

Technicians Guide To Hemosynthetics

This is a study guide released by the [Star Army Training Administration](#), in cooperation with [Ketsurui Zaibatsu](#) and Dr.[Shinichiro Tomoko](#), for the operation and use of the [Nodal Liquid Conduit System](#). It is a downloadable course for [Star Army Technicians](#).



Introduction

The common definition for [Hemosynthetics](#) describes the applications and research related to [Nekovalkyrja](#) blood. While this definition is very literal, it lacks specific information that should be clarified. In [Hemosynthetics](#), we generally focus on the diverse applications of the predecessor, or stem-cell, state of [hemosynth](#). In basic explanation, it is the manipulation and programming of the [programmable matter](#), or femtomechanical, asset.

In most biological beings, blood is generally differentiated cells that perform different tasks. That

differentiation takes place from a stem-cell state. [hemosynth](#) differentiation relies on the programming of femtomachinery. For the most part, the [hemosynth](#) in the [Nodal Liquid Conduit System](#) is controlled by [PANTHEON](#) and its hierarchy of systems in automation. However, in some applications such as fabrication, damage control, filtration, and recycling there are directives that can require minor adjustments, localized reprogramming, and tweaking which can be applied by [Star Army Technician](#).

The Most Common Troubleshoot

The most common problem you will have to address when it comes to the [Nodal Liquid Conduit System](#) is power. In all installations the [Nodal Liquid Conduit System](#) flows along [Aether](#) plasma conduits for optimal transfer of energy. [Hemosynth](#), in all its complexity, is still governed by the basic laws of physics; "You can't create something from nothing." Simply put for all functions the [Nodal Liquid Conduit System](#) requires energy. The femtomachinery needs energy to replicate and to differentiate itself to perform different tasks. So the first problem that will always need to be addressed is to ensure that the power supply to the system is adequate.

Complex fabrications and high concentration areas utilized by the [Universal Hemosynthetic Fabrication System Type 43](#) require the most energy. Check the power supply if there are signs of problems within the system. Most [Standard Damage Control Station](#) are stocked with portable [Aether](#) generators which can be used to provide power in low power or no power situations.

Interface

Interface with the [Nodal Liquid Conduit System](#) is done via [PANTHEON](#). The most common interface with [Nekovalkyrja](#) personnel is with [SPINE](#), for others console or [Isolated Computer Pad](#) is required to access the [Nodal Liquid Conduit System](#).

Like any system on a [Star Army of Yamatai](#) ship, access is controlled to the [Nodal Liquid Conduit System](#), as it is considered restricted technology. [Ketsurui Zaibatsu](#) also restricts field access to some programmable functions of [hemosynth](#) as a security measure. This includes the self-defending matrix which is discussed in the introductory material to [Hemosynthetics](#).

In the event of catastrophic failure, a technician or [hemosynthologist](#) from [Ketsurui Zaibatsu](#) may need to be dispatched. Possibly even a technician from [Kessaku Systems](#) in the event the problem is to do with [PANTHEON](#) and beyond the scope of [Star Army Starship Operator](#) and [Star Army Information Technology](#) personnel.

On Life Support Applications

In the event of troubleshooting or in the field modification to [Star Army Standard Life Support Systems](#), the [Nodal Liquid Conduit System](#) can be adjusted in terms of the programming of [hemosynth](#). The waste

recycling, particle specific filtration, and the transfer of waste material to fabrication systems from collected waste, can be controlled in this manner. Nothing on a [Star Army of Yamatai](#) ship is wasted. Even the vacuum contents collected by [Star Army Caretaker](#) are broken down into their atomic constituents to reduce the amount of energy-matter conversions that need to be made.

[Star Army Technician](#) should be checking linkages between the [Nodal Liquid Conduit System](#) and the [Star Army Standard Life Support Systems](#). They will often have to deal with the occasional unclogging of hemosynthetic filters and other connections. Low power situations reduce the rate of recycling and clogs can become a major problem in the system. This is why secondary power systems are always tied into life support.

On Fabrication Systems

[Star Army Technicians](#) will often need to handle the priorities and any custom requirements sent to the [Universal Hemosynthetic Fabrication System Type 43](#). It is important to keep in mind that the more complex the fabrication the more time the system will take, and the more energy that will be consumed to fabricate the required tool or component. High Concentration areas such as fabrication for power armor repair and other major functions often require tweaking and precision instructions to ensure fabricated materials remain within specification.

On Yamataium Repair

[Yamataium](#) repair is another application of [Nodal Liquid Conduit System](#). The Hull Construction of most ships involves the interlocking structures of [Yamataium](#). [Hemosynth](#) that is delivered through arteries, veins, and capillaries into those structures can boost the self-annealing properties of [Yamataium](#). In recent trials in the development of the new [Ke-T10 "Fukuro" Multi-Role Shuttle](#), [Ketsurui Zaibatsu](#) eliminated the mechanical need for pumps by programming [hemosynth](#) to flow along a gradient. When a breach or damage occurs the concentration of [hemosynth](#) is lowered in that region, like the osmotic flow of other materials, it travels from a high concentration to a low concentration to focus on the damaged areas. This requires [Star Army Technician](#) and the [PANTHEON](#) to adjust the flow and make active decisions about priority or when [hemosynth](#) material loss outweighs the priority of the damage control.

Upcoming Courses - Medical Applications

The [Star Army Training Administration](#), in cooperation with [Ketsurui Zaibatsu](#) and [Dr. Shinichiro Tomoko](#) have planned a follow-up course that will apply to the Medical Applications of [Hemosynthetics](#) and the new [Nodal Liquid Conduit System](#) in the upcoming months of [YE 43](#).

OOO Notes

[Andrew](#) created this article on 2021/01/21 22:03.

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Becker and Cherry artwork by marugo-chi on DeviantArt; commissioned by Wes.

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Last update: **2023/12/21 01:03**

