

# Storm Rifle II

The Storm Rifle II is the successor to the venerable [Storm Rifle](#) made by [Black Wing Enterprises](#). It became available in [YE 43](#), and now serves as the standard rifle for [New Dusk Conclave](#) power armor infantry.



## About the Storm Rifle II

This weapon is based on the Storm Rifle designed in [YE 39](#) by [Sarah Pine](#), [Rose Ironhart-Pine](#), [Jack Pine](#), and [Aster Blake](#), based on technology developed for the [Black Rose Anti-Material Rifle](#). It will replace all still functioning [HAR1-1](#) models by the end of [YE 44](#).

## History

The Storm Rifle platform is notably one of the most technologically complex and advanced weapons ever produced by Section Six or the [New Dusk Conclave](#), surpassed by the [Avenger Plasma Rifle](#) in terms of sheer technological advancement and widespread use. Thusly, when the original Storm Rifles started to fall into obsolescence and the initial design issues were addressed, several generations of Storm Rifle were identified, each with its own unique problems.

Of those, there were a few common denominators.

- 1: The HAR-1 was massive, and heavy.
- 2: Inconsistencies across the short few years of its production caused reliability and compatibility

issues with repairs.

- 3: The HAR-1 was difficult to apply properly except as a mounted weapon or power armor weapon despite being designed for general infantry.

The fixes to these problems made the Storm Rifle II an almost completely redesigned weapon. Though unchanged in damage output, rate of fire, and basic mechanisms, engineers cut a full eighteen inches off the overall length and eight pounds from the weight, making it more portable, easier to aim, easier to apply in its designed role.

Efficiency increases due to improved nuclear battery and plasma energy technology, better room temperature superconductors, improved additive manufacturing and molecular circuit design, and other improvements in fields directly related to the Storm Rifle's intricate design have allowed improvements in efficiency and reliability.

With these improvements, the DORAD was able to cut a full nineteen inches from the barrel of the A variant, adding a mere inch to the receiver, resulting in the HAR-1A infantry heavy assault rifle. They were also able to supersize the weapon and modify the receiver to accept a belt feed with the HAR-1 as a test platform. This resulted in the HAR-1B variant designed for use as a mounted vehicular and BSA defense weapon.

Reliability was also improved, and manufacturing methods cemented to provide a consistent, reliable, powerful weapon a warrior should aspire to be worthy of.

## Notable engineering quirks

### Theory

The design is not a standard railgun, despite appearances. Due to conductor field issues and round stability, alongside spin stabilization issues and low muzzle velocity present in personnel scale rail type weapons, the HAR-1 is actually a "quad rail" design, wherein the round makes contact across two inverted twin rails simultaneously, directing current in four even conduction paths, and essentially firing four railguns simultaneously using a series rail configuration to open more paths of magnetic flux.

### Safety

In order to combat the powerful blowback of the original Storm Rifle, which is still present in the Mark 2 version, inertial dampers were designed and installed in the casement. These activate only in the presence of NDC authorized communications systems, identifiable as Geist Neural Network, Revenant undersuit native comm systems, or NDC authorized communications arrays. in the A variant, with the B variant having the addition of a vehicle control port that must be calibrated to the vehicle control computer commanding it.

Note: See [Disassembly manual](#) for cleaning and repair instructions, applicable to HAR-1, HAR-1A variant.

See Maintenance Allocation Chart of assigned vehicle for instructions on HAR-1B cleaning and repair.



## Nomenclature Information

- Designer: [Department Of Advanced Research And Development \(D.O.A.R.A.D.\)](#)
- Manufacturer: [Department Of Engineering, Black Wing Enterprises](#)
- Name: HAR-1A RIFLE, RAIL, HEAVY ASSAULT/SQUAD AUTOMATIC, 5x30MM APDS FIN STABILIZED
- Name: HAR-1B CANNON, RAIL, VEHICULAR, 12.5X75MM APDS FIN STABILIZED
- Nomenclature: BW-HAR-1A/B
- International Nomenclature: BW-W15-1a/b
- Type: Rail
- Role: Heavy Assault Rifle/ vehicular/mecha cannon
- Length:
- Barrel: A variant: 22 inches/ B variant: 48 inches
- Height: A variant: 10 inches/ B variant: 18 inches
- Width: A variant: 6 inches/ B variant: 12 inches
- Overall Length: A variant: 40 inches/ B variant: 70 inches
- Mass: A variant: 10 lb (4.53 kg) unloaded 14lb (6.35 kg) loaded<sup>1)</sup>/ B variant: 45 lb unmounted

## Appearance

The Storm Rifle II has two major variants based on the same design history. The more commonly seen version is a small bullpup assault rifle measuring a mere 40 inches. Visually similar to the original Storm Rifle, the Storm Rifle II uses the same ammunition and break action loading assembly.

The buttstock is quite large for the assault style weapon, compensating for its powerful blowback force. As the magazine is mounted between the buttstock and barrel in a break-action reloading breech, the trigger is mounted fairly far from the shoulder, in a more relaxed and extended position than traditional heavy assault rifles. The foregrip is a rubberized section approximately fifteen inches long, mounted

ahead of a full guard pistol grip upon which the trigger, mode selector, and battery indicator lights can be found.

Topside, directly above the magazine assembly is a CCO sight, behind which is a latch assembly to flip the barrel down and reload. Moving down the length of the weapon, one will find two full length tactical rails over a cooling shroud and venting system between the twin sets of rails. The undermounted tactical rail is mounted just ahead of the barrel hinge just fore of the foregrip.

The B variant Storm Rifle, however, lacks a buttstock, lower and side tac-rails, sights, and hand trigger, with the belt feed routed out the side, into the hull of whatever vehicle or swivel platform it's mounted on. Two retainer pins allow it to be mounted to a tripod, robotic weapons mount, or directly to the hull of a starship or airborne fighter. If used on a tripod, a detachable sight may be mounted using the topside tac-rail. If on a fighter or starship, the topside tac-rail is recommended for use as a bracing point against structural components of the hull.



## Discharge Information

### A variant

- Muzzle Flash: White flash of plasma approx eight inches wide, thirty inches long
- Retort: Lightning strike
- Projectile/Beam Appearance: Rounds move too fast for the eye to see, though long exposure photography will show a red or orange eight inch plasma tail
- Effective Range 1200 yards <sup>2)</sup>
- Rate of Fire: 30 flachettes per second <sup>3)</sup>
- Recoil: Weapon bucks back and up with about 3-4 lb of force <sup>4)</sup>

### B variant

- Muzzle Flash: White flash of plasma approx twenty inches wide, seventy inches long
- Retort: Lightning strike
- Projectile/Beam Appearance: Rounds move too fast for the eye to see, though long exposure photography will show a red or orange plasma tail
- Effective Range: 5000 meters <sup>5)</sup>
- Rate of Fire: 30 flachettes per second <sup>6)</sup>
- Recoil: Weapon bucks back and up with about 50-60 lb of force <sup>7)</sup>

## Ammunition

- Ammunition A variant: [Storm Rifle Flechette](#) 5×30 mm heat shield tipped fin stabilized armor penetrating discarding sabots

B variant: [Storm Rifle Flechette](#) 12.5×75 mm shield tipped fin stabilized armor penetrating discarding sabots

- [Purpose](#), A variant: Tier 4 burst mode, Tier 2 individual rounds. <sup>8)</sup>
- Round Capacity: 800 round magazine (Approx. 80 shots), battery depletes after 3 magazines. Nuclear power cell recharge time: approximately two minutes.
- [Purpose](#), B variant: Tier 6 sustained fire, Tier 5 individual rounds.

Storm Rifle Damage Quickchart		
Variant	(Type/Mode)	Purpose
A variant	Semi auto (10 round burst)	Destruction of up to heavy armor or heavy personal barriers
	Full Automatic (30 rounds per second)	Destruction of heavy armor or sustained covering fire
B variant	Full Automatic (30 rounds per second)	Destruction of up to heavy armor or heavy barriers

A variant fires 5×30 mm flechettes in ten round bursts, individually unimpressive. The high velocity, point pressure, and plasma tip leaving a self cauterizing small bullet hole characterized by a large exit wound due to round disintegration and hydrostatic shock.

B variant fires 12.5×75 mm darts in a fully automatic mode, similar to the A variant, although rounds are scaled up by 250%, designed to penetrate and destroy heavily armored systems.

However, the both variants of the weapon fire thirty per second, allowing rapid depletion/destruction of barriers, shields, and armor.

## Weapon Mechanisms

### Firing Mechanism:

The HAR-1A magazine is integrated with a canister of liquid CO2 to act as a preaccelerator due to the fact that rounds placed in a railgun with zero starting momentum will simply weld themselves in place.

Pulling the trigger opens a valve that uses the carbon dioxide to spool both a rotary feeding pinion and a small constant flow jet in the breech, effectively cooling the weapon as rounds are fed into the barrel at 1/30th second intervals.

The barrel is kept at a high amperage, high voltage (400Kv) charge by a series of high amperage supercapacitors fed from the integrated nuclear power cell. The high voltage and amperage induces a powerful magnetic field in the four rails when contact is made by the sabot casement, which induces a repelling charge, accelerating the round to mach 8 in the span of the 22 inches of barrel.

The HAR-1B is a belt fed, liquid gas cooled design similar to the HAR-1a, though belt fed. The belt feed is integrated with a liquid gas line spooling the feed pinion and ending in the constant flow breech chamber, the ammunition storage being constantly fed by rounds being forced together by spring tension.

## **Loading:**

### **HAR-1A**

When the rifle's magazine is depleted, one can flip a release on the top rear, behind the stock, which will allow the barrel to lift free on pneumatic cams and eject the spent magazine over the shoulder of the user by spring assist.

Simply place the fresh magazine into the feed assembly and pull down firmly to realign the barrel and prime the gas canister.

### **HAR-1B**

Remove and replace vehicle's integrated drum magazine in garrison environment.

## **Mode Selector:**

Applies only to A variant: Firing mode is selected by a spring detent slide switch above the thumb guard at the top of the pistol grip. When in safe, one has to simultaneously push in on the slide, push forward, then down to slide it to semiautomatic. Slide back and down for full auto.

Safe can be flipped from any firing mode by moving the slide vertically until spring tension is felt.

- Firing Modes:
- Safe (weapon cannot fire, can be reloaded)
- Semi (weapon is primed and fires a 10 round burst, computer controlled.)
- Auto (fully automatic firing mode, 30 rounds per second.)

## **Weapon Sight:**

A variant only: While this weapon does have a set of keyhole style back-up iron sights, a CCO (Close

Combat Optic) with a round count and status display is mounted above the receiver. Simply align the variable color (red, amber, blue, or green) dot over the front sight to align the barrel with the target.

### Attachment Hard Points:

A variant only: Two standard tactical rails on the sides, above the lower hand guard, one short rail mounted below the barrel and ahead of the grip.



## Pricing

- Storm Rifle II: 4,000 KS <sup>9)</sup>

## Replaceable Parts and Components

Most replaceable parts for A variant Storm Rifle II are compatible with the original Storm Rifle, or are design holdovers. However, barrel, and receiver are not compatible. Storm Rifle II B variant component groups do not include trigger assembly or sights, as the trigger is digitally controlled from the vehicle using it, sights are either attached as a secondary unit or reliant on vehicle weapon platforms.

- Quad-rail HV charge barrel: 2,000 KS <sup>10)</sup>
- Battery pack: 500 KS <sup>11)</sup>
- Trigger assembly: 200 KS <sup>12)</sup>
- Control computer: 200 KS <sup>13)</sup>
- Storm Rifle Magazine: 85KS <sup>14)</sup>

## Optional Attachments

Fits any standard tactical rail mounted attachment.

Flashlight

[Project Centurion](#) NOT FOR CIVILIAN PURCHASE.

## Ammunition

<b>(Insert Ammo Name) Price Quickchart</b>		
<b>Type</b>	<b>Price (100 Round Box)</b>	<b>8,000 round box</b>
Plasma shroud Flechettes 5×30 mm	<u>NOT FOR CIVILIAN PURCHASE.</u>	<u>NOT FOR CIVILIAN PURCHASE.</u>
Plasma shroud Flechettes 12.5×75 mm	<u>NOT FOR CIVILIAN PURCHASE.</u>	<u>NOT FOR CIVILIAN PURCHASE.</u>

## OOC Notes

[Madi Harper](#) created this article on 2019/05/09 15:54. [Alex Hart](#) updated and submitted this product.

Approved by [Andrew](#) on 02/15/2021.<sup>15)</sup>

1)

Loaded magazine weighs 4 lb(1.8 kg)

2) 5)

Rounds disintegrate after this point to prevent collateral damages.

3) 6)

Automatically stops after 200 rounds or five bursts within 3 seconds due to charge depletion of the rails and overheat. Wait 5-10 seconds between firing cycles to rebuild the charge.

4) 7)

dampened to 20% kick by inertial damping technology similar to that used in the U-1. Damper only activates when authorized user controls weapon, See safety for details.

8)

Due to the infinitismally short interval between impacts, often with a grouping of 8 microns or less, the 10 round burst gives an ablative effect, capable of dealing crippling damage to Tier 4 barriers and body armor. Does not apply to targets moving laterally above 30km/hr

9) 10) 11) 12) 13) 14)

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15)

<https://stararmy.com/roleplay-forum/threads/storm-rifle-ii.67144/>

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