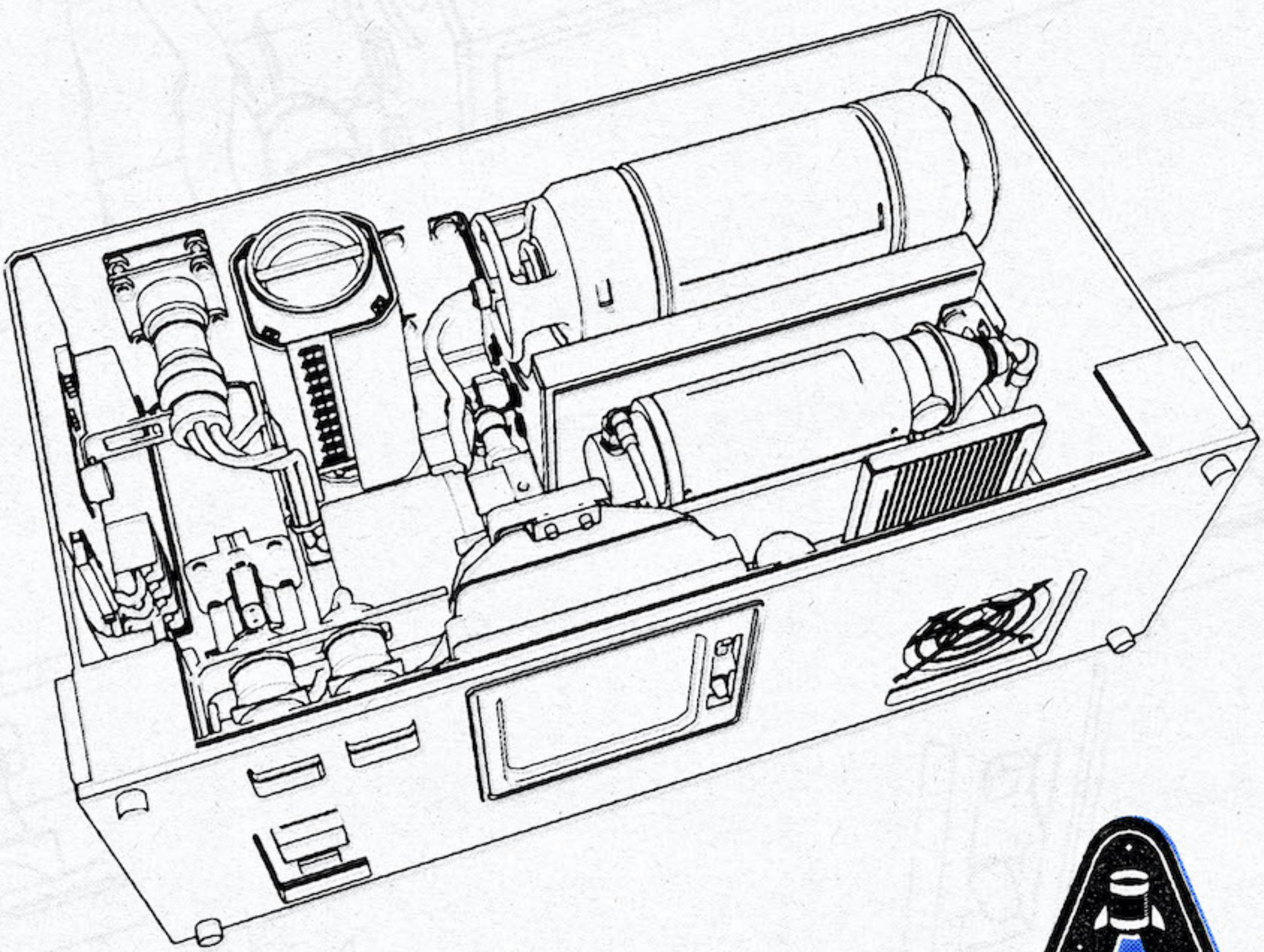
Medusa Class Space Raft

MODEL TAW 270NH2

Pod Technical Manual



TIN CAN

March 2015

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TINCAN Company

https://discord.gg/9mr9JH

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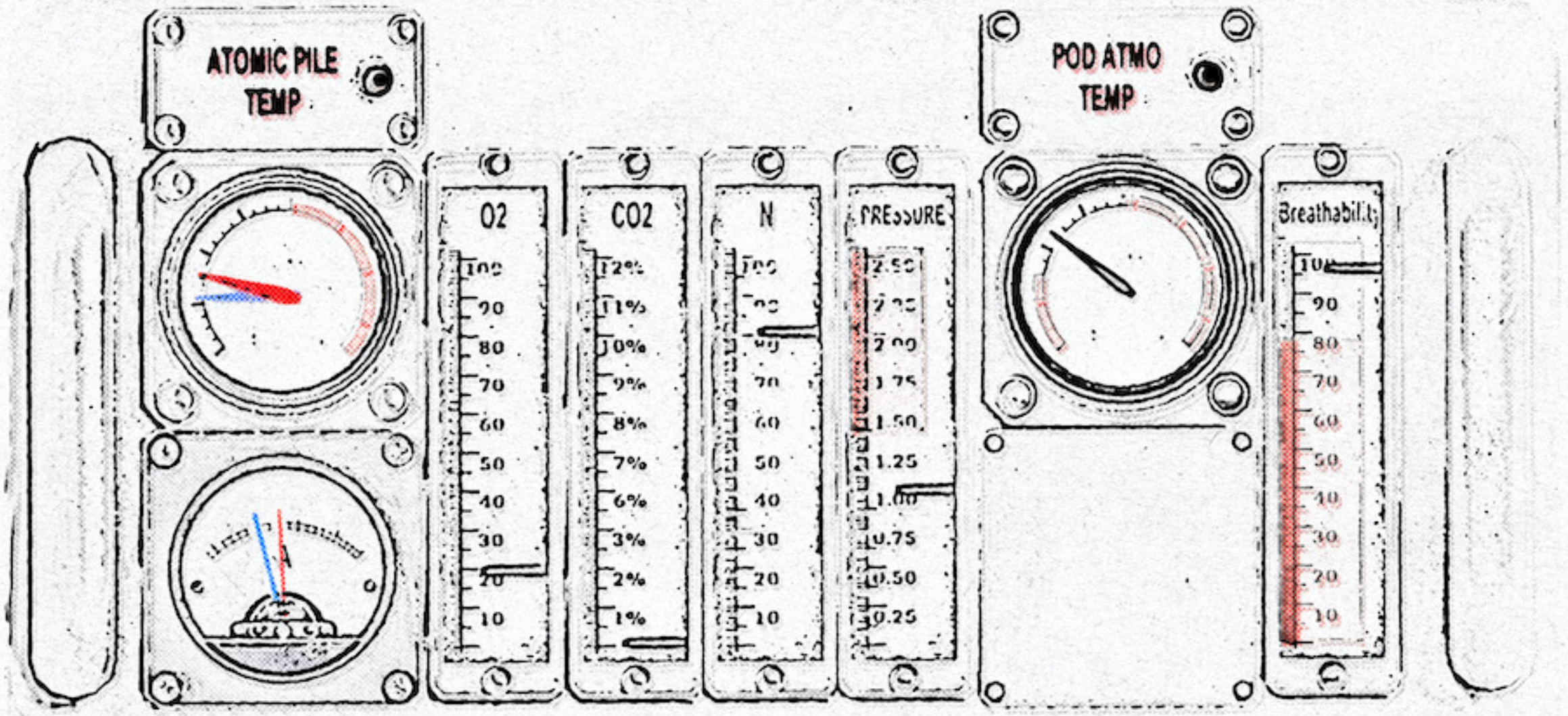
VALUES PANEL

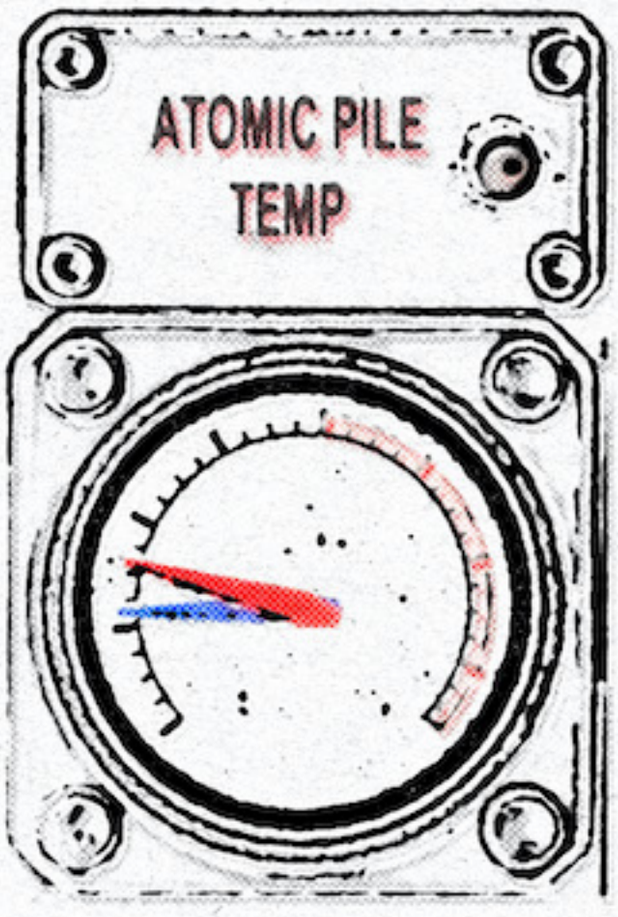
Monitor vital information



The control panel provides quick information about the status of your pod.

It can function even with a total lack of power from the main generator and is damage-proof.

Atomic Pile Temperature Indicator

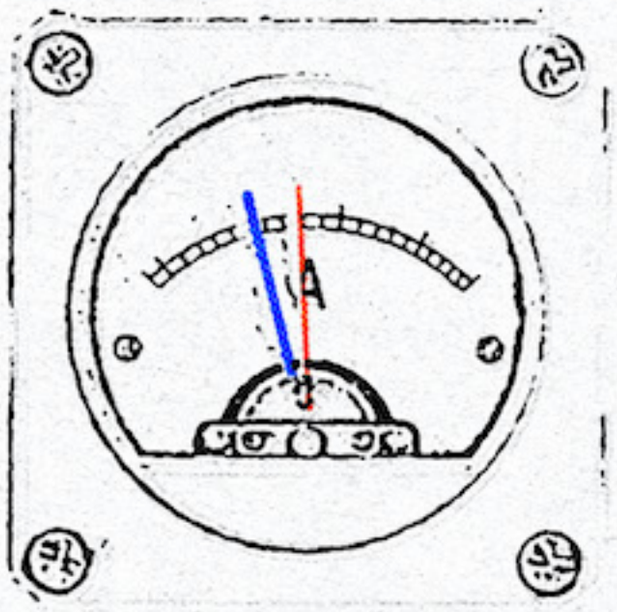


The atomic pile temperature indicator displays the current temperature of the atomic pile.

The red needle matches the current atomic pile temperature.

The blue needle shows you the ideal temperature for the atomic pile to provide the current ideal amount of power for the pod systems.

Ammeter



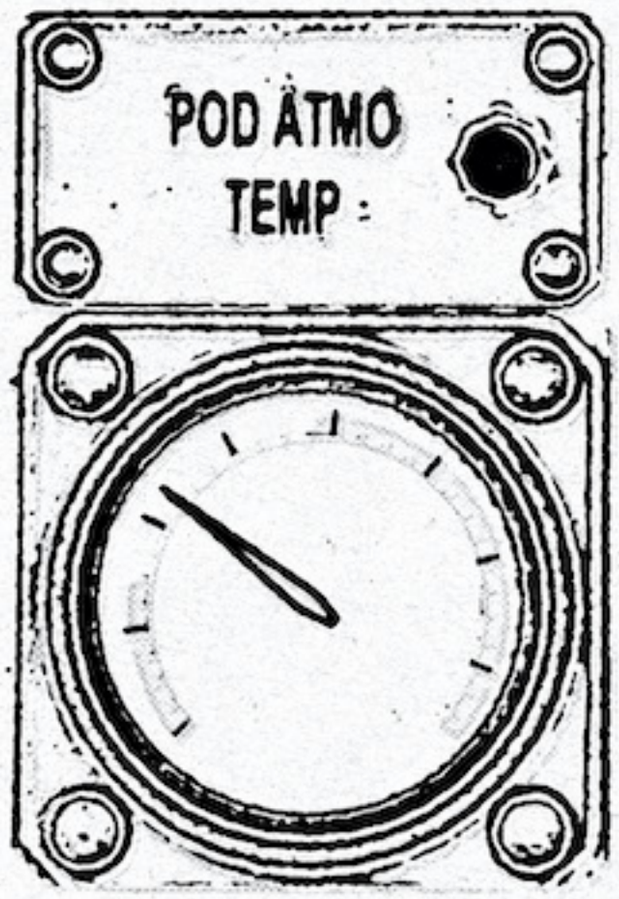
The ammeter allows you to see how much power is being required to all current active systems compared to how much is produced by the main generator.

The red needle indicates how much power is generated.

The blue needle indicates how much power is required.

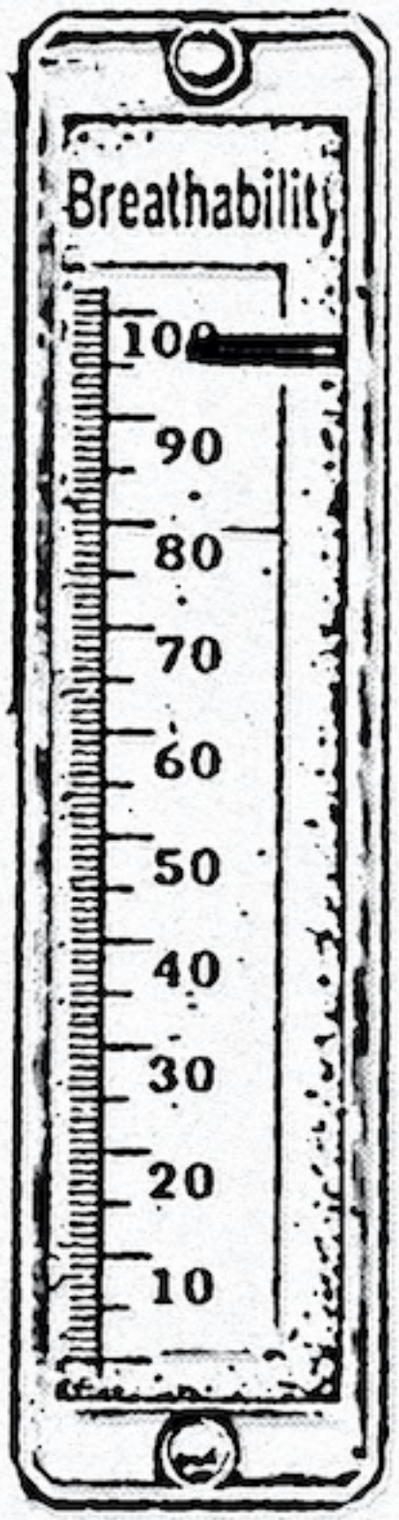
Both need to be aligned for ideal power.

Pod Atmosphere Temperature Indicator



The pod atmosphere temperature indicator indicates the current temperature aboard the pod.

Breathability Levels

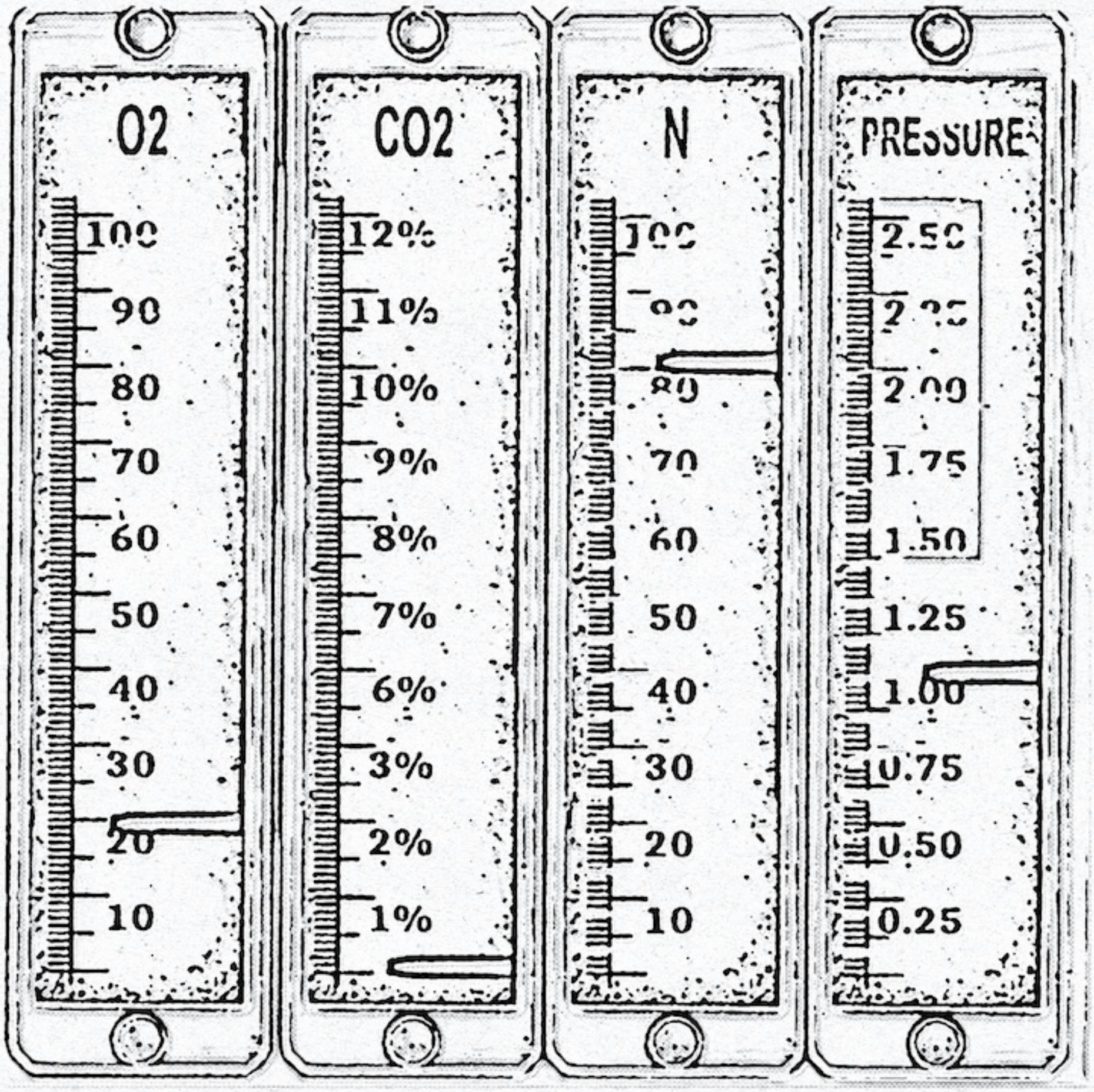


The breathability levels indicate how breathable the atmosphere currently is.

If it drops below 70%, act quickly to avoid loss of consciousness.

The indicator takes into account levels of oxygen, carbon dioxide and pressure.

Atmospheric Condition Indicators



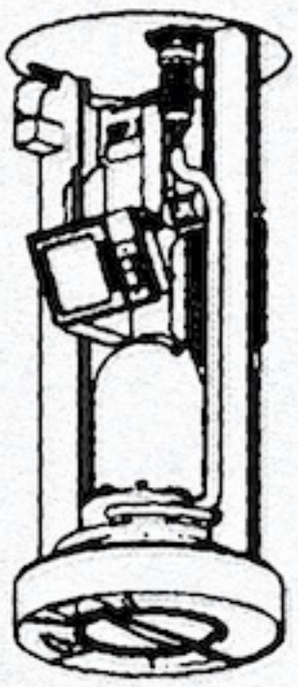
The atmospheric condition indicators allow you to know how much oxygen, carbon dioxide and nitrogen are present inside the pod atmosphere, as well as the current pressure.

Please be reminded that the ideal levels at a pressure of 1Bar are as follow :

Oxygen : 21%
Carbon Dioxide : Less than 6%
Nitrogen : 73%

SYSTEMS LIST

Purposes and alerts



M41-N G3

Main Generator

The main generator produces the required power necessary for the operation of the pod systems.

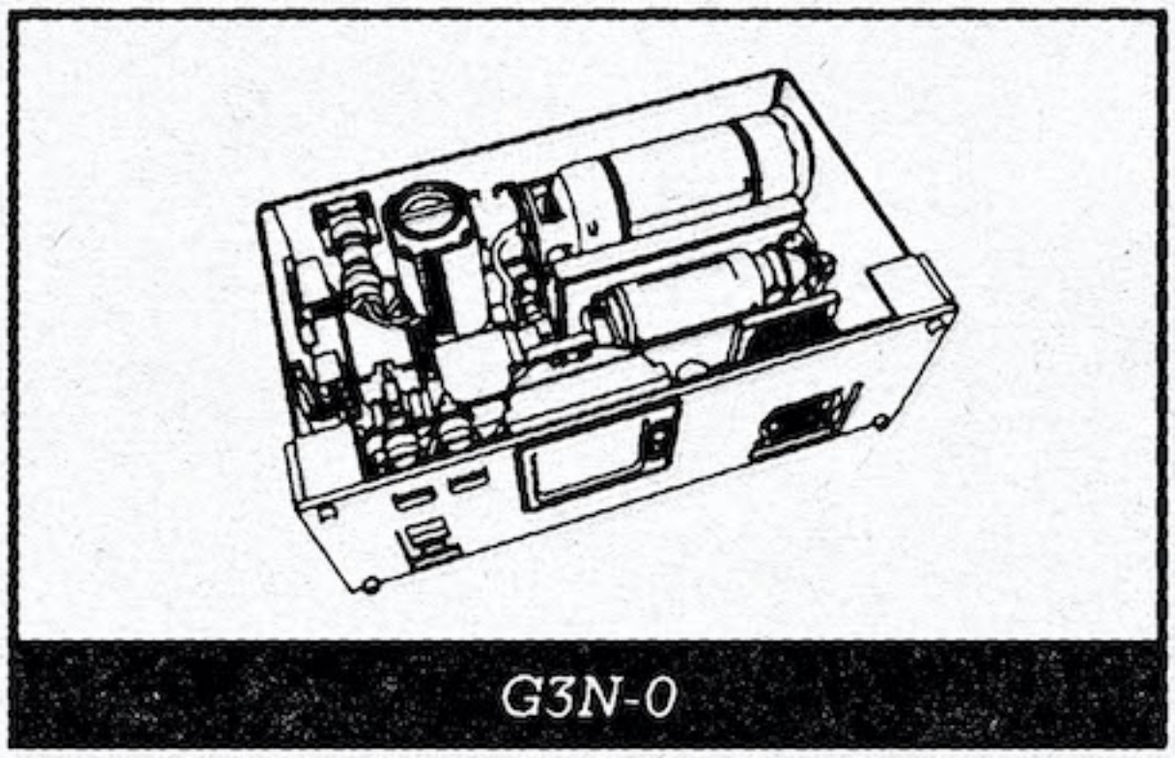
The energy is generated by an atomic pile located in its center. The atomic pile produces heat which is then transferred into energy by the generator. The hotter the pile is, the more energy it produces.

The green bars indicate the amount of energy currently needed for all online systems.

Beware : It can take some time for the atomic pile to heat up or cool down. Always make sure systems are properly equipped with power transformers and fuses to avoid damaging them with improper energy levels.

The processor inside the generator stabilises temperature to proper levels depending on systems consumption. A damaged processor can stop the atomic pile from being properly cooled.

Warning : *Risks of severe radiation poisoning if the atomic pile is handled without proper safety equipment.*



G3N-0

Oxygen Generator

The oxygen generator releases oxygen into the atmosphere from an oxygen bottle located inside its panel.

The green bars on the monitor indicate the ideal levels of oxygen with the current pressure.

***Warning** : The required oxygen levels will vary depending on atmospheric pressure. At the standard pressure of 1bar, the ideal level is 20%. The higher the pressure, the lower the ideal level will be.*

(Ex : At 0.3bar, the ideal oxygen level is 100%).

It is also important to note that an excessive amount of oxygen in the atmosphere can be a fire hazard and may cause Hyperoxia (check medical manual for more information).

CO2 Scrubber

The CO2 Scrubber take carbon dioxide from the atmosphere
to prevent them from reaching hazardous levels.
They are then stored inside a bottle.

The green bars on the monitor indicate the maximum levels of carbon dioxide before poisoning, based the current pressure.

Warning *: The maximum levels of CO2 before risking poisoning are around 6% at a 1bar pressure.*
Maximum levels will be lower if pressure is higher.

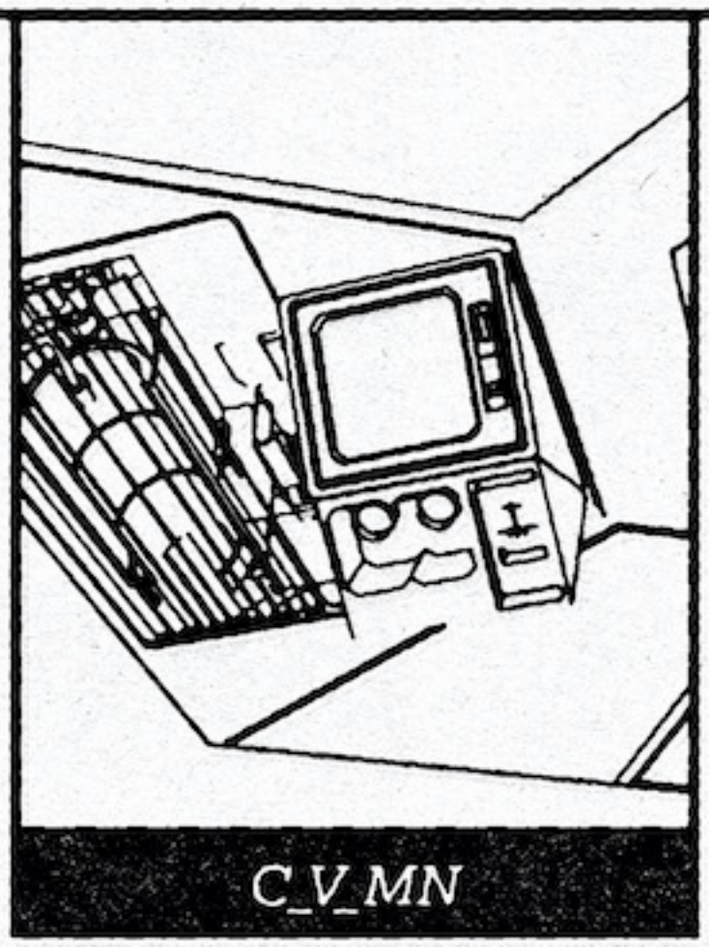
For more information about carbon dioxide poisoning, please check the medical manual.

Pressure Stabilizer

The pressure stabilizer maintains the internal atmospheric pressure
of the pod at a key level of 1bar (just like on Earth) by injecting
or withdrawing nitrogen in the air.

Warning *: Pressure is a determining factor for breathability levels of both oxygen and carbon dioxide.*

It is also important to note that excessive pressure levels can compromise the structural integrity of the escape pod.



C_V_MN

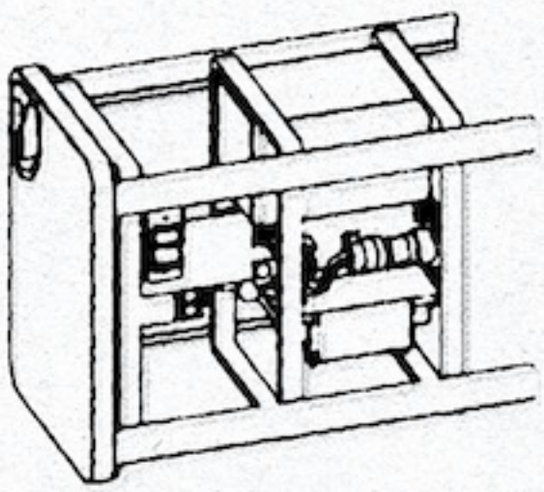
Temperature Manager

The temperature manager provides heat and cold to the pod to regulate atmospheric temperature.

The green bars indicate the target temperature of 21°c or 70°F.

Heat is produced from electricity while cold is produced thanks to a liquid nitrogen bottle inside the system.

It is important to note that most of the pod heat is produced by the atomic pile while space will slowly but naturally cool the pod.



L1-GT

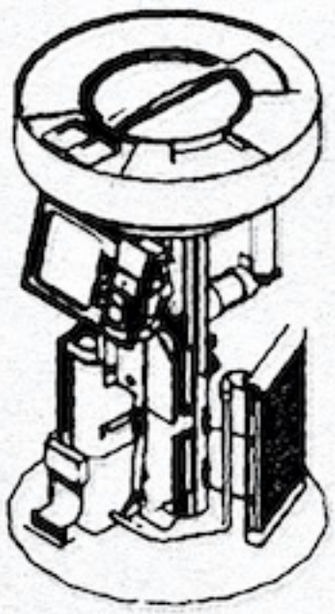
Lights Systems

The light systems of the escape pod are located inside drawers.

They allow for the proper operation of the lights aboard the pod.

They are divided into main lights and emergency lights.

Emergency lights require a lot less power and are equipped with an emergency battery. They will turn on immediately if the main lights can not operate properly (in case of power loss, for example).



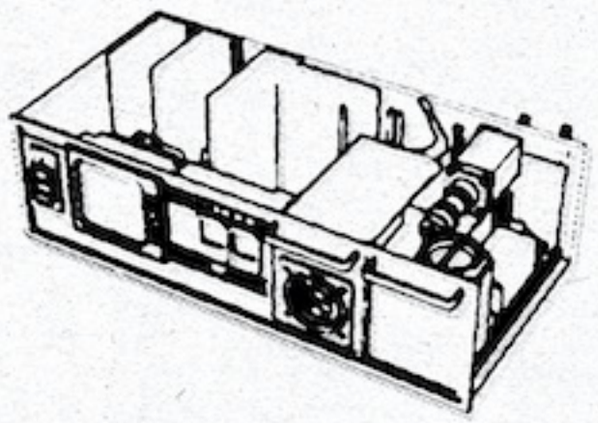
GR-40

Gravity Generator

The gravity generator uses a complex system of gravitons field in the gravfloors to produce artificial gravity similar to what is experienced on Earth.

Please note that once on battery, the system may lower its general consumption and gravity levels to maximize length of operation before running out of energy.

***Warning** : In case of insufficient power or failures of main processors, the gravity might become unstable or either too low or too high.*

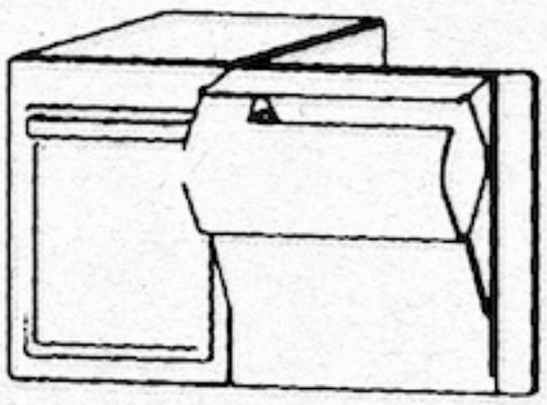


MN-C0WP

Main Computer

The main computer displays a general status list of all systems in the pod and provides understandable errors on each system monitor.

***Warning** : Without the main computer, error codes in each system will require you to check on the manual error codes page to understand their meaning.*



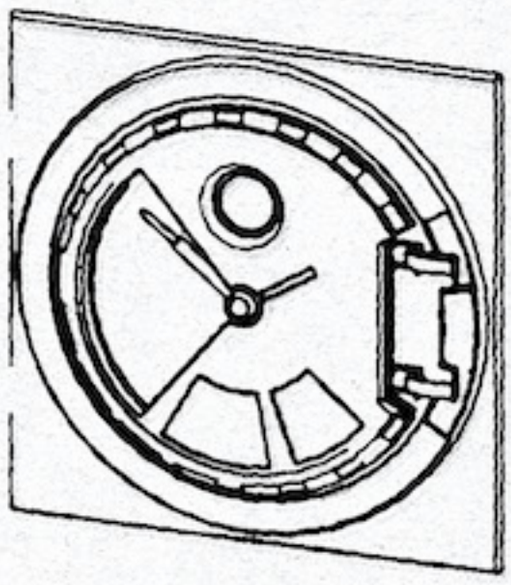
L1-GT

Fast Battery Charger

The fast battery charger allows you to recharge a battery very quickly.

Warning *: The fast battery charger draws a very high amount of power and will therefore lower power of other systems until the atomic pile can adjust for its consumption.*

Beware : unprotected systems can be overloaded when removing the battery.



C0-0TOO

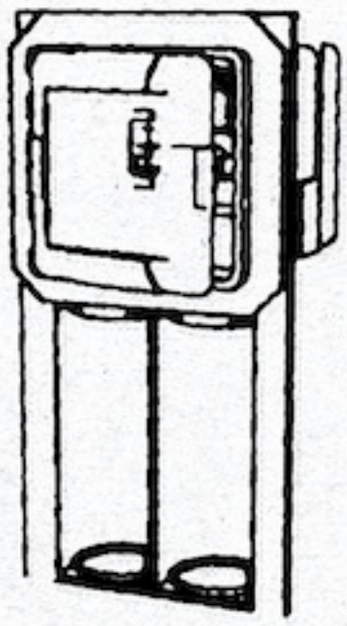
Airlock

The airlock is the main access door of the escape pod.

To open it you need to make sure you are docked properly then to pull and turn the handle to unlock.

Once unlocked, you can simply pull the door towards the inside of the pod.

Warning *: Opening the airlock while in space will result in immediate loss of pressure and could cause hypoxia and then death.*

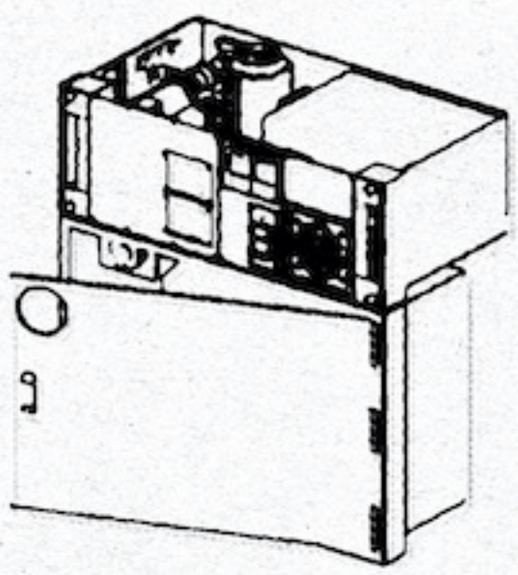


C0-0TOO

CO2 to O2 Recycling Station

The CO2 to O2 recycling station allows you to replenish an empty oxygen bottle from a full carbon dioxide bottle by transforming carbon dioxide into oxygen.

Note that this process is vital for your oxygen reserves to last.



R3_PR

Repair Station

The repair station allows for the repair of damaged components, when possible. It also allows you to dismantle a component for spare parts by placing one inside and by pressing the "dismantle" button.

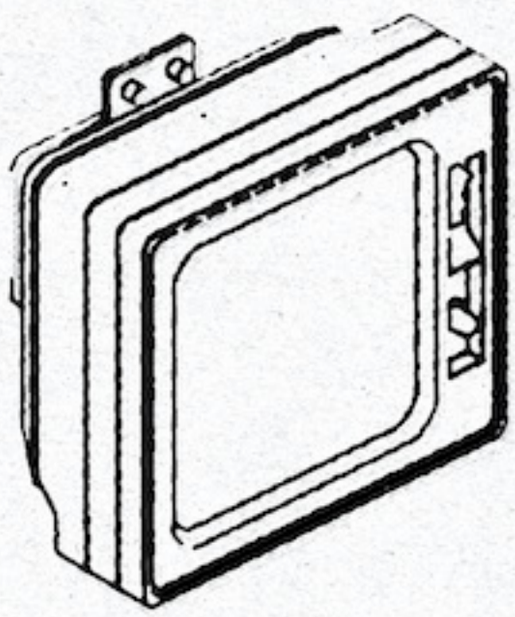
To fix or dismantle something, the station must be in working order, have enough power and the user must have enough spare parts.

The integrated screens display the amount of part required compared to how many of them the user has in his possession.

Repair speed depends on the complexity of the component and the condition of the repair station.

COMPONENTS LIST

Purposes and eventual failures



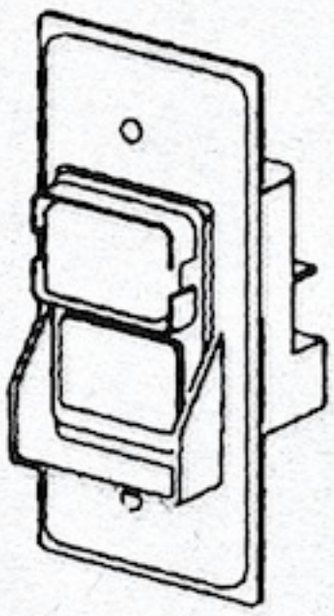
5CR3-3N

CRT Monitor

This component is a screen allowing the display of information from the different pod systems.

Channels can be adjusted to access different pages of information.

***Failures** : The more damaged a monitor is, the more the screen will tend to shut down intermittently.*

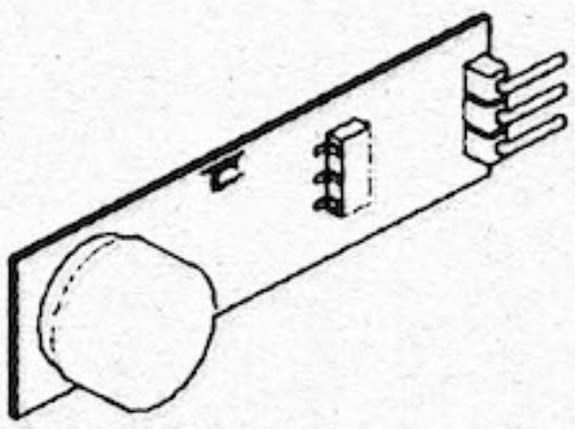


ON-077

On-Off Button

The on-off button is a simple switch used to turn on or turn off a system. It is sometimes necessary to push it twice to restore a system.

***Failures** : The more a button is damaged, the more it will tend to fail when pressed.*



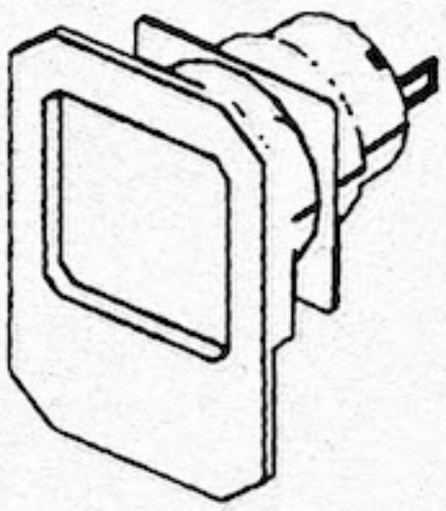
BZ22-B1P

Buzzer

The buzzer is a simple sound alarm system. It's tone is different for each system.

The buzzer is triggered when a system encounters a failure.

***Failures** : The more a buzzer is damaged, the more it will tend to be triggered for no reason or not turn on when needed.*



R3-5ET

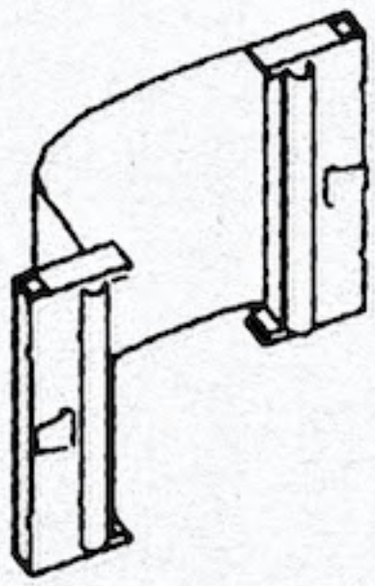
Alarm Button

(Master Caution and Master Warning)

Just like the buzzer, alarm buttons will turn on in case of failure inside a system.

They are small lights matching error signals inside a system. Pressing them will turn the alarm off if the problem has been resolved.

***Failures** : The more an alarm is damaged the more it will tend to be triggered for no reason or not turn on when needed.*



CON3_T

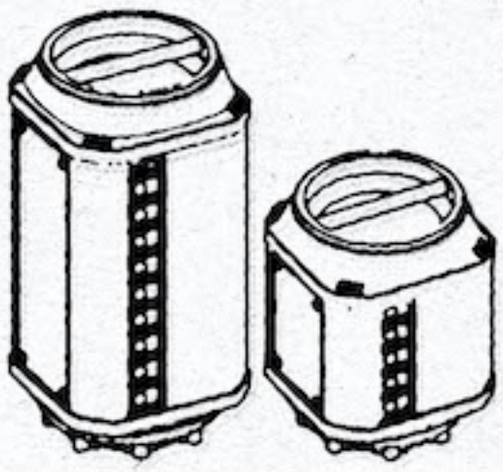
Data Connector

The data connector allows for the transfer of information.

This is how systems can display their status and communicate with the main computer.

Beware : Corrupted data may push a system into abnormal behaviors.

⚠ ***Failures*** *: The more a data connector is damaged, the more data transmitted will tend to be unreadable or wrong.*



8AT-L / 8AT-S

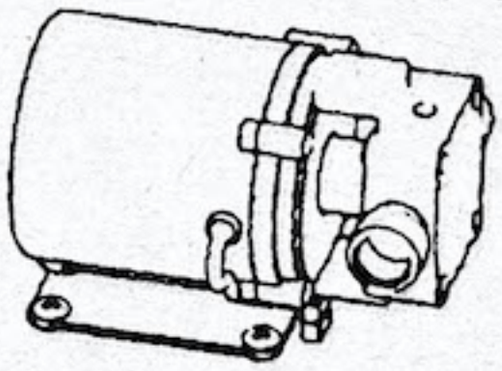
Emergency Batteries

Emergency batteries allow for the storage of energy.

Systems will automatically draw power from their batteries if they don't receive enough from the main generator.

Batteries can be recharged on the fast battery charger.

⚠ ***Failures*** *: The more a battery is damaged and the less it will be able to store power.*

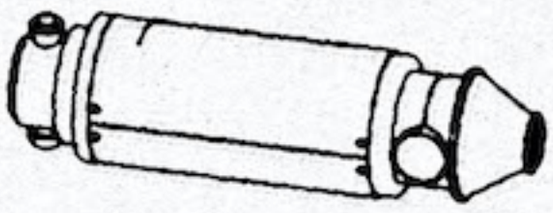


PUW_P

Pump

Pumps transfer resources from bottles to other components.

Failures *: A damaged pump will tend to send less resources than normal.*



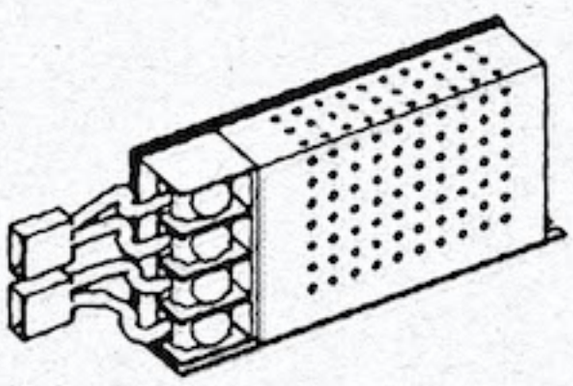
F17-T3R

Air Filter

The air filter takes or sends resources from the pod atmosphere.

Air filters need to be cleaned on a regular basis!

Failures *: The more an air filter is damaged or dirty, the more it will tend to have a reduced flow.*



PW-TR5

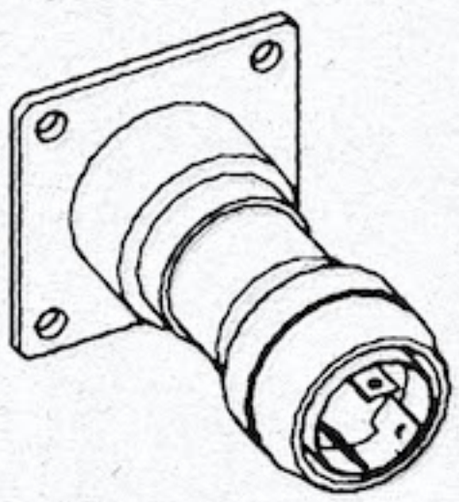
Power Transformer

The power transform protects systems from power overload.

Beware : power transformers will heat up when exposed to excessive power and might get damaged after a certain amount of time.

If too damaged, the power transformer will stop transmitting power.

Failures : *If too damaged, the power transformer will stop transmitting power.*

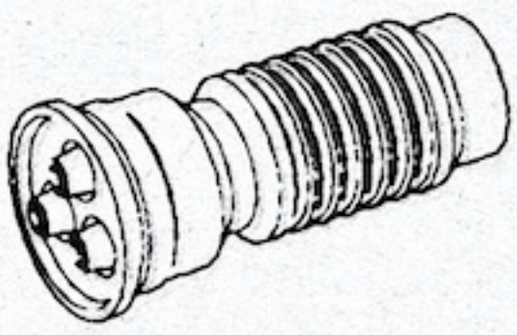


PW-C3T

Power Connector

This connector transmits power from the main generator to the components of a system.

Failures : *The more an power connector is damaged, the more it will tend to deliver unstable or insufficient power.*

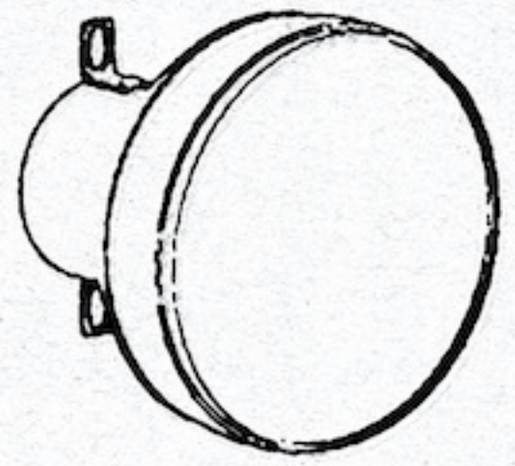


T_U83

High Capacity Power Connector

This connector works similarly to the small one, but allows for higher power levels.

***Failures** : The more a power connector is damaged, the more it will tend to deliver unstable or insufficient power.*

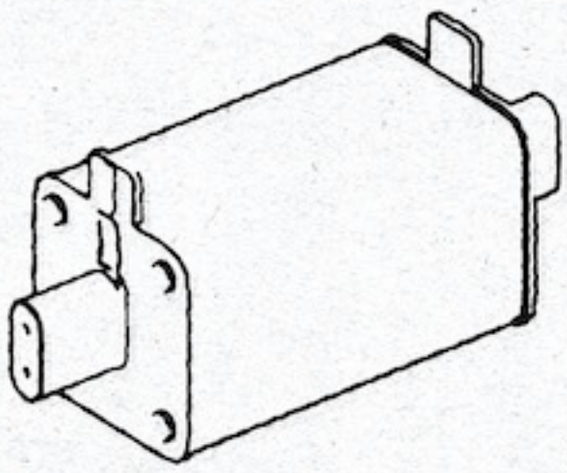


O-WNTR

Round CRT Monitor

The round CRT monitor is a small display system for simple information when a larger one would be too cumbersome.

***Failures** : The more a small round monitor is damaged the more it will tend to turn off intermittently.*



F-U28

Fuse

Fuses are simple electric components that will turn systems off if the power they receive is above a certain threshold.

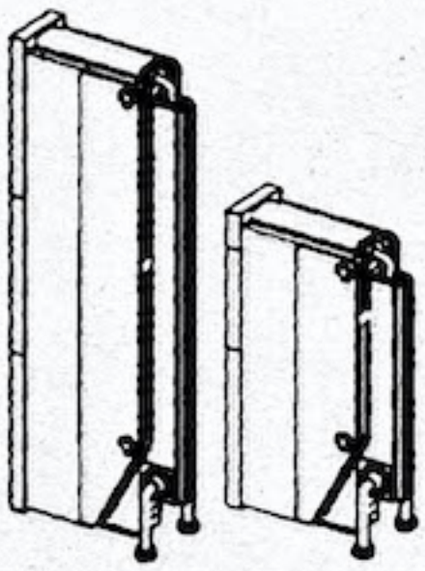
***Failures** : The more damaged a fuse is, the more likely it will be to trigger below or above its original threshold.*

F-U28 HC

High Capacity Fuse

This fuse works similarly to the small one, but allows for higher power levels.

***Failures** : The more damaged a fuse is, the more likely it will be to trigger below or above its original threshold.*



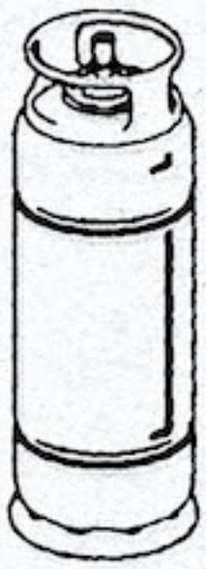
PRO5-L / PRO5-S

Processor
(Small and Large)

Processors allow for the treatment and analysis of data in complex systems that require a semi-intelligent control.

Available in two models, the size of the processor will affect its speed and data processing abilities.

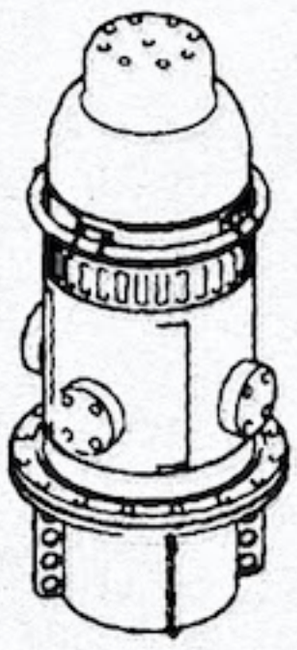
⚠ ***Failures*** *: The more a processor is damaged, the more it will tend to cause anomalous behavior in systems that are equipped with it.*



T_U83

Bottle

Bottles allow for the store of resources, such as oxygen, nitrogen, or carbon dioxide.



4TOM

Atomic pile

The atomic pile is the most vital but also the most dangerous component inside the escape pod.

The atomic pile provides energy thanks to a fission reaction of uranium 235.

Controlled by the main generator processor, the atomic pile produces heat that is then transformed into energy.

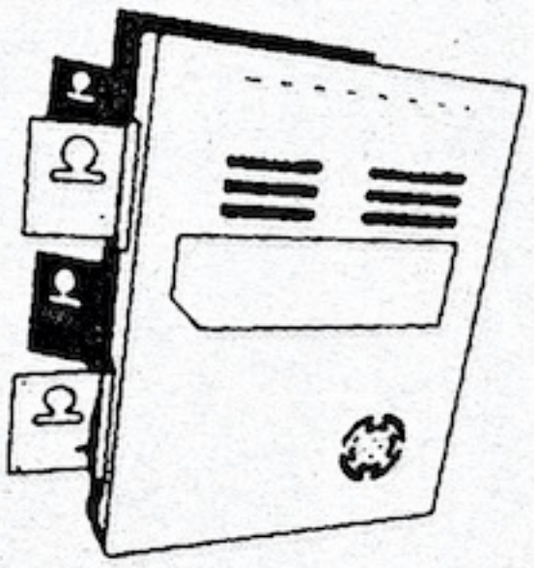
The higher the temperature, the more energy is produced.

Failures *: Even though the atomic pile was made to withstand many things, it can ultimately sustain damage.*

When damaged, the pile will tend to provide more unstable power and produce more radiations than the protectives shields can absorb.

Warning

Do not disassemble the pile shields without proper equipment.
Risks of severe irradiation.



HG-TR5

High Capacity Transformer

This transformer works similarly to the small one, but allows for higher power levels.

***Failures** : If too damaged, the power transformer will stop transmitting power.*

ERROR CODES

Diagnostic manual

CODE : PB28 | Sys_Low_Power

Description :

Not enough energy provided to the system.

Causes and probables consequences :

- *The power connector is not functioning properly*
- *The main generator is not providing enough power*

CODE : MAP5 | Too_High_Power_Sys

Description :

Too much energy in the system.

Causes and probables consequences :

- *The power transformer is missing or is not functioning properly*
- *The fuse is not working properly*
- *The main generator is providing too much power*

CODE : 2NOA | On_Battery

Description :

System is at least partially on battery.

Causes and probables consequences :

- *Power received by the system is too low*

CODE : KA02 | Pod_High_CO2

Description :

CO2 levels in the pod atmosphere are too high.

Causes and probables consequences :

- *Full bottle*
- *The pump is not functioning properly*
- *The air filter is not functioning properly*
- *The power received by the system is insufficient*

CODE : AR22 | Dirty_Filter

Description :

Air filter is dirty and needs to be cleaned.

Causes and probables consequences :

- *Air filter is dirty and needs to be cleaned*
- *System won't work properly until the filter is cleaned*

CODE : 01JE | Low_Bar

Description :

Atmospheric pressure is too low.

Causes and probables consequences :

- *Empty bottle*
- *Pump not functioning properly*
- *Air filter not functioning properly*
- *Power received by the system is insufficient*
- *Data Connector is not working properly*

CODE : AN93 | High_Bar

Description :

Atmospheric pressure is too high.

Causes and probables consequences :

- *Full bottle*
- *Pump not functioning properly*
- *Air filter not functioning properly*
- *Power received by the system is too high*
- *Data Connector is not working properly*

CODE : PN82 | Low_Oxy_Prod

Description :

Oxygen production is too low.

Causes and probables consequences :

- *Empty bottle*
- *Pump is not functioning properly*
- *Air filter is not functioning properly*
- *Power received by the system is insufficient*

CODE : 017H | Pod_Too_Low_Oxy

Description :

Oxygen levels are too low.

Causes and probables consequences :

- *The oxygen generator is not functioning properly*
- *There is an air leak in the pod*
- *The atmospheric pressure is too low*

CODE : TB65 | Too_High_O2

Description :

Oxygen levels are too high.

Causes and probables consequences :

- *Oxygen generator is not working properly*
- *Pressure is too high*

CODE : NA82 | Low_Pump

Description :

Pump is not working properly.

Causes and probables consequences :

- *Not enough power*
- *Damaged pump*
- *Empty bottle*
- *Dirty air filter*

CODE : ABT6 | Full_Bottle

Description :

Bottle is full.

Causes and probables consequences :

- *The bottle is full and can no longer receive additional resources*

CODE : P0J3 | Low_Bottle

Description :

Bottle is running low.

Causes and probables consequences :

- *Bottle is running out of its resources*

CODE : BKEE | Empty_Bottle

Description :

Bottle is empty.

Causes and probables consequences :

- *Bottle is empty*
- *System cannot function properly anymore*

CODE : 02NE | Bad_Bat

Description :

Damaged Battery.

Causes and probables consequences :

- *Battery will have smaller storage capacity*

CODE : 9LOF | Low_Bat

Description :

Battery is running low.

Causes and probables consequences :

- *Power being delivered to the system is insufficient*
- *System will cease to function properly once battery is empty*

CODE : 0NE4 | Bad_Power_Con

Description :

Power connector is damaged.

Causes and probables consequences :

- *It now delivers insufficient power to the system.*

CODE : 0BEA | Bad_Power_Trans

Description :

Power transformer is damaged.

Causes and probables consequences :

- *Is no longer protecting systems correctly from power surges*

CODE : 0000 |

Description :

Monitor is turned off.

Causes and probables consequences :

- *On-Off Button is on the off position*
- *Fuse is stopping the system from powering up*
- *Power received by the system is too low for the monitor to turn on*
- *Monitor is damaged or broken*

CODE : MAAG | Bad_Buzz

Description :

Damaged buzzer.

Causes and probables consequences :

- *Buzzer might trigger unexpectedly or fail to trigger when needed*

CODE : 01N2 | Bad_Data

Description :

Data connector is damaged.

Causes and probables consequences :

- *Data being transmitted to the monitor might be wrong or missing*
- *Systems may produce or absorb the wrong amount of resources*

CODE : MPAA | Bad_Fuse

Description :

Fuse is damaged.

Causes and probables consequences :

- *The fuse is no longer functioning properly and might trigger without reason or no trigger when needed*

CODE : 017K | Bad_Caution_Alarm

Description :

Master caution button is damaged.

Causes and probables consequences :

- *The button is damaged and might not trigger when needed or trigger without reason*

CODE : PAN8 | Bad_Master_Alarm

Description :

Master warning is damage.

Causes and probables consequences :

- *The button is damaged and might not trigger when needed or trigger without reason*

CODE : JKL1 | Bad_Monitor

Description :

Damaged monitor.

Causes and probables consequences :

- *The screen is damaged and flashes*

CODE : BZ67 | Bad_Proc

Description :

Processor is not functioning properly.

Causes and probables consequences :

- *Processor is damaged*
- *Power received by the system is insufficient*
- *Processor is missing*

CODE : TR22 | Low_Grav

Description :

Too low gravity.

Causes and probables consequences :

- *Power is insufficient*
- *Processor is not functioning properly*
- *Processor is missing*

CODE : TR23 | Excess_Grav

Description :

Too high gravity.

Causes and probables consequences :

- *Power is too high*
- *Processor is not functioning properly*

CODE : 9B2L | Bad_Switch

Description :

On-Off button is damaged.

Causes and probables consequences :

- *Button is damaged and might not trigger when needed or trigger without reason*

CODE : TY2B | Bad_Filter

Description :

Air filter is damaged.

Causes and probables consequences :

- *Air filter will transfer less resources.*