

Electronics explained

When you enter the mechwarrior 4 meclab, the first tab you will see is the chases tab. That is where you setup your electronics, speed and number of heat sinks.

Under Components you see the following: E.C.M, B.A.P, jump jets, L.A.M.S, Enhanced Optics, IFF jammer and Advanced Gyro.

1. E.C.M:

Electronic Countermeasures (ECM)

Electronic Counter Measures - Designed to interfere with guided weaponry, targeting computers, and communication systems. These units are typically used to shield allied units from such weapons/sensors.

BASIC = Stealth electronics which does 2 things reduces enemy radar range (Applies only for you) and increases enemy missile lock on time.

2. B.A.P:

Beagle Active Probe (BAP) is a suite of enhancement technology that, when attached to general electronic sensors, enables the equipped unit to detect and classify other battlefield units -with the exception of conventional infantry- whether they are camouflaged or even shut down.

BASIC = Increases your radar range, and decreases your lock on time.

(It only works when your radar is on)

3. Jump jets:

Jump jets enable Mechs to vault into the air, drawing power from their fusion engine to achieve this.

4. L.A.M.S.:

Laser Anti-Missile System (LAMS) is an advanced variation of the standard Anti-missile system fielded by both Inner Sphere and Clan militaries. While the standard system utilizes a machine gun mated to specialized tracking systems, the LAMS uses a Small Pulse Laser, ensuring that the system never runs out of ammunition.

BASIC = It takes down a number of missiles fired at you.

It is very useful & often cuts down just enough missiles so you can remain on your feet. (see advanced gyro)

5. Enhanced optics:

BASIC = Makes your zoom window larger and allows it to zoom further.

6. I.F.F. jammer:

Identify Friend/Foe (IFF) It eases the burden of identifying targets for mechwarriors in battle conditions (ie. red & blue targeting reticule colors)

BASIC = It affects enemy heads up display so that you appear as neutral under their reticule, so now the reticule does not turn red when you point it at them until they come close. (Useful in foggy maps when the enemy does not have a clear visual of you)

7. Advanced gyro:

BASIC = It reduces rocking & your reticule jumping when someone shoots you and decreases the chance of you being knocked down.

You will need to take even more damage now to be knocked down. Knockdown chance is based upon mech weight. Lighter mech are easier and more likely to get knocked down. When you lose body parts like arms, you lose weight and you become easier to knock down. Advanced gyro helps prevent that.

8. Radar Range Chart:

Passive (radar off), ECM & BAP

Enemy Detects you at:		The Enemy Mech is:					
		Shutdown	Passive	Active	Active W/ ECM	Active W/ BAP	Active W/ ECM & BAP
You Detect Enemy at:	Shutdown	0	0	0	0	100	100
	Passive	*	*	250	500	600	600
	Active	*	250	1000	1000	1200	1200
	Active W/ ECM	*	100	500	500	800	800
	Active W/ BAP	100	600	1200	1000	1200	1200
	Active W/ ECM & BAP	100	600	1200	800	800	800

* When a mech is shutdown, it is undetectable to everything except BAP. However, the shutdown mech will still be able to detect enemies at the same ranges as if it were running active sensors.

MechWarrior 4 Mercenaries

Advanced Radar Mode (Line Of Sight) available since MP3.1 version .0025

In the Advanced Radar Mode, the player's Mech's radar does not see enemy units through terrain or non-terrain objects. It is based on Line Of Sight (LOS) where an enemy unit has to visually be clear of obstruction with the player Mech in order to be seen by the radar. Certain electronics enhance the functionality of the radar as well as affect enemy radar. Currently in version .0025, terrain completely masks all radar signatures regardless of electronics carried. This condition will be modified in the future with new electronics.

Advanced Radar can be selected in the Multiplayer Host menu under the Default Radar setting as well as for each individual map in the multiplayer game Mission tab under the Radar setting. Advanced Radar is also available in the single player campaign by setting Veteran or Elite difficulty in the main menu Roster for the pilot as well as in Instant Action with the Veteran and Elite difficulty setting.

Narrow Radar *

Narrow Radar is essentially a combination of Active and Passive Radar modes. The forward radar arc is in reference to the position of the player Mech's torso. With Narrow Radar mode engaged, for the player Mech the forward radar arc can detect units in Active Radar range. Outside the forward radar arc the player Mech can not detect any units.

From the enemy perspective if the player Mech has the forward radar arc facing the enemy, the player Mech will be detected at ranges as if in Active Radar mode. If the player Mech does not have the forward radar arc facing the enemy the player Mech will be detected at ranges as if in Passive Radar mode.

Target Tracking *

Target Tracking allows the player Mech to maintain selection of a target that moves out of Line Of Sight (LOS). With Target Tracking engaged an enemy Mech that is selected will be automatically reselected if it moves out of LOS then returns to LOS with the player Mech. If Target Tracking is not engaged, when a target moves out of LOS the next nearest target will be automatically selected.

This behavior changes a bit if an enemy Mech has IFF equipped. When Target Tracking is not engaged and a targeted Mech moves out of LOS, the nearest non-IFF Mech will be selected even if an enemy Mech with IFF is closer. Though if only IFF equipped Mechs are in LOS, the nearest will be selected.

The Target Tracking HUD text will show three colors, red, yellow and green. When the text is red the Target Tracking mode is turned on but the actual function is not engaged. An enemy Mech must be manually selected with the Target Previous / Nearest / Next Enemy commands for the text to turn green, which indicates the mode is tracking that selected target.

When the Target Tracking mode is engaged, if the manually selected target moves out of range or out of LOS the text will turn yellow, then return to green when the target is reacquired. If the target is destroyed or leaves the game, the text will turn red. If the Target Tracking mode is turned off at any time then turned on again, the text will be red.

*** - In order to get Target Tracking and/or Narrow Radar to work in MP3.1 version .0025 or newer, you must select the "DEFAULT" button near the bottom of the MP 3.1 Options window.**

Radar Ranges

Radar ranges under all sensor conditions. The range number refers to the Sensing Mech's radar detection range. BAP and ECM are only in effect when the Mech carrying it is in active radar mode.

Sensors Off = Passive Radar
Basic Sensors = Active Radar
Active Probe = Active Radar with BAP
Target has ECM = Active Radar with ECM

Sensing Mech is Shut Down / Target is Shut Down: 0 meters
Sensing Mech is Shut Down / Target has Sensors Off: 0 meters
Sensing Mech is Shut Down / Target has Basic Sensors: 0 meters
Sensing Mech is Shut Down / Target has ECM: 0 meters

Sensing Mech has Sensors Off / Target is Shut Down: 0 meters
Sensing Mech has Sensors Off / Target has Sensors Off: 0 meters
Sensing Mech has Sensors Off / Target has Basic Sensors: 250 meters
Sensing Mech has Sensors Off / Target has ECM: 100 meters

Sensing Mech has Basic Sensors / Target is Shut Down: 0 meters
Sensing Mech has Basic Sensors / Target has Sensors Off: 500 meters
Sensing Mech has Basic Sensors / Target has Basic Sensors: 1000 meters
Sensing Mech has Basic Sensors / Target has ECM: 500 meters

Sensing Mech has Active Probe / Target is Shut Down: 100 meters
Sensing Mech has Active Probe / Target has Sensors Off: 600 meters
Sensing Mech has Active Probe / Target has Basic Sensors: 1200 meters
Sensing Mech has Active Probe / Target has ECM: 800 meters

Battle Armor have a reduced radar signature with the following modifiers to detection ranges:

Kanazuchi: 50%
Elemental: 20%
Salamander: 20%
Gnome: 20%
Golem: 20%
Standard: 20%
Gray Death: 20%
Longinus: 20%
Infiltrator: 10%

The six Infantry units can not be detected by radar.