

Ke-D7-M3900 Chiaki Pylon Module

Developed in [YE 39](#) for the [Star Army of Yamatai](#), the Chiaki Pylon Module is a modular component designed for use on multiple ships in spite of its nomenclature. It contains assorted components including a pair of [Ke-D7-W3900 Mass Launchers](#), a pair of Ke-D7-P3900 [Multi-Stage Aether Drives](#), a pair of dedicated [Fabrication Chambers \(Type 39\)](#), and a Ke-D7-M3901 [Scalable Graviton Beam Projector Array](#).



About the Ke-D7-M3900 Chiaki Pylon Module

Beginning in [YE 39](#), [Kage Yaichiro](#) elected to seek an upgrade to the [Plumeria-class \(2D\) Medium Gunship](#). Unlike the parallel program which led to the [Fuji-class Expeditionary Gunship](#), Yaichiro felt that the Plumeria had plenty of life and could be optimized to solve the various issues that had cropped up with the vessel's design – often borne of being used outside of her role. An upgrade to the [Chiaki-class \(1B\) Escort Destroyer](#), which drew from the same parts pool, was deemed a worthwhile measure to explore. Yaichiro sought the advice of former and current Plumeria command and crew in a [communication](#) during the design phase, which heavily influenced the entire process.

Several of the issues that came up were raised by [Miharu Hinoto](#), CEO of Miharu Light Industries. They had the unique experience of having actually battled rogue Plumeria-class vessels and the data on their weaknesses stood out. She brought up the dangers of storing Positron-based ammunition as well as the structural problems with the Plumeria class' pylons. It was also recommended to bring the secondary

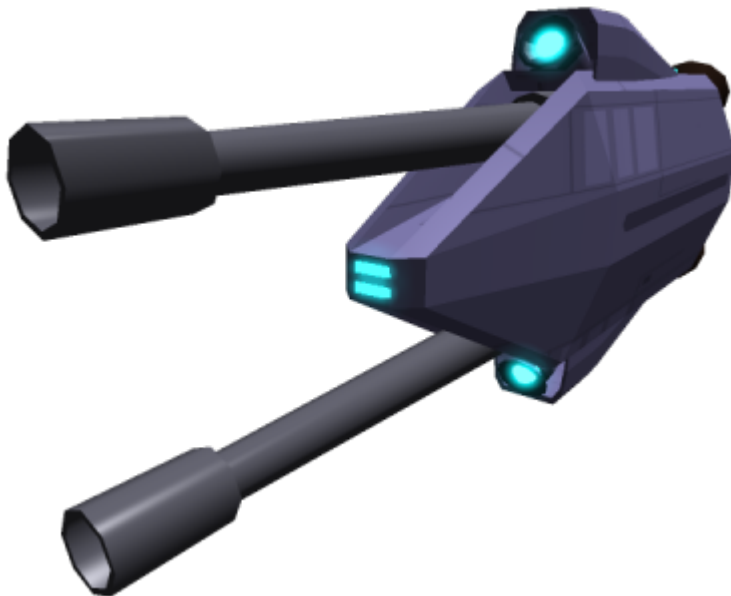
thrusters of the Plumeria inboard rather than placing them on the pylons. It was at this point that Yaichiro noticed that the size and structure of the Chiaki class' engine and [Ke-D7-W3200 Mass Driver Gun](#) module. By using the large structure as a more solid structural junction between a wider, thicker, and shorter pylon and the main body of the ship, and using engines to generate positrons as needed instead of storing them, it was possible to resolve these issues.

A proponent of versatility and cross-compatibility, Yaichiro designed the new Chiaki Pylon Module to serve both as the Chiaki's main propulsion system and as the Plumeria's secondary propulsion system. He also designed the weapon installed to be able to fire a diverse array of ammunition. Rather than cost-cutting features, however, the design of the module relies on the mass production of common parts in the spirit of the Chiaki's design. Combining this with the optimization and improvement of the decade-old technologies employed and making them interact to bolster each other, the performance benefits of both vessels' forms of operation were retained and improved upon to significantly bolster the capabilities of the refit vessels on which the module is employed.

Nomenclature Information

- Designer: [Kage Yaichiro](#)
- Manufacturer: [Ketsurui Fleet Yards](#)
- Name: Chiaki Pylon Module
- Nomenclature: Ke-D7-M3900
- Purpose: Cost-effective STL Propulsion/Weapon Module

Appearance





Components

The assorted parts of the Chiaki Pylon Module are noteworthy in that they are designed not only to be more versatile versions of what already existed, but in that they interact in such a way to eliminate the dangers of Positron storage while also allowing for the re-armament of the ship's physical munitions. They are still, however, individually advanced and in cases among the first implementations of their respective generation of the technology.

2 x Ke-D7-W3900 Mass Launcher

Developed as a successor to the Chiaki's [Ke-D7-W3200 Mass Driver Gun](#) and the Plumeria's [Ke-S3-W2901 Positron Accelerator Cannons](#), the weapon retains the capabilities of both and then some. It can fire [300mm Mass Launcher Rounds](#), 2000kg positron shells, and 2000kg electron shells. The speed these rounds are fired at varies. Each module has two of these weapons which can operate independently or be fire-linked. They can also fire 30 degrees off-center in any direction thanks to the Scalable Graviton Beam Projector Array.

2 x Ke-D7-P3900 Multi-Stage Aether Drive

The Ke-D7-P3900 [Multi-Stage Aether Drive](#) is an upgrade over previous [Turbo Aether Plasma Drive](#) offerings in that it offers thrust vectoring and hovering as well as multiple modes depending on the medium in which the vessel finds itself. Developed to be more environmentally sound and to not confound the sensors of settled planets with clutter, the drive can function in propeller, jet, magnetic, and Turbo Aether Plasma modes. It also has the ability to reverse its intake and exhaust functions to allow the vessel to slow down or perform other measures to hover or alter its direction.

Each module has two pairs of angled intake/exhaust ports with thrust vectoring, each pair fed by an

upper or lower Multi-Stage Aether Drive, allowing for very high maneuverability and multi-axis rotation for turns and banking. While the Chiaki relies on these for its STL propulsion and can achieve 0.375c with notable agility, the Plumeria is limited to 0.25c when using these engines alone in an emergency. In standard use on a Plumeria however, these engines assist with fine control and maneuvering and still lend their multi-axis rotational functionality.

These engines, however, provide far more functionality than merely thrust in assorted environments. They can siphon positrons, electrons, plsama, and anti-plsama from the Aether and act as a supplemental power source. Positrons and electrons can be fed to the Mass Launcher as needed in real time to fuel its firing of those armaments, eliminating the need to store positron ordinance on-ship and increasing safety as a result. Plasma, meanwhile, is sent to the Ke-D7-M3901 Fabrication Chamber to manufacture other ordinance to allow the replenishment of kinetic or missile armament. This inter-coordination between the systems in the module greatly adds to the re-armament ability of the vessel.

Ke-D7-M3901 Scalable Graviton Beam Projector Array

The Ke-D7-M3901 [Scalable Graviton Beam Projector Array](#) serves various purposes on the module, including the ability to divert ordinance fired from the Mass Launcher by up to 30 degrees in any direction after it leaves the barrel. While not needed to redirect thrust from the Multi-Stage Aether Drives since they have their own thrust vectoring and diffusion options, it is an added backup if these systems are disabled. The ventral projectors can also be used to help hover and move under gravity without using other systems, should the need arise.

A key reason for the inclusion of the ventral, dorsal, fore, and aft projectors is the ability to manipulate the environment outside the ship more finely and provide the ability to rescue and tow other vessels. It also possible to use these alone to manipulate an object and move it into a position to be brought into the vessel via a bay or airlock.

2 x Fabrication Chamber, Type 39

The dual [Fabrication Chambers \(Type 39\)](#) are each connected to one of the Ke-D7-P3900 [Multi-Stage Aether Drives](#). Their role is to take in plasma and anti-plasma from the Aether or other materials provided and create [300mm Mass Launcher Rounds](#). They can perform other functions such as the creation or repair of other munitions and equipment, Power Armor (if given enough time), and consumables. The construction area within each chamber is 1.58 meters³. One such chamber can typically sustain 30 people up to with food, water, air, and medicine before needing to simplify the food; and there are two such chambers per Module. Of course, some still advocate the presence of a chef and conventionally cooked meals.

Central Spacing

While not specifically a system, it should be noted that remaining area inside the Module can be

rearranged as needed for the specific vessel's purposes. This allows for a three deck solution, with the middle deck being the one where the module mounts to the pylon and a deck above and below of lesser length. Often these are used for storage of rounds and torpedoes and for walking through as well.

OOC Notes

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<https://stararmy.com/roleplay-forum/index.php?threads/ke-d7-m3900-chiaki-pylon-module-subsystems.60276/>

Products & Items Database	
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