



OrchidGear® Personal Water Purification System

The [OrchidGear® Planetary Ranger](#) Personal Water Purification System was produced by the [Yugumo Corporation](#) in [YE 45](#).

Personal Water Purification System	
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Year of Creation	YE 45
Designer	Yugumo Fleetworks
Brand	OrchidGear®
Collection	Planetary Ranger
Nomenclature	YU-G3-1A
Manufacturer	Yugumo Corporation
Fielded by	Yugumo Corporation , Yugumo Merchant Spacy , Kikyō Scouts
Availability	Mass Production
Price	Starting at 900KS

This is a professional-grade product designed for professionals and planetary explorers.





Appearance

The Personal Water Purification System has a compact design akin to a tall thermal cup, standing at around 22.86 cm high by 7.62 cm diameter. Its sleek, cylindrical body is crafted from high-strength [transparent aluminum](#) and [titanium alloy](#). The top houses a user-friendly [volumetric](#) interface encased in scratch-resistant [sapphire crystal](#), providing real-time data visualization and system controls. The transparent section also has the [volumetric](#) interface for laser spectroscopy for real-time water analysis.

Function and Design


This Personal Water Purification System has a sophisticated and reliable design. It is designed for the

professional market. It has a 1 Liter capacity.

- Universal Purification Matrix (UPM) - Incorporates multi-stage filtration chambers constructed from  [titanium alloy](#) and  [graphene-based](#) nano-mesh adaptive filters for proficient impurity elimination.
- Integrated Molecular Analyzer: Enveloped in anti-corrosive  [stainless steel](#), it utilizes  [laser spectroscopy](#) for real-time water analysis and dynamic adaptation of the purification process.
- Control System: The system utilizes a [KAIMON-Aperture](#) chip for its control system.
- High-Energy Rechargeable Capacitors: Two [YU-U7-1B Starshield® Type II High-Energy Capacitors](#) ensure an uninterrupted power supply for purification processes, enclosed in a radiation-resistant polymer casing.

Optional: Exofill Adapter

The Exofill Adapter is designed to seamlessly integrate with the OrchidGear Planetary Ranger Personal Water Purification System or its camp-sized counterpart. It ensures safe and efficient water transfer to canteens, jerrycans, or other storage containers, even in hostile alien environments. The adapter is crafted to withstand extreme conditions while minimizing the risk of contamination during the water transfer process.

- Universal Connector - Equipped with a universal connector that securely attaches to the output valve of the OrchidGear Water Purification System.
- Anti-Contamination Shield - A retractable electromagnetic shield that creates a sterile barrier around the filling zone, protecting against alien contaminants, airborne particles, and other potential hazards.
- Adjustable Flow Nozzle - Features a precision flow nozzle with adjustable settings for controlling the flow rate, ensuring a spill-free transfer to various container sizes.
- Auto-Seal Technology - The nozzle is equipped with auto-seal technology that ensures a tight seal with the receiving container, further preventing contamination.
- Telescopic Extension Arm - A telescopic arm that can extend to reach the opening of larger containers or retract for filling smaller canteens, providing ergonomic ease and reducing physical strain on the user.
- Quick-Release Mechanism - Enables swift attachment and detachment from the purification system and receiving containers, making the water transfer process quick and efficient.
- Durable Construction - Crafted from  [titanium alloy](#) and high-strength polycarbonate to withstand the harsh environments of alien planets.
- High-Energy Rechargeable Capacitors: Two additional [YU-U7-1B Starshield® Type II High-Energy Capacitors](#). (for the exofill)
- Compact Storage - Collapsible design for easy storage and portability, ensuring it's always ready for use without taking up much space.

Usage

The Personal Water Purification System is quick and easy to use:

1. Connect the water input hose, and put the other end in the water source.
2. Use the [volumetric display](#) interface to choose ‘Auto-Purify’ for automatic settings or manually select the purification level.
3. Press ‘Start’ to begin purifying. Watch the progress on the [volumetric display](#) or through the transparent midsection. The purification process could range from about 3 to 10 minutes depending on the water volume and contamination level.
4. When it signals completion, switch the hose to the output valve, and utilize it like a straw. Alternatively, release the output valve and pour the contents as needed.
5. Maintenance Clean the valves and hoses regularly. Check system health via the [volumetric display](#). Filters can be rinsed clean and sanitized for reuse.
6. Press ‘Shutdown’ on the interface to turn it off and store it in a clean, dry place.

Price and Replacement Parts

The cost of the Personal Water Purification System is as follows.

- Full System 900KS
- Replacement [YU-U7-1B Starshield® Type II High-Energy Capacitors](#) - 55KS per 16pk.
- Replacement Filters- 300KS
- Exofill Adapter - 300KS

Up-Scaled Sizes Available

The following Up-Scaled Sizes are available as well:

Up-Scaled Models				
Model	Capacity	Description	Price	Suggested Power Source
YU-G3-1A	150L	Camp Version with Atmospheric Water Harvesting Array ¹⁾	10,000 KS	YU-U7-1E Starshield® Type V High-Energy Capacitors
YU-G3-1B	300L	Large Camp Version with Atmospheric Water Harvesting Array and Greywater Handling System ²⁾	20,000 KS	2 x YU-U7-1E Starshield® Type V High-Energy Capacitors
YU-G3-1C	500L	X-Large Camp Version with Atmospheric Water Harvesting Array and Greywater Handling System ³⁾	40,000 KS	YU-U7-2A Starshield® Type PI Portable Quantum Foam Generator

OOO Notes

[Andrew](#) created this article on 2023/10/06 04:10.

☐ This article is a work-in-progress. Is it not currently approved.

¹⁾
Fills one quarter of a [SSCC-Small](#)

2)

Fits in an [SSCC-Small](#)

3)

Fits in an [SSCC-Medium](#)

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