



COLT

5.56_{mm}

**MILITARY WEAPONS
SYSTEMS**

"AT FREEDOM'S SIDE SINCE 1836"

CAR-15 AND CMG-1 SPECIFICATIONS

**SECOND EDITION
MAY 1965**



**Colt Industries
Colt's Firearms Division**

Hartford, Conn. 06102, U.S.A.

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**COLT'S INC. FIREARMS DIVISION
COLT CAR-15 WEAPONS SYSTEM**

AR-15 (M-16) Rifle

1. Weapon:

2. Description and Purpose:

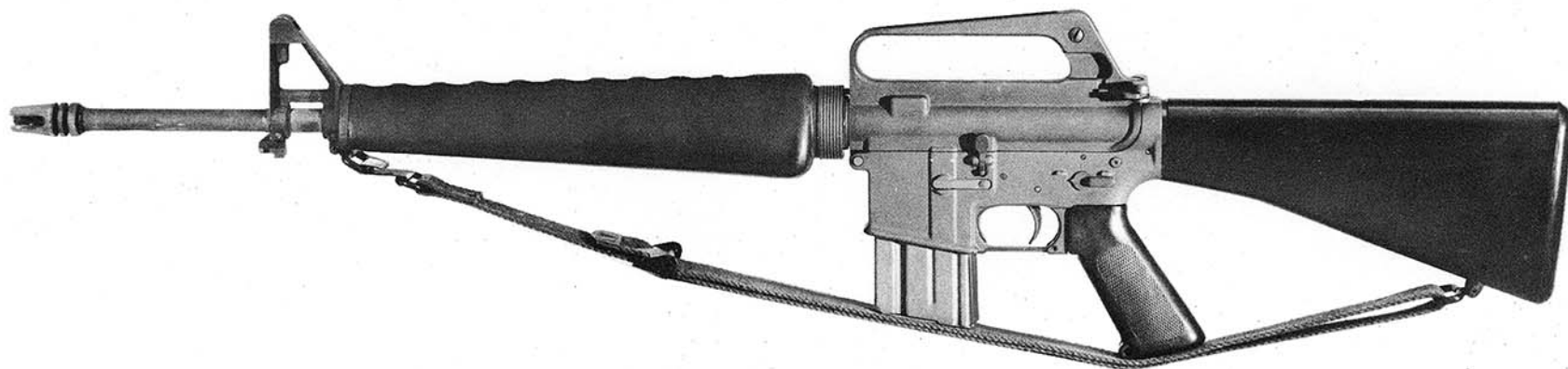
Gas operated, air cooled, magazine fed, semi-automatic or full automatic shoulder weapon. Feeds from a 20 round or 30 round aluminum magazine. Fires from a closed bolt. Designed for use as standard military rifle for all services.

3. Characteristics:

a. Caliber:	.223	5.56 mm.
b. Overall length:	38.6"	980 mm.
c. Barrel length:	20"	507 mm.
d. Width:	1.4"	36 mm.
e. Height (without magazine):	8.8"	223 mm.
f. Height (with 20 round magazine):	8.8"	223 mm.
g. Height (with 30 round magazine):	9.9"	251 mm.
h. Rifling: Button		
i. Pitch:	1 in 12	305 mm.
j. Number of Grooves: 6		
k. Weight (without magazine):	6.5 lbs.	2.94 kg
l. Weight of bipod:	.5 lbs.	.22 kg
m. Weight of 20 round magazine empty:	.18 lbs.	.08 kg
n. Weight of 20 round magazine full:	.75 lbs.	.34 kg
o. Weight of 30 round magazine empty:	.22 lbs.	.10 kg
p. Weight of 30 round magazine full:	.97 lbs.	.44 kg
q. Muzzle velocity:	3250 ft./sec.	990 m/s
r. Muzzle energy:	1285 ft. lbs.	178 m/kg
s. Rate of fire:	800-850 R. P. M.	
t. Safety:	Rotary - Blocks Trigger	

4. Unique Features:

Simple gas system, advanced locking system, straight line construction, light weight, and simplicity of maintenance.



AR-15 (M-16) Rifle

**COLT'S INC. FIREARMS DIVISION
COLT CAR-15 WEAPONS SYSTEM**

1. Weapon: **CAR-15 Carbine**

2. Description and Purpose:

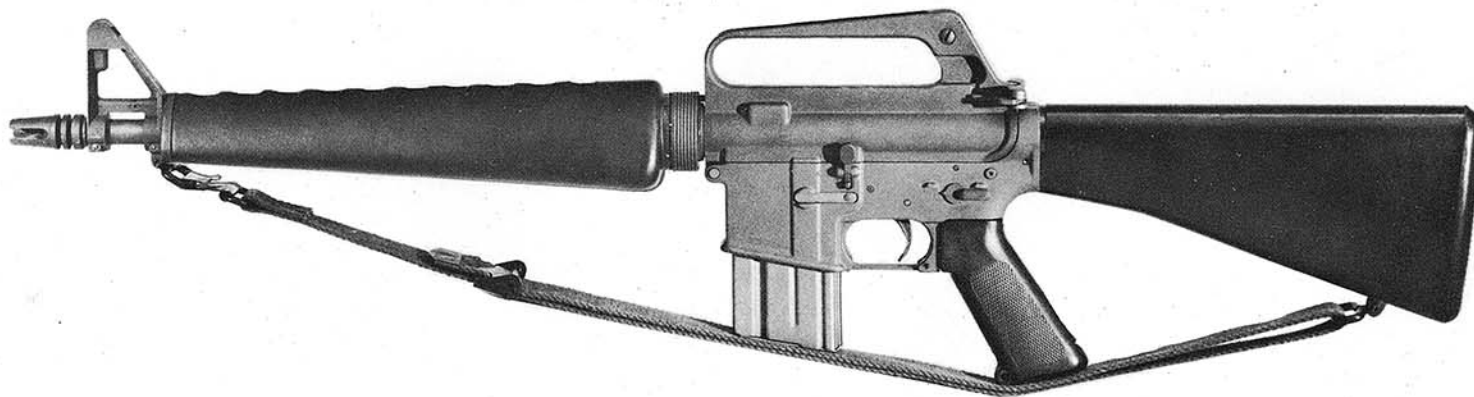
Gas operated, air cooled, magazine fed, semi-automatic or full automatic shoulder weapon. Feeds from a 20 round or 30 round aluminum magazine. Fires from a closed bolt. Designed for use by small unit leaders or special forces.

3. Characteristics:

a. Caliber:	.223	5.56 mm.
b. Overall length:	33.6"	854 mm.
c. Barrel length:	15"	381 mm.
d. Width:	1.4"	36 mm.
e. Height (without magazine):	8.8"	223 mm.
f. Height (with 20 round magazine):	8.8"	223 mm.
g. Height (with 30 round magazine):	9.9"	251 mm.
h. Rifling: Button		
i. Pitch:	1 in 12	305 mm.
j. Number of Grooves: 6		
k. Weight (without magazine):	6.0 lbs.	2.72 kg
l. Weight of Bipod:	.5 lbs.	.22 kg
m. Weight of 20 round magazine empty:	.18 lbs.	.08 kg
n. Weight of 20 round magazine full:	.75 lbs.	.34 kg
o. Weight of 30 round magazine empty:	.22 lbs.	.10 kg
p. Weight of 30 round magazine full:	.97 lbs.	.44 kg
q. Muzzle velocity:	3050 ft./sec.	930 m/s
r. Muzzle energy:	1136 ft. lbs.	152 m kg
s. Rate of fire:	800-850 R. P. M.	
t. Safety:	Rotary - Blocks Trigger	

4. Unique Features:

Simple gas system, advanced locking system, straight line construction, light weight, and simplicity of maintenance.



CAR-15 Carbine

**COLT'S INC. FIREARMS DIVISION
COLT CAR-15 WEAPONS SYSTEM**

1. Weapon:

CAR-15 Heavy Assault Rifle M1

2. Description and Purpose:

Gas operated, air cooled, magazine fed, semi-automatic or full automatic shoulder weapon. Feeds from a 20 round or 30 round aluminum magazine. Fires from a closed bolt. Designed for use as a squad heavy automatic rifle.

3. Characteristics:

a. Caliber:	.223	5.56 mm.
b. Overall length:	38.6"	980 mm.
c. Barrel length:	20"	507 mm.
d. Width:	1.4"	36 mm.
e. Height (without magazine):	8.8"	223 mm.
f. Height (with 20 round magazine):	8.8"	223 mm.
g. Height (with 30 round magazine):	9.9"	251 mm.
h. Rifling:	Button	
i. Pitch:	1 in 12	305 mm.
j. Number of Grooves:	6	
k. Weight (without magazine):	7.6 lbs.	3.44 kg
l. Weight of bipod:	.5 lbs.	.22 kg
m. Weight of 20 round magazine empty:	.18 lbs.	.08 kg
n. Weight of 20 round magazine full:	.75 lbs.	.34 kg
o. Weight of 30 round magazine empty:	.22 lbs.	.10 kg
p. Weight of 30 round magazine full:	.97 lbs.	.44 kg
q. Muzzle velocity:	3250 ft./sec.	990 m/s
r. Muzzle energy:	1285 ft. lbs.	178 m kg
s. Rate of fire:	800-850 R. P. M.	
t. Safety:	Rotary - Blocks Trigger	

4. Unique Features:

Simple gas system, advanced locking system, straight line construction, light weight, and simplicity of maintenance.
Heavy barrel allows sustained fire.



CAR-15 Heavy Assault Rifle M1

**COLT'S INC. FIREARMS DIVISION
COLT CAR-15 WEAPONS SYSTEM**

CAR-15 Heavy Assault Rifle M2

1. Weapon:

2. Description and Purpose:

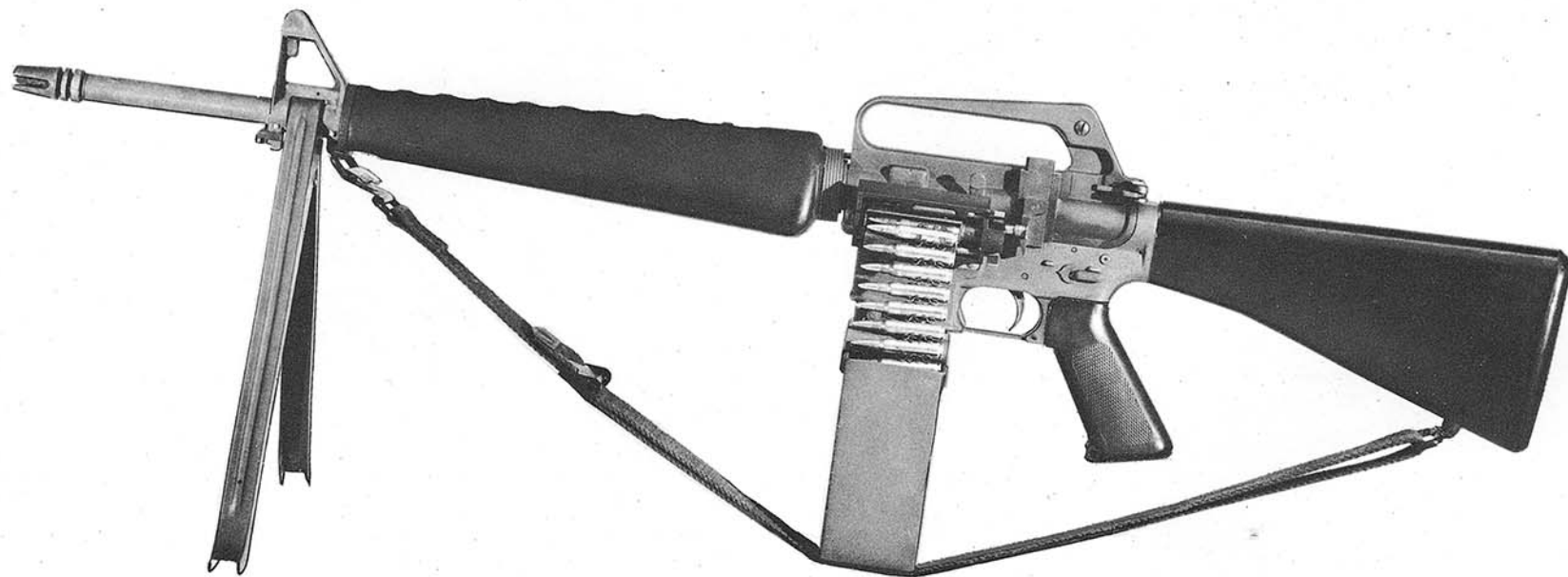
Gas operated, air cooled, magazine fed, semi-automatic or full automatic shoulder weapon. Feeds from a 20 round aluminum magazine, a 30 round aluminum magazine, or a disintegrating link belt. Designed for use as a squad heavy automatic rifle with magazine or link belt feed capabilities.

3. Characteristics:

a. Caliber:	.223	5.56 mm.
b. Overall length:	38.6"	980 mm.
c. Barrel length:	20"	507 mm.
d. Width (with standard magazine):	1.4"	36 mm.
e. Width (with belt feed magazine):	6.9"	175 mm.
f. Height (without magazine):	8.8"	223 mm.
g. Height (with 20 round magazine):	8.8"	223 mm.
h. Height (with 30 round magazine):	9.9"	251 mm.
i. Height (with belt feed magazine):	11.8"	300 mm.
j. Rifling:	Button	
k. Pitch:	1 in 12	305 mm.
l. Number of Grooves:	6	
m. Weight (without magazine):	8.3 lbs.	3.76 kg
n. Weight of bipod:	.5 lbs.	.22 kg
o. Weight of 120 round ammo box empty:	1.2 lbs.	.54 kg
p. Weight of 120 round ammo box full:	4.7 lbs.	2.13 kg
q. Weight of 30 round magazine empty:	.22 lbs.	.10 kg
r. Weight of 30 round magazine full:	.97 lbs.	.44 kg
s. Muzzle velocity:	3250 ft./sec.	990 m/s
t. Muzzle energy:	1285 ft. lbs.	178 m kg
u. Rate of fire:	800-850 R. P. M.	
v. Safety:	Rotary - Blocks Trigger	

4. Unique features:

Simple gas system, advanced locking system, straight line construction, light weight, and simplicity of maintenance. Heavy barrel allows sustained fire. Can be converted quickly from belt feed to magazine feed or from magazine feed to belt feed without tools.



CAR-15 Heavy Assault Rifle M2

**COLT'S INC. FIREARMS DIVISION
COLT CAR-15 WEAPONS SYSTEM**

1. Weapon: **CAR-15 Sub-Machine Gun**

2. Description and Purpose:

Gas operated, air cooled, magazine fed, semi-automatic or full automatic shoulder weapon. Feeds from a 20 round or 30 round aluminum magazine. Fires from a closed bolt. Designed for use where space is a major consideration by tank, helicopter, and A. P. C. crews, etc.

3. Characteristics:

a. Caliber:	.223	5.56 mm.
b. Overall length (Stock enclosed):	26.0"	670 mm.
c. Overall length (Stock extended):	28.7"	729 mm.
d. Barrel length:	10"	254 mm.
e. Width:	1.4"	36 mm.
f. Height (without magazine):	8.8"	223 mm.
g. Height (with 20 round magazine):	8.8"	223 mm.
h. Height (with 30 round magazine):	9.9"	251 mm.
i. Rifling: Button		
j. Pitch	1 in 12	305 mm.
k. Number of Grooves: 6		
l. Weight (without magazine):	5.3 lbs.	2.40 kg
m. Weight of bipod:	.5 lbs.	.22 kg
n. Weight of 20 round magazine empty:	.18 lbs.	.08 kg
o. Weight of 20 round magazine full:	.75 lbs.	.34 kg
p. Weight of 30 round magazine empty:	.22 lbs.	.10 kg
q. Weight of 30 round magazine full:	.97 lbs.	.44 kg
r. Muzzle velocity:	2750 ft. /sec.	838 m/s
s. Muzzle energy:	923 ft. lbs.	129 m kg
t. Rate of fire:	800-850 R. P. M.	
u. Safety:	Rotary - Blocks Trigger	

4. Unique Features:

Simple gas system, advanced locking system, straight line construction, light weight, and simplicity of maintenance. Butt stock telescopes for compactness and extends to permit use with the standard sighting position.



CAR-15 Sub-Machine Gun



CAR-15 Sub-Machine Gun (Butt extended)

**COLT'S INC. FIREARMS DIVISION
COLT CAR-15 WEAPONS SYSTEM**

1. Weapon: **CAR-15 Survival Rifle**

2. Description and Purpose:

Gas operated, air cooled, magazine fed, semi-automatic or full automatic shoulder weapon. Feeds from a 20 round or 30 round aluminum magazine. Fires from a closed bolt. Designed for use as a survival weapon.

3. Characteristics:

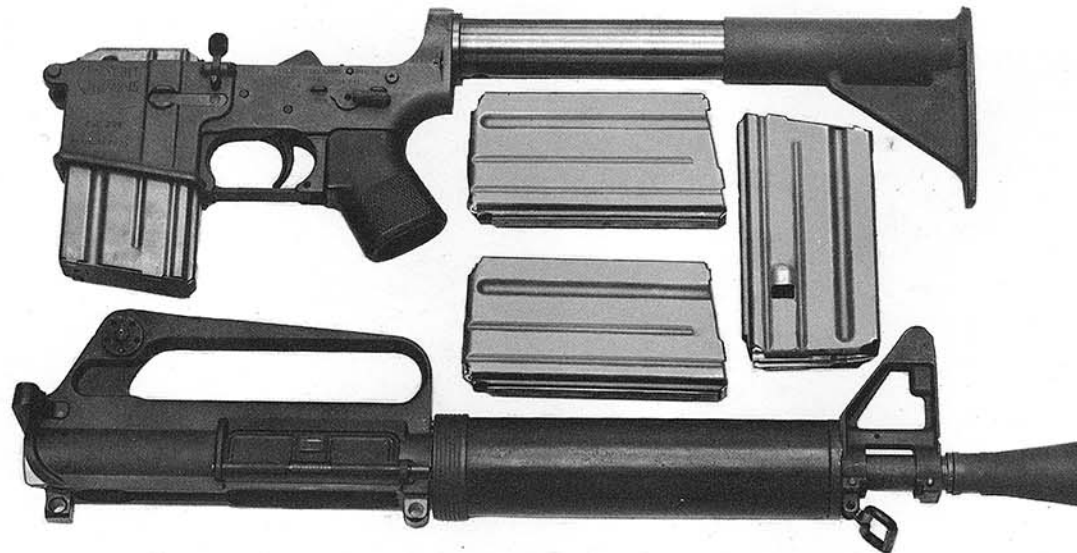
a. Caliber:	.223	5.56 mm.
b. Overall length:	29"	736 mm.
c. Barrel length:	10"	254 mm.
d. Width:	1.4"	36 mm.
e. Height (without magazine):	8.8"	223 mm.
f. Height (with 20 round magazine):	8.8"	223 mm.
g. Height (with 30 round magazine):	9.9"	251 mm.
h. Rifling: Button		
i. Pitch:	1 in 12	305 mm.
j. Number of Grooves: 6		
k. Weight (without magazine):	4.75 lbs.	2.16 kg
l. Weight of bipod:	5 lbs.	.22 kg
m. Weight of 20 round magazine empty:	.18 lbs.	.08 kg
n. Weight of 20 round magazine full:	.75 lbs.	.34 kg
o. Weight of 30 round magazine empty:	.22 lbs.	.10 kg
p. Weight of 30 round magazine full:	.97 lbs.	.44 kg
q. Muzzle velocity:	2750 ft./sec.	838 m/s
r. Muzzle energy:	923 ft. lbs.	129 m kg
s. Rate of fire:	800-850 R. P. M.	
t. Safety:	Rotary - Blocks Trigger	

4. Unique Features:

Simple gas system, advanced locking system, straight line construction, light weight, and simplicity of maintenance. Can be broken down and stowed with 80 rounds of ammunition in aviator's seat pack.



CAR-15 Survival Rifle



CAR-15 Survival Rifle (Disassembled for Stowage)

**COLT'S INC. FIREARMS DIVISION
COLT CAR-15 WEAPONS SYSTEM**

CGL-4 40mm Grenade Launcher

1. Weapon:

2. Description and Purpose:

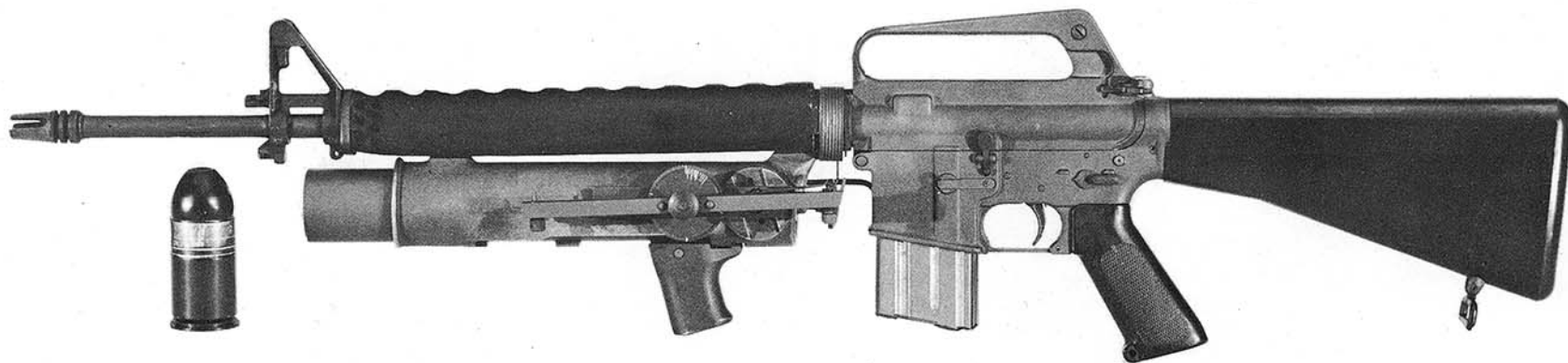
40 M/M self-contained grenade launcher attachment capable of being mounted on any AR-15 rifle. Gives the grenadier selection of either point or area fire capability as required.

3. Characteristics:

a. Caliber:	40 mm.	40 mm.
b. Overall length:	11 inches with 8" barrel 13 inches with 10" barrel	280 mm. with 204 mm. barrel 330 mm. with 254 mm. barrel
c. Width with sight:	3.6"	92 mm.
d. Height:	5.5"	140 mm.
e. Length of barrel:	8 or 10"	204 mm. or 254 mm.
f. Rifling:	Broached	
g. Pitch:	1 turn in 48"	1220 mm.
h. Number of grooves:	6	
i. Weight:	2.5 lbs.	1.13 kg
j. Operation:	Manual	
k. Feed:	Hand	
l. Muzzle velocity:	257 ft./sec.	79 m/s
m. Rate of fire:	12 R. P. M.	
n. Type of firing	Single shots	

4. Unique Features:

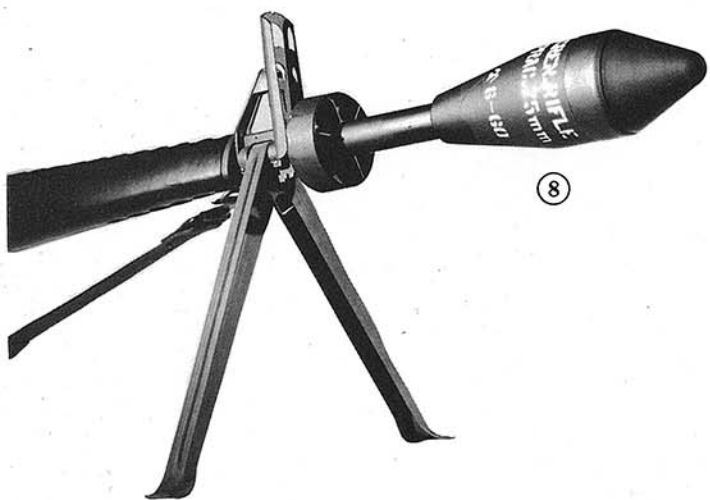
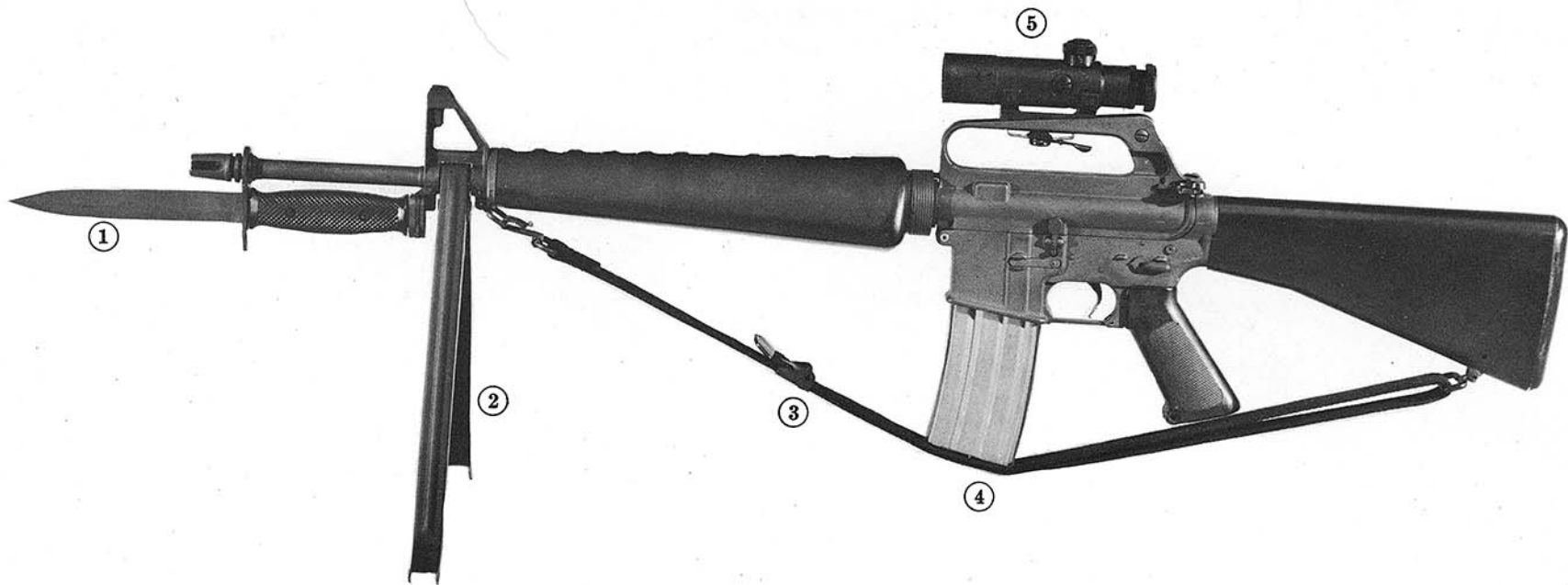
Light weight, ease of mounting and ease of adaptability to most weapons. Simplicity of design facilitates maintenance in the field.



CGL-4 40mm Grenade Launcher

COLT'S INC. FIREARMS DIVISION
COLT CAR-15 WEAPONS SYSTEM
ACCESSORIES

1. Bayonet: Mounts on bayonet stud and flash suppressor on the barrel. Can be used on AR-15, CAR-15, Heavy Assault M1, or CAR-15 Heavy Assault Rifle M2.
2. Bipod: Can be quickly attached to or detached from any weapon in the system by squeezing legs together. Holds weapon firmly for substained prone automatic fire. Modified with larger barrel opening for CAR-15 Heavy Assault Rifles.
3. Sling: Can be attached to sling swivels of all weapons of the weapons system.
4. 30 Round Magazine: Aluminum 30 round magazine interchangeable with standard 20 round magazine to increase firepower from any weapon in the system.
5. Telescope Sight: Carrying handle has hole drilled for mounting scope. Attached and detached quickly using one thumb screw.
6. Burst Control: Optional firing mechanisms allow two shot or three shot burst control when installed. Allows firer to concentrate on sight alignment and trigger squeeze when firing automatically.
7. Forward Bolt Assist: Plunger mechanism incorporated in right side of upper receiver allows manual positive force to be applied if bolt should fail to close fully. Can be obtained with any weapon. Used by U.S. Army on XM16E1 version of AR-15.
8. Rifle Grenade: Flash suppressor designed to launch standard rifle grenades. No adaptor needed.



**COLT'S INC. FIREARMS DIVISION
COLT CMG-1 WEAPONS SYSTEM**

1. Weapon: **CMG-1 Tripod Mounted Medium Machine Gun**

2. Description and Purpose:

Gas operated, air cooled, belt fed automatic ground mounted machine gun. Fires from an open bolt. High wear parts from CAR-15 system are interchangeable with CMG-1 system to reduce logistic support requirements. Designed for use in support of infantry units.

3. Characteristics:

a. Caliber:	.223		5.56 mm.
b. Overall length:	32"		813 mm.
c. Width:	2.3"		58 mm.
d. Height:	2.8"		71 mm.
e. Length of barrel:	20"		508 mm.
f. Rifling:		Button	
g. Pitch:	1 in 12"		305 mm.
h. Number of grooves:		6	
i. Weight - Light barrel -	11.5 lbs.		5.22 kg
Heavy barrel -	12.5 lbs.		5.67 kg
j. Weight of tripod:	12.5 lbs.		5.67 kg
k. Feed:		Disintegrating Link Belt	
l. Muzzle velocity:	3250 ft./sec.		990 m/s
m. Rate of fire:		650 R. P. M.	
n. Muzzle energy:	1285 fg. lbs.		178 m/kg
o. Safety:		Crossbolt	

4. Unique Features:

Capable of both left and right side feed. Sheet metal stampings extensively used.



CMG-1 Tripod Mounted Medium Machine Gun

**COLT'S INC. FIREARMS DIVISION
COLT CMG-1 WEAPONS SYSTEM**

CMG-1 Bipod Mounted Light Machine Gun

1. Weapon:

2. Description and Purpose:

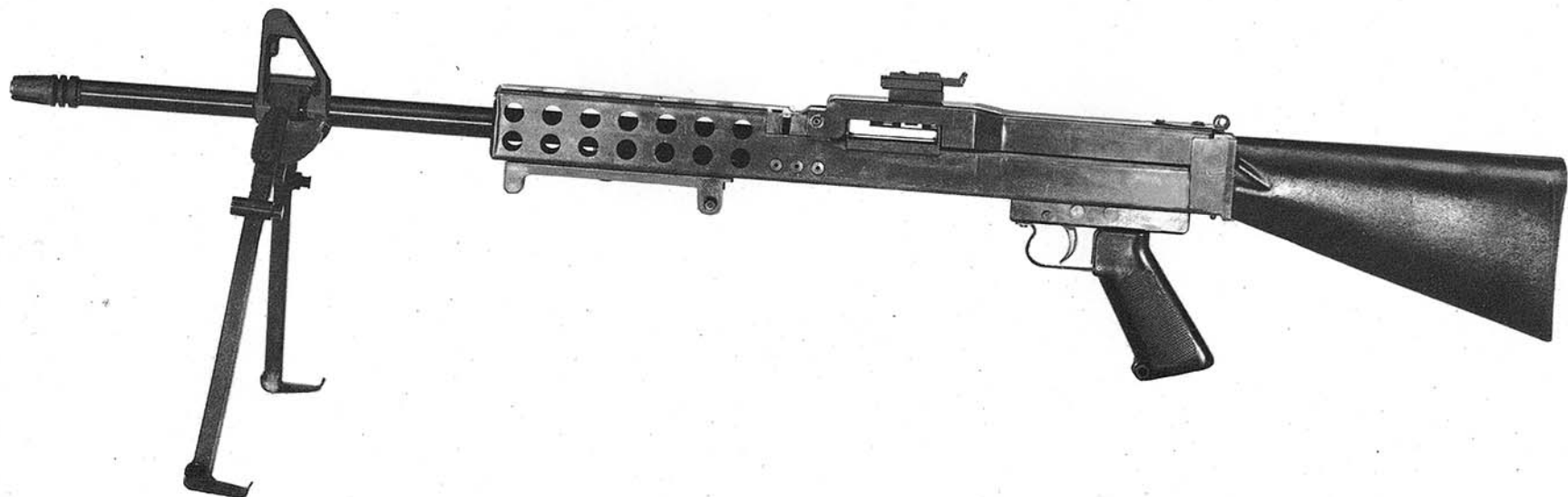
Gas operated, air cooled, belt fed automatic ground mounted machine gun. Fires from an open bolt. Designed for use in support of infantry units. Specifically intended for use by assault troops.

3. Characteristics:

a. Caliber:	.223		5.56 mm.
b. Overall length:	40.7"		1035 mm.
c. Width:	2.3"		58 mm.
d. Height:	2.8"		71 mm.
e. Length of barrel:	20"		508 mm.
f. Rifling:		Button	
g. Pitch:	1 in 12"		305 mm.
h. Number of grooves:		6	
i. Weight - Light barrel -	11.5 lbs.		5.22 kg
- Heavy barrel -	12.5 lbs.		5.67 kg
j. Weight of bipod and butt stock	3.1 lbs.		1.41 kg
k. Feed:		Disintegrating Link Belt	
l. Muzzle velocity:	3250 ft./sec.		990 m/s
m. Rate of Fire:		650 R. P. M.	
n. Muzzle energy:	1285 ft. lbs.		178 m/kg
o. Safety:		Crossbolt	

4. Unique Features:

Capable of both left and right side feed. Sheet metal stampings extensively used.



CMG-1 Bipod Mounted Light Machine Gun

**COLT'S INC. FIREARMS DIVISION
COLT CMG-1 WEAPONS SYSTEM**

CMG-1 Vehicle Mounted Machine Gun

1. Weapon:

2. Description and Purpose:

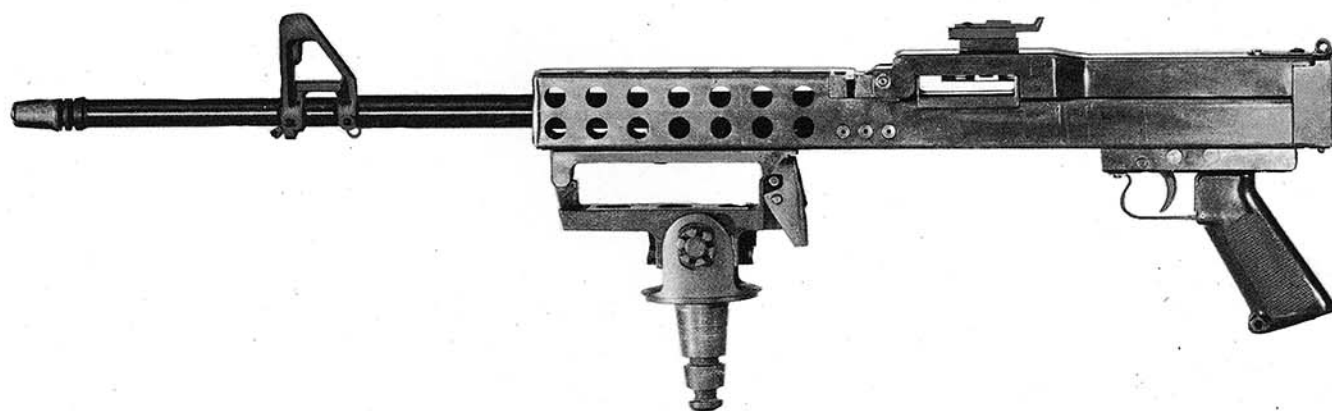
Gas operated, air cooled, belt fed automatic vehicle mounted machine gun. Fires from an open bolt. Designed for use on wheeled or tracked vehicles as a defensive weapon or in support of infantry units.

3. Characteristics:

a. Caliber:	.223	5.56 mm.
b. Overall length:	40.7"	1035 mm.
c. Width:	2.3"	58 mm.
d. Height:	2.8"	71 mm.
e. Length of barrel:	20"	508 mm.
f. Rifling:	Button	
g. Pitch:	1 in 12	305 mm.
h. Number of grooves:	6	
i. Weight - Light barrel -	11.5 lbs.	5.22 kg
- Heavy barrel -	12.5 lbs.	5.67 kg
j. Feed:	Disintegrating Link Belt	
k. Muzzle velocity:	3250 ft./sec.	990 m/s
l. Muzzle energy:	1285 ft. lbs.	178 m/kg
m. Safety:	Crossbolt	

4. Unique Features:

Capable of both left and right side feed. Sheet metal stampings extensively used.



CMG-1 Vehicle Mounted Machine Gun

**COLT'S INC. FIREARMS DIVISION
COLT CMG-1 WEAPONS SYSTEM**

CMG-1 Solenoid Operated Fixed Machine Gun

1. Weapon:

2. Description and Purpose:

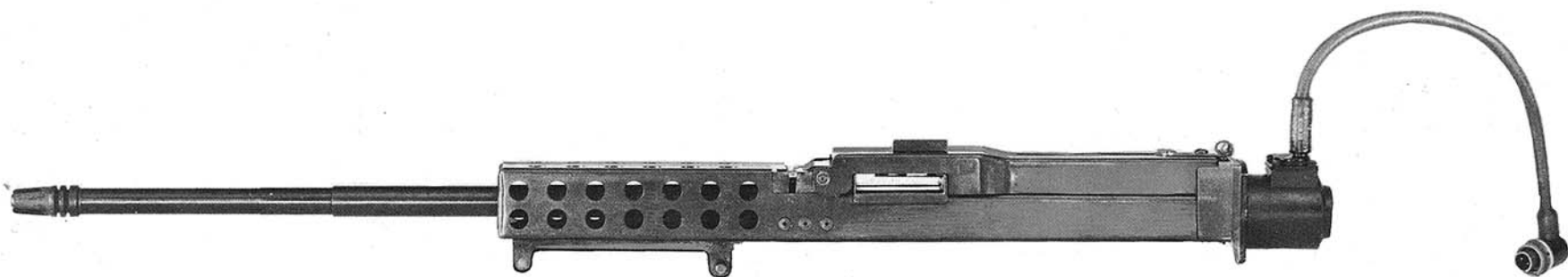
Gas operated, air cooled, belt fed solenoid machine gun. Fires from an open bolt. Produced for use in helicopters and fixed wing aircraft.

3. Characteristics:

a. Caliber:	.223	5.56 mm.
b. Overall length:	35"	889 mm.
c. Width:	2.3"	58 mm.
d. Height:	2.8"	71 mm.
e. Length of barrel:	20"	508 mm.
f. Rifling:		Button
g. Pitch:	1 in 12"	305 mm.
h. Number of grooves:		6
i. Weight: - Light barrel -	13.6 lbs.	6.16 kg
- Heavy barrel -	14.7 lbs.	6.66 kg
j. Feed:		Disintegrating Link Belt
k. Muzzle velocity:	3250 ft./sec.	990 m/s
l. Rate of fire:		650-850 R. P. M.
m. Muzzle energy:	1285 ft. lbs.	178 m/kg
n. Safety:		Crossbolt

4. Unique Features:

Capable of both left and right side feed. Sheet metal stampings extensively used.



CMG-1 Solenoid Operated Fixed Machine Gun

COLT CAR-15 WEAPONS SYSTEM

COMMON COMPONENTS CHART *

Part Name	AR-15 (M-16)	Carbine	Heavy Assault Rifle M-1	Heavy Assault Rifle M-2	Sub- Machine Gun	Survival	XM-16E1
Lower Receiver	X	X	X			X	X
Bolt	X	X	X	X	X	X	X
Bolt Carrier	X	X	X		X	X	
Receiver Extension	X	X	X	X			X
Extractor	X	X	X	X	X	X	X
Upper Receiver	X	X	X		X	X	
Ejector	X	X	X	X	X	X	X
Barrel	X						X
Action Spring	X	X	X	X	X	X	X
Action Spring Guide	X	X	X	X	X	X	X
Magazine	X	X	X		X	X	X
Magazine Catch	X	X	X	X	X	X	X
Bolt Stop	X	X	X		X	X	X

* X's represent AR-15 parts used.

Part Name	AR-15 (M-16)	Carbine	Heavy Assault Rifle M-1	Heavy Assault Rifle M-2	Sub- Machine Gun	Survival	XM-16E1
Disconnecter	X	X	X	X	X	X	X
Front Sight	X	X			X	X	X
Rear Sight	X	X	X	X	X	X	X
Gas Tube	X	X	X	X			X
Automatic Sear	X	X	X	X	X	X	X
Hand Guard	X	X	X	X			X
Hammer	X	X	X	X	X	X	X
Pistol Grip	X	X	X	X			X
Trigger	X	X	X	X	X	X	X
Trigger Guard	X	X	X	X	X	X	X
Butt Stock	X	X	X	X			X
Charging Handle	X	X	X	X	X	X	X

COLT CMG-1 WEAPONS SYSTEM

COMMON COMPONENTS CHART *

Part Name	Tripod	Bipod	Solonoid	Vehicle
Receiver	X	X	X	X
Barrel	X	X	X	X
Feed Cover	X	X	X	X
Feed Tray	X	X	X	X
Bolt	X	X	X	X
Bolt Carrier	X	X	X	X
Extractor	X	X	X	X
Ejector	X	X	X	X

* X's represent common parts.

** Basic machine gun will accept bipod, tripod or butt stock.

Part Name	Tripod	Bipod	Solonoid	Vehicle
Pistol Grip Fire Control	X	X		X
Solonoid Fire Control			X	
Back Plate	X	X	X	X
Butt Stock	X**	X**		X
Action Spring	X	X	X	X
Charging Handle	X	X	X	X
Bipod	X**	X**		X
Tripod	X**	X**		X

**COLT'S INC. FIREARMS DIVISION
COLT WEAPONS SYSTEMS**

AMMUNITION: The 5.56 MM (.223 caliber) cartridge is a 55 grain full-jacketed, boat-tailed bullet which has excellent combat accuracy and penetration. The twenty round weight of only .7 pounds, including magazine, enables an individual armed with the AR-15 to carry 440 more rounds than an individual armed with the M-14, without increasing the total weight of standard combat equipment. A ballistics comparison is given below:

ENGLISH SYSTEM

<u>Cartridge</u>	<u>Bullet</u>	<u>Velocity (Feet per Second)</u>			<u>Striking Energy (Foot Pounds)</u>		
	<u>Wt. (Grams)</u>	<u>Muzzle</u>	<u>300 yards</u>	<u>500 yards</u>	<u>Muzzle</u>	<u>300 yards</u>	<u>500 yards</u>
7.62 MM	150	2750	2127	1772	2521	1508	1047
5.56 MM	55	3250	2193	1629	1307	588	324
Carbine (30 Cal.)	111	1974	1062	865	961	278	184
45 A. C. P.	230	850	--	--	367	--	--

METRIC SYSTEM

<u>Cartridge</u>	<u>Bullet</u>	<u>Velocity (Meters per Second)</u>			<u>Striking Energy (Meter Kilograms)</u>		
	<u>Wt. (Grams)</u>	<u>Muzzle</u>	<u>300 yards</u>	<u>500 yards</u>	<u>Muzzle</u>	<u>300 yards</u>	<u>500 yards</u>
7.62 MM	9.71	838	679	582	352	220	146
5.56 MM	3.56	990	668	496	178	82	45
Carbine (30 Cal.)	7.20	603	324	264	134	53	26
45 A. C. P.	14.9	259	--	--	51	--	--