

EK EK-Quantum Kinetic TBE 300 D5 PWM D-RGB

EKWB EK-Quantum Kinetic TBE 300 D5 PWM D-RGB Pump Reservoir - Plexi User Manual

Model: 3831109818497

1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of the EKWB EK-Quantum Kinetic TBE 300 D5 PWM D-RGB Pump Reservoir - Plexi. Please read this manual thoroughly before proceeding with installation to ensure optimal performance and longevity of your product.

2. PRODUCT OVERVIEW

The EK-Quantum Kinetic TBE D5 combo unit is a pump-reservoir assembly designed for liquid cooling systems. It features addressable D-RGB lighting and integrates a genuine D5 pump. The reservoir is constructed with high-quality acrylic for the tube, bottom, and top, sealed with an EPDM O-ring. It includes six G1/4" ports for flexible loop configuration, with one top port featuring a pre-installed nickel-plated brass internal tube to prevent coolant splashing when used as an inlet. The integrated D-RGB lighting is compatible with major motherboard RGB sync technologies.



Image 1: Full view of the EK-Quantum Kinetic TBE 300 D5 PWM D-RGB Pump Reservoir, showcasing its transparent plexi tube and integrated pump base.

3. FEATURES

- Integrated tube reservoir and D5 pump combo unit.
- Sophisticated addressable D-RGB lighting for customizable aesthetics.
- Total of six G1/4" ports for versatile liquid cooling loop configurations.
- Reservoir tube diameter: 60mm.
- Overall unit height: 300mm.
- Reservoir free volume: 405mL.
- D-RGB connector: Standard 3-pin (5V, Digital, Blocked, Ground).
- Compatible with longer acrylic tubes from EK-RES X3 series reservoirs for potential upgrades.



Image 2: Close-up view of the pump base and lower reservoir section, highlighting the "Kinetic" branding and G1/4" port locations.

4. TECHNICAL SPECIFICATIONS

Component	Specification
Motor Type	Electronically commuted spherical motor
Rated Voltage	12V DC
Power Consumption	23W
Maximum Pressure Head	3.9m
Maximum Flow	1500 L/h
Maximum System Temperature	60°C
Power Connector	4-Pin Molex and 4-Pin PWM FAN connector
Reservoir Diameter	60mm
Reservoir Free Volume	405mL
Overall Unit Height	300mm
D-RGB Connector	Standard 3-pin (5+, Digital, Blocked, Ground)
Material	Acrylic, Brass
Product Dimensions (L x W x H)	3.59" x 3.07" x 11.73"

Component	Specification
Weight	1.92 Pounds

5. PACKAGE CONTENTS

The following items are included in the EK-Quantum Kinetic TBE 300 D5 PWM D-RGB package:

- EK-Quantum Kinetic TBE 300 D5 PWM D-RGB unit
- Mounting clip with rubber insert
- Self-adhesive mounting hole pattern sticker
- Mounting mechanism (including required Allen keys)



Image 3: Top view of the reservoir, showing the G1/4" ports and the internal tube for inlet configuration.

6. SETUP AND INSTALLATION

Proper installation is crucial for the performance and safety of your liquid cooling system. It is recommended to consult the detailed installation guide available on the EKWB official website for step-by-step instructions specific to your system configuration.

1. **Preparation:** Ensure all components are present and undamaged. Plan your loop layout, considering inlet and outlet port usage.
2. **Mounting:** Use the provided mounting clip and mechanism to securely attach the pump-reservoir unit to your chassis. The self-adhesive mounting hole pattern sticker can assist in precise placement.
3. **Port Connections:** Connect your G1/4" fittings and tubing to the desired ports. The top port with the pre-installed internal tube is ideal for an inlet to minimize splashing.
4. **Electrical Connections:** Connect the 4-Pin Molex connector for pump power and the 4-Pin PWM FAN connector to your motherboard or fan controller for speed control. Connect the 3-pin D-RGB connector to a compatible addressable RGB header on your motherboard or controller.
5. **Leak Testing:** Before powering on your system, perform a thorough leak test using a dedicated leak tester or by running the pump with only the power connected (without powering other PC components) for at least 24 hours.



Image 4: Side view of the pump-reservoir combo, illustrating its cylindrical form factor and mounting bracket attachment point.

7. OPERATING INSTRUCTIONS

Once installed and leak-tested, the EK-Quantum Kinetic TBE 300 D5 PWM D-RGB is ready for operation.

- **Filling the Loop:** Fill the reservoir with appropriate liquid cooling fluid. Ensure the reservoir remains adequately filled during

the initial filling process to prevent the pump from running dry.

- **Bleeding Air:** Operate the pump at a low to moderate speed to circulate coolant and remove air bubbles from the loop. Tilt your system gently to help dislodge trapped air. Refill the reservoir as needed.
- **PWM Control:** The D5 PWM pump allows for speed control via a 4-pin PWM signal from your motherboard or a dedicated fan controller. Adjust pump speed based on your cooling requirements and noise preferences.
- **D-RGB Control:** The integrated D-RGB lighting can be controlled using compatible motherboard software (e.g., ASUS Aura Sync, MSI Mystic Light Sync, Gigabyte RGB Fusion) or a standalone D-RGB controller connected to the 3-pin header.



Image 5: The pump-reservoir unit with its D-RGB lighting illuminated, demonstrating the aesthetic capabilities.

8. MAINTENANCE

Regular maintenance ensures the longevity and efficiency of your liquid cooling system.

- **Coolant Replacement:** It is recommended to replace the coolant every 6-12 months, depending on the coolant type and system usage, to prevent buildup and maintain optimal performance.
- **System Flush:** When replacing coolant, consider flushing the entire loop with distilled water or a dedicated cleaning solution to remove any accumulated debris or old coolant residue.
- **Inspection:** Periodically inspect tubing, fittings, and the reservoir for any signs of leaks, discoloration, or material degradation.
- **Pump Cleaning:** If flow issues occur, the pump impeller can be accessed and cleaned. Refer to the EKWB website for specific disassembly instructions for the D5 pump.

9. TROUBLESHOOTING

This section addresses common issues you might encounter.

- **No Pump Operation:**
 - Verify the 4-Pin Molex power connector is securely connected to the power supply.
 - Ensure the power supply is functioning correctly.
 - Check the 4-Pin PWM FAN connector for proper connection to the motherboard/controller and that the fan header is enabled in BIOS/UEFI.
- **Poor Flow/Low Performance:**
 - Check for air bubbles trapped in the loop. Bleed the system thoroughly.
 - Ensure the reservoir is adequately filled with coolant.
 - Inspect for kinks in tubing or obstructions in water blocks/radiators.
 - Verify pump speed settings in your motherboard BIOS or software.
- **D-RGB Lighting Not Working:**
 - Confirm the 3-pin D-RGB connector is correctly attached to a 5V addressable RGB header (not a 12V RGB header).
 - Check D-RGB software settings on your motherboard or external controller.
 - Ensure the D-RGB header on your motherboard is enabled in BIOS/UEFI.

- **Leaks:**

- Immediately shut down the system.
- Identify the source of the leak. Tighten fittings, replace O-rings, or replace damaged components as necessary.
- Always perform a leak test after any adjustments or repairs.

10. WARRANTY AND SUPPORT

For warranty information, technical support, or further assistance, please visit the official EK Water Blocks website or contact their customer support directly. Keep your proof of purchase for warranty claims.

Official Website: www.ekwb.com

