

S6-HAR1-1 Storm Rifle

Better known as the Storm Rifle for its rolling thunder sound and the burns it leaves, the S6-HAR1 is a potent battlefield weapon.

This rifle features an 800 flechette magazine, the capability of up to thirty flechettes per second fired, and a semiauto mode of 10 flechette bursts. When fired from the barrel, the hollowpointed flechette rounds' heat shield tips create enough friction with surrounding air at Mach 8 to literally ignite the atmosphere to plasma, creating a hybrid damage type. These will disintegrate safely after about 1200 yards to prevent collateral damage.

The flechettes are long and thin, approximately 5mm wide by 30mm long, to provide the best armor penetration possible by sheer single point impact force.

About the Storm Rifle

S6 has needed an edge, a simple, reliable, and powerful weapon to defend against raiders for some time, now. A uniform weapon for Saber that would be distinctive, and potent enough to minimize casualties on both sides. Enter the Storm Rifle, designed in Ye39 by [Sarah Pine](#), [Rose Ironhart-Pine](#), [Jack Pine](#), and [Aster Blake](#), based on technology developed for the [Black Rose Anti-Material Rifle](#), and slated for live field deployment by YE 41, though it has been approved for limited squad automatic weapon use as of August YE 40. It will be augmented and replaced by attrition by the [A variant Storm Rifle II](#) starting June of YE:41.

Note: See [Disassembly manual](#) for cleaning and repair instructions

Notable engineering quirks and design flaws

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 HAR1-1 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.

The nuclear battery was actually not present in the initial generation of Storm Rifles, and the main capacitors were originally designed to be run off the Revenant power armor's internal supply. However, issues with power stability necessitated an internal nuclear power supply.

The inertial damping control computer was not present in early prototypes, due to miscalculations of the sheer kick force the HAR1-1 gave. These were retrofitted using a graphene molecular circuitry device about the size of a quarter, though the early model dampers do dislodge from their moorings on occasion.

Modern HAR1-1 Storm Rifle control circuitry is actually printed into the graphene peek plastic casement,

reducing weight and size of computer hardware, and making the weapon look uncontrolled to engineers attempting to reverse engineer the design.

An occasional glitch in the power control circuit is known, wherein the capacitor system will dump completely during a burstfire shot, overheating the weapon, though increasing muzzle velocity by almost 400%. This will cause massive overpenetration and an increase of damage, but is not a controllable glitch. Approx. 1 in 1000 shots. ¹⁾

A known structural glitch is residual magnetic fields in the breech lock. Approximately one in 3-5 magazines, weapon will not open breech/break action, making it impossible to remove a spent magazine without restarting the weapon system. (Approximately 50-70 seconds.) This is made more likely by use of large amounts of ammunition in short periods of time.

Nomenclature Information

- Designer: [Department Of Advanced Research And Development \(D.O.A.R.A.D.\)](#), and [Department Of Engineering](#)
- Manufacturer: [New Dusk Conclave](#)
- Name: HAR1-1 RIFLE, RAIL, HEAVY ASSAULT/SQUAD AUTOMATIC, 5x30MM APDS FIN STABILIZED
- Nomenclature: S6-HAR1
- Type: Rail
- Role: Heavy Assault Rifle/ Squad Automatic weapon
- Length:
- Barrel: 41 inches
- Height: 10 inches
- Width: 6 inches
- Overall Length: 58 inches
- Mass: 18 lb (8.16 kg) unloaded 22lb (9.97 kg) loaded

Appearance

The Storm Rifle is a rather large bullpup weapon, I.E., the trigger is mounted forward of the receiver assembly. While this does reduce the length of the weapon, it is still not small. 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.



art by Retrofit Strawman

Discharge Information

- 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 ²⁾
- Rate of Fire: 30 flachettes per second ³⁾
- Recoil: Weapon bucks back and up with about 3-4 lb of force ⁴⁾

Ammunition

- Ammunition [Storm Rifle Flechette](#) 5×30 mm heat shield tipped fin stabilized armor penetrating discarding sabots
 - [Purpose](#): Tier 4 burst mode, tier 2 individual rounds. ⁵⁾
- Round Capacity: 800 round magazine (Approx. 80 shots), battery depletes after 3 magazines. Nuclear power cell recharge time: approximately two minutes.

Storm Rifle Damage Quickchart	
(Type/Mode)	Purpose
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

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.

However, the rifle fires ten in under 1/3 second, allowing rapid depletion/destruction of personal barriers and shields.

Weapon Mechanisms

- Firing Mechanism:

The Storm rifle's 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 45 inches of barrel.

- Loading:

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.

- Mode Selector:

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:

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:

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: NOT FOR CIVILIAN PURCHASE.

Replaceable Parts and Components

- Quad-rail HV charge barrel: NOT FOR CIVILIAN PURCHASE.
- Battery pack: NOT FOR CIVILIAN PURCHASE.
- Trigger assembly: NOT FOR CIVILIAN PURCHASE.
- Control computer: NOT FOR CIVILIAN PURCHASE.
- Magazine: 85KS

Optional Attachments

Fits any standard tactical rail mounted attachment.

Flashlight

[Grenade launcher](#)

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

Ammunition

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

OOOC Notes

Approved by META_Mahn on 5/25/2018

1)

Roll 1 D10 and 1 D100, if 1000, increase damage one tier, weapon will not fire for ten seconds.

2)

Rounds disintegrate after this point to prevent collateral damages.

3)

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)

dampened from 60-70 lb by inertial damping technology similar to that used in the U-1. Damper only activates in immediate proximity to USO wireless networked combat gear, such as communications equipment or Revenant PA

5)

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

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