

# NH-M-M3 "Crescendo"

The [Near Field](#) Power Transmitter “Crescendo” provides power to devices within range without requiring a physical connection.

It has mild offensive and defensive capabilities when applied to military or self-defense applications.

Developed by [Noval](#) in [YE 42](#).

Designer:	<a href="#">Noval Defense, Space, and Security</a>
Nomenclature:	NH-M-M3
Manufacturer:	<a href="#">Noval Heavy Industries</a>
Fielded by:	<a href="#">Noval Heavy Industries</a> , <a href="#">New Dusk Conclave</a>
Availability:	Only as a component of existing products or from licensed retailers.

## History

The development of the [NH-M-M2 "Orchestra"](#) opened up a new range of product and design options for Noval.

Essentially tired of replacing the batteries in their devices, the researchers began to explore ways to provide power without a physical connection. Such concepts have a [long, storied history](#), dating back to nearly the beginning of electrical power as we know it. Noval's engineers decided to take the the original concept and apply modern technology to it under the code name “Wardenclyffe”.

The result is a hybrid of Noval's cutting-edge electromagnetic field expertise and an old [resonant induction coupling](#) technology that is able to provide power to a simple light bulb and/or a detached weapon system as though they were 'plugged in'.

As the project came closer to release, a new name had to be selected that more closely fit with Noval's [naming schema](#) for components. The word 'Crescendo' was selected for the parallel between its definition, “the intensification and enriching of a musical tone by supplementary vibration”<sup>1</sup>, and the device's ability to 'intensify and enrich' the supply of power to nearby devices via modulating fields.



## Design

The basic design of the Crescendo is essentially the same as the wireless charger technology that has been around for hundreds of years. A series of coils and capacitors releases power into the area around the Crescendo. Advanced field manipulation techniques modulate and direct that energy to specific locations, where it is then consumed by a target device.

The Crescendo has been designed to be approximately the same dimensions as an Orchestra of the same tier, but is considerably thinner. Power can be provided by a dedicated power source or from a shared power source between the Orchestra and Crescendo.



## Function

In short, the Crescendo provides power to devices that are not physically connected to a power source by creating 'virtual' power conduits that maintain a [consistent supply of energy](#). Compared to the very first implementations of this type of technology, the Crescendo's virtual power conduits greatly improve the

efficiency of the overall system to values nearing a direct connection.

Typically, energy provided by the Crescendo is safe to nearby organics and not visible to the naked eye due to the electromagnetic containment process. However, excessive energy draw or production may overcome the Crescendo's ability to safely manage power transmission. In order to protect the user and connected devices, this excess energy is normally released into the surrounding air in the form of mostly harmless static. If this static exceeds a certain threshold, the Crescendo will attempt to create a virtual grounding wire to some nearby grounded surface.

It is possible for the military-issues of the Crescendo to function as a highly-advanced, if ill-purposed, [Van de Graaf generator](#), by hijacking and hypercharging the fields produced by an electromagnetic shield system. The shield system is protected from feedback damage by the Crescendo itself.

Crescendos can sync and work together if installed on the same unit, effectively distributing the work load. In this case, one Crescendo of the current Tier is equivalent to two Crescendos of the Tier below. While this provides no technical benefits, it may be useful for situations where the size of an appropriate Crescendo would be problematic.

The Crescendo does not generate power on its own, so it must have a physical connection to an appropriately sized power source in order to function. The number of devices it can support and how much power it can provide are based on that power source's capacity.

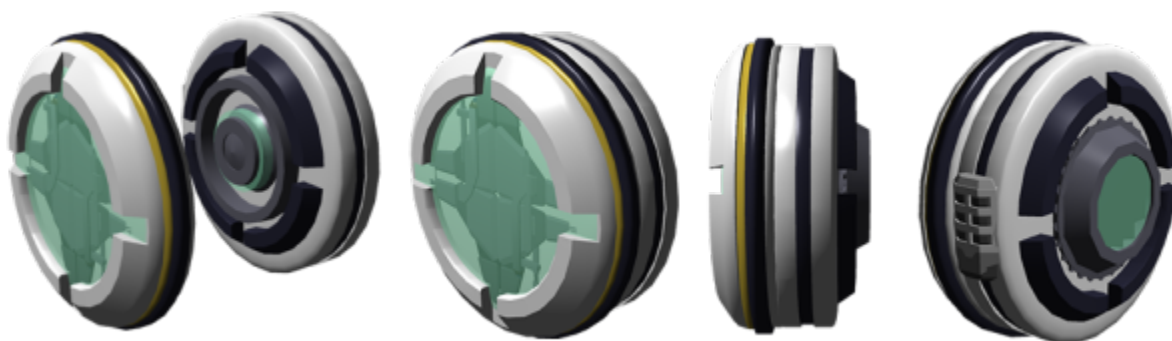
## Usage Considerations

The number of devices that a Crescendo can power simultaneously is based on the capacity of the attached power device. Establishing and maintaining a power connection consumes very little power.

The Crescendo's affect range is roughly twice the longest dimension of the armor or craft it is equipped to. Beyond this range, power transfer efficiency drops off sharply.

## Orchestra Tuned™

While it can operate as a standalone device, the NH-M-M3 "Crescendo" was specifically designed to work with the [Orchestra](#). When coupled with an Orchestra the two devices automatically sync to avoid field conflicts. The Orchestra assists the Crescendo by identifying objects and providing accurate positions which further improves the Crescendo's efficiency.



## The Crescendo as an Offensive Option

In a pinch, the Crescendo can be used to turn an electromagnetic shield into a sort of lightning generator. It has little to no effect on the shield's efficacy, but does make the user substantially more noticeable.

While the Crescendo is hypercharging the shield layer, lightning-like energy crackles along the shield in a very visible fashion, ambient static electricity is tangibly increased, and the smell of ozone becomes noticeable. As more energy is poured into the shield, these effects become more prominent.

The amount of damage such a 'weapon' can generate is entirely dependent on the power available. As a non-dedicated weapon, it consumes more power and computational resources than a standard weapon would while the Crescendo is being used in this fashion. In game terms, this means that you can temporarily 'trade out' one weapon you *could* wield or equip for a Crescendo-based attack of a lower tier. The capacity to equip a T4 weapon would be traded for a T3 Crescendo, and so on, following [all appropriate rules](#).

As a defensive option, an electrically-charged shield is useful for keeping enemies away in close combat. Such a shield could also act in a point-defense capacity, albeit one with slower target acquisition and reduced range compared to a dedicated point defense system. This follows the same 'trade out' requirements as when the Crescendo is used offensively.

If a target is appropriately grounded, it will take substantially less damage.

In short, a user can do impressive lightning tricks, but would be better served by having appropriate systems.



## Discharge Information

- Muzzle Flash: A brilliant flash of light as energy along the shield collects at the discharge point. Once it reaches a critical point, a bolt of lightning strikes out at a nearby target.
- Retort: A loud crack of lighting; Larger craft may create rolling thunder, as well
- Beam Appearance: A lightning bolt
- Effective Range: Double the radius of the shield being used
- Rate of Fire: 1 per 3 seconds for a tier-equivalent discharge.
  - For each tier increase beyond on-tier, double the time between discharges.
  - For each tier below on-tier, halve the time between discharges to a minimum of 1 per .5 seconds.
- Recoil: None

## Energy Source

- Energy Source: [Electrostatic Discharge](#)
- [Purpose](#): Up to one Tier of damage below armor/craft's maximum
- Round Capacity: -

## Availability

The NH-M-M3 Crescendo is available as part of Noval products and through licensed Noval sales partners.

All versions require an external, physically connected power supply. Power supplies of the appropriate tier are recommended, such as a [Spark Fusion Core](#), [HONEY generator](#) or [PowerPak energy cell](#).

Crescendo Tier/s	Price	Diameter
1-3	5,000 DS (1,250 KS)	12 cm (about the size of a Compact Disc) x 1.5 cm
4-6	10,000 DS (2,500 KS)	25 cm (about the size of a vinyl record) x 3 cm
7-8	21,600 DS (5,400 KS)	45 cm x 5 cm
9	50,000 DS (12,500 KS)	70 cm x 6.5 cm

## OOO Notes

[Whisper](#) created this article on 2020/03/31 21:48.

References and/or Related Articles

- <sup>1</sup> [Resonance definition on Merriam-Webster](#)

Attributions

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Approved by [Syaoran](#) on 10/14/2020

Products & Items Database	
Product Categories	tools
Product Name	Crescendo
Nomenclature	NH-M-M3
Manufacturer	<a href="#">Noval Heavy Industries</a>
Year Released	<a href="#">YE 42</a>
Price (KS)	1 ,250.00 KS

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