

MANUAL NO. CM-107

# COLT'S CARBINE

## OPERATION AND MAINTENANCE MANUAL

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Colt Industries



Firearms Division

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CAUTION – THE SAFETY WARNINGS, PRECAUTIONS AND NOTES IN MANUALS CM-101, DATED MAY, 1975 AND CM-102, DATED MARCH, 1974 ARE EQUALLY APPLICABLE TO THE COLT'S CARBINE AND MUST BE READ IN CONJUNCTION WITH THIS MANUAL.



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## CHAPTER I - INTRODUCTION

### Section 1 - Purpose and Scope

#### 1.1. General

This manual is a supplement to Colt's M16 (AR-15) Automatic Rifle Manual No. CM-101, Operation and Maintenance Instructions, and CM-102, Armorer/Depot Maintenance and Repair Manual, and contains additional pertinent information for the guidance of personnel responsible for the operation, maintenance, and repair of Colt's Carbine. Procedures relating to the Carbine that are identical to those pertaining to the M16 are referenced to Manual No. CM-101 and to CM-102.

### Section 2 - Introduction

#### 1.2. Description

Colt's Carbine is similar to Colt's M16 Automatic Rifle as described in Manual No. CM-101, paragraph 1.3, pages 2 through 5. However, the Carbine has a shorter barrel and handguard and a telescoping buttstock.



Figure 1. Colt's Carbine  
with Buttstock Extended and Retracted



1.3 Tabulated Data

The tabulated data which follows is peculiar to Colt's Carbine. For data which is the same as that of Colt's M16 Automatic Rifle, refer to Manual No. CM-101, paragraph 1.4, page 6.

Weights:

Carbine - Empty (without magazine and sling)	5.9 lb.
Carbine with Loaded 20 round magazine	6.6 lb.
Carbine with loaded 30 round magazine	6.9 lb.
Sling (silent)	2.5 oz.

Lengths:

Overall (stock retracted) (with flash suppressor)	29 3/4 in.
Overall (stock extended) (with flash suppressor)	33 in.
Barrel	14 1/2 in.
Barrel (with flash suppressor)	15 3/4 in.

Characteristics: (M203 Ball Ammunition)

Energy at Muzzle	1025 ft-lb
Velocity at Muzzle	2900 ft/sec
Cyclic Rate of Fire	700 - 900 rounds/min.



## CHAPTER II - OPERATING INSTRUCTIONS

### Section 1 - Cycles of Operation

#### 2.1 General

Refer to Manual No. CM-101, paragraph 2.1, pages 7 through 12, for a description of the cycles of operation.

### Section 2 - Controls

#### 2.2 Controls

Refer to Manual No. CM-101, paragraph 2.2, pages 14 through 16, for a description of the controls. For controls peculiar to the Carbine, refer to Figure 2 of this manual.

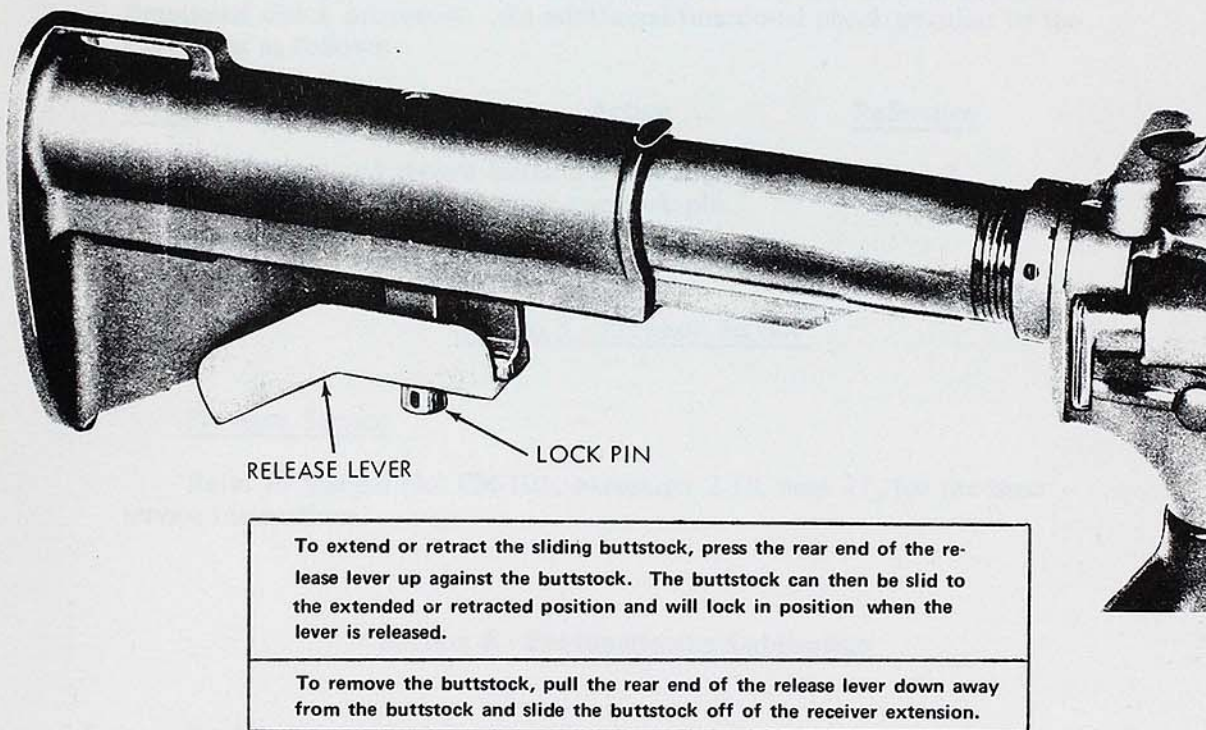


Figure 2. Controls Peculiar to the Colt Carbine - Telescoping Buttstock Lock



Section 3 - Operation

2.3 Operation

Refer to Manual No. CM-101, paragraphs 2.3 through 2.11, pages 17 through 22, for Operating Instructions - Usual Conditions, and to paragraphs 2.12 through 2.16, pages 23 and 24 for Operating Instructions - Unusual Conditions.

Section 4 - Functional Check

2.4 Functional Check

Refer to Manual No. CM-101, paragraph 2.17, pages 25 and 26, for the functional check procedure. An additional functional check peculiar to the Carbine is as follows:

<u>Step</u>	<u>Action</u>	<u>Reference</u>
1	Extend and retract buttstock and check operation of release lever and lock pin.	Figure 2

Section 5 - Pre-issue Service

2.5 Pre-issue Service

Refer to Manual No. CM-101, paragraph 2.18, page 27, for pre-issue service instructions.

Section 6 - Pre-functioning Lubrication

2.6 Pre-functioning Lubrication

Refer to Manual No. CM-101, paragraph 2.20, page 28, for pre-functioning lubrication procedure.



## CHAPTER III - MAINTENANCE INSTRUCTIONS

### Section 1 - Tools, Materials, and Equipment

#### 3.1 Operator Maintenance Tools, Materials, and Equipment

Refer to Manual No. CM-101, paragraph 3.1, page 29, for the list of tools, materials, and equipment required for operator maintenance of the Carbine.

#### 3.2 Unit Maintenance, Tools, Equipments, and Parts

Refer to Manual No. CM-101, paragraph 3.2, page 30, for the list of tools, equipment, and parts required for maintenance functions performed by the unit armorer. For a list of tools and equipment peculiar to the Carbine, refer to Appendix B, page 14, of this manual. For the list of parts required by the unit armorer, refer to Manual No. CM-101, Appendix B, pages 67 through 71 and to Appendix A, page 13, of this manual.

#### 3.3 Armorer/Depot Maintenance Tools, Materials, and Parts

Refer to Manual No. CM-102, Table 2.1, page 3, for a list of maintenance tools required for armorer/depot maintenance. For tools peculiar to the Carbine refer to Appendix B, page 14, of this manual. For the list of consumable maintenance materials, refer to Manual No. CM-102, Table 2.2, page 5. For the lists of repair parts required for armorer/depot maintenance, refer to Manual No. CM-102, Appendix B, pages 49 through 57, and to Appendix A, page 13, of this manual.

### Section 2 - Maintenance Procedures

#### 3.4 Operator Maintenance Procedures

Refer to Manual No. Cm-101, paragraphs 3.3 through 3.8, pages 31 through 44, for the operator maintenance procedures.

#### 3.5 Unit Maintenance Procedures

Refer to Manual No. CM-101, paragraphs 3.9 through 3.14, pages 45 through 51, for the procedures to be followed by the unit armorer.



3.6 Preventive Maintenance Procedures

Refer to Manual No. CM-101, paragraph 3.15, page 52, for preventive maintenance procedures to be followed by the operator and the unit armorer.

3.7 Trouble Shooting

Refer to Manual No. CM-101, paragraph 3.17, page 53, for trouble shooting procedures. The following are additional procedures peculiar to the Carbine.

Malfunction	Probable Cause	Corrective Action
Sliding buttstock sticks	Sand, dirt, or foreign matter in buttstock slides.	Clean and wipe dry

3.8 Armorer/Depot Maintenance Procedures

Refer to Manual No. CM-102, paragraphs 2.4 through 3.2, pages 7 through 30, and paragraphs 5.1 through 6.2, pages 33 through 42, for armorer/depot maintenance procedures. Additional procedures which are peculiar to the Carbine are as follows:

Disassembly/Assembly - Refer to Figures 2 and 3, pages 3 and 7 through 9, of this manual.

Maintenance Inspection - Check functioning of the sliding buttstock to be certain it extends and retracts freely and that it locks properly in each position.

Maintenance Procedure - Installation of the release lever and assembly of the lock pin is as follows:

Install the lock pin and spring through the hole in the top of the buttstock and the nut on the bottom of the lock pin.

While holding the lock pin from rotating with a screwdriver in the slot on the threaded end of the lock pin, tighten the nut sufficiently for the release lever to operate properly as shown in Figure 2 of this manual.

Line up the lock pin hole in the nut with the slot in the lock pin and install the roll pin in the lock nut so the nut will be retained in its adjusted position.

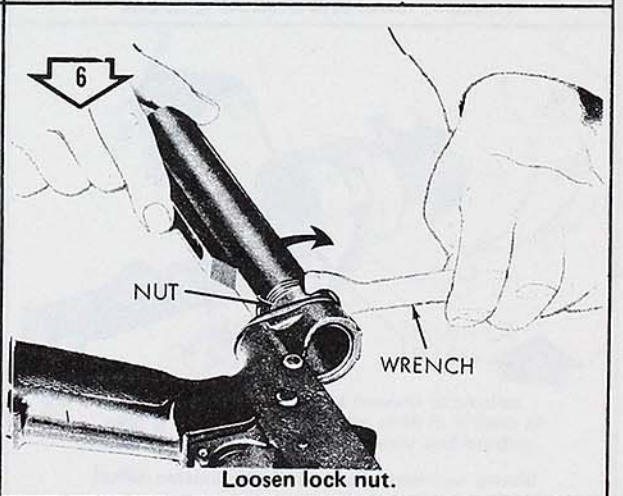
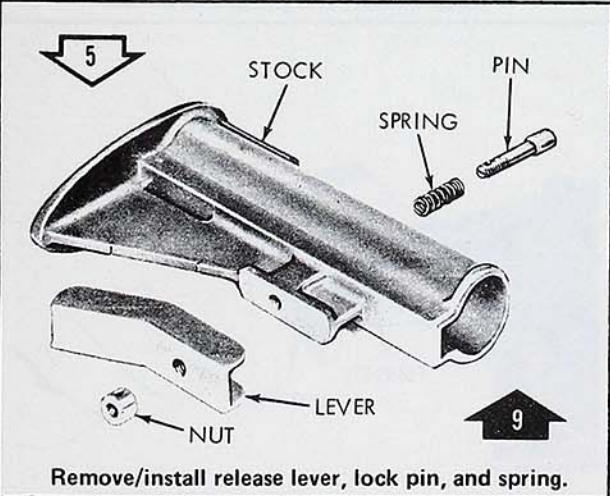
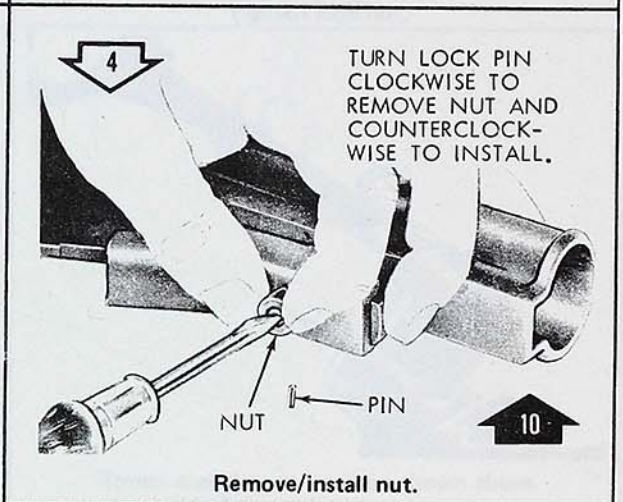
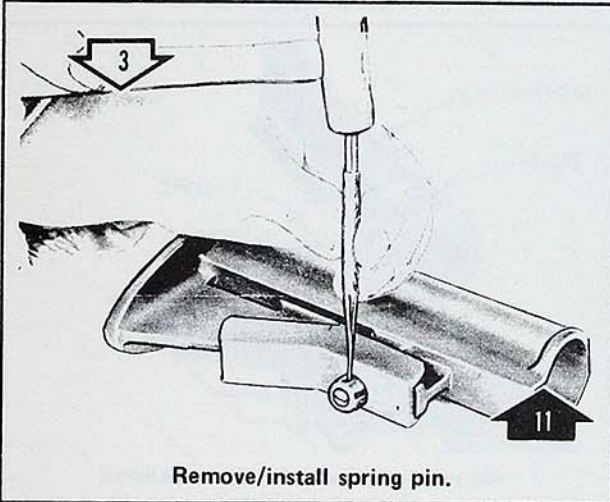
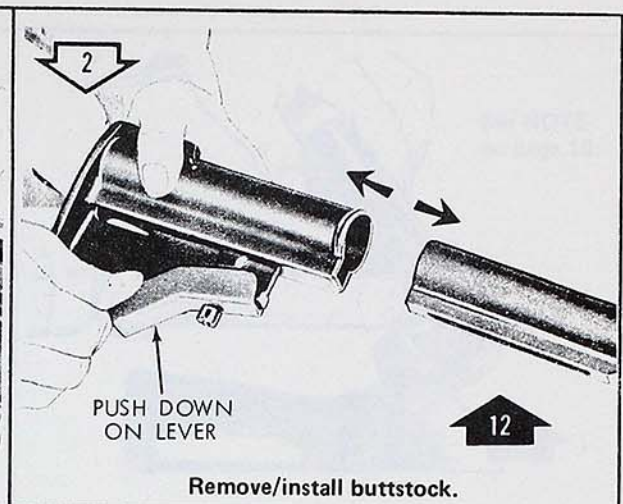
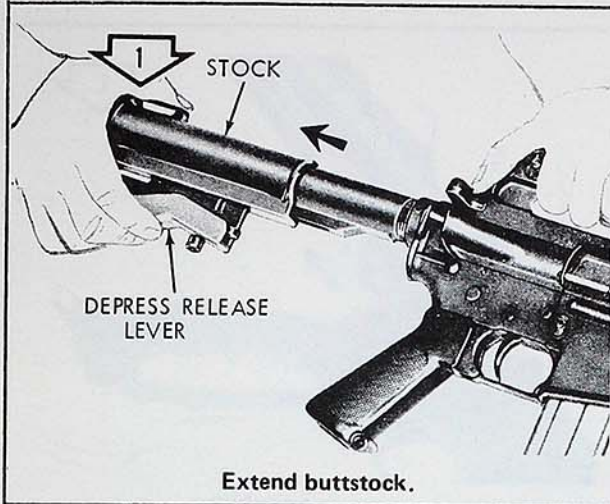




Figure 3. Disassembly/Assembly of the Carbine  
(Page 1 of 3)

-  Open arrows indicate disassembly sequence.
-  Solid arrows indicate assembly sequence.

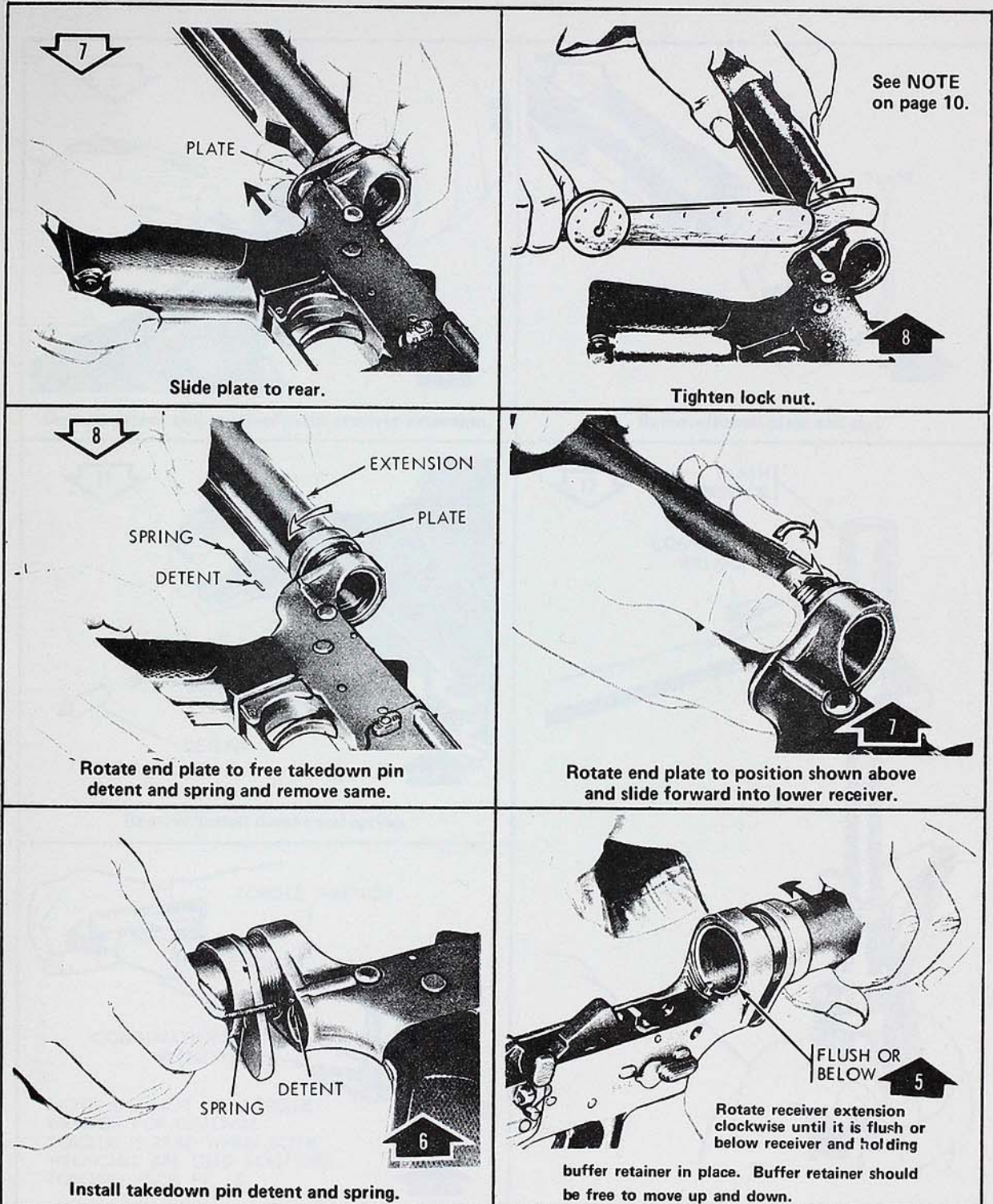
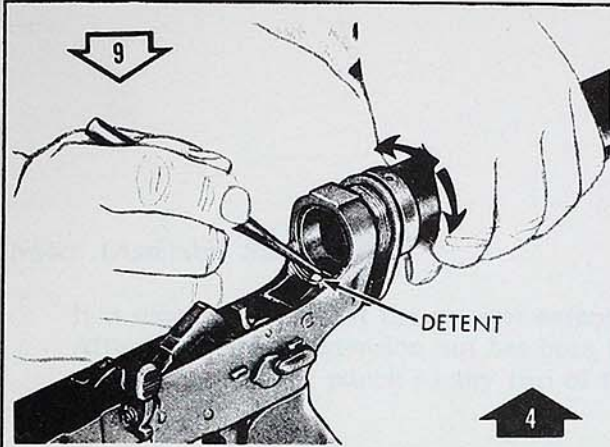
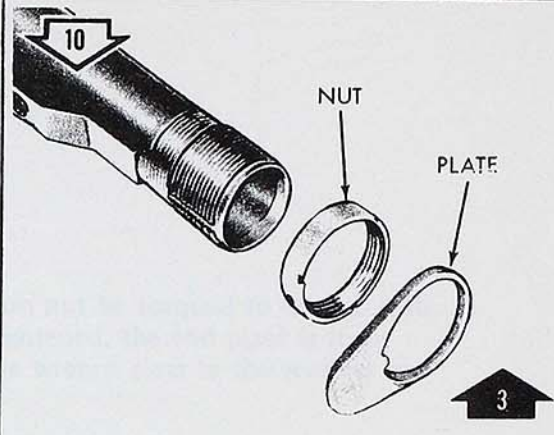


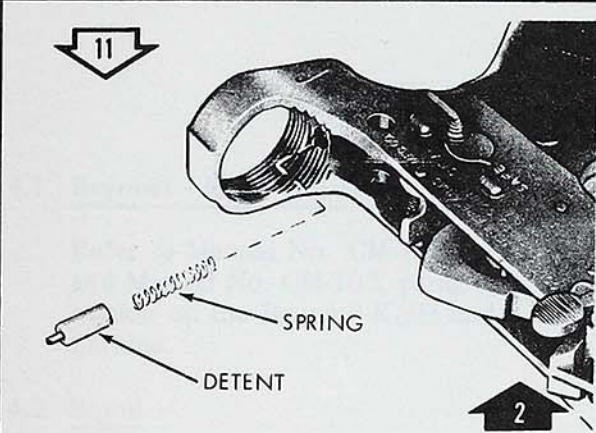
Figure 3. Disassembly/Assembly of the Carbine  
(Page 2 of 3)



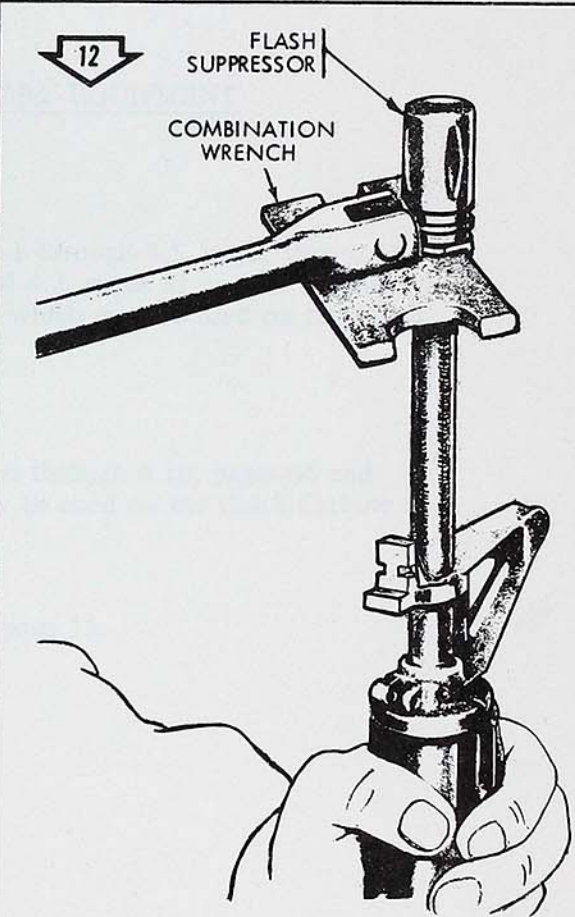
9  
Depress detent and remove/install receiver extension.



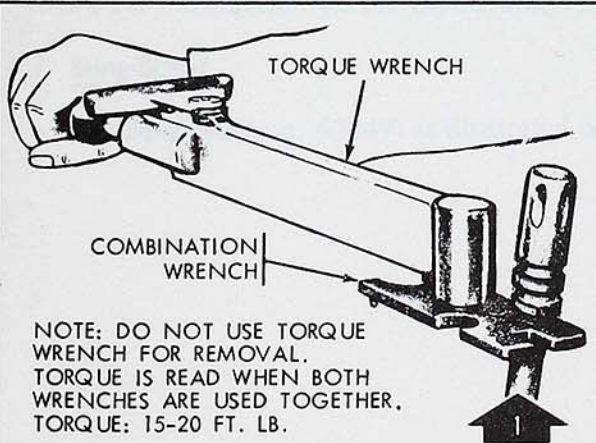
10  
Remove/install plate and nut.



11  
Remove/install detent and spring.



12  
Remove flash/noise suppressor.




NOTE: DO NOT USE TORQUE WRENCH FOR REMOVAL. TORQUE IS READ WHEN BOTH WRENCHES ARE USED TOGETHER. TORQUE: 15-20 FT. LB.

1  
Install flash/noise suppressor.

Figure 3. Disassembly/Assembly of the Carbine  
(Page 3 of 3)



Note: (Assembly Step )

It is recommended that the receiver extension nut be torqued to  $40 \pm 2$  ft-lb. After the receiver extension nut has been tightened, the end plate is to be staked with a center punch to any two of the wrench slots in the receiver extension nut.

#### CHAPTER IV - ACCESSORY EQUIPMENT

##### 4.1 Bayonet - Knife and Scabbard

Refer to Manual No. CM-101, paragraphs 4.1 through 4.5, pages 59 and 60, and Manual No. CM-102, paragraphs 4.1 and 4.2, pages 31 and 32 for information on the Bayonet-Knife and Scabbard which may be used on the Colt's Carbine.

##### 4.2 Bipod

Refer to Manual No. CM-101; paragraphs 4.6 through 4.10, pages 61 and 62 for information on the Bipod which may be used on the Colt's Carbine.

##### 4.3 Sling-Silent

The sling (part no. 62249) is illustrated on page 15.



## CHAPTER V - AMMUNITION

### 4. Ammunition

Refer to Manual No. CM-101, Chapter V, pages 63 through 65, for information regarding ammunition.

## CHAPTER VI - REPAIR PARTS

### 5.1 Operator and Unit Maintenance Repair Parts

Refer to Manual No. CM-101, Appendix A, page 66, for a list of operator and unit maintenance installed repair parts. For a list of repair parts peculiar to the Carbine, refer to Appendix A, page 13, of this manual.

### 5.2 Armorer/Depot Maintenance Repair Parts

For a list of armorer/depot installed repair parts, refer to Manual No. CM-102, Appendix B, pages 49 through 57. For a list of repair parts peculiar to the Carbine refer to Appendix A, page 13, of this manual.



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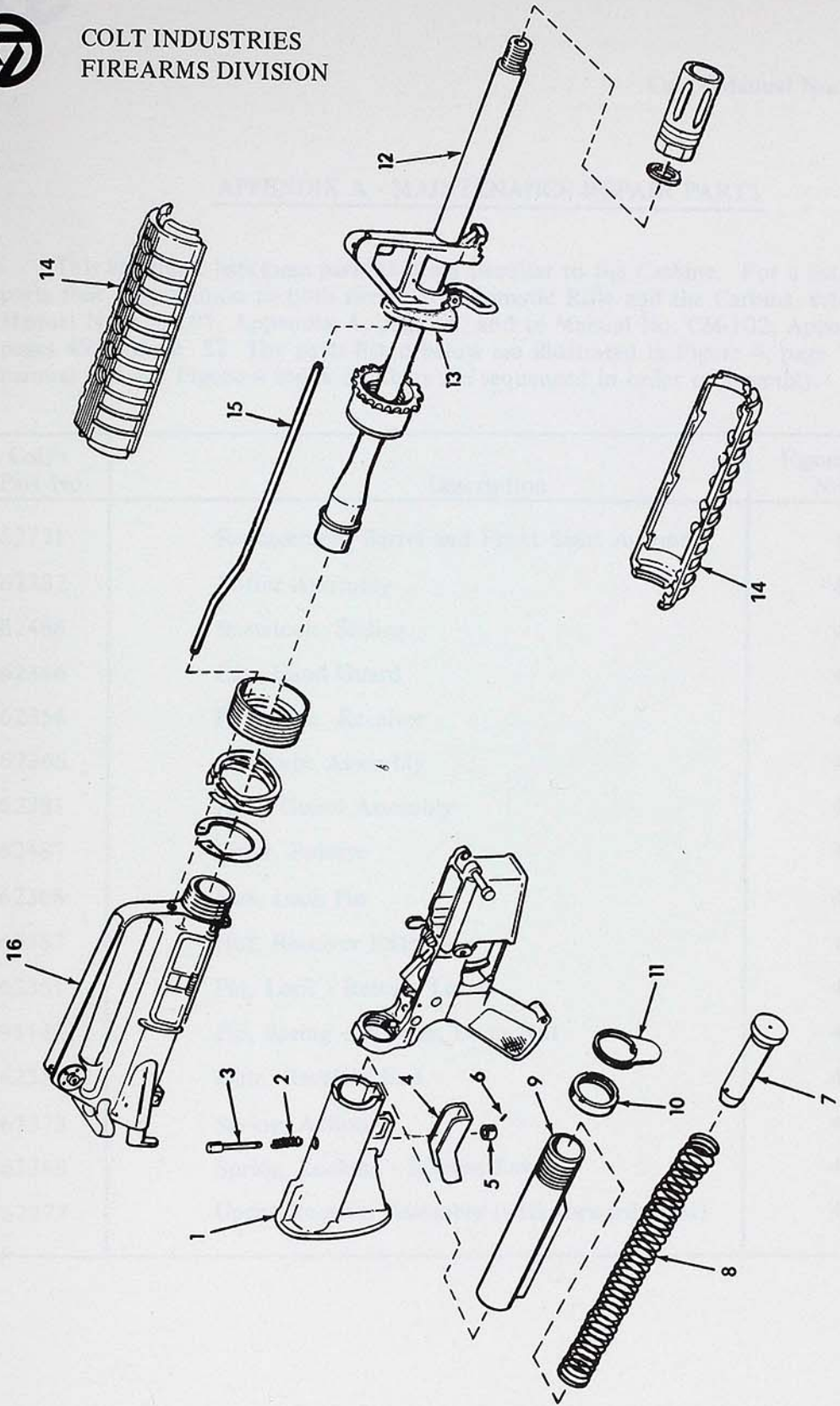


Figure 4. Repair Parts Peculiar to the Carbine



APPENDIX A - MAINTENANCE REPAIR PARTS

This appendix lists those parts that are peculiar to the Carbine. For a list of repair parts that are common to both the M16 Automatic Rifle and the Carbine, refer to Manual No. CM-101, Appendix A, page 66, and to Manual No. CM-102, Appendix B, pages 49 through 57. The parts listed below are illustrated in Figure 4, page 12, of this manual and the Figure 4 index numbers are sequenced in order of assembly.

Colt's Part No.	Description	Figure & Index Number
62771	Replacement Barrel and Front Sight Assembly	4-12*
62382	Buffer Assembly	4-7
62486	Buttstock, Sliding	4-1
62346	Cap, Hand Guard	4-13
62356	Extension, Receiver	4-9
62366	Gas Tube Assembly	4-15
62381	Hand Guard Assembly	4-14
62487	Lever, Release	4-4
62368	Nut, Lock Pin	4-5
62357	Nut, Receiver Extension	4-10
62361	Pin, Lock - Release Lever	4-3
95142	Pin, Spring - Release Lever Nut	4-6
62358	Plate, Receiver End	4-11
62373	Spring, Action	4-8
62369	Spring, Locking - Release Lever	4-2
62277	Upper Receiver Assembly (with forward assist)	4-16

\* The P/N 62771 Replacement Barrel and Front Sight Assembly is supplied with nut (61902) and cap (62346) installed. However, these items may be order separately if desired.



APPENDIX B - TOOLS AND EQUIPMENT

This appendix details the only tool peculiar to the Carbine. Additional tools and items of equipment that are applicable to both the M16 Automatic Rifle and the Carbine are listed in Manual No. CM-101, paragraphs 3.1 and 3.2, pages 29 and 30, and in Manual No. CM-102, Appendix A, pages 43 through 48.

Colt's Part No.	Description	Figure Number
62420	WRENCH, SPANNER	5

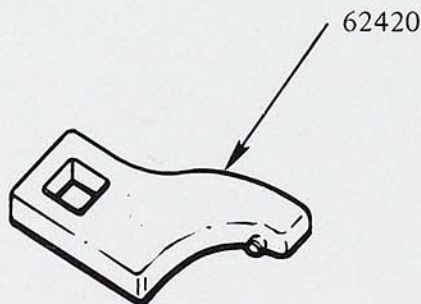


Figure 5. Wrench, Spanner

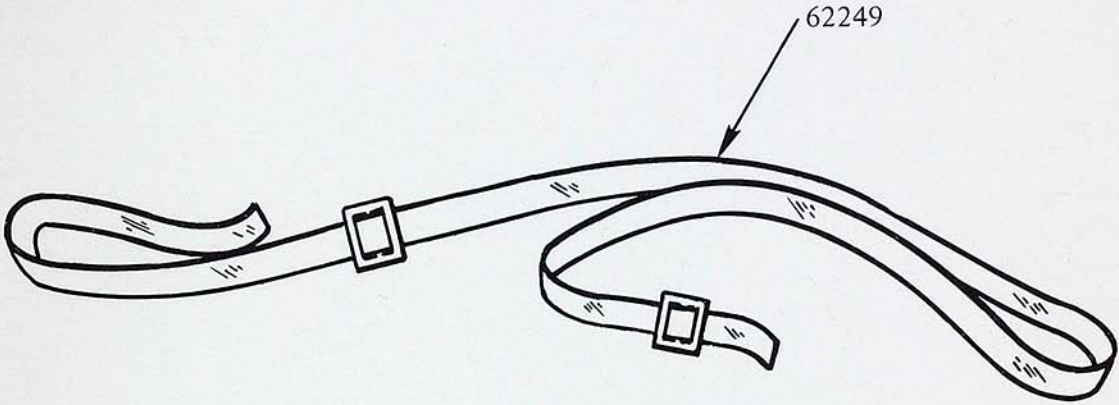


Figure 6. Sling