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INSTRUCTION BOOK  
FOR  
SIGNAL EQUIPMENT SE-7-T3 ✓

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INSTRUCTION BOOK  
FOR  
SIGNAL EQUIPMENT SE-7-T3

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CONTENTS

SECTION I - USE AND DESCRIPTION

<u>Par.</u>		<u>Page</u>
1	Use	1
2	Description of Signal Lamp M-198-T3	1
3	Handle	2
4	Tools	2
5	Carrying Case	2

SECTION II - EMPLOYMENT

6	Preparation for Use	2
7	Operation	2
8	Cleaning	2
9	Lamps	2
10	Batteries	2

SECTION III - APPENDIX

11	Parts List for Signal Equipment SE-7-T3	3
12	Accessory Equipment	3

LIST OF ILLUSTRATIONS

Photograph SCR-194 Signal Equipment SE-7-T3, Components

INSTRUCTION BOOK  
FOR  
SIGNAL EQUIPMENT SE-7-T3

SECTION I  
USE AND DESCRIPTION

1. Use. This signal equipment is intended for visual code signalling by platoon commanders of the Mechanized Cavalry to cars under their command. The code signals correspond to the four-color flag code (clear, red, yellow, blue) except that blue is replaced by "signal green." The range of the instrument is 400 yards on a clear night in a horizontal sector of 90 degrees. The illustration shows the complete equipment.

2. Description of Signal Lamp M-198-T3.

a. Battery Housing. The central part of the Signal Lamp M-198-T3 is a tube 1-1/2" in diameter which is designed to accommodate two sets of batteries, each set consisting of three Batteries BA-30. On this tube is a knurled handgrip to assist in holding the Signal Lamp M-198-T3 when not using the detachable handle described in paragraph 3 below. Switches for turning the lamps "off" and "on" are mounted near the ends of this central tube.

b. Lamp Housing. On each end of the battery housing identical lamp housings are mounted. In each lamp housing there is a lamp holder and a reflector fixed with respect to the battery housing. In addition there are four color filters which may be rotated around the lamp, and a ball-and-socket mechanism which is used to center any of the color filters in front of the reflector. The lamp is held in the center of the lamp housing by a screwbase. A flat plate held by four screws covers the end of each lamp housing.

c. Color Filters. The color filters are made by cementing together four 90-degree sections of colored Fresnel lenses. Each assembled lens is approximately 3-1/4" high by 3" in diameter. The light beam has a spread of 90 degrees in a horizontal sector when the two lamps are held one above the other. The Signal Lamp M-198-T3 was designed to be used with the two lamps in a vertical line, because when operated in this position the angular separation of the lamps will be a maximum when viewed from all points of the visible sector.

3. Handle. A pivoting handle may be used with the Signal Lamp M-198-T3, when desired, and is secured by a clamp and a knurled nut. When not in use the handle folds toward the battery housing on the side opposite the handgrip.

4. Tools. A camel's-hair brush and a jeweler's screwdriver are supplied.

5. Carrying Case. The carrying case for Signal Equipment SE-7-T3 is shown in photograph SCL-194. Space is provided for the Signal Lamp M-198-T3 to lie in a rack, and there are two compartments, fitted with covers, for batteries and spare lamps. A holder for the screwdriver is located in one corner and a clip is furnished on the lid for holding the camel's-hair brush.

## SECTION II

### EMPLOYMENT

6. Preparation for Use. Signal Equipment SE-7-T3 is shipped ready for use except for installation of batteries. To install batteries, loosen the knurled rings which hold the lamp housings and remove them. Install three Batteries BA-30 in each side of the battery housing with the center terminals of the batteries toward the lamp, and then assemble the tubing so that the slots fit into the keys. Then tighten the knurled rings.

7. Operation. Each lamp is controlled separately by means of a switch on the battery housing. The desired combination of colors is obtained by rotating the lens mountings. When the signal is being displayed, the two lamps should be kept in a vertical line. The Signal Lamp M-198-T3 should be held so that the knurled handgrip is below the handle, otherwise the Signal Lamp M-198-T3 may rotate about the pin in the handle clamp. Care should be taken in handling as the lens holders can be damaged if dropped.

8. Cleaning. To clean the lenses and reflectors, loosen the screws on the end of the signal lamp and remove the plates. The lenses and reflectors should be cleaned using a camel's-hair brush. Care should be taken that the surface of the reflector is not scratched. After cleaning replace the plates and tighten the screws.

9. Lamps. To replace a lamp remove the end plate described in above paragraph and unscrew the lamp from the socket. Replace with a new lamp supplied in carrying case and then replace the plate.

10. Batteries.

a. The life of the batteries should be approximately 5 hours with continuous operation and 10 hours with intermittent operation.

b. The batteries should be removed when the signal equipment is not in use. When in use the batteries in the Signal Lamp M-198-T3 should be inspected every day to determine if there is any indication of swelling or bulging which will result in a leakage of the battery electrolyte. Batteries which show such a tendency should be replaced at once. To remove the batteries loosen the two knurled nuts and the two sections of the tubing as described in paragraph 6 above. The batteries should slide out of the tube.

### SECTION III

#### APPENDIX

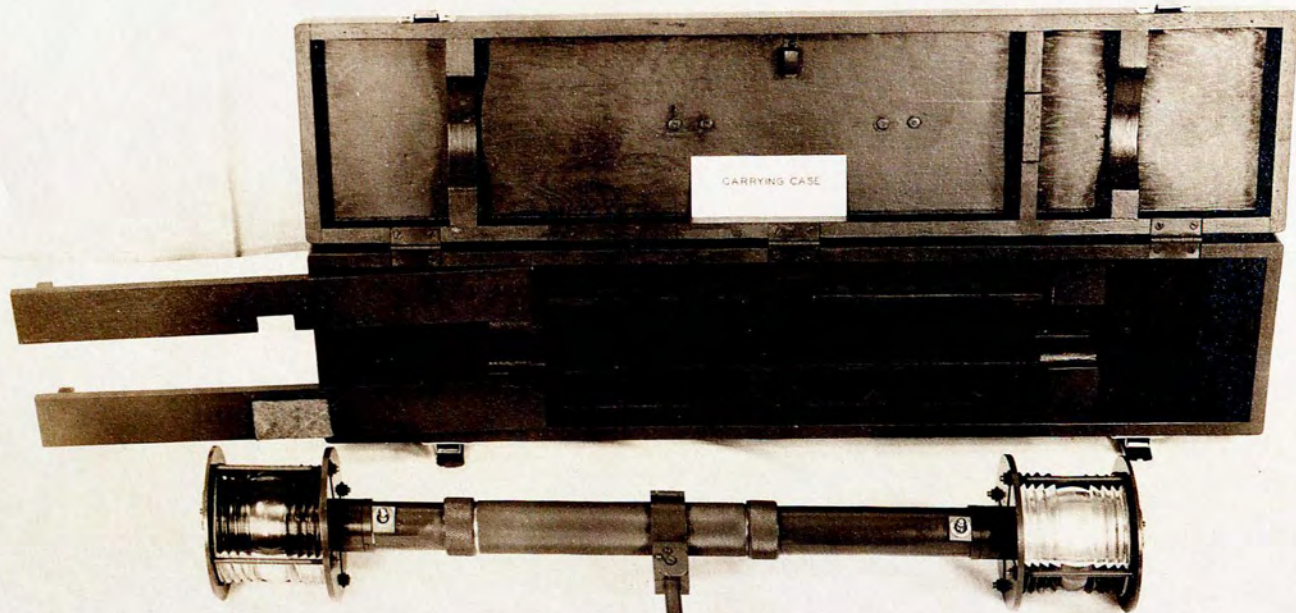
#### 11. Parts List for Signal Equipment SE-7-T3.

<u>Item</u>	<u>Quantity</u>	<u>Nomenclature</u>
1	1 ea.	Signal Lamp M-198-T3
2	6 ea.	Battery BA-30
3	1 ea.	Handle
4	2 ea.	Lamp (3-cell flashlight lamp, screwbase)

Signal Equipment SE-7-T3 (without handle) weighs 8 pounds. The handle weighs 0.5 pound.

#### 12. Accessory Equipment.

<u>Item</u>	<u>Quantity</u>	<u>Nomenclature</u>
1	6 ea.	Battery BA-30, spare
2	2 ea.	Book, Instruction for Signal Equipment SE-7-T3
3	1 ea.	Brush, camel's-hair
4	1 ea.	Case, carrying
5	2 ea.	Lamp (3-cell flashlight lamp, screwbase)
6	1 ea.	Screwdriver, jeweler's



SCREWDRIVER



BRUSH



BATTERY  
BA-30

LAMP



SCL-194

SIGNAL CORPS LABORATORIES, FORT MONMOUTH, N. J.

SIGNAL EQUIPMENT SE-7-T3  
COMPONENTS

