

////// ALL ATTACKS ////

Attacker Movement

Stationary	+0
Walked [White Die]	+1
Ran [Black Die]	+2
Jumped [Red Die]	+3
Prone Biped Mech	+2 [w/o wpns in prop. arm]
Skidding	+1

Terrain

Light Woods/Jungle	+1
Heavy Woods/Jungle	+2
Water Depth 1	+1 [Partial Cover p.26 / 102]
Water Depth 2	- [p.26 / 102]
Partial Cover	+1 [p.26 / 102]

Target

Prone	-2 adjacent / +1 other
Immobile	-4
Skidding	+2
Jumped	+1
Moved: 0-2	+0
3-4	+1
5-6	+2
7-9	+3
10-17	+4
18-24	+5
25+	+6
Stealth Armor	+1 medium / +2 long [+10 Heat]

////// WEAPON ATTACKS ////

Attacker

Sensor Hit	+2
Shoulder Hit	+4 [arm wpns, disreg. actuat.]
Arm Actuator Hit	+1 [arm weapons]
Heat: 0-7	+0
8-12	+1
13-16	+2
17-23	+3
24+	+4
Indirect Fire Attack	spotter AMM +1 or +2 if spot. att.
Spotting	+1
Targeting Computer	-1 [p. 114 / 143]
Pulse Laser	-2
Heavy Laser	+1
LB-X AC	-1 for [C]luster ammo
MRM & Rocket L.	+1
Flak	-2 against flying [p. 97 / 114]

Range and Terrain

Range: Short	+0
Medium	+2
Long	+4
Minimum	Min - Range + 1 [p.27 / 109]
Intervening Hex/level in same building	+1 per Hex/level [p.72 / 175]

Target

2nd Target Forward	+1
2nd Target Side/Rear	+2

Weather

Heavy Fog	+1 to [P] and [DE]
Light:	Reduced if target high heat!
Dusk/Dawn	+1
Full Moon Night	+2 [if target not illuminated]
Moonless Night	+3 [if target not illuminated]
Moderate/Heavy Rain	+1
Torrential Downpour	+2
Moderate/Heavy Snow	+1
Wind: Moderate Gale	+1 to [M]
Strong Gale	+2 to [M] / +1 to [DB]
Storm	+3 to [M] / +2 to [DB]

////// PHYSICAL ATTACKS ////

Attacker

Kick	-2
Punch	+0
Club	-1
Push	-1
Shoulder Hit	No pun, phy, club / +2 to push
Arm Actuator Hit	+2 to pun, phy, club half damage to punch
Hand Actuator Hit	No phy, club / +1 to punch
Hip Actuator Hit	No kick
Leg Actuator Hit	+2 and half damage to kick
Foot Actuator Hit	+1 to kick

Other Modifiers

Charging Attack	Relative Pilot Skill [p. 34 / 40]
DFA	Relative Pilot Skill [p. 34 / 40]
Rear Kick [quad only]	+1
Unintentional Charge	+3

Weather

Moonless Night	+1 [if target not illuminated]
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////// CLUSTER HITS ////

	2	3	4	5	6	7	9	10	12	15	20	30	40
2	1	1	1	1	2	2	3	3	4	5	6	10	12
3	1	1	2	2	2	2	3	3	4	5	6	10	12
4	1	1	2	2	3	3	4	4	5	6	9	12	18
5	1	2	2	3	3	4	5	6	8	9	12	18	24
6	1	2	2	3	4	4	5	6	8	9	12	18	24
7	1	2	3	3	4	4	5	6	8	9	12	18	24
8	2	2	3	3	4	4	5	6	8	9	12	18	24
9	2	2	3	4	5	6	7	8	10	12	16	24	32
10	2	3	3	4	5	6	7	8	10	12	16	24	32
11	2	3	4	5	6	7	9	10	12	15	20	30	40
12	2	3	4	5	6	7	9	10	12	15	20	30	40

////// HIT LOCATIONS ////

	Left	Front-Rear	Right
2	LT Critical	CT Critical	RT Critical
3	LL / LRL	RA / RFL	RL / RRL
4	LA / LFL	RA / RFL	RA / RFL
5	LA / LFL	RL / RRL	RA / RFL
6	LL / LRL	RT	RL / RRL
7	LT	CT	RT
8	CT	LT	CT
9	RT	LL / LRL	LT
10	RA / RFL	LA / LFL	LA / LFL
11	RL / RRL	LA / LFL	LL / LRL
12	H	H	H

////// CRITICAL HITS ////

2-7: 0 hits 8-9: 1 hit 10-11: 2 hits
12: Limb blown off or 3 hits if Torso was hit

////// PUNCH LOCATIONS ////

	Left	Front-Rear	Right
1	LT	LA / LFL-LRL	RT
2	LT	LT	RT
3	CT	CT	CT
4	LA / LFL	RT	RA / RFL
5	LA / LRL	RA / RFL-RRL	RA / RRL
6	H	H	H

////// KICK LOCATIONS ////

	Left	Front-Rear	Right
1-3	LL / LFL	RL / RFL-RRL	RL / RFL
4-6	LL / LRL	LL / LFL-LRL	RL / RRL

////// MOVEMENT COSTS ////

Terrain Cost

Cost To Enter Any Hex	1	
Clear	+0	
Road/Paved/Bridge	+0	
Rough	+1	
Rubble	+1	PSR +0
Sand	+0	PSR +1
Light Woods	+1	
Heavy Woods	+2	
Light Jungle	+2	PSR +1
Heavy Jungle	+3	PSR +2
Water Depth 1	+1	PSR -1
Water Depth 2	+3	PSR +0
Water Depth 3+	+3	PSR +1
Level Change 1	+1	
Level Change 2	+2	
Light Building	+1	PSR p. 67 / 166
Medium Building	+2	PSR p. 67 / 166
Heavy Building	+3	PSR p. 67 / 166
Hardened Building	+4	PSR p. 67 / 166

Additional Movement

Facing Change	+1/Hexside
Dropping to Prone	+1 [only if not jumped]
Standing Up	2/att. PSR +0
Lateral Shift [Quads]	+1

Terrain Modifications

Ice	+1	PSR +3 [to all PSRs]
Mud/D.Snow/Swamp	+1	PSR +1 [to all PSRs]

Weather Conditions

Light Fog	+1
Heavy Fog	+2
Full Moon Night	+1 [unless active searchlight]
Moonless Night	+2 [unless active searchlight]

////// PILOTING SKILL ROLL ////

Damage to Mech

20+ Points of Damage	+1
Involuntary Fusion Reactor Shutdown	+3
Leg/Foot Actuator Destroyed	+1
Leg Destroyed	Fall! Seat Belt +5
Hip Actuator Destroyed	+2
Gyro Hit	+3
Gyro Destroyed	Fall! Seat Belt +6

Physical Attacks Against Mech

Kicked or Pushed	+0
Successfully Charged / DFA	+2

Mech Actions

Missed Kick	+0
Successful Charge	+0
Successful DFA	+4
Stand Up Attempt	+0
Entered Water Depth 1	-1
Entered Water Depth 2	+0
Entered Water Depth 3+	+1
Entered Sand Hex	+1
Entered Light Jungle Hex	+1
Entered Heavy Jungle Hex	+2
Entered Rubble Hex	+0
Running + Facing Change on Pavem.	p. 68 / 62
Jumped with damaged gyro, leg, foot or hip actuators or destroyed leg	see pre ex. dmg
Ran with damaged gyro or hip	see pre ex. dmg

Terrain Modifications

Ice	+3 [to all PSRs]
Mud/Deep Snow/Swamp	+1 [to all PSRs]

Skidding Movement

Hexes moved: 0-2	-1
3-4	+0
5-7	+1
8-10	+2
11-17	+4
18-24	+5
25+	+6

Building Movement

Entering Light Building Hex	+0
Entering Medium Building Hex	+1
Entering Heavy Building Hex	+2
Entering Hardened Building Hex	+5
Hexes moved: 1-2	+0
3-4	+1
5-6	+2
7-9	+3
10-17	+4
18-24	+5
25+	+6

Special Cases

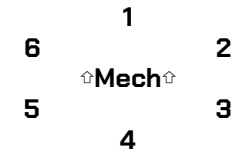
Seat Belt Check when Falling	+1/per level >1
Quad Mech with all Legs	-2
Unintentional Charge	+3
Mech mounts AES in its Legs	-2
Mech mounts Hardened Armor	+1
Mech mounts small or torso-mounted Cockpit	+1

Pre Existing Damage

Per Leg/Foot Actuator prev. Destroyed	+1
Per Hip Actuator prev. Destroyed	+2
Gyro prev. Hit	+3
Leg prev. Destroyed	+5

////// FACING AFTER FALL ////

	New Facing	Hit Location
1	Same Direction	Front
2	1 Hex Side Right	Right Side
3	2 Hex Sides Right	Right Side
4	Opposite Direction	Rear
5	2 Hex Sides Left	Left Side
6	1 Hex Side Left	Left Side



////// HEAT POINTS ////

Activity	Heat Points
Walking	+1 per Turn
Running	+2 per Turn
Jumping	+1 per Hex [min. 3 per Turn]
Stand Up Attempt	+1 per Attempt
Weapons Fire	see Tables [p. 120+ / 303+]
Equipment	see Tables [p. 120+ / 303+]
Heat Sink	-1 per Heat Sink
	-2 per Double Heat Sink
	Double if underwater
	[max. 6 points]
First Engine Hit	+5
Second Engine Hit	+10 [total]
Stealth Armor Active	+10

////// PROCEDURES ////

Run MP Calculation

Run MP = Walk MP x 1.5 (round up)

E.g.:

Walk	Run
1	2
2	3
3	5
4	6
5	8
6	9
7	11

Line of Sight (p. 22 / 100)

- Terrain along the LOS between two units intervenes if:
- The level of the terrain or feature is equal to or higher than the level of both units or ...
 - The terrain or feature is adjacent to the attacker and equal to or higher than the attacker's level or ...
 - The terrain or feature is adjacent to the target and equal to or higher than the target's level.

Partial Cover

Partial cover is negated when the attacker's level is higher than the target's level.
Partial cover from water is not negated by this however.

Under Water

The water surface always provides partial cover.
A fully submerged target can only be attacked with submerged weapons, e.g. by underwater leg weapons or if the attacker is also fully submerged.

Attacking

1. Declare all Attacks (per initiative)
2. Resolve each Attack
 - a. Calculate GATO for base value
 - b. Roll GATO+R for each weapon
 - c. Roll Hit Locations & Apply Damage
 - d. Mark Ammo
3. Declare all Physical Attacks (per initiative)
4. Resolve each Physical Attack
 - a. Calculate & Roll PATOR
 - b. Roll Hit Location & Apply Damage
5. Mark Heat

Flipping Arms (p. 24 / 106)

Mechs without any Lower Arm Actuators and Hand Actuators may flip both their arms.

Indirect Fire (p. 30 / 111)

Spotter cannot do a Charge or DFA.

Indirect Attack Modifiers:

- Attacker and Target Movement
- + Spotter Movement
- + Terrain Modifiers and Partial Cover between Spotter and Target
- + 1 for Indirect Fire
- + Range between Attacker and Target
- + 1 if Spotter also attacks (also add +1 to Spotter's GATOR)

Damage Calculation

Fall: (Weight / 10*) x (Levels + 1)

Punch: Weight / 10*

Kick/Club: Weight / 5*

Charge: (Att. Weight/10) x Hexes moved (excl. Tgt. Hex)
-> Attacker Damage: Target Weight / 10

Ammo Explosion:

- Pilot: 2 Damage
- Mech: Shots x Damage Value
or Missiles x Shots x Damage Value

Head: Always 1 Damage to Pilot

Damage Groups

SRM: 2 Damage/Group (1 missile = 1 group)

LRM: 5 Damage/Group

AC LB-X: 1 Damage/Group

Charge: 5 Damage/Group

DFA: 5 Damage/Group

Fall: 5 Damage/Group

Kick: All damage to one location

Punch: Each arm's damage to one location

Comparative Modifier

Attacker Piloting Skill - Target Piloting Skill

Falling

1. Fall PSR
2. Seat Belt Check PSR (w/ same modifiers as 1.)
 - a. Fail: 1 Pilot Hit & Consciousness Check
3. Roll Facing & Hit Location
4. Damage: (Weight / 10*) x (Levels + 1)

Standing Up

1. Declare Walk or Run
2. Spend 2 MP
3. Add 1 Heat (plus heat from movement)
4. PSR (no modifiers)
 - a. Fail: Roll a new fall (and try again)
 - b. Success: May continue Movement

Forced Withdrawal & Crippling Damage (p. 81 / 258)

A unit must withdraw off its map edge, if one or more of the following conditions occur:

- 4+ Pilot damage
- All Sensor critical slots destroyed
- 1 Gyro and 1 Engine critical hit
- 2 Engine critical hits
- 1 side Torso location destroyed
- Internal damage in 3 Limbs
- Internal damage in 2 Torso locations (front armor must be destroyed too)
- Loss of all Weapons
- ... with range >5
- ... with <6 points of combined dmg remaining

* round down

Charge Attacks (p. 35 / 148)

1. Declare in Movement Phase
 - a. Spend walk or run MP
 - b. Stop adjacent to Target
2. No Weapon Attacks
3. If not interrupted in Weapon Attack Phase, resolve charge in Physical Attack Phase:
 - a. Base Target Number: Comparative Mod.
 - b. Target Dmg: (Weight / 10) x Hexes moved
5 Damage/Group
 - c. Attacker Dmg: (Target Weight / 10)
5 Damage/Group
 - d. Attacker moves into Target Hex and displaces Target by 1 Hex
 - e. Both roll PSR +2

Push Attacks (p. 40 / 147)

1. Base Target Number: Piloting -1
2. Attacker must use both arms (arms cannot fire)
3. On success, Target is displaced and Attacker moves into Hex
4. Target Fall PSR

Death From Above (DFA, p. 36 / 149)

1. Declare in Movement Phase
 - a. Spend Jump MP
 - b. Stop adjacent to Target
 - c. LOS Level: 2 levels above Target
2. No Weapon Attacks
3. If not interrupted in Weapon Attack Phase, resolve the DFA in Physical Attack Phase:
 - a. Base Target Number: Comparative Mod.
 - b. Target Damage: (Weight / 10) x 3*
5 Damage/Group in Punch Loc.
... or Rear Hit Loc. if prone
 - c. Attacker Damage: (Weight / 5)
5 Damage/Group in Front Kick Loc.
 - d. Attacker moves into Target Hex and displaces Target by 1 Hex
 - e. Attacker Fall PSR +4
 - f. Target Fall PSR +2

Mech Displacement (p. 55 / 151)

Follow the rules of the action causing the displacement if displaced into an empty hex of same level, -1, +1 or +2.

Domino effect if displaced into an occupied hex of same level, -1, +1 or +2. If the target Mech fails its PSR, it is also displaced and falls into the adjacent hex. If the PSR succeeds, it may dodge one hex forward or backward (if it didn't run before) if:

- mobile
- standing
- has enough MP left for the move
- did not jump
- the destination hex is unoccupied

Automatic fall if displaced into an empty hex of -2 levels.

Accidental fall from above if displaced into an occupied hex of -2 levels [p. 57 / 152].

Mech Weight Classes (p. x / 21)

Light: 20 - 35t
Medium: 40 - 55t
Heavy: 60 - 75t
Assault: 80 - 100t

BattleTech Eras

2398 Age of War
2571 Star League
2781 Early Succession War
2901 Late Succession War - LosTech
3020 Late Succession War - Renaissance
3050 Clan Invasion
3062 Civil War
3068 Jihad
3081 Early Republic
3101 Late Republic
3131 Dark Age
3151 ilClan

Critical Hit Effects (p. 47 / 125)

Ammo: Apply damage to int. structure. Pilot +2 Damage.

Cockpit: Pilot dead. Mech destroyed.

Engine: +5 heat/hit. 3 hits = Mech destroyed.

Foot Act.: PSR +1. Walking MP -1. PSR after jump. Kick +1.

Gyro: PSR +3. Seat Belt Check +6.
PSR after run or jump.
2 hits = auto fall & stay prone.

Hand Act.: Punch +1. No Phys. Weapon or Club attacks.

Hip: PSR +2 (overrides other foot/leg crits in leg).
PSR after run or jump.
Walking MP halved.
No Kick attacks.
Both hips destroyed: Movement MP = 0.

Life Support: Pilot +1 damage if heat 15-25.
Pilot +2 damage if heat 26+.
Pilot +1 damage if Mech submerged.

Lo. Arm Act.: Firing +2.
Punch, Phys. Weapon, Club +2.
Punch damage halved.

Lo. Leg Act.: PSR +1.
Walking MP -1.
PSR after jump.
Kick +2 and damage halved.

Sensors: Weapon att. +2. 2 hits = No more Weapon att.

Shoulder: Weapon att. +4 (overrides other crits)
Push +2.
No more Punch, Phys. Weapon, Club att.

Up. Arm Act.: Firing +1.
Punch, Phys. Weapon, Club +2.
Punch damage halved.

Up. Leg Act.: PSR +1.
Walking MP -1.
PSR after jump.
Kick +2 and damage halved.