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LS2 Modular Valiant II

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MODEL: MODULAR VALIANT II

Brand: LS2

1. PRODUCT OVERVIEW

The LS2 Valiant II is an advanced 180-degree flip modular motorcycle helmet, designed for versatility and protection. It builds upon previous models with a newly designed, slimmer chin bar mechanism for improved aerodynamics. Constructed from LS2's proprietary Kinetic Polymer Alloy (KPA), it offers a balance of lightweight design, energy dispersion, and penetration resistance. The helmet features two shell sizes for optimal fit and includes a full metal latch to secure the chin bar in both closed and open positions.



Figure 1.1: LS2 Valiant II Modular Helmet in Matte Black, showcasing its sleek design and clear visor.

2. KEY FEATURES

- **Aerospace-grade Kinetic Polymer Alloy (KPA) Shell:** Combines lightweight construction with advanced impact protection, utilizing nanotechnology for energy dispersion and high penetration resistance.
- **Innovative 180-Degree Flip Design:** Seamlessly transforms from a full-face to an open-face configuration, with the chin bar securely resting at the back of the helmet.
- **Twin Shield System:** Features a cable-operated drop-down sun visor for convenient and enhanced visibility control, eliminating the need for separate sunglasses.
- **Advanced Ventilation System:** Fully adjustable flow-through ventilation with intake and exhaust ports ensures optimal climate management and rider comfort.

- **Optically Correct Visor:** The UV and scratch-resistant shield is made from Class A polycarbonate and is PinLock ready for superior fog protection. A new quick-change mechanism allows for easy shield swapping.
- **Comfort Padding:** Removable, washable comfort padding made from breathable technical fabric, thermo-formed for a precise fit. Cheek pads are cut using LS2's 3D laser technology to ensure all-day comfort without hot spots.
- **Quick Release Chin Strap:** Features a quick-release buckle for easy and secure fastening and removal.



Figure 2.1: Helmet with the chin bar flipped back, demonstrating the 180-degree modular design.



Figure 2.2: Front view of the helmet in open-face mode, showing the integrated sun shield.



Figure 2.3: View of the helmet's interior, highlighting the comfortable and removable padding.

Video 2.1: LS2 Helmets Valiant II Modular Helmet. This video demonstrates the key features and modular functionality of the helmet, including the chin bar movement and visor operation.

3. SETUP AND SIZING

Proper helmet fit is crucial for safety and comfort. The Valiant II helmet is designed to fit a long oval head shape. If your head shape is intermediate oval or you are between sizes, it is recommended to size up for a better fit.

3.1. Measuring Your Head

- 1. Locate Your Measuring Tool:** Use a flexible measuring tape. If you are using string, wrap it around your head just above your eyebrows, mark the point where it overlaps, then measure using a straight ruler.
- 2. Measure Your Head:** Wrap the measuring tool around the widest part of your head, typically about 1 inch above your eyebrows and ears. Note the circumference in both inches and centimeters.

3.2. Size Chart

Refer to the table below to find your corresponding helmet size based on your head circumference.

Sizing Information



1. Locate Your Measuring Tool

Wrap your measuring tool around your head, just above your eyebrows. If you're using string, mark the point where it overlaps, then measure using your straight roller.

2. Measure Your Head

Flexible measuring tape is easiest option or you can also use a piece of string and a straight ruler. *flexible measuring tape is the most accurate way to measure*

Adult	Head Circumference	
Size	Centimeters	Inches
XS	51-52	20 - 20 1/2
SM	53-54	20 7/8 - 21 1/4
MD	55-56	21 5/8 - 22
LG	57-58	22 1/2 - 22 7/8
XL	59-60	23 1/4 - 23 5/8
2X	61-62	24 - 24 3/8
3X	63-64	24 3/4 - 25 1/4

*The Valiant II Helmet is designed to fit a round head shape.

If you find yourself in between sizes or with an intermediate oval head shape, we recommend sizing up for a better fit*

Figure 3.1: LS2 Helmet Sizing Information Chart for head circumference.

US Motorcycle Helmet Size Chart

Brand Size	Head Circumference (in)
2XS	20 - 20.5
XS	20.9 - 21.3
S	21.6 - 22
M	22.5 - 22.9
L	23.3 - 23.6
XL	24 - 24.4
2XL	24.8 - 25.8
3XL	25.6 - 26
4XL	26.4 - 26.8
Youth S	19.3 - 19.8
Youth M	20 - 20.5
Youth L	20.9 - 21.3

4. OPERATING INSTRUCTIONS

4.1. Modular Flip Mechanism

To convert the helmet from full-face to open-face, locate the release button at the bottom of the chin bar. Press the button and slide the chin bar upwards and over the top of the helmet. The chin bar will securely lock into place at the rear, providing an open-face configuration. To return to full-face, reverse the process, ensuring the chin bar latches firmly into position.

4.2. Twin Shield System (Drop-Down Sun Shield)

The helmet features an integrated sun shield. To deploy the sun shield, locate the sliding lever on the side of the

helmet (typically on the left). Slide the lever downwards to lower the tinted sun shield. To retract the sun shield, slide the lever upwards. This system allows for quick adaptation to changing light conditions without needing to wear separate sunglasses.

4.3. Quick Release Chin Strap

The chin strap uses a quick-release buckle for ease of use. To fasten, insert the male end of the buckle into the female receiver until it clicks securely. To release, press the red tab on the buckle and pull the male end out. Adjust the strap length for a snug, comfortable fit under your chin.

4.4. Ventilation System

The helmet is equipped with adjustable intake and exhaust vents. Locate the sliders or switches on the top and front of the helmet. Slide them to open or close the vents, allowing you to control airflow and maintain comfort in various weather conditions.

5. MAINTENANCE

5.1. Cleaning the Shell

Clean the helmet shell with a soft, damp cloth and mild soap. Avoid abrasive cleaners, solvents, or petroleum-based products, as these can damage the finish and material. Rinse thoroughly and dry with a soft, clean cloth.

5.2. Visor and Sun Shield Care

Clean the clear visor and integrated sun shield with warm water and a soft cloth. For stubborn dirt, use a helmet-specific visor cleaner. Do not use harsh chemicals or abrasive materials. Ensure the visor is completely dry before closing or storing the helmet. The PinLock insert should be handled with care and cleaned according to its specific instructions.

5.3. Interior Padding

The interior comfort padding is removable and washable. Gently detach the padding from the helmet. Hand wash with mild soap and cool water, or machine wash on a delicate cycle in a laundry bag. Air dry completely before reinserting into the helmet. Do not tumble dry or use harsh detergents.

5.4. Chin Strap Maintenance

Periodically inspect the chin strap and buckle for any signs of wear or damage. Clean the strap with a damp cloth and mild soap. Ensure the quick-release mechanism operates smoothly and locks securely.

6. TROUBLESHOOTING

6.1. Visor Not Closing Properly

If the main visor does not close smoothly or completely, check for any obstructions in the visor mechanism or along the seal. Ensure the visor is correctly seated in its pivots. Clean the pivot points and apply a small amount of silicone lubricant if necessary. If the issue persists, inspect the visor for damage or warping and consider replacing it.

6.2. Chin Bar Mechanism Sticking

If the 180-degree flip chin bar mechanism feels stiff or sticky, ensure no debris is lodged in the pivot points. Clean the mechanism thoroughly. Avoid forcing the chin bar. If the issue continues, contact LS2 customer support for assistance.

6.3. Excessive Noise While Riding

While modular helmets may exhibit some noise, excessive wind noise can indicate an improper fit or an issue with the visor/chin bar seal. Ensure the helmet is correctly sized and worn. Check that the main visor and chin bar are fully closed and sealed. Inspect the helmet's seals for any damage or gaps. Adjusting the ventilation can also sometimes affect noise levels.

6.4. Sun Shield Not Operating Smoothly

If the internal sun shield is not deploying or retracting smoothly, check the sliding lever for obstructions. Ensure the mechanism is clean. Avoid applying excessive force. If the problem persists, it may require professional inspection.

7. SPECIFICATIONS

- **Item Weight:** 6 Pounds
- **Item Model Number:** Modular Valiant II
- **Department:** Unisex-Adult
- **Manufacturer:** LS2 Helmets
- **Fabric Type:** 50% Nylon, 50% Spandex (for interior components)
- **Origin:** Made in the USA or Imported
- **Safety Standards:** DOT approved. Meets the FMVSS 218 Standard.

8. WARRANTY AND SUPPORT

The LS2 Valiant II Modular Helmet is designed and manufactured to high-quality standards. This item complies with US Federal Motor Vehicle Safety Standard 218 (FMVSS 218) (DOT FMVSS No. 218 Certified).

For specific warranty information, claims, or technical support, please refer to the official LS2 Helmets website or contact their customer service directly. Keep your proof of purchase for any warranty-related inquiries.

LS2 Helmets Official Website: www.ls2usa.com