Contents [ hide ]

1 WATSON NT-S20 Single Channel Pipette
2 Specifications
3 Usage
4 FAQs
5 Documents / Resources
5.1 References

# WATSON NT-S20 Single Channel Pipette

**Introduction**

The NT-S20 (NEXTY-S20) is a premium Japanese-made, single-channel pipette designed for ultra-precise liquid handling between 2µL and 20µL. It combines lightweight construction, ergonomic design, and high-accuracy performance, making it ideal for molecular biology, biochemistry, and clinical diagnostics.

## Specifications

| Feature | Description |
|---|---|
| **Volume Range** | 2–20µL (adjustable in 0.01µL increments) |
| **Accuracy** | ±6.0% at 2µL; ±1.0% at 20µL |
| **Precision** | ≤3.0% at 2µL; ≤0.5% at 20µL |
| **Minimal Scale** | 0.01µL |
| **Compatible Tips** | Watson tips 705, 703, 503 |
| **Dimensions** | Approx. 14.25×3.5×3cm |
| **Autoclavable Parts** | Nozzle and eject cones (O-rings stay intact inside) |
| **Other Features** | Triple-speed turbo dial, thin push-button, volume lock lever, digital indicator, color-coded push-button, ergonomic eject button |

## Usage

1. **Setting the Volume**Use the turbo dial for fast, broad adjustments (1 rotation = 3.5 turbo rotations)
    - Use the inner dial for fine-tuning (0.01µL precision)
2. **Aspiration/Ejection**

- Press plunger to first stop, immerse tip, smoothly release to aspirate
- Press further past the second stop to dispense, then use the ergonomic eject button

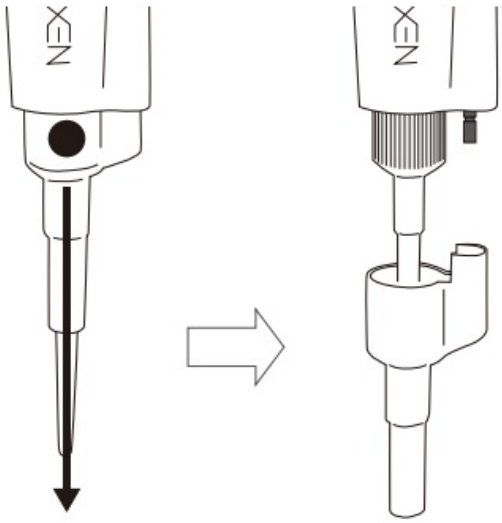
3. **Locking Settings**
   - Slide the lock lever to prevent accidental changes
4. **Sterilization**
   - Disassemble nozzle and eject cones
   - Autoclave cones with O-rings intact, then reassemble
5. **Calibration & Maintenance**
   - Follow the supplied calibration certificate
   - Regular calibration and cleaning recommended per lab standards

**Safety & Best Practices**

- **Ergonomic Handling**:
  Use a light grip and maintain neutral wrist posture to prevent strain
- **Tip Compatibility**:
  Only use recommended tips (705, 703, 503) to ensure accuracy; other tips may cause deviations
- **Autoclave Carefully**:
  Only parts specifically labeled “autoclavable” (nozzle and eject cones); avoid exposing internal mechanisms to heat
- **Secure Storage**:
  Store upright in a rack to prevent tipping and maintain calibration integrity
- **Routine Checks**:
  Perform regular leak and calibration tests; re-calibrate if drift is observed

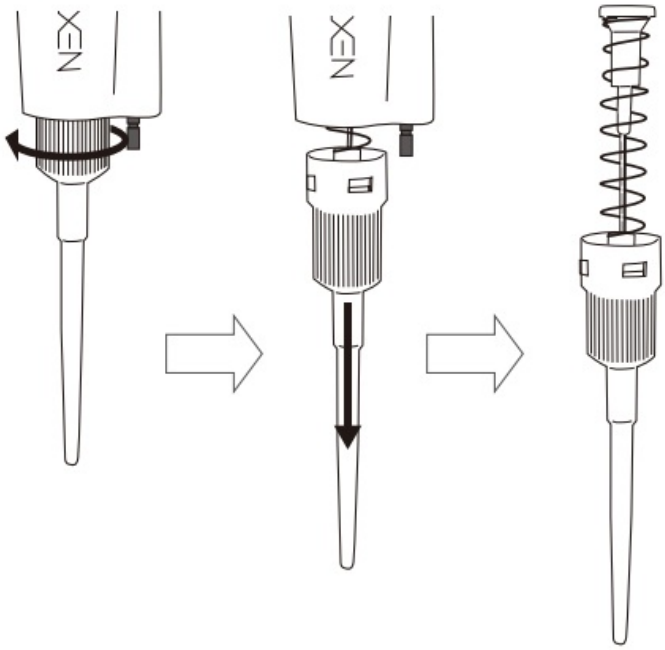
**Replacement Procedure for Rainin LTS Tip-Specific Nozzle Cone 20µL (Compatible with NT-S20)**

1. Remove the eject cone



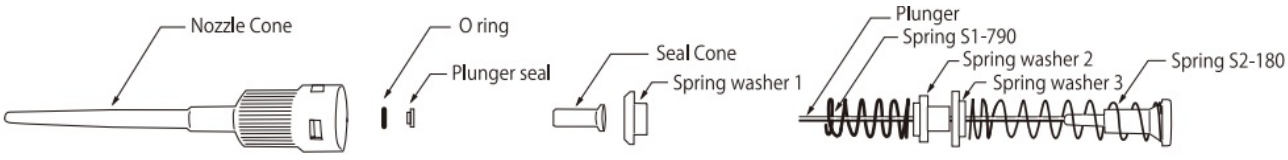
Hold the pipette upright and grasp the• part of the ejector cone. Pull it downward to remove.

2. Remove the nozzle cone



Turn the nozzle cone in the direction to unlock, then slowly pull it downward to remove.

3. Remove the plunger part from the nozzle cone.



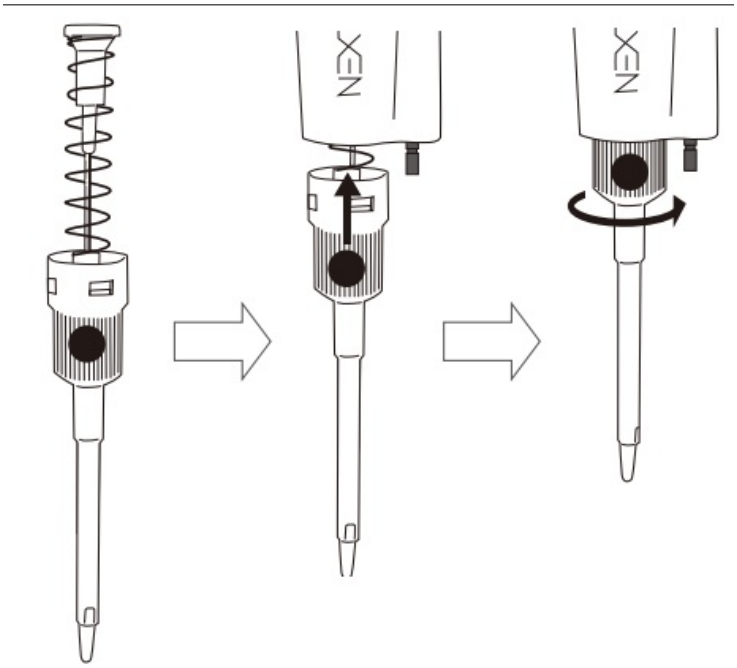

If the seal cone and spring washer 1 come off the plunger, refer to diagram 4 to ensure correct orientation when reattaching.

The O-ring and plunger seal remain inside the nozzle cone. Use tweezers or similar tools to remove them and reattach them as shown in Diagram 4.

4. Insert the plunger part into the Rainin LTS tip-specific nozzle 20µL.

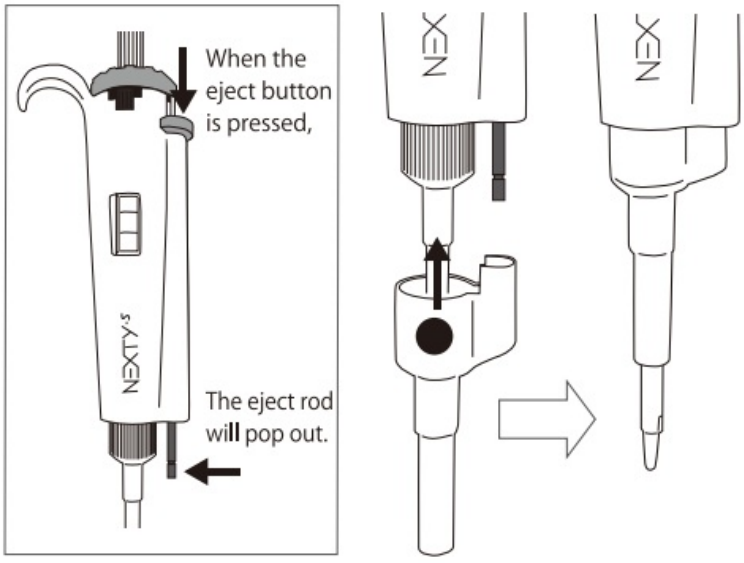

- Assemble the plunger components first, then insert them into the Rain in L TS tip-specific nozzle 20µL.

5. Connect 4 to the body.



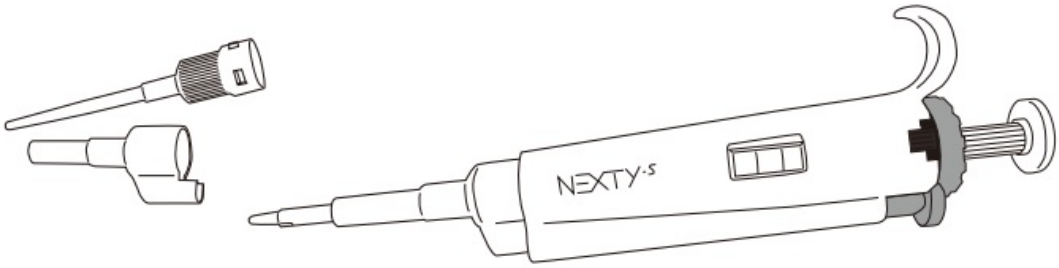
- Grasp the• part of the nozzle cone firmly, insert the plunger part fully into the body, and rotate it clockwise until you feel a click.

6. Attach the new eject cone.




- While pressing the eject button, align the eject rod that has popped out and press the new eject cone into place.

7. It is complete.




https://watsonbiolab.com

- Sales agency: WATSON CO., LTD.
- Export Division: 2-2-7 Murotani Nishi-ku Kobe, 651-2241 JAPAN
- TEL 81-78-991-4489 FAX 81-78-991-4491
- Head Office: 1F, 14-17 Daikanyama-cho, Shibuya-ku, Tokyo, 150-0034, JAPAN
- TEL81-3-5615-3591 FAX81-3-6427-0740
- E-mail: tcr@watson.co.jp
- Manufacturer: FUICAEIC/.ISElco,Lm.

## FAQs

**1. Can I autoclave the entire pipette?**

No – only the removable nozzle and eject cones are autoclavable. Internal mechanisms should be protected from heat.

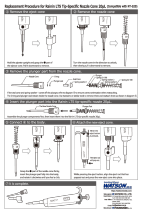
**2. What is the benefit of the triple-speed turbo dial?**

It allows rapid volume changes—1 turn equates to 3.5 standard dial rotations—simplifying big adjustments while preserving fine control

**3. Why is ergonomic design important in pipettes?**

Reduces thumb and wrist fatigue, minimizing repetitive strain injuries; look for light plunger force, slim body, and low-resistance tip ejection

# Documents / Resources

| | |
|---|---|
|  | WATSON NT-S20 Single Channel Pipette [pdf] Instruction Manual<br>NT-S20 Single Channel Pipette, NT-S20, Single Channel Pipette, Channel Pipette, Pipette |

## References

- User Manual

WATSON

Channel Pipette, NT-S20, NT-S20 Single Channel Pipette, Pipette, Single Channel Pipette, WATSON

# Leave a comment

Your email address will not be published. Required fields are marked *

Comment *

Name

Email

Website

Save my name, email, and website in this browser for the next time I comment.

Post Comment

## Search:

e.g. whirlpool wrf535swhz

Search