

**TECHNICAL MANUAL**  
**OPERATOR'S AND UNIT MAINTENANCE MANUAL**  
**FOR**  
**FIRING DEVICE, DEMOLITION. M122**  
**(NSN 1375-01-021-0606) (EIC: 2NA)**

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HEADQUARTERS  
DEPARTMENT OF THE ARMY  
AND THE AIR FORCE  
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FIRING DEVICE, DEMOLITION: M122  
(NSN 1375-01-021-0606)**

**REPORTING OF ERRORS**

You can help improve this manual. If you find any mistakes or know of a way to improve the procedures, please let us know. Mail your DA Form 2028 (Recommended Changes to Publications and Blank Forms) or DA Form 2028-2, located in the back of this manual, direct to Commander, U.S. Army Armament Research, Development and Engineering Center, ATTN: SMCAR-LSB, Picatinny Arsenal, NJ 07806-5000. A reply will be furnished to you.

|              |                                                                |      |
|--------------|----------------------------------------------------------------|------|
| CHAPTER 1.   | INTRODUCTION                                                   | Page |
| Section I.   | General                                                        |      |
|              | 1-1 Scope .....                                                | 1-1  |
|              | 1-2 Forms, records, and reports .....                          | 1-1  |
| Section II.  | Precautions, Care, and Handling                                |      |
|              | 1-3 Precautions .....                                          | 1-2  |
|              | 1-4 Care and handling .....                                    | 1-2  |
|              | 1-5 Safety .....                                               | 1-2  |
| Section 111. | Description and Data                                           |      |
|              | 1-6 General .....                                              | 1-2  |
|              | 1-7 Identification .....                                       | 1-3  |
|              | 1-8 Description .....                                          | 1-3  |
|              | 1-9 Functioning .....                                          | 1-10 |
|              | 1-10 Packing and packaging .....                               | 1-10 |
|              | 1-11 Tabulated data .....                                      | 1-10 |
| CHAPTER 2.   | OPERATING INSTRUCTIONS                                         |      |
|              | 2-1 General .....                                              | 2-1  |
|              | 2-2 Precautions .....                                          | 2-1  |
|              | 2-3 Operation under usual conditions-preparation for use ..... | 2-2  |
|              | 2-4 Firing procedures .....                                    | 2-6  |
|              | 2-5 Cause of malfunctions .....                                | 2-10 |
|              | 2-6 Disposition of defective unit .....                        | 2-10 |
|              | 2-7 Application note .....                                     | 2-10 |
|              | 2-8 Operation under unusual conditions .....                   | 2-10 |

\*This manual supersedes TM 9-1375-213-12-3&P/TO 11A20-15-1, 25 November 1981, including all changes.

|              |                                                 |             |
|--------------|-------------------------------------------------|-------------|
| CHAPTER 3.   | MAINTENANCE                                     | <u>Page</u> |
| Section I.   | Service Upon Receipt of Material                |             |
|              | 3-1 Precautions .....                           | 3-1         |
|              | 3-2 Unpacking and inspection by operator .....  | 3-1         |
| Section II.  | Operator Maintenance                            |             |
|              | 3-3 Cleaning .....                              | 3-1         |
|              | 3-4 Cleaning batteries and contacts .....       | 3-2         |
|              | 3-5 When to replace batteries .....             | 3-2         |
|              | 3-6 Battery installation and replacement ... .. | 3-3         |
|              | 3-7 Disposal of used batteries .....            | 3-6         |
|              | 3-8 Transmitter antenna replacement .....       | 3-6         |
|              | 3-9 Checkout prior to use .....                 | 3-7         |
|              | 3-10 Carrying case repair .....                 | 3-11        |
|              | 3-11 Operator quarterly checkout/PMCS .....     | 3-11        |
| Section III. | Organizational Maintenance                      |             |
|              | 3-12 Battery/Battery pack testing, .....        | 3-11        |
| CHAPTER 4.   | SHIPPING AND STORAGE                            |             |
|              | 4-1 Shipment .....                              | 4-1         |
|              | 4-2 Storage .....                               | 4-2         |
|              | <b>4-3 Shipping and storage data</b> .....      | 4-2         |
| APPENDIX A.  | REFERENCES .....                                | A-1         |
| APPENDIX B.  | PACKING MATERIALS, ACCESSORIES, AND TOOLS.....  | B-1         |
| APPENDIX C.  | MAINTENANCE ALLOCATION CHART .....              | C-1         |
| APPENDIX D.  | EXPENDABLE AND DURABLE ITEMS LIST.....          | D-1         |

### ***LIST OF ILLUSTRATIONS***

| <b><i>Figure</i></b> | <b><i>Title</i></b>                                                          | <b><i>Page</i></b> |
|----------------------|------------------------------------------------------------------------------|--------------------|
| 1-1                  | Transmitter and receiver of demolition firing device M122. ....              | 1-3                |
| 1-2                  | Transmitter of demolition firing device M122. ....                           | 1-4                |
| 1-3                  | Receiver of demolition firing device M122 (top view) .....                   | 1-4                |
| 1-4                  | Receiver of demolition firing device M122 (rear view).....                   | 1-5                |
| 1-5                  | <b>Carrying case, closed</b> .....                                           | 1-5                |
| 1-6                  | Carrying case, open with contents .....                                      | 1-6                |
| 1-7                  | Transmitter of demolition firing device M122 (ready for use) .....           | 1-7                |
| 1-8                  | Battery pack .....                                                           | 1-9                |
| 2-1                  | Example of target sheet. ....                                                | 2-5                |
| 2-2                  | Extending transmitter antenna .....                                          | 2-7                |
| 2-3                  | Holding transmitter (three position) in vertical attitude for firing , ..... | 2-8                |
| 2-4                  | General layout of detonating cord firing system . . . . .                    | 2-11               |
| 3-1                  | Cleaning transmitter battery pack connector in battery compartment .....     | 3-3                |
| 3-2                  | Removing tight battery cap using the second receiver as wrench .....         | 3-4                |
| 3-3                  | Cleaning receiver battery contacts .....                                     | 3-5                |
| 3-4                  | Installing receiver battery.....                                             | 3-5                |

3-5 Improvising replacement antenna..... .. 3-8  
4-1 Operating air valve..... 4-2  
B-1 Control, remote, firing . . . . . B-2

**LIST OF TABLES**

| <b>Table</b> | <b>Title</b>                                                                                              | <b>Page</b> |
|--------------|-----------------------------------------------------------------------------------------------------------|-------------|
| 2-1          | Number of Blasting Caps that Maybe Fired by One Receiver vs Firing<br>Lead Length.....                    | 2-1         |
| 2-2          | Demolition Explosives and Accessories . . . . .                                                           | 2-2         |
| 3-1          | Battery Test Parameters with battery at room temperature (between + 60°<br>and+80°F) under load . . . . . | 3-12        |

## CHAPTER 1

### INTRODUCTION

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#### Section 1. GENERAL

##### 1-1. SCOPE

This publication, prepared for use by test personnel and interested Army elements, provides operator and maintenance instructions covering demolition firing device M122. The firing device M122 is used to detonate explosives from a remote location. The demolition firing device M122 consists of a separate transmitter and receiver. The transmitter transmits a coded radio signal to activate a specific receiver. The receiver, placed in the vicinity of the explosive, initiates the explosive upon receipt of the properly coded radio signal.

##### 1-2. FORMS, RECORDS, AND REPORTS

a. General. Commanding Officers of units receiving demolition firing devices are responsible for preparation of records and reports. For reporting purposes, demolition firing devices are identified by serial numbers and standard nomenclature as described on its name plate.

b. Field Report of Accidents. Accidents involving injury to personnel or damage to materiel will be reported on DA Form 285 (Accident Report), in accordance with instructions in AR 385-40.

##### c. Malfunction Reports.

(1) Malfunction of firing device M122. A malfunction is a failure of a demolition firing device M122 to function in accordance with its intended purpose. During initial deployment, it is requested that defective components be

returned to the developing agency. Forward the items to Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-MAE-T, Rock Island, IL 61299-6000. Remove batteries from the receiver and transmitter before packing. The units should be well-cushioned by crumpled newspapers, polyurethane foam, or whatever materials can be obtained.

(2) Reporting of malfunctions. For reporting purposes, malfunctions do not include accidents and fires resulting from negligence, malpractice and the like. However, malfunctions do include abnormal or premature functions if they occur in the course of normal handling, maintenance, storage, transportation and tactical deployment.

(3) Malfunctions involving ammunition or explosives. Malfunction reports involving ammunition must be forwarded to the Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-QA, Rock Island, IL 61299-6000. A preliminary report will be made by the most expeditious means (e.g. by telephone Autovon 793-4851/Commercial 309-794-4851). Explosive ammunition malfunctions will be reported in accordance with AR 75-1. Ammunition malfunctions involving nonexplosive components that are not safety hazards will be reported in accordance with DA Pam 738-750.

d. Report of Damaged or Improper Shipment. Damaged or improper shipments will be reported immediately on Standard Form 364 (Report of Discrepancy ROD), (AR 735-11-2) and/or SF 361 (Discrepancy in Shipment Report) (AR 55-38).

## Section II. PRECAUTIONS, CARE, AND HANDLING

### 1-3. PRECAUTIONS

#### WARNING

**FAILURE TO OBSERVE WARNINGS CAN RESULT IN INJURY OR DEATH OF PERSONNEL. SINCE THE CONTROL UNIT OF THE M122 FIRING DEVICE IS A RADIO TRANSMITTER, IT SHOULD NEVER BE OPERATED WITHIN 100 FEET OF ANY PACKAGED OR UNPACKAGED ELECTRIC BLASTING CAPS OR OTHER EXPLOSIVE ITEMS CONTAINING ELECTRICAL INITIATORS.**

### 1-4. CARE AND HANDLING

The following care and handling procedures will be observed to protect the M122 firing device.

#### a. Care.

(1) The device is designed to withstand conditions ordinarily encountered in the field.

However, care must be exercised to keep it from becoming broken or damaged.

(2) The device should be protected from mud, sand, moisture, frost, snow, ice, dirt, oil, grease, or other foreign matter. Wet or dirty devices should be wiped off immediately.

(3) Protect the M122 firing devices and batteries from sources of high temperatures (e.g., the direct rays of the sun).

b. Handling. Treat the M122 components with the same care in handling as you would any other electronic devices. Avoid dropping or otherwise impacting the devices. Pad and secure the devices during transport. These components ARE RUGGEDIZED but the less they are abused the better their reliability.

### 1-5. SAFETY

The M122 contains no explosives, however, the control unit (i.e., radio transmitter) can initiate electro-explosive initiators by means of its radiated radio frequent energy. Precautions outlined in FM 5-250, TM 9-1375-213-12, and this publication should be observed when in the vicinity of electro-explosive initiators such as blasting caps. Operators should be careful to avoid touching the control device antenna when transmitting because minor radio frequency burns MAY occur.

## Section III. DESCRIPTION AND DATA

### 1-6. GENERAL

a. The Demolition firing device M122 (fig. 1-1) is designed to remotely initiate explosives by

means of a coded radio signal radiated by its transmitter to the receiver located at or near the explosives.

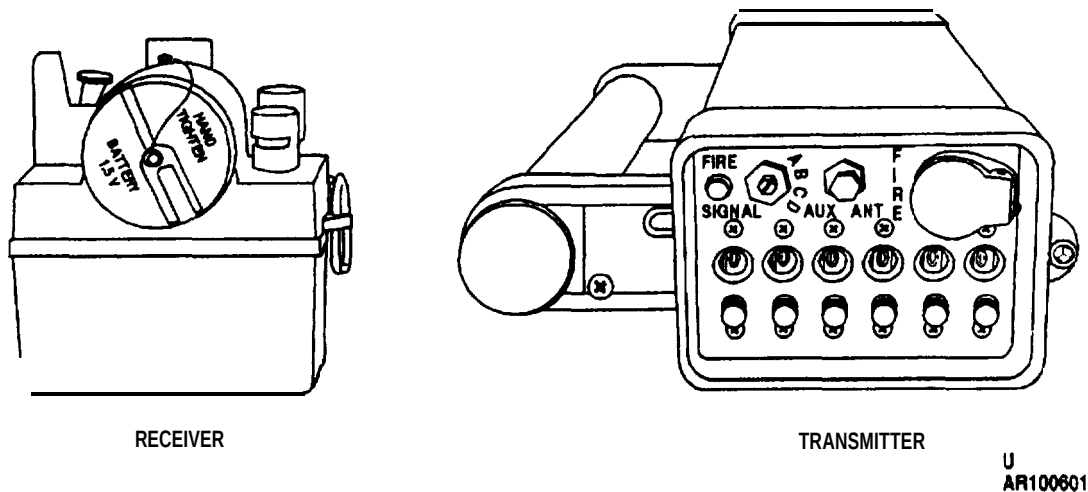


Figure 1-1. Transmitter and receiver of demolition firing device M122.

b. The maximum operating distance from the transmitter to receiver will vary with the terrain. The nominal operating distance is a minimum of 1000 meters (0.6 of a mile). Under adverse terrain conditions such as dense forest or frozen tundra, an operating range of less than 0,6 mile (1000 meters) may be experienced. In clear areas and with good weather where a line of sight exists between the transmitter and receiver, operations are possible at distances up to 3.2 kilometers (2 miles) over land, 5 kilometers (3 miles) over water, and 10 kilometers (6 miles) from aircraft to an open (uncovered) firing site.

### 1-7. IDENTIFICATION

The transmitter and receiver are colored olive drab with white marking. Metal identification plates on the transmitter and receiver bear the following information:

Transmitter ----- M122 Transmitter  
Part No. 9252773  
Serial No.

Receiver ----- M122 Receiver  
Part No. 9279048  
Serial No.

### 1-8. DESCRIPTION

a. General. The major components of the transmitter receiver are shown in figures 1-1 through 1-7. The transmitter is used for encoding and transmitting a radio signal and has its own antenna collapsed within the carrying handle. The receiver with an attached antenna wire is used for receiving and decoding the incoming radio signal. This signal triggers electronic firing of attached blasting caps that initiate explosive charges. The firing device is issued in sets consisting of one transmitter and 10 receivers in a fitted carrying case (fig. 1-5 and 1-6). The initial batteries and special battery pack will not be supplied with the item. Batteries and battery packs must be requisitioned through normal channels. Receiver batteries should be available for over-the-counter issue in most areas. Batteries or battery packs are not shipped installed in the devices and must be installed before checkout test or use.