

PRECISION LIQUID HANDLING



Pipettes



HAMILTON 
THE MEASURE OF EXCELLENCE™

Hamilton SoftGrip™ Pipettes; 2nd Generation – The

Outstanding Quality

The SoftGrip pipette, with its award-winning, innovative design,* is built to last just like our precision syringe products. SoftGrip manual pipettes are completely autoclavable for easy decontamination and sterilization.

Total Comfort

The soft, ergonomic shape and low plunger forces of the SoftGrip pipette reduce hand and wrist fatigue as compared to other pipettes. Using SoftGrip pipettes decreases the risk factors associated with pipette-related repetitive stress injuries such as carpal tunnel syndrome.

Guaranteed Accuracy and Precision

SoftGrip pipettes deliver superior accuracy and precision. Every pipette is calibrated at the factory with standards traceable to NIST and shipped with a Certificate of Calibration documenting the pipette's accuracy and precision. Accuracy is guaranteed with Hamilton AdvanTip™ Precision Pipette Tips.

*Outstanding design awards received from Industrial Designers Society of America, Business Week for Medical & Scientific Products, and the Chicago Athenaeum Museum of Architecture and Design.

Volume Indicator

Dual pointer simplifies volume adjustment.



Enhanced Comfort

Separate tip ejector button with curved shape reduces hand motion.



Soft Plunger Action

Low-force, sloped plunger button lessens thumb extension and overuse.



New Standard for Quality, Comfort and Precision



One Stroke Tip Ejection

Lever-action ejector removes all tips on the first stroke and is easily re-set for left-handed operation.

Relaxed Grip

Ergonomically contoured handle with soft, non-slip surface fits perfectly in your hand to minimize fatigue.

Maintains Volume Setting

Isolated volume adjustment ring prevents accidental volume changes.

Light, Balanced Feel

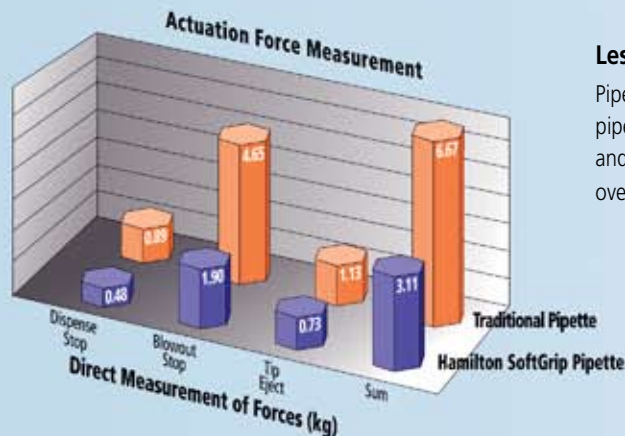
Curved hilt supports the pipette to provide finer control while pipetting.



SoftGrip™ Pipettes

The Best Ergonomic Pipette, Proven Scientifically in an Independent Study

Use of the SoftGrip pipette decreases several of the risk factors associated with the development of repetitive stress injuries, including carpal tunnel syndrome.



Less Force = Less Fatigue and Discomfort

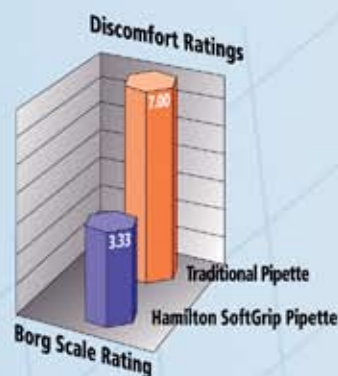
Pipette actuation force measurements were taken for the three pipetting actuation forces: (1) Dispense Stop, (2) Blowout Stop, and (3) Tip Eject. SoftGrip pipettes require less than half the overall force when compared to a traditional pipette.

Less Fatigue and Discomfort = Increased User Satisfaction



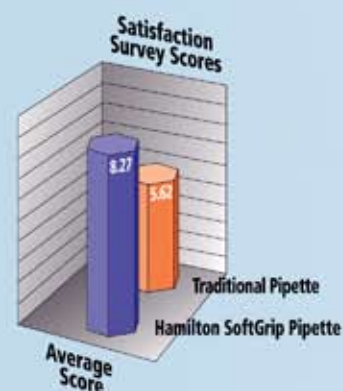
Fatigue Experiment

Loss in strength was measured following a one-hour pipetting session. Power grip strength retention was more than five times better with SoftGrip pipettes. Pinch grip strength loss was nearly half that experienced with a traditional pipette.



Discomfort Rating

Using the widely accepted Borg 10 point scale for discomfort, the SoftGrip pipette showed less than half the discomfort experienced with a traditional pipette after a one hour pipetting session.



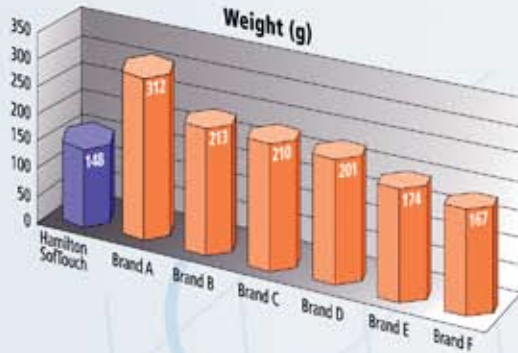
Highest User Satisfaction

The SoftGrip pipette received the highest average score out of 10 possible for 11 different aspects of a pipette, including plunger and eject forces, weight, diameter, and texture.

SofTouch™ Electronic Pipettes

The Total Solution for Ergonomic Pipetting

SofTouch electronic pipettes offer a total ergonomic pipetting solution, particularly for applications that require intensive pipetting for long durations of time.



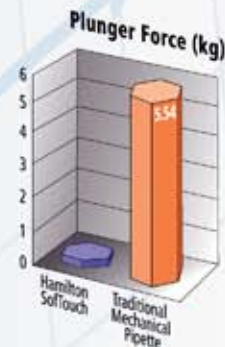
Less Weight = Less Strain

SofTouch pipettes are the lightest electronic pipette available. There is a substantial difference in weights of various electronic pipette brands. Use of the ultra lightweight SofTouch pipette minimizes arm strain while providing the ergonomic benefits of electronic pipetting.

Eliminates nearly 100% of Pipetting Forces on the Thumb

A simple touch of a button is all that's required to actuate all piston movement for the SofTouch pipettes. Mechanical pipettes require thumb-controlled plunger movement which results in more than 5 kg of force using a traditional pipette. Tip ejection is performed with a lever design that eliminates all tip eject forces on the thumb and distributes the force over four fingers.

A gentle squeeze is all that is required to eject tips.



Ergonomics, Hamilton Pipettes, & You

Ergonomics has become a critical factor in today's laboratories. Research has shown that use of traditional pipettes for more than 300 hours per year is associated with an increased risk of hand and shoulder ailments¹. To address the ergonomic issues facing laboratories, Hamilton pipettes were ergonomically designed to minimize the amount of fatigue and discomfort typically experienced in pipetting. Overall, use of Hamilton pipettes decreases several of the risk factors associated with the development of repetitive stress injuries, including carpal tunnel syndrome. As proven in an independent study², the Hamilton pipette is the best ergonomic pipette design.

In addition to using an ergonomically designed pipette, there are several steps that should be taken in the laboratory to decrease the risk of pipette-related repetitive stress injuries. Take a 1-2 minute break after every 20 minutes of pipetting, if possible. Alternate between tasks in the laboratory to minimize the duration of pipetting sessions. Ensure you're working in an ergonomic workspace. The bench should be at the proper height, and the chair should have an adjustable height with full back support. Your feet should not be dangling; the chair should provide a foot support or a bench should be available to rest your feet on. Use Hamilton AdvanTip™ Precision Pipette Tips to ensure a perfect fit on Hamilton pipettes for a positive seal without excess force during tip installation. The perfect fit minimizes tip eject forces.

¹ Bjorsten, M.G., B. Almby, and E.S. Jansson, Hand and shoulder ailments among laboratory technicians using modern plunger-operated pipettes, *Applied Ergonomics*, 1994 25(2): 88-94.

² Study conducted by Ergonomic Engineering, Inc., 20 Gulf Road, Pelham, Massachusetts, 01002; tel. (800) 375-ERGO(3746). For a complete copy of the study, please contact Hamilton Company.



SofTop™ Quik Dispenser



SofAide™ Pipette Controller



SofGrip™ Pipette

for Ergonomic Fluid Handling

AdvanTip™ Precision Pipette Tips



SofTouch™ Electronic Pipette

For 50 years, Hamilton has been synonymous with outstanding precision fluid measuring products. We extended our world-renowned syringe expertise to the SoftGrip family of pipettes specifically designed to minimize hand strain, fatigue, and injuries. The results set the standard for quality, comfort and precision. You'll feel the difference the first time you pick one up.

SoftGrip™
Pipettes

SoftTouch™
Electronic Pipettes

AdvanTip™
Pipette Tips

SoftAide™
Pipette Controller

SoftAide™
Quik Dispenser

Replacement Parts
and Accessories

SoftGrip™ Pipettes – Single Channel

- **Wide Selection of Ergonomic Pipettes**
- **Completely Autoclavable**
- **Guaranteed Accuracy and Precision**

SoftGrip pipettes routinely receive the highest user satisfaction score of 10 on 11 different aspects of a pipette, including plunger and eject forces, weight, diameter, and texture. Choose from six adjustable volume and ten fixed volume SoftGrip pipettes covering 0.2 μ L to 1 mL. All pipettes have color-coded plunger buttons and labels for easy volume identification.

SoftGrip air-displacement pipettes are built from high quality, state-of-the-art materials designed to provide years of reliable service. All pipettes are completely autoclavable for easy decontamination and sterilization without the need for disassembly and recalibration.

The isolated volume ring prevents accidental volume changes. A magnified, easy-to-read micrometer ensures reproducible, accurate volume setting. Each pipette meets or exceeds industry standards for accuracy and precision when used with Hamilton Universal AdvanTip™ Precision Pipette Tips.



Manual Single Channel Pipettes

SoftGrip™ Adjustable Volume Pipettes, 0.2 µL - 1 mL

Part No.	Volume	Increments (µL)	Color		At 10% of Pipette Volume		At 100% of Pipette Volume	
					Accuracy within ±%	Precision within +%	Accuracy within ±%	Precision within +%
55019-30	0.2-2 µL	0.002	Aqua		8.00	4.00	1.20	0.60
55019-32	1-10 µL	0.02	Purple		2.50	1.20	0.80	0.40
55019-34	2.5-25 µL	0.02	Forest Green		4.50	1.50	0.80	0.20
55019-36	10-100 µL	0.2	Violet		1.80	0.70	0.60	0.15
55019-38	30-300 µL	0.2	Brick Red		1.20	0.40	0.40	0.15
55019-40	100 µL-1 mL	2.0	Sky Blue		1.60	0.50	0.30	0.12

SoftGrip Fixed Volume Pipettes, 5 µL - 1 mL

Part No.	Volume	Color		At 100% of Pipette Volume	
				Accuracy within ±%	Precision within +%
55019-01	5 µL	Steel Blue		1.40	0.75
55019-03	10 µL	Purple		0.80	0.40
55019-05	25 µL	Forest Green		0.80	0.30
55019-07	50 µL	Sandstone		0.60	0.30
55019-09	100 µL	Violet		0.50	0.20
55019-11	200 µL	Mustard		0.40	0.18
55019-13	250 µL	Burnt Orange		0.40	0.18
55019-15	300 µL	Brick Red		0.40	0.18
55019-17	500 µL	Olive Green		0.40	0.18
55019-19	1 mL	Sky Blue		0.30	0.12

Selecting the Right Hamilton AdvanTip™ Pipette Tip

Pipette Part No.	Pipette Volume	Hamilton Tip	Page No.
55019-30	0.2-2 µL	10 µL	21 and 22
55019-32	1-10 µL	10 µL	21 and 22
55019-34	2.5-25 µL	200 µL	21 and 22
55019-36	10-100 µL	200 µL	21 and 22
55019-38	30-300 µL	300 µL	21 and 22
55019-40	100 µL-1 mL	1000 µL	21 and 22

Pipette Part No.	Pipette Volume	Hamilton Tip	Page No.
55019-01	5 µL	10 µL	21 and 22
55019-03	10 µL	10 µL	21 and 22
55019-05	25 µL	200 µL	21 and 22
55019-07	50 µL	200 µL	21 and 22
55019-09	100 µL	200 µL	21 and 22
55019-11	200 µL	200 µL	21 and 22
55019-13	250 µL	300 µL	21 and 22
55019-15	300 µL	300 µL	21 and 22
55019-17	500 µL	1000 µL	21 and 22



SoftGrip Single Channel Pipette Carousel

Keeps pipettes safe and within easy reach.
Constructed of heavy, solvent-resistant plastic.

Part No.	Description
53578-01	Holds Six Single and Multi-Channel Pipettes



Calibration Labels

Quickly record and view calibration data with labels placed on your pipettes.

Part No.	Description
1987-01	Calibration Labels, 120/pk



Calibration Key

For simple calibration in the field.

Part No.	Description
34002	Calibration Key

SoftGrip™
Pipettes

SoftTouch™
Electronic Pipettes

AdvanTip™
Pipette Tips

SoftAide™
Pipette Controller

SoftAide™
Quick Dispenser

Replacement Parts
and Accessories

SoftGrip™ Pipettes – Multi-Channel

- **Easily Adjusts for Left-Hand Operation**
- **Completely Autoclavable**
- **Guaranteed Accuracy and Precision**

Hamilton SoftGrip pipettes are available as 8-channel and 12-channel adjustable volume manual pipettes in two volume ranges covering 5 μ L to 50 μ L and 30 μ L to 300 μ L. The pipettes have color-coded plunger buttons and labels for quick volume identification.

The unique, long tip ejector lever and movable lower body can be rotated a full 360° relative to the handle to provide maximum comfort for left- or right-handed use. Additionally, the easily activated tip ejector lever releases all the tips in single stroke.

Made of the finest materials, the entire SoftGrip multi-channel pipette can be autoclaved without the need for disassembly or recalibration.

Accuracy and precision is guaranteed when used with Hamilton Universal AdvanTip™ Precision Pipette Tips.



Manual Multi-Channel Pipettes

SoftGrip™ Multi-Channel Pipettes, 8-Channel, 5 µL - 300 µL

Part No.	Volume	Increments (µL)	Color		Accuracy within ±%	Precision within +%	Accuracy within ±%	Precision within +%
55019-50	5-50 µL x 8	0.02	Sandstone	●	2.00	2.00	0.80	0.35
55019-52	30-300 µL x 8	0.2	Brick Red	●	1.20	0.70	0.50	0.30

SoftGrip Multi-Channel Pipettes, 12-Channel, 5 µL - 300 µL

Part No.	Volume	Increments (µL)	Color		Accuracy within ±%	Precision within +%	Accuracy within ±%	Precision within +%
55019-54	5-50 µL x 12	0.02	Sandstone	●	5.00	2.00	1.00	0.50
55019-56	30-300 µL x 12	0.2	Brick Red	●	2.40	1.20	1.00	0.50

Selecting the Right Hamilton AdvanTip™ Pipette Tip

Pipette Part No.	Pipette Volume	Hamilton Tip	Page No.
55019-50	5-50 µL x 8	200 µL	21 and 22
55019-52	30-300 µL x 8	300 µL	21 and 22
55019-54	5-50 µL x 12	200 µL	21 and 22
55019-56	30-300 µL x 12	300 µL	21 and 22



SoftGrip Multi-Channel Pipette Stand

Keeps pipette safe and within easy reach.
Constructed of heavy, non-skid, metallic casting.

Part No.	Description
34195	Holds One Multi-Channel Pipette



Calibration Labels

Quickly record and view calibration data with labels placed on your pipettes.

Part No.	Description
1987-01	Calibration Labels, 120/pk



Calibration Key

For simple calibration in the field.

Part No.	Description
34002	Calibration Key

Promotions

Hamilton SoftGrip™ Pipette Promotions SoftStart Pipette Kit



SoftStart Pipette Kits

- Any 3 SoftGrip Pipettes
- 3 Racks of Matching Pipette Tips
- 6 Position Pipette Carousel
- Free Shipping

Trade-In Discounts

- SoftGrip and SofTouch™ Pipettes
- Single and Multi-Channel Pipettes
- Up to \$450 off per pipette
- Free Shipping

Pipette Tip Promotions

- High quality Standard and Low Retention tips
- Volume Based Discounts
- Earn Free Pipettes and Accessories
- Free Shipping

Packages and promotions are subject to change
For current details and pricing please visit:

www.hamiltoncompany.com/news/prodpromos.asp

Certification, Calibration, and Repair Services

Hamilton is here to help you keep your SoftGrip and SoftTouch pipettes performing to Hamilton's superior accuracy and precision specifications.

- Testing under stringent conditions on state-of-the-art equipment
- Calibrations pursuant to ANSI/NCSL Z-540-1-1994, with unbroken chain of calibrations traceable to NIST
- New Certificate of Calibration documenting test conditions, data, and results

To send in a pipette for re-calibration or service in the U.S.A., visit the Hamilton website or call 1-888-525-2123.

For authorized service outside of the U.S.A., contact your local Hamilton Company office or representative.

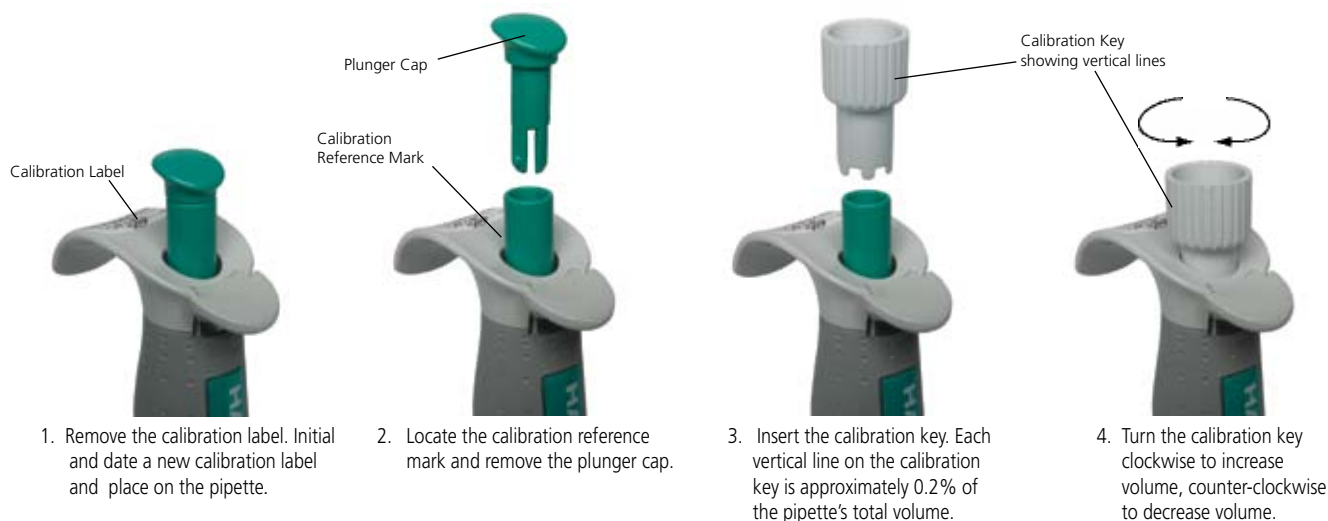


Easy In-Lab Calibration for SoftGrip Pipettes

Calibration of SoftGrip pipettes is a simple procedure that requires only a single calibration key.

For complete details visit our website at

<http://www.hamiltoncomp.com/newdev/pipettes/calibration.asp>



Hamilton SofTouch™ Electronic Pipettes – Best Value

Highest Throughput with Least Effort

SofTouch pipettes provide the total ergonomic solution to repetitive or critical pipetting tasks. With an ultra-lightweight and ergonomic design, SofTouch pipettes increase throughput while simultaneously reducing your workload and the risk of repetitive stress injuries. All piston movements are driven with a fast, highly precise DC-motor, virtually eliminating all forces on the hand and thumb.

Comfort and Convenience

SofTouch pipettes are the lightest electronic pipettes available. Seven different pipetting modes can be performed with a soft touch of the start button, simplifying even the most labor-intensive and time-consuming pipetting tasks. Programming is simple and intuitive with a user-friendly interface. The direct-connect recharging system keeps you up and running at all times.

Exceptional Accuracy and Precision

The self-calibrating, microprocessor-based system reduces variability in pipetting technique. The result is consistently superior pipetting performance from one user to the next.

The DC-motor-based technology, using a unique solenoid brake mechanism with integrated optical encoder, provides outstanding precision for multiple dispensing applications. Each SofTouch pipette is provided with a Certificate of Calibration stating accuracy and precision according to DIN 12650.



Less Strain

Ultra-lightweight design minimizes forces on hand, arm, and upper body.



Minimal Effort

A light, soft touch electronically activates and controls the plunger.



Stress-Free Tip Ejection

Eject tips with a gentle squeeze of the whole hand lever.

in High Performance Electronic Pipetting



More Options— Seven Programming Modes

- Pipetting
- Pipetting with Mixing
- Multiple Dispensing
- Reverse Pipetting
- Diluting
- Diluting with Mixing
- Sequenced Dispensing

Five independent aspirate and dispense speed settings for optimal liquid handling.



Easy Pipette Identification

Pipettes are color-coded according to volume.



Increased Throughput

DC-motor and computerized drive system for fast operation.



No Downtime

Direct-connect recharging system keeps you up and running all the time.

SoftGrip™
Pipettes

SoftTouch™
Electronic Pipettes

AdvanTip™
Pipette Tips

SoftAide™
Pipette Controller

SoftAide™
Quick Dispenser

Replacement Parts
and Accessories

Programming and Functionality

SofTouch™ Navigation and Programming



Pipetting Mode (P):

Pipetting is the SofTouch default operating mode. The Adjustment buttons can be used for quick changes to the desired dispense volume. The mixing option can be selected by pressing the Mixing Button.

- Step 1: Set the desired volume
- Step 2: Press the Start Button to aspirate sample into the tip
- Step 3: Press the Start button to dispense sample followed by a blow-out

Reverse Pipetting Mode (rP):

Reverse Pipetting minimizes the effects of surface tension and vapor pressure for highly viscous and volatile samples. For these sample types Reverse Pipetting can improve accuracy and precision.

- Step 1: Set the desired volume
- Step 2: Press the Start Button to aspirate more than the required sample volume
- Step 3: Press the Start Button to dispense the required sample
- Step 4: Press the Start Button twice to discard the excess sample or hold the Start Button for one second to skip the discard step

Programming and Functionality

Repeat Dispensing Mode (d):

Repeat Dispensing is used to speed up repetitive dispenses of the same volume. The pipette aspirates sample once and performs several dispenses.

- Step 1: Set the desired volume and number of dispenses
- Step 2: Press the Start Button to aspirate enough sample for all dispenses
- Step 3: Press the Start Button to prepare the pipette
- Step 4: Press the Start Button to dispense the first aliquot
- Step 5: Repeat step 4 for the remaining dispenses
- Step 6: Press the Start Button to blow out the remaining sample

Diluting Mode (dd):

Diluting mode aspirates two different samples, separated by an air gap, into the same pipette tip. This minimizes contamination of the second sample and increases throughput. The mixing option can be selected by pressing the Mixing Button.

- Step 1: Set the desired volume for sample one and sample two
- Step 2: Press the Start Button to aspirate the first sample
- Step 3: Remove the tip from the sample and press the Start Button to draw an air gap
- Step 4: Press the Start Button to aspirate the second sample
- Step 5: Finally press the Start Button to dispense the samples and the air gap

Sequence Dispense Mode (Sd):

Sequence Dispensing is useful for repetitive dispensing applications that involve multiple different dispense volumes.

- Step 1: Set the desired series of volumes to dispense
- Step 2: Press the Start Button to aspirate enough sample for all dispenses
- Step 3: Press the Start Button to prepare the pipette
- Step 4: Press the Start Button to dispense the first aliquot
- Step 5: Repeat step 4 for the remaining dispenses
- Step 6: Press the Start Button to blow out the remaining sample

Mixing Mode (*):

Mixing mode is available when using Pipetting and Diluting Modes. This allows for the sample to be completely mixed following an addition or dilution.

- Step 1: Use the Mode Button to select either Pipetting or Diluting
- Step 2: Press the Mixing Button. The screen should display P* or dd*
- Step 3: Perform the pipetting or diluting operation as described previously
- Step 4: To mix press and hold the Start Button with the tip in the sample
- Step 5: To blow out remaining sample in the tip press the Start Button twice.

SofTouch™ Electronic Pipettes

- **The Total Ergonomic Solution**
- **Easy-to-Operate and Fast**
- **Guaranteed Accuracy and Precision**

SofTouch electronic pipettes provide the best in user-friendliness, safety, and efficiency. Nearly 100% of the pipetting forces on the thumb are eliminated. SofTouch pipettes automatically aspirate, dispense, and perform the blowout step based on the selected program.

Take the effort out of pipetting and choose from four single channel adjustable volume SofTouch pipettes covering 0.2 μ L to 5 mL and eight multi-channel adjustable volume pipettes covering 0.2 μ L to 1.2 mL. SofTouch multi-channel pipettes are available with eight or twelve channels.

SofTouch air-displacement pipettes are simple to operate with an intuitive interface. One-handed operation, a motorized piston, and a choice of speeds make pipetting extremely fast for high-throughput applications. Cost of operation is low as the DC-motor controls aspiration preventing liquid from reaching and damaging the piston.

The combination of the self-calibrating, microprocessor and DC-motor-based system increases accuracy and precision because pipetting is independent of user variation. Accuracy and precision is guaranteed when used with Hamilton Universal AdvanTip™ Precision Pipette Tips.



Electronic Pipettes

SofTouch™ Single Channel Electronic Pipettes, 0.2 µL - 5 mL

Part No.	Volume	Increments (µL)	Color		At 10% of Pipette Volume		At 100% of Pipette Volume	
					Accuracy within ±%	Precision within +%	Accuracy within ±%	Precision within +%
8707-01XX	0.2-10 µL	0.1	Purple	●	2.50	1.50	0.90	0.50
8707-02XX	5-100 µL	1.0	Violet	●	2.00	1.00	0.40	0.15
8707-03XX	50-1000 µL	5.0	Sky Blue	●	1.50	1.50	0.40	0.15
8707-04XX	100-5000 µL	50.0	Graphite	●	0.80	0.30	0.50	0.15

SofTouch Multi-Channel Electronic Pipettes, 8-Channel, 0.2 µL - 1200 µL

Part No.	Volume	Increments (µL)	Color		At 10% of Pipette Volume		At 100% of Pipette Volume	
					Accuracy within ±%	Precision within +%	Accuracy within ±%	Precision within +%
8707-05XX	0.2-10 µL	0.1	Purple	●	4.00	4.00	0.90	0.50
8707-06XX	5-100 µL	1.0	Violet	●	2.50	1.50	0.50	0.20
8707-07XX	25-250 µL	5.0	Burnt Orange	●	1.50	1.00	0.40	0.10
8707-08XX	50-1200 µL	10.0	Teal	●	4.00	0.80	0.50	0.15

SofTouch Multi-Channel Electronic Pipettes, 12-Channel, 0.2 µL - 1200 µL

Part No.	Volume	Increments (µL)	Color		At 10% of Pipette Volume		At 100% of Pipette Volume	
					Accuracy within ±%	Precision within +%	Accuracy within ±%	Precision within +%
8707-09XX	0.2-10 µL	0.1	Purple	●	4.00	4.00	0.90	0.50
8707-10XX	5-100 µL	1.0	Violet	●	2.50	1.50	0.50	0.20
8707-11XX	25-250 µL	5.0	Burnt Orange	●	1.50	1.00	0.40	0.10
8707-12XX	50-1200 µL	10.0	Teal	●	4.00	0.80	0.80	0.15

Replace 'XX' for regional adapter: US = U.S.A., EU = Europe, UK = United Kingdom, and JP = Japan.

Direct-connect AC/DC recharging adapter and environmentally friendly NiMH rechargeable battery included with all SofTouch Pipettes.

Optional Pipette Safe™ Tip Cone Filters to prevent sample cross-contamination are available for all SofTouch Pipettes.

Selecting the Right Hamilton AdvanTip™ Pipette Tip

Pipette Part No.	Pipette Volume	Hamilton Tip	Page No.
8707-01XX	0.2-10 µL	10 µL	21and22
8707-02XX	5-100 µL	100 and 200 µL	21and22
8707-03XX	50-1000 µL	1000 µL	21and22
8707-04XX	100-5000 µL	5000 µL	21and22
8707-05XX	0.2-10 µL x 8	10 µL	21and22

Pipette Part No.	Pipette Volume	Hamilton Tip	Page No.
8707-07XX	25-250 µL x 8	300 µL	21and22
8707-08XX	50-1200 µL x 8	1200 µL	21and22
8707-09XX	0.2-10 µL x 12	10 µL	21and22
8707-10XX	5-100 µL x 12	100 and 200 µL	21and22
8707-11XX	25-250 µL x 12	300 µL	21and22
8707-12XX	50-1200 µL x 12	1200 µL	21and22



SofTouch 5-Position Carousel Pipette Stand

Safe, convenient storage solution for up to five SofTouch pipettes.

Part No.	Description
8706-01	Holds Five SofTouch Pipettes

Accuracy and Precision

Unsurpassed Accuracy and Precision, Guaranteed

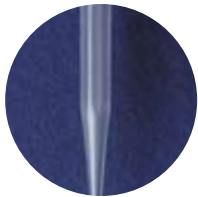
Guaranteed accuracy and precision are a function of both pipette and tip performance. Based on published specifications, the Hamilton SoftGrip™ pipette delivers the best overall accuracy and precision versus any other pipette brand. The SoftGrip pipette and Hamilton AdvanTip™ Precision Pipette Tips create a liquid handling system designed for optimal performance. Ensure you are getting the Hamilton accuracy and precision advantage by using only Hamilton AdvanTip Precision Pipette Tips.

Hamilton SoftTouch™ electronic pipettes offer the highest level of accuracy and precision by making piston movements consistent from one user to the next. The self-calibrating, microcomputer-controlled pipette automatically aspirates, dispenses, and performs the blowout step based on the selected program. User-to-user variability is eliminated for better reproducibility. Hamilton AdvanTip Precision Pipette Tips are recommended for use with SoftTouch electronic pipettes.

High Quality Tips for High Performance

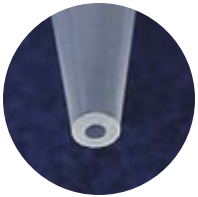
There are several key pipette tip features that are critical to accuracy and precision. Hamilton AdvanTip Precision Pipette Tips are manufactured to the exacting standards required to meet accuracy and precision specifications.

Critical Features for Pipette Tips



Clean Hydroscopic Surfaces

Hamilton tips are made from chemically resistant, virgin polypropylene to ensure excellent clarity and smooth surfaces



Absence of Flash (plastic burrs)

The presence of flash can severely diminish accuracy and precision, particularly at the tip orifice. Hamilton prevents flash with stringent specifications and tolerances for our precision tooling.



Consistent Geometry and Dimension

Uniform orifice geometry gives consistent drop size and less liquid retention. The tip cone geometry and dimensions are designed for a perfect fit.

The Difference is in the Quality

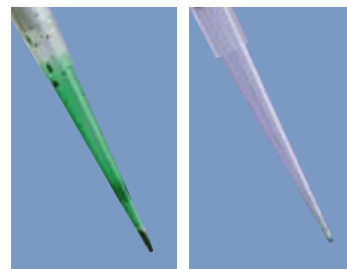
There can be tremendous differences in various pipette tips on the market that can affect the quality of precise fluid measurement. Using Hamilton AdvanTip Precision Pipette Tips guarantees maximum accuracy and precision performance.

AdvanTip™ LT Tips - The Ultimate in Accuracy and Precision

- Maximum recovery of valuable samples and reagents
- No secondary chemicals or additives
- Consistent results, no sample leaching
- Highest accuracy and reproducibility
- Certified RNase, DNase, and pyrogen safe

New AdvanTip LT pipette tips virtually eliminate any retention of valuable samples and reagents. Unlike standard polypropylene products, the wall surfaces of AdvanTip LT tips are completely free of occlusions and cavities. This is achieved through a modification to the polypropylene resin combined with the use of ultra smooth, diamond polished moulds.

No secondary chemicals such as silicone or other substances are added, eliminating the possibility of sample leaching and performance inconsistencies. Tips are ideal for use in critical applications such as quantitative PCR®, where the target DNA is present in very small quantities. The maximum volume of enzymes or DNA can be transferred during testing procedures, reducing expensive reagent cost.



Universal AdvanTip™ LT and Precision Pipette Tips

AdvanTip LT Pipette Tips – Low Retention Tips



10 µL Pipette Tips

Volume Range: 0.2-10 µL • Recommended for 2, 5, and 10 µL pipettes.

Description	Low Retention	Standard	Total Tips
10 µL, Bulk, 1000 tips/bag	23008-10		1000
10 µL, Bulk, Extended Length, 1000 tips/bag	23005-14	11005-14	1000
10 µL, Racked, 96 tips/rack	23006-01	11006-01	960
10 µL, Racked, Extended Length, 96 tips/rack	23003-15	11003-15	960
10 µL, Racked, Pre-Sterilized, 96 tips/rack	23003-01	11003-01	960
10 µL, Racked, Extended Length, Pre-Sterilized, 96 tips/rack	23003-25	11003-25	960
10 µL, Racked, Filter, Pre-Sterilized, 96 tips/rack	23003-02	11003-02	960
10 µL, Racked, Extended Length, Filter, Pre-Sterilized, 96 tips/rack	23003-26	11003-26	960
10 µL, Stacked Rack, 96 tips/rack, 5 racks/stack		11003-11	480



100 µL Pipette Tips

Volume Range: 2-100 µL • Recommended for 20, 25, 50, and 100 µL pipettes

Description	Low Retention	Standard	Total Tips
100 µL, Racked, Filter, Pre-Sterilized, 96 tips/rack	23003-10		960



200 µL Pipette Tips

Volume Range: 2-200 µL • Recommended for 20, 25, 50, 100, and 200 µL pipettes • Also, can be used with 300 µL pipettes when pipetting volumes of 200 µL or less.

Description	Low Retention	Standard	Total Tips
200 µL, Bulk, 1000 tips/bag	23008-20		1000
200 µL, Racked, 96 tips/rack	23006-03	11006-03	960
200 µL, Racked, Pre-Sterilized, 96 tips/rack	23003-03	11003-03	960
200 µL, Racked, Filter, Pre-Sterilized, 96 tips/rack*	23003-04	11003-04	960
200 µL, Stacked Rack, 96 tips/rack, 5 racks/stack		11003-05	480

* Not for use with 100 µL SoftTouch Pipettes. See 100 µL tips.



300 µL Pipette Tips

Volume Range: 2-300 µL • Recommended for 250 and 300 µL pipettes.

Description	Low Retention	Standard	Total Tips
300 µL, Bulk, 1000 tips/bag	23008-30		1000
300 µL, Racked, 96 tips/rack	23006-06	11006-06	960
300 µL, Racked, Pre-Sterilized, 96 tips/rack	23003-06	11003-06	960
300 µL, Racked, Filter, Pre-Sterilized, 96 tips/rack	23003-07	11003-07	960

Note: All tips are shown actual size.



1 mL Pipette Tips

Volume Range: 100-1000 μ L • Recommended for 500 and 1000 μ L pipettes.

Description	Low Retention	Standard	Total Tips
1000 μ L, Bulk, 1000 tips/bag	23008-40		1000
1000 μ L, Racked, 100 tips/rack	23006-08		1000
1000 μ L, Racked, Pre-Sterilized, 100 tips/rack	23003-08	11003-08	1000
1000 μ L, Racked, Filter, Pre-Sterilized, 100 tips/rack	23003-09	11003-09	1000

Macrovolume Pipette Tips



1200 μ L Macrovolume Pipette Tips

Volume Range: 500-1200 μ L • Recommended for 1200 μ L SofTouch™ electronic pipettes.

Description	Low Retention	Standard	Total Tips
1200 μ L, Racked, 96 tips/rack, 10 racks/box		11009-18	960



5 mL Macrovolume Pipette Tips

Volume Range: 100-5000 μ L • Recommended for 5 mL SofTouch electronic pipettes.

Description	Low Retention	Standard	Total Tips
5 mL, Bulk, 100 tips/bag		11009-10	100
5 mL, Racked, 50 tips/rack, 10 racks/box		11006-28	500

Note: All tips are shown actual size.



SoftAide™ Pipette Controller

- **Ideal for Glass and Plastic Pipettes**
- **Precise Measuring and Dispensing from 100 μ L to 200 mL**
- **Easy-to-Read LED Display for Mode and Speed**

The SoftAide Pipette Controller is easy-to-use, reliable, and will maximize your laboratory's efficiency. SoftAide is ideal for use with both glass and plastic standard pipettes. The reusable safety check valve and hydrophobic 0.2 μ m PTFE membrane filter prevent contamination of the unit by liquid or vapors of the solution being aspirated into the pipette.

The NiMH batteries provide maximum productivity, with continuous use up to one week. SoftAide is supplied with a power supply, two replacement PTFE membrane filters, a replacement check valve, and a wall-mount holder.



Exploded view of SoftAide™

Replacement Parts



Item	Part No.
SoftAide Pipette Controller with a Power Supply (US), a replacement Safety Check Valve, two replacement 0.2 µm PTFE Membrane Filters, and a Wall-Mount Holder	51248-01
Silicone Pipette Adapter	51248-30
Safety Check Valve	51248-32
PTFE Membrane Filter Set, 0.2 µm (5 pcs)	51248-34
North American Power Supply	51248-40
European Power Supply	51248-42
United Kingdom Power Supply	51248-44
Austrailian Power Supply	51248-45

SofTop™ Quik Dispenser

- **Adjustable Volume Bottle Top Dispensing**
- **Maximum Chemical and Thermal Resistance with Ceramic Plunger**
- **Fast and Accurate Micrometer Volume Adjustment**

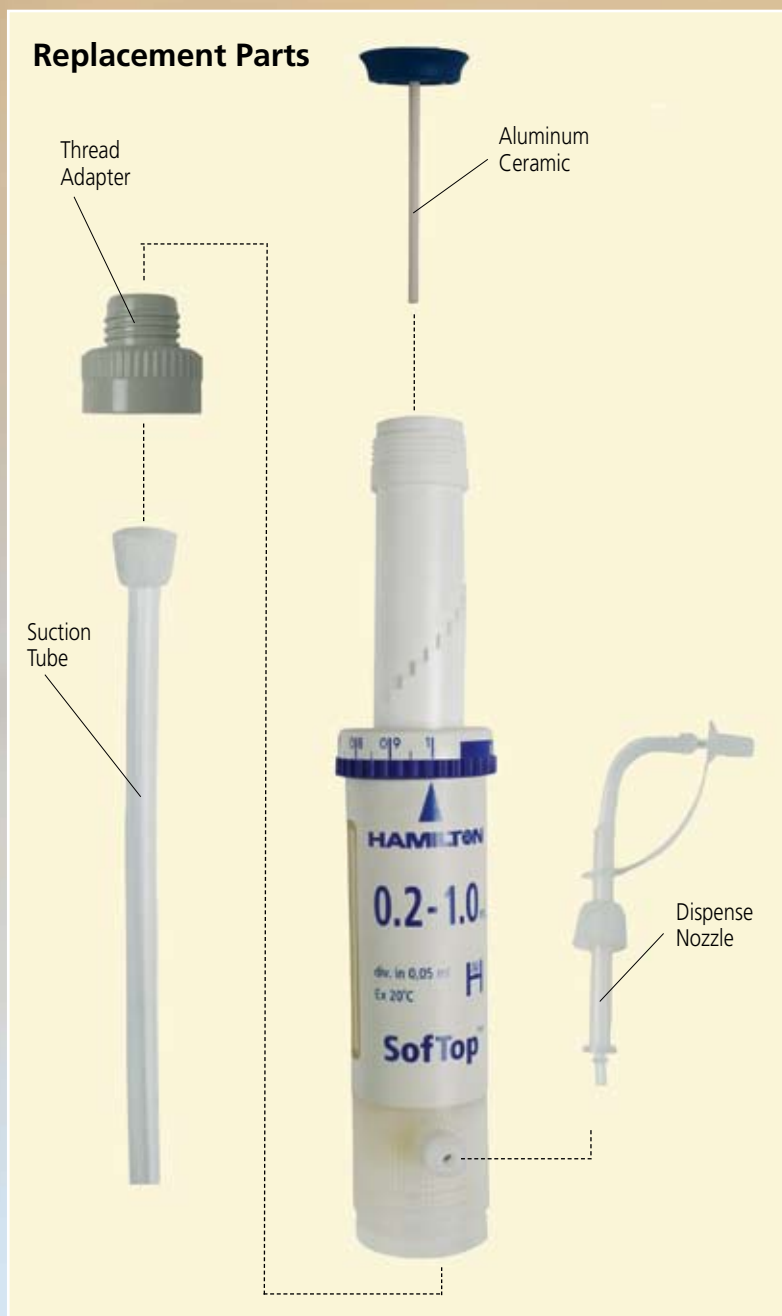
The SofTop Quik Dispenser is safe and easy-to-use with an exceptional soft touch and sure-grip ergonomic design. Calibrated volumetric steps assure identical volume delivery every time. The graduated gauge offers user-independent reproducible volume delivery.

With an innovative plunger made of aluminum oxide ceramic, there is no chance of abrasions, scratching, swelling, or flaking of a coating layer. The SofTop Quik Dispenser has a screw-fitted suction hose, eliminating the possibility of air bubbles during aspiration.

The fully autoclavable SofTop Quik Dispenser is available in six versions from 0.2 mL to 60 mL. Each dispenser is individually tested and shipped with a Certificate of Quality.



Exploded view of SofTop™

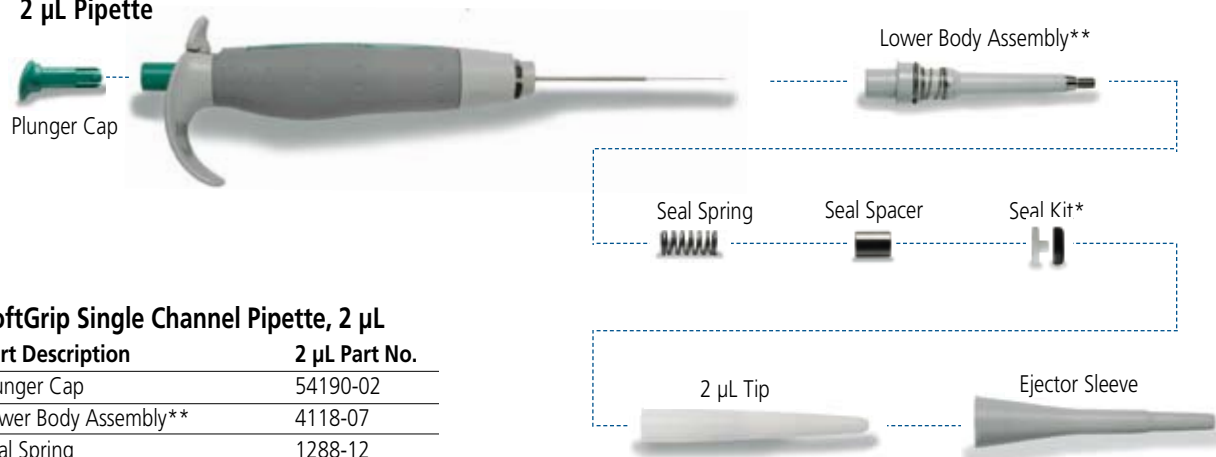


Item	Part No.
SofTop Quik Dispenser, 0.2-1.0 mL	51249-01
SofTop Quik Dispenser, 0.4-2.0 mL	51249-20
SofTop Quik Dispenser, 1-5 mL	51249-50
SofTop Quik Dispenser, 2-10 mL	51249-10
SofTop Quik Dispenser, 5-30 mL	51249-30
SofTop Quik Dispenser, 10-60 mL	51249-60
Dispensing Nozzle for SofTop Quik Dispensers up to 10 mL	51249-70
Dispensing Nozzle for SofTop Quik Dispensers 30 mL and 60 mL	51249-72
Suction Tube for SofTop Quik Dispensers up to 10 mL, 12 in.	51249-74
Suction Tube for SofTop Quik Dispensers 30 mL and 60 mL, 12 in.	51249-76

SoftGrip™ Pipette Replacement Parts

SoftGrip™ pipettes can be easily serviced and calibrated in the lab. If you prefer to service your own pipette, replacement parts are readily available to ensure long pipette life. Service and calibration are also available through Hamilton; see page 12 for information on Hamilton's Complete Pipette Service.

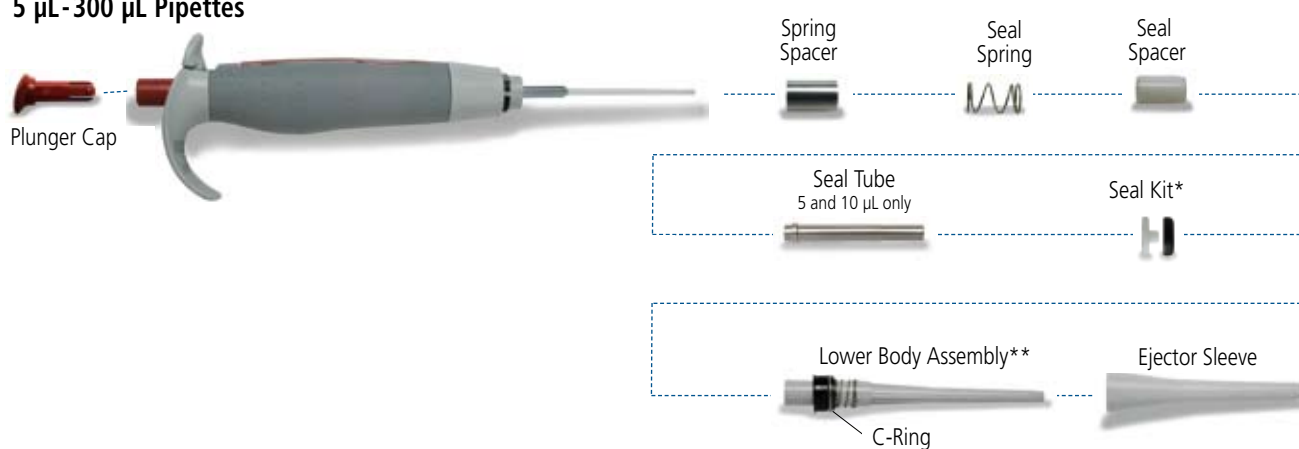
2 μ L Pipette



SoftGrip Single Channel Pipette, 2 μ L

Part Description	2 μ L Part No.
Plunger Cap	54190-02
Lower Body Assembly**	4118-07
Seal Spring	1288-12
Seal Spacer	4029-01
Seal Kit*	1708-79
2 μ L Tip	4028-01
Ejector Sleeve	54758-01

5 μ L - 300 μ L Pipettes



SoftGrip Single Channel Pipette, 5 to 300 μ L

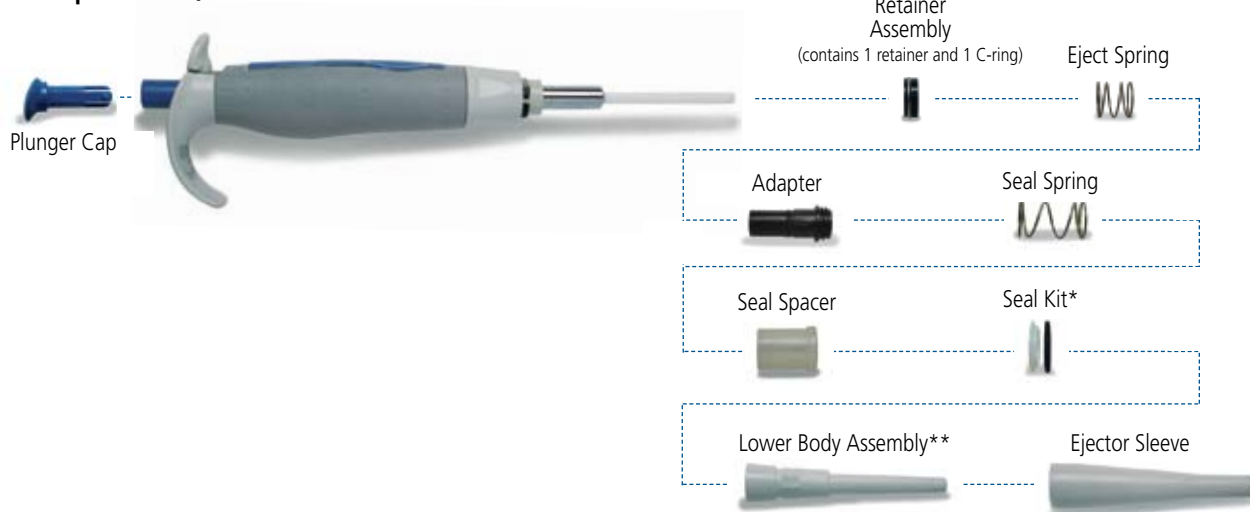
Part Description	Part Numbers							
	5 μ L	10 μ L	25 μ L	50 μ L	100 μ L	200 μ L	250 μ L	300 μ L
Plunger Cap	54190-13	54190-11	54190-03	54190-06	54190-12	54190-07	5419-08	54190-10
Spring Spacer	34189 for 5-300 μ L pipettes							
Seal Spring	1390-01A for 5-300 μ L pipettes							
Seal Spacer	34106	34106	34136	34062	34107	34012	34012	34012
Seal Tube	34064	34064						
Seal Kit*	1708-70	1708-70	1708-71	1708-72	1708-73	1708-74	1708-75	1708-76
Lower Body Assembly**	4118-08	4118-09	4118-10	4118-11	4118-12	4118-13	4118-14	4118-15
Ejector Sleeve	54758-01	54758-01	54757-01	54757-01	54757-01	54757-01	54757-01	54757-01

* Seal Kit contains 5 PTFE seals with O-rings, and 1 tube of lubricant.

** Lower body assembly comes with one seal kit.

SoftGrip™ Pipette Replacement Parts

500 µL - 1 mL Pipettes

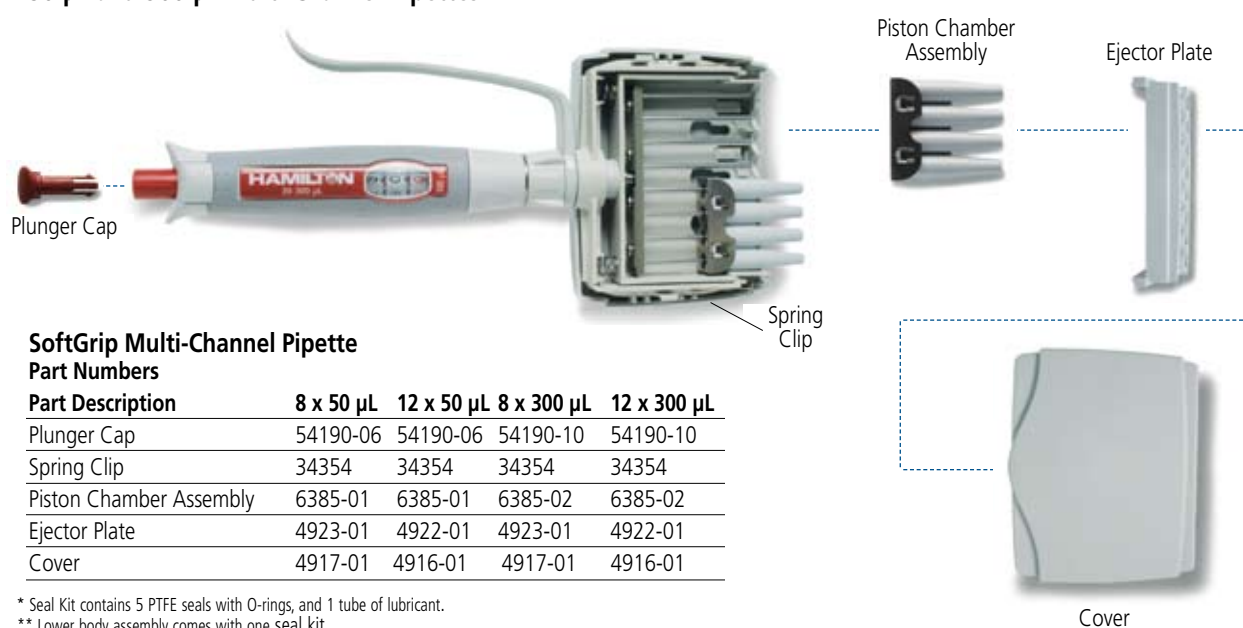


SoftGrip Single Channel Pipette, 500 to 1000 µL

Part Description	Part Numbers	
	500 µL	1000 µL
Plunger Cap	54190-04	54190-01
Retainer Assembly	34196	34196
Eject Spring	1288-06	1288-06
Adapter	34154	34154
Seal Spring	1390-01A	1390-01A

Part Description	Part Numbers	
	500 µL	1000 µL
Seal Spacer	34123	34133
Seal Kit*	1708-77	1708-78
Lower Body Assembly**	4118-16	4118-17
Ejector Sleeve	54756-01	54756-01

50 µL and 300 µL Multi-Channel Pipettes



SoftGrip Multi-Channel Pipette

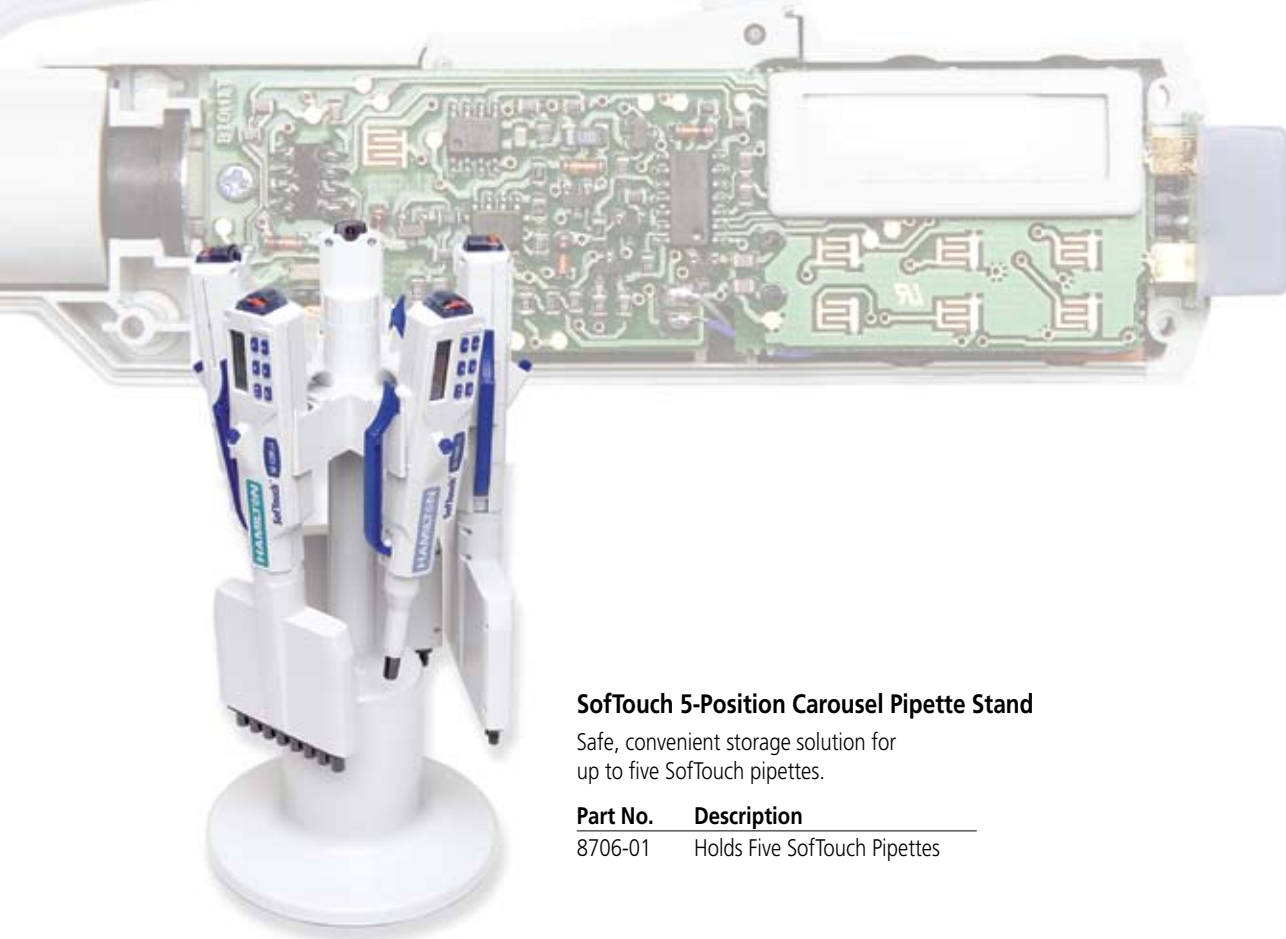
Part Description	Part Numbers			
	8 x 50 µL	12 x 50 µL	8 x 300 µL	12 x 300 µL
Plunger Cap	54190-06	54190-06	54190-10	54190-10
Spring Clip	34354	34354	34354	34354
Piston Chamber Assembly	6385-01	6385-01	6385-02	6385-02
Ejector Plate	4923-01	4922-01	4923-01	4922-01
Cover	4917-01	4916-01	4917-01	4916-01

* Seal Kit contains 5 PTFE seals with O-rings, and 1 tube of lubricant.

** Lower body assembly comes with one seal kit.

SofTouch™ Electronic Pipette Replacement Parts

Replacement parts for SofTouch pipettes are readily available to maximize pipette life and keep your pipette performing optimally. An overview of available parts is shown here; for a complete list, please contact Hamilton. Service and calibration are also available through Hamilton.



SofTouch 5-Position Carousel Pipette Stand

Safe, convenient storage solution for up to five SofTouch pipettes.

Part No.	Description
8706-01	Holds Five SofTouch Pipettes

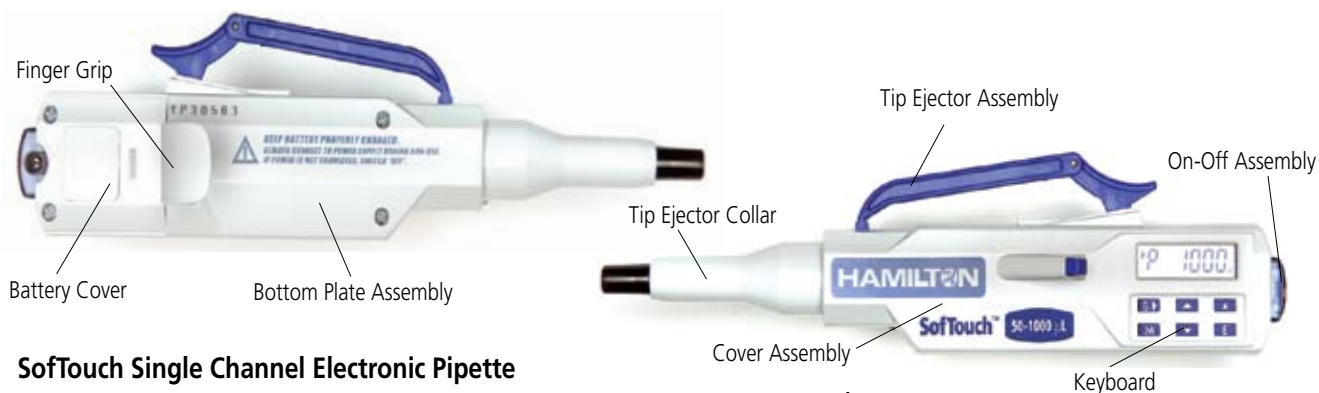
Pipette Safe™ Tip Cone Filters

The tip cones of select SofTouch electronic pipettes allow the use of a removable Pipette Safe tip cone filter. This innovative safety feature prevents cross contamination of sample fluids or vapors, particularly when pipetting radioactive or biohazardous samples. Pipette Safe Plus tip cone filters seal when wetted for even greater protection. In order to properly protect the internal mechanism of the pipette, filters need to be changed regularly depending on the application. A general guideline is to change the filter daily (50-250 pipettings) and always in case of over-aspiration. The filter does not affect the calibration of the pipette.

Pipette Volume Range	Pipette Safe Filter	Pipette Safe Plus
50-1000 µL, single channel	9209-01	9211-01
100-5000 µL, single channel	9209-01	9211-01
5-100 µL, multi-channel	9210-01	N/A
25-250 µL, multi-channel	9210-01	N/A
50-1200 µL, multi-channel	9209-01	9211-01

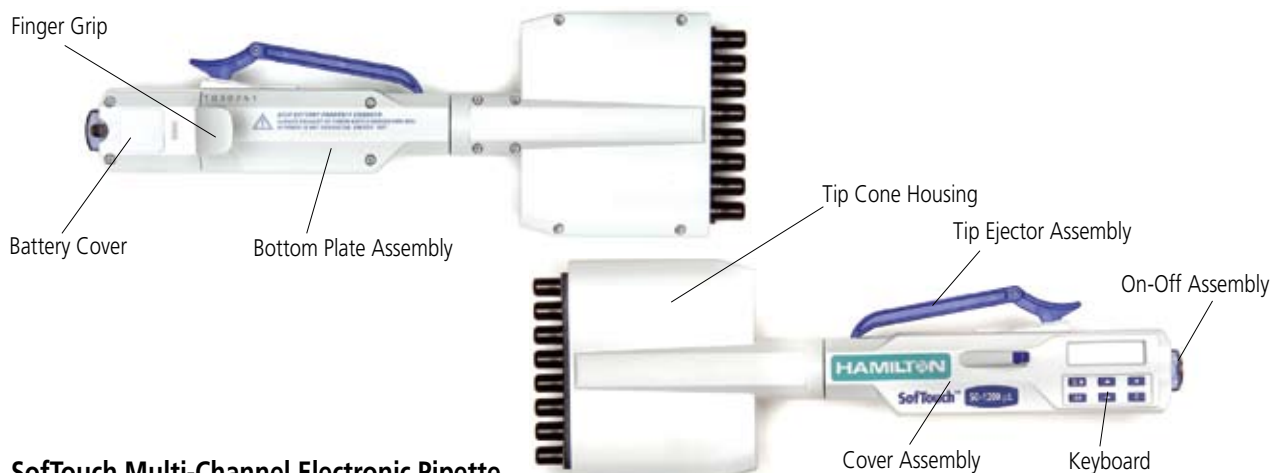


SofTouch™ Electronic Pipette Replacement Parts



SofTouch Single Channel Electronic Pipette

Part Description	Part Number			
	10 μ L	100 μ L	1000 μ L	5000 μ L
Tip Ejector Collar	9155-01	9156-01	9157-01	9158-01
Tip Ejector Assembly	9148-01	9148-01	9148-01	9148-01
On-Off Assembly	9169-01	9169-01	9169-01	9169-01
Cover Assembly	9172-01	9173-01	9174-01	9175-01
Keyboard	9179-01	9179-01	9179-01	9179-01
Finger Grip	9178-01	9178-01	9178-01	9178-01
Battery Cover	9171-01	9171-01	9171-01	9171-01
Bottom Plate Assembly*	9170-01	9170-01	9170-01	9170-01
Piston Assembly	9151-01	9152-01	9153-01	9154-01
Battery, NiMH	9168-01	9168-01	9168-01	9168-01
Silicon Grease, 15 mL	9207-01	9207-01	9207-01	9208-01



SofTouch Multi-Channel Electronic Pipette

Part Description	Part Number			
	10 μ L	100 μ L	250 μ L	1200 μ L
Tip Cone Housing, 8-ch	9186-01	9188-01	9188-01	9190-01
Tip Cone Housing, 12-ch	9187-01	9189-01	9189-01	9191-01
Tip Ejector Assembly	9181-01	9181-01	9181-01	9181-01
On-Off Assembly	9169-01	9169-01	9169-01	9169-01
Cover Assembly	9172-01	9173-01	9176-01	9177-01
Keyboard	9179-01	9179-01	9179-01	9179-01
Finger Grip	9178-01	9178-01	9178-01	9178-01
Battery Cover	9171-01	9171-01	9171-01	9171-01
Bottom Plate Assembly*	9170-01	9170-01	9170-01	9170-01
Piston Assembly	9198-01	9199-01	9200-01	9201-01
Battery, NiMH	9168-01	9168-01	9168-01	9168-01
Silicon Grease, 15 mL	9207-01	9207-01	9207-01	9207-01

* Includes battery cover

SoftGrip™
Pipettes

SoftTouch™
Electronic Pipettes

AdvanTip™
Pipette Tips

SoftAide™
Pipette Controller

SoftTop™
Quick Dispenser

Replacement Parts
and Accessories



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Syringes for Life Science
Instrument Syringes
SoftGrip™ Pipettes
Miniature Valves
Modular Valve Positioner
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MICROLAB® Robotic Workstations
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