

## 4 Gunspec.txt Command Syntax

This section contains a complete list of all gunspec.txt script commands (known as gunspec commands from herein), their operating ranges and an example of how the command is used.

Gunspec commands are defined within the file by typing the command name followed by "=" and the value (or values) as shown in the examples. If you wish to add comments or comment out a comment so that it is ignored by FPSC, simply add ";" to the front of the line.

Commands that are prefixed with "(alt)" imply that the command can be used to define the alternative firing mode of the weapon. For example `reloadqty=X` defines the number of rounds per clip for normal firing and `altreloadqty=X` defines the number of rounds per clip for alternative firing. Examples are provided for both definitions.

### 4.1 Commands

Unlike FPI scripts, gunspec.txt files are only read once during the initial loading of the game or level and only consist of action-like commands that define the entity's properties. If the gunspec command is not contained within the gunspec.txt file, the parameters is either set to zero or a default value.

To aid the reader the gunspec commands are divided into the following sections:

- **Gun Settings:** commands relating the firing properties of the entity including alternative and zoomed firing properties,
- **Gun Visuals:** commands relating to the entity's visual aspects, such as positioning, decals, particles, but not muzzle flash,
- **Muzzle Flash:** commands relating to the entity's muzzle flash,
- **Normal Animation Frames:** commands relating to the entity's normal animation,
- **Empty Animation Frames:** commands relating to the entity's animation when empty,
- **Zoom Animation Frames:** commands relating to the entity's animation when zoomed,
- **Melee Animation Frames:** commands relating to the entity's melee animation,
- **Gun Sounds:** commands relating to the entity's sound.

### 4.1.1 Gun Settings

The following commands are related to the firing properties of the weapon, such as accuracy, damage etc. Commands prefixed with (alt) imply that the command is also applicable to the weapon's alternative firing mode.

#### 4.1.1.1 (ALT)ACCURACY=X

**Description:** This defines the accuracy of the gun's bullets.

**Range:** X = 0 and above with zero being the most accurate.

**Example:** `accuracy = 50`  
`altaccuracy = 10`

#### 4.1.1.2 ADDTOSPARE=X

**Description:** This defines whether collected ammo is added directly into the clip or not if the weapon is empty.

**Range:** X = 1 - Adds to spare ammo if weapon is empty.  
X = 0 - Adds to clip ammo is empty (default).

**Example:** `addtospare = 1`

#### 4.1.1.3 ALTERNATEISFLAK=X

**Description:** This defines whether the weapon's alternative fire mode is a flak type.

**Range:** X = 1 - alternative fire mode is a flak type.  
X = 0 - alternative fire mode is not a flak type (default).

**Example:** `alternateisflak = 1`

#### 4.1.1.4 ALTERNATEISRAY=X

**Description:** This defines whether the weapon's alternative fire is a bullet (ray cast) type.

**Range:** X = 1 - alternative fire mode is a bullet type.  
X = 0 - alternative fire mode is not a bullet type (default).

**Example:** `alternateisray = 1`

#### 4.1.1.5 (ALT)AMMOMAX=X

**Description:** This gunspec parameter does not appear to do anything within the FPSC source code, it is added here for completeness.

**Range:** X = Any value .

**Example:** `ammomax = 9`  
`altammomax = 12`

**4.1.1.6 (ALT)BRASS=X**

**Description:** This defines what brass or used shell model will be projected from the gun in random directions when fired.

**Range:** X = Brass model number relating to the images below.

*Brass1**Brass2**Brass3*

**Example:** `brass = 1`  
`altbrass = 2`

**4.1.1.7 BULLETHIDEMOD=X**

**Description:** This defines whether the bullet hide system is used or not.

**Range:** X = 1 – uses bullet hide system – requires bulleth's limbs to be named correctly (i.e. "BULLET1"),  
 X = 0 – don't use bullet hide system (default)

**Example:** `bullethidmod = 1`

**4.1.1.8 BULLETHIDERESET=X**

**Description:** This defines the animation frame at which the bullets will all be scaled back to 100%.

**Range:** X = Frame number.

**Example:** `bullethidereset = 23`

**4.1.1.9 BULLETHIDESTART=X**

**Description:** This defines the amount of ammo spent before the bullet hide system operates.

**Range:** X = Any number.

**Example:** `bullethidestart = 6`

**4.1.1.10 BULLETIMBTOTAL=X**

**Description:** This defines the number of bullet limbs that the weapon has.

**Range:** X = Any number

**Example:** `bulletlimbtotal = 3`

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**4.1.1.11** (ALT)BURST=X

**Description:** this defines the number of rounds to fire in a single shot. This only works on automatic weapons.

**Range:** X = Any number.

**Example:** burst = 3  
altburst = 5

**4.1.1.12** (ALT)CHAMBEREDROUND=X

**Description:** If set to 1, the player will be able to reload the weapon if it is full in order to receive one extra round.

**Range:** X = 1 – chambered round accounted for,  
X = 0 – no chambered round bonus.

**Example:** chamberedround = 1  
altchamberedround = 0

**4.1.1.13** (ALT)DAMAGE=X

**Description:** The damage that the bullets cause.

**Range:** X = Any number.

**Example:** damage = 50  
altdamage = 150

**4.1.1.14** (ALT)DAMAGETYPE=X

**Description:** This defines the type of damage the bullets or weapon delivers.

**Range:** X = 0 – explosion (used for grenades),  
X = 1 – piece/single shot,  
X = 2 – shotgun/spread shot (increased damage with this type).

**Example:** damagetype = 1  
altdamagetype = 2

**4.1.1.15** (ALT)DISABLEMOVESPEEDMOD=X

**Description:** If set to 1, this disables the animation speed change applied to the move animation while walking/running/crouching.

**Range:** X = 1 – disables animation speed change,  
X = 0 – enables animation speed change (default).

**Example:** disablemovespeedmod = 1  
altdisablemovespeed = 0

**4.1.1.16** (ALT)DISABLERUNANDSHOOT=X

**Description:** If set to 1, this disables the ability for the player to shoot while running.

**Range:** X = 1 – disables shooting while running,  
X = 2 – enables shooting while running (default).

**Example:** `disablerunandshoot = 1`  
`altdisablerunandshoot = 0`

**4.1.1.17** (ALT)EQUIPMENT=X

**Description:** This defines the gun as a non-lethal equipment, rather than a weapon. Use this command when creating tools or other items that do no harm.

**Range:** X = 0 – defines gun as weapon,  
X = 1 – defines gun as an equipment.

**Example:** `equipment = 0`  
`altequipment = 1`

**4.1.1.18** (ALT)FIRERATE=X

**Description:** Sets the number of loops between shots on automatic weapons to X divided by 2. The default fire rate is 12.

**Range:** X = Any value.

**Example:** `firerate = 6`  
`altfirerate = 24`

**4.1.1.19** (ALT)ITERATE=X

**Description:** The number of bullets that should be shot in one firing.

**Range:** X = Any value.

**Example:** `iterate = 5`  
`altiterate = 1`

**4.1.1.20** (ALT)MELEE DAMAGE=X

**Description:** This defines the amount of damage the melee attack does. Setting X between 100 and 120 is recommended for a powerful strike.

**Range:** X = any value.

**Example:** `melee damage = 20`  
`altmelee damage = 110`

**4.1.1.21** *MELEE KEY=X***Description:** This defines what key code activates the melee attack.**Range:** X = any Key code number.

ESCAPE 1	F1 59	F2 60	F3 61	F4 62	F5 63	F6 64	F7 65	F8 66	F9 67	F10 68	F11 69	F12 70		PRSCRN	SCROLL 70	PAUSE	NUM 69	/	^	-
	1	2	3	4	5	6	7	8	9	0	-	+	BACKSP 14	INSERT 210	HOME 199	PAGEUP 201	7	8	9	
41	2	3	4	5	6	7	8	9	10	11	12	13		43	211	207	209	71	72	73
TAB 15	Q	W	E	R	T	Y	U	I	O	P	[	]		DELETE 211	END 207	PAGEDN 209	4	5	6	+
	16	17	18	19	20	21	22	23	24	25	26	27					75	76	77	
CAPSLOC 58	A	S	D	F	G	H	J	K	L	;	"	RETURN 28					1	2	3	78
	30	31	32	33	34	35	36	37	38	39	40						79	80	81	ENTER
L.SHIFT 42	Z	X	C	V	B	N	M	.	/	R.SHIFT 54					UP 200		0	.		
	44	45	46	47	48	49	50	51	52	53										
L.CTRL 29	L.WIN 219	L.ALT 56	SPACE 57					R.ALT 184	R.WIN 220	SPECIAL 221	R.CTRL 157	LEFT 203	DOWN 208	RIGHT 205			82	83	156	

**Example:** melee key = 45**4.1.1.22** *(ALT)MELEE RANGE=X***Description:** This defines the range at which the melee attack can cause damage in x units. Setting this value between 50 and 60 is recommended.**Range:** X = Any value in units.**Example:** melee range = 50

altmelee range = 60

**4.1.1.23** *(ALT)NOAUTORELOAD=X***Description:** This defines whether the gun will automatically reload when empty or not. Weapons auto reload by default.**Range:** X = 0 – Weapon automatically reloads when the clip is empty,

X = 1 – Weapon does not automatically reload.

**Example:** noautoreload = 1

altnoautoreload = 0

**4.1.1.24** *(ALT)NOFULLRELOAD=X***Description:** If set to 1, the player will not be able to reload when the weapon is full.

NOTE: If chambered round = 1, they will still be able to reload with full ammo to obtain 1 extra round. They will not be able to reload if they already have the additional round.

**Range:** X = 0 – player can reload weapon when clip is full,

X = 1 – player cannot reload weapon when clip is full.

**Example:** nofullreload = 0

altnofullreload = 1

**4.1.1.25** (ALT)POOLAMMO=FilePath

**Description:** This enables weapons using the same ammo type to share ammo between them. Sharing is done by providing the same ammo \*.fpe file for all the guns sharing that ammo.

**Range:** FilePath = The path to the ammo's \*.fpe file.

**Example:** poolammo = gamescore/guns/ammo.fpe  
altpoolammo = gamescore/guns/ammo.fpe

**4.1.1.26** (ALT)RANGE=X

**Description:** The range of the weapon's bullets. The default value is 1000 units.

**Range:** X = Any value in units.

**Example:** range = 2000  
altrange = 999999

**4.1.1.27** (ALT)RECOILX=X

**Description:** The amount of recoil on the vertical (or X) axis (randomly selects left or right).

**Range:** X = Any value.

**Example:** recoilx = 7  
altrecoilx = 12

**4.1.1.28** (ALT)RECOILXRETURN=X

**Description:** The percentage of the recoil that should be compensated for on the x axis (0 - 100).

**Range:** X = 0 to 100.

**Example:** recoilxreturn = 100  
altrecoilxreturn = 75

**4.1.1.29** (ALT)RECOILY=X

**Description:** The amount of recoil on the horizontal (or Y) axis.

**Range:** X = Any value.

**Example:** recoily = 7  
altrecoily = 12

**4.1.1.30** (ALT)RECOILYRETURN=X

**Description:** The percentage of the recoil that should be compensated for on the y axis (0 - 100).

**Range:** X = 0 to 100.

**Example:** recoilyreturn = 100  
altrecoilyreturn = 75

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**4.1.1.31** (ALT)RELOADQTY=X**Description:** This defines the number of rounds per clip.**Range:** X = Any value.**Example:** reloadqty = 9  
altreloadqty = 12**4.1.1.32** (ALT)RUNACC=X**Description:** This defines the accuracy of the weapon while running. The lower the number, the higher the accuracy.**Range:** X = 0 to 100.**Example:** runacc = 7  
altrunacc = 2**4.1.1.33** (ALT)SECOND=X**Description:** This gunspec parameter does not appear to do anything within the FPSC source code, it is added here for completeness.**4.1.1.34** (ALT)SIMPLEZOOMACC=X**Description:** This defines the accuracy of the weapon when in simple zoom, or ironsights. The lower the number, the higher the accuracy.**Range:** X = 0 to 100.**Example:** simplezoomacc = 1  
altsimplezoomacc = 10**4.1.1.35** SWITCHTOALT=X,Y**Description:** This defines the key codes needed to activate the alternative firing mode. A second key code can also be declared to allow key-combos (such as "ALT+F" to perform the switch. If the second key code is not declared, the first key code is used to switch between the firing modes. If nothing is declared, the default switch key is the number of the gun selected.**Range:** X = Any key code number.

Y = Any key code number (optional)

ESCAPE 1	F1 59	F2 60	F3 61	F4 62	F5 63	F6 64	F7 65	F8 66	F9 67	F10 68	F11 69	F12 70		PRSCRN 70	SCROLL 70	PAUSE 70	NUM 69	/ 181	* 55	- 74
	1	2	3	4	5	6	7	8	9	0	-	+	\	BACKSP 14	INSERT 210	HOME 199	PAGEUP 201	7	8	9
TAB 15	Q	W	E	R	T	Y	U	I	O	P	[	]		DELETE 211	END 207	PAGEDN 209	4	5	6	+
CAPSLOC 58	A	S	D	F	G	H	J	K	L	;	"	RETURN 28					1	2	3	78
L.SHIFT 42	Z	X	C	V	B	N	M	.	/			R.SHIFT 54					79	80	81	ENTER
															UP 200		0	.		
L.CTRL 29	L.WIN 219	L.ALT 56		SPACE 57		R.ALT 184	R.WIN 220	SPECIAL 221	R.CTRL 157	LEFT 203	DOWN 208	RIGHT 205					82	83		156

**Example:** switchtoalt = 49  
switchtoalt = 49,56[\[Return to contents page\]](#)



**4.1.1.36**      *WEAPONISAMMO=X*

**Description:** This defines the weapons as being its own ammo. Used for grenades.

**Range:** X = 1 – Sets the weapon as it's own ammo.

X = 0 – Set's the weapon to require ammo (default).

**Example:** `weaponisammo = 1`

**4.1.1.37**      *(ALT)ZOOMACCURACY=X*

**Description:** This defines how much the camera moves around when in zoomed mode. Setting X to zero means no movement.

**Range:** X = Any value.

**Example:** `zoomaccuracy = 50`

`altzoomaccuracy = 10`

**4.1.1.38**      *(ALT)ZOOMMODE=X*

**Description:** What does this do?

**Range:** X = ?.

**Example:** `zoommode = 1`

`altzoommode = ?`

**4.1.1.39**      *(ALT)ZOOMRECOILX=X*

**Description:** The amount of recoil on the X axis (randomly selects left or right).

**Range:** X = Any value.

**Example:** `zoomrecoilx = 7`

`altzoomrecoilx = 12`

**4.1.1.40**      *(ALT)ZOOMRECOILXRETURN=X*

**Description:** The percentage of the recoil that should be compensated for on the x axis (0 – 100).

**Range:** X = 0 to 100.

**Example:** `zoomrecoilxreturn = 100`

`altzoomrecoilxreturn = 75`

**4.1.1.41**      *(ALT)ZOOMRECOILY=X*

**Description:** The amount of recoil on the Y axis.

**Range:** X = Any value.

**Example:** `zoomrecoily = 7`

`altzoomrecoily = 12`

**4.1.1.42**      *(ALT)ZOOMRECOILYRETURN=X*

**Description:** The percentage of the recoil that should be compensated for on the y axis (0 – 100).

**Range:** X = 0 to 100.

**Example:** zoomrecoilyreturn = 100  
altzoomrecoilyreturn = 75

**4.1.1.43**      *(ALT)ZOOMTURNSPEED=X*

**Description:** The modifier for the player's looking speed while zoomed. Higher values mean the player will look around slower.

**Range:** X = Any value.

**Example:** zoomturnspeed = 5  
altzoomturnspeed = 10

**4.1.1.44**      *(ALT)ZOOMWALKSPEED=X*

**Description:** The modifier for the player's walk speed while zoomed. Higher values mean the player will move slower.

**Range:** X = Any value.

**Example:** zoomwalkspeed = 20  
altzoomwalkspeed = 40

### 4.1.2 Gun Visuals

The following commands are related to how the weapon looks and appears on screen, such as shader effects, textures, etc. Commands prefixed with (alt) imply that the command is also applicable to the weapon's alternative firing mode.

#### 4.1.2.1 (ALT)DECAL=DecalName

**Description:** What does this do?.

**Range:** X = ?.

**Example:** `decal = shockwavered`  
`altdecal = x`

#### 4.1.2.2 EFFECT=FilePath

**Description:** Defines the file path to the effect file to be applied to the weapon.

**Range:** FilePath = Path to effect file.

**Example:** `effect =`  
`effectbank\phong_bump_specular\phong_bump_specular.fx`

#### 4.1.2.3 (ALT)FLAK=Name

**Description:** This defines the flak to use. Note: The alternative fire is the same as the normal fire and is only provided for compatibility with Stock FPSC at this time. Additional info needed.

**Range:** Name = Flak name.

**Example:** `flak = example`  
`altflak = example`

#### 4.1.2.4 (ALT)FORCEZOOMOUT=X

**Description:** If X is 1 then forces zoom out on reload for scoped weapons.

**Range:** X = 0 – remains zoomed in during reloading,  
X = 1 – forces zoom out during reloading.

**Example:** `forcezoomout = 0`  
`altforcezoomout = 1`

#### 4.1.2.5 (ALT)FORWARD=X

**Description:** This positions the gun towards or away from the camera/player. Negative values position the gun closer to the camera.

**Range:** X = Any value.

**Example:** `forward = 5`  
`altforward = -5`

#### 4.1.2.6 (ALT)GUNLAGSPEED=X

**Description:** The speed at which the gun should lag behind the camera movement. Higher values mean the gun moves slower and further.

**Range:** X = Any value.

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**Example:** `gunlagspeed = 7`  
`altgunlagspeed = 9`

#### 4.1.2.7 (ALT)GUNLAGXMAX=X

**Description:** The maximum amount the gun can lag behind on the X axis.

**Range:** X = Any value.

**Example:** `gunlagxmax = 8`  
`altgunlagxmax = 3`

#### 4.1.2.8 (ALT)GUNLAGYMAX=X

**Description:** The maximum amount the gun can lag behind on the Y axis.

**Range:** X = Any value.

**Example:** `gunlagymax = 8`  
`altgunlagymax = 3`

#### 4.1.2.9 (ALT)HORIZ=X

**Description:** This positions the gun left or right from the default position in relation to the camera/player. Negative values position the gun left.

**Range:** X = Any value.

**Example:** `horiz = -5`  
`althoriz = -10`

#### 4.1.2.10 (ALT)LOCKCAMERA=X

**Description:** What does this do?

**Range:** X = ?.

**Example:** `lockcamera = 0`  
`altlockcamera = 1`

#### 4.1.2.11 (ALT)MELEE NOSCORCH=X

**Description:** The sets the melee action not to leave bullet holes.

**Range:** X = 1 – Melee action does not leave bullet holes,  
X = 0 – Melee action leaves bullet holes.

**Example:** `melee noscorch = 1`  
`altmelee noscorch = 0`

#### 4.1.2.12 (ALT)NOSCORCH=X

**Description:** If set to 1, the weapon will not place a bullet hole on walls. Useful for melee weapons.

**Range:** X = 0 – will allow bullet hole to appear on walls and floor,  
X = 1 – will prevent bullet holes from appearing on walls and floor.

**Example:** `norscorch = 0`  
`altnoscorch = 1`

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**4.1.2.13** (ALT)PARTICLEDECAL=DecalName**Description:** What does this do?**Range:** X = ?.**Example:**

```
particledecal = x
altparticledecal = x
```

**4.1.2.14** (ALT)PARTICLESPEED=X**Description:** This defines the speed at which the particle animation is played.**Range:** X = Any value.**Example:**

```
particlespeed = 1
altparticlespeed = 5
```

**4.1.2.15** (ALT)ROTX=X**Description:** This defines the angle of the gun around the x-axis.**Range:** X = -360 to 360.**Example:**

```
rotx = 5
altrotx = -10
```

**4.1.2.16** (ALT)ROTY=X**Description:** This defines the angle of the gun around the y-axis.**Range:** X = -360 to 360.**Example:**

```
roty = 5
altroty = -10
```

**4.1.2.17** (ALT)ROTZ=X**Description:** This defines the angle of the gun around the z-axis.**Range:** X = -360 to 360.**Example:**

```
rotz = 5
altrotz = -10
```

**4.1.2.18** (ALT)RUNX=X**Description:** An X offset to use while running (holding shift and moving). NOTE: The weapon is smoothly transitioned to this position using SIMPLEZOOMSPEED.**Range:** X = Any value.**Example:**

```
runx = 10
altrunx = -7
```

**4.1.2.19** (ALT)RUNY=X**Description:** A Y offset to use while running (holding shift and moving). NOTE: The weapon is smoothly transitioned to this position using SIMPLEZOOMSPEED.**Range:** X = Any value.**Example:**

```
runy = 10
```

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altruny = -7

#### 4.1.2.20 (ALT)SCORCHTYPE=X

**Description:** What scorch types are there?.

**Range:** X = ?.

**Example:** scorchttype = 0  
altscorchttype = 3

#### 4.1.2.21 (ALT)SHOTGUN=X

**Description:** If X = 1 then performs shotgun style reloading. Uses reload start, reload loop, and reload end animations.

**Range:** X = 1 – weapon reloads like a shotgun,  
X = 0 – weapon reloads normally (default).

**Example:** shotgun = 0  
altshotgun = 1

#### 4.1.2.22 (ALT)SIMPLEZOOM=X

**Description:** Used for ironsights. X defines the amount that the player should zoom in when pressing right click.

**Range:** X = Any value.

**Example:** simplezoom = 3  
altsimplezoom = 1

#### 4.1.2.23 (ALT)SIMPLEZOOMMOD=X

**Description:** Used for ironsights. High values for X mean the weapon does not move backwards as much when the player zooms in. Negative values mean it moves forward. A value of zero means it does not move.

**Range:** X = Any value.

**Example:** simplezoommod = -1  
altsimplezoommod = 1

#### 4.1.2.24 (ALT)SIMPLEZOOMSPEED=X

**Description:** The speed at which the weapon is smoothed to the X/Y values. Higher values mean it goes slower/smoother.

**Range:** X = Any value.

**Example:** simplezoomspeed = 1  
altsimplezoomspeed = 3

#### 4.1.2.25 (ALT)SIMPLEZOOMX=X

**Description:** An X offset to use when in simple zoom. NOTE: The weapon is smoothly transitioned to this position using SIMPLEZOOMSPEED.

**Range:** X = Any value.

**Example:** simplezoomx = -7

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```
altsimplezoomx = 5
```

#### 4.1.2.26 (ALT)SIMPLEZOOMY=X

**Description:** A Y offset to use when in simple zoom. NOTE: The weapon is smoothly transitioned to this position using SIMPLEZOOMSPEED.

**Range:** X = Any value.

**Example:** `simplezoomy = -7`  
`altsimplezoomy = 5`

#### 4.1.2.27 (ALT)SMOKE=X

**Description:** This defines the standard smoke decal that is used when the weapon is fired. If no smoke decal is defined, the default is set as smoke1.

**Range:** X = 1 or 2 relating to the image below.



Smoke1



Smoke2

**Example:** `smoke = 1`  
`altsmoke = 2`

#### 4.1.2.28 (ALT)SMOKEDECAL=DecalName

**Description:** This defines the smoke decal that is used when the weapon is fired and overrides the (alt)smoke command.

**Range:** DecalName = the file path to the decal to be used when the weapon is fired.

**Example:** `smokedecal = filepath`  
`altsmokedecal = filepath`

#### 4.1.2.29 (ALT)SMOKESPEED=X

**Description:** This defines the speed at which the smoke is animated. The default value is 25.

**Range:** X = any value.

**Example:** `smokespeed = 12`  
`altsmokespeed = 30`

#### 4.1.2.30 TEXTURED=FilePath

**Description:** This defines the texture to apply to the gun model.

**Range:** X = Address of texture file to apply. Leave blank to use the model's default texture.

**Example:** `textured =filepath`

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**4.1.2.31**      *TRANSPARENCY=X*

**Description:** This defines the transparency of the gun. **Is 100 invisible?**

**Range:** X = **0 to 100**.

**Example:** transparency = ?

**4.1.2.32**      *(ALT)VERT=X*

**Description:** This positions the gun up or down from the default position in relation to the camera/player. Negative values position the gun down.

**Range:** X = Any value.

**Example:** vert = 5  
altvert = 10

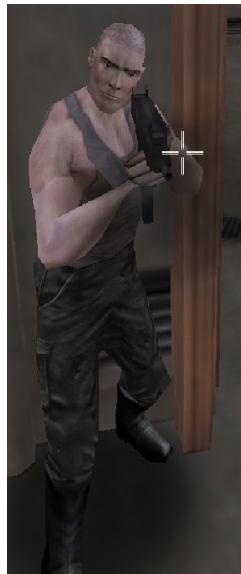
**4.1.2.33**      *WEAPONTYPE=X*

**Description:** This defines how the character holds the weapon and is limited to six variations as shown in the image below.

**Range:** X = 0 to 5 relating the image below.



*Weapontype=0  
(used for grenades)*



*Weapontype=1  
(used for pistols)*



*Weapontype=2  
(used for machine guns)*

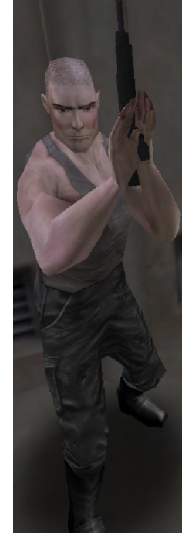




*Weapontype=3*  
(used for rifles)



*Weapontype=4*  
(used for miniguns)



*Weapontype=5*  
(used for bazzokas)

**Example:** `examplecode=x`

#### 4.1.2.34 (ALT)ZOOMGUNLAGSPEED=X

**Description:** This defines how much the gun model lags behind the player while moving in simple zoom.

**Range:** X = Any value.

**Example:** `zoomgunlagspeed = 5`  
`altzoomgunlagspeed = 10`

#### 4.1.2.35 (ALT)ZOOMGUNLAGXMAX=X

**Description:** The maximum amount the gun can lag behind on the X axis while moving in simple zoom.

**Range:** X = Any value.

**Example:** `zoomgunlagxmax = 8`  
`altzoomgunlagxmax = 3`

#### 4.1.2.36 (ALT)ZOOMGUNLAGYMAX=X

**Description:** The maximum amount the gun can lag behind on the Y axis while moving in simple zoom.

**Range:** X = Any value.

**Example:** `zoomgunlagymax = 8`  
`altzoomgunlagymax = 3`

#### 4.1.2.37 (ALT)ZOOMSCOPE=FileName

**Description:** This defines the full-screen HUD image to be used when in full scope zoom.

**Range:** X = Image file name (\*.bmp, \*.dds, \*.jpg, \*.png, \*.tga).

**Example:** `zoomscope = scope1.tga`

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```
altzoomscope = scope2.dds
```

### 4.1.3 Muzzle Flash

The following commands are related specifically to the muzzle flash of the weapon, such as its colour, the decal used, etc. Commands prefixed with (alt) imply that the command is also applicable to the weapon's alternative firing mode.

#### 4.1.3.1 (ALT)ALIGNX=X

**Description:** What axis is this aligning the muzzle flash?.

**Range:** X = ?.

**Example:** alignx = 16  
altalignx = 10

#### 4.1.3.2 (ALT)ALIGNY=X

**Description:** What axis is this aligning the muzzle flash?.

**Range:** X = ?.

**Example:** aligny = 16  
altaligny = 10

#### 4.1.3.3 (ALT)ALIGNZ=X

**Description:** What axis is this aligning the muzzle flash?.

**Range:** X = ?.

**Example:** alignz = 16  
altalignz = 10

#### 4.1.3.4 (ALT)MUZZLECOLORB=X

**Description:** This sets the amount of blue emitted from the muzzle flash spot light. If all three muzzle colour components (red, green and blue) are set to zero, the blue component will be set to 0.

**Range:** X = 2 to 255

**Example:** muzzlecolorb = 255  
altmuzzlecolorb = 125

#### 4.1.3.5 (ALT)MUZZLECOLORG=X

**Description:** This sets the amount of green emitted from the muzzle flash spot light. If all three muzzle colour components (red, green and blue) are set to zero, the green component will be set to 255.

**Range:** X = 2 to 255

**Example:** muzzlecolorg = 255  
altmuzzlecolorg = 125

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**4.1.3.6 (ALT)MUZZLECOLORR=X**

**Description:** This sets the amount of red emitted from the muzzle flash spot light. If all three muzzle colour components (red, green and blue) are set to zero, the red component will be set to 255.

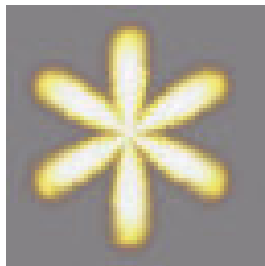
**Range:** X = 2 to 255

**Example:** `muzzlecolorr = 255`  
`altmuzzlecolorr = 125`

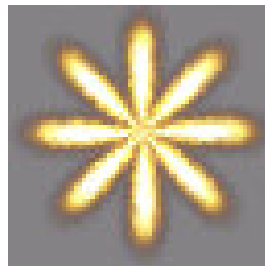
**4.1.3.7 (ALT)MUZZLEFLASH=X**

**Description:** The muzzleflash ID for alternate fire (like muzzleflash = X ).

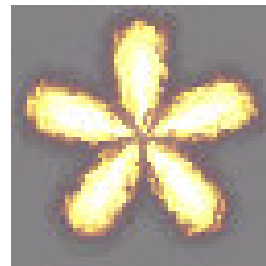
**Range:** X = 1 to 7 relating to the images below.



Muzzle1



Muzzle2



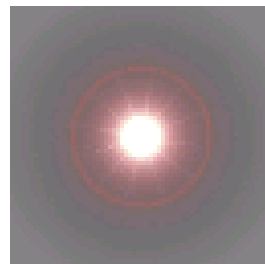
Muzzle3



Muzzle4



Muzzle5



Muzzle6



Muzzle7

**Example:** `muzzleflash = 6`  
`altmuzzleflash = 5`

**4.1.3.8 (ALT)MUZZLESIZE=X**

**Description:** This defines the size of the muzzle flash decal. **Is this a percentage?**

**Range:** X = ?.

**Example:** `muzzlesize = 440`  
`altmuzzlesize = 220`

**4.1.3.9 (ALT)SIMPLEZOOMFLASH=X**

**Description:** If set to 1 the muzzleflash will use the zoom alignment coordinates.

**Range:** X = 0 – the muzzleflash will not use the zoom alignment coordinates,  
 X = 1 – the muzzleflash will use the zoom alignment coordinates.

**Example:** `simplezoomflash = 1`

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```
altsimplezoomflash = 0
```

#### 4.1.3.10 (ALT)ZOOMALIGNX=X

**Description:** Description. Is this the simple zoom alignment mentioned above?

**Range:** X = ?.

**Example:** zoomalignx = 10  
altzoomalignx = -7

#### 4.1.3.11 (ALT)ZOOMALIGNY=X

**Description:** Description. Is this the simple zoom alignment mentioned above?

**Range:** X = ?.

**Example:** zoomaligny = 10  
altzoomaligny = -7

#### 4.1.3.12 (ALT)ZOOMALIGNZ=X

**Description:** Description. Is this the simple zoom alignment mentioned above?

**Range:** X = ?.

**Example:** zoomalignz = 10  
altzoomalignz = -7

### 4.1.4 Normal Animation Frames

The following commands are related to the normal animation of the weapon, such as firing, reloading, etc. Commands prefixed with (alt) imply that the command is also applicable to the weapon's alternative firing mode.

#### 4.1.4.1 ALTFROM=StartFrame,EndFrame or ALT FROM= StartFrame,EndFrame

**Description:** Description. From what?

**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.

**Example:** altfrom = 16,35  
alt from = 76,80

#### 4.1.4.2 ALTTO=StartFrame,EndFrame or ALT TO=StartFrame,EndFrame

**Description:** Description. To what?

**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.

**Example:** altto = 16,35  
alt to = 76,80

#### 4.1.4.3 (ALT)AUTOMATIC FIRE=StartFrame,EndFrame

**Description:** this defines the animation frames when the gun is automatically firing.

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**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.

**Example:** autmoaticfire = 16,35  
altautomaticfire= 76,80

#### 4.1.4.4 (ALT)COCK=StartFrame,EndFrame

**Description:** This defines the animation frames for when the gun is being cocked. If no cock animation frames are provided, the gun will use the reload animation frames.

**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.

**Example:** cock = 16,35  
altcock = 76,80

#### 4.1.4.5 (ALT)END FIRE=StartFrame,EndFrame or (ALT)END FIRE 2=StartFrame,EndFrame or (ALT)END FIRE 3=StartFrame,EndFrame

**Description:** This defines the animation frames for when the weapon has finished firing.

**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.

**Example:** end fire = 16,35  
altend fire 2= 76,80

#### 4.1.4.6 (ALT)END RELOAD=StartFrame,EndFrame

**Description:** This defines the animation frames for when the weapon has finished reloading.

**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.

**Example:** end reload = 16,35  
altend reload = 76,80

#### 4.1.4.7 (ALT)FIRE=StartFrame,EndFrame

**Description:** This defines the animation frames for when the weapon is firing.

**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.

**Example:** fire = 16,35  
altfire = 76,80

#### 4.1.4.8 (ALT)IDLE=StartFrame,EndFrame

**Description:** This defines the animation frames for when the weapon is idle.

**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.

**Example:** idle = 16,35  
altidle = 76,80

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**4.1.4.9** (ALT)KEYFRAME RATIO=X**Description:** What is this?.**Range:** X = ?.**Example:** keyframe ratio = 16,35

altkeyframe ratio = 76,80

**4.1.4.10** (ALT)MOVE=StartFrame,EndFrame**Description:** This defines the animation frames for when the player is walking.**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.**Example:** move = 16,35

altmove = 76,80

**4.1.4.11** (ALT)PUTAWAY=StartFrame,EndFrame**Description:** This defines the animation frames for when the weapon is put away or hidden.**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.**Example:** putaway = 16,35

altputaway = 76,80

**4.1.4.12** (ALT)RELOAD=StartFrame,EndFrame**Description:** This defines the animation frames for when the weapon is reloading.**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.**Example:** reload = 16,35

altreload = 76,80

**4.1.4.13** (ALT)RELOAD LOOP=StartFrame,EndFrame**Description:** This defines the animation frames for the weapon's reloading loop.**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.**Example:** reload loop= 16,35

altreload loop= 76,80

**4.1.4.14** (ALT)RUN=StartFrame,EndFrame**Description:** This defines the animation frames for when the player is running. If no run animation frames are provided, the gun will use the move animation frames**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.**Example:** run = 16,35

altrun = 76,80

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**4.1.4.15**      *(ALT)SELECT=StartFrame,EndFrame*

**Description:** This defines the animation frames for when the player selects the weapon.

**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.

**Example:** `select = 16,35`  
               `altselect = 76,80`

**4.1.4.16**      *(ALT)SIMPLEZOOMANIM=X*

**Description:** If set to 1 the weapon will use the zoom animation set when in simple zoom.

**Range:** X = 0 – Zoom animations are not used when zoomed,  
           X = 1 – Zoom animations are used when zoomed.

**Example:** `simplezoomanim = 1`  
               `alt simplezoomanim = 0`

**4.1.4.17**      *(ALT)START FIRE=StartFrame,EndFrame or (ALT)START FIRE 2=StartFrame,EndFrame or (ALT)START FIRE 3=StartFrame,EndFrame*

**Description:** This defines the animation frames for when the player is firing the weapon. Up to three start fire animations can be defined for normal and alternative fire modes. The engine randomly picks which fire animation to use.

**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.

**Example:** `start fire = 16,35`  
               `altstart fire 3 = 76,80`

**4.1.4.18**      *(ALT)START RELOAD=StartFrame,EndFrame*

**Description:** This defines the animation frames for when the player is reloading the weapon.

**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.

**Example:** `start reload = 16,35`  
               `altstart reload = 76,80`

**4.1.4.19**      *(ALT)USE=StartFrame,EndFrame*

**Description:** This defines the animation frames for when the player is using the weapon (when it is defined as an equipment).

**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.

**Example:** `use = 16,35`  
               `altuse = 76,80`

#### 4.1.5 Empty Animation Frames

The following commands are related to the empty animation of the weapon, such as moving, reloading, etc. Commands prefixed with (alt) imply that the command is also applicable to the weapon's alternative firing mode.

##### 4.1.5.1 (ALT)EMPTY COCK=StartFrame,EndFrame

**Description:** This defines the animation frames for when the gun is being cocked and it has no ammo. If no empty cock animation frames are provided, the gun will use the normal cock animation frames

**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.

**Example:** empty cock = 16,35  
altempty cock = 76,80

##### 4.1.5.2 (ALT)EMPTY END RELOAD=StartFrame,EndFrame

**Description:** This defines the end animation frames for when the gun is being reloaded and it has no ammo. If no empty end reload animation frames are provided, the gun will use the normal end reload animation frames

**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.

**Example:** empty end reload = 16,35  
altempty end reload = 76,80

##### 4.1.5.3 (ALT)EMPTY IDLE=StartFrame,EndFrame

**Description:** This defines the animation frames for when the gun is idle and it has no ammo. If no empty idle animation frames are provided, the gun will use the normal idle animation frames

**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.

**Example:** empty idle = 16,35  
altempty idle = 76,80

##### 4.1.5.4 (ALT)EMPTY MOVE=StartFrame,EndFrame

**Description:** This defines the animation frames for when the player is walking with the gun and the gun has no ammo. If no empty move animation frames are provided, the gun will use the normal move animation frames

**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.

**Example:** empty move = 16,35  
altempty move = 76,80



**4.1.5.5 (ALT)EMPTY PUTAWAY=StartFrame,EndFrame**

**Description:** This defines the animation frames for when the gun is being hidden or put away and it has no ammo. If no empty put away animation frames are provided, the gun will use the normal put away animation frames

**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.

**Example:** empty putaway = 16,35  
altempty putaway = 76,80

**4.1.5.6 (ALT)EMPTY RELOAD=StartFrame,EndFrame**

**Description:** This defines the animation frames for when the gun is being reloaded and it has no ammo.

**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.

**Example:** empty reload = 16,35  
altempty reload = 76,80

**4.1.5.7 (ALT)EMPTY RELOAD LOOP=StartFrame,EndFrame**

**Description:** This defines the animation frames for the reload loop when the gun has no ammo. If no empty reload loop animation frames are provided, the gun will use the normal reload loop animation frames

**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.

**Example:** empty reload loop = 16,35  
altempty reload loop = 76,80

**4.1.5.8 (ALT)EMPTY RUN=StartFrame,EndFrame**

**Description:** This defines the animation frames for when the player is running with the gun and it has no ammo. If no empty run animation frames are provided, the gun will use the empty move animation frames

**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.

**Example:** empty run = 16,35  
altempty run = 76,80

**4.1.5.9 (ALT)EMPTY SELECT=StartFrame,EndFrame**

**Description:** This defines the animation frames for when the gun is being selected and it has no ammo.

**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.

**Example:** empty select = 16,35  
altempty select = 76,80

**4.1.5.10**     *(ALT)EMPTY SHOTGUN=X***Description:** What does this do?.**Range:** X = ?.**Example:** empty shotgun = 1  
              altempty shotgun = 0**4.1.5.11**     *(ALT)EMPTY START RELOAD=StartFrame,EndFrame***Description:** This defines the start animation frames for when the gun is being reloaded and it has no ammo. If no empty start reload animation frames are provided, the gun will use the normal start reload animation frames**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.**Example:** empty start reload = 16,35  
              altempty start reload = 76,80**4.1.5.12**     *(ALT)USEEMPTY=X***Description:** What is this?.**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.**Example:** useempty = 0  
              altuseempty = 1

#### 4.1.6 Zoom Animations

The following commands are related to the zoomed animation of the weapon, such as firing, moving, etc. Commands prefixed with (alt) imply that the command is also applicable to the weapon's alternative firing mode.

##### 4.1.6.1 (ALT)ZOOM AUTOMATIC FIRE=StartFrame,EndFrame

**Description:** This defines the animation frames for when the gun is being automatically fired and it is in zoom mode.

**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.

**Example:** zoom automatic fire = 16,35  
altzoom automatic fire = 76,80

##### 4.1.6.2 (ALT)ZOOM END FIRE=StartFrame,EndFrame

**Description:** This defines the end animation frames for when the gun is being fired and it is in zoom mode.

**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.

**Example:** zoom end fire = 16,35  
altzoom end fire = 76,80

##### 4.1.6.3 (ALT)ZOOM IDLE=StartFrame,EndFrame

**Description:** This defines the animation frames for when the gun is idle and it is in zoom mode.

**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.

**Example:** zoom idle = 16,35  
altzoom idle = 76,80

##### 4.1.6.4 (ALT)ZOOM MOVE=StartFrame,EndFrame

**Description:** This defines the animation frames for when the player is walking with the gun and it is in zoom mode.

**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.

**Example:** zoom move = 16,35  
altzoom move = 76,80

##### 4.1.6.5 (ALT)ZOOM START FIRE=StartFrame,EndFrame

**Description:** This defines the start animation frames for when the gun is being fired and it is in zoom mode.

**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.

**Example:** zoom start fire = 16,35  
altzoom start fire = 76,80

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**4.1.6.6 (ALT)ZOOMFROM=StartFrame,EndFrame****Description:** from what?.**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.**Example:** zoomfrom = 16,35

altzoomfrom = 76,80

**4.1.6.7 (ALT)ZOOMTO=StartFrame,EndFrame****Description:** to what?.**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.**Example:** zoomto = 16,35

altzoomto = 76,80

**4.1.7 Melee Animation Frames**

The following commands are related to the melee animation of the weapon, such as blocking, attacking, etc. Commands prefixed with (alt) imply that the command is also applicable to the weapon's alternative firing mode.

**4.1.7.1 BLOCK=StartFrame,EndFrame****Description:** This defines the animation frames for when the player is performing the block action whilst holding the gun.**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.**Example:** block = 16,35**4.1.7.2 (ALT)EMPTY MELEE END=StartFrame,EndFrame or (ALT)EMPTY MELEE END 2=StartFrame,EndFrame or (ALT)EMPTY MELEE END 3=StartFrame,EndFrame****Description:** This defines the end animation frames for when the player is performing the melee action whilst holding the gun and the gun has no ammo.**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.**Example:** empty melee end= 16,35

altempty melee end 3 = 76,80

**4.1.7.3 (ALT)EMPTY MELEE START=StartFrame,EndFrame or (ALT)EMPTY MELEE START 2=StartFrame,EndFrame or (ALT)EMPTY MELEE START 3=StartFrame,EndFrame****Description:** This defines the start animation frames for when the player is performing the melee action whilst holding the gun and the gun has no ammo.**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.**Example:** empty melee start= 16,35

altempty melee start 3 = 76,80

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**4.1.7.4** *(ALT)MELEE END=StartFrame,EndFrame or (ALT)MELEE END  
2=StartFrame,EndFrame or (ALT)MELEE END 3=StartFrame,EndFrame*

**Description:** This defines the end animation frames for when the player is performing the melee action whilst holding the gun.

**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.

**Example:** `melee end= 16,35`

`altmelee end 3 = 76,80`

**4.1.7.5** *(ALT)MELEE START=StartFrame,EndFrame or (ALT)MELEE START  
2=StartFrame,EndFrame or (ALT)MELEE START 3=StartFrame,EndFrame*

**Description:** This defines the start animation frames for when the player is performing the melee action whilst holding the gun..

**Range:** StartFrame, EndFrame = Any animation frame numbers. End frame must be equal or larger than StartFrame.

**Example:** `melee start= 16,35`

`altmelee start 3 = 76,80`

#### 4.1.8 Sound Frames

The following commands are related to the sound frames of the weapon. Commands prefixed with (alt) imply that the command is also applicable to the weapon's alternative firing mode.

**4.1.8.1** *ALTSOUND1=FileName or ALT SOUND1= FileName to ALTSOUND4= FileName or ALT SOUND4= FileName*

**Description:** This defines the sounds to be used by the gun when in alternative fire mode. If no sound fires are defined, the gun will use the nominal sounds.

**What to the numbers relate to?**

**Range:** FileName = \*.ogg, \*.wav (files must be placed in the gun's folder).

**Example:** `altsound1= 16`  
`alt sound4 = 76`

**4.1.8.2** *(ATL)FIRELOOP=X*

**Description:** **what is this?.**

**Range:** X = ?.

**Example:** `fireloop= 1000`  
`altfireloop = 500`

**4.1.8.3** *SOUND1= FileName to SOUND14= FileName*

**Description:** This defines the sounds to be used by the gun when in normal fire mode. **What do the numbers relate to?**

**Range:** X = ?.

**Example:** `sound1= 16`

**4.1.8.4** *SFRAME#=FrameNumber,SoundNumber*

**Description:** This defines the animation frame at which to play the sound file. The command must be preceded with the "soundframes" command in the guns spec file. The sfames must be numbered from "sframe0". **What to the sfames relate to?**

**Range:** FrameNumber = Any animation frame number,  
 SoundName = Any sound number.

**Example:** `sframe0 = 76,1`  
`sframe1 = 139,2`

**4.1.8.5** *SOUNDFRAMES=X*

**Description:** This defines how many sound frames are to be used. The command must be declared ahead of the "sframe#" commands to define the actual sound frames.

**Range:** X = Any number.

**Example:** `soundframes= 16`

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**4.1.8.6** (ALT)SOUNDSTRENGTH=X

**Description:** The percentage of sound the player's weapon will make in the AI system. A value of 0 means it will make no sound, while 100 would be normal.

**Range:** X = 0 to 100.

**Example:** soundstrength = 50  
altsoundstrength = 100