## **Defense Intelligence Reference Document**

December 1997 NGIC-1143-029-98

# **Worldwide Fuze Identification Guide**





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### **Defense Intelligence Reference Document**

#### Worldwide Fuze Identification Guide

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The Worldwide Fuze Identification Guide supersedes the Foreign Fuze Identification Handbook (U), DST-1160H-029-94, September 1994, which should be destroyed.

Product Requirements are listed in the Foreword.

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## Worldwide Fuze Identification Guide

#### Summary

Historically, tactical deployment of U.S. forces has resulted in exposure to first-seen ordnance and fuzing systems. Proper and timely identification of this material is of importance to tactical commanders, but this task often has been difficult because of a lack of reference material.

The purpose of this document is to keep customers aware of newly encountered fuzes and to provide information valuable in assessing the tactical threat.

No attempt has been made in this document to develop a complete catalog of worldwide fuzes. Such a collection would make the information unmanageable, and it would unnecessarily duplicate existing coverage in other publications.

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## Worldwide Fuze Identification Guide

#### **Foreword**

The purpose of this guide is to provide a comprehensive technical reference on selected foreign fuzes. The document provides data sheet presentation of the physical characteristics of each fuze and the type of ordnance with which the particular fuze is associated. The information is intended to aid U.S. operational forces and other interested agencies in the identification and use of frequently encountered foreign fuzes. Army requirements addressed in this product were contained in PR C513-95-0012/1.

Historically, tactical deployment of U.S. forces has resulted in exposure to first-seen ordnance and fuzing systems. Proper and timely identification of this material is of importance to tactical commanders, but this task has often been difficult because of a lack of reference material. It is the intent of this document to keep abreast of newly encountered fuzes and to provide information valuable in assessing the tactical threat.

This document could not have been prepared were it not for the research and photography work done by the staff of the Explosive Ordnance Disposal Office, Armament Research, Development, and Engineering Center, Picatinny Arsenal, NJ.

Constructive criticism, comments, or suggested changes are encouraged and should be forwarded to the National Ground Intelligence Center, ATTN: IANG-OPS, 220 Seventh Street, NE., Charlottesville, VA 22902-5396.

#### **GENERAL**

This document provides limited technical data and color illustrations of selected foreign fuzes to aid tactical forces and research and development agencies in their missions. Some of the fuzes covered in this document are quite old and would have been thought to have become obsolete. Recent military operations in several Third World countries, however, have encountered these fuzes. Because of their age, documented coverage has often been withdrawn, making identification difficult. They appear in this document based of their recent encounters—not because they are thought to be first seen ordnance. While no document can provide an all-encompassing coverage of foreign fuzes, this publication will be updated as often as possible to include newer fuzes as they are encountered.

To assist the user of this document, the fuzes covered have been grouped by function (base detonating, point detonating, proximity, etc.). Within each of these categories, they are arranged alphabetically by country of origin and, within these countries, further arranged by designator prefix.

Attempts have been made to show clearly the markings present, body materials, surface appearances, and colors to aid in a positive identification. Color photographs are used to show more precise details to aid in the proper identification of each fuze. Where possible, photographs of the same fuze with and without safety caps, safety pins, and/or rotated to show different physical characteristics or markings may be provided if they provide information to assist in a better examination of the fuze. Some embossed markings shown on the fuze bodies have been highlighted in white to provide better photographic clarity.

One primary method to identify country-of-origin for fuzes is through the markings found on them. In-depth coverage of the markings practices of the various countries would be impractical in this document. One comment, however, should be made concerning Chinese fuzes. Early Chinese fuzes normally used at least one Chinese character in the markings, thus making identification

easier. Recently, however, the Chinese have changed their markings and designator practices on fuzes destined for export. For those fuzes designed and produced by China, new Roman alphabetic codes have been assigned in lieu of the previous Chinese characters. The new designator codes use the same prefix letters to describe the combination of the ordnance the fuze is associated with and the type, by function, of the fuze. Some of these characters and their meanings are listed below:

Table 1
Chinese Fuze Designators

Designator	Use
MD	Proximity and piezoelectric fuzes for artillery projectiles, rockets, and missiles.
MJ	Point-detonating fuzes for rockets.
ML	Point-detonating fuzes for artillery projectiles.
MP	Point-detonating fuzes for mortar projectiles.
MS	Time and mechanical time fuzes for artillery and mortar projectiles.

Fuzes copied by the Chinese from other countries normally do not carry these new designations. Instead, the Chinese practice is to carry forward the designator assigned by the developing country. For example, the Chinese use the V-90 and M739 designators generated originally by the Former Soviet Union and the United States respectively on two fuzes of current Chinese production. The prefixes for these designators are also expressed in alphabetic codes.

Fuze designators have been listed in this document in English. Many countries of the world use the Cyrillic alphabet and accordingly mark their fuzes with Cyrillic letters. To assist the reader in transliteration of the actual fuze markings to English, the following table may be used.

#### TRANSLITERATION SYSTEM FOR RUSSIAN CYRILLIC BGN/PCGN 1947 SYSTEM (Revised in 1970 and 1972)

RUSSIAN	ROMAN	RUSSIAN	ROMAN	RUSSIAN	ROMAN
Aa	a	Kκ	k	Хx	kh
Бб	b	Лп	l	Щц	ts
Вв	v	Мм	m	$\mathbf{q}_{\mathbf{q}}$	ch
Гг	g	Нн	n	Шш	sh
Дд	ď	Oo	0	Щщ	shch
Ee	$\mathbf{e}, \mathbf{y}\mathbf{e}^1$	Пп	р	Ъъ	**
Ëë	ë, yë²	Pp	r	Ыы	y
Жж	zh	Cc	S	Ьь	,
Зз	Z	$\mathbf{T}_{\mathbf{T}}$	t	Ээ	e
Ии	i	Уу	u	Юло	yu
Йй	y	Фф	f	Яя	ya

- 1. The Cyrillic letter "e" is transliterated as "ye" initially, after vowels, and after "ъ" and "ъ;" elsewhere as "e."
- 2. The letter "ë" is not considered a separate letter of the Russian Cyrillic alphabet, and the dieresis is often omitted. When printed in Cyrillic as "ë," it is transliterated as "yë" or "ye" initially, after vowels, and after "ъ" and "ъ;" elsewhere as "ë" or "e." The use of the dieresis in the transliterated form was made optional by the BGN and the PCGN in May 1970.
- 3. Letter sequences "иы," "йа," "йу," "йы," "тс," "шч," "ыа," and the letter "э" immediately following a consonant may be transliterated "i•y," "y•a," "y•u," "y•y," "t•s," "sh•ch," "y•a," and "e" to distinguish those romanizations from the regularly-occurring combinations and digraphs "iy," "ya," "yu," "yy," "ts," "shch," and "e," which represent the letters and combinations "ий," "я," "ю," "ый," "ц," "щ," and "e" following a consonant.

#### **FOREIGN FUZES**

### **Base Detonating (BD)**

CHINA	
TYPE 2	9
TYPE 4	10
FORMER CZECHOSLOVAKIA	
PD 30	11
FORMER SOVIET UNION	
DBR	12
DBT	13
DK-4	14
KTD	15
MD-7	16
MD-8	17
MD-10	18

LENGTH: MAX DIA: 40.00 mm 1.57 in

108.00 mm Overall: 4.25 in

Exposed 371.00 g 13.09 oz 63.55 mm OVERALL WT: 2.50 in

MATERIAL: Steel

ORD USED WITH: Artillery projectile

COMMENTS: Similar to the Former Soviet Union DBR-2.



TYPE 2 **CHINA** 

 LENGTH:
 MAX DIA:
 29.00 mm

 Overall:
 64.60 mm
 1.14 in

 2.54 in
 2.54 in
 1.100 g

 Exposed
 0.00 mm
 OVERALL WT:
 71.00 g

 0.00 in
 2.50 oz

MATERIAL: Steel and bakelite

ORD USED WITH: 82-mm recoilless rifle projectiles and newer version of the TYPE  $56\ (RPG-2)$  grenade

COMMENTS: None.



CHINA TYPE 4

LENGTH: MAX DIA: 34.00 mm

Overall: 66.00 mm 1.34 in

2.60 in

Exposed 29.00 mm OVERALL WT: 262.00 g

1.14 in 9.24 oz

MATERIAL: Steel

ORD USED WITH: Armor-piercing high explosive artillery projectile

COMMENTS: Fuze functions after sensing penetration.



**PD 30** 

FORMER CZECHOSLOVAKIA

MAX DIA: LENGTH: 40.00 mm

107.00 mm Overall: 1.57 in

4.21 in

Exposed 284.00 g 10.02 oz 64.00 mm OVERALL WT:

2.52 in

MATERIAL: Steel

ORD USED WITH: Armor-piercing artillery projectile

COMMENTS: Graze sensitive.





**FORMER SOVIET UNION** 

**DBR** 

LENGTH: MAX DIA: 65.00 mm

Overall: 113.00 mm 2.56 in

4.45 in

Exposed 15.60 mm OVERALL WT: 1140.00 g 0.61 in 40.21 oz

MATERIAL: Steel

ORD USED WITH: Concrete-piercing artillery projectile

COMMENTS: Factory set for delay detonation. Selector can be moved to set for instantaneous. Once moved, the selector cannot be reset.





**DBT** 

**FORMER SOVIET UNION** 

#### **BDSD**

MAX DIA: LENGTH: 29.00 mm

Overall: 64.40 mm 1.14 in

2.54 in

79.00 g 2.79 oz Exposed  $0.00 \, \mathrm{mm}$ OVERALL WT:

0.00 in

MATERIAL: Steel

ORD USED WITH: Grenade

COMMENTS: This fuze is used with the PG-2 and has a self-destruct

time of 4.16 seconds.





**FORMER SOVIET UNION** 

DK-4

LENGTH: MAX DIA: 66.00 mm

Overall: 109.00 mm 2.60 in

4.29 in

Exposed 11.95 mm OVERALL WT: 1233.0 g 0.47 in 43.49 oz

MATERIAL: Steel

ORD USED WITH: Concrete-piercing artillery projectiles

COMMENTS: Setable for safe (II, K), delay (3), or non-delay (O).





**KTD** 

**FORMER SOVIET UNION** 

MAX DIA: LENGTH: 29.00 mm Overall: 63.00 mm 1.14 in

2.48 in

91.00 g 3.21 oz Exposed 26.00 mm OVERALL WT:

1.02 in

MATERIAL: Steel

ORD USED WITH: Armor-piercing artillery projectiles

COMMENTS: Delay is regulated by the fuze depending on target

thickness.



**FORMER SOVIET UNION** 

MD-7

MAX DIA: LENGTH: 34.15 mm

Overall: 47.35 mm 1.34 in

1.86 in

Exposed 105.00 g 3.70 oz 17.20 mm OVERALL WT:

0.68 in

MATERIAL: Steel

ORD USED WITH: Armor-piercing artillery projectiles

COMMENTS: Delay is regulated by the fuze, depending on target

thickness.



#### MD-8

#### **FORMER SOVIET UNION**

 LENGTH:
 MAX DIA:
 33.00 mm

 Overall:
 70.00 mm
 1.30 in

 2.76 in
 2.76 in
 1.32 in

 Exposed
 33.50 mm
 OVERALL WT:
 154.00 g

 1.32 in
 5.43 oz

MATERIAL: Steel

ORD USED WITH: Armor-piercing artillery projectiles

COMMENTS: Removable tracer elements.



**FORMER SOVIET UNION** 

**MD-10** 

## Time (T)

CHINA	
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VM-30	54
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FORMER YUGOSLAVIA	
M66	69
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DM 143	35
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213 MK4/2	67
221B MK6Be	68
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#### **TSQ**

MAX DIA: LENGTH: 47.30 mm

Overall: 114.00 mm 1.86 in

4.49 in

570.70 g 20.13 oz Exposed 70.00 mm OVERALL WT:

2.76 in

MATERIAL: Steel and brass

ORD USED WITH: Artillery projectiles

COMMENTS: This fuze is identical to the Former Soviet D-1-U, and bears the alternate designation of ML-9.





**D-1-U CHINA** 

LENGTH: MAX DIA: 64.00 mm

135.00 mm Overall: 2.52 in

5.32 in

Exposed OVERALL WT: 550.00 g 19.40 oz 106.00 mm 4.17 in

MATERIAL: Aluminum and steel

ORD USED WITH: Ejection-type artillery projectiles

COMMENTS: 85-second maximum setting.





**CHINA** MS-1

#### PTT

LENGTH: MAX DIA: 66.00 mm

97.00 mm Overall: 2.60 in

3.82 in 67.00 mm OVERALL WT:

462.00 g 16.29 oz Exposed 2.64 in

MATERIAL: Aluminum and phenolic

ORD USED WITH: Ejection-type mortar projectiles

COMMENTS: In-flight arming delay of at least 3 seconds.





MS-3A **CHINA** 

MAX DIA: LENGTH: 64.00 mm Overall: 2.52 in 152.00 mm

5.98 in

673.00 g 23.74 oz Exposed 123.00 mm OVERALL WT:

4.84 in

MATERIAL: Aluminum

ORD USED WITH: Artillery projectiles

COMMENTS: No visible time settings. Uses centrifugal forces to fire

the striker.



FORMER CZECHOSLOVAKIA

**VDM** 

LENGTH: MAX DIA: 77.00 mm Overall:

68.00 mm 3.03 in

2.68 in

Exposed 967.00 g 34.11 oz 57.00 mm OVERALL WT:

2.24 in

MATERIAL: Aluminum

ORD USED WITH: Ejection-type mortar projectiles

COMMENTS: Maximum setting of 75 seconds.



**FRANCE FH-81B** 

LENGTH: MAX DIA: 66.00 mm

110.00 mm Overall: 2.60 in

4.33 in

Exposed 494.00 g 17.42 oz 96.00 mm OVERALL WT:

3.78 in

MATERIAL: Aluminum

ORD USED WITH: Ejection-type mortar projectiles

COMMENTS: Maximum 5-second time setting.





**FRANCE** FR55B

LENGTH: MAX DIA: 62.50 mm

145.50 mm Overall: 2.46 in

5.73 in

OVERALL WT: Exposed 95.00 mm Unknown

3.74 in Unknown

MATERIAL: Aluminum

ORD USED WITH: Rocket

COMMENTS: 110-mm LAR rocket system.



**GERMANY DM 33** 

# ET

LENGTH: MAX DIA: 83.00 mm

Overall: 206.95 mm 3.27 in

8.15 in

Exposed 110.35 mm OVERALL WT: Unknown

4.34 in Unknown

MATERIAL: Aluminum

ORD USED WITH: Rockets

COMMENTS: None.



GERMANY DM 42

LENGTH: MAX DIA: 60.90 mm

Overall: 134.80 mm 2.40 in

5.31 in

Exposed 96.50 mm OVERALL WT: Unknown

3.80 in Unknown

MATERIAL: Aluminum

ORD USED WITH: Artillery projectiles

COMMENTS: Can be set manually or by inductive fuze setter. LED for displaying time set.



DM 52 GERMANY

LENGTH: MAX DIA: 73.00 mm Overall: 80.10 mm 2.87 in

3.15 in

Exposed 69.60 mm OVERALL WT: Unknown 2.74 in

Unknown

MATERIAL: Aluminum

ORD USED WITH: 84-mm Carl Gustav projectiles

COMMENTS: Hand settable in meters.



**GERMANY DM 42** 

LENGTH: MAX DIA: 49.00 mm

Overall: 88.00 mm 1.93 in

3.46 in 61.00 mm OVER ALL WT: 223

Exposed 61.00 mm OVERALL WT: 223.00 g 2.40 in 7.87 oz

MATERIAL: Aluminum

ORD USED WITH: Ejection-type mortar projectiles

COMMENTS: Maximum 54-second time setting. Also known as the M776.





DM-93 GERMANY

LENGTH: MAX DIA: 49.00 mm

Overall: 90.00 mm 1.93 in

3.54 in

Exposed 241.00 g 8.50 oz 60.00 mm OVERALL WT:

2.36 in

MATERIAL: Aluminum

ORD USED WITH: Ejection-type mortar projectiles

COMMENTS: Maximum time setting of 54 seconds.





**GERMANY** DM-93A1

LENGTH: MAX DIA: 49.00 mm

Overall 90.00 mm 1.93 in

3.54 in

Exposed 241.00 g 8.50 oz 60.00 mm OVERALL WT: 2.36 in

MATERIAL: Aluminum

ORD USED WITH: Ejection-type mortar projectiles

COMMENTS: German design, unknown manufacturer.





**MTSQ 93 GERMANY** 

LENGTH: MAX DIA: 49.00 mm Overall: 87.60 mm 1.93 in

3.45 in

Exposed 60.10 mm OVERALL WT: Unknown

2.37 in Unknown

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: Used in smooth or rifled bore weapons.



GERMANY DM 123

LENGTH: MAX DIA: 60.90 mm

152.20 mm Overall: 2.40 in

5.99 in

OVERALL WT: Exposed 96.00 mm Unknown

3.78 in Unknown

MATERIAL: Unknown

ORD USED WITH: Artillery projectiles

COMMENTS: None.



**DM 143 GERMANY** 

LENGTH: MAX DIA: 60.90 mm

Overall: 117.30 mm 2.40 in

4.62 in

Exposed 96.40 mm OVERALL WT: Unknown

3.80 in Unknown

MATERIAL: Unknown

ORD USED WITH: Artillery projectiles

COMMENTS: None.



GERMANY DM 153

LENGTH: MAX DIA: 60.90 mm

134.65 mm Overall: 2.40 in

5.30 in

Exposed 96.40 mm OVERALL WT: Unknown

3.80 in Unknown

MATERIAL: Aluminum and brass

ORD USED WITH: Artillery projectiles

COMMENTS: Used in 155-mm cargo ammunition.



**DM 163 GERMANY** 

MAX DIA: LENGTH: 60.90 mm 2.40 in

Overall: 147.80 mm

5.82 in

Exposed 96.4 mm OVERALL WT: Unknown

3.80 in Unknown

MATERIAL: Aluminum and brass

ORD USED WITH: Artillery projectiles

COMMENTS: Used with 155-mm cargo ammunition. Similar to the DM 163 but with the DM 1013 booster.



**GERMANY** 

**DM 163 MOD.** 

LENGTH: MAX DIA: 83.70 mm 3.30 in

118.00 mm Overall:

4.65 in

Exposed 68.00 mm OVERALL WT: Unknown 2.68 in Unknown

MATERIAL: Aluminum

ORD USED WITH: 84-mm Carl Gustav projectiles

COMMENTS: Hand settable in meters.



No. 504 **GERMANY** 

## **PTT**

MAX DIA: LENGTH: 64.00 mm

Overall: 157.00 mm 2.52 in

6.18 in

605.00 g 21.34 oz Exposed 128.00 mm OVERALL WT:

5.04 in

MATERIAL: Aluminum and brass

ORD USED WITH: Rocket

COMMENTS: This fuze is used with illumination rockets. Maximum

setting of 165 seconds.



**GERMANY T-7** 

LENGTH: MAX DIA: 61.00 mm

127.50 mm Overall: 2.40 in

5.01 in

990.00 g 34.92 oz Exposed 88.30 mm OVERALL WT:

3.48 in

MATERIAL: Unknown

ORD USED WITH: Artillery projectiles

COMMENTS: Impact back-up function.



213 MK 5 (M-1)

**INDIA** 

LENGTH: MAX DIA: 61.00 mm Overall: 118.40 mm 2.40 in

4.66 in

Exposed 950.00 g 33.51 oz 88.30 mm OVERALL WT:

3.48 in

MATERIAL: Unknown

ORD USED WITH: Artillery projectiles

COMMENTS: Impact back-up function.



INDIA

213P MK 5 (M-2)

LENGTH: MAX DIA: 61.00 mm

118.40 mm Overall: 2.40 in

4.66 in

Exposed 625.00 g 22.05 oz 88.30 mm OVERALL WT:

3.48 in

MATERIAL: Unknown

ORD USED WITH: Mortar projectiles

COMMENTS: Impact back-up function.



213P MK 5 (M-3)

**INDIA** 

LENGTH: MAX DIA: 61.00 mm Overall: 118.40 mm 2.40 in

4.66 in

Exposed 950.00 g 33.51 oz 88.30 mm OVERALL WT:

3.48 in

MATERIAL: Unknown

ORD USED WITH: Mortar projectiles

COMMENTS: Impact back-up function.



INDIA

213P MK 5 (M-4)

LENGTH: MAX DIA: 83.80 mm 120.50 mm 3.30 in Overall:

4.74 in

OVERALL WT: 725 g 25.57 oz 69.50 mm

2.74 in

MATERIAL: Aluminum

Exposed

ORD USED WITH: 84-mm Carl Gustav

COMMENTS: Impact superquick back-up function.



447 **INDIA** 

LENGTH: MAX DIA: 70.00 mm Overall: 157.00 mm 2.76 in

6.18 in

Exposed 140.00 g 4.94 oz 138.00 mm OVERALL WT:

5.43 in

MATERIAL: Aluminum and plastic

ORD USED WITH: Mortar projectiles

COMMENTS: Maximum setting of 50 seconds.





**ITALY FB338 A**  LENGTH: MAX DIA: 61.20 mm

139.90 mm Overall: 2.41 in

5.51 in

Exposed 550.00 g 19.04 oz 95.50 mm OVERALL WT:

3.76 in

MATERIAL: Aluminum and brass

ORD USED WITH: Artillery projectiles

COMMENTS: Manually set without equipment.



**KAPTEIN EF-784** 

**SINGAPORE** 

## ET

MAX DIA: LENGTH: 61.00 mm

134.00 mm Overall: 2.40 in

5.28 in Exposed 96.00 mm OVERALL WT:

770.00 g 27.16 oz 3.80 in

MATERIAL: Aluminum

ORD USED WITH: Artillery projectiles

COMMENTS: Uses external electronic fuze setter. PDSQ impact back-

up.



**SOUTH AFRICA** 

M8611A1

#### ET

LENGTH: MAX DIA: 61.25 mm

Overall: 151.45 mm 2.41 in

5.96 in

Exposed 95.50 mm OVERALL WT: Unknown

3.76 in Unknown

MATERIAL: Unknown

ORD USED WITH: Artillery projectiles

COMMENTS: Fuze setter used to set time. Impact back-up function.



M9220A1

**SOUTH AFRICA** 

# **TSQ**

LENGTH: MAX DIA: 40.00 mm Overall: 71.00 mm 1.57 in

2.80 in

Exposed 60.00 mm OVERALL WT: 188.00 g

2.36 in 6.63 oz

MATERIAL: Aluminum and steel

ORD USED WITH: Ejection-type mortar projectile

COMMENTS: Maximum setting of 125 seconds. Impact back-up.



## **FORMER SOVIET UNION**

## **TSQ**

MAX DIA: LENGTH: 64.00 mm

Overall: 157.00 mm 2.52 in

6.18 in

712.00 g 25.11 oz Exposed 128.00 mm OVERALL WT:

5.04 in

MATERIAL: Aluminum and brass

ORD USED WITH: Ejection-type mortar projectiles

COMMENTS: Maximum setting of 165 seconds. Impact back-up.



**T-7** 



# **FORMER SOVIET UNION**

MAX DIA: LENGTH: 41.00 mm

Overall: 108.00 mm 1.61 in

4.25 in

Exposed 363.60 g 12.83 oz 61.00 mm OVERALL WT:

2.40 in

MATERIAL: Aluminum and steel

ORD USED WITH: Ejection-type artillery projectiles

COMMENTS: None.





**FORMER SOVIET UNION** 

T-90

LENGTH: MAX DIA: 63.55 mm

198.50 mm Overall: 2.50 in

7.81 in

Exposed 694.00 g 24.48 oz 141.50 mm OVERALL WT:

5.57 in

MATERIAL: Aluminum and steel

ORD USED WITH: Ejection-type rockets

COMMENTS: None.



TM-120

**FORMER SOVIET UNION** 

MAX DIA: LENGTH: 64.00 mm Overall: 135.00 mm 2.52 in

5.31 in

Exposed 876.00 g 30.90 oz 109.00 mm OVERALL WT:

4.29 in

MATERIAL: Aluminum and steel

ORD USED WITH: Artillery projectiles

COMMENTS: No visible time setting markings.





**FORMER SOVIET UNION** 

**VM-30** 

LENGTH: MAX DIA: 64.00 mm

136.00 mm Overall: 2.52 in

5.35 in Exposed 107.00 mm OVERALL WT:

789.00 g 27.83 oz 4.21 in

MATERIAL: Aluminum and steel

ORD USED WITH: Artillery projectiles

COMMENTS: No visible time setting markings.





VM-30-L

**FORMER SOVIET UNION** 

LENGTH: MAX DIA: 64.00 mm Overall: 136.00 mm 2.52 in

5.35 in

Exposed 107.00 mm OVERALL WT: 789.00 g 4.21 in 27.83 oz

MATERIAL: Aluminum and steel

ORD USED WITH: Artillery projectiles

COMMENTS: No visible time setting markings.





**FORMER SOVIET UNION** 

VM-30-L1

MAX DIA: LENGTH: 40.00 mm

Overall: 108.00 mm 1.57 in

4.25 in

482.00 g 17.00 oz Exposed 61.00 mm OVERALL WT:

2.40 in

MATERIAL: Aluminum and steel

ORD USED WITH: Artillery projectiles

COMMENTS: This fuze is also made by China and uses the same designation.





V-90

**FORMER SOVIET UNION** 

## ET

LENGTH: MAX DIA: 63.00 mm Overall: 209.00 mm 2.48 in

8.23 in

Exposed 107.00 mm OVERALL WT: Unknown

4.21 in Unknown

MATERIAL: Unknown

ORD USED WITH: Rockets

COMMENTS: Fuze time set by remote fuze setter.



SPAIN EC 002 A

ET

LENGTH: MAX DIA: 59.50 mm

Overall: 153.00 mm 2.34 in

6.02 in

Exposed 0.00 mm OVERALL WT: Unknown

0.00 in Unknown

MATERIAL: Unknown

ORD USED WITH: Rockets

COMMENTS: Fuze time set by a remote fuze setter.



EC 002 B SPAIN

LENGTH: MAX DIA: 49.00 mm Overall: 95.30 mm 1.93 in

3.75 in

Exposed 77.20 mm OVERALL WT: Unknown

3.04 in Unknown

MATERIAL: Unknown

ORD USED WITH: Mortar projectiles

COMMENTS: Manual time setting.



SPAIN MMT 70

MAX DIA: LENGTH: 75.40 mm

145.00 mm Overall: 2.97 in

5.71 in

Exposed 1290.00 g 507.87 oz 89.20 mm OVERALL WT:

5.51 in

MATERIAL: Unknown

ORD USED WITH: Artillery

COMMENTS: Naval ordnance fuze. Interchangeable with the U.S.

Mk-50 fuze.



MT B46 A1 **SPAIN** 

LENGTH: MAX DIA: 61.00 mm

Overall: 164.50 mm 2.40 in

6.48 in

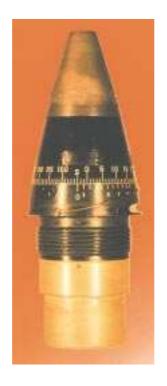
Exposed 1038.00 g 36.61 oz 95.30 mm OVERALL WT:

3.75 in

MATERIAL: Unknown

ORD USED WITH: Rockets

COMMENTS: Modified M564 fuze.



**SPAIN** MT B100 C

## **MTSQ**

MAX DIA: LENGTH: 61.00 mm

148.47 mm Overall: 2.4 0 in

5.85 in

Exposed 96.00 mm OVERALL WT: Unknown 3.78 in

Unknown

MATERIAL: Unknown

ORD USED WITH: Artillery

COMMENTS: Naval ordnance fuze. Interchangeable with the U.S. MK

393.



B100 C1 **SPAIN** 

## **MTSQ**

82.30 mm LENGTH: MAX DIA: Overall: 138.70 mm 3.24 in

5.46 in

Exposed OVERALL WT: 643.00 g 22.68 oz 89.50 mm

3.52 in

MATERIAL: Aluminum

ORD USED WITH: 84-mm Carl Gustav recoilless rifle projectiles

COMMENTS: None.



**SWEDEN** UNKNOWN

#### MT

LENGTH: MAX DIA: 61.00 mm

116.50 mm Overall: 2.40 in

4.59 in

Exposed 918.00 g 32.38 oz 95.00 mm OVERALL WT:

3.74 in

MATERIAL: Aluminum and steel

ORD USED WITH: Artillery projectiles

COMMENTS: Has impact back-up.





L34A2 **UNITED KINGDOM** 

### MT

LENGTH: MAX DIA: 61.00 mm Overall: 170.00 mm 2.40 in

6.69 in

Exposed 1145.00 g 40.38 oz 111.00 mm OVERALL WT:

4.37 in

MATERIAL: Aluminum and brass

ORD USED WITH: Artillery projectiles

COMMENTS: No impact back-up.



**UNITED KINGDOM** 

208 MK3

## **MTSQ**

LENGTH: MAX DIA: 61.00 mm

124.00 mm Overall: 2.40 in

4.88 in

990.00 g 34.92 oz Exposed 85.00 mm OVERALL WT: 3.35 in

MATERIAL: Brass and steel

ORD USED WITH: Artillery projectiles

COMMENTS: Maximum time setting of 80 seconds.





213 MK4/2

**UNITED KINGDOM** 

LENGTH: MAX DIA: 61.00 mm Overall: 121.00 mm 2.40 in

4.76 in

Exposed 929.00 g 32.77 oz 103.00 mm OVERALL WT:

4.06 in

MATERIAL: Brass and steel

ORD USED WITH: Artillery projectiles

COMMENTS: Has an impact back-up.



**UNITED KINGDOM** 

221B MK6Be

LENGTH: MAX DIA: 104.00 mm

103.00 mm Overall: 4.09 in

4.06 in

Exposed 1269.00 g 44.76 oz 76.00 mm OVERALL WT:

2.99 in

MATERIAL: Aluminum

ORD USED WITH: Ejection-type mortar projectiles

COMMENTS: Maximum setting of 50 seconds.





**M66** 

**FORMER YUGOSLAVIA** 

LENGTH: MAX DIA: 58.00 mm

Overall: 65.00 mm 2.30 in

2.56 in

Exposed 56.00 mm OVERALL WT: 263.00 g

2.20 in 9.28 oz

MATERIAL: Aluminum

ORD USED WITH: Ejection-type mortar projectiles

COMMENTS: No impact back-up. Maximum time setting of 35 sec-

onds.





**FORMER YUGOSLAVIA** 

**M67** 

MAX DIA: LENGTH: 79.00 mm

Overall: 76.00 mm 3.11 in

2.99 in

573.00 g 20.21 oz Exposed 67.00 mm OVERALL WT:

2.64 in

MATERIAL: Aluminum

ORD USED WITH: Ejection-type mortar projectiles

COMMENTS: Maximum setting of 38 seconds.



**M67** 

**FORMER YUGOSLAVIA** 

# **Point Detonating (PD)**

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LENGTH: MAX DIA: 49.00 mm 86.55 mm Overall:

3.41 in

1.93 in

Exposed 189.00 g 6.67 in 60.00 mm OVERALL WT: 2.36 in

MATERIAL: Aluminum and phenolic

ORD USED WITH: Mortar projectiles

COMMENTS: This fuze is a copy of the U.S. M52B2.





T37A1B1 **AUSTRIA** 

MAX DIA: LENGTH: 50.00 mm

1.97 in Overall: 88.00 mm

3.46 in

239.00 g 8.43 oz Exposed 60.00 mm OVERALL WT:

2.37 in

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: None.





NR 2444 **BELGIUM** 

LENGTH: MAX DIA: 48.86 mm

115.00 mm 1.92 in Overall:

4.53 in

570.00 g 20.11 oz OVERALL WT: Exposed 88.30 mm

3.48 in

MATERIAL: Steel

ORD USED WITH: 90-mm artillery projectiles

COMMENTS: None.



NR 2495 **BELGIUM** 

LENGTH: MAX DIA: 61 mm Overall: 148.42 mm 2.40 in

5.84 in

Exposed 590.00 g 20.81 oz Unknown OVERALL WT:

Unknown

MATERIAL: Aluminum and plastic

ORD USED WITH: Artillery and mortar projectiles

COMMENTS: Similar to the U.S. M557 fuze.



**BRAZIL** MD 4

MAX DIA: LENGTH: 65.00 mm

2.56 in Overall: 153.00 mm

6.02 in

465.70 g 16.43 oz Exposed 100.00 mm OVERALL WT:

3.94 in

MATERIAL: Aluminum

ORD USED WITH: Astros rocket

COMMENTS: Although this fuze has a selector, the selector does not function with this model.



M20C1 **BRAZIL** 

LENGTH: MAX DIA 40.00 mm 66.00 mm Overall: 1.57 in

2.60 in

Exposed 110.00 g 3.88 oz 47.00 mm OVERALL WT:

1.85 in

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: This fuze is a metal copy of the Former Soviet M-5

mortar fuze.



**BULGARIA** M-5A

MAX DIA: LENGTH: 49.00 mm 1.93 in

Overall: 80.00 mm

3.15 in

240.00 g 8.47 oz Exposed 52.00 mm OVERALL WT:

2.05 in

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: The fuze is mechanically the same as that of the Former Soviet M-6 mortar projectile.





M-6 **BULGARIA** 

LENGTH: MAX DIA: 40.00 mm

100.00 mm Overall: 1.57 in

3.94 in

Exposed 459.00 g 16.19 oz 55.00 mm OVERALL WT:

2.17 in

MATERIAL: Steel

ORD USED WITH: Artillery projectile

COMMENTS: Delay or instantaneous settings.





**BULGARIA** OFZ-1

LENGTH: MAX DIA: 40.00 mm

100.50 mm 1.57 in Overall:

3.96 in

Exposed 483.00 g 17.04 oz 54.00 mm OVERALL WT:

2.13 in

MATERIAL: Steel

ORD USED WITH: Mortar projectiles

COMMENTS: Instantaneous or delay setting.





**OFZ-2M BULGARIA** 

LENGTH: MAX DIA: 40.00 mm

Overall: 117.00 mm 1.57 in

4.61 in

190.80 g 6.73 oz Exposed OVERALL WT: 75.00 mm

2.95 in

MATERIAL: Aluminum

ORD USED WITH: Artillery projectiles

COMMENTS: None.





UB<sub>2</sub> **BULGARIA** 

#### **PDSD**

MAX DIA: LENGTH: 40.00 mm

105.71 mm 1.57 in Overall:

4.16 in

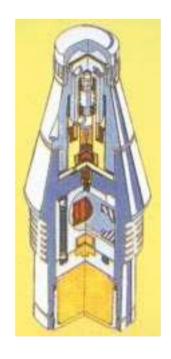
Exposed 450.00 g 15.87 oz 58.91 mm OVERALL WT:

2.32 in

MATERIAL: Steel

ORD USED WITH: Artillery projectiles

COMMENTS: Replaces the V-429, RGM-2M, and VS-5 fuzes.



**VUBS-1M BULGARIA** 

LENGTH: MAX DIA: 64.00 mm
Overall: 196.00 mm
7.72 in
Exposed 141.00 mm
OVERALL WT: 955.80 g
5.55 in 33.71 oz

MATERIAL: Aluminum and bakelite

ORD USED WITH: Rocket

COMMENTS: The fuze is the same as the Chinese MJ-4A rocket fuze.



CHINA DRAO-4A

LENGTH: MAX DIA: 40.00 mm Overall: 1.57 in

122.00 mm 4.80 in

Exposed 76.00 mm OVERALL WT:

694.00 g 24.48 oz 2.99 in

MATERIAL: Steel

ORD USED WITH: Rocket

COMMENTS: Selector markings can be found in Cyrillic or English.





J-1 **CHINA** 

MAX DIA: LENGTH: 40.00 mm

Overall: 83.00 mm 1.57 in

3.27 in

128.50 g 4.53 oz Exposed 51.00 mm OVERALL WT:

2.01 in

MATERIAL: Steel and bakelite

ORD USED WITH: Mortar projectiles

COMMENTS: This superquick fuze is a copy of the Former Soviet M-6 mortar fuze. Arming distance of 5 to 50 meters.





**CHINA** M-6

MAX DIA: LENGTH: 49.00 mm 1.93 in

Overall: 86.55 mm

3.41 in 189.00 g 6.67 oz Exposed 60.00 mm OVERALL WT: 2.36 in

MATERIAL: Steel and bakelite

ORD USED WITH: Mortar projectile

COMMENTS: This is possibly an older model of the Chinese M-6 fuze with a safety pin.





**MM-6 CHINA** 

LENGTH: MAX DIA: 50.00 mm

Overall: 118.00 mm 1.97 in

4.65 in

Exposed 74.00 mm OVERALL WT: 511.10 g

2.91 in 18.03 oz

MATERIAL: Steel

ORD USED WITH: Mortar projectiles

COMMENTS: This fuze is similar to the Former Soviet M-12 and the Chinese MP-4 fuzes. Some versions of the fuze have stamped markings. The fuze has a selector.





CHINA M-12

MAX DIA: LENGTH: 40.00 mm

Overall: 122.00 mm 1.57 in

4.80 in

683.90 g 24.12 oz Exposed 78.00 mm OVERALL WT:

3.07 in

MATERIAL: Steel

ORD USED WITH: Rocket

COMMENTS: This fuze replaces the V-25 and V-70 PD fuzes. Superquick or delay settings. Muzzle safe distance of  $10\ \text{meters}$ .



MJ-1 **CHINA** 

 LENGTH:
 MAX DIA:
 64.00 mm

 Overall:
 196.00 mm
 2.52 in

 7.72 in
 2.52 in

 Exposed
 141.00 mm
 OVERALL WT:
 940.90 g

 5.55 in
 33.19 oz

MATERIAL: Steel and bakelite

ORD USED WITH: Rocket

COMMENTS: This fuze is the same as the Former Soviet DKZ-B. Superquick, short delay, or long delay settings. Muzzle safe distance of 120 meters.



CHINA MJ-4

MAX DIA: LENGTH: 64.00 mm

196.00 mm Overall: 2.52 in

7.72 in

Exposed 955.80 g 33.71 oz 141.00 mm OVERALL WT:

5.55 in

MATERIAL: Steel and bakelite

ORD USED WITH: Rocket

COMMENTS: Superquick, short delay, or long delay settings. Muzzle safe distance of 120 meters.



MJ-4A **CHINA** 

MAX DIA: LENGTH: 38.90 mm

Overall: 85.00 mm 1.53 in

3.35 in

98.00 g 3.46 oz Exposed OVERALL WT: 35.00 mm

1.38 in

MATERIAL: Plastic

ORD USED WITH: Bounding 75-mm OG-7

COMMENTS: None.





**CHINA MJ-7** 

### **PDSD**

LENGTH: MAX DIA: 30.00 mm

82.00 mm Overall:

1.18 in

3.23 in Exposed

OVERALL WT: 156.00 g 5.50 oz 63.00 mm

2.48 in

MATERIAL: Steel

ORD USED WITH: 37-mm antiaircraft artillery projectiles

COMMENTS: Detonator safe. Pyrotechnic self-destruct.



ML-1 **CHINA** 

MAX DIA: LENGTH: 40.00 mm Overall: 1.57 in

105.00 mm 4.13 in

433.70 g 15.30 oz Exposed 60.00 mm OVERALL WT:

2.36 in

MATERIAL: Steel

ORD USED WITH: Artillery projectile

COMMENTS: This fuze replaces the V-429 fuze. Superquick or delay

settings.





**CHINA** ML-4

LENGTH: MAX DIA: 40.00 mm 1.57 in

115.00 mm Overall:

4.53 in 58.00 mm OVERALL WT:

Exposed 438.60 g 15.47 oz 2.28 in

MATERIAL: Steel

ORD USED WITH: Artillery projectile

COMMENTS: Superquick or delay settings.





ML-4A **CHINA** 

MAX DIA: LENGTH: 40.00 mm

Overall: 106.00 mm 1.57 in

4.17 in

59.00 mm 570.00 g 20.11 oz Exposed OVERALL WT:

2.32 in

MATERIAL: Steel

ORD USED WITH: Artillery projectiles

COMMENTS: This fuze is reported to be a copy of the Former Soviet V-429 fuze. Superquick or delay settings.





**CHINA** ML-5

LENGTH: MAX DIA: 64.00 mm

158.00 mm 2.52 in Overall:

6.22 in

Exposed 430.90 g 15.20 oz 100.00 mm OVERALL WT:

3.94 in

MATERIAL: Steel

ORD USED WITH: Artillery projectiles

COMMENTS: Superquick or delay settings.





ML-7 **CHINA** 

LENGTH: MAX DIA: 40.00 mm

Overall: 72.00 mm 1.57 in

2.83 in

107.00 g 3.77 oz Exposed 37.00 mm OVERALL WT:

1.46 in

MATERIAL: Steel and bakelite

ORD USED WITH: Mortar projectiles

COMMENTS: Superquick.





**CHINA** MP-1A

LENGTH: MAX DIA: 40.00 mm Overall: 74.00 mm 1.57 in

2.91 in

1.57 III

Exposed 37.00 mm OVERALL WT: 110.90 g 1.46 in 3.91 oz

MATERIAL: Steel and bakelite

ORD USED WITH: Mortar projectiles

COMMENTS: This superquick fuze is functionally the same as the

Chinese MP-1.





MP-1B CHINA

MAX DIA: LENGTH: 40.00 mm Overall: 119.00 mm 1.57 in

4.69 in

73.00 mm OVERALL WT:

516.40 g 18.22 oz 2.87 in

MATERIAL: Steel

Exposed

ORD USED WITH: Mortar projectiles

COMMENTS: This fuze is a copy of the Former Soviet M-12. Super-

quick or delay settings.





**CHINA** MP-4

LENGTH: MAX DIA: 49.00 mm Overall: 96.00 mm 1.93 in

3.78 in Exposed

69.00 mm OVERALL WT:

234.20 g 8.26 oz 2.72 in

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: Superquick. Muzzle safe distance of 30 meters. Uses a pyrotechnic delay for arming.





MP-5B **CHINA** 

MAX DIA: LENGTH: 46.00 mm

Overall: 93.00 mm 1.81 in 3.66 in

198.00 g 6.98 oz Exposed 70.00 mm OVERALL WT: 2.76 in

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: Superquick. Muzzle safe distance of 20 meters. Uses a pyrotechnic delay for arming.





**CHINA** MP-6

LENGTH: MAX DIA: 49.00 mm

90.00 mm Overall:

1.93 in

3.54 in

Exposed 229.00 g 8.08 oz 49.00 mm OVERALL WT: 1.93 in

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: Superquick. Muzzle safe distance of 30 meters.





MP-7A **CHINA** 

## **PDSD**

LENGTH: MAX DIA: 40.00 mm

Overall: 77.00 mm 1.57 in

3.03 in

Exposed 103.00 g 3.63 oz 61.00 mm OVERALL WT:

2.40 in

MATERIAL: Steel and bakelite

ORD USED WITH: Mortar projectiles

COMMENTS: This superquick fuze is the same as the Chinese MP-1A.





**CHINA** TYPE-1

MAX DIA: LENGTH: 40.00 mm 122.00 mm 1.57 in Overall:

4.80 in

Exposed 694.01 g 24.48 oz 76.00 mm OVERALL WT:

2.99 in

MATERIAL: Steel

ORD USED WITH: Rocket

COMMENTS: Modified Former Soviet V-25 fuze. Has an instanta-

neous or delay setting.





TYPE-1 **CHINA** 

MAX DIA: LENGTH: 30.00 mm Overall: 82.00 mm 1.18 in

3.23 in

Exposed 129.00 g 4.55 oz 63.00 mm OVERALL WT: 2.48 in

MATERIAL: Steel

ORD USED WITH: 37-mm antiaircraft ammunition

COMMENTS: This fuze is used in antiaircraft projectiles. It has a pyrotechnic self-destruct.



**CHINA** TYPE-1

LENGTH: MAX DIA: 40.00 mm

103.00 mm 1.57 in Overall:

4.06 in

Exposed 400.00 g 14.11 oz 45.00 mm OVERALL WT:

1.77 in

MATERIAL: Steel

ORD USED WITH: Recoilless rifle projectiles

COMMENTS: This fuze has a cocked detonator.





TYPE-1 **CHINA** 

MAX DIA: LENGTH: 40.00 mm

77.00 mm Overall: 1.57 in

3.03 in

Exposed 370.00 g 13.05 oz 46.00 mm OVERALL WT:

1.81 in

MATERIAL: Steel

ORD USED WITH: Recoilless rifle projectiles

COMMENTS: The fuze below is shown without the booster.





**CHINA** 

**TYPE-1 SPECIAL** 

MAX DIA: LENGTH: 40.00 mm Overall:

103.00 mm 1.30 in

3.50 in

394.63 g 13.92 oz Exposed 45.00 mm OVERALL WT:

1.77 in

MATERIAL: Steel

ORD USED WITH: Artillery projectiles

COMMENTS: This fuze is a copy of the Former Soviet RGM. Instantaneous, non-delay, and delay settings.





**TYPE-3 SPECIAL** 

**CHINA** 

MAX DIA: LENGTH: 41.00 mm

Overall: 102.00 mm 1.61 in

4.02 in

405.00 g 14.28 oz Exposed 48.00 mm OVERALL WT:

1.89 in

MATERIAL: Steel

ORD USED WITH: Artillery projectiles

COMMENTS: This fuze is used with recoilless rifle rounds. Identical

to the Chinese Type 1 artillery fuze.





**CHINA** 

**TYPE-3 SPECIAL** 

MAX DIA: LENGTH: 33.00 mm 1.30 in

Overall: 89.00 mm

3.50 in

154.22 g 5.44 oz Exposed 34.00 mm OVERALL WT:

1.34 in

MATERIAL: Brass

ORD USED WITH: Mortar projectiles

COMMENTS: Improved version of the Former Soviet M-50 fuze. By U.S. standards the fuze is neither bore safe nor detonator safe.



TYPE-7 **CHINA** 

41.00 mm LENGTH: MAX DIA:

91.00 mm Overall: 1.61 in

3.58 in

394.63 g 13.92 oz Exposed 41.00 mm OVERALL WT:

1.61 in

MATERIAL: Steel

ORD USED WITH: Artillery projectiles

COMMENTS: Instantaneous functioning.





**TYPE-53 CHINA** 

MAX DIA: LENGTH: 40.00 mm 1.57 in

Overall: 68.00 mm

2.68 in

133.00 g 4.69 oz Exposed 36.00 mm OVERALL WT:

1.42 in

MATERIAL: Aluminum

ORD USED WITH: Rocket and mortar projectiles

COMMENTS: This fuze has the same dimensions as the bakelite version. Non-delay. The only safety is a shear wire holding the firing pin.





**TYPE-100-3 CHINA** 

LENGTH: MAX DIA: 40.00 mm Overall: 68.00 mm 1.57 in

2.68 in

Exposed 36.00 mm OVERALL WT: 133.00 g

1.42 in 4.69 oz

MATERIAL: Steel and bakelite

ORD USED WITH: Mortar projectiles

COMMENTS: This fuze has the same dimensions as the aluminum version. Non-delay. The only safety is a shear wire holding the firing pin.





CHINA TYPE-100-3

MAX DIA: LENGTH: 40.00 mm Overall: 100.00 mm 1.57 in

3.94 in

Exposed 439.00 g 15.49 oz 55.00 mm OVERALL WT:

2.17 in

MATERIAL: Steel

ORD USED WITH: Artillery projectiles

COMMENTS: This fuze is a copy of the Former Soviet V-429 fuze.

Instantaneous or delay settings.





**TYPE-429 CHINA** 

MAX DIA: LENGTH: 40.00 mm

Overall: 94.00 mm 1.57 in

3.70 in

Exposed 357.00 g 12.59 oz 40.00 mm OVERALL WT:

1.57 in

MATERIAL: Steel

ORD USED WITH: Artillery projectiles

COMMENTS: This fuze is a copy of the Former Soviet KTM-1. No

selector.





FORMER CZECHOSLOVAKIA

KTM-1

LENGTH: MAX DIA: 64.00 mm

Overall: 115.00 mm 2.52 in

4.53 in

Exposed 69.00 mm OVERALL WT: 759.00 g 2.72 in 26.77 oz

MATERIAL: Steel and bakelite

ORD USED WITH: Rocket

COMMENTS: This fuze is a copy of the Former Soviet MRV.



MRV

FORMER CZECHOSLOVAKIA

LENGTH: MAX DIA: 40.00 mm

Overall: 91.00 mm 1.57 in

3.58 in

Exposed 436.00 g 15.38 oz 47.00 mm OVERALL WT:

1.85 in

MATERIAL: Steel

ORD USED WITH: Mortar projectiles

COMMENTS: Instantaneous or delay settings.





FORMER CZECHOSLOVAKIA

mz30av

MAX DIA: LENGTH: 40.00 mm

Overall: 103.00 mm 1.57 in

4.06 in

386.00 g 13.62 oz Exposed 58.00 mm OVERALL WT:

2.28 in

MATERIAL: Steel

ORD USED WITH: Mortar projectiles

COMMENTS: This fuze is shown without the booster. Instantaneous or

delay settings.





mz-31 FORMER CZECHOSLOVAKIA

LENGTH: MAX DIA: 40.00 mm

Overall: 107.00 mm 1.57 in

4.21 in

Exposed 529.00 g 18.66 oz 60.00 mm OVERALL WT:

2.36 in

MATERIAL: Steel

ORD USED WITH: Artillery projectiles

COMMENTS: Superquick or delay settings.





FORMER CZECHOSLOVAKIA

nz10bv

LENGTH: MAX DIA: 40.00 mm

Overall: 118.00 mm 1.57 in

4.65 in

Exposed 53.00 mm OVERALL WT: 538.00 g 2.09 in 18.98 oz

MATERIAL: Steel

ORD USED WITH: Artillery projectile

COMMENTS: Superquick or delay settings.





nz11M

FORMER CZECHOSLOVAKIA

MAX DIA: LENGTH: 38.00 mm

Overall: 68.00 mm 1.50 in

2.68 in

239.00 g 8.43 oz Exposed 32.00 mm OVERALL WT:

1.26 in

MATERIAL: Steel

ORD USED WITH: Rocket

COMMENTS: Air armed, requiring a 250 m/s velocity. Graze sensi-

tive.





FORMER CZECHOSLOVAKIA

nz60v

LENGTH: MAX DIA: 28.00 mm

87.00 mm Overall:

1.10 in

3.43 in

Exposed 50.00 mm OVERALL WT: 129.00 g 4.55 oz

1.97 in

MATERIAL: Steel and lead

ORD USED WITH: Mortar projectiles

COMMENTS: Graze sensitive.



BD 4 **EGYPT** 

LENGTH: MAX DIA: 30.00 mm

147.00 mm Overall: 1.18 in

5.79 in

Exposed 269.00 g 9.49 oz 74.00 mm OVERALL WT:

2.91 in

MATERIAL: Brass

ORD USED WITH: Mortar projectiles

COMMENTS: This fuze may also be manufactured by Singapore.



**FINLAND IS 72** 

LENGTH: MAX DIA: 61.00 mm 150.00 mm Overall: 2.40 in

5.91 in

966.30 g 34.08 oz Exposed OVERALL WT: 96.00 mm

3.78 in

MATERIAL: Steel

ORD USED WITH: Artillery projectiles

COMMENTS: None.



**FUI 56 FRANCE** 

# **PDSD**

MAX DIA: LENGTH: 48.00 mm

139.65 mm 1.89 in Overall:

5.50 in

524.00 g 18.48 oz Exposed OVERALL WT: 83.85 mm

3.30 in

MATERIAL: Steel

ORD USED WITH: 90-mm artillery projectiles

COMMENTS: None.





**FRANCE** FUI F-2

LENGTH: MAX DIA: 61.00 mm

Overall: 150.00 mm 2.40 in

5.91 in

OVERALL WT: Exposed 870.90 g 30.72 oz 96.00 mm

3.78 in

MATERIAL: Steel

ORD USED WITH: Artillery projectiles

COMMENTS: None.



FUI F4 **FRANCE** 

LENGTH: MAX DIA: 37.00 mm

Overall: 112.00 mm 1.46 in

4.41 in

238.00 g 8.40 oz Exposed 59.00 mm OVERALL WT:

2.32 in

MATERIAL: Aluminum and Steel

ORD USED WITH: Mortar projectiles

COMMENTS: None.





Fu.I.Mo.F1 **FRANCE** 

LENGTH: MAX DIA: 60.70 mm

148.80 mm Overall:

2.39 in

5.86 in

Exposed OVERALL WT: 932.00 g 32.88 oz 95.10 mm

3.74 in

MATERIAL: Steel

ORD USED WITH: Artillery projectiles

COMMENTS: Copy of the U.S. M557 fuze.



M557 **FRANCE** 

MAX DIA: 31.00 mm LENGTH:

118.00 mm Overall: 1.22 in

4.65 in

Exposed OVERALL WT: 213.00 g 7.51 oz 53.00 mm

2.09 in

MATERIAL: Brass

ORD USED WITH: Mortar projectiles

COMMENTS: None.





**FRANCE** MIe-1918-I

LENGTH: MAX DIA: 28.00 mm

Overall: 88.00 mm 1.10 in

3.46 in

Exposed 134.00 g 4.73 oz 50.00 mm OVERALL WT:

1.97 in

MATERIAL: Brass and lead

ORD USED WITH: Mortar projectiles

COMMENTS: Graze sensitive.



21/28B MIe 1935M

**FRANCE** 

LENGTH: MAX DIA: 33.00 mm

Overall: 114.00 mm 1.30 in

4.49 in

207.00 g 7.30 oz Exposed OVERALL WT: 51.00 mm

2.01 in

MATERIAL: Brass

ORD USED WITH: Mortar projectiles

COMMENTS: None.



**RYG-18 FRANCE** 

LENGTH: MAX DIA: 64.00 mm Overall: 214.00 mm 2.52 in

8.43 in

in

Exposed 159.00 mm OV 6.26 in

OVERALL WT: 912.00 g 32.17 oz

MATERIAL: Aluminum

ORD USED WITH: 122-mm rockets

COMMENTS: Instantaneous and delay settings.





S 21 FRANCE

LENGTH: MAX DIA: 46.00 mm

Overall: 77.00 mm 1.81 in

3.03 in

Exposed 119.00 g 4.20 oz 54.00 mm OVERALL WT:

2.13 in

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: Non-delay or superquick settings.





SC.14.E **FRANCE** 

LENGTH: MAX DIA: 38.00 mm

115.00 mm Overall: 1.50 in

4.53 in

Exposed 136.00 g 4.80 oz 53.00 mm OVERALL WT:

2.10 in

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: Fuze must be rotated to the "(T)F" position prior to fir-

ing.



V-9 **FRANCE** 

LENGTH: MAX DIA: 32.00 mm

114.00 mm Overall: 1.26 in

4.49 in

220.00 g 7.76 oz Exposed OVERALL WT: 54.00 mm 2.13 in

MATERIAL: Brass and lead

ORD USED WITH: Mortar projectiles

COMMENTS: Graze sensitive.





V-18 **FRANCE** 

LENGTH: MAX DIA: 48.00 mm 106.00 mm Overall: 1.89 in

4.17 in

OVERALL WT:

Exposed 381.00 g 13.44 oz 81.00 mm 3.19 in

MATERIAL: Aluminum and steel

ORD USED WITH: Mortar projectiles

COMMENTS: Delay (R) or instantaneous (I) settings.





V-19-P **FRANCE** 

MAX DIA: LENGTH: 60.80 mm

132.00 mm Overall: 2.39 in

5.20 in

77.00 mm Exposed OVERALL WT: 481.00 g 16.97 oz

3.03 in

MATERIAL: Aluminum

ORD USED WITH: 120-mm rifled mortar projectiles

COMMENTS: None.



**FRANCE** VG-29-A

LENGTH: MAX DIA: Unknown Overall: 75.00 mm Unknown

2.95 in

n Unknowi

Exposed Unknown OVERALL WT: 150.00 g Unknown 5.29 oz

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: Instantaneous or short delay.



ALTA FRANCE

LENGTH: MAX DIA: 62.50 mm Overall: 175.00 mm 2.46 in

6.89 in

Exposed 95.00 mm OVERALL WT: Unknown

3.74 in Unknown

MATERIAL: Aluminum

ORD USED WITH: Rocket

COMMENTS: 110-mm LAR rocket system.



GERMANY DM 31

LENGTH: MAX DIA: 49.00 mm

Overall: 88.30 mm 1.93 in

3.48 in

Exposed 60.80 mm OVERALL WT: Unknown

2.39 in Unknown

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: Delay or superquick settings.



**DM 111 AZ-W** 

**GERMANY** 

LENGTH: MAX DIA: 49.00 mm

Overall: 87.00 mm 1.93 in

3.43 in

293.00 g 10.33 oz Exposed 61.00 mm OVERALL WT:

2.40 in

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: Superquick or delay settings.





**GERMANY DM-111A1** 

LENGTH: MAX DIA: 49.00 mm Overall: 87.00 mm 1.93 in

3.43 in

61.00 mm OVERALL WT:

Exposed 291.00 g 10.26 oz 2.40 in

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: Superquick or delay settings. This fuze is more sensitive than the DM-111A1.





**DM-111A2 GERMANY** 

LENGTH: MAX DIA: 49.00 mm

87.00 mm Overall: 1.93 in

3.43 in

Exposed 201.00 g 7.09 oz 61.00 mm OVERALL WT:

2.40 in

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: Superquick or delay settings.





**GERMANY DM-111A5** 

#### **PDSD**

LENGTH: MAX DIA: 28.50 mm

Overall: 56.50 mm 1.12 in

2.22 in

Exposed 41.00 mm OVERALL WT: Unknown

1.61 in Unknown

MATERIAL: Aluminum

ORD USED WITH: 30-mm DEFA projectiles

COMMENTS: Graze sensitive.



DM 271 GERMANY

# **PDSD**

LENGTH: MAX DIA: Unknown

Overall: 78.61 mm Unknown

3.09 in

Exposed 42.20 mm OVERALL WT: Unknown

1.66 in Unknown

MATERIAL: Aluminum

ORD USED WITH: 40-mm L/70 projectiles

COMMENTS: Graze sensitive.



GERMANY DM 321

LENGTH: MAX DIA: 61.65 mm

Overall: 124.85 mm 2.43 in

4.92 in

Exposed 67.98 mm OVERALL WT: Unknown 2.68 in Unknown

MATERIAL: Steel

ORD USED WITH: Artillery projectiles

COMMENTS: Delay of 10 to 20 ms after impact.



DM 371 GERMANY

# **PDSD**

LENGTH: MAX DIA: 18.44 mm Overall: 45.75 mm 0.73 in

1.80 in

Exposed 25.00 mm OVERALL WT: Unknown

0.98 in Unknown

MATERIAL: Aluminum

ORD USED WITH: 25-mm projectiles

COMMENTS: Graze sensitive.



GERMANY DM 381

#### **PDSD**

LENGTH: MAX DIA: 21.75 mm

Overall: 63.01 mm 0.86 in

2.48 in

Exposed 34.93 mm OVERALL WT: Unknown

1.38 in Unknown

MATERIAL: Aluminum

ORD USED WITH: 30-mm projectiles

COMMENTS: Graze sensitive.



NO. 569 GERMANY

LENGTH: MAX DIA: 49.00 mm

Overall: 88.60 mm 1.93 in

3.49 in

Exposed 61.10 mm OVERALL WT: Unknown

2.40 in Unknown

MATERIAL: Plastic

ORD USED WITH: Mortar projectiles

COMMENTS: Supequick or delay settings. Insensitive enough to be suitable for jungle canopy penetration without functioning.



GERMANY LCMF

LENGTH: MAX DIA: 48.00 mm 106.30 mm Overall: 1.89 in

4.18 in

Exposed 372.00 g 13.12 oz 77.30 mm OVERALL WT:

3.04 in

MATERIAL: Aluminum and brass

ORD USED WITH: Mortar projectiles

COMMENTS: Instantaneous or delay settings.



**DA 4 A INDIA** 

MAX DIA: LENGTH: 49.00 mm

87.00 mm Overall: 1.93 in

3.43 in

Exposed 61.00 mm OVERALL WT: 201.00 mm 2.40 in

7.09 oz

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles and rockets

COMMENTS: This fuze is similar to the German DM-111.





**IRAN DM-111** 

LENGTH: MAX DIA: 61.00 mm 151.00 mm Overall: 2.40 in

5.94 in

1048.00 g 36.96 oz 94.00 mm OVERALL WT:

3.70 in

MATERIAL: Steel

Exposed

ORD USED WITH: Artillery projectiles

COMMENTS: This fuze is a copy of the U.S. M572A1.





M572A1 **IRAN** 

MAX DIA: LENGTH: 46.00 mm

Overall: 80.00 mm 1.81 in

3.15 in

159.00 g 5.61 oz Exposed 61.00 mm OVERALL WT:

2.40 in

MATERIAL: Aluminum

ORD USED WITH: Mortar projectile

COMMENTS: This fuze is a copy of the Former Yugoslav M70P1. Impact or superquick settings.





**IRAQ** M70P1

MAX DIA: LENGTH: 61.00 mm

Overall: 165.00 mm 2.40 in

6.50 in

1308.00 g 46.13 oz Exposed 85.00 mm OVERALL WT:

3.35 in

MATERIAL: Steel

ORD USED WITH: Mortar projectile

COMMENTS: This fuze is intended to be used for penetration, as shown, or for and above ground burst, with a standoff probe that replaces the nose plug.



M150 **ISRAEL** 

LENGTH: MAX DIA: 51.00 mm

Overall: 63.00 mm 2.01 in

2.48 in

Exposed 343.00 g 12.10 oz 35.00 mm OVERALL WT:

1.38 in

MATERIAL: Aluminum

ORD USED WITH: Artillery projectiles

COMMENTS: Copy of the British No. 161 fuze.





No. 161 **ISRAEL** 

LENGTH: MAX DIA: 36.00 mm Overall: 106.00 mm 1.42 in

4.17 in

Exposed 54.00 mm OVERALL WT: 294.00 g 2.13 in 10.37 oz

MATERIAL: Aluminum and brass

ORD USED WITH: Mortar projectiles

COMMENTS: Non-selectable fuze.





SF-M2 ISRAEL

LENGTH: MAX DIA: 45.00 mm Overall: 125.00 mm 1.78 in

4.92 in

Exposed 362.00 g 12.77 oz 102.00 mm OVERALL WT:

4.02 in

MATERIAL: Aluminum

ORD USED WITH: 2.75 in rockets

COMMENTS: Graze sensitive. Similar to the U.S. M423 and M427

fuzes.





**ITALY** FB-225C

LENGTH: MAX DIA: 50.00 mm 110.00 mm 1.97 in Overall:

4.33 in Exposed

583.00 g 20.56 oz 83.00 mm OVERALL WT:

3.27 in

MATERIAL: Steel

ORD USED WITH: Artillery projectiles

COMMENTS: Superquick or delay settings.





**FB-306 ITALY** 

MAX DIA: LENGTH: 62.00 mm 203.00 mm Overall: 2.44 in

7.99 in

922.00 g 32.52 oz Exposed OVERALL WT: 95.00 mm 3.74 in

MATERIAL: Aluminum

ORD USED WITH: Naval projectile

COMMENTS: None.



**ITALY OP 76 Mod.1** 

LENGTH: MAX DIA: 49.00 mm 1.93 in

87.60 mm Overall:

3.44 in

200.00 g 7.05 oz Exposed OVERALL WT: 60.10 mm

2.36 in

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: Superquick.



**PD AJV 111 ITALY** 

LENGTH: MAX DIA: 49.00 mm 88.30 mm Overall: 1.93 in

3.47 in

225 g 7.94 oz Exposed 60.80 mm OVERALL WT:

2.39 in

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: Superquick or delay.



**ITALY PD AJV 111 A3** 

LENGTH: MAX DIA: 46.00 mm Overall: 91.00 mm 1.81 in

3.58 in

204.30 g 7.21 oz Exposed 67.00 mm OVERALL WT:

2.64 in

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: This fuze has a protruding striker located beneath a

plastic cap.





**PDB 335 ITALY** 

LENGTH: MAX DIA: 64.00 mm

Overall: 212.00 mm 2.52 in

8.35 in

Exposed 1814.00 g 63.99 oz 112.00 mm OVERALL WT:

4.41 in

MATERIAL: Steel

ORD USED WITH: 200-mm rockets

COMMENTS: Instantaneous or delay settings.



**NORTH KOREA** 

**TYPE-20** 

LENGTH: MAX DIA: 40.00 mm 1.57 in

104.00 mm Overall: 4.09 in

668.00 g 23.56 oz Exposed 75.00 mm OVERALL WT: 2.95 in

MATERIAL: Steel

ORD USED WITH: Rocket

COMMENTS: None.





**TYPE-107** 

**NORTH KOREA** 

LENGTH: MAX DIA: 48.00 mm

Overall: 90.50 mm 1.89 in

3.56 in

Exposed 63.30 mm OVERALL WT: Unknown

2.49 in Unknown

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: Will not arm if the propellant charge is below the mini-

mum standard level.



**PHILIPPINES** 

R77 FMS2-A2

LENGTH: MAX DIA: 48.00 mm 100.00 mm Overall: 1.89 in

3.94 in

73.00 mm OVERALL WT:

212.00 g 7.48 oz Exposed 2.87 in

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: None.





**R77 FM3 PHILIPPINES** 

43.00 mm LENGTH: MAX DIA:

Overall: 117.00 mm 1.69 in

4.61 in

430.90 g 15.20 oz Exposed 84.00 mm OVERALL WT:

3.31 in

MATERIAL: Aluminum

ORD USED WITH: 70-mm rocket

COMMENTS: None.





**PHILIPPINES** 

**R77 FRK3** 

LENGTH: MAX DIA: Unknown Overall: 90.50 mm Unknown

Overall: 90.50 mm Unkno 3.56 in

63.30 mm OVERALL WT: Unknown

2.49 in Unknown

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: Will not arm if propellant charge is below the minimum

standard level.

Exposed



FM4-A2 PHILIPPINES

LENGTH: MAX DIA: 49.00 mm

Overall: 116.70 mm 1.93 in

4.59 in

Exposed 89.30 mm OVERALL WT: Unknown

3.52 in Unknown

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: Has a large impeller. Used on 60-mm and 81-mm mortar projectiles dropped from aircraft cluster bombs.



**PHILIPPINES** 

**R77 CB4** 

MAX DIA: LENGTH: 40.00 mm

Overall: 80.00 mm 1.57 in

3.15 in

Exposed 310.00 g 10.93 oz 42.00 mm OVERALL WT:

1.65 in

MATERIAL: Steel

ORD USED WITH: 37-mm antiaircraft artillery projectiles

COMMENTS: Copy of the Former Soviet MG-37 fuze. Pyrotechnic

self-destruct.



MG-37 **POLAND** 

LENGTH: MAX DIA: 40.00 mm 79.57 mm 1.57 mm Overall:

3.13 in

168.00 g 5.93 oz Exposed 49.53 mm OVERALL WT:

1.95 in

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: Removable end cap.



**ROMANIA** M6-R

MAX DIA: LENGTH: 40.00 mm 1.57 in

80.00 mm Overall:

3.15 in

166.00 g 5.86 oz Exposed 40.00 mm OVERALL WT:

1.57 in

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: This fuze is mechanically the same as the Former Soviet M-6 mortar fuze.





**SH82 ROMANIA** 

LENGTH: MAX DIA: 40.00 mm

114.00 mm Overall: 1.57 in

4.49 in

Exposed 187.00 g 6.60 oz 72.00 mm OVERALL WT:

2.83 in

MATERIAL: Aluminum

ORD USED WITH: Artillery projectiles

COMMENTS: This fuze can also be used in recoilless rifle rounds.





**ROMANIA** 346E

MAX DIA: LENGTH: 31.35 mm

115.00 mm Overall: 1.23 in

4.53 in

Exposed 207.00 g 7.30 oz 50.00 mm OVERALL WT:

1.97 in

MATERIAL: Brass

ORD USED WITH: Mortar projectiles

COMMENTS: Copy of the French RYG-18 fuze.



**UNKNOWN** 

**SAUDI ARABIA** 

LENGTH: MAX DIA: 49.00 mm

Overall: 87.50 mm 1.93 in

3.44 in

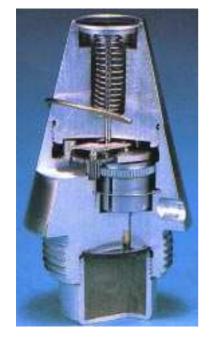
201.00 g 7.10 oz Exposed Unknown OVERALL WT:

Unknown

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: Superquick or delay function.





**A-2 SINGAPORE** 

LENGTH: MAX DIA: Unknown 146.50 mm Unknown Overall:

5.77 in

74.00 mm OVERALL WT:

Exposed 271.00 g 9.56 oz 2.91 in

MATERIAL: Unknown

ORD USED WITH: Mortar projectiles

COMMENTS: Removable nose cap.



SF-1 **SINGAPORE** 

LENGTH: MAX DIA: 61.00 mm

Overall: 154.00 mm 2.40 in

6.06 in

Exposed 771.80 g 27.22 oz 96.00 mm OVERALL WT: 3.78 in

MATERIAL: Aluminum

ORD USED WITH: Artillery projectiles

COMMENTS: Has a superquick or delay selector.



**SOUTH AFRICA** 

M841A1

#### **PDSQ**

LENGTH: MAX DIA: 49.00 mm 1.93 in

89.80 mm Overall:

3.54 in

200.00 g 7.05 oz Exposed 61.50 mm OVERALL WT:

2.42 in

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: Copy of U.S. fuze.



**SOUTH KOREA** M525

# **PDSQ**

LENGTH: MAX DIA: 61.00 mm 150.60 mm Overall: 2.40 in

5.93 in

Exposed 521.00 g 18.38 oz 94.50 mm OVERALL WT:

3.72 in

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: Copy of U.S. fuze.



**SOUTH KOREA** M526

#### **PDSD**

MAX DIA: LENGTH: 30.00 mm 82.00 mm Overall: 1.18 in

3.23 in

Exposed 171.00 g 6.03 oz 62.00 mm OVERALL WT: 2.44 in

MATERIAL: Steel

ORD USED WITH: 37-mm antiaircraft artillery projectiles

COMMENTS: Pyrotechnic self-destruct.



A-37U

### **PDSD**

MAX DIA: LENGTH: 20.00 mm Overall: 68.00 mm 0.79 in

2.68 in

Exposed 39.00 mm OVERALL WT:

49.05 g 1.73 oz 1.54 in

MATERIAL: Steel

ORD USED WITH: 30-mm projectiles

COMMENTS: Graze sensitive. Pyrotechnic self-destruct.



**FORMER SOVIET UNION** 

A-670M

MAX DIA: LENGTH: 20.00 mm 62.00 mm Overall: 0.79 in

2.44 in

Exposed 50.69 g 1.79 oz 32.00 mm OVERALL WT:

1.26 in

MATERIAL: Steel

ORD USED WITH: 30-mm projectiles

COMMENTS: This fuze is shown without the booster.



**AG-30** 

#### **PDSD**

LENGTH: MAX DIA: 30.00 mm Overall: 83.00 mm 1.18 in

3.27 in

Exposed 64.00 mm OVERALL WT: 168.00 g

2.52 in 5.93 oz

MATERIAL: Steel

ORD USED WITH: 37-mm antiaircraft artillery projectiles

COMMENTS: Pyrotechnic self-destruct time of 10 to 12 seconds.



**FORMER SOVIET UNION** 

B-37

LENGTH: MAX DIA: 63.00 mm

Overall: 196.00 mm 2.48 in

7.72 in

935.00 g 32.99 oz Exposed 141.00 mm OVERALL WT:

5.55 in

MATERIAL: Aluminum and bakelite

ORD USED WITH: Rocket

COMMENTS: This fuze has no designation markings. Superquick (O), long delay (  $\beta$  ), or short delay (M) settings.



**DKZ-B** 

MAX DIA: LENGTH: 40.00 mm

Overall: 131.00 mm 1.57 in

5.16 in

196.00 g 6.91 oz Exposed 77.00 mm OVERALL WT:

3.03 in

MATERIAL: Aluminum

ORD USED WITH: Artillery projectiles

COMMENTS: This fuze is a modified version of the GK-2 series of

fuzes.





# **FORMER SOVIET UNION**

**GO-2** 

MAX DIA: LENGTH: 40.00 mm 1.57 in

Overall: 98.00 mm

3.86 in

430.92 g 15.20 oz Exposed 52.00 mm OVERALL WT:

2.05 in

MATERIAL: Steel

ORD USED WITH: Mortar projectiles

COMMENTS: This is an adiabatic (pneumatic air column) fuze. Instantaneous (O) or delay (3) settings.





**GVMZ** 

MAX DIA: LENGTH: 40.00 mm

Overall: 107.00 mm 1.52 in

4.21 in

430.92 g 15.20 oz Exposed 62.00 mm OVERALL WT:

2.44 in

MATERIAL: Steel

ORD USED WITH: Mortar projectiles

COMMENTS: This is an adiabatic (pneumatic air column) fuze.

Instantaneous or delay settings.





**FORMER SOVIET UNION** 

**GVMZ-7** 

LENGTH: MAX DIA: 40.00 mm Overall: 98.00 mm 1.57 in

3.86 in

6 in

Exposed 43.00 mm OVERALL WT: 349.27 g 1.69 in 12.32 oz

MATERIAL: Steel

ORD USED WITH: Artillery projectiles

COMMENTS: Improved version of the KTM-1 fuze.





## KTM-1-U

MAX DIA: LENGTH: 40.00 mm

Overall: 97.00 mm 1.57 in

3.82 in

Exposed 278.00g 9.81oz 40.00 mm OVERALL WT:

1.57 in

MATERIAL: Steel

ORD USED WITH: Artillery projectiles

COMMENTS: This is used with smoke projectiles.





# **FORMER SOVIET UNION**

KTM-2

LENGTH: MAX DIA: 40.00 mm

94.00 mm Overall: 1.57 in

3.70 in

Exposed 354.00 g 12.49 oz 40.00 mm OVERALL WT:

1.57 in

MATERIAL: Steel

ORD USED WITH: Artillery projectiles

COMMENTS: The MG-57 fuze without a self-destruct feature.





MG-N

# **PDSD**

LENGTH: MAX DIA: 40.00 mm

Overall: 83.00 mm 1.57 in

3.27 in

Exposed 334.00 g 11.78 oz 45.00 mm OVERALL WT:

1.77 in

MATERIAL: Steel

ORD USED WITH: 57-mm antiaircraft artillery projectiles

COMMENTS: Instantaneous. Uses a pyrotechnic self-destruct.





**FORMER SOVIET UNION** 

MG-57

#### **PDSD**

MAX DIA: LENGTH: 40.00 mm

Overall: 81.00 mm 1.57 in

3.19 in

Exposed 335.66 g 11.84 oz 43.00 mm OVERALL WT:

1.69 in

MATERIAL: Steel

ORD USED WITH: 57-mm antiaircraft artillery projectiles

COMMENTS: Instantaneous. Uses a pyrotechnic self-destruct.





**MGZ-57** 

MAX DIA: LENGTH: 64.00 mm Overall: 195.00 mm 2.52 in

7.68 in

746.00 g 26.31 oz Exposed 141.00 mm OVERALL WT:

5.55 in

MATERIAL: Aluminum

ORD USED WITH: Rocket

COMMENTS: Superquick, short-delay, and long-delay settings.



**FORMER SOVIET UNION** 

MRV-U

LENGTH: MAX DIA: 39.00 mm 68.00 mm Overall: 1.54 in

2.68 in

36.00 mm OVERALL WT:

Exposed 299.38 g 10.56 oz 1.42 in

MATERIAL: Steel and bakelite

ORD USED WITH: Mortar projectiles

COMMENTS: Instantaneous.



M-5 M

MAX DIA: LENGTH: 40.00 mm 66.00 mm Overall: 1.57 in

2.60 in

299.38 g 10.56 oz Exposed 35.00 mm OVERALL WT:

1.38 in

MATERIAL: Steel and bakelite

ORD USED WITH: Mortar projectiles

COMMENTS: This fuze is the sanitized version of the M-5. Instanta-

neous.



LENGTH: MAX DIA: 41.00 mm 66.00 mm Overall: 1.61 in

2.60 in

36.00 mm OVERALL WT:

Exposed 299.38 g 10.56 oz 1.42 in

MATERIAL: Steel and bakelite

ORD USED WITH: Mortar projectiles

COMMENTS: Instantaneous.

M-5



MAX DIA: 39.00 mm LENGTH:

83.00 mm Overall: 1.54 in

3.27 in

127.01 g 4.48 oz Exposed 52.00 mm OVERALL WT:

2.05 in

MATERIAL: Steel and bakelite

ORD USED WITH: Mortar projectiles

COMMENTS: Instantaneous.





MAX DIA: LENGTH: 40.00 mm

Overall: 117.00 mm 1.57 in

4.61 in

Exposed 535.25 g 18.88 oz 71.00 mm OVERALL WT:

2.80 in

MATERIAL: Steel

ORD USED WITH: Mortar projectiles

COMMENTS: This fuze is identical to the Former Soviet V-22 fuze.

Superquick or delay settings.





MAX DIA: LENGTH: 40.00 mm

100.00 mm 1.57 in Overall:

3.94 in

450.00 g 15.87 oz Exposed 54.00 mm OVERALL WT:

2.13 in

MATERIAL: Steel

ORD USED WITH: Artillery projectiles

COMMENTS: Instantaneous, delay, or non-delay settings by the com-

bined use or omission of the selector switch and nose cap.





**FORMER SOVIET UNION** 

**RGM** 

MAX DIA: LENGTH: 40.00 mm

Overall: 1.57 in 100.00 mm

3.94 in

454.00 g 16.01 oz Exposed 54.00 mm OVERALL WT:

2.13 in

MATERIAL: Steel

ORD USED WITH: Artillery projectiles

COMMENTS: This fuze is made in two externally different models. Instantaneous, delay, or non-delay settings by the combined use or omission of the selector switch and nose cap.





RGM-2

LENGTH: MAX DIA: 40.00 mm

Overall: 100.00 mm 1.57 in

3.94 in

Exposed 54.00 mm OVERALL WT: 425.00 g

2.13 in 14.99 oz

MATERIAL: Steel

ORD USED WITH: Artillery projectiles

COMMENTS: Instantaneous, delay, or non-delay settings by the com-

bined use or omission of the selector switch and nose cap.





**FORMER SOVIET UNION** 

RGM-2M

LENGTH: MAX DIA: 40.00 mm

Overall: 100.00 mm 1.57 in

3.94 in

Exposed 54.00 mm OVERALL WT: 454.00 g

2.13 in 16.01 oz

MATERIAL: Steel

ORD USED WITH: Artillery projectiles

COMMENTS: The fuze is externally the same as the Former Soviet V-429. Instantaneous, delay, or non-delay settings by the combined use or omission of the selector switch and nose cap.





RGM-6

### **PDSD**

MAX DIA: LENGTH: 30.00 mm

51.00 mm Overall: 1.18 in

2.00 in

Exposed 48.16 g 1.70 oz 27.00 mm OVERALL WT:

1.06 in

MATERIAL: Aluminum and steel

ORD USED WITH: 30-mm VOG-17M projectiles

COMMENTS: Graze sensitive.



**FORMER SOVIET UNION** 

VMG-M

#### **PDSD**

LENGTH: MAX DIA: 40.00 mm 1.57 in

157.00 mm Overall:

6.18 in

Exposed 260.00 g 9.17 oz 84.00 mm OVERALL WT: 3.31 in

MATERIAL: Aluminum and bakelite

ORD USED WITH: 57-mm aircraft rocket

COMMENTS: Instantaneous.



V-5M1

MAX DIA: LENGTH: 40.00 mm

Overall: 1.57 in 116.00 mm

4.57 in

525.00 g 18.52 oz Exposed 71.00 mm OVERALL WT:

2.80 in

MATERIAL: Steel

ORD USED WITH: Mortar projectiles

COMMENTS: Identical to the Former Soviet M-12 fuze. Superquick or

delay settings.





MAX DIA: LENGTH: 40.00 mm

111.00 mm Overall: 1.57 in

4.37 in

Exposed 618.00 g 21.80 oz 66.00 mm OVERALL WT:

2.60 in

MATERIAL: Steel

ORD USED WITH: Rocket

COMMENTS: Instantaneous, long-delay, or short-delay settings.





V-25

MAX DIA: LENGTH: 40.00 mm Overall: 1.57 in 104.00 mm

4.09 in

58.00 mm Exposed OVERALL WT:

439.99 g 15.52 oz 2.28 in

MATERIAL: Steel

ORD USED WITH: Artillery projectiles

COMMENTS: When used in a fin-stabilized projectile the fuze is called a V-429E. Instantaneous or delay settings.



**FORMER SOVIET UNION** 

V-429

LENGTH: MAX DIA: 44.50 mm

Overall: 102.30 mm 1.75 in

4.03 in

280.00 g 9.88 oz Exposed 79.70 mm OVERALL WT:

3.14 in

MATERIAL: Unknown

ORD USED WITH: Rockets

COMMENTS: Graze sensitive.



**B** 70 **SPAIN** 

62.50 mm LENGTH: MAX DIA: Overall: 152.13 mm 2.46 in

5.99 in

565.00 g 19.93 oz Exposed 96.00 mm OVERALL WT:

3.78 in

MATERIAL: Unknown

ORD USED WITH: Rockets

COMMENTS: Impact function available.



**BC 140 D SPAIN** 

LENGTH: MAX DIA: 50.00 mm Overall: 92.00 mm 1.97 in

3.62 in

Exposed 65.00 mm OVERALL WT: 211.00 g 2.56 in 7.44 oz

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: Instantaneous or delay setting.



MODEL D SPAIN

MAX DIA: LENGTH: 32.00 mm

116.00 mm Overall: 1.26 in

4.57 in

Exposed OVERALL WT: 201.00 g 7.09 oz 45.00 mm 1.77 in

MATERIAL: Brass and lead

ORD USED WITH: Mortar projectiles

COMMENTS: None.





**SPAIN** ECIA-55

LENGTH: MAX DIA: 32.00 mm Overall: 87.00 mm 1.26 in

Overall: 87.00 mm 3.43 in

nm Sin

Exposed 44.00 mm OVERALL WT: 186.50 g 1.73 in 6.58 oz

MATERIAL: Brass and lead

ORD USED WITH: Mortar projectiles

COMMENTS: None.





EE-W300 SPAIN

MAX DIA: LENGTH: 32.00 mm

116.00 mm Overall: 1.26 in

4.57 in

193.00 g 6.81 oz Exposed 45.00 mm OVERALL WT:

1.77 in

MATERIAL: Brass and steel

ORD USED WITH: Mortar projectiles

COMMENTS: None.





**SPAIN** EE-53-W-310

MAX DIA: LENGTH: 63.00 mm

Overall: 152.00 mm 2.48 in

5.98 in

Exposed 1211.90 g 42.75 oz 114.00 mm OVERALL WT:

4.49 in

MATERIAL: Steel

ORD USED WITH: Artillery projectiles

COMMENTS: This fuze is used with Former Soviet style projectiles.

Superquick or delay settings.



**PDB 101 SPAIN** 

MAX DIA: LENGTH: 64.00 mm

Overall: 151.00 mm 2.52 in

5.94 in

Exposed 779.00 g 27.48 oz 118.00 mm OVERALL WT:

4.65 in

MATERIAL: Steel

ORD USED WITH: Artillery projectiles

COMMENTS: This fuze is used in Former Soviet style projectiles. Superquick or delay settings.



**SPAIN PDB 102** 

LENGTH: MAX DIA: 48.5 mm Overall: 134.40 mm 1.91 in

5.29 in

95.00 mm OVERALL WT:

Exposed 350.00 g 12.34 oz 3.74 in

MATERIAL: Unknown

ORD USED WITH: Rockets

COMMENTS: Impact function available.



**PDB 122 SPAIN** 

# **PDSQ**

LENGTH: MAX DIA: 49.00 mm 95.00 mm Overall: 1.93 in

3.74 in

220.00 g 7.76 oz Exposed 66.50 mm OVERALL WT: 2.61 in

MATERIAL: Unknown

ORD USED WITH: Mortar projectiles

COMMENTS: Visual armed/safe indicator.



**SPAIN PDB 332** 

### **PDSQ**

LENGTH: MAX DIA: 49.00 mm

95.00 mm Overall:

1.93 in

3.74 in

235.00 g 8.29 oz OVERALL WT: Exposed 66.50 mm

2.62 in

MATERIAL: Unknown

ORD USED WITH: Mortar projectiles

COMMENTS: Superquick or delay settings.



**PDB 333 SPAIN** 

LENGTH: MAX DIA: 49.00 mm Overall: 79.00 mm 1.93 in

3.11 in

Exposed 210.00 g 7.41 oz 50.00 mm OVERALL WT: 1.97 in

MATERIAL: Unknown

ORD USED WITH: Mortar projectiles

COMMENTS: Several modifications exist.



LENGTH: MAX DIA: 45.00 mm 1.77 in

Overall: 70.00 mm

2.76 in

Exposed 438.00 g 15.45 oz 33.00 mm OVERALL WT:

1.30 in

MATERIAL: Brass

ORD USED WITH: Reconnaissance vehicle gun projectile

COMMENTS: None.



L17A3

**UNITED KINGDOM** 

45.00 mm LENGTH: MAX DIA: Overall: 70.00 mm 1.77 in

2.76 in

Exposed OVERALL WT: 439.00 g 15.49 oz 33.00 mm

1.30 in

MATERIAL: Brass

ORD USED WITH: Reconnaissance vehicle gun projectile

COMMENTS: None.



**UNITED KINGDOM** 

L17A6

LENGTH: MAX DIA: 61.00 mm

151.00 mm Overall: 2.40 in

5.94 in

Exposed 985.00 g 34.74 oz 96.00 mm OVERALL WT:

3.78 in

MATERIAL: Steel

ORD USED WITH: Artillery projectiles

COMMENTS: Instantaneous and delay settings.





L32A2

**UNITED KINGDOM** 

MAX DIA: LENGTH: 66.00 mm Overall: 160.00 mm 2.60 in

6.30 in

571.00 g 20.14 oz Exposed 99.00 mm OVERALL WT:

3.90 in

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: Superquick and delay settings. The fuze uses a cocked striker for delay firing.





**UNITED KINGDOM** 

L35A1

LENGTH: MAX DIA: 61.00 mm

151.00 mm Overall: 2.40 in

5.94 in

Exposed 1000.40 g 35.29 oz 100.00 mm OVERALL WT:

3.94 in

MATERIAL: Steel

ORD USED WITH: Artillery projectiles

COMMENTS: Superquick or delay settings.





L106A2

**UNITED KINGDOM** 

LENGTH: MAX DIA: 35.00 mm

86.00 mm Overall: 1.38 in

3.38 in

349.00 g 12.31 oz Exposed 34.00 mm OVERALL WT:

1.34 in

MATERIAL: Steel

ORD USED WITH: Mortar projectiles

COMMENTS: None.





**UNITED KINGDOM** 

162 MK10

LENGTH: MAX DIA: 60.00 mm 2.36 in

126.00 mm Overall:

4.96 in 87.00 mm OVERALL WT:

Exposed 1171.00 g 41.31 oz 3.43 in

MATERIAL: Brass

ORD USED WITH: Artillery projectiles

COMMENTS: None.





117 MK 17/7

**UNITED KINGDOM** 

MAX DIA: LENGTH: 60.00 mm

Overall: 121.00 mm 2.36 in

4.76 in

Exposed 1182.00 g 41.69 oz 84.00 mm OVERALL WT:

3.31 in

MATERIAL: Brass

ORD USED WITH: Artillery projectiles

COMMENTS: None.





**UNITED KINGDOM** 

117 MK 20

LENGTH: MAX DIA: 40.00 mm

Overall: 106.00 mm 1.57 in

4.17 in

Exposed 61.00 mm OVERALL WT: 464.30 g 2.40 in 16.38 oz

MATERIAL: Steel

ORD USED WITH: Artillery projectiles

COMMENTS: This fuze is also called the UTIU-M71. Superquick or

delay settings.





**AU-18** 

**FORMER YUGOSLAVIA** 

MAX DIA: LENGTH: 40.00 mm

Overall: 106.00 mm 1.57 in

4.17 in

417.30 g 14.72 oz Exposed 61.00 mm OVERALL WT:

2.40 in

MATERIAL: Steel

ORD USED WITH: Artillery projectiles

COMMENTS: This fuze is also called the UTIU-M72. Superquick or

delay settings.





**FORMER YUGOSLAVIA** 

**AU-18P1** 

MAX DIA: LENGTH: 40.00 mm

102.00 mm Overall: 1.57 in

4.02 in

Exposed 433.00 g 15.27 oz 57.00 mm OVERALL WT:

2.24 in

MATERIAL: Steel

ORD USED WITH: Mortar projectiles

COMMENTS: This fuze is also called the UTIU-M78. Superquick or

delay settings.





**AU-29** 

**FORMER YUGOSLAVIA** 

MAX DIA: LENGTH: 61.00 mm Overall: 150.00 mm 2.40 in

5.91 in

946.00 g 33.37 oz Exposed 95.00 mm OVERALL WT:

3.74 in

MATERIAL: Steel and brass

ORD USED WITH: Artillery projectiles

COMMENTS: The fuze is a copy of the U.S. M51A5. Superquick or

delay settings.



**FORMER YUGOSLAVIA** 

M51A5

MAX DIA: LENGTH: 38.00 mm 67.00 mm Overall: 1.50 in

2.64 in

32.00 mm OVERALL WT:

226.00 g 7.97 oz Exposed 1.26 in

MATERIAL: Steel

ORD USED WITH: Rocket

COMMENTS: This fuze is a copy of the Former Czechoslovak nz60v

fuze.





M63

**FORMER YUGOSLAVIA** 

MAX DIA: LENGTH: 61.00 mm

Overall: 2.40 in 150.00 mm

5.91 in

876.00 g 30.90 oz Exposed 94.00 mm OVERALL WT:

3.70 in

MATERIAL: Steel and brass

ORD USED WITH: Artillery projectiles

COMMENTS: This fuze is also called the AU-10 and is a copy of the

U.S. M557. Superquick and delay settings.



**FORMER YUGOSLAVIA** 

M557

MAX DIA: LENGTH: 31.00 mm Overall: 1.22 in

78.00 mm 3.07 in

OVERALL WT:

187.00 g 6.60 oz Exposed 60.00 mm 2.36 in

MATERIAL: Brass

ORD USED WITH: Mortar projectiles

COMMENTS: Although encountered on a Former Yugoslav round, this fuze actually carries Indonesian manufacturer's markings.





PSM No. 4 MK1

**FORMER YUGOSLAVIA** 

MAX DIA: LENGTH: 40.00 mm

Overall: 90.00 mm 1.57 in

3.54 in

163.20 g 5.76 oz Exposed 62.00 mm OVERALL WT:

2.44 in

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: None.





**FORMER YUGOSLAVIA** 

**M68** 

LENGTH: MAX DIA: 46.00 mm 87.00 mm Overall: 1.81 in

3.43 in

61.00 mm OVERALL WT:

173.00 g 6.10 oz Exposed 2.40 in

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: None.





M68 P1

**FORMER YUGOSLAVIA** 

MAX DIA: LENGTH: 46.00 mm

Overall: 80.00 mm 1.18 in

3.15 in

158.70 g 5.60 oz Exposed 63.00 mm OVERALL WT:

2.48 in

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: This fuze is used with white phosphorous projectiles.





**FORMER YUGOSLAVIA** 

M70 P1

MAX DIA: LENGTH: 40.00 mm

105.00 mm Overall: 1.57 in

4.13 in

Exposed 460.10 g 16.23 oz 60.00 mm OVERALL WT:

2.36 in

MATERIAL: Steel

ORD USED WITH: Artillery projectiles

COMMENTS: This fuze is also called the AU-18P1. Superquick or

delay settings.





**M72** 

**FORMER YUGOSLAVIA** 

MAX DIA: LENGTH: 40.00 mm

Overall: 102.00 mm 1.57 in

4.02 in

430.90 g 15.20 oz Exposed 57.00 mm OVERALL WT:

2.24 in

MATERIAL: Steel

ORD USED WITH: Mortar projectiles

COMMENTS: This fuze is used with rocket-assisted projectiles and is

also called the AU-29. Impact, superquick, or delay settings.





**FORMER YUGOSLAVIA** 

**M78** 

LENGTH: MAX DIA: 61.00 mm Overall: 2.40 in

86.00 mm 3.39 in

73.00 mm OVERALL WT:

Exposed 293.00 g 10.33 oz 2.87 in

MATERIAL: Aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: This fuze is similar to the German DM-111 series fuze.





M-111B1

**COUNTRY UNKNOWN** 

MAX DIA: LENGTH: 40.00 mm

Overall: 77.00 mm 1.57 in

3.03 in

218.00 g 7.69 oz Exposed 60.00 mm OVERALL WT:

2.36 in

MATERIAL: Steel

ORD USED WITH: Mortar projectiles

COMMENTS: When used with the adapter (right photo), the fuze can be used with Former Eastern-Bloc mortar projectiles.





# **COUNTRY UNKNOWN**

**UB-M** 

# Point Initiating, Base Detonating (PIBD)

CHINA	
TS-2 25	51
TYPE 1	52
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FORMER CZECHOSLOVAKIA	
nz-42 25	54
z21 25	55
FORMER SOVIET UNION	
9-K1-60820	55
GK-1 25	58
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GK-2M	50
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GPV-2 20	52
V-5K 20	53
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FORMER YUGOSLAVIA	
M69 20	56
GERMANY	
VP-7M	56
NORTH KOREA	
TYPE 2	57

LENGTH: MAX DIA: 40.00 mm 1.57 in

97.00 mm Overall: 3.82 in

Exposed 76.00 mm OVERALL WT:

219.00 g 7.72 oz 2.99 in

MATERIAL: Aluminum

ORD USED WITH: Recoilless rifle projectiles

COMMENTS: This fuze is a copy of the Former Soviet GK-2.





**TS-2 CHINA** 

LENGTH: MAX DIA: 41.00 mm

Overall: 97.00 mm 1.61 in

3.82 in

Exposed OVERALL WT: 219.00 g 7.72 oz 74.00 mm

2.91 in

MATERIAL: Aluminum

ORD USED WITH: Recoilless rifle projectiles

COMMENTS: This fuze is a copy of the Former Soviet GK-1.





**CHINA** TYPE 1

LENGTH: MAX DIA: 40.00 mm 1.57 in

96.60 mm Overall:

3.80 in

Exposed 42.80 mm OVERALL WT: 404.00 mm

1.69 in 14.25 oz

MATERIAL: Aluminum and steel

ORD USED WITH: Recoilless rifle projectiles

COMMENTS: None.



TYPE 3 **CHINA** 

MAX DIA: LENGTH: 30.00 mm

Overall: 97.00 mm 1.18 in

3.82 in

101.00 g 3.56 oz Exposed 67.00 mm OVERALL WT:

2.64 in

MATERIAL: Steel

ORD USED WITH: Artillery projectile

COMMENTS: This is a PIBD fuze that uses an impact sensitive explo-

sive for initiation.



FORMER CZECHOSLOVAKIA

nz-42

LENGTH: MAX DIA: 30.00 mm

Overall: 55.00 mm 1.18 in

2.17 in

Exposed 40.00 mm OVERALL WT: 130.00 g

1.57 in 4.59 oz

MATERIAL: Steel and bakelite

ORD USED WITH: Model T-21, 82-mm recoilless gun, HEAT projec-

tile.

COMMENTS: None.



# z-21 FORMER CZECHOSLOVAKIA

MAX DIA: LENGTH: 37.00 mm

Overall: 74.00 mm 1.46 in

2.91 in

Exposed 96.00 g 3.39 oz  $0.00 \, \mathrm{mm}$ OVERALL WT:

0.00 in

MATERIAL: Aluminum and bakelite

ORD USED WITH: Rocket

COMMENTS: This fuze uses a piezoelectric nose element. Pyrotechnic

self-destruct.





**GERMANY** VP-7M

LENGTH: MAX DIA: 40.00 mm Overall: 99.00 mm 1.57 in

3.90 in

1.5 / in

Exposed 73.00 mm OVERALL WT: 220.00 g 2.87 in 7.76 oz

MATERIAL: Aluminum

ORD USED WITH: Recoilless gun projectiles

COMMENTS: This fuze is a copy of the Former Soviet GK-2. Instantaneous.





TYPE 2 NORTH KOREA

MAX DIA: LENGTH: 40.00 mm Overall: 97.00 mm 1.57 in

3.82 in

Exposed 135.00 g 4.76 oz 74.00 mm OVERALL WT: 2.91 in

MATERIAL: Aluminum

ORD USED WITH: Recoilless gun projectiles

COMMENTS: Instantaneous. Graze sensitive.



**FORMER SOVIET UNION** 

GK-1

LENGTH: MAX DIA: 40.00 mm Overall: 97.00 mm 1.57 in

3.82 in

1.57 m

Exposed 76.00 mm OVERALL WT: 219.00 g 2.99 in 7.72 oz

MATERIAL: Aluminum

ORD USED WITH: Recoilless gun projectiles

COMMENTS: Instantaneous. Graze sensitive.





GK-2 FORMER SOVIET UNION

LENGTH: MAX DIA: 41.00 mm Overall: 122.00 mm 1.61 in

4.80 in

Exposed 97.00 mm OVERALL WT: 205.00 g

3.82 in 7.23 oz

MATERIAL: Aluminum and steel

ORD USED WITH: Recoilless gun projectiles

COMMENTS: Instantaneous. Improved graze sensitivity over

the GK-2.



**FORMER SOVIET UNION** 

GK-2M

LENGTH: MAX DIA: 40.00 mm 1.57 in

77.00 mm Overall: 3.03 in

Exposed 161.00 g 5.68 oz 57.00 mm OVERALL WT:

2.24 in

MATERIAL: Aluminum

ORD USED WITH: Artillery projectiles

COMMENTS: Graze sensitive. Instantaneous.





**GKV** 

**FORMER SOVIET UNION** 

MAX DIA: LENGTH: 40.00 mm

Overall: 98.00 mm 1.57 in

3.86 in

190.00 g 670 oz Exposed 56.00 mm OVERALL WT:

2.20 in

MATERIAL: Aluminum

ORD USED WITH: Artillery projectiles

COMMENTS: This fuze is found with and without wrench flats.

Instantaneous. Uses a piezoelectric crystal.





**FORMER SOVIET UNION** 

GPV-2

LENGTH: MAX DIA: 40.00 mm 125.00 mm Overall:

1.57 in

4.92 in

Exposed 163.00 g 5.75 oz 110.00 mm OVERALL WT:

4.33 in

MATERIAL: Aluminum and bakelite

ORD USED WITH: 57-mm aircraft rockets

COMMENTS: Instantaneous.



**V-5K** 

**FORMER SOVIET UNION** 

MAX DIA: LENGTH: 37.00 mm

Overall: 74.00 mm 1.46 in

2.91 in

96.00 g 3.39 oz Exposed  $0.00 \, \mathrm{mm}$ OVERALL WT:

0.00 in

MATERIAL: Aluminum and bakelite

ORD USED WITH: Rocket

COMMENTS: This fuze uses a piezoelectric element. Pyrotechnic self-

destruct.





**FORMER SOVIET UNION** 

**VP-18** 

MAX DIA: LENGTH: 42.50 mm Overall: 75.00 mm 1.67 in

2.95 in

0.00 mmOVERALL WT:

120.00 g 4.23 oz Exposed 0.00 in

MATERIAL: Aluminum and plastic ORD USED WITH: Aircraft rockets

COMMENTS: This fuze uses a piezoelectric nose element.





9-K1-608

**FORMER SOVIET UNION** 

MAX DIA: LENGTH: 40.00 mm

Overall: 98.00 mm 1.57 in

3.86 in

154.00 g 5.43 oz Exposed 56.00 mm OVERALL WT:

2.20 in

MATERIAL: Aluminum

ORD USED WITH: Artillery projectiles

COMMENTS: This fuze is a copy of the Former Soviet GPV-2 and is

also called the AU-16.





**FORMER YUGOSLAVIA** 

M69

# Proximity (PROX)

BULGARIA	
AR 205 ES	270
AR-201R	269
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RV-2	272
CHINA	
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MD-11A	274
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EF-7233	304
EF-792	302
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BM21	305
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M8516	311
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M85C13	307
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M8953	313
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MO120	309
RO 107	315
SOUTH KOREA	
K700	316
SPAIN	
EP 101 A	317
VTB 140 T	318
SWEDEN	
P-F 40-2	319

LENGTH: MAX DIA: 64.00 mm 2.52 in

Overall: Unknown

Unknown Unknown

Exposed OVERALL WT: Unknown Unknown

Unknown

MATERIAL: Plastic and aluminum

ORD USED WITH: 122-mm rockets

COMMENTS: Believed to have an impact back-up.



**BULGARIA AR-201R** 

LENGTH: MAX DIA: 40.00 mm Overall: 135.00 mm 1.57 in

5.31 in

Exposed 94.00 mm OVERALL WT: Unknown

3.70 in Unknown

MATERIAL: Plastic and aluminum

ORD USED WITH: Artillery and mortar projectiles

COMMENTS: Believed to have an impact back-up.



BULGARIA AR 205 ES

MAX DIA: LENGTH: 40.00 mm

Overall: 157.00 mm 1.57 in

6.18 in

572.00 g 20.18 oz Exposed 111.00 mm OVERALL WT:

4.37 in

MATERIAL: Aluminum, steel, and plastic

ORD USED WITH: Mortar projectiles

COMMENTS: The fuze has a mechanical impact feature. Plastic nose element can be found in different colors.



RV-1 **BULGARIA** 

LENGTH: MAX DIA: 40 mm 128.2 mm Overall: 1.57 in 5.05 in Exposed OVERALL WT: 81.4 mm

320.00 g 11.29 oz 3.20 in

MATERIAL: Aluminum and plastic

ORD USED WITH: Artillery and mortar projectiles

COMMENTS: Impact backup.



**BULGARIA** RV-2

MAX DIA: LENGTH: 64.00 mm

Overall: 195.00 mm 2.52 in

7.68 in

Exposed 1345.60 g 47.46 oz 100.00 mm OVERALL WT:

3.94 in

MATERIAL: Steel and plastic

ORD USED WITH: Artillery projectiles

COMMENTS: The fuze is reported to have an impact back-up. Burst

height of 6 meters.



**CHINA MD-11** 

MAX DIA: LENGTH: 64.00 mm 193.50 mm Overall: 2.52 in

7.62 in

Exposed 1346.00 g 47.48 oz 89.50 mm OVERALL WT:

3.52 in

MATERIAL: Steel and plastic

ORD USED WITH: Artillery projectiles

COMMENTS: This fuze is reported to have an impact back-up.



**CHINA MD-11A** 

MAX DIA: LENGTH: 64.00 mm

Overall: 204.40 mm 2.52 in

8.05 in

Exposed 1216.00 g 42.89 oz 91.00 mm OVERALL WT:

3.58 in

MATERIAL: Steel and plastic

ORD USED WITH: Artillery projectiles

COMMENTS: This fuze has a mechanical impact back-up. Average burst height of 3 to 16 meters.



**MD-12A CHINA** 

LENGTH: MAX DIA: 40.00 mm

174.00 mm Overall: 1.57 in

6.85 in

Exposed 590.00 g 20.81 oz 127.00 mm OVERALL WT:

5.00 in

MATERIAL: Steel and plastic

ORD USED WITH: Rockets

COMMENTS: This fuze is reported to have an impact back-up.



**CHINA MD-21** 

LENGTH: MAX DIA: 70.00 mm Overall: 222.90 mm

8.76 in

2.76 in

Exposed 1600.00 g 56.44 oz 124.70 mm OVERALL WT: 4.91 in

MATERIAL: Aluminum and plastic

ORD USED WITH: Naval artillery projectiles

COMMENTS: Impact back-up and self-destruct feature.



**CA 100 F3 FRANCE** 

MAX DIA: LENGTH: 70.00 mm Overall: 222.90 mm 2.76 in

8.76 in

Exposed 1600.00 g 56.44 oz 124.70 m OVERALL WT:

4.91 in

MATERIAL: Aluminum and plastic

ORD USED WITH: Naval artillery projectiles

COMMENTS: Impact back-up. Antiaircraft or surface use.



**CA 100 F4 FRANCE** 

LENGTH: MAX DIA: 61.00 mm

Overall: 218.44 mm 2.40 in

8.60 in

Exposed 588.60 g 20.76 oz 96.00 mm OVERALL WT:

3.78 in

MATERIAL: Aluminum and plastic

ORD USED WITH: Mortar projectiles

COMMENTS: This fuze has an impact back-up.



**CAL 120 PR 14** 

**FRANCE** 

LENGTH: MAX DIA: 70.00 mm Overall: 223.20 mm 2.76 in

8.79 in

Exposed 1600.00 g 56.44 oz 124.7 mm OVERALL WT:

4.91 in

MATERIAL: Aluminum and plastic

ORD USED WITH: 100-mm naval artillery projectiles

COMMENTS: Impact back-up.



**FRANCE** 

**FU-ALTM-100 F84** 

LENGTH: MAX DIA: 61.00 mm

151.00 mm Overall: 2.40 in

5.93 in

Exposed 640.00 g 22.57 oz 96.00 mm OVERALL WT:

3.77 in

MATERIAL: Aluminum and plastic

ORD USED WITH: Artillery projectiles

COMMENTS: Impact superquick option.



FU-RA-DE-F5 **FRANCE** 

MAX DIA: LENGTH: 61.00 mm

Overall: 221.80 mm 2.40 in

8.73 in

Exposed 98.35 mm 1105.00 g 38.98 oz OVERALL WT:

3.87 in

MATERIAL: Aluminum and plastic

ORD USED WITH: Artillery projectiles

COMMENTS: None.



**FU RALEC F2 FRANCE** 

MAX DIA: LENGTH: 61.00 mm

Overall: 151.00 mm 2.40 in

5.94 in

Exposed 626.00 g 22.08 oz 96.00 mm OVERALL WT:

3.78 in

MATERIAL: Steel and plastic

ORD USED WITH: Artillery projectiles

COMMENTS: Selector switch shows two positions, ground burst (PD)

and airburst.



**FU RALEC DE F3** 

**FRANCE** 

LENGTH: MAX DIA: 61.00 mm

210.00 mm Overall: 2.40 in

8.27 in

Exposed 737.10 g 26.00 oz 99.00 mm OVERALL WT:

3.90 in

MATERIAL: Steel and plastic

ORD USED WITH: Artillery projectiles

COMMENTS: None.



**FURC 58/62 FRANCE** 

LENGTH: MAX DIA: 40.00 mm 118.50 mm Overall:

4.66 in

1.57 in

Exposed 300.00 g 10.58 oz 72.00 mm OVERALL WT: 2.83 in

MATERIAL: Aluminum and plastic

ORD USED WITH: Artillery projectiles

COMMENTS: Impact back-up.



**MINNIE FRANCE** 

MAX DIA: LENGTH: 61.00 mm Overall: 2.40 in 150.88 mm

5.94 in

755.30 g 26.64 oz Exposed 99.20 mm OVERALL WT:

3.91 in

MATERIAL: Steel and plastic

ORD USED WITH: Mortar projectiles

COMMENTS: Selector switch shows two positions; ground burst (PD)

and airburst.



**FRANCE** PF120-PR14

LENGTH: MAX DIA: 40.00 mm

Overall: 118.00 mm 1.57 in

4.65 in

Exposed 72.00 mm OVERALL WT: 291.80 g 2.83 in 10.29 oz

MATERIAL: Steel and plastic

ORD USED WITH: Artillery projectiles

COMMENTS: This fuze has an impact back-up and is designed for projectiles having a small diameter, Former Soviet size fuze well.



PF 122 FRANCE

LENGTH: MAX DIA: 40.00 mm 1.57 in Overall: 118.00 mm

4.65 in

290.20 g 10.24 oz Exposed 72.00 mm OVERALL WT:

2.83 in

MATERIAL: Steel and plastic

ORD USED WITH: Artillery projectiles

COMMENTS: This fuze has an impact back-up and is designed for projectiles having a small diameter, Former Soviet size fuze well.



**FRANCE PF 130** 

MAX DIA: LENGTH: 25.70 mm 1.01 in

Overall: 70.20 mm

2.76 in

Exposed 540.00 g 19.05 oz 42.00 mm OVERALL WT: 1.65 in

MATERIAL: Aluminum and plastic

ORD USED WITH: 40-mm L/70 projectiles

COMMENTS: Antihelicopter fuze. Impact backup and self-destruct

feature.



T40 ER AH **FRANCE** 

LENGTH: MAX DIA: 25.70 mm Overall: 70.28 mm 1.01 in 2.77 in

Exposed 42.08 mm OVERALL WT: 540.00 g 1.66 in 19.05 oz

MATERIAL: Aluminum and plastic

ORD USED WITH: 40-mm L/70 naval projectiles

COMMENTS: Impact back-up and self destruct feature.



FRANCE T40 ER M

MAX DIA: LENGTH: 62.00 mm

202.50 mm Overall: 2.44 in

7.97 in

Exposed 900.00 g 31.75 oz 95.00 mm OVERALL WT:

3.74 in

MATERIAL: Aluminum and plastic

ORD USED WITH: 76-mm projectiles

COMMENTS: Antihelicopter projectiles. Impact back-up and selfdestruct feature.



**T76 AH FRANCE** 

LENGTH: MAX DIA: 62.00 mm 202.50 mm 2.44 in Overall:

7.97 in

900.00 g 31.75 oz Exposed 95.00 mm OVERALL WT: 3.74 in

MATERIAL: Aluminum and plastic

ORD USED WITH: 76-mm naval artillery projectiles

COMMENTS: Impact back-up and self-destruct feature. Switching ring on fuze to allow automatic setting in the breech prior to firing.



T76 M53 M **FRANCE** 

LENGTH: MAX DIA: 62.00 mm

228.00 mm Overall:

2.44 in

8.98 in

Exposed 656.00 g 23.14 oz 147.00 mm OVERALL WT:

5.79 in

MATERIAL: Aluminum and plastic

ORD USED WITH: Mortar projectiles

COMMENTS: None.



M<sub>1</sub>P **ISRAEL** 

MAX DIA: LENGTH: 49.00 mm Overall: 91.00 mm 1.93 in

3.58 in

Exposed 63.80 mm OVERALL WT: Unknown

2.51 in

MATERIAL: Aluminum and plastic

ORD USED WITH: Mortar projectiles

COMMENTS: Impact option. AJV 169 A1 used in 81-mm projectiles. AJV 169 A2 used in 120-mm projectiles.



**ITALY AJV 169** 

LENGTH: MAX DIA: Unknown 91.00 mm Overall:

3.58 in

Unknown

Exposed 63.70 mm

210.00 g 7.4 oz OVERALL WT: 2.51 in

MATERIAL: Aluminum and plastic

ORD USED WITH: Mortar projectiles

COMMENTS: Selectable impact function.



**PPD 323 NORWAY** 

LENGTH: MAX DIA: Unknown 91.00 mm Overall: Unknown

3.58 in

Exposed 210.00 g 7.41 oz 67.50 mm OVERALL WT: 2.66 in

MATERIAL: Aluminum and plastic

ORD USED WITH: Mortar projectiles

COMMENTS: Selectable impact function.



**NORWAY PPD 324** 

LENGTH: MAX DIA: Unknown

151.60 mm Overall:

Unknown

5.97 in

Exposed 485.00 g 17.11 oz 95.50 mm OVERALL WT:

3.76 in

MATERIAL: Aluminum and plastic

ORD USED WITH: Artillery projectiles

COMMENTS: Selectable impact function.



**PPD 440 NORWAY** 

LENGTH: MAX DIA: 46.50 mm Overall: 101.30 mm 1.83 in

3.99 in

Exposed 73.20 mm OVERALL WT: 240 g

2.88 in 8.5 oz

MATERIAL: Aluminum

ORD USED WITH: 60- and 81-mm mortar projectiles

COMMENTS: Another NVT-2 variation exists (next page) for larger

caliber mortar projectiles.



NORWAY NVT-2

MAX DIA: LENGTH: 59.60 mm Overall:

2.34 in 125.40 mm

4.94 in

Exposed 345 g 12.17 oz 70.00 mm OVERALL WT:

2.76 in

MATERIAL: Aluminum

ORD USED WITH: 120-mm and 4.2 in mortar projectiles

COMMENTS: Another version of the NVT-2 exists (previous page) for smaller caliber mortar projectiles.



NVT-2 **NORWAY** 

LENGTH: MAX DIA: 61.00 mm Overall: 152.00 mm 2.40 in

5.98 in

Exposed 378.00 g 13.33 oz 96.00 mm OVERALL WT:

3.78 in

MATERIAL: Aluminum and plastic

ORD USED WITH: Artillery projectiles

COMMENTS: This fuze has an impact feature.



**SINGAPORE EF722** 

LENGTH: MAX DIA: 51.20 mm

151.60 mm Overall:

2.02 in

5.97 in

Exposed 500 g 17.64 oz 95.50 mm OVERALL WT:

3.76 in

MATERIAL: Aluminum and steel

ORD USED WITH: Artillery projectiles

COMMENTS: Impact back-up.



**MIRA EF-723** 

**SINGAPORE** 

MAX DIA: LENGTH: 49.00 mm Overall: 107.00 mm 1.93 in

4.21 in

Exposed 79.00 mm OVERALL WT: 265.00 g

9.35 oz 3.11 in

MATERIAL: Aluminum and plastic

ORD USED WITH: Mortar projectiles

COMMENTS: PD setting option also functions as an impact back-up when set on the proximity mode.



**SINGAPORE** 

EF-792

LENGTH: MAX DIA: 43.00 mm

Overall: 128.20 mm 1.69 in

5.05 in

Exposed 81.70 mm OVERALL WT: 510.00 g 3.22 in 17.99 oz

MATERIAL: Aluminum and plastic

ORD USED WITH: Artillery projectiles

COMMENTS: Point detonating settable feature also acts as a back-up during the proximity mode.



EF-796 SINGAPORE

LENGTH:		MAX DIA:	61.00 mm
Overall:	151.60 mm		2.40 in
	5.97 in		
Exposed	95.50 mm	OVERALL WT:	520.00 g
	3.76 in		18.34 oz

MATERIAL: Aluminum and plastic

ORD USED WITH: Artillery projectiles

COMMENTS: Point detonating settable function also acts as a back-up when in the proximity mode.



**SINGAPORE** 

EF-7233

LENGTH: MAX DIA: 63.50 mm

Overall: 159.00 mm 2.50 mm

6.26 in

Exposed 107.00 mm OVERALL WT: 750 g 4.21 in 26.46 oz

MATERIAL: Plastic and aluminum

ORD USED WITH: Rockets

COMMENTS: For standard range/velocity 122-mm rockets.



BM21 SOUTH AFRICA

LENGTH: MAX DIA: 63.50 mm Overall: 150.00 mm 2.50 in

5.90 in

Exposed 107.00 mm OVERALL WT: Unknown

4.21 in Unknown

MATERIAL: Plastic and aluminum

ORD USED WITH: Rockets

COMMENTS: For extended range/velocity 122-mm rockets.



**SOUTH AFRICA** 

**BM36** 

LENGTH: MAX DIA: 61.25 mm

149.10 mm Overall: 2.41 in

5.87 in

Exposed 1110 g 39.15 oz 94.45 mm OVERALL WT:

3.72 in

MATERIAL: Plastic and aluminum

ORD USED WITH: Artillery projectiles

COMMENTS: Impact back-up.



M85C13

**SOUTH AFRICA** 

LENGTH: MAX DIA: 64.10 mm

Overall: 149.10 mm Entry

Entry

Exposed 105.30 mm OVERALL WT: 1110 g

Entry Entry

MATERIAL: Plastic and aluminum

ORD USED WITH: Artillery projectiles

COMMENTS: Impact back-up.



**SOUTH AFRICA** 

M85R13

MAX DIA: LENGTH: 40.00 mm

123.00 mm Overall: 1.57 in

4.84 in

275.00 g 9.70 oz Exposed 76.00 mm OVERALL WT:

2.99 in

MATERIAL: Aluminum, steel, and plastic

ORD USED WITH: Mortar projectiles

COMMENTS: This fuze has an impact feature.





**MO120 SOUTH AFRICA** 

MAX DIA: LENGTH: 61.00 mm

Overall: 154.00 mm 2.40 in

6.06 in

Exposed 804.80 g 28.39 oz 101.00 mm OVERALL WT:

2.40 in

MATERIAL: Steel and plastic

ORD USED WITH: Artillery projectiles

COMMENTS: This fuze has an impact feature.



**SOUTH AFRICA** 

M8513A1

LENGTH: MAX DIA: 40.00 mm

101.50 mm 1.57 in Overall:

4.00 in

275.00 g 9.7 oz Exposed 75.20 mm OVERALL WT:

2.96 in

MATERIAL: Plastic and aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: Similar to the M8517.



**SOUTH AFRICA** M8516

LENGTH: MAX DIA: 45.00 mm 101.5 mm Overall: 1.77 in

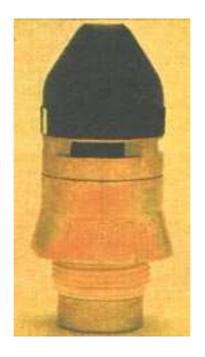
4.00 in

Exposed 280 g 9.88 oz 75.20 mm OVERALL WT: 2.96 in

MATERIAL: Plastic and aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: Similar to the M8516.



**SOUTH AFRICA** 

M8517

MAX DIA: LENGTH: 62.00 mm

204.57 mm Overall:

2.44 in

8.05 in

Exposed 930 g 32.8 oz 95.40 mm OVERALL WT:

3.76 in

MATERIAL: Plastic and aluminum

ORD USED WITH: Artillery projectiles

COMMENTS: For naval use. Back-up impact function.



M8953

**SOUTH AFRICA** 

MAX DIA: LENGTH: 48.10 mm

Overall: 103.46 mm 1.89 in

4.07 in

Exposed 360.00 g 12.70 oz 76.96 mm OVERALL WT:

3.03 in

MATERIAL: Plastic and aluminum

ORD USED WITH: Mortar projectiles

COMMENTS: Replaces the M8516 and M8517 fuzes.



**SOUTH AFRICA** 

M9327A1

LENGTH: MAX DIA: 40.20 mm

123.45 mm Overall: 1.58 in

4.86 in

Exposed 275 g 9.7 oz 77.11 mm OVERALL WT:

3.03 in

MATERIAL: Aluminum and plastic

ORD USED WITH: Rockets

COMMENTS: Impact selection available.



**SOUTH AFRICA RO 107** 

LENGTH: MAX DIA: 62.00 mm Overall: 151.55 mm 2.44 in

Exposed 95.50 mm OVERALL WT: 789 g 3.76 in 27.83 oz

MATERIAL: Plastic and unknown metal

ORD USED WITH: Artillery projectiles

COMMENTS: Impact selectable option.



SOUTH KOREA K700

LENGTH: MAX DIA: 61.20 mm 152.13 mm Overall: 2.41 in

5.99 in

Exposed 96.00 mm OVERALL WT: Unknown 3.80 in

Unknown

MATERIAL: Aluminum and plastic

ORD USED WITH: Artillery projectiles

COMMENTS: Impact back-up feature.



**EP 101 A SPAIN** 

LENGTH: MAX DIA: 60.70 mm 146.86 mm Overall: 2.39 in

5.78 in

Exposed 96.52 mm OVERALL WT: Unknown 3.80 in

Unknown

MATERIAL: Aluminum and plastic

ORD USED WITH: Rockets

COMMENTS: Impact back-up feature.



**SPAIN VTB 140 T** 

LENGTH: MAX DIA: 35.70 mm 94.45 mm 1.41 in

Overall:

3.72 in

Exposed 83.50 mm 116.00 g 4.09 oz OVERALL WT:

3.29 in

MATERIAL: Plastic and aluminum

ORD USED WITH: 40-mm Bofors L70 artillery projectile

COMMENTS: None.



P-F 40-2 **SWEDEN** 

MAX DIA: LENGTH: 60.00 mm 133.00 mm Overall: 2.36 in

2.99 in

Exposed 426.60 g 15.04 oz 76.00 mm OVERALL WT:

2.99 in

MATERIAL: Aluminum and plastic

ORD USED WITH: Artillery projectiles

COMMENTS: This fuze has an impact back-up.



**FORMER YUGOSLAVIA** 

M79

# Appendix Glossary of Terms

BD base detonating
BDSD base detonating, self-destruct
HEAT high-explosive antitank
MT mechanical time
MTSQ mechanical time and superquick
PD point detonating
PDSD point detonating, self-destruct
PIBD point initiating, base detonating
PROX proximity
PTTF powder train time fuze
RAP rocket-assisted projectile
TSQ time and superquick
WP white phosphorous

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B637	DIA/J2M-2C EUROPE BRANCH	i	C590	USA TANK-AUTOMOTIVE COMMAND 1
B638	DIA/J2M-2C EUROPE BRANCH DIA/J2M-2A MID-EAST/AFRICA BR	i	C594	US ARMY S+T CENTER - FAR EAST 1
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B783	DIA/PAC	1	C697	USA TEST + EVALUATION COMMAND 1
B797	DIA/PAW-1	1	C715	US ARMY ARMOR CENTER 1
E017	HQ USAF/INEE (RAND-C)	1	D002	CNA 1
E018	HQ USAF/INEE (RAND-W)	2	D006	NAVARMSCONTROLCOORD//IPO-05// 1
E044	JOINT SERVICES SERE AGENCY	1	D150	CMC 1
P002	NPIC/RSD (LIBRARY)	2	D151	NAVEODTECHDIV INDIAN HEAD MD 1
P055	CIA/OIR/IMD/ISB	5	D660	NMITC 2
P079	STATE INR/PMW	1	D700	MC INTELLIGENCE ACTIVITY 151
P080	STATE/PM	2	D701	MCAGCC TEECG 1
P082	STATE EA + PAC AFF	1	D708	RES MAGTF CE-LANT 1
P090	NSA/E3234/HARD CY COLLECTIONS	1	D709	RESERVE MAGTF CE PAC 1
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P402	NPIC/IAG/AAD/CB	1	D902	ONI DET NEWPORT RI 1
P404	NPIC/IAG/AAD/SSAB	1	D971	DNI/OP-092 1
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J618	6TH MARINE REGIMENT	1	W320	224TH MI BN (AE)	1
J705	EODGRU TWO	1	W325	82ND ABN DIV	1
J951	STRIKE-FIGHTER WEAPONS SCHOOL	1	W330	101ST ABN DIV (AASLT)	1
K006	COMSOCPAC	1	W340	3-24 ID	1
K007	COMUSJAPAN	1	W401	NE RTS-I	1
K010	HQ USFK/EUSA	4	W415	SE REGIONAL TRAINING SITE - I	1
K012	HQ USFK/EUSA	1	W421	NC RTS-I	1
K083	PATWING KADENA	1	W431	SW RISC (FORMERLY SW RTS-I)	1
K084	PATWING MISAWA	1	W441	ARISC-W	1
K101	HQ PACAF/IN	1	W500	COMUSARCENT/THIRD US ARMY	1
K150 K151	COMEODGRU ONE EODTEU ONE	1	W520 W615	416TH ENCOM	1
K151	EODMU THREE	1	W700	372D MI CO (TECHINT)(EAC) 30TH INF BDE	i
K300	JICPAC/SSL	i	W710	116TH CAV BDE	7
K302	US ARMY PACIFIC INTELLIGENCE	i	W715 W745	218TH HVY SEP BDE (M)	1
K303	1STBN 1SFGA	2	W750	225TH ENG GP	i
K304	45TH SPT GP	1	W835	305 RESCUE SQUADRON	i
K305	25TH INF DIV	1	W900	FORSCOM	1
K342	2ND INF DIV	1	W925	11TH ACR	1
K344	1ST BDE 6TH INF DIV LIGHT	1	W940	JRTC	1
K520	LFTCPAC	1	W945	FIRST MI CENTER (EAC)	1
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N105	1ST SPECIAL FORCES GROUP (A)	1	l F		1
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N120	7TH SPECIAL FORCES GROUP(A)	4	STI		3 1
N125	10TH SFG(A)	3	FCR		2
N130	75TH RANGER REGIMENT	1	ILT		2
N131	1ST BN/75TH RANGER REGIMENT	1	ILC		50
N132 N155	2ND BN/75TH RANGER REGIMENT 3/160TH SOAR(A)	1	IP		1
N160	19TH SFG(A)	4	IPA		i
N165	20TH SPECIAL FORCES GROUP(ABN)	2	S-2		1
N302	NAVSPECWARU FOUR	1	S-3		5
N410	SEAL TEAM ONE	i	SCC		1
N433	SPECIAL BOAT UNIT TWENTY	i	SMS		375
N510	16 OPERATIONS SUPPORT SQUADRON		SBR		1
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