

# Lorath Power Systems

All starships which are designed for sustained use require a source of power, the source of power could be externally supplied by a support ship or internally supplied by a reactor system. No matter the source of power, a constant and consistent supply of such is required for the sustained use and function of any modern starship.

## Common Power Supplies

### Solar Collectors

The Lorath utilize both voltaic cells and hydrothermal turbines reliant on solar power. These technologies provide enough electrical power to provide planetary installations with basic operational power. As for starship applications, the solar units would provide enough power for life support and other low-demand systems.

### Bacterial Power Packs

[Bacterial Charge Pack](#)

### Bio-Reactors

Lorath 'Bio-Reactor' technology has been designed to utilize the left-overs from organic matter to provide power. The bio-reactor utilizes two different means to provide power. The primary means is to harness the expelled methane from decaying matter and utilize it in a combustion driven generator system. The second means is to utilize a network of fibers passed through the bio-waste to harness left over electrolytes, and to exploit the electrical charge left over in some organic waste. <sup>1)</sup>

### Combustion Engine

Often considered an out-dated technology, the combustion engine has managed to endure as a means of providing mechanical and electrical power to the Lorath in times where no other power source can be obtained, or would serve to be practical. Fortunately, the Lorath have developed the combustion engine to a fine science, utilizing advanced combustion methods such as a Wankel engine, rotary engine, turbine engines, and osculating piston combustion engines.

### Fission Reactor

The Lorath have utilized conventional nuclear reactor technology for many years, even prior to their reclamation of the surface of Lor. Fission reactor technology provides power for older-model Lorath ships, over sized vehicles, and even a number of Lorath planetary settlements.

## **Fusion Reactor**

Fusion reactor technology became dominant in the Lorath civilization soon after the surface of Lor was reclaimed and orbital satellite systems were able to collect Helium-3 from the nebula gases of the Great Southern Nebula. Helium-3 provides a stable medium for fusion power to be delivered. After many years of refining the technology, the Lorath have managed to achieve a 98% conversion rate between the fusion reaction to electrical and other usable power.

## **Magnetic Cycle Motor**

A technology which was developed during the Lorath underground exile, the magnetic cycle motor utilizes rare-earth and electro magnets to provide power to a generator system which is capable of delivering enough electrical power to provide households, small vehicles, and space vessels with electrical power. In starship applications, these power generators are only capable of delivering enough power for low-demand systems.

## **Hydrogen Power**

Through the use of hydrogen, the Lorath are capable of sustaining both combustion engines and electric driven motors. When utilized for either of these usages, the only byproduct produced is water. In starship applications, these power sources are only capable of operating low-demand systems.

## **Uncommon Power Supplies**

### **Antimatter Reactor**

The Lorath utilize the power delivered from matter/antimatter reactions to power their cities and starships with astounding efficiency. When Antimatter reacts to matter, the annihilating effect results in a massive release of energy, which is then harnessed by various means and delivered as electrical, heat, and plasma power. These systems are capable of providing the essential power for high-demand power systems aboard Lorath starships.

### **Plasma Reactor**

Through the use of laser and electromagnetic accelerators, plasma reactions become a feasible means of providing sustained electrical and heat power to starships and cities. However due to the need of matter to use in the reaction, these systems are limited in space use unless a matter creation or collection method is present. These systems are capable of providing power to starships, but not on a scale which would permit usage of very high demand systems, such as white beam emitters or high-end shielding.

## **Energy/Matter Converter Reactor System**

Through the use of QnS documentation, the Lorath have devised a means of converting energy to matter, this system provides the essential matter to be utilized by plasma and antimatter reactors. On it's own however, it is quite useless except to provide large amounts of various matter. However, when used in tandem with exterior reactors, it can provide an infinitely sustainable source of fuel.

## **External Power Supplies**

### **Umbilical System**

A common practice in Lorath applications is to apply an ultra-durable power cord to small craft so they can utilize the power supplied from a larger starship or reactor. Power supply cords in use by the Lorath utilize high strength polymers and super-conductive alloys to provide optimal power reliability.

### **Microwave System**

Through the use of directed microwave beams, the Lorath are capable of providing power to vehicles and systems at a distance if line of sight is maintained with the receiving object. These systems can also be utilized to transmit power from a source in space, to a receiver based on a planet.

### **Arc-Beam System**

A power system which has long been considered dangerous has found a new life in space bound applications. Through the use of directed plasma and electrical power arcs, power can be supplied to small craft, automated turrets, and even to neighboring ships if needed.

### **Wide-Field Support System**

Through the use of a wide area microwave and electromagnetic field generator, power can be supplied in sizable quantities to ships, mecha, and other power consumers properly equipped to collect power transmitted as an area effect. However, this system is not nearly as efficient as the Combined Field System utilized by Star Army of Yamatai ships, and has the occasional issue of accidental arcs and surges.

# New Power Supply Technologies

## QNC Reactor

### QNC

1)

<http://www.smh.com.au/articles/2003/08/03/1059849278131.html>

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Last update: **2023/12/21 01:45**

