

LIQUID HANDLING TECHNOLOGY



User Manual Mode d'emploi Manual de instrucciones



USA Scientific, Inc. PO Box 3565

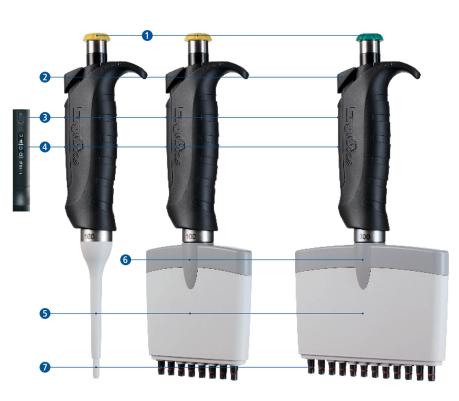
Ocala, FL 34478-3565

www.usascientific.com





English	1
Français	23
Espanől	45





Contents

1.	Introduction	2
2.	Operation	3
	2.1 Description	
	2.2 Setting the Volume	
	2.3 Pipetting	5
	2.4 Pipette Identification	7
	2.5 Safety Notes	7
3.	Troubleshooting	8
4.	Cleaning and Decontamination	9
5.	Technical Data	10
6.	Calibration	11
7.	Maintenance	12
	7.1 Maintaining Single-Channel Pipettes	13
	7.2 Maintaining Multi-Channel Pipettes	16
8.	Ordering Information	18
9.	Pipette Tip Compatibility	20
10.	Warranty	22

1. Introduction



ErgoOne® variable volume pipettes are designed in accordance with the latest ergonomic principles. The pipette is extremely easy to use and has minimal operating forces to help prevent hand fatigue. ErgoOne® provides accurate and precise pipetting in a variety of volume ranges and is available in single-channel, eight-channel and twelve-channel models.



At a glance:

- Comfortable ergonomic design
- Easy to use volume adjustment mechanism
- Volume lock
- Minimal operating forces
- Extremely accurate and precise
- Lightweight
- Low-maintenance high-quality product
- Fully autoclavable

2. Operation



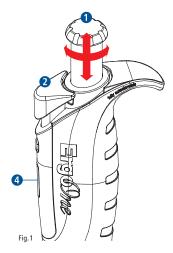
- Declaration of conformity with test record
- Labels for personalization/ identification
- Auxiliary tool (single-channels up to 1ml only)
- Pipette filters (5ml only)



TipOne® pipet tips are recommended to obtain the best results with ErgoOne°.

2.2 Setting the Volume

Unlock the volume adjustment catch by pulling up the volume control button (Fig. 1), until you hear a click. Turn the volume control button clockwise to reduce the aspirated volume, or counter clockwise to increase it. The set volume is shown in the four-digit volume display from top to bottom. The white line indicates the decimal point. When increasing the volume setting, pass the required value by 1/3 of a turn and then slowly decrease to reach the volume, making sure not to go beyond the required volume. After the volume is set, push the volume control button back to the the locked position until you hear a click. The pipette is now ready to use.



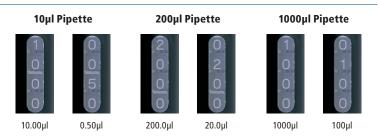
Please note the minimum and maximum volume range of your pipette (Table 1). You have reached the end of the volume adjustment when it becomes more 'difficult to turn the button.

Do not use excessive force!

ErgoOne® Volume Ranges						
ErgoOne® model	Volume range (min./max.)	Volume range (min./max.) Color code				
2.5µl	0.1-2.5µl	Red	0.002			
10μΙ	0.5-10µl	Red	0.01			
20μl (micro tip cone) 2–20μl		Red	0.02			
20µl (standard tip cone)	2-20µl	Yellow	0.02			
100µl	10-100µl	Yellow	0.1			
200μΙ	20-200µl	Yellow	0.2			
300µl	30-300µl	Green	0.2			
1000µl	100-1000µl	Blue	1			
5000µl	500-5000µl	Violet	5			

Table 1

Examples of typical volume displays:



2.3 Pipetting

Use the pipette only when a tip is attached!

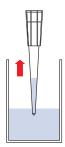
Liquid aspiration

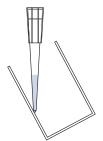
Set the required volume (see 2.2 Setting the volume) and attach the appropriate size pipette tip(s) to the tip cone(s) 0:

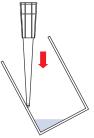
- Press the volume control button 1 until the first stop position.
- Hold the pipette upright and immerse approx. 3mm of the pipette tip into the liquid.
- Allow the volume control button 1 to return slowly back to the starting position.
- Hold the pipette tip in the liquid for a further 2 seconds to avoid drawing in air.
- Remove the pipette tip from the liquid.

Dispensing fluids

- Place the pipette tip against the inner wall of the tube or vessel, at an angle of 30-45°.
- Press the volume control button ① slowly and evenly until it reaches the first stop position.
- Wait one second and press the volume control button 10 down to the second stop position to empty the pipette tip fully (blow out).
- Keeping the volume control button 1 pressed down, lightly draw the pipette tip up the inner wall of the tube to remove any residual liquid.
- Allow the volume control button 1 to return slowly back to the starting position.
- Press the tip ejector button 2 to eject the pipette tip.







Reverse pipetting

When pipetting critical viscous media, the precision and accuracy can be increased through 'reverse pipetting'. In reverse pipetting, a larger volume is aspirated than that indicated on the volume display. As a result, a small amount of residual liquid remains in the pipette tip after the pipetting process. How to reverse pipette:

- Secure the pipette tip.
- Press the volume control button 1
 until it reaches the second stop
 position.
- Hold the pipette upright and immerse the pipette tip approx.
 3mm into the liquid.
- Allow the volume control button 1
 to return slowly back to the starting
 position.
- Hold the pipette tip in the liquid for a further 2 seconds to avoid drawing in air

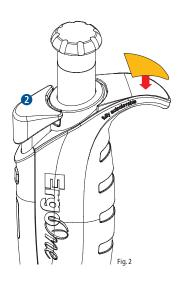
- Remove the pipette tip from the liquid.
- Place the pipette tip against the inner wall of the tube or vessel, at an angle of 30–45°.
- Press the volume control button
 slowly and evenly until it reaches the
 first stop position (do not use the
 blow-out function).
- Keeping the volume control button 1
 pressed, remove the pipette tip from
 the tube or vessel before blowing
 out the residual liquid into a
 separate container.
- Allow the volume control button 1
 to return slowly back to the starting
 position.
- Press the tip ejector button 2 to eject the pipette tip.

Note: Pre-wetting

Some liquids (eg. solutions containing protein, organic solvents, or viscous liquids) leave a film on the inside of the pipette tip. To ensure maximum precision and accuracy, USA Scientific recommends pre-wetting each new tip first by aspirating and dispensing the liquid two or three times. Another alternative is to use TipOne® RPT ultra low retention pipette tips. TipOne® RPT tips have optimized surfaces that ensure improved delivery of detergents, viscous liquids, small volumes, and other difficult samples. Ask your local USA Scientific representative for more information or go to www.usascientific.com.

2.4 Pipette Identification

Your pipette is supplied with autoclaveresistant labels in four different colors. These can be attached to the surface above the finger rest to personalize/ help identify your pipette (Fig. 2).



Each ErgoOne® pipette has its own serial number. This serial number can be found behind the tip ejector button

2 when it is pressed down.

2.5 Safety Notes

- Use the pipette only with tip(s) attached
- Never allow liquid to enter the pipette.
- Do not set the pipette down when the pipette tip is full.
- Do not set the volume outside the specified range.
- Do not use any aggressive solvents or acetone to clean the pipette.
- Do not use cleaning agents in combination with autoclaving or UV-sterilization treatment.
- Only use original parts and accessories.
- Confirm that aggressive chemicals or organic solvents are compatible with the pipette and pipette tips before beginning to pipette.
- Avoid temperature differences between the pipette and pipette tip as this could lead to incorrect volume dispensing.
- Monitor the dispensing volume of liquids that strongly differ from the physical properties of water, eq. with different density (see also section 6 Calibration).

3. Troubleshooting

The following table provides information about the possible causes of problems with suggestions as to how these can be fixed. If you are not able to fix the problem please call USA Scientific at 800-522-8477 or 352-237-6288. You may also contact your local representative or send an email to infoline@usascientific.com.

Troubleshooting						
Problem	Possible cause	Action				
	Incorrect pipette tip	Use TipOne®				
	Tip is loose	Attach the tip securely				
	Tip cone loose	Tighten the tip cone				
	Debris between the tip and tip cone	Clean the tip cone and use new tip				
Pipette tip drips	Seals/O ring damaged	Replace the affected seals/O rings				
	Debris between the piston and seal	Clean the seal and piston and re-lubricate				
	Piston insufficiently lubricated	Clean and re-lubricate the piston				
	Piston contaminated	Clean and re-lubricate the piston				
	Piston damaged	Replace piston and seal				
	Piston contaminated	Clean and re-lubricate the piston				
Volume control button sticks/not smooth	Seals contaminated	Unscrew lower housing, clean all seals and replace if necessary				
	Exposure to solvent vapors	Unscrew the lower housing and allow to air. Clean and lightly lubricate the piston				
Pipette blocked, not enough intake of liquid	Liquid has penetrated the tip cone and dried	Unscrew lower housing and rinse with warm water. Then rinse with distilled water and allow to dry				
		Replace tip cone				
Drop formation on inner	Uneven wetting of pipette tip	Attach new pipette tip				
wall of pipette tip	Using pipette tips with poor wetting properties	Use original USA Scientific TipOne® or TipOne® RPT pipette tips				
	Tip taken from liquid too quickly	Extract tip from liquid slowly				
Pipetting volume incorrect	Liquid with high vapour pressure used	Use positive displacement system, eg. USA Scientific Repeating Pipet				
	The pipette may require calibration	Refer to section 6				

4. Cleaning and Decontamination

External cleaning

- Check the pipette each day for external contamination.
- In particular, make sure the tip cone 7 is clean and undamaged.
- ErgoOne® pipettes should be cleaned regularly. They may also be placed under UV light if necessary.

Internal cleaning

- Regularly check the pistons, springs, seals, and the tip cones. For internal cleaning, we recommend a mild detergent, 60% isopropanol or a commercially available sterilizing agent.
- After cleaning, lightly lubricate the piston (for piston lubrication, see section 8 Ordering Information).
- For information about disassembling the pipette, see section 7 Maintenance.

Autoclaving

ErgoOne® can be fully autoclaved (121°C, 1 bar, 20 minutes). To increase effectiveness, we recommend removing the tip ejector 5. Also loosen the tip cone **1** by rotating it once (singlechannel only). After autoclaving, dry the pipette at low temperature. When all parts have fully cooled, re-tighten the pipette tip cone and replace the tip ejector sleeve.

Note: The ErgoOne® piston material is an innovative, wear-resistant plastic polymer, treated with a special lubricant during manufacture. During normal use, it is not necessary to re-lubricate. *If the pipette is frequently autoclaved* it may be necessary to re-lubricate the piston (see Internal cleaning). The piston material for the red color coded models is made from stainless steel

5. Technical Data

Technical Data ErgoOne® Pipettes					
ErgoOne® Single-Channel	Pipette volume	Systematic Measurement Deviation (Inaccuracy)	Coincidental Measurement Deviation (Imprecision; CV)		
0.1-2.5µl	0.1µl	±24%	±12%		
	0.25µl	±12%	±6.0%		
	1.25µl	±2.5%	±1.5%		
	2.5µl	±1.4%	±0.7%		
0.5—10µІ	1.0µl	±2.5%	±1.8%		
	5µl	±1.5%	±0.8%		
	10µl	±1.0%	±0.4%		
2–20μl (micro tip cone)	2µl	±5.0%	±1.5%		
	10µl	±1.2%	±0.6%		
	20µl	±1.0%	±0.3%		
2–20μl (standard tip cone)	2µl	±5.0%	±1.5%		
	10µl	±1.2%	±0.6%		
	20µl	±1.0%	±0.3%		
10-100µl	10µl	±3.0%	±1.0%		
	50µl	±1.0%	±0.3%		
	100µl	±0.8%	±0.2%		
20-200µl	20µl	±2.5%	±0.7%		
	100µl	±1.0%	±0.3%		
	200µl	±0.6%	±0.2%		
100-1000µl	100µl	±3.0%	±0.6%		
	500µl	±1.0%	±0.2%		
	1000µl	±0.6%	±0.2%		
500-5000µl	500µl	±2.4%	±0.6%		
	2500µl	±1.2%	±0.25%		
	5000µl	±0.6%	±0.15%		
ErgoOne® Multi-Channel	Pipette volume	Systematic Measurement Deviation (Inaccuracy)	Coincidental Measurement Deviation (Imprecision; CV)		
0.5-10µl	1.0µl	±8.0%	±5.0%		
	5µl	±4.0%	±2.0%		
	10µl	±2.0%	±1.0%		
10-100µl	10µl	±3.0%	±2.0%		
	50µl	±1.0%	±0.8%		
	100µl	±0.8%	±0.3%		
30-300µl	30µl	±3.0%	±1.0%		
	150µl	±1.0%	±0.5%		
	300µl	±0.6%	±0.3%		

Measurement data determined in compliance with the test conditions for piston-stroke pipettes according to EN ISO 8655

Measurement carried out with original TipOne® pipette tips

6. Calibration

During manufacture, ErgoOne® pipettes are aligned for transferring aqueous solutions and calibrated according to EN ISO 8655. We also recommend that you check your pipettes at regularly, defined intervals such as every 3 or 12 months.

Realignment is not necessary with normal use. However, if your pipettes still do not achieve the specified limiting values (see section 5 Technical Data), check the following points:

- Is the pipette seal broken? Is it dripping? (see section 3 Troubleshooting)
- Is the density of the liquid you are using different from that of water?
- Are there any temperature differences between the pipette, liquid and air?
- Was the liquid pipetted slowly and evenly?

If the check is unsuccessful, calibrate and realign your pipette. This can be carried out according to the following instructions. Alternatively, USA Scientific offers a professional Pipette Calibration Service with a fast turnaround.

Note that each alignment means a zero point shifting. The amount by which the pipette setting is changed is constant across the entire measurement range. If for example 1000µl is realigned by 10μl (1%) for a 100–1000μl pipette, then for 100µl, the pipette must also be corrected by $10\mu l = 10\%$.

Calibration & alignment

Calibration is a gravimetric analysis which requires an analytical balance adjusted to the pipetting volume, a weighing vessel and distilled water (room temperature).

General information

- Only use TipOne® pipette tips and attach these securely.
- Ensure that the pipette, pipette tips, and water are at the same temperature.
- Pre-wet each tip with distilled water at least three times.
- Always pipette evenly and slowly and hold the pipette upright.
- Immerse no more than 3 mm of the pipette tip into the liquid when taking a sample.
- Position the pipette at an angle of 30-45° to the inner wall of the tube when dispensing liquid.
- All channels of a multi-channel pipette must be checked separately.

Implementation

- Adjust the pipette to the required nominal volume.
- **b)** Pipet ten times, weighing and recording individual measurements..
- c) Calculate the mean value:

Mean value
$$x = \frac{\sum xi}{n}$$

 $xi = weighing results$
 $n = number of individual weighings$

d) Calculate the corresponding volume:

Volume (
$$\mu l$$
) = $\frac{x (mg)}{Density of liquid}$
 $x = calculated mean value$

The calculated volume corresponds to the actual setting of your pipette (the density of water at 20°C = 0.9982 q/ml).

e) If realignment is necessary, open the volume adjustment catch by pulling up the volume control button ① until you hear a click. Remove the cover of the alignment unit ③. Slide the button down, using a pointed object or pen (with the nib retracted), and (whilst holding the button down) turn the volume control button ① to change the piston stroke of the pipette (the volume display remains unchanged). Turn the volume control

button ① clockwise to increase the volume, counter clockwise to reduce the volume (see table 2 for details). Once alignment is complete, push the volume control button ① down again until you hear a click. Replace the alignment unit ③ cover, and the pipette is ready for use again.

A full rotation of the volume control button **1** corresponds to the following volume change:

Volume change				
ErgoOne® Single-Channel	Approximate Volume Change			
0.1-2.5µl	0.13µl			
0.5-10µl	0.7μΙ			
2-20µl (micro cone)	1.4µl			
2-20µl (standard cone)	1.4µl			
10-100µl	7μΙ			
20-200µl	14µl			
100-1000µl	70µl			
500-5000µl	340µl			
ErgoOne® Multi-Channel	Approximate Volume Change			
0.5-10µl	0.7μΙ			
10-100µl	7μΙ			
30-300µl	14µl			

Table 2

Note: Multi-channel pipettes are only aligned on one channel. Attach a single tip to any channel and proceed as described above.

7. Maintenance

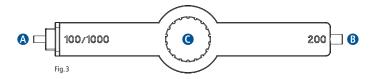
ErgoOne® is a low maintenance pipette. However, individual working methods, length of application and internal quality control guidelines mean that regular monitoring and maintenance of your pipette is necessary.

Note: If you make any changes to the pipette or replace individual parts, a check with recalibration is required. If the pipette cannot be calibrated successfully or if a fault continues, contact USA Scientific.

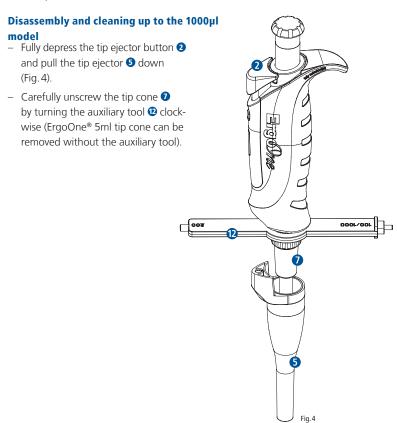
7.1 Maintaining Single-Channel Pipettes

The figures shown below refer to the 200µl model. They may differ slightly for other pipette models.

The maintenance work is carried out with the aid of the auxiliary tool supplied (tool not required for 5ml pipette) (Fig. 3)



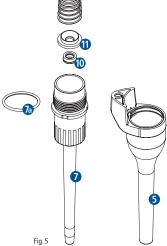
- Φ For removing and replacing the seals on the 100μl and 1000μl models.
- B For removing and replacing the seals on the 200µl model
- For loosening the lower housing of all single channel pipettes up to the 1000µl model

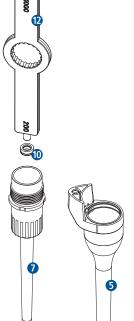


Remove the O-ring ô, spring 3 and piston 9
 (Fig. 5).

Note: The piston is subject to spring tension.

- Degrease the piston 9 using an alcoholic disinfectant and re-lubricate the piston with original
 USA Scientific piston grease (see section 8 Ordering Information). A damaged piston must be replaced.
- Reassemble the pipette in the reverse order.





Replacing seals for models up to 1000µl

- Remove the spacer ring (0 (only 100 μl, 200 μl and 1000 μl models) (Fig. 5).
- Remove the sealing ring from the tip cone using the auxiliary tool (Fig. 6) and replace it (see section 8 Ordering Information for replacement sealing ring).
- Reassemble the pipette in the reverse order.

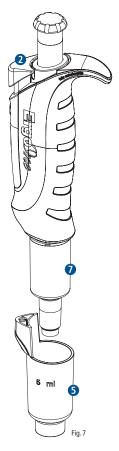
Fig. 6

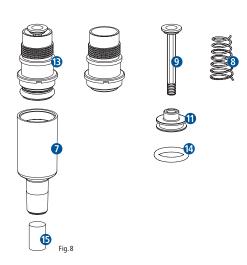
Cleaning pistons and seals for 5ml model

- Fully depress the tip ejector button 2 and pull the tip ejector 5 down (Fig. 7).
- Carefully unscrew the pipette tip cone and the piston unit 13 in a clockwise direction. Pull the support ring **1** off the piston **9**. Remove the O-ring 10. Now you can clean the spring 10 and the piston (Fig. 8).

Note: The piston is subject to spring tension. If the spring or piston should become damaged, the piston unit must be replaced (see section 8 Ordering Information for a replacement piston unit).

- Degrease the O-ring 49 of the piston unit 43 using an alcoholic disinfectant and re-lubricate it with original USA Scientific piston grease (see section 8 Ordering Information).
- The pipette filter (5) is easy to remove by pulling it out of the tip cone **1**. Three replacement filters are included with the pipette. Further replacement filters are available (see section 8 Ordering Information).
- Reassemble the pipette in the reverse order.





7.2 Maintaining Multi-Channel Pipettes

The figures shown below refer to the $100\mu l$ model. They may differ slightly for other pipette models.

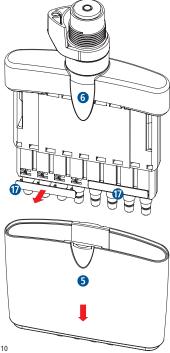
Changing the O rings (100µl and 300µl models only)

O-rings for the pipette cone are removed and replaced using the optional auxiliary tool (see section 8 Ordering Information).



Disassembling the lower housing of the pipette

- Fully unscrew the lower housing 6 by turning clockwise (Fig. 9).
- To remove the tip ejector \$\mathbf{3}\$ squeeze with finger and thumb on either side of the tip ejector, just below the ejector fixing \$\mathbf{3}\$. This will allow you to slightly lift the ejector fixing \$\mathbf{3}\$ which will release the tip ejector \$\mathbf{3}\$.
- Pull both clips ① down and rotate the lower housing through 180° (Fig. 10).



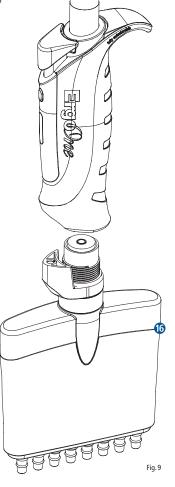
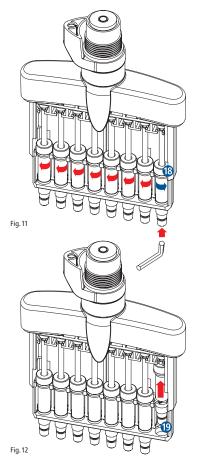
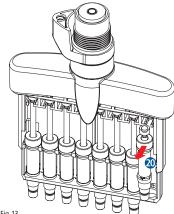


Fig. 10

Cleaning/changing the piston unit

- The piston unit ® is released from the piston frame by turning it with the Allen key (Fig. 11).
- The piston cylinder ⁽¹⁾ is pushed up (Fig. 12) and the entire piston unit @ can now easily be removed from the front (Fig. 13) and cleaned externally using an alcoholic disinfectant. Re-lubricate the piston with original USA Scientific piston grease (see section 8 Ordering Information).
- The piston unit should not be disassembled. In the event of damage, it should be fully replaced (see section 8 Ordering Information for a replacement piston unit).
- Reassemble the pipette in the reverse order.





8. Ordering Information

ErgoOne® Pipettes						
Volume Range	Color Code					
ErgoOne® Single-Channel						
0.1-2.5µl	7100-0125	1	Red			
0.5-10µl	7100-0510	1	Red			
2-20µl (micro tip cone)	7100-0221	1	Red			
2–20µl (standard tip cone)	7100-0220	1	Yellow			
10-100µl	7100-1100	1	Yellow			
20-200µl	7100-2200	1	Yellow			
100-1000µl	7110-1000	1	Blue			
500 - 5000µl	7150-5000	1	Violet			
	ErgoOne® 8-C	hannel				
0.5-10µl	7108-0510	1	Red			
10-100µl	7108-1100	1	Yellow			
30-300µl	7108-3300 1		Green			
ErgoOne® 12-Channel						
0.5-10µl	7112-0510	1	Red			
10-100µl	7112-1100	1	Yellow			
30-300µl	7112-3300	1	Green			

ErgoOne® Accessories					
Description	Cat.No.	Pack Size			
Universal Pipette Carousel Stand for up to 8 pipettes	7200-0000	1			
Silicone Grease for Pipette Piston	7200-0100	1			
Tool for Single-Channel Pipettes	7200-0101	1			
Tool for Multi-Channel Pipettes	7200-0102	1			

Spare Parts for ErgoOne® Single Channel					
Volume Range		Catalog No.			
	Tip Ejector	Tip Holder	Piston		
0.1-2.5µl	7200-0200	7200-0210*	7200-0220		
0.5-10µl	7200-0201	7200-0211*	7200-0221		
2-20µl (micro tip cone)	7200-0202	7200-0212*	7200-0222		
2-20µl (standard tip cone)	7200-0202	7200-0213*	7200-0223		
10-100µl	7200-0204	7200-0214	7200-0224		
20-200µl	7200-0205	7200-0215	7200-0225		
100-1000µl	7200-0206	7200-0216	7200-0226		
	Spring	Sealing Ring, Set of 3	Spacer Ring		
0.1-2.5µl	7200-0230	Included with tip cone	-		
0.5-10µl	7200-0230	Included with tip cone	-		
2-20µl (micro tip cone)	7200-0230	Included with tip cone	-		
2-20µl (standard tip cone)	7200-0230	Included with tip cone	-		
10-100µl	7200-0230	7200-0244	7200-0250		
20-200µl	7200-0230	7200-0245	7200-0250		
100-1000µl	7200-0236	7200-0246	7200-0252		
	Tip Ejector	Tip Cone	Piston Unit		
	7200-0207	7200-0217	7200-0227		
500-5000μl	Pipette Filter, Set of 10	-	-		
	7200-0260	-	-		

^{*}The tip cone for the 0.1-2.5 $\mu l,\,0.5$ -10 μl and 2-20 μl models include sealing ring.

Spare Parts for ErgoOne® Multi Channel						
Volume Range						
	O-Rings for Tip Cone, Set of 4	Piston Unit, Set of 2	Lower Part, Complete			
ErgoOne® 8-Channel						
0.5-10µl	-	7200-0320	7200-0330			
10-100 µl	7200-0310	7200-0321	7200-0331			
30-300µl	30-300µl 7200-0310 7200-0322		7200-0332			
	ErgoOne [©]	12-Channel				
0.5-10 µl	-	7200-0320	7200-0335			
10-100 µl	7200-0310	7200-0321	7200-0336			
30-300µl	7200-0310	7200-0322	7200-0337			

9. Pipette Tip Compatibility

		Bulk	Racks	Sterile Racks	Refills	Stack Racks	
ErgoOne [®] Volume Range	TipOne [®] Pipette Tips	1000 Tips	10 x 96 Tips	10 x 96 Tips	10 x 96 Tips	10 x 96 Tips	
0.1-2.5 μl 0.5-10 μl	10 μl Graduated	1111-3000	1111-3800	1111-3810	1111-3700	1111-3200	
2-20 µl (Micro Tip Cone)	10/20 μl XL Graduated	1110-3000	1110-3800	1110-3810	1110-3700	-	
	20 μl Bevelled	-	-	-	-	-	
	20 μl Profile	-	-	-	-	-	
	50 μl Bevelled	-	-	-	-	-	
	100 μl Bevelled	-	-	-	-	-	
2-20 μl (Standard Tip	100 μl Profile	-	-	-	-	-	
Cone) 10–100 µl	200 μl Graduated	-	-	-	-	-	
20-200 μl	200 µl	1111-0000	1111-0800	1111-0810	1111-0700	1111-0200	
	200 μl Yellow	1111-0006	1111-0806	1111-0816	1111-0706	1111-0206	
	200 μl Bevelled	1111-1000	1111-1800	1111-1810	1111-1700	1111-1200	
	200 μl Yellow, Bevelled	1111-1006	1111-1806	1111-1816	1111-1706	1111-1206	
	200 μl Profile, Graduated	1110-1000	1110-1800	1110-1810	1110-1700	1110-1200	
30-300 µl	300 μl Graduated	1110-9000	1110-9800	1110-9810	1110-9700	-	
	1000 μΙ	-	-	-	-	-	
	1000 µl Graduated	1111-2020	1111-2820	1111-2830	1111-2720	-	
100–1000 µl	1000 µl Blue, Graduated	1111-2021	1111-2821	1111-2831	1111-2721	-	
	1250 μl XL (1000 μl XL Filter)	1112-1020	1112-1820	1112-1830	1112-1720	-	
		250 Tips	10 x 50 Tips	10 x 50 Tips			
500-5000 µl	5000 µl Graduated, Macro	1050-0000	1050-0700	1050-0710	-	-	

 $When \ using \ Tip One \ RPT \ tips \ please \ recall brate \ your \ pipette \ for \ best \ accuracy.$

Stack Racks Sterile	Sterile Filter Tip Racks	Sterile Filter Tip Refills	RPT Racks	RPT Refills	RPT Sterile Filter Tip Racks	RPT Sterile Filter Tip Refills
10 x 96 Tips	10 x 96 Filter Tips	10 x 96 Filter Tips	10 x 96 Tips	10 x 96 Tips	10 x 96 Filter Tips	10 x 96 Filter Tips
1111-3210	1121-3810	1121-2710	1161-3800	1161-3700	1181-3810	1181-3710
-	1120-3810	1120-3710	1160-3800	1160-3700	1180-3810	1180-3710
-	1120-1810	1120-1710	-	-	1180-1810	1180-1710
-	1123-1810	1123-1710	-	-	1183-1810	1183-1710
-	1120-2810	1120-2710	-	-	-	-
-	1120-1840	1120-1740	-	-	1180-1840	1180-1740
-	1123-1840	1123-1740	-	-	1183-1840	1183-1740
-	1120-8810	1120-8710	-	-	1180-8810	1180-8710
1111-0210	-	-	-	-	-	-
-	-	-	-	-	-	-
1111-1210	-	-	1161-1800	1161-1700	-	-
-	-	-	-	-	-	-
-	-	-	1163-1800	1163-1700	-	-
-	1120-9810	1120-9710	1160-9800	1160-9700	1180-9810	1180-9710
-	1126-7810	1126-7710	-	-	-	-
-	-	-	-	-		
-	-	•	-	-	-	-
-	1121-1830	1122-1730	1161-1820	1161-1720	1182-1830	1182-1730
	10 x 50 Tips					
-	1050-0810	-	-	-	-	-

10. Warranty

Please check the all the goods have been delivered and are intact. If you have any problems, please contact our Customer Service department. ErgoOne® Limited Warranty is effective for 36 months from the date of delivery when the product is used according to the instructions. Damage caused by improper use is not covered. This Limited Warranty covers, at the sole discretion of USA Scientific, repairs to or replacements of the equipment. Our "General Terms and Conditions" apply.

USA Scientific reserves the right to make changes to specifications without prior notice in order to implement short-term innovations.

ErgoOne® pipettes are manufactured to high quality standards. Each pipette is marked with an individual serial number behind the tip ejector button. The test results of the EN ISO 8655 quality test are also documented in a test record. The test record is delivered as a separate "Declaration of Conformity" document in each package.