Galactic Horizon Energy Cores

The Energy Core developed by Galactic Horizon in YE 40 is a multi-purpose energy supply developed alongside the Sonic Suppression Rifle with the intent of being a reusable energy source for future energy based weapons and devices.

Using high capacity and lossless energy transfer each core can hold enough power to keep energy weapons or systems charged for long periods of time. Combined with being rechargeable the cores provide a viable energy source for weapons and equipment and have a lifespan of 5,000 charges to avoid needing regular replacement.

General Stats

Information regarding the energy cores including size, visual effects, and technical information.

- Nomenclature: GH-G1-1A
- Designer: Galactic Horizon
- Manufacturer: Galactic Horizon
- Size: 15cm length, 5cm diameter
- Effective Range Defined by system.
- Pricing: 100 KS per core

Laser Tag Variant

With slight modification, an energy output maximum value can be designated for each core, allowing it to power the IR weapons used within Galactic Horizon Laser-Tag while still functioning similarly in effect to a standard core. This secondary function is listed as a separate version as it has far less power output than a standard configuration core and would NOT work if used in an energy-powered weapon. One other additional feature of this configuration is a maximum allowed value of energy per use, causing the core to shut down for several minutes afterward; this provides the need to reload during the laser tag games and instills a sense of urgency when a trigger is clicked and nothing happens.

This variant uses the General Stats.

Heavy Duty Variant

The heavy-duty variant of the Energy Core is larger in size and has a higher capacity for energy storage as well as better transfer rates and restrictions. It was designed to power small vehicles and even some basic starship fighters in order to avoid needing a large supply of standard cores to power vehicles.

This variant is also slightly more volatile in nature due to increased capacity and its intended use; if not

regulated correctly they will expel large quantities of energy at a rapid pace. This may be an electromagnetic detonation if the housing is damaged and the energy release valves are failing; alternatively, it may begin releasing lightning-like arcs of electromagnetic energy which will seek out the nearest ground source.

Heavy Duty Statistics

Information regarding the heavy duty variant including size, visual effects, and technical information.

- Nomenclature: GH-G1-2A
- Designer: Galactic Horizon
- Manufacturer: Galactic Horizon
- Size: 45cm length, 15cm diameter
- Effective Range Defined by system.
- Pricing: 250 KS per core

Ember Fusion Core

In late YE 40 Galactic Horizon took the technology from the Phoenix Fusion Generator and made a more compact variant capable of fitting in the same sockets as the aforementioned heavy-duty power cores. It boasts a higher output, long shelf life, and the improved output that comes with being a fusion generator instead of a high-quality battery. On the flipside, however, this variant of the power core also runs the risk of detonating if the reaction becomes unstable.

About the Ember Fusion Core

By utilising the principle of nuclear fusion, the fusion variant of Galactic Horizon's energy core design achieves an energy output comparable to a fraction of the energy produced by a star. The system uses a high-power laser to kick off the fusion process, offering a generous and continuous output of energy kept in check by enough shielding to make it safe for a person to handle the unit without the need to use additional radiation protection.

Appearance

Each Ember Core is a 45 centimetre-long cylinder that is 15 centimetres in diameter to allow it to be used in the same sockets as Galactic Horizon's other heavy-duty energy cores of the same size. The top of each core has a section to dissipate heat - usually facing away from whatever it is powering - from its cooling loop and a Bail handle that sits flush with the unit's casing when not pivoted into position to be used. Underneath the casing, the unit is a tightly packed series of cooling systems, sensors, shielding, circuits, and extraction panels that harness energy from the reaction.

The outermost layer sides off the top of the unit when maintenance is being performed and while it is not the only layer of shielding used in the system's construction it is recommended that anybody attempting to remove the casing takes the appropriate measures to shield themselves from radiation; though not immediately lethal, the removal of this outer layer does cause some radiation to leak and hence the risk of radiation poisoning increases the longer it is kept off.

History

As Galactic Horizon began leaning towards more and more modular systems it was decided they needed a power supply system with a greater output – so they took the well-known principles of atomic theory that were applied to the Phoenix Fusion Generator and made a more compact variant.

Statistics and Info

Information and basic statistics for the Ember Fusion Core including size, visual effects, and technical information.

- Nomenclature: GH-G1-3A
- Designer: Galactic Horizon
- Manufacturer: Galactic Horizon
- Size: 45cm length, 15cm diameter
- Power Output: 150MW
- Lifespan: Potentially centuries, recommended for 30-35 years.
- Pricing: 750 KS per core

Micro Variant

Using the General Variant as a base, the Micro Variant was born entirely of necessity when the Sonic-Flare Sidearm was designed and needed a smaller sized core to power it. It is the smallest of the energy cores developed and produced by Horizon and contains the least amount of charge and the lowest operation risk.

Micro Variant Statistics

Information and basic statistics for the Ember Fusion Core including size, visual effects, and technical information.

- Nomenclature: GH-G1-4A
- Designer: Galactic Horizon
- Manufacturer: Galactic Horizon
- Size: 5cm length, 5cm diameter
- Effective Range Defined by system.

- **Pricing:** 50KS per core

Spark Fusion Core

Where the Ember Fusion Core was designed to be used in the design of anything larger than a person, the Spark Core was designed to be used in suits of power-armour and smaller projects – simply put it is a more refined version of the Ember Core with a lower output.

It follows the same design principals as the Ember Fusion Core though in a smaller package, with a Ring Pull instead of a bail handle – it too is safe to handle so long as the shielding remains intact, if the reaction becomes unstable it is just as prone to detonate though the resulting damage is a third of what it would be if an Ember Core detonated.

- Manufacturer: Galactic Horizon
- Size: 15cm length, 5cm diameter
- Power Output: 50MW
- Lifespan: Potentially Centuries, recommended for 30-35 years
- Pricing: 300KS per core

Note: Most systems that use the older versions of Galactic Horizon's energy cores can also use the newer fusion variants for improved run-times.

OOC Notes

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Approvals

- Ametheliana approved the general variant on 2018/04/27 14:04.
- Ametheliana approved the heavy-duty variant on 2018/06/11 01:45.
- Frostjaeger approved the Ember Fusion Core on 2018/11/09 19:25.
- Immortal Cyan Approved the micro variant on 2019/01/31.
- Spark fusion core approved here