

DEPARTMENT OF THE ARMY TECHNICAL
MANUAL

ARTILLERY AMMUNITION:
AUTHORIZED PROJECTILE, FUZE AND PROPELLING
CHARGE COMBINATIONS
FOR
HOWITZER, HEAVY, SELF-PROPELLED, 8 INCH:
M110A2 WITH CANNON, M201A1

Approved for public release; distribution is unlimited
Headquarters, Department of the Army, Washington, DC
24 August 1988

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, Munitions and Chemical Command, ATTN: AMSMC-MAY-T (D), Dover New Jersey 07806-5000. A reply will be furnished direct to you.

INTRODUCTION

SCOPE

This manual contains a listing of authorized projectile, fuze and propelling charge combinations for the self-propelled, 8 inch M110A2 howitzer. 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 9-2350-304-10.

* This manual supersedes TM 43-0001-28-4, 15 February 1983.

KEY	TO ABBREVIATIONS AND SYMBOLS
X	AUTHORIZED
•	AUTHORIZED
GB	Nonpersistent toxic (casualty) nerve gas
HERA	High explosive rocket assisted
ICM	Improved Conventional Munitions
MT	Mechanical time
MTSQ	Mechanical time and superquick
PD.....	Point detonating
Prox	Proximity,
VX.....	Persistent toxic (casualty) nerve gas

**AUTHORIZED PROJECTILE, FUZE AND PROPELLING CHARGE COMBINATIONS
HOWITZER, HEAVY SELF-PROPELLED. 8 INCH: M110A2 WITH CANNON, M201A1**

FUZE									TYPE AND MODEL NUMBER OF PROJECTILE	PROPELLING CHARGE										
PD			MT	MTSQ			PROX (VT)			M1					M2			M188	M188A1	
M739 Series	M557	M572	M565	M564	M577 Series	M582 Series	M728	M732		Zone					Zone			Zone	Zone	
									1	2	3	4	5	5	6	7	8	8	9	
X	X								AGENT GB, VX	•	•	•	•	•	•	•		•	•	•
X	X	X		X 3		X		X	HE, M106 (SHALLOW CAVITY)	•	•	•	•	•	•	•	•	•	•	•
X	X	X		X 3		X	X 2	X	HE, M106 (DEEP CAVITY)	•	•	•	•	•	•	•		•	•	•
			X		X				HE, M404, ICM	•	•	•	•	•	•	•				
					X				HE, M509A1,	•	•	•	•	•	•	•	•	•	•	•
X	X	X							HERA, M650 (ROCKET-ON)								•	•	•	•
X	X	X		X 3		X		X	HERA, M650 ¹ (ROCKET-OFF)	•	•	•	•	•	•	•	•	•	•	•

WARNING: 1 - DO NOT FIRE THE M650 PROJECTILE 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: 2 - AUTHORIZED, REQUIRES REMOVAL OF SUPPLEMENTARY CHARGE.

3 - FUZE, MTSQ, M564 IS RESTRICTED FROM FIRING WITH ZONE 9 M188A1 PROPELLING CHARGE.

By Order of the Secretary of the Army:

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Distribution

To be distributed in accordance with DA Form 12-34B-R.

☆U.S. GOVERNMENT PRINTING OFFICE: 1995 - 388-421/40114

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 <p style="font-size: small; margin: 0;"><i>THEN...JOT DOWN THE DOPE ABOUT IT ON THIS FORM. CAREFULLY TEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL.</i></p>		SOMETHING WRONG WITH PUBLICATION	
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PAGE NO.	PARA-GRAPH	FIGURE NO.	TABLE NO.
PRINTED NAME, GRADE OR TITLE AND TELEPHONE NUMBER		SIGN HERE	

The Metric System and Equivalents

Linear Measure

1 centimeter = 10 millimeters = .39 inch
 1 decimeter = 10 centimeters = 3.94 inches
 1 meter = 10 decimeters = 39.37 inches
 1 dekameter = 10 meters = 32.8 feet
 1 hectometer = 10 dekameters = 328.08 feet
 1 kilometer = 10 hectometers = 3,280.8 feet

Weights

1 centigram = 10 milligrams = .15 grain
 1 decigram = 10 centigrams = 1.54 grains
 1 gram = 10 decigrams = .035 ounce
 1 decagram = 10 grams = .35 ounce
 1 hectogram = 10 decagrams = 3.52 ounces
 1 kilogram = 10 hectograms = 2.2 pounds
 1 quintal = 100 kilograms = 220.46 pounds
 1 metric ton = 10 quintals = 1.1 short tons

Liquid Measure

1 centiliter = 10 milliliters = .34 fl. ounce
 1 deciliter = 10 centiliters = 3.38 fl. ounces
 1 liter = 10 deciliters = 33.81 fl. ounces
 1 dekaliter = 10 liters = 2.64 gallons
 1 hectoliter = 10 dekaliters = 26.42 gallons
 1 kiloliter = 10 hectoliters = 264.18 gallons

Square Measure

1 sq. centimeter = 100 sq. millimeters = .155 sq. inch
 1 sq. decimeter = 100 sq. centimeters = 15.5 sq. inches
 1 sq. meter (centare) = 100 sq. decimeters = 10.76 sq. feet
 1 sq. dekameter (are) = 100 sq. meters = 1,076.4 sq. feet
 1 sq. hectometer (hectare) = 100 sq. dekameters = 2.47 acres
 1 sq. kilometer = 100 sq. hectometers = .386 sq. mile

Cubic Measure

1 cu. centimeter = 1000 cu. millimeters = .06 cu. inch
 1 cu. decimeter = 1000 cu. centimeters = 61.02 cu. inches
 1 cu. meter = 1000 cu. decimeters = 35.31 cu. feet

Approximate Conversion Factors

<i>To change</i>	<i>To</i>	<i>Multiply by</i>	<i>To change</i>	<i>To</i>	<i>Multiply by</i>
inches	centimeters	2.540	ounce-inches	Newton-meters	.007062
feet	meters	.305	centimeters	inches	.394
yards	meters	.914	meters	feet	3.280
miles	kilometers	1.609	meters	yards	1.094
square inches	square centimeters	6.451	kilometers	miles	.621
square feet	square meters	.093	square centimeters	square inches	.155
square yards	square meters	.836	square meters	square feet	10.764
square miles	square kilometers	2.590	square meters	square yards	1.196
acres	square hectometers	.405	square kilometers	square miles	.386
cubic feet	cubic meters	.028	square hectometers	acres	2.471
cubic yards	cubic meters	.765	cubic meters	cubic feet	35.315
fluid ounces	milliliters	29.573	cubic meters	cubic yards	1.308
pints	liters	.473	milliliters	fluid ounces	.034
quarts	liters	.946	liters	pints	2.113
gallons	liters	3.785	liters	quarts	1.057
ounces	grams	28.349	liters	gallons	.264
pounds	kilograms	.454	grams	ounces	.035
short tons	metric tons	.907	kilograms	pounds	2.205
pound-feet	Newton-meters	1.356	metric tons	short tons	1.102
pound-inches	Newton-meters	.11296			

Temperature (Exact)

°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C
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