

**DEPARTMENT OF THE ARMY TECHNICAL
MANUAL**

**ARTILLERY AMMUNITION:
AUTHORIZED PROJECTILE, FUZE AND PROPELLING
CHARGE COMBINATIONS
FOR
HOWITZER, MEDIUM, TOWED, 155MM: M1 14A2 WITH
CANNON M1A2 AND HOWITZER, MEDIUM, SELF-
PROPELLED, 155MM: M109 WITH CANNON M126A1**

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Headquarters, Department of the Army, Washington, DC

6 April 1993

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS. 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), direct to: Commander, US Army Armament Research, Development and Engineering Center, ATTN: SMCAR-LSB, Picatinny Arsenal, New Jersey 07806-5000. A reply will be furnished direct to you.

INTRODUCTION

SCOPE

This manual contains a listing of authorized projectile, fuze, and propellin charge combinations for the medium towed, 155mm, M114A2 howitzer with M1A2 cannon and medium self-propelled, 155mm, M109 howitzer with M126A1 cannon. For ready reference and ease of handling, this information is published in chart form. When a conflict exists in the data in this manual and other published technical manuals, this manual will take precedence.

PRECAUTIONS

Precautions and restrictions to be observed in handling fuzes and firing ammunition with the charge/projectile-fuze combinations indicated in this manual are published in TM 9-1025-200-12 and TM 9-2350-217-10N.

* This manual supersedes TM 43-0001-28-8 dated 28 February 1992.

KEY TO ABBREVIATIONS AND SYMBOLS	
X	AUTHORIZED
•	AUTHORIZED
BE.....	Base ejection
ET.....	Electronic time
GB.....	Nonpersistent toxic (casualty) nerve gas
H	Mustard gas
HC.....	Hexachlorethane-zinc (smoke mixture)
HD.....	Distilled mustard gas
HE.....	High explosive
HEAT.....	High explosive antitank
HERA.....	High explosive rocket assisted
ICM.....	Improved Conventional Munitions
MT.....	Mechanical time
MTSQ.....	Mechanical time and superquick
P.....	Requires removal of supplementary charge if present.
PD.....	Point detonating
Prox.....	Proximity
VX.....	Persistent toxic (casualty) nerve gas
WP.....	White phosphorus

AUTHORIZED PROJECTILE, FUZE AND PROPELLING CHARGE COMBINATIONS
HOWITZER, MEDIUM, TOWED, 155MM: M114A2 WITH CANNON M1A2¹ AND
HOWITZER, MEDIUM, SELF-PROPELLED, 155MM: M109 WITH CANNON M126A1²

FUZE										TYPE AND MODEL NO. OF PROJECTILE	PROPELLING CHARGE										FIRING LIMITATIONS									
ET	PD	MT	MTSQ			PROX					(GREEN BAG) M3 AND M3A1 CHARGES					(WHITE BAG) M4A1 AND M4A2 CHARGES														
M762	M767	M557/M572	M739 Series		M565	M501 Series		M564	M577 Series		M582 Series		M728 ^{7, 11}	M732 Series		M514 Series ^{7, 9}		1	2	3		4	5	3	4	5	6	7		
	x	x	x				x		x				x					HE, M107 NORMAL CAVITY	•	•	•	•	•	•	•	•	•	•		
	x	x	x				x		x	P			x	P				HE, M107 DEEP CAVITY	•	•	•	•	•	•	•	•	•	•		
x				x					x									HE, M449, M449A1, ICM	•	•	•	•	•	•	•	•	•	•		
x									x ⁴									HE, M483A1, ICM	•	•	•	•	•	•	•	•	•	•		
x									x									HE, M692, M731 (ADAM)	•	•	•	•	•	•	•	•	•	•		
x									x									HE, M718, (M718A1), M741 (M741A1)	•	•	•	•	•	•	•	•	•	•	•	
x				x					x									ILLUMINATING M485A1, M485A2	•	•	•	•	•	•	•	•	•	•	M485A1/A2 Projectiles are not reliable when fired at Charges 6, and 7, with fuze settings of 10 seconds or less.	

See footnotes at end of table.

AUTHORIZED PROJECTILE, FUZE AND PROPELLING CHARGE COMBINATIONS
 HOWITZER, MEDIUM, TOWED, 155MM: M114A2 WITH CANNON M1A2¹ AND
 HOWITZER, MEDIUM, SELF-PROPELLED, 155MM: M109 WITH CANNON M126A1²

FUZE										TYPE AND MODEL NO. OF PROJECTILE	PROPELLING CHARGE										FIRING LIMITATIONS		
ET	PD	MT	MTSQ		PROX			(GREEN BAG) M3 AND M3A1 CHARGES					(WHITE BAG) M4A1 AND M4A2 CHARGES										
M762	M767	M557/M572	M799 Series	M565	M501 Series	M564	M577 Series	M582 Series	M728 ^{7, 11}		M732 Series	M514 Series ^{7, 8}	1	2	3	4	5	3	4	5		6	7
	x	x	x				x		x			AGENT H, HD, M110	•	•	•	•	•	•	•	•	•	•	M110 Agent Burster loaded with tetrytol cannot be stored or fired at temperatures exceeding +125°F (+52°C).
		x	x									AGENT GB2 M687	•	•	•	•	•	•	•	•	•	•	
	x	x	x				x		x			SMOKE, WP, M110 (M110E1), M110A1 (M110E2), M110A2/M110E3	•	•	•	•	•	•	•	•	•	•	M110 (M110E1) Burster loaded with tetrytol cannot be stored at temperatures exceeding +125°F (+52°C).
							x					SMOKE, BE, HC, M116, M116B1	•	•	•	•	•	•	•	•	•	3	
x				x			x					SMOKE, BE, HC, M116A1	•	•	•	•	•	•	•	•	•	•	
		x	x						x ³	x ⁵		AGENT, (GB OR VX) M121A1	•	•	•	•	•	•	•	•	•	•	

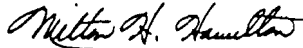
See footnotes at end of table.

- WARNING:
1. PRIMER MK2A4 IS THE ONLY AUTHORIZED PRIMER TO BE USED IN THE M1A2 CANNON.
 2. PRIMER M82 IS THE ONLY AUTHORIZED PRIMER TO BE USED IN THE M126 CANNONS.
 3. M116 AND M116B1 RESTRICTED FROM OVERHEAD FIRE WITH ZONE 7 OF M4A1 AND M4A2 CHARGES DUE TO POSSIBLE BASE PLATE SEPARATION CREATING DOWNRANGE SAFETY HAZARD.
 4. THE M712 PROJECTILE IS NOT TO BE FIRED IN THE M109 HOWITZER.
 5. M728 AND M732 FIRED WITH "VX" PROJECTILE IN COMBAT EMERGENCY ONLY.
 6. DO NOT FIRE THE M549/M549A1/M864 PROJECTILES IF THE OBTURATING BAND IS MISSING OR BROKEN. IF THE BAND IS DISPLACED AND CAN BE REPOSITIONED AND REMAIN IN THE GROOVE, THE PROJECTILE CAN BE FIRED.
- NOTE:
7. THE LETTER P SHOWS COMPATIBILITY FOR PROXIMITY FUZES THAT REQUIRE REMOVAL OF THE SUPPLEMENTARY CHARGE TO MAKE ROOM FOR THE LONG INTRUSION FUZE.
 8. THE M483A1 PROJECTILE MAY BE USED FOR SELF-REGISTRATION (AS A SPOTTING ROUND) BY REPLACING THE EXPULSION CHARGE ASSEMBLY WITH A PROJECTILE SPOTTING CHARGE ADDED TO THE M577 SERIES FUZE.
 9. USMC TRAINING USE ONLY. FIRING LIMITS 0°F - +120°F.
 10. M825 PROJECTILES (MANUFACTURED JAN 85 - MAY 86) FIRED AT TEMPERATURES ABOVE 110°F (WP LIQUIFIED) HAVE RESULTED IN FLIGHT INSTABILITY AND SHORT ROUNDS. THIS INSTABILITY DOES NOT OCCUR BELOW 110°F (WP SOLID). THIS RESTRICTION DOES NOT APPLY TO THE M825A1.
 11. M728 FUZE IS RESTRICTED FROM OVERHEAD FIRE DUE TO POSSIBLE DOWNRANGE PREMATURES.
 12. FIRE THE M732 FUZE WITH THE M549/M549A1 ONLY IN THE ROCKET OFF MODE.
 13. M732 FUZE CANNOT BE USED WITH M804A1 PROJECTILE.

By Order of the Secretary of the Army:

GORDON R. SULLIVAN
General, United States Army
Chief of Staff

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MILTON H. HAMILTON
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