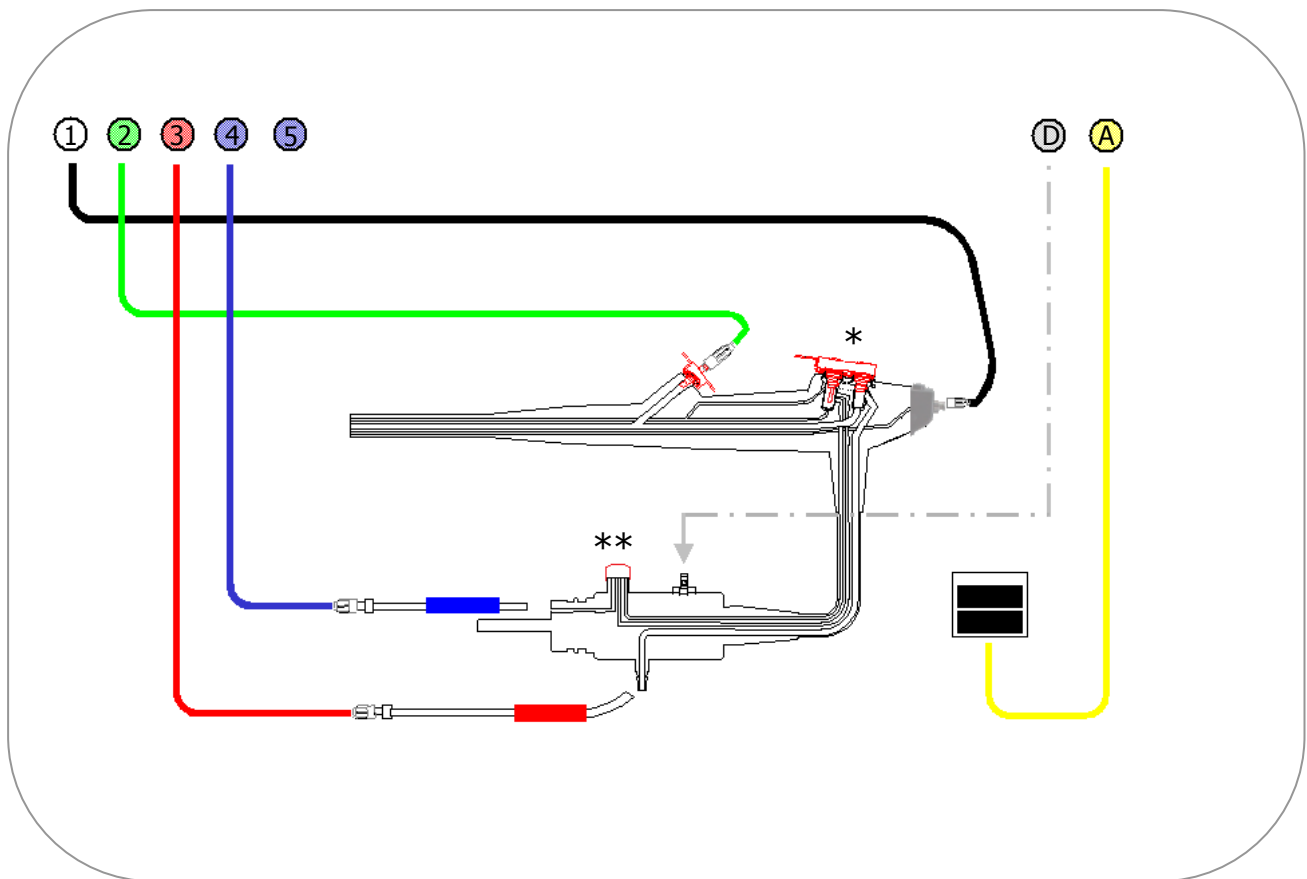
Number	Channel / designation
1	Jet channel
2	Biopsy channel in connection with caps 7524-A00
3	Suction channel
4	Air/water channel
5	Not assigned (does not apply to all models)
D	Pressure test connection
A	Suction connection for tank
a	Biopsy channel caps ENDO-TECHNIK 7524-A00
b	Air/water channel caps ENDO-TECHNIK 7523-000
c	Electronics cap Olympus MH-553
d	Water protective cap Olympus MAJ-583

\*Fit electronics cap Olympus MH-553 before placing in the tank. (Pressure test connection)

\*\*Water protective cap Olympus MAJ-583 must be connected to water bottle connection.



## B: Connecting Fujifilm endoscopes

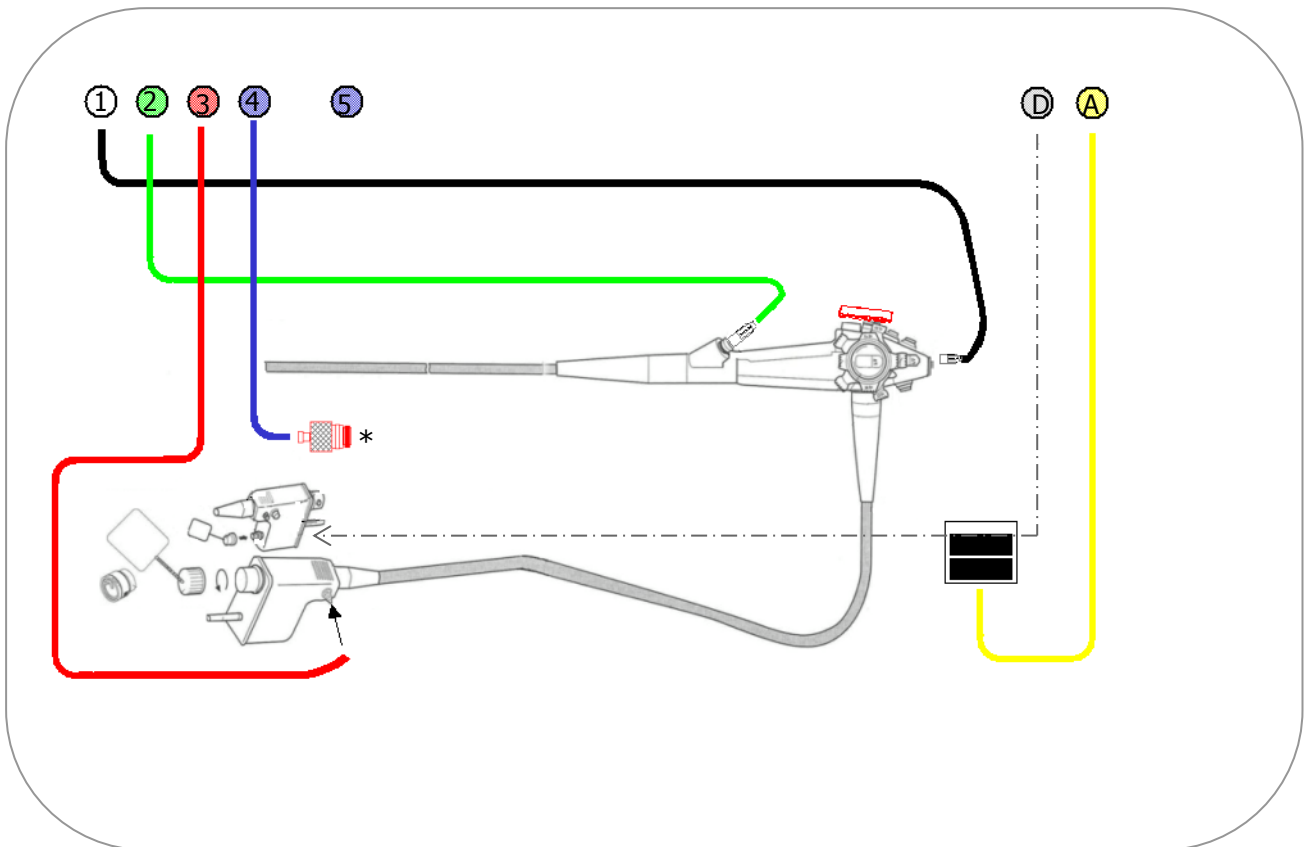


Number	Channel / designation
1	Jet channel
2	Biopsy channel
3	Suction channel
4	Air/water channel
5	Not assigned (does not apply to all models)
D	Pressure test connection
A	Suction connection for tank

\*Fujifilm adapter CA-503 S/A Luer lock connections must be closed off with caps. (Refer to illustration)

\*\* Fujifilm water bottle connection must be closed off.

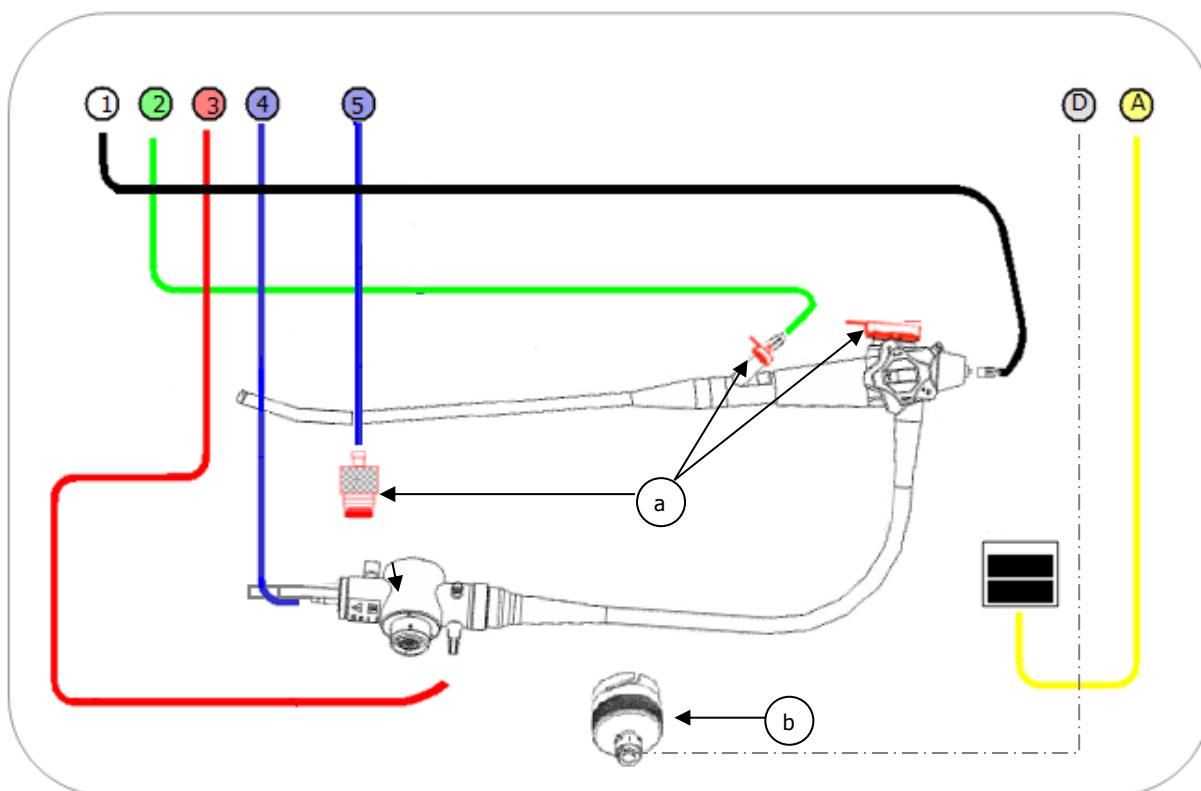
## C: Connecting Pentax endoscopes



Number	Channel / designation
1	Jet channel
2	Biopsy channel
3	Suction channel
4	Air/water channel
5	Not assigned (does not apply to all models)
D	Pressure test connection
A	Suction connection for tank

\*7521-100 adapter for models with individual connections for air/water channel

## D: Connecting Huger endoscopes



Number	Channel / designation
1	Jet channel
2	Biopsy channel
3	Suction channel
4	Air/water channel
5	Not assigned (does not apply to all models)
D	Pressure test connection
A	Suction connection for tray
a	Set for manual reprocessing *
b	Leakage tester cap HUGER CAP TIGHT**

\*SET-DIS set for manual reprocessing

\*\*CAP-TIGHT leakage test cap with leakage test connection

## Appendix II: Accessories for WASH:MASTER classic (duo)

Order no.	Description
7500-220	Replacement metal filters, packed in 10s, for suction tubes, SC system and EW new version with filter connector made of POM
7500-240	Replacement metal filters, packed in 10s, for tank with POM connector
11-0100	Pall strainer KA2 NFZP4
11-2000	Sterile gas strainer, hydrophobic diaphragm, bidirectional gas flow, service life: 4 weeks
7600-NS0	WASH:MASTER classic (duo) connection set with nylon LL suitable for Olympus / Fujifilm endoscopes
7600-NS1	WASH:MASTER classic (duo) connection set with nylon LL suitable for Pentax endoscopes
11-1005	PPS housing T911604000
11-1006	Wall holder for housing 11-1005
11-1007	3/4" gunmetal double nipple for PPS housing T911604000
11-1105	Nexis filter insert NXT19875UD0ES
7210-033	Continuous label roll for PLC printers
7526-FU	Leakage tester cap for Fujinon endoscopes
7526-OL	Leakage tester cap for Olympus endoscopes
7526-RF-PE	Leakage tester cap for Pentax endoscopes
7002-511	Dirt trap with strainer, connection: inner thread 3/4" x outer thread 3/4"
7210-015	Thermal printer, PCL emulation USB 2.0 - LAN 10/100
7521-A00	Air/water channel plug for Olympus up to and including Series 140 and Pentax endoscopes
7521-200	Connection for air/water channel for Pentax endoscopes (separate channel irrigation)
7521-250	Channel separator for Pentax endoscopes Series 30/40 & classic Line
7521-251	Channel separator for Pentax endoscopes Hi Line Series 90
7521-252	Channel separator for Pentax endoscopes Series 70/80
7521-300	Fujifilm rinsing bottle connection
7521-350	Channel separator for Fujifilm endoscopes G5 Series 250.270.450.470.490.530.590
7521-355	Channel separator for Fujifilm endoscopes G3 Series 100.200.201 with bracket
7521-400	Olympus rinsing bottle connection from Series 140 on
7521-450	Channel separator for Olympus endoscopes



### Warning:

- Using accessories not listed by us is not permitted and may even result in INCREASED transmission (increased effective radiation) or REDUCED noise immunity of the unit.

## Appendix III: Fault remedy, error and warning messages

### Leaking endoscope

- If air emanates from parts of the endoscope other than the distal end at the start of the reprocessing protocol, the endoscope may be leaking.
  - The currently active program step is automatically aborted.
  - Examine the endoscope
  - Start the reprocessing protocol again when you are sure the endoscope is not leaking.

### Unit is not working

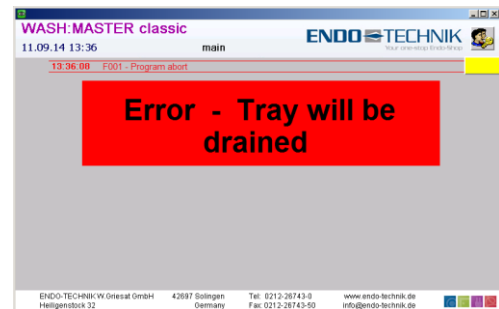
Green light on the power switch is not lit

- Ensure the plug is inserted firmly into the power socket
- Check the mains power supply and socket
- Check the fuse on the unit
- If the problem persists: contact an authorised service technician

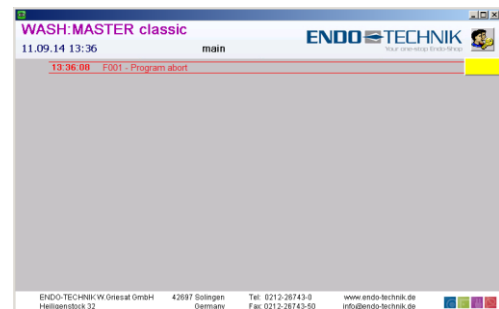
### Error messages (typical examples):

In the event that key parameters deviate too far up or down, the unit will abort the current process and produce an error message.

- If the programme is aborted as a result of the Stop button being actuated, the tank will automatically drain.



- Reset the fault by tapping **Acknowl.**



These are the possible error messages:

Error code	Error description	Remedy / solution
F001	→ Abort program	After a manual program abort, you will have to wait before you can acknowledge the error. The WASH:MASTER classic (duo) uses this time to reset to the starting condition.
F002	→ Disinfection solution reservoir is empty	Check the following points: ➤ Is the sensor connected? ➤ Insufficient disinfection solution
F003	→ Fault Dosage Disinfection	Check the fill level of the disinfection solution reservoir (larger reservoir)
F005	→ Disinfectant calibration	
F007	→ Tank fill level not reached	Check the following points: ➤ Is the sterile water filter obstructed? ➤ Is the water stopcock open? ➤ Has the prefilter been replaced? ➤ Is the lead pressure OK?
F009	→ Error: Drain / filler sensor faulty	Check the drain and waste water hose
F010	→ Discharge into reservoir not possible	Kink in drain tube or pump not working → Check the drain tube and see that quick-release connector on reservoir is properly connected.
F011	→ No flow rate for filling tank	
F013	→ - No flow rate for disinfectant	Check the quick-release connector on the suction lance.
F017	→ No flow rate in Channel 5	Here are the possible reasons for errors F017 to F025: ➤ Channel in endoscope dirty or clogged ➤ Kinks in tubes ➤ Tube not connected ➤ Filter in the tank is dirty / blocked. ➤ Wrong channel separator
F019	→ No flow rate in Channel 4	
F021	→ No flow rate in Channel 3	
F023	→ No flow rate in Channel 2	
F025	→ No flow rate in Channel 1	
F028	→ 1st component unexpectedly empty	Lance not correctly inserted or reservoir empty. → Check suction lance and reservoir.
F031	→ Fault in disinfectant mixing	Concentrated disinfectant is empty → please check level.
F032	→ Leakage test has failed	Check the following points: ➤ Tube has a kink
F039	→ No flow rate component 1	Reservoir has drained during dosing. → Check suction lances and fill levels.

➤ Applicable to all error messages:

If the error cannot be remedied using the steps listed above, please contact ENDO-TECHNIK W.Griesat GmbH or an authorised service technician.

## Appendix IV: Regular maintenance and cleaning requirements (by the owner)

What	When	Documentation
Cleaning and disinfection of the tank and lid	<ul style="list-style-type: none"> <li>- Once per working day at the latest</li> <li>- After 24 hours of use</li> </ul>	
Self-disinfection cycle without an endoscope	<ul style="list-style-type: none"> <li>- After 24 hours of use</li> </ul>	
Replace suction filter disinfection filter + tank	<ul style="list-style-type: none"> <li>- Once a fortnight</li> </ul>	At an appropriate location on the unit or nearby, visible for all users and in the User Information Pack
Change the disinfection solution	<ul style="list-style-type: none"> <li>– In accordance with manufacturer's instructions</li> <li>– Or when visibly soiled</li> <li>– If only one WASH:MASTER classic (duo) is available, always reprocess the gastroscopes before the colonoscopes. In this case, replace the solution every day.</li> </ul>	At an appropriate location on the unit or nearby, visible for all users and in the User Information Pack
Sterilisation of the sterile water filter	<ul style="list-style-type: none"> <li>- Before first use</li> <li>- Then every 7 days</li> </ul>	At an appropriate location on the unit or nearby, visible for all users and in the User Information Pack

## Appendix V: Regular maintenance work carried out by the manufacturer (Service)

Description	Every 6 months	Every 12 months	Every 18 months
Disinfectant calibration		X	
Change silicone tubes		X	
Change PTFE tubing			X
Replace diaphragms on purging pumps		X	
Replace diaphragms on metering pumps		X	
Check electrical components	X		
Replace dirt strainer in waste water outlet	X		

Only service technicians certified by ENDO-TECHNIK Wolfgang Griesat GmbH are authorised to carry out repairs, adjustments or modifications to the unit and accessories. Authorised service technicians are trained and certified exclusively by ENDO-TECHNIK Wolfgang Griesat GmbH.



## Appendix VI: Photocopiable Service Logbook

### SERVICE MANUAL

### WASH:MASTER classic (duo)

SN: .....

Sterile water filter / sterile air filter					Suction filters in tank / reservoir				Disinfectant solution				
Date	Sterile water filter	Sterile air filter	Batch	Autoclaved	Full name	Date	Tank	Disinfectant reservoir	Full name	Date	Manufacturer	Concentrate	Full name
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