

Ke-M13-W4272 Heavy Armor Rifle

Based loosely on the [Ke-M2-W3900 Shoulder-Fired 20mm Gauss Cannon](#), the Ke-M13-4272 Heavy Armor Rifle is a coilgun designed specifically for [Star Army of Yamatai](#)'s series of [Thought Armor's Urban Combat Mode](#) and general use. It is the first weapon design [Sakura Machinery](#) has submitted to the Star Army, entering field testing in late [YE 42](#).

About the Ke-M13-W4272 Heavy Armor Rifle

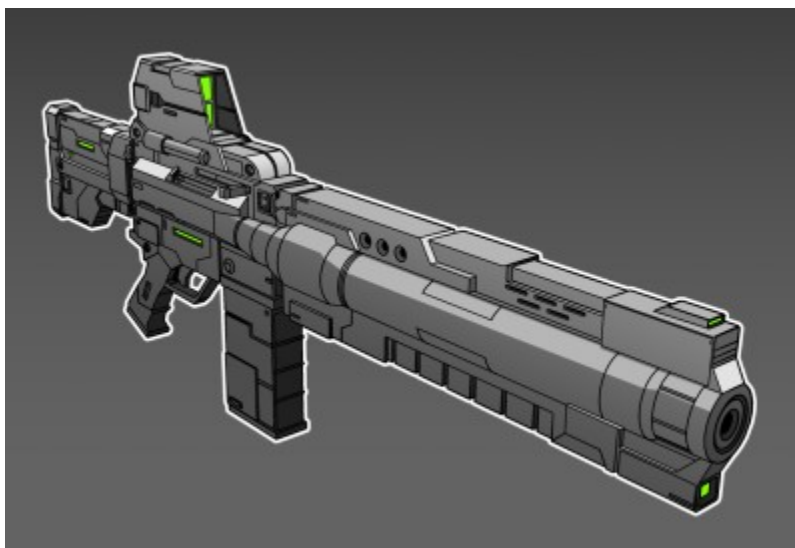
Intended to supplement or replace the [Ke-M12-W3304 Aether Beam Carbine](#) within Rikugun forces, the Heavy Armor Rifle is designed to operate with situations where both stealth and firepower is needed. The designer, [Mikael Harris](#), opted to make use of the [20x82mm Gauss Cannon Rounds](#) to simplify logistics for the weapon.

The weapon is modular in nature, giving the ability to create different variants of the assemblies.

Nomenclature Information

- Designer: [Mikael Harris](#)
- Manufacturer: [Sakura Machinery](#), [Ketsurui Fleet Yards](#)
- Name: Heavy Armor Rifle
- Nomenclature: Ke-M13-W4272
- Type: Gauss
- Role: General Purpose Rikugun Thought Armor Rifle
- Length: 115cm
- Height (weapon, w/magazine): 55cm
- Weight (weapon, w/magazine): 75kg

Appearance



1)

The Ke-M13-W4272 is a large non-bullpup rifle constructed of Durandium Alloy. It lacks a lot of the smooth corners and sleekness typically seen with Yamataian weapons. Intended for the use of the Star Army Rikugun, the alloy is anodized to a standard grey color instead of the blues typically used. There are three parts to the weapon: the barrel assembly, upper assembly, and lower assembly.

To disassemble the weapon, first, the barrel assembly must be unpinned at two locations (top and bottom) and then detached. Afterward, the upper and lower assemblies can swing away from each other for partial disassembly or completely detached by pushing out the pin.

Barrel Assembly

The Barrel Assembly when removed has a boxy appearance save for the bulge where the initial main coils and round chamber are located. The remaining coils run along most of the length of the weapon, ending halfway. The upper compartment above the barrel contains the coil capacitors and semi-air cooling system of the weapon. The lower compartment, on the other hand, is largely a handguard with an integrated flashlight that is located at the front of the weapon. A battery compartment is located to the rear that powers the flashlight. It has a customized version of the [Type 40 Yamatai Integrated Rail System \(YIRS\)](#) that is compatible with accessories.

Upper Assembly

The Upper Assembly of the weapon when separated is largely rectangular-shaped when excluding the attached buttstock. Inside is the removable bolt carrier group (BCG) consisting of a “bolt” with an extractor/electric contacts and a solenoid that moves it in a similar fashion to gas-operated weapons.

On the outside of the upper assembly, an ambidextrous charging handle and ejection port exist to facilitate the removal of chambered rounds. This was a late addition to accommodate the need to remove deactivated HEAP rounds safely. On the top of the assembly is the removeable AIES linked weapon sight mounted on a triple-section of Type 40 YIRS.

Within the buttstock is a replaceable main battery the powers the weapons electronics and feeds into the coil capacitors. Power is provided to the battery via a rectangular charge port in the back, which connects to the forearm of Yamatai Power Armor..

Lower Assembly

The smallest of the sections of the weapon the lower assembly, when taken off, looks like a rectangle with a pistol grip. The [Ke-M12-E3301 Weapon Subcomputer](#) is located within the assembly above the pistol grip and manual trigger. In front of it is the magazine well with an ambidextrous magazine release button moveable to either side.

Discharge Information

- Muzzle Flash: Occasional escape of blue ionized air.
- Retort: The weapon's retort in an atmosphere is a loud cracking sound when close. As the subject moves away, it becomes more of a 'thump' sound.
- Projectile: [20x82mm Gauss Cannon Rounds](#)
- Effective Range: Within an atmosphere, 6 km.
- Rate of Fire: 600 RPM
- Recoil: The recoil of the weapon is moderate in semi-auto. In full auto, the weapon becomes very uncontrollable unless in the hands of a veteran. The size of the weapon makes it cumbersome for non-thought armor to use, though not impossible if the lower assembly is replaced with manual switches.

Ammunition

The standard box magazine for the weapon has a capacity of 25 rounds. With an adapter, the rifle can also make use of the [Ke-M2-W3900 Shoulder-Fired 20mm Gauss Cannon](#)'s box magazine as well for the same capacity.

Round	Type	Effect, purpose	Velocity	Range	Damage Rating V3
Standard Ball-Type Rounds	Anti-armor	This round deals damage through pure kinetic force.	2,500 m/s	20,000 m (6,000 m effective)	Tier 6, Heavy Anti-Armor, penetration
Airburst	Area of Effect	This round deals damage via fragmentation and blast effects.	2,500 m/s	20,000 m (6,000 m effective)	Tier 5, Medium Anti-Armor, see below for more information. Semi-auto only

Round	Type	Effect, purpose	Velocity	Range	Damage Rating V3
High-Explosive Armor-Piercing	High-explosive	This round deals damage via kinetic and explosive effects. It is designed to penetrate the target and explode inside. For less armored targets, it just simply explodes.	2,500 m/s	20,000 m (6,000 m effective)	Tier 5, Medium Anti-Armor penetration. See below for more information on explosive damage.
Armor-Piercing Fin-Stabilized Discarding Sabot	Anti-Fortification	This round deals damage via kinetic effects. The 10mm zesuaium tipped sabot is designed to penetrate even the toughest armors. Limited issued and semi-auto only.	3,000 m/s	20,000 m (6,000 m effective)	Tier 7, Light Anti-Mecha.

Airburst

Area of Effect	Effective Purpose
0.0-10.0 meters	Tier 5, Medium Anti-Armor
0.0-10.0 meters	Tier 4, Light Anti-Armor
10.0-14.0 meters	Tier 2, Medium Anti-Personnel
14.0-20.0 meters	Tier 1, Light Anti-Personnel
20.0-28.0 meters	Tier 0, Anti-Individual

HEAP

Area of Effect	Effective Purpose
0.0-1.0 meters	Tier 3, Heavy Anti-Personnel
1.0-1.4 meters	Tier 2, Medium Anti-Personnel
1.4-2.0 meters	Tier 1, Light Anti-Personnel
2.0-2.8 meters	Tier 0, Anti-Individual

Weapon Mechanisms

Firing Mechanism

1. With a trigger squeeze, the capacitors for the weapon's coils are discharged in a timed order, activating their coil.
2. As the round is accelerated out of the weapon, a solenoid moves the bolt backward to allow the next round in the magazine to be pushed up by a spring. If a round is still on the bolt, an ejector deactivates (if appropriate) and pushes out the round through a port.
3. The solenoid then moves the bolt back forward and catches the next round. The round is moved into the firing chamber, ready to be fired.

4. Electronic contacts at the back of the weapon and the bolt activate and programs (if required) the round before the process repeats once more.

Loading

Rounds are pushed up in the magazine with a spring and are secured with notches. The magazine release is controlled by the [Ke-M12-E3301 Weapon Subcomputer](#) or a manual backup button if the computer is off. The Heavy Armor Rifle makes use of a larger version of the BR-28E (BR-42K) battery for its firing mechanism and weapon sight located just before the buttstock in the top of the weapon. It is recharged via connections in the back of the weapon and should be regularly replaced after 50,000 shots.

Mode Selector

The primary type of mode selector comes from the strength of the trigger squeeze. Half pulls of the trigger activates only semi-auto rate of fire, while full pulls will activate full automatic. The [Ke-M12-E3301 Weapon Subcomputer](#) communicates with the Thought Armor to turn the safety on/off and acts as the mode selector for rookies. The subcomputer also prevents full auto mode if an airburst or sabot round is chambered.

Firing Modes

The Heavy Armor Rifle is capable of firing in semi-automatic and fully automatic. Though the weapon subcomputer locks out fully automatic unless the user is a certified expert for the weapon.

Weapon Sight

AIES linked optics are located on the upper assembly on rails, in between the barrel and buttstock of the weapon.

Attachment Hard Points

Located at the top of the Upper Assembly and the handguard of the Barrel Assembly.

OOC Notes

[Demibear](#) created this article on 2020/08/21 20:14.

- [Approval Thread](#)

Star Army Logistics	
Supply Classification	Class G - WEAPONS INDIVIDUAL SMALL ARMS
First Used	YE 42
Products & Items Database	
Product Categories	weapons: rifles
Product Name	Heavy Armor Rifle
Nomenclature	Ke-M13-W4272
Manufacturer	Sakura Machinery , Ketsurui Fleet Yards
Year Released	YE 42
Price (KS)	10 ,000.00 KS
DR v3 max	Tier 5
Mass (kg)	75 kg

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Artwork by [kryuchekov](#).

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