ELECTRA

An acronym for “Electronic Countermeasures and Tranphasic Array”, the ELECTRA is a comprehensive electronic warfare suite intended as a KAIMON module, though it can also be loaded into AIES, CIES, EIES, WIES, MEGAMI, and/or KAMI when utilized by the Star Army of Yamatai. Created as a modular system, it is designed to be easily adapted for use in platforms as small as power armor, all the way up to space stations or planetary installations. It is a suite of systems that offers operators the ability to exert significant influence on the electromagnetic environment through a combination of jamming, anti-jamming, electronic masking, emission control, and yet more measures. First introduced in YE 44, it is anticipated that the ELECTRA will begin to see use as Yugumo Corporation continues to improve and refit its fleet of starships.

As the ELECTRA is an exclusive system, it is only used by the Star Army of Yamatai and the Yugumo Corporation for their internal operations.

Year of Creation	YE 44
Designer	Yugumo Fleetworks, Mazaki Seina, KAIMON/Ascendant
Nomenclature	See: Nomenclature Catalog
Alt. Nomenclature	N/A
Manufacturer	Yugumo Corporation
Fielded by	Yugumo Corporation
Availability	Mass Production
Price	Varies

History

With the replacement of the aging MIKO Electronics Suite, development began on a new suite of electronic warfare systems, primarily to meet the requirements of the Next Gen Fighter Program, but also to provide a universal array of electronic systems for exclusive use by the Yugumo Corporation and in Star Army of Yamatai-specific ship, vehicle, mecha, and power armor variants.

Description

The ELECTRA suite is a software upgrade for KAIMON. A properly-equipped platform already has the computing, sensor, and communications equipment, and simply needs to have the functioning modes enabled.

Usage

Used by Yugumo Corporation and Star Army of Yamatai vessels with KAIMON hardware, the system is

generally utilized by the science and sensors or communications stations on a larger ship, or by the pilot or weapons systems operator on a smaller craft.

Features and Capabilities

The ELECTRA has a range of features and capabilities pertaining to ECM, ECCM, and Sensor Interception.

Electronic Warfare

The ELECTRA's electronic warfare systems are borrowed in part from the Electronic Warfare and Disruption Systems of the MIKO Electronics Suite, but also includes a number of additions suited to the dynamic electromagnetic environment of the modern battlespace.

- It can generate full spectrum electromagnetic wavelength noise to disrupt and interfere with most types of sensors and communication systems, including subspace, hyperspace, and radio transmission. These signals can be utilized to scramble hostile IFF systems, hindering the ability to identify targets.
- Can generate transphasic energy waves to cancel out enemy signals, including scanning waves and communications. This feature provides significantly hinders detection at most ranges and to an extent, can counteract radiation homing techniques.
- Capable of absorbing and nullifying incoming sensor pulses and transmissions, frustrating, if not even outright rendering the mounting platform undetectable to targeting systems, sensors, and guided warheads.
- Outputs can be modulated, altering signals to be more subtle or aggressive based on the demands of the engagement.
- Should the mounting platform have a Continuum Distortion Drive or some form of Combined Field System, it can use these to generate oscillating distortion fields to frustrate distortion and subpsace sensors.
- Communications are filtered through information security subroutines that can isolate or remove malicious, hidden, or unauthorized code.
- Can generate directed electromagnetic pulses to disrupt sensors.
- It can communicate with and control probes and drones to extend its capabilities, and launch and recover them when needed if the host platform is capable of it.

Sensor Interception

The ELECTRA has a number of systems designed to detect the presence of active-scanning sensors which are designed to detect when the platform is being targeted so that the operator(s) can take the appropriate countermeasures.

- Can detect and hone in on the position(s) of actively-scanning sensors.
- Can detect and hone in on the position(s) of incoming lasers.

- A missile approach warning system can register incoming warheads via the mounting platform's passive and active sensors or by detecting the pulses of an warhead's active scanners, should they be present.

ECM and ECCM

The ELECTRA bolsters the defenses of the mounting platform with a number of ECM and ECCM features.

- Can utilize omnidirectional laser dazzlers to frustrate laser-based targeting systems.
- Advanced sensor logic can detect and compensate for jamming or countermeasure deployment. Targeting systems can switch to different guidance modes when one is overwhelmed or returns bad readings, missiles can be redirected to evade point-defense fire, and yet more measures can be executed to account for various types of interference. In addition, the ELECTRA can be loaded with data recorded from previous engagements, enabling the system to anticipate countermeasures based on previous encounters with a given enemy unit and take the necessary compensative actions.
- Radiation homing and targeting measures can be used to “home-on-jam”. In essence, this targets radiation sources directly, which allows warheads and targeting systems to leverage jamming attempts against the enemy.
- Additional ECCM measures include polarization and sensor hopping, which add a level of *agility* to outgoing sensor pulses, making them difficult to jam.

Ranges

The ELECTRA has different ranges and output levels based on the class and size of the mounting platform.

ELECTRA Level	Maximum Range	Optimum Range	Class
Passage	1 AU (149,597,871 Kilometers)	0.75 AU (112,198,403 Kilometers)	Power Armors, Very Small Craft and Small Mecha
Portal	5 AU (747,989,354 Kilometers)	2.5 AU (373,994,677 Kilometers)	Large Mecha, Small Craft
Gate	10 AU (1.4959787×10^9 Kilometers)	7 AU (1.0471851×10^9 Kilometers)	Small and Moderate Starships
Super Gate	1 LY (9.4607305×10^{12} Kilometers)	0.75 LY (7.0955479×10^{12} Kilometers)	Large Starships
Prime Gate	5 LY (4.7303652×10^{13} Kilometers)	3.5 LY (3.3112557×10^{13} Kilometers)	Colony/Planetary/Space Station

Star Army Electronic Warfare Suite, Type 44

Thanks to additional power of parallelizing KAIMON with IES, this suite may be employed by craft too small for Warship Integrated Electronics System (WIES), and thus incapable of using the Type 31

Electronic Warfare Suite, although larger craft have commensurately more powerful versions of the system.

If installed on a ship type with an IES system but without integral KAIMON, an appropriate computer core may be installed in parallel to the primary one to run sensor and communications translation adapter layer and offload some of the processing as a hardware upgrade.

The Type 44 Electronic Warfare Suite has all the base features of the ELECTRA, in addition a a few restricted systems not available to the public:

Xiulurium

In the place of the Sitearium coating on most Yugumo Fleetworks hulls, the Star Army of Yamatai version of ELECTRA has energizable Xiulurium stealth armor coating over the Omnihue and any aether or other zero-point energy generators. This has the additional benefit of concealing the craft from zero-point energy sensors, including magnetic field, gravitational, aether, and quantum foam sensors. As an additional layer of protection, sandwiched layers of Xiulurium over Zesuaium directly coat the zero-point generators within the craft, taking advantage of Zesuaium's inert qualities against heat and electromagnetic forces and the stealth field generated by Xiulurium. However, it is still recommended that the craft switch to to supercapacitor banks or more traditional forms of secondary power during stealth operations.

ICFS Stealth

The Star Army of Yamatai version of ELECTRA has access to all functions of the onboard ICFS. It is capable of throwing off distortion-based and mass sensors. Accordingly, it can use this system as a means of stealth in all mission environments, enhancing the an ELECTRA-equipped craft's already advanced deep strike and evasion capabilities.

Volumetric Stealth

The system includes an array of volumetric projectors that can create the (massless) illusion of various starships, vehicles, small craft, power armor, or empty space. In larger ships, this can have a range of up to 30 million km (1/5th of an AU).

Scalar Pulse Disruptor

The military version of this system is capable of generating directed electrogravitic (scalar) pulses to disrupt sensors.

Nomenclature Catalog

While the ELECTRA has different model numbers for every mounting platform it is installed, it is a not a standard KAIMON module. As such, the presence of a model number in the following chart does not imply that a given small craft, vehicle, power armor, mecha, or starship has the ELECTRA installed. In essence, only platforms being used internally by the Yugumo Corporation or sold to the Star Army of Yamatai have the ELECTRA installed.

Catalog of Standard Product Nomenclature System.

Yoru no Tenshi 'Tenshi II' Light Mechanized Power Armor	Yu-M1-E4400
Mōkin-Class Patrol Craft	Yu-V1-E4400
Mozu-Class Starfighter	Yu-V2-E4400
Tanya-Class Expeditionary Heavy Cruiser	Yu-C1-E4400
Taka-Class Shuttle	Yu-T1-E4400

OOC Notes

Immortal Cyan created this article on 2022/10/18 10:01. Approved as a sub-article.

Products & Items Database	
Product Categories	subsystems
Product Name	ELECTRA
Nomenclature	See Nomenclature List
Manufacturer	Yugumo Corporation
Year Released	YE 44
Price (KS)	0.00 KS

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