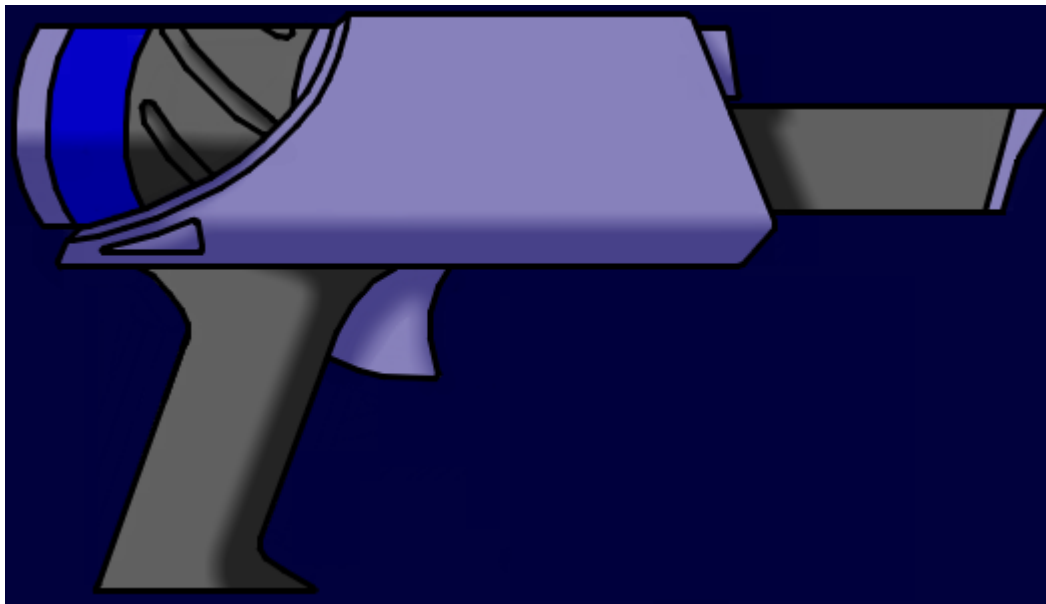


Ke-M12-W3303 Particle Gun

Designed in [YE 33](#) by [Chusa Kage Yaichiro](#) and [Project THOUGHT](#) for the [Keiko Thought Armor](#) and the [Kirie Thought Armor](#), the Ke-M12-W3303 Particle Gun is an energy weapon designed to fire charged particles from a large ejectable canister. It is derived from the [Dual Mode Accelerator Cannon](#), though it can only fire electrons or positrons depending on the canister used.

It was initially designed as the PT-M2-W3303, a sufficiently powerful handheld weapon for field testing the Kirie and Keiko. While the [Ke-M12-W3304 Aether Beam Carbine](#) was intended to be the primary firearm of the machine, the illegality of civilian Aether-based weaponry required an alternative for pre-KFY production models, and this one is useful within atmosphere when electrons are used. Its ability to be used more effectively in Low Power Mode on a planet's surface, however, gave it a niche of its own and warranted production.



Gun

Ke-M12-W3303 Particle

Nomenclature Information

Designer: [Chusa Kage Yaichiro](#) Manufacturer: [Star Army of Yamatai](#), [Ketsurui Fleet Yards](#), and [Project THOUGHT](#) Name: Ke-M12-W3303 Particle Gun Type: Charged Particle Launcher Length: 33 centimeters (13 inches) Mass: 30 kg (66.1 pounds)

About the Particle Gun

Though the [Keiko Thought Armor](#) and the [Kirie Thought Armor](#) had an Aether-derived carbine planned, as well as Forearm Weapons, the civilian models of Kirie and Keiko could not have Aether weapons installed before adopted for military use. To work within the bounds of law, a simpler weapon was developed that

still had enough power to damage enemy units and provide adequate data. These weapons are able to overload an enemy craft with voltage, cause burns and shorts, melt hull, and even annihilate matter if positrons are used. It is also useful for directly attacking ground-based energy infrastructure.

The Particle Gun is a thick-hulled [Durandium Alloy](#)-built weapon with fairly hefty weight for its length, mostly to ensure that its internal workings are not damaged as well as the fact it carries a large amount of subatomic particles. A hefty cylindrical canister is inserted into the back, usually containing electrons or positrons, and the weapon is good for a thousand shots, or 250 seconds of total automatic fire. Its design is fairly simple because it is intended for mass production and even as a disposable weapon if needed as a makeshift bomb, though the weapon can eject its canister and use that as a grenade instead of needed. A Thought Armor can use a Particle Gun in each hand with no issues.

The safety and the scope's zoom are controlled by the [Ke-M12-E3301 Weapon Subcomputer](#), which can detect both which kind of particles are loaded and if there is atmosphere outside the weapon. If loaded with positrons, the weapon will not discharge if atmosphere is detected. It is possible to make the weapon self destruct via override, regardless of location and ammo, though appropriate warnings will be made. While the trigger can also be fully thought-managed and bypass the physical trigger, it is neither the default nor recommended for rookies lest they fire at targets faster than they can properly identify them.

Appearance

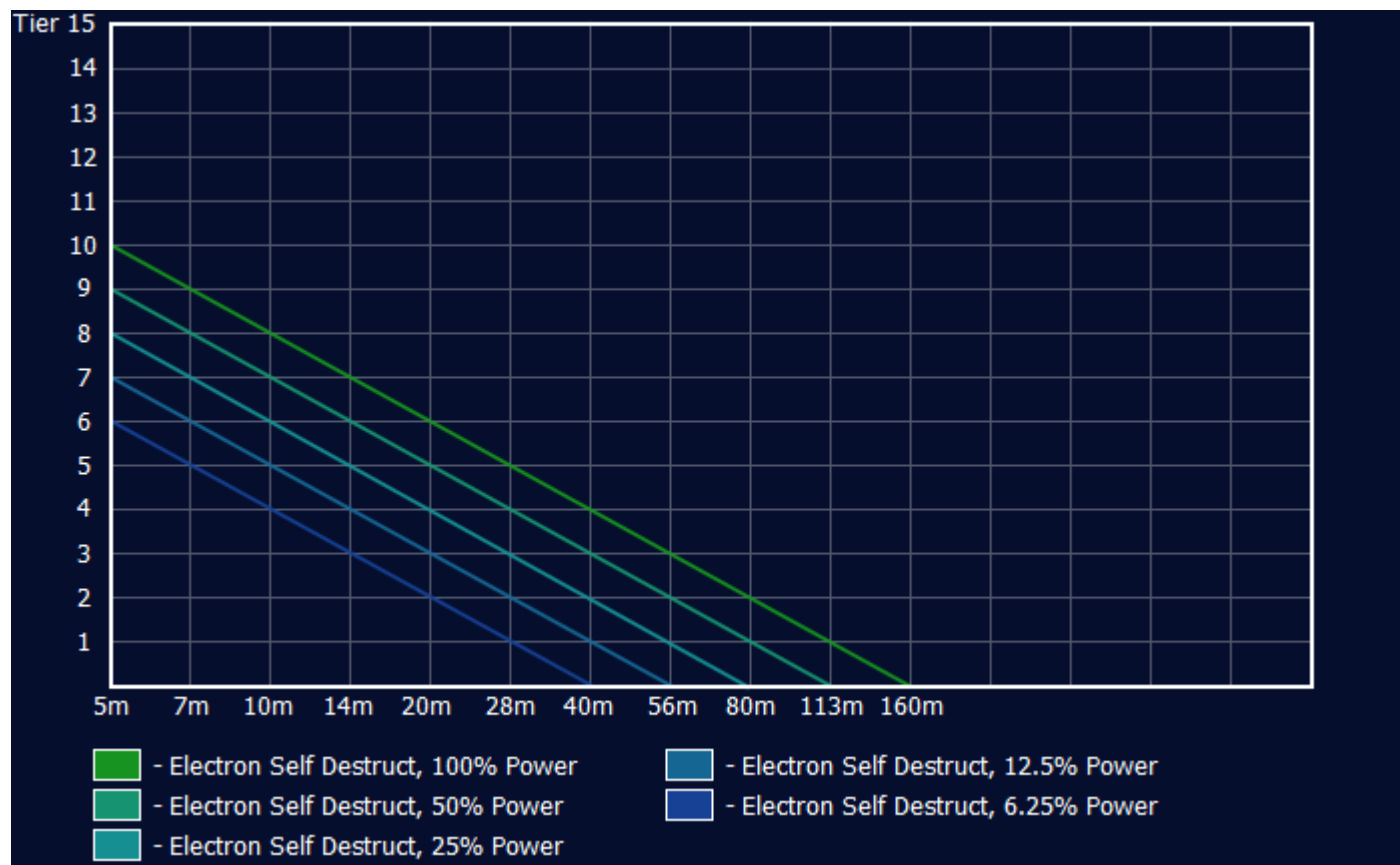
Simple and rugged, the particle gun looks even simpler than some handguns externally, though its interior contains a large amount of shielding and containment. It has a blocky Star Army Blue body with a cylindrical Ke-M12-W3303-C1 or C2 canister inserted into the rear, a barrel and scope sticking out of the front, and the grip and trigger sticking out of the bottom. There is neither a trigger guard nor a stock, and the only physical input for the weapon is the trigger. its discharge looks like a blue-white flash.

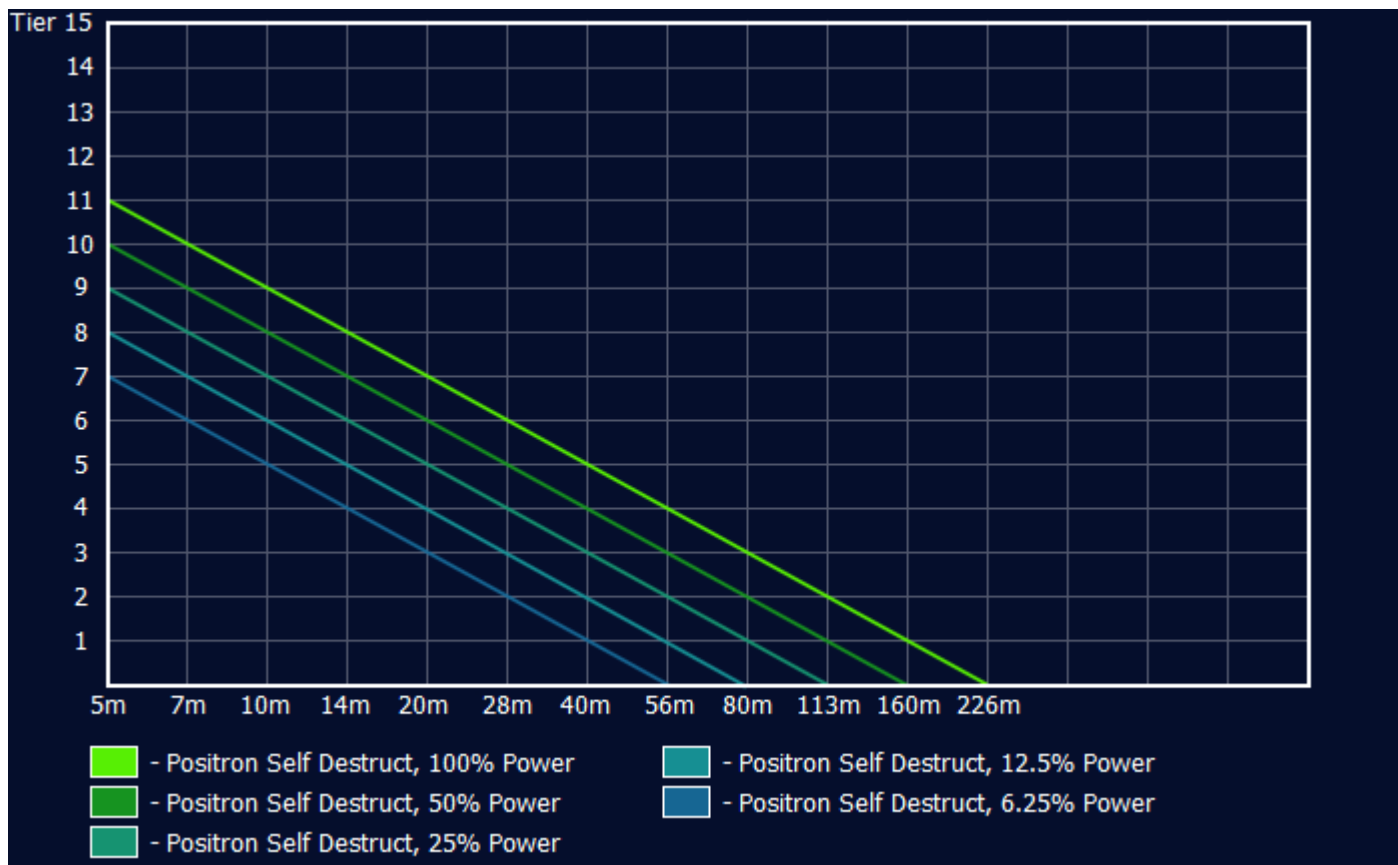
Discharge Information

Firing Mode	Purpose	Rate of Fire	Area of Effect	Range
Electron/Lightning ¹	Tier 4 , Light Anti-Armor	4 shots/second	Single Target	0.3 light-seconds / 89,937 km / 55884 miles
Positron/Antimatter ²	Tier 6 , Heavy Anti-Armor	4 shots/second	Single Target	0.3 light-seconds / 89,937 km / 55884 miles
Electron Self Destruct	Tier 10 , Light Anti-Starship	1 use/canister	Wide-area Explosion	5 meters at Tier/ 160 meters total
Positron/Antimatter Self Destruct ³	Tier 11 , Medium Anti-Starship	1 use/canister	Wide-area Explosion	5 meters at Tier/ 226 meters total

¹Powered by Ke-M12-W3303-C1 canister for 1000 shots. ²Powered by Ke-M12-W3303-C2 canister for 1000 shots. Do not use in atmosphere, also emits lethal gamma radiation!! ³Again, do not use in atmosphere, also emits lethal gamma radiation!!

It should be noted for the self destruct modes that explosion damage is calculated via the square-cube law. Also, detonating the Canister at half power will reduce the Tier by 1, detonating at 25% power will reduce the Tier by 2, etc. As such, these graphs describe the type of damage to expect and at what ranges. Please note that these are moves that destroy the canister and said canister is flung like a grenade. It can also still be attached to the gun and detonated if desired. This is not a move done lightly or without risk to the user unless carefully planned. It is not recommended to be a soft target within these ranges. This is especially the case for if positrons are used, because antimatter annihilation can produce supplemental gamma radiation. As such, positron canisters are not to be used in atmosphere.





Firing Mechanism

The physical firing mechanism is a simple but well-designed trigger, which is simply pulled to allow the weapon to discharge under the correct conditions. The requirements for discharging the weapon are very specific. A [Ke-M12-E3301 Weapon Subcomputer](#) is installed inside the grip of the weapon, and the pilot must wish to discharge the weapon when the trigger is pulled or the safety will prevent it from going off. This system relies upon the interface with the pilot in the Thought Armor and is also how the Particle Gun keeps the pilot aware of the weapon's energy levels. The weapon is an automatic weapon, but the thought-based nature of the weapon allows the pilot to easily fire a set number of shots without having to include an alternate mode.

The intent behind this is to keep the weapon from being used against Star Army forces by the enemy or accidentally fired. The lack of a need to press a button to change settings also provides a benefit to the complex weapon in that the pilot needn't fumble with her weapon and be distracted while in a potentially dangerous situation. Another benefit is simply that the removal of the assorted buttons from the weapon cuts down cost and complexity. It also prevents the self detonation of the weapon, or the ejection of the canister, without the will of the pilot.

While one can remotely fire the weapon without pulling the trigger, this requires changing a few settings and disabling some safeties. It is not recommended except with specific situations. Giving a pilot a weapon that can fire at the speed of thought without the skills to identify targets reliably at that speed is a real risk, though veteran pilots who do have the skill may prefer to minimize the firing time of their weapon and remove the trigger pull from the equation for the sake of speed and accuracy. This relatively

obscure capability is also meant to be used to set booby traps - which include a timed or remote self destruct of the firearm's canister.

Canister Description

The Ke-M12-W3303-C1 and Ke-M12-W3303-C2 Canisters serve as the magnetic containment fields for the weapon's ammunition and are effectively batteries. The C1 has a blue band and stores Electrons, while the C2 has a red band and stores positrons. The canister is 6cm x 6cm x 12cm (2.4" x 2.4" x 4.8") and stores 1000 shots' / 250 total seconds' worth of energy. If desired, the canister can be ejected from the weapon and a recessed area in the canister pressed, before being thrown like a grenade. It will then detonate at one of its preset yields of 100%, 50%, 25%, 12.5%, or 6.25% power depending on the reserves available.

Each canister also has a separate compartment of electrons, for the purpose of delivering energy to the weapon's containment and acceleration/firing systems, but is very well insulated from the payload of the weapon.

Weapon Mechanisms

Though not restricted technology, and easy to initially produce with sufficient facilities, there are relatively few parts which can be serviced except by certified Star Army or Project THOUGHT Technicians. The weapon is a simplified particle accelerator with containment systems, and is not easily calibrated by the layman. It is considered an antimatter weapon and requires the safety precautions thereof when being repaired.

That said, many of the external parts like the trigger, barrel, canister, and scope can be replaced. Things inside the weapon cannot be easily replaced, however, and at that point it is recommended to exchange the firearm for a new one and send it off for repair or scrapping. The same is true with the canisters if they are damaged. In some cases, due to the low price of the weapon, it is not cost effective to enact repairs.

Safety: Toggled by [Ke-M12-E3301 Weapon Subcomputer](#) Fire Mode Selector: Toggled by [Ke-M12-E3301 Weapon Subcomputer](#) Weapon Sight: High Resolution 1 Light-Second Optic Energy Source: Ke-M12-W3303-C1 canister for 1000 shots of electrons / Ke-M12-W3303-C2 canister for 1000 shots of positrons.

Low Power Mode Compatibility

While an energy and antimatter weapon, the weapon is compatible with Low Power Mode as it does not draw from the Thought Armor's power system. Using positrons makes the weapon more easily detectable than using electrons, but circumstances in which Low Power Mode would be utilized typically favor using electrons to begin with.

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