

quick GUIDE

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USER login

Touch blue **ON** button.

New User

Touch LOG IN.

New User Login.

Type in **User Name** and **Password**. Confirm **Password**.

Touch OK.

Registered User

Touch LOG IN.

Type in **Location**, **User Name** and **Password**.

Touch OK.













INPUT new patient details

Touch NEW PATIENT.

Type **NAME** and/or **PATIENT ID**. A Patient **NAME** or **ID** is a required field. Select **DATE OF BIRTH**.

Select AORTIC or PULMONARY.

Type **HEIGHT** and **WEIGHT**.

To override the **OTD** with an echocardiogram **OTD** measurement:

Touch the **Measured** box. Select **OTD** from the list.

Touch **GENDER**. Type **Operator**.

Touch OK.

You are now ready to begin an acquisition!



NAME	
HEIGHT WEIGHT BEA	OTO EMEABUR
	4









QUICKSTART

RUN activates the QUICKSTART feature, this allows direct access to the Examination screen without the need to enter a patient's details first. The Doppler trace will start automatically.

Touch RUN

When a profile is selected, measures that do not require the height and weight will display. Touch the measure card to display calculated measures.

Enter the patient's height and weight. Select Aortic or Pulmonary OTD.

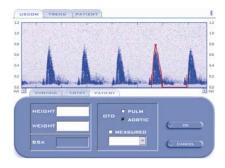
Touch OK

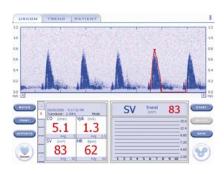
To SAVE the exam a Login is required.

Touch SAVE











QUICKSTART cont.

Enter User Log in details.

Save to an existing Patient by touching the Patient name. Touch the **NEW** button to create a new patient.

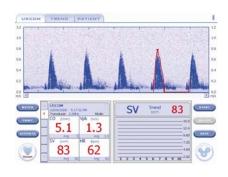
As previous details have already been added, Name or patient ID is all that is required.

When the measure has been saved additional measures can be saved.



NAME					l
A PATTERSON	16/03/1940				ï
ABLE A A	8/08/1941				Ŷ
ABLE A B	10/10/1956				J.
BANG G	20/11/1965	M	1		R
CROW H	7/02/1943				î
CROW T	20/06/1960				L
HUME G	28/06/1973		V	w	Т
HYAM D	12/09/1950			1	î
J HOWE	10/06/1983			2	î,
MONTY C	28/01/1954			5	Ŀ







OPENING an existing patient

If the patient details have previously been entered

Touch OPEN.

Double click **Patient** name or Select **Patient** name and touch **OK**.

To review existing exam data Double click **EXAM** date or Select Exam date and touch **OK**.

To select a new Exam select NEW

Confirm Patient Details.

Select **AORTIC** or **PULMONARY**. Confirm **OPERATOR**.

Touch OK.

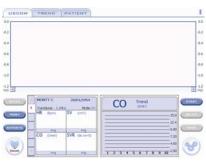
Touch START

WELCOME TO	Слин
Uscom	
	111

NAME	O PATIENT ID			C	l
A PATTERSON	16/03/1940				ſ
ABLE A A	8/08/1941	-			P
ABLE A B	10/10/1956				ι
BANG G	20/11/1965	M	N	•	I
CROW H	7/02/1943				C
CROW T	20/06/1960				L
HUME G	28/06/1973			w	B
HYAM D	12/09/1950				r
J HOWE	10/06/1983	and the second		2	Ļ
MONTY C	28/01/1954			5	Ŀ

IONTY	8/12/2008	- 10:22:36 AM	_
_	8/12/2008	- 10:22:16 AM	
	8/12/2008		
	8/12/2008		
	8/12/2008	- 10:19:11 AM	





You are now ready to begin an acquisition!



RECORDING PULMONARY FLOW after an aortic acquisition

To record both aortic and pulmonary profiles on the same exam:

Change from an aortic, positive signal to a pulmonary, negative signal.

Touch the Y- axis.

Touch 0 on the Scale.

The scale will invert and the Mode will change from **AV** to **PV**.

Touch **OK**.





NAME		DATE OF BIRTH
MONTY		28 • JAN • 195
невнт	WEIGHT BEA	
175cm	85kg 2.06m ²	PULM 2.00cm AORTIC
GENDER MALE PATIENT		ADDRESS
	IR.	

To record pulmonary profiles as a new exam:

Refer to Opening an existing patient.

On the Patient Details page,

Select Pulmonary OTD.

Touch **OK**.



RECORDING AORTIC FLOW after a pulmonary acquisition

To record both aortic and pulmonary profiles on the same exam:

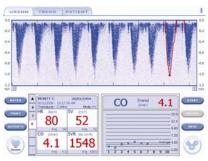
Change from a negative, pulmonary signal to a positive, aortic signal.

Touch the Y- axis.

Touch 0 on the Scale.

The scale will invert and the Mode will change from **PV** to **AV**.

Touch OK.





To record aortic profiles as a new exam:

Refer to Opening an existing patient.

Go to Patient Details page.

Select Aortic OTD.

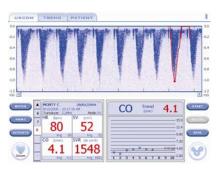
Touch OK.





OPTIMISATION features

Touch the **COGWHEEL** symbol to access the **CONTROL PANEL**.



Mode

Only used when changing from pulmonary to a ortic with the apical access. Touch $\ensuremath{ AV}.$

Note: When changing from aortic SSN access, to pulmonary left intercostal space access, touch on the Y- axis of the velocity graph and touch '0' on the scale.

Volume

Audio is an integral part of acquiring a Doppler profile. Use VOLUME to receive better audio feedback. Touch the desired number.



Gain

Increases the strength of the returning signal. Use GAIN to delineate the edges of the profile. Touch the desired number.

Contrast

Defines the trace compared to background noise. Use CONTRAST to clarify the signal. Touch the desired number.

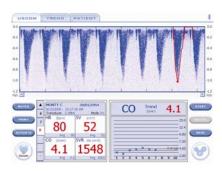






OPTIMISATION features cont.

To access **scale** and **zoom** Touch the **Y- Axis**.



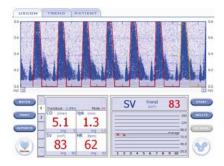
Scale

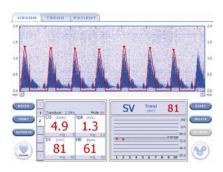
Touch the velocity on the scale bar that best displays the Doppler flow profile. Touch \mathbf{OK} .

Incorrect scale Inability to determine if the peak of the Doppler profile has been achieved.

Correct scale Doppler profile peak is determined.









OPTIMISATION features cont.

Zoom

Change ZOOM to view more or less profiles per screen.

Doppler flow profiles at **1.0X**

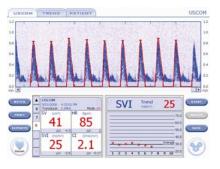
Touch **0.5X** to view more profiles.

Touch **2.0X** to view Doppler profiles when a very fast heart Rate is present.

Touch **OK**.

The measure of life.





CO Trend 4.1

x x X X x 1000 1 2 3 4 5 6 7 8 9 10

S.P





11



USCOM or PATIENT TABS

Touch NOTES.

Touch **ADD**.

Touch OK.

UBCOM THEND PATIENT



A date and time stamp will be attached
automatically.

Type notes to document changes in interventions, fluids or medications.

Touch Back.



Notes on Trend Screen

A note icon will display on the trend screen header aligned with the Exam time.

Touch the note icon to display the Notes contents.



FLOWTRACER automatic MEASUREMENT

The FlowTracer feature automatically traces the edge of the Doppler flow profile displayed on the examination screen. This provides automatic measurement of the displayed profiles.

FlowTracer's red trace line is automatically displayed. Touch **SAVE**, to store the profiles' measurements.

Trace

When the trace is active, the red line may be removed by touching the Trace button Note: FlowTracer measurements will continue to be displayed.

Measure flow profiles from 'highest' peak velocity to 'lowest' peak velocity, allowing for a respiratory cycle. Measure 5 profiles for sinus rhythm (a minimum of 5). Measure 5-10 profiles for atrial fibrillation. If correction of the trace line is needed, use **TouchPoint**. (Refer to TouchPoint Manual Measurement)



Touch the Cogwheel symbol.

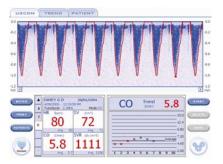
SELECT options

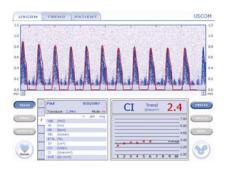
There are 3 choices for selecting Doppler flow profiles:

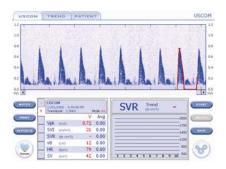
One: One flow profile is selected and saved to a measure card. This allows 'one by one' saving of profiles.

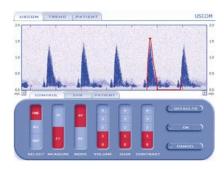
All: All valid flow profiles are selected and each Doppler profile is saved as a separate measure card. This allows for all profiles to be rapidly saved.

Group: Valid profiles are selected and grouped into a single card. The value's average, of the group of selected profiles, is displayed as the Measure Card.











FLOWTRACER automatic MEASUREMENT cont.

One:

One valid profile will be traced. Touch **ONE** Touch **OK**

Touch Freeze when a screen of profiles is acquired. Touch the desired Doppler profile. Touch **SAVE**

All:

All valid profiles will be traced. The values of the last valid profile will be displayed on the Measure Card.

Touch **ALL** Touch **OK**

Touch Save.

Each Doppler profile's values will be displayed on a separate Measure Card and displayed on the trend graph.

Recommended for use in research, where acquisition time is limited and hemodynamic information is not immediately needed .

Group:

All valid profiles will be traced and selected. A profile can be deselected by touching that profile. Selected profiles have a V peak marker. Touch **GRP** Touch **OK**

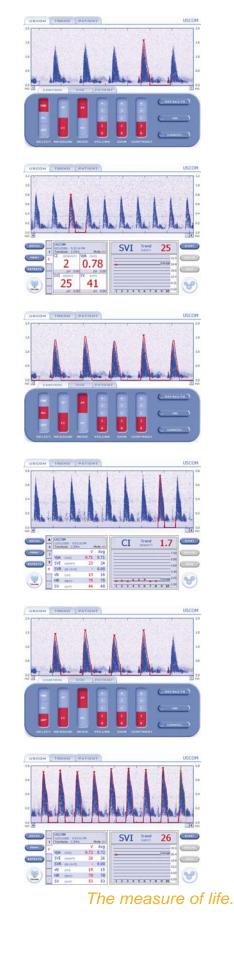
One Measure Card only will display the average value of the selected profiles in the group.

The trend change from the previous card can be displayed.

Touch Save.

Recommended for use in clinical situations.





TOUCHPOINT manual MEASUREMENT

FlowTracer FT is the system default.

To activate TouchPoint touch **TP** on the **Control panel**. Touch **OK**.

Set the TouchPoint Handles to completely envelope the flow profile.

Measure flow profiles from 'highest' peak velocity to 'lowest' peak velocity, allowing for a respiratory cycle. Measure 3-5 profiles for sinus rhythm. Measure 5-10 profiles for atrial fibrillation.

When in GRP SELECT mode, multiple TouchPoint profiles may be saved. The average value for this acquisition may be found on the trending screen.

Note: Reselect Flow Tracer (FT) and GRP before the next acquisition.

Note: Tap to move the TouchPoint profile tracing along the side of the Doppler profile to the left. Drag Handle 1 to move the TouchPoint profile tracing to the right.

Start by placing the TouchPoint profile tracing at the position of valve opening but not on the edge of it.

Set Handle 1 here.

Note: Place on valve opening 'click' if identifiable.

Set **Handle 3** at the Doppler flow above the profile peak. Making sure all the profile is contained within the red triangle. This is a higher position than where FlowTracer will trace the peak.

Set **Handles 2 and 4** on either side of the Doppler flow profile.

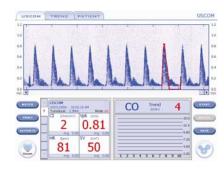
Note: The Handles on the sides cannot be wider than the Handles at the base.

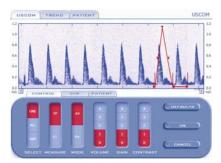
Set **Handle 5** at the point of valve closure. Note: Place on valve closing 'click' if identifiable.

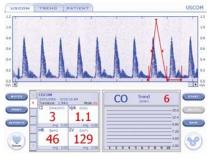
Set **Handle 6** at the valve opening of the next cycle. Note: Place on the valve opening 'click' if identifiable.

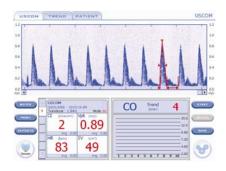
Confirm the 'vertical guidelines' of Handle 1 and 6 are an equal distance from the corresponding Doppler flow profile.

Touch **SAVE**. Note: Re-activate **FT** before next acquisition.











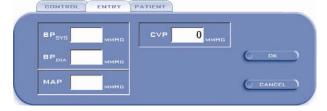
SYSTEMIC vascular RESISTANCE

Manual input of blood pressure is required.

Touch a **Doppler flow profile**. Touch **SVR** on the Measure Card. The SVR panel will open.



Using the ENTRY TAB enter BP_{Sys} and BP_{Dia} or MAP.



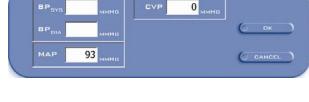
If **CVP** is not entered, the value will be '0'. SVR is displayed in the Measurement Card. Touch **OK**.

Active BP

BP values stay active for 10 mins after the first profile has been saved. The values display in black.

Expired BP

Expired BP values will display in blue. Access **SVR control panel**, enter new **BP_{Sys}** and **BP_{Dia}** or **MAP** values or touch OK to confirm existing values.



ENTRY PATIENT

Entering BP After Profile Save Or Resave

When a Doppler profile is saved or resaved, all other profile cards within that acquisition are also resaved with the same BP values (SBP, DBP, MAP and CVP). The SVR value for each profile card is recalculated using the new values.

For example, if Doppler flow profiles are acquired and 5 are selected and saved before the BP values have been entered, enter the BP values on the last Doppler flow profile of the acquisition and all 5 cards will be automatically updated with the entered BP values.

CONTROL

In **REVIEW** mode, enter BP values on any profile card and all 5 cards will be automatically updated with the entered BP values.



REVIEWING exams

Touch OPEN.

'Double click' **Patient** name or Select **Patient** name and touch **OK**.

'Double click' **Exam Date** or Select **Exam Date** and touch **OK**.

USCOM TAB Review profiles and measures on Examination screen.

Touch the **MEASURE CARD NUMBER**

to review a saved profile or profiles.

To RE-MEASURE, reposition the profile trace line using TouchPoint. (Refer to TouchPoint Manual Measurement)

Touch RE-SAVE.

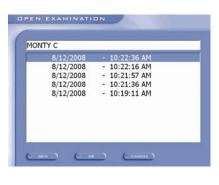
To create a New exam Touch **NEW EXAM**

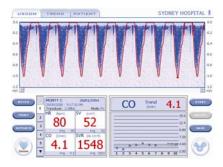
TREND TAB

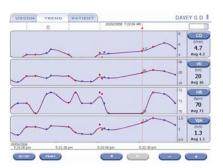
Review trending of up to four parameters including notes



· NAME	PATIENT ID				l
A PATTERSON	16/03/1940				ſ
ABLE A A	8/08/1941				Ŷ
ABLE A B	10/10/1956				L
BANG G	20/11/1965	M	11		I
CROW H	7/02/1943				î
CROW T	20/06/1960				L
HUME G	28/06/1973		V	w	I
HYAM D	12/09/1950			100	r
J HOWE	10/06/1983				L
MONTY C	28/01/1954			5	Ŀ







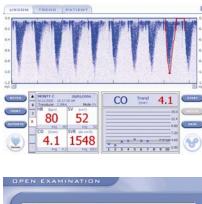


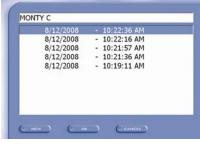
REVIEWING exams cont.

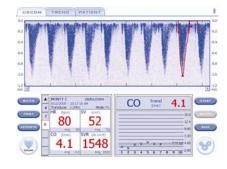
Touch the **USCOM logo** to review an exam of a different date or time.

'Double click' **Exam Date** or Select **Exam Date** and touch **OK**.

To return to other exam dates, touch the **USCOM logo** in the Examination screen









PATIENT TAB

Touch the **Patient tab** to review trending and history. The patient's previous examinations will be listed.

Touch **HISTORY** and a graph of the average value of each exam will be displayed.

Touch **TREND** and a graph of *each card value* of the selected exam will be displayed.

In Patient tab, touch the **USCOM logo** to return to the Welcome screen.

Touch the **USCOM tab** to return to the Examination screen and profiles.



TRENDING

USCOM TAB

The current trended parameter is SV. To display a different parameter on the graph, touch the trend graph header. The parameter Pop Up will appear.

To choose a different parameter, touch that parameter in the Pop Up.

TREND TAB

Trending of 2, 3 or 4 measures can be displayed.

Graph

Card Data Points

Red - Aortic values Blue - Pulmonary values

Circle	- FlowTracer in GROUP mode
Square	- FlowTracer in ONE / ALL mode
Triangle	 TouchPoint in ONE mode

Exam Marker (blue dashed line) indicates the start of a new exam.

Selected Card Marker (red arrow and dashed line) indicates the selected date and time of the selected card. The value for this card is prominently displayed under the **Measure Select** button.

Notes

Touch the **Note** icon above the graphs to display the content detail.

Scale

To optimise the scale, touch the scale.

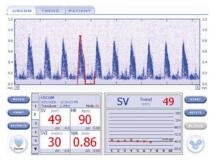
If there is a data point out of range, this will be indicated by an arrow in the scale display.

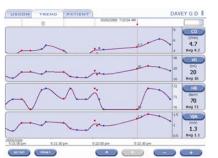
The horizontal axis represents time and has a range from seconds to years. **Broken Time** can be selected to remove 'non active' time periods.

Zoom / Reduce time scale

Use +/- button (Zoom will centre on the red **Selected Card Marker**) Or slide the stylus across the graph

Move Forward / Backward in time: Use Left or Right arrows Or double click on the card of interest to centre it







TRENDING cont.

Measures

To change the displayed parameter, touch the **Measure Select** button. The parameter Pop Up will appear.

To choose a different parameter, touch that parameter in the Pop Up.

Measure Value Display

The prominently displayed value under the **Measure Select** button is the **Measured Value** of the selected card.

The average value, (Avg) is the average of all card data points currently displayed on the graph.

Setup

Touch the **SETUP** button to open the Setup dialog.

Delta

To display the calculated change select from **OFF**, Δ (delta) or Δ (delta) %.

+/- Percent Change

To display a band highlighting the percent or percent difference between card data points select from **OFF**, **5%**, **10%**, **15%** or **20%**.

Time

Absolute or relative time may be displayed by selecting N or Y.

Mode

Choose AV, PV or AV PV data points to be displayed.

Values

To display all, some or no Values, select from **NONE**, **SEL** or **ALL**.

Clustering

Values for Card Data Points will be displayed per card unless there is more than one card in a relatively close point in time i.e. clustering of cards. In this case an averaged value for the cluster will be displayed.

Note: When the averaged value for a cluster is displayed it will differ from the **Measure Value** of the selected card marked.

Print / Screenshot

Touch **PRINT**.

Print

If a printer is connected the screen will be printed.

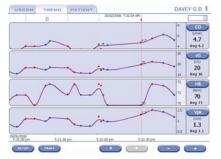
The first time a print is performed a dialog box will be displayed. If the required options are correct, Touch OK.

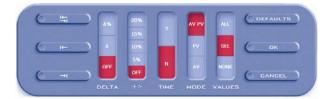
Screenshot

If a USB drive / Flashstick is inserted into the USB port located on the back panel of the system the displayed screen will be copied into a folder named 'Screenshots' on the USB drive. The file can be transferred to a PC.

Note: the patient details will replace the bottom panel buttons.







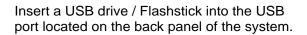
REPORTS

USCOM or PATIENT TABS

Touch **REPORTS**.

Touch Card, Exam or Patient Report.

Touch Preview.



Touch SAVE.

The report will be copied into a folder named 'Reports' on the USB drive. The file can be transferred to a PC.

Touch CLOSE.

	ort Card with Notes
	ort Card with Trace
Uscom Rep	
	ort Exam with Notes
Uscom Rep	
	ort Patient with Notes
Uscom Repo	ort Patient

	Hemodyn	amic Re	port		
SYDNEY H	OSPITAL				
	DAVEY G D Male 175cm 85kg	DOB OTD BSA MAP/CVP	2 20c 2 06r	m Pulmonar P	v
Vpk Veloc Pmn Mear 45 Veloc HR Heart MD Minut	n by Peak (m/s) Pressure Gradient (mmHg) by Time Hograf (cm) Rate (bpm) e Distance (mmn) on Time Percentage (%)		V 0.99 13 14 80 11 55	Chg -0.07 -0.16 -0.83 0.00 -0.55 0.00	Avg 0.99 1.4 14 60 11



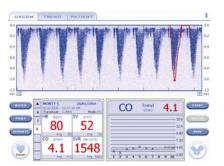
SCREENSHOTS

USCOM, TREND and PATIENT TABS

Insert a USB Flashstick into the USB port located at the rear of the USCOM.

Touch PRINT.

The displayed screen will be copied into a folder named 'Screenshots' on the USB drive. The file can be transferred to a personal computer.





Touch **USCOM** on **WELCOME** screen.

Touch right arrow until the EXPORT tab appears.

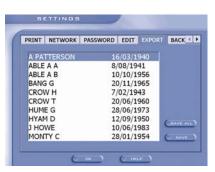
Touch **EXPORT** tab. Touch **Patient Name** or **ID**. Insert a USB Flashstick into the USB port on the back panel of the system. Touch **SAVE** or **SAVE ALL**

Patient data will be copied, in spreadsheet format, into a folder named 'Exports' on the USB drive. The file can be transferred to a PC.

Touch OK.









NETWORKING and PRINTING

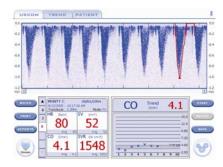
Networking

The USCOM can be networked for printing of Screenshots, Reports, Notes and Spreadsheets.

(For Networking settings, refer to Settings in the USCOM 1A User Manual.)

Printing

From the Examination screen touch the **PRINT** button.



If this is the first time printing has occurred a dialog box is displayed to configure the print settings.

Change the settings to your preference. Touch **OK**. The screen will be printed.

Brinter:	PCL Inkjet	Print Range –	Orientation -
Pgrt:	LPT1:		Portrait
Net Path:	j.	○ Selection	C Landscape
Paper Size:	A4	Margins (millin	meters)

Printers

The USCOM 1A supports the PCL printer language. HP supports the PCL language in their DeskJet and LaserJet printer range.

To determine if your HP printer uses the PCL language, refer to the printer specifications on the HP website.

Note: To print using a USB printer, connect the printer to the USCOM 1A USB port. To print to a network printer, it must be configured as a Microsoft Windows shared printer.

(For more information refer to Printer Settings in the USCOM 1A User Manual.)

SYSTEM backup

Backup allows patient data to be stored offline and downloaded onto another USCOM system. It is recommended to Backup regularly and often onto a USB Flashstick. The file format is Microsoft compact database and is not readable on a personal computer.

Touch the USCOM button on the **Welcome** screen. On the tabbed header touch the right arrow until the **BACKUP** Tab appears.

Backup

Insert a USB Flashstick into the USB port located at the rear of the USCOM.

Touch BACKUP.

The Users Patient Data will be backed up into a folder named 'Backups' on the USB Flashstick.

Restore

Insert a USB Flashstick, with previously backed up USCOM data, into the USB port at the rear of the USCOM.

Touch REFRESH.

Select the backup file you wish to restore and touch RESTORE.

The patient data will be restored onto an USCOM system.

Note: All Patient Data for the User will be overwritten.

Touch OK.

SYSTEM shutdown

From the Welcome screen touch OFF.

Touch OK.









CLEANING

Unit

The USCOM must be turned off and unplugged from the power pack.

Do not spill or spray water on the display or transducer connector.

Wipe display and cables with a cloth moistened with mild liquid soap and water.

Do not use harsh or abrasive detergents or solvents. Do not clean with abrasive pads.

Do not wet or immerse the USCOM.



Transducer

After completely cleaning the transducer head from gel and any foreign matter, the USCOM transducers and cables (not the connector) can be disinfected by submersing the head for up to 15 minutes in 0.55% orthophthalaldehyde (CIDEX OPA).

DO NOT submerse the connector.





Quick Guide

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