# Lazarus man-portable Microcannon ("Man-Cannon") SILVA

The Silva is an anti-biologics cannon. It uses high energy microwave resonance to make water expand, essentially “popping” limbs with rapid expansion like bursting a balloon by putting too much water in it. It also badly damages unshielded electronics, electromagnetic systems, fries transistors and can warp and bend metal if pointed at a target long enough.

The Silva entered manfacture in YE 36 and blueprints for production are sold by the Lazarus Consortium alongside a bulk manufacturing licence. Individual units retail for 2000 KS a piece.

## History

Officially speaking, the Silva was developed especially as a anti-Mishhuvurthyar weapon, to be marketed to the Star Army of Yamatai for the purpose of sweeping ships and preventing the further spread of more parasitic varieties of the species which can be hard to control. In practical terms, it can also destabilise some plasma rounds and cook off explosives like grenades, similar to the way a scalar attack works but without the problems of collateral damage: keeping a vessel salvageable and the user alive.

Privately however, it was developed exclusively as an answer to the potential of a Sourcian incursion. Exhaustively tested in live fire scenarios with actual Sourcians, it rinds their body structures away with painful effectiveness in ways conventional weapons are simply unable to.

The need for such a weapon became especially apparent with the events of the Akahar and the Moro'ko incident.

Another more private demand of the Silva came in the form of plausible deniability: That DNA, skeletal records, dental, hair, cellular matter, organically derived fabrics, leather, metal objects such as neural equipment, chains, tags, jewelry, piercings, false teeth and cybernetic augmentations be destroyed very thoroughly.

This is all very desirable for those seeking plausible legal deniability of wishing to make a person disappear: for this reason a large number of Lazarus facilities are fitted with Silva based concealed automatic interior defences.

## Tactical Use

While ineffective against an armored target, the microwave inductions from the Silva can reduce the effectiveness of some shield systems by up to 50%, allowing smaller less effective rounds to slip through formerly impenetrable defences. Mechanical joints, moving parts, large machinery which can be made stiff with heating flaws and vibration damage and electrical components such as shield projectors, sensors, communications equipment, hardpoints, connectors and thrusters are also at risk under

concentrated fire.

Where the Silva really shines however, is against flesh-core power-armor and organic targets.

# Performance & Characteristics

The Silva itself is a large weapon, described as a “man cannon”: about the size of a small desk with large handles, the bulk of the body about the size of two stacked microwaves. It requires two hands to use but is best used in power-armor, tripod crew-serviced or vehicle mounted.

While excellent for CQC and adequate for close to medium range combat the Silva is almost useless at long range due to the exponentially growing charge-up times and the loss of convergence in the microwave beam. As such, it should be thought of as a brawling weapon.

Portable models tend to overheat quickly, having large grill-plates, passive liquid cooling systems and an emergency backup liquid helium system in order to keep the weapon from destroying itself. Portable models typically manage 12 or so concurrent shots (needing around 10-20 seconds to cool) but can fire sequentially. If it does overheat (taking the 12 shots in a row without a break), it can take anything up to a minute to cool. In emergency cooling mode, the weapon vents superheated steam from its right side forward: as such, the weapon should not be used in crowded spaces or surrounded by unshielded personnel.

When firing, the Silva has two modes: Precision-fire (Mode A) and auto-fire (Mode B)

Dimensions & Weight:

- Mass: 22 kilograms
- Length: 80 centimeters
- Width 30 centimeters
- Height: 65 centimeters

## Damage Modes

The mode of the weapon can be adjusted using a thumb toggle-switch, adjusting the coherence and frequency of the microwave shot. What excels at making organics burst and rupture for example, will be useless at heating decking or interfering with electronics. As such, mode selection must be very deliberate.

- Organic Mode Tier 7
    - Unshielded organic target: Splatters organic targets into chunks, shatters bone
    - Shielded organic target: No direct damage, but can cause nose-bleeds, headaches, disorientation, vomiting
- Electrical/electronic (Tier 1, Light Anti-Personnel)
    - Jamming electrical systems (causing lights to flicker, variances that mess with computers and other systems)

    - Focused jamming: Popping fuses, blowing transformers (requires 10-20 seconds worth of concentrated firing)
    - Electromagnetic/static interference: Reducing the effectiveness of a shield by an amount as decided by GM.
    - Interfering with the operations of externally mounted equipment (particularly missiles)

- Hull/“Heat” (Tier 3, Heavy Anti-Personnel)
    - Limited ammunition cookoff
    - Heating metal objects of attire and equipment
    - Expanding fixtures and mounts to jam or “lock” doors
    - Cutting through hull, doors, ceilings, pipes (very very slow) Tier 7

Range: (recharge-time rises exponentially with range)

- Narrowband (Mode A): 1250 meters (max takes around 15 secs to 1 minute to charge for single shot depending on range)
- Wideband (Mode B): up to 20 feet (a wide beam, taking only seconds, almost constantly sustainable)

#### Precision fire (Mode A)

No nonsense, works like a rifle: the weapon scans for targets and puts a reticle over anything it thinks is worth shooting at depending if the toggle thumb-switch is set to electrical, electronic, hull or organics. Lining the viewfinder reticle over the target-lock and the weapon will fire automatically provided the trigger is held down (which works like a safety).

#### Auto-Fire (Mode B)

Designed for use in starships and other confined spaces where a target may have above-human mobility, Mode-B sacrifices range for responsiveness and firing aperture. It can be thought of as a smart-shotgun or flamethrower that will automatically aim for the user provided they keep the target loosely within aperture and range, allowing teams to “sweep” rooms with the weapon. Importantly, Mode-B can engage multiple targets simultaneously, either matching information or profiles given by a user manually or via a linked targeting computer from a power-armor.

## Discharge

Important to note, the Silva makes very little sound and no visible light; its operation limited to a deep and quiet thrumming when firing and then a high-pitched whine as it spools up before taking the shot. The only real indicator the weapon is in effect comes from a single beep notifying the user it is ready to fire after cooling down and two beeps indicating it is currently firing – both of which can be muted.

A display-light or colored dot either on the weapon's viewfinder or the user's HUD also indicates the weapons status: Red that it has overheated, orange that it is ready to fire and green that it is currently firing.

Many experience operation similar to an X-ray – only knowing when this potentially lethal machine is working by seeing what the indicator light is doing.

## Output

Generally, the only sound heard by operators are those which occur when the weapon renders damage: a deafening popcorning sound as it strikes metals, a singing/twanging when striking hardened armors without gas-pockets or imperfections (comparable to a glass harmonica) and a wet crackle or gushing pop when striking organics.

## Precision

The Silva can typically strike a target hiding behind cover or armor that is sufficiently thin or not dense enough if targetting information is available. This either comes from a scout or if the sensors used can penetrate the material but is largely down to the density of what the target is protected by. In this way, the Silva can be used very clumsily during a hostage situation and still only strike the attacker while the hostage remains unharmed since it relies on microwave convergence, not microwave effect – similar to gamma-convergence used in the treatment of contaminants which can penetrate a living creature without harming it in radiology.

A skilled user for example, can blow the leg off a target below the knee who is behind metal cover without killing the target even while running due to the near-instantaneous effect of the weapon.

## Feedback

The Silva uses a hardened meta-ink display to act as a view-finder. This includes temperature, weapon-status, target range and other useful information – all of which can be fed to a power-armor user's HUD. This weapon also includes a pixelated heatmap of microwave response, indicating where would be most effective to aim the weapon against the target. Generally it is best to skim the weapon over a target and see which suggestions the weapon issues; areas of low interest in dark blue and areas of high interest in reds, yellows and whites.

## Energy Requirements

Unfortunately, the Silva is greedy, burning through a full civilian-grade quantum nucleonic cell within 500 seconds of constant weapons-fire and as such is recommended to be used with an uplink to a power-armor's own onboard power-supply.

## Physical description

The Silva does not at all resemble what one would expect of a gun and looks more like a large cuboid

object covered in yellow paint with bronzed parts and white plastic and paneling, blathered in warning labels all over its outer body. A particularly friendly reminder in large letters above the viewfinder notes “DO NOT POINT AT ANYTHING YOU DO NOT WISH TO DESTROY” both above and below its display in large friendly reassuring red capital letters in a bold typeface.

A number of cables run along the weapons body and radiators sit beneath armored plating.

The right-hand side holds an outer-handle with a trigger assembly which can be flipped through the weapon and over to the left side, as well as a bicycle like handle on both sides to stabilize the weapon – as well as a powered harness similar to a steadicam rig which is designed to help relieve the user of some of the weapons weight. This harness will attempt to guide or “suggest” orientation to the user's shot but ultimately serves only to amplify the user's own aim. If let go, the weapon can be instructed to attempt to automatically stow to the user's back as a backpack.

Handling the unit, it is described as “dense” – a low-end centrifuge bringing down its weight to make it usable but unfortunately not its mass and as such its inertia remains largely unchanged. It is recommended users either use the powered harness or be augmented.

## Mechanism

The Silva uses a compacted version of a heavy duty industrial grade microwave resonator or IGMR for short – a piece of equipment used to collapse atomic structures which has existed for centuries in manufacturing circles. It does this by changing the way electron shells behave with one another – normally locking hands to form a compound, repelling one another to remain platonic elements, exchanging hands quickly but never letting go of one another to act as a catylist and so on and so forth.

The IGMR's job is to tell the electron shells what to do, bullying them into submission by altering their energy state and the number of electrons in the shell. While this would be very difficult and need enormous amounts of energy, by timing the introduction of energy, less energy is pushed out of the electron shell and far less is needed to make or break the structure – this timing being the resonance effect.

Silva is very much focused on the job of separating them: altering electron shell behavior to make atoms overcome their attraction and thus fly apart in all directions. This is achieved by using what engineers call “known platonic predictive resonances of solids” which are stored in an onboard databank which is constantly appended and added to with use. In simpler terms, the weapon checks the target, looks up the output it needs to give that it knows will work best and then produces that effect to make the target explode in a wet cloud of mush and gibs, much to the satisfaction and perhaps even joy of the user.

Convergence is another factor: That the projectors must line up to a single area in order to become dangerous. It can be thought of as similar to the way one mirror is quite harmless but many mirrors used together can be dangerous if they all reflect light back at a single point. This point is not only in orientation, but also in depth, allowing the Silva to shoot “through” a target if it is thin enough, hugely reducing the potential for collateral damage.

### Master-Arm

Being particularly dangerous in the wrong hands, Silva features a master-arming system. This includes a turn-key system followed by a cover-switch.

### Firing

When firing, the user must hold down the trigger and then guide cross-hairs. In many cases, the weapon will automatically decide what is a target, excluding other operators and designated friendlies. It also includes a second switch, used to designate a “friendly” target which the weapon will do its best to avoid damaging.

For example, if a person is held before another at gun-point, the friendly switch can mark the hostage, then the offensive trigger mark the target behind. The weapon will then instantaneously destroy the marked offensive target without harming (though most certainly startling) the hostage.

### Offensive Effect

Naturally, Silva has been tested on a multitude of different surfaces and materials: For example tricking concrete to bubble and ooze like hot toffee and steel I-beam girders to split and fray like cheese-snackfood or spaghetti. Where the Silva really comes into its own however, is against objects with intricate metallic pieces and delicate components and objects with high concentrations of water and carbon: electronics and organisms.

Against a living target, Silva's repulsive properties cause the area struck to rapidly expand at the equivalent of 150 pounds per square inch. Against soft tissue this leads to severe and often lethal thermobaratrauma. If the shot is held, the limb or even torso in question can explode in a shower of clear sticky liquid (not blood or guts as one would expect) and is utterly lethal. Striking a hard carapace, it can create thick expansive dints that crush the organism beneath.

The weapon's secondary effect is its talent for destroying uninsulated electronic systems and is especially effective against electrical transformers, cabling systems, sensors, integrated circuits and field-induction contacts common to many advanced field projection systems – either overheating them rendering them inoperable for a short time or flat out frying them depending on the success of the hit.

## OOC Notes

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1) https://stararmy.com/roleplay-forum/threads/lazarus-manportable-microcannon-silva.16471/page-2#post

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