



KORYO
Pyrotechnics Co.,Ltd.

Head office Wooyang bldg, 7-8F, 39-5, 1Ka, Chungmu-Dong, Seo-Gu, Busan, Korea | Tel +82. 51. 256. 1771 | Fax +82. 51. 256. 7366
Factory Samrak-Ri, Maam-Myeon, Goseong-Gun, Gyeongsangnam-Do, Korea | Tel +82. 55. 673. 3891 | Fax +82. 55. 673. 3896

www.kpyro.com



KORYO

Pyrotechnics Co.,Ltd.



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M_Lanagement Philosophy

1. We always think and work from the viewpoint of customer.
2. We always respect the colleagues each other.
3. We always put the safety first.
4. We always avoid the high cost and inefficient construction.
5. We always observe the law and standard.

M essage from President

KORYO PYROTECHNICS CO.,LTD

We have been in charge of the advancement and technology development of the training practice cartridge for self-reliant defense potential improvement during thirty-odd years since it is founded in 1976. By the support and encouragement from our customer and subsidiary company, we could be developed continuously. After the years of the efforts, we have occupied the best market share in the training practice cartridge. We keep investing research and development for strengthening the competitiveness and building ERP system for innovating inside process. In addition, we will make an effort to expand the business field by applying accumulated technology and to complete customer satisfaction.



CEO

Hyo-sik, Cho



Company history



- | | | |
|-------|-----|--|
| 1980. | 12. | Licensed to manufacture Military Explosives (by the Ministry of Defence) |
| 1983. | 10. | Designated as Excellent Manufacturer (by the Procurement Agency of the Defence Ministry) |
| 1986. | 08. | Awarded for our contribution to the Korean Army (by the Headquarter of the Korean Army) |
| 1987. | 11. | Awarded as Excellent Tax-Payer |
| 1987. | 12. | Awarded again for our contribution to the Korean Army (by the Headquarter of the Korean Army) |
| 1988. | 03. | Awarded "Medal of Industrial Merits" (by the former Korean President, Tae-Woo Roh) |
| 1989. | 04. | Changed Koryo Fireworks to a Limited Company |
| 1989. | 10. | Licensed for International Trading |
| 1990. | 04. | A new and larger Factory Construction completed in Ko-Seong & Factory Transfer from Busan to Koseong |
| 1991. | 10. | Designated as "Excellent Producer of Marine Distress Signals" (by Busan Harbour Administration) |
| 1991. | 11. | Designated as "Company for Special Consideration" (by Military Administration of Defence Ministry) |
| 1998. | 11. | Awarded One-million-Dollar Export prize |
| 1999. | 05. | Obtained CE Mark Certificate of marine signal products. |
| 1999. | 12. | Obtained ISO 9001 Certificate. |
| 2000. | 08. | Obtained Ministry of National Defense 0050-9002(Equivalent to ISO 9002) Certificate. |



Laboratory Introduction

A ctual Result

SIGNALS, ILLUMINATION, AIRCRAFT : SINGLE STAR
MINE, ANTI-PERSONNEL, PRACTICE, KM16
SIMULATOR, PROJECTILE, GROUND BURST : KM115A2
CARTRIDGE, SUB-CALIBER 22MM 60/81mm
CARTRIDGE, SUBCALIBER 22MM 4.2INCH

1970

1980

SIGNALS, ILLUMINATION, AIRCRAFT : SINGLE STAR
SIGNALS, ILLUMINATION, PARACHUTE
MINE, CLAYMORE, PRACTICE K440(KM18A1)
ELECTRIC BLASTING CAP, PRACTICE KM752
SIGNALS KITS, PERSONNEL Distress : KM186A
MINE, ANTI-TANK, PRACTICE KM15
MINE, ANTI-PERSONNEL, NONMETALLIC, PRACTICE, KM14
MINE, ANTI-INFANTRY, PRACTICE PMD-57
MINE, ANTI-TANK, PRACTICE TMD-B
MINE, ANTI-TANK, PRACTICE TM-46

Laboratory affiliated with Koryo Pyrotechnics Inc. has been established to develop and advance the essential techniques for the safety of the ocean and national defence. Since the establishment in 1976, we have constantly invested and expanded the fields of study to contribute to strengthen company's competitive power and quality.

We will continue to develop new technique development. We will prepare steadily for the future with creative and renovative thoughts.

HAND-GRENADE, PRACTICE K410
HAND-GRENADE, PRACTICE K410 WITH FUZE 411
HAND-GRENADE, PRACTICE K410 WITH BODY K412
MINE, ANTI-TANK, PRACTICE K441
FIRING DEVICE, MULTI-PURPOSE, KM142
FIRING DEVICE, MULTI-PURPOSE, PRACTICE K471
SIMULATOR, PROJECTILE AIR BURST KM74A1
SIMULATOR, PROJECTILE, GROUND BURST : KM115A2

1990

2000

CARTRIDGE 40MM, PRACTICE K234
GRENADE, HAND, NON-LETHAL, KE180
THROW TRAINING, NONLETHAL, PRACTICE GRENADE K479



CIVILIAN GOODS

DISTRESS SIGNALS

PARACHUTE DISTRESS SIGNAL K-31

RED HAND FLARE K-23

BUOYANT SMOKE SIGNAL K-35

SELF-ACTIVATING SMOKE SIGNAL K-24

LIGHT-SMOKE SIGNAL K-32

LIGHT-THROWING SPPLIANCE K-19

SELF-IGNITING LIGHT K-26

EMERGENCY MEDICAL TREATMENT CASE K-18



CIVILIAN GOODS

DISTRESS SIGNALS

PARACHUTE DISTRESS SIGNAL K-31

RED HAND FLARE K-23

BUOYANT SMOKE SIGNAL K-35

SELF-ACTIVATING SMOKE SIGNAL K-24

LIGHT-SMOKE SIGNAL K-32

LIGHT-THROWING SPPLIANCE K-19

SELF-IGNITING LIGHT K-26

EMERGENCY MEDICAL TREATMENT CASE K-18

Worldwide Business

Certificate



BVQI CERTIFICATION



RECOGNITION OF A TEST
LABORATORY

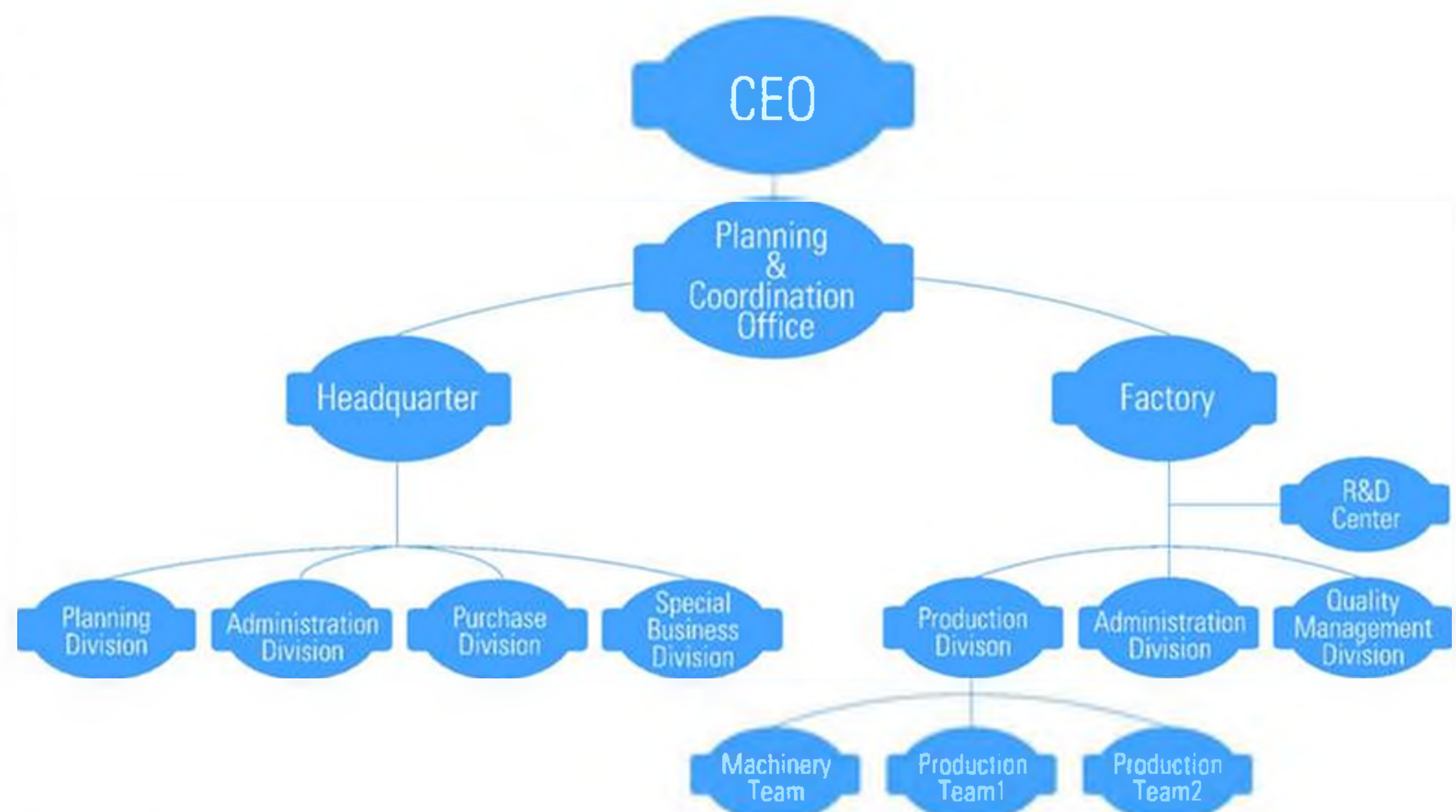
MUNITION INDUSTRY

Munition industry is our major business. We have taken initiative in localization and development all sorts of the training practice cartridge based on our accumulated technology and avoiding imitation.

CIVILIAN INDUSTRY

Civilian industry was founded with the same start of the business of KYORO PRYOTECHNICS CO., LTD. We are responsible for the marine safety by development and localization of the Distress Signal. In addition, we are promoting to develop the green fire extinguisher of the next generation by applying our technology.

Organization



RECOGNITION FOR BV MODE II SURVEY SCHEME



THE SCHEDULE OF RECOGNITION



CERTIFICATE OF ANNEX LABNATION



SIGNAL FLARES



Kogyo
Pyrotechnics Co.,Ltd.

SIGNAL KIT, PERSONNEL DISTRESS K912
SIGNALS KITS, PERSONNEL DISTRESS : KM186A
SIGNALS, ILLUMINATION, PARACHUTES
SIGNALS, ILLUMINATION, GROUND : CLUSTERS
SIGNALS, ILLUMINATION, AIRCRAFT : SINGLE STAR
MARINE SMOKE AND ILLUMINATION SIGNAL, KAN-MK 13 MOD 0
SMOKE POT, PRACTICE K17
SMOKE POT, PRACTICE K18
SMOKE SIGNAL FOR SUBMARINE K903~K908

■ SIGNAL KIT, PERSONNEL DISTRESS K912




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SIGNAL KIT, PERSONNEL DISTRESS K912

USE

The signal kit K912 is used for signal, illuminant since tactical training and a distress signaling. It is composed of manual color signal.

FUNCTION

After the illumination signal is connected to the hand-held projector and firing is accomplished by raising the projector overhead. The firing pin strikes a primer in the signal. The primer ignites the ignition charge, propellant charge, delay charge and illuminant charge then burning flare is created at a height of approximately 300M.

DATA

- NSN : 1375-37-512-8036
 - Model(DODIC) : K911, K912, K913, K914, K915, K917
 - Size : $\varnothing 13.0 \times L 59.5$ mm
 - Weight : 330.0g
 - Cartridge for use :
Red Ground Illumination Signals K913, White Ground Illumination Signals K914, Green Ground Illumination Signals K915
 - Method of actuation : From projector
 - Filler charge : Illuminant compositions
 - Performance :
Burning Time - More than 7 sec.
Candle power - Red 26,000 White 16,000 Green 20,000
Altitude - 189.2m
 - Packing :
3(Red, White, Green) Signals per each kit,
1 projector, 1 carrying bag for each kit / 100 kits per wooden box
 - Cube : 0.082m^3 (K911, K912) / 0.037m^3 (K913, K914, K915)
 - Dimensions :
 $908.0 \times 362.0 \times 279.0$ mm(K911, K912) /
 $593.0 \times 478.0 \times 394.0$ mm(K913, K914, K915)
-

SIGNALS KITS, PERSONNEL DISTRESS : KM186A



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SIGNALS KITS, PERSONNEL DISTRESS : KM186A

USE

The signal kits KM186A is used for a fight signalling or a distress signalling and gives afford facility for the carrying and use.

FUNCTION

After the illumination signals is connected to the hand-held projector and firing is accomplished by raising the projector overhead.

The firing pin strikes a primer in the signal. The primer ignites the first fire charge and ejects the burning flare at a height of approximately 300M.



DATA

- NSN : 1370-37-295-7013
- Model(DODIC) : KM186A/KL117
- Diameter : $\phi 14.7 \times 60.5\text{mm}$
- Weight : 0.304 Kg
- Cartridge for use :
RED GROUND ILLUMINATION SIGNALS KM187KB/
WHITE GROUND ILLUMINATION SIGNALS KM188KB/
GREEN GROUND ILLUMINATION SIGNALS KM189KB/
- Method of actuation : From projector
- Primer : Percussion KM209
- Filler charge : Illuminant compositions
- Performance :
Burning time - 4~12 sec
Candle power - Red 26,000 Green 20,000 White 16,000
- Packing :
3 (Red, White, Green) Signals per each kit 1 Projector, 1 Carrying bag
per each kit, 100 Kits per Wooden box
- Weight : 41.5 Kg
- Cube : 0.069m^3
- Dimensions : $780.0 \times 380.0 \times 300.0(\text{mm})$



■ SIGNALS, ILLUMINATION, PARACHUTES



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SIGNALS, ILLUMINATION, PARACHUTES

CLASSIFICATION

KM126A1/KL311:Red KM127A1/KL312:White KM195/KL305:Green

USE

These signals are used for an actual training of the platoon or the company in the nighttime.

FUNCTION

The signals are ignited to the illuminant compositions unfolding a parachute suspended illuminant assembly, allowing the signals to reach an altitude of 700 to 750 ft with being fired by hand-held rocket launching mechanism on the ground.

DATA

- NSN : KM126A1 1370-37-507-2286
KM127A1 1370-37-507-2292
KM195 1370-37-507-2315
- Diameter : $\phi 42.4 \times 258.0\text{mm}$
- Weight : 0.4Kg per each signal
- Method of actuation : Hand-held rocket launching mechanism
- Primer : Percussion NO. 70
- Materials : Aluminum
- Color : Silver, White label W/Black markings
- Filler charge : Illuminant compositions
- Performance : Delay time - 5 sec
Burning time - KM126A1 min. 50 sec
KM127A1 min. 25 sec
KM195 min. 50 sec
- Candle power - KM126A1 min. 10,000
KM127A1 min. 125,000
KM195 min. 5,000
- Packing : 36 per wooden box
- Weight : 25.0Kg
- Cube : 0.043m^3
- Dimensions : $377.8 \times 339.7 \times 335.0(\text{mm})$

SIGNALS, ILLUMINATION, GROUND : CLUSTERS

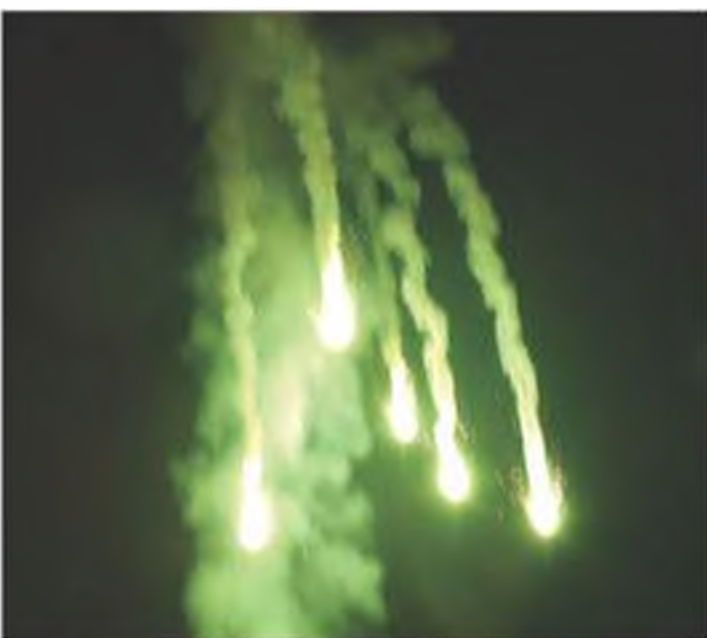


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SIGNALS, ILLUMINATION, GROUND : CLUSTERS



CLASSIFICATION

- KM158A1KB1 / KL306 :Red
- KM159KA1KB1 / KL307 :White
- KM125KA2KB1 / KL314:Green

USE

The star cluster signals have an effect on the signalling in such a tactical training as attack and defense of the platoon.

FUNCTION

The signals are ignited to the 5-star illuminant compositions in the over 725ft air with being fired by hand held rocket launching mechanism on the ground.

DATA

- NSN : KM158KA1KB1 1370-37-507-2282
 KM159KA1KB1 1370-37-507-2283
 KM125KA2KB1 1370-37-507-2281
- Diameter : $\phi 42.4 \times 258.0\text{mm}$
- Weight : 0.6Kg per each
- Method of actuation : Hand held rocket launching mechanism
- Primer : Percussion NO.70
- Materials : Aluminium
- Color : Silver, White label W/ Black markings
- Filler charge : Illuminant compositions
- Performance : Delay time - 5 sec
 Burning time - over 6.5 sec
 Candle power - KM158KA1KB1 min. 30,000
 KM159KA1KB1 min. 30,000
 KM125KA2KB1 min. 9,000
- Packing : 36 per wooden box
- Weight : 25.0Kg
- Cube : 0.043m³
- Dimensions : 377.8 $\times$ 339.7 $\times$ 335.0(mm)

SIGNALS, ILLUMINATION, AIRCRAFT : SINGLE STAR


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SIGNALS, ILLUMINATION, AIRCRAFT : SINGLE STAR

CLASSIFICATION

KAN-M43A2/KL231 : Red
KAN-M44A2/KL232 : Yellow
KAN-M45A2/KL233 : Green

USE

The aircraft signals are used for signalling from air to air, air to surface, surface to surface, and surface to air in training.

FUNCTION

The aircraft single star signals are available in red, yellow, and green. The signals occur to the illumination and flash of a peculiar colors, after the signals are loaded to hand pyrotechnic projector and the firing pin strikes the primer.

DATA

- NSN : KAN-M43A2 1370-00-618-5790
KAN-M44A2 1370-00-618-5791
KAN-M45A2 1370-00-618-2402
- Diameter : $\phi 43.1 \times 97.2$ mm
- Weight : KAN-M43A2- 0.122Kg
KAN-M44A2- 0.118Kg
KAN-M45A2- 0.145Kg
- Firearms of use : Pyrotechnic Pistol or Pyrotechnic Projector
- Primer : Percussion M39A1
- Materials : Aluminium
- Color : Silver
- Filler charge : Illuminant compositions
- Performance : Burning time - 7 to 13 sec
Luminous Intensity : KAN-M43A2 min. 25,000 candle power
KAN-M44A2 min. 25,000 candle power
KAN-M45A2 min. 25,000 candle power
- Packing : 80 per wooden box
- Weight : 20.1 Kg
- Cube : 0.035m³
- Dimensions : 462.0 $\times$ 277.0 $\times$ 271.0(mm)

MARINE SMOKE AND ILLUMINATION SIGNAL, KAN-MK 13 MOD 0







MARINE SMOKE AND ILLUMINATION SIGNAL, KAN-MK 13 MOD 0

USE

The signal is a metal cylinder filled with illuminant composition in one end and smoke composition in the other.

Each end is fitted with a plastic protective cap covering a pull ring and lanyard. The cap on the flare end has three molded projections or beads on the face for night identification.

The lanyard on the flare end pull ring has a washer tied to the end for further identification in darkness.

The smoke end cap is smooth. Each pull ring is connected to a friction wire extending through an internal igniter cup containing ignition composition.

A label around the signal body further identifies each end and provides precise instructions for use.



FUNCTION

One end releases red illuminant for night-time use. The other end releases Orange Smoke for day-time use.

Method of actuation : During day-time, open the orange cap, seize the body with one hand, and make the percussion ring stand up. Pull the cord, then it will be ignited. During night-time, open the red cap, and discard the cap by pulling the ring. Pull the cord, then it will be ignited.

DATA

- NSN : 1370-00-309-5028
- Model(DODIC) : KAN-MK 13 MOD 0 / KL275
- Diameter : Approx $\varnothing 42.0 \times 131.0$ mm
- Weight : Approx 200 ± 5 gr
- Filler charge : Smoke and illuminant composition
- Performance :

SECTION	ILLUMINANT CHARGE	SMOKE CHARGE
Burning time	12-28 seconds	10-26 seconds
Color	Red	Orange

- Packing : 100 per wooden box
- Weight : 35.0Kg
- Cube : 0.1 m^3
- Dimensions : $593.0 \times 294.0 \times 361.0$ (mm)



■ SMOKE POT, PRACTICE K17




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SMOKE POT, PRACTICE K17

USE

The Smoke Pot, Practice K17 is used for preserving the fighting power of our forces by concealment and encouraging movement. It is for actual training as creating visible ray of defilade smoke.

FUNCTION

There are two ways for ignition such as manual and automatic method. Ignited detonation charge ignite smoke charge and first firing charge then the smoke is emitted for 12~22 minutes.



DATA

- NSN : 1365-37-508-2783
 - Model(DODIC) : K17
 - Size : $\varnothing 220.0 \times 241.0\text{mm}$
 - Weight : 15.0Kg
 - Color : Light Green
 - Performance : Burning time-12~22 min. Delay time-within 30 sec.
 - Packing : 2 per wooden box
 - weight : 42.0Kg
 - Cube : 0.042m^3
 - Dimensions : $529.0 \times 262.0 \times 308.0(\text{mm})$
-

SMOKE POT, PRACTICE K18




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SMOKE POT, PRACTICE K18

USE

Smoke pot, practice K18 is used for preserving the fighting power of our forces by concealment since landing operations and improving function. It is for actual training as creating visible ray of defilade smoke. Remove the cramp in upper side and open the cover. Pull the ring then throw it to the water immediately.

FUNCTION

The Fuze ignites the delay tube then after 12~22 seconds the ignition charge and smoke charge are ignited. The smoke is emitted for 10~15 minutes.



DATA

- NSN : 1365-37-508-2784
- Model(DODIC) : K18
- Size : $\phi 310.0 \times 330.0\text{mm}$
- Weight : 17.2Kg
- Material of actuation : AP Smoke (approximately 13Kg)
- Color : Light Green
- Performance : Burning time - 10~15min., Delay time - 12~22sec.
- Packing : 1 per packing drum
- weight : 24.0Kg
- Cube : 0.041m^3
- Dimensions : $\phi 353.0 \times 375.0\text{mm}$



SMOKE SIGNAL FOR SUBMARINE

K903~K908





SMOKE SIGNAL FOR SUBMARINE K903~K908

USE

Smoke Signal for Submarine K903~K908 is used for signaling when using submarine

FUNCTION

Put Smoke Signal into the projector in the submarine then launch it by manual and air pressure.

DATA

- Model(DODIC) : K903~K905 (for 1 min), K906~K908 (for 3 min)
- Foam : Cylinder
- Depth of water : 30~600m in the water
- Size : $\phi 76.0 \times 468.0$ (K903~K905), $\phi 76.0 \times 667.0$ (K906~K908),
- Weight : 1.9 Kg (K903~K905), 2.7Kg (K906~K908)
- Material : Aluminium, Acetal



SIMULATORS



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HAND GRENADE, PRACTICE K410 WITH FUZE 411

THROW TRAINING, NONLETHAL, PRACTICE GRENADE K479

HAND GRENADE HC SMOKE KM8, KM18

SIMULATOR KM21 FOR FIRING TANK PRACTICE

FLARE, SURFACE TRIP KM49A1

SIMULATOR, PROJECTILE AIR BURST KM74A1

SIMULATOR, PROJECTILE, GROUND BURST : KM115A2

GRENADE, HAND, NON-LETHAL, KE180

DETONATION, SIMULATOR, EXPLOSIVE KM80

BLAST SIMULATOR KM70

IGNITER TIME BLASTING FUZE KM60

HAND GRENADE, PRACTICE K410 WITH FUZE 411




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HAND GRENADE, PRACTICE K410 WITH FUZE 411

USE

This practice hand grenade is used for a tactical training with the method such like a use of the actual hand-grenade.

FUNCTION

After connected the K411 fuze to the body, the hand grenade is thrown in the same manner as a actual grenade and creates bursting-sound and smoke after a 4 to 5 second delay.

DATA

- NSN : 1330-37-501-5412
- Model(DODIC) : K410/KG11
- Weight : 0.391Kg
- Size : 87.5mm
- Primer : Percussion M35
- Color : Olive drab
- Performance : Delay 4~5 sec
- Report : Over 100dB(1M)
- Packing : 60 per wooden box
- Weight : 28.0Kg
- Cube : 0.042m³
- Dimensions : 403.0 × 304.0 × 346.0(mm)



THROW TRAINING, NONLETHAL,
PRACTICE GRENADE K479




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AN
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MANUAL

THROW TRAINING, NONLETHAL, PRACTICE GREANADE K479

USE

Throw training, nonlethal, practice grenade K479 is used for a tactical training with the method such like a use of the actual hand-grenade.

FUNCTION

Throw in the same way as a actual hand grenade. Grenade body and lebar are usable again.

DATA

- NSN : 1330-37-512-4806
- Model(DODIC) : K479/KG21
- Size : $\varnothing 54.0 \times 70.0\text{mm}$
- Weight : 0.260Kg
- Color : Blue
- Packing : 90 per wooden box
- weight : 30.0Kg
- Cube : 0.038m^3
- Dimensions : $434.0 \times 314.0 \times 281.0(\text{mm})$



HAND GRENADE HC SMOKE KM8, KM18





HAND GRENADE HC SMOKE KM8, KM18

USE

Hand Grenade HC Smoke KM8, KM18 is used for a tactical training with the method such like a use of the real hand-grenade.

FUNCTION

After removing the safety pin, throw it to the required point then it creates smoke.

DATA

- NSN : 1330-00-219-8511K(White)
1330-00-219-6851K(Green)
1330-00-219-6854K(Yellow)
1330-00-219-6852K(Red)
1370-00-219-6853K(Violet)
- Model(DODIC) : KM 8(white), KM18(Green, Yellow, Red, Violet)
- Size : $\varnothing 63.0 \times L 118.0$ mm (KM8, KM18)
- Weight : 710.0g (KM8), 520.0g (KM18)
- Packing : 1 per a fiber container, 16 containers in a wooden box
- Weight : 15.0Kg
- Diemensions : $320.0 \times 320.0 \times 170.0$ (mm)



SIMULATOR KM21 FOR FIRING TANK PRACTICE



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SIMULATOR KM21 FOR FIRING TANK PRACTICE

USE

This simulator KM21 provide realistic firing and effects during tactical training in tank units.

FUNCTION

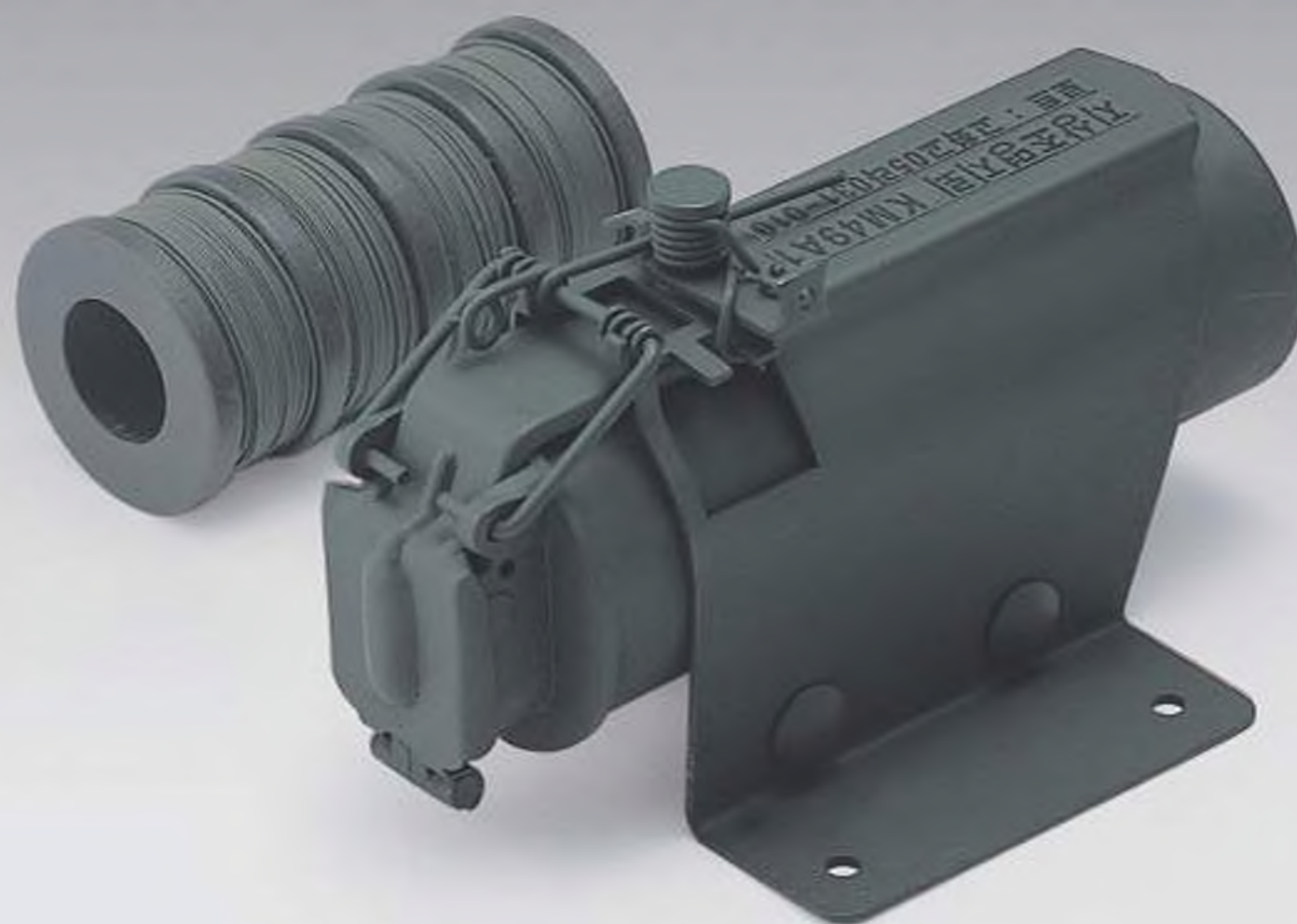
After loaded with the simulator KM21 to the fire tube of the firing device K784 and being fired the simulator by pulling the trigger of the tank firing system as it was electrified 18-28 volts current.

At this time, the simulator KM21 is emitted bursting-sound and smoke.

DATA

- NSN : 1370-01-034-1397
 - Model(DODIC) : KM21/KL602
 - Size : $\varnothing 48.4 \times 147.0\text{mm}$
 - Firearms of use : Firing device K784
 - Weight : 0.1636 Kg
 - Method of actuation :
Source of electricity with DC18~28Volts
 - Color : Blue
 - Filler charge : Bursting-smoke compositions
 - Performance : Report $140 \pm 10\text{dB}$ (10M)
 - Packing : 108 per wooden box
 - Weight : 31.7Kg
 - Cube : 0.09m^3
 - Dimensions : $590.0 \times 470.0 \times 380.0(\text{mm})$
-

■ FLARE, SURFACE TRIP KM49A1




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FLARE, SURFACE TRIP KM49A1

USE

To give warning of infiltrating troops by illuminating the field of the advancing enemy.

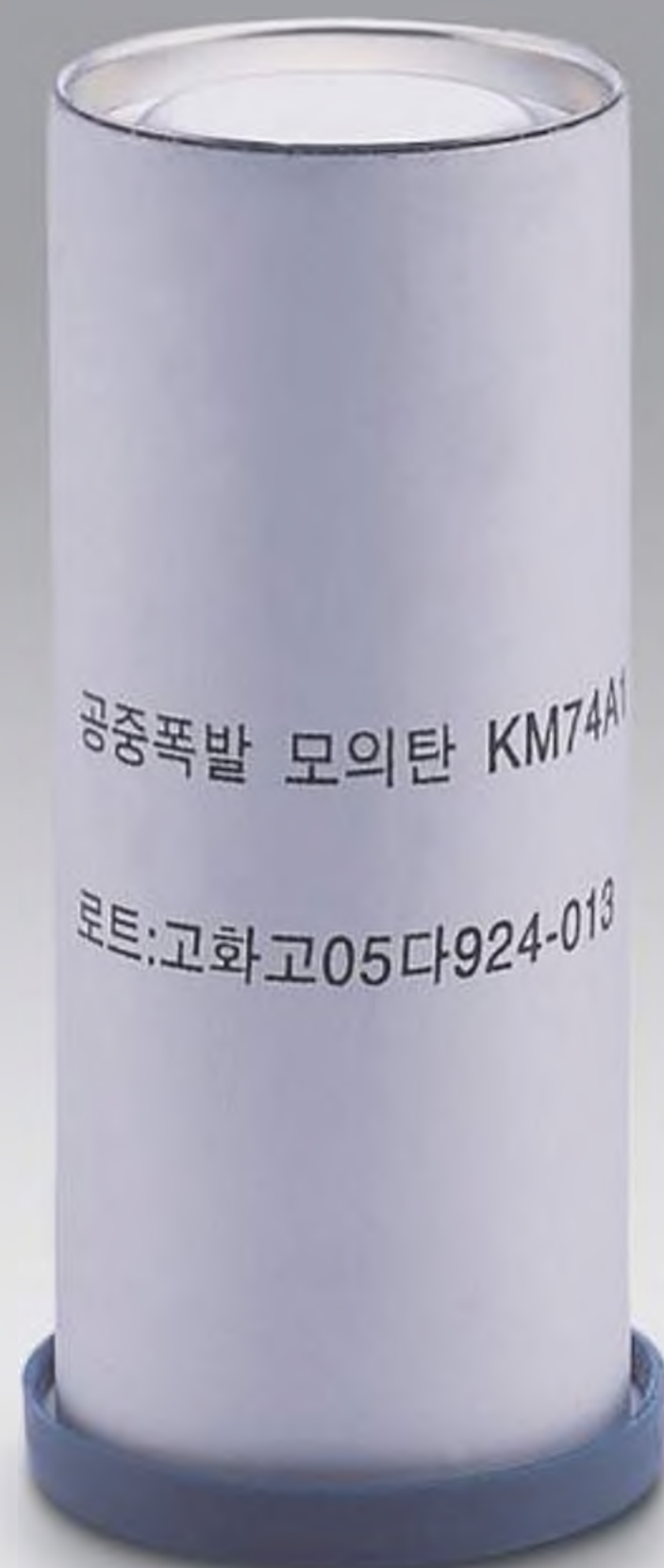
FUNCTION

When the trip flare KM49A1 is actuated by the force of pulling attached a trip wire to either the trigger or pull pin, the primer is ignited the illuminant charge, and then the trip flare will provide a light intensity exceeding 35,000 candlepower for approximately one minute.

DATA

- NSN : 1370-00-752-8060
 - Model(DODIC) : KM49A1/KL495
 - Diameter : $\phi 78.7 \times 123.2\text{mm}$
 - Weight : 0.4037Kg
 - Method of actuation : Trip Wire
 - Primer : Percussion M42
 - Materials : Metal (steel)
 - Color : Olive drab
 - Filler charge : Illuminant composition
 - Performance : Burning time - min. 55 sec
Candle power - min. 35,000
 - Packing : 32 per wooden box
 - Weight : 21.1Kg
 - Cube : 0.053m^3
 - Dimensions : $416.0 \times 397.0 \times 319.0(\text{mm})$
-

SIMULATOR, PROJECTILE AIR BURST KM74A1



AN
OPERATING
MANUAL

SIMULATOR, PROJECTILE AIR BURST KM74A1

USE

The simulator KM74A1 is used to create battle noises and effects on flight of shells and ground explosions during troop maneuvers and tactical training of combatant.



Firing device LT788

FUNCTION

This simulator are fired from firing device LT788 with aimed at a 45 degree elevation.

The igniting charge ignites the delay fuse, and the fuse, in turn, ignites the blasting-smoke charge which explodes producing a flash and a bursting-sound.

DATA

- NSN : 1370-37-503-2679
- Model(DODIC) : KM74A1/KL366
- Size : $\varnothing 40.0 \times 99.0\text{mm}$
- Weight : 0.175Kg
- Primer : Percussion M39A1
- Color : Silver
- Filler charge : Bursting-smoke compositions
- Performance : Delay 1.5~3.0sec
Bursting-sound 110dB(at 15m distance)
Flash Min. 65,000 cp
- Packing : 180 per wooden box
- Weight : 44.3 Kg
- Cube : 0.081m³
- Dimensions : 235.0 $\times$ 98.0 $\times$ 105.0(mm)



SIMULATOR, PROJECTILE, GROUND BURST : KM115A2




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O P E R A T I N G
M A N U A L

SIMULATOR, PROJECTILE, GROUND BURST : KM115A2

USE

The simulator KM115A2 is used to create battle noises and effects on flight of shells and ground explosions during troop maneuvers and tactical training of combatant.

FUNCTION

This simulator is a hand-thrown device. The pull cord-actuated igniter is of the friction type and ignites the safety fuze and the whistle assembly. After a 3 to 5 second delay, the final burning ignites the bursting-smoke charge which explodes producing a flash and a bursting-sound.

DATA

- NSN : 1370-37-503-2680
 - Model(DODIC) : KM115A2/KL594
 - Size : $\phi 55.0 \times 160.0\text{mm}$
 - Weight : 0.135 Kg
 - Method of actuation : Hand pull cord
 - Color : Blue
 - Filler charge : Bursting-smoke compositions
 - Performance : Delay 6~10sec
 - Whistle time 3~5sec
 - Bursting-sound 115dB (at 13.7m distance)
 - Flash average 60,000 cp
 - Packing : 100 per wooden box
 - Weight : 32.8 Kg
 - Cube : 0.128m³
 - Dimensions : 280.0 $\times$ 62.0 $\times$ 180.0(mm)
-

■ GRENADE, HAND, NON-LETHAL, KE180




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Pyrotechnics Co.,Ltd.



GRENAD E, HAND, NON-LETHAL, KE180

USE

This grenade, hand, non-lethal, KE180 is used to rescue hijacked plane and simulate hand grenade when special forces operate counter-terrorism and military tactics operation. Strong explosion and flash take fight out of enemy.

FUNCTION

On release of the lever when the grenade has been thrown, the lever is pivoted outwardly from the head-piece and body by the plug which is in turn forced upwardly in the head-piece by the spring. Then igniting mechanism make to explode and flash within 2 seconds.

DATA

- NSN : 1330-37-509-1936
- Model(DODIC) : KE180/KG17
- Size : $\phi 50.0 \times 104.0\text{mm}$
- Igniting Method : Silent ignition system
- Weight : 0.170Kg, Approx
- Color : Body - Olive Drab, Fuze - Black
- Charge : Explosion / Flash charge(9g, Approx)
- Performance : Delay Time - Max. 2sec.
Explosion - Min. 110dB
Flash - Min. 90,000CP
- Packing : 1Rd/Container, 15Rds/Car ton(Barrier Bag),
30Rds/Wooden Box
- Weight : 13.0Kg
- Cube : 0.035m^3
- Dimensions : $475.0 \times 287.0 \times 339.0(\text{mm})$

OPERATING METHOD

- Method 1: Hand-Thrown Ignition
Throw a grenade at a target immediately after removal of safety pin assembled pulling ring.
 - Method 2 : Booby-Trap Ignition
In special situations, grenade is ignited by booby-trap trip wire on multipurpose.
-

DETONATION, SIMULATOR,
EXPLOSIVE KM80




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DETONATION, SIMULATOR, EXPLOSIVE KM80

USE

The detonation, simulator, explosive KM80 is used to create bursting-sound effects since tactical training

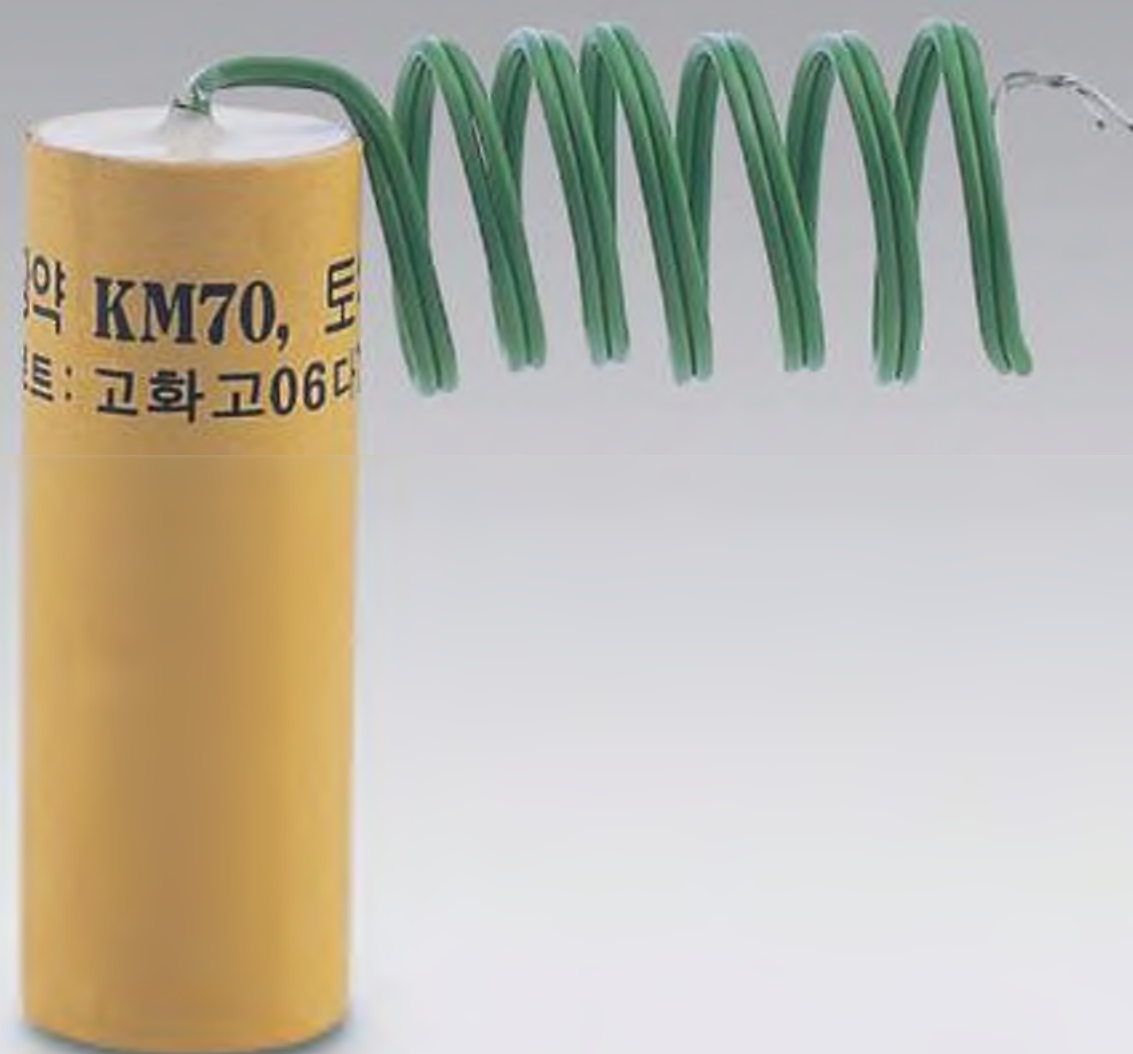
FUNCTION

After igniting the safety fuze and throwing it to the required point, more than 105dB of the bursting sound is uttered within 5~7 second.

DATA

- NSN : 1370-00-028-5252
 - Model(DODIC) : KM80/KL378
 - Size : $\varnothing 16.7 \times 38.3$ mm
 - Weight : 6.2g
 - Color : Yellow
 - Packing : 2,500 per wooden box
 - weight : 30.8 Kg
 - Cube : 0.108m³
 - Diemensions : 625.0 $\times$ 449.0 $\times$ 390.0(mm)
-

■ BLAST SIMULATOR KM70




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BLAST SIMULATOR KM70

USE

Blast Simulator KM70 is used for blast (Anti-tank guided missile) shooting practice.

FUNCTION

Cartridge in the discharge tube is bursted by electronic current of hand-held projector then bursting sound is created.

DATA

- NSN : 1370-00-198-2566
 - Model(DODIC) : KM70/KL592
 - Size : $\varnothing 18.5 \times L51.0\text{mm}$
 - Weight : 0.0131Kg
 - Color : Yellow
 - Method of actuation : Electronic current
 - Packing : 1200 per wooden box
 - weight : 27.5Kg
 - Cube : 0.074m^3
 - Dimensions : $593.0 \times 478.0 \times 394.0(\text{mm})$
-

■ IGNITER TIME BLASTING FUZE KM60





IGNITER TIME BLASTING FUZE KM60

USE

Igniter time blasting fuze KM60 is used for igniting safety fuze of mine class.

FUNCTION

Unlock the cap turning 2~3 times to the left. Remove the plug and insert the safety fuze. Then, lock the cap turning to the right. Remove the cotter pin and pull the ring, then it will be ignited.

DATA

- NSN : 1375-00-691-1671
 - Model(DODIC) : KM60/KM766
 - Size : $\phi 19.0 \times L 121.4$ mm
 - Weight : 37.2 g
 - Color : Blue
 - Packing : 300 per wooden box
 - weight : 24.0 Kg
 - Cube : 0.065 m³
 - Dimensions : 758.0 $\times$ 357.0 $\times$ 234.0(mm)
-

CARTRIDGES & SABOTS



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CARTRIDGES & SABOTS

CARTRIDGE, SUB-CALIBER 22MM FOR 60/81MM MORTAR

CARTRIDGE, SUBCALIBER 22MM FOR 4.2INCH MORTAR

CARTRIDGE 40MM, PRACTICE K234

CARTRIDGE, SUB-CALIBER 22MM FOR 60/81MM MORTAR




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CARTRIDGE, SUB-CALIBER 22MM FOR 60/81MM MORTAR

USE

These 22MM cartridges are used in artillery training of 60/81MM Mortar .

FUNCTION

After these sub-caliber cartridges are loaded in the KM1 or KM3 sabot and it is fired by the same method as actual mortar(60/81MM) and then it make flight for a constant distance which emit bursting-sound and smoke at the target area.

CLASSIFICATION, PERFORMANCE

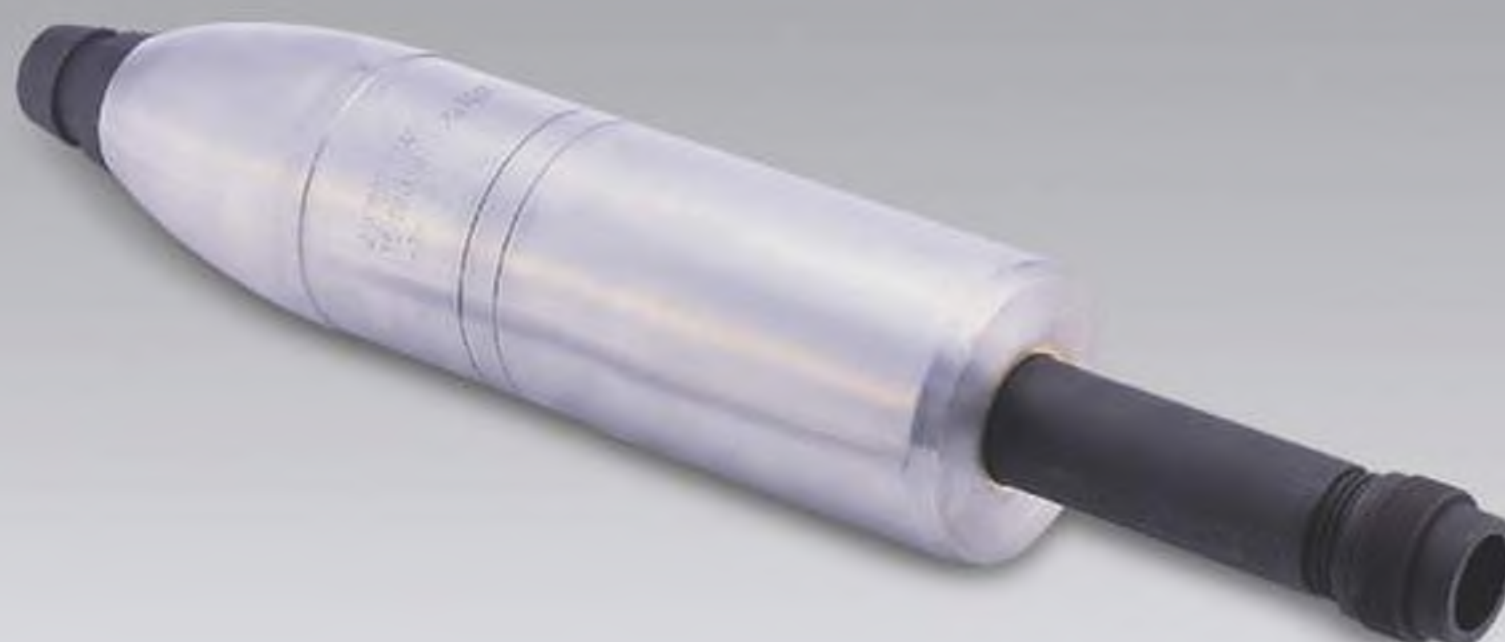
CLASSIFICATION	DODIC	RANGE, MAX(M)	VELOCITY OF CARTRIDGE(M/S)	NSN
Cartridge 22MM, K736, CHARGE 1 FOR 60/81MM Mortar	KA15	195	40-48	1305-37-290-0065
Cartridge 22MM, K737, CHARGE 2 FOR 60/81MM Mortar	KA16	225	43-54	1305-37-290-0066
Cartridge 22MM, K738, CHARGE 3 FOR 60/81MM Mortar	KA17	330	53-66	1305-37-290-0067
Cartridge 22MM, K739, CHARGE 4 FOR 60/81MM Mortar	KA18	435	65-71	1305-37-290-0068

DATA

- Size : $\varnothing 22.0 \times 250.0$ mm
- Weight : 0.4Kg
- Firearms for use : 60/81MM Mortar
- Primer : Percussion M209, M35
- Materials : Aluminium
- Color : Blue (Head), White(Case)
- Filler charge : Black powder
- Bursting : Smoke charge
- Packing : 50 per wooden box
- Weight : 30.0Kg
- Cube : 0.03m³
- Dimensions : 393.0 $\times$ 211.0 $\times$ 273.0(mm)



CARTRIDGE, SUBCALIBER 22MM FOR 4.2INCH MORTAR





CARTRIDGE, SUBCALIBER 22MM FOR 4.2INCH MORTAR

USE

These 22MM cartridges are used in artillery training of 4.2inch Mortar.

FUNCTION

After these sub-caliber cartridges are loaded in the KM1 sabot and it is fired by the same method as actual mortar(4.2inch) and then it make flight for a constant distance which eject bursting-sound and smoke at the target area.

CLASSIFICATION, PERFORMANCE

CLASSIFICATION	DODIC	RANGE, MAX(M)	VELOCITY OF CARTRIDGE(M/S)	NSN
Cartridge 22MM, K740, CHARGE 1 FOR 4.2INCH Mortar	KA19	235	45-52	1305-37-290-0069
Cartridge 22MM, K741, CHARGE 2 FOR 4.2INCH Mortar	KA20	330	54-65	1305-37-290-0070
Cartridge 22MM, K742, CHARGE 3 FOR 4.2INCH Mortar	KA21	435	62-74	1305-37-290-0071
Cartridge 22MM, K743, CHARGE 4 FOR 4.2INCH Mortar	KA22	540	75-81	1305-37-290-0072

DATA

- Size : $\varnothing 22.0 \times 260.0$ mm
- Weight : 0.43 Kg
- Firearms for use : 4.2inch Mortar
- Primer : Percussion M209, NO70
- Materials : Aluminium
- Color : Blue (Head), White (Case)
- Filler charge : Black powder
- Bursting : smoke charge
- Packing : 50 per wooden box
- Weight : 35.0Kg
- Cube : 0.04 m³
- Dimensions : 418.0 $\times$ 218.0 $\times$ 283.0(mm)



CARTRIDGE 40MM, PRACTICE K234





CARTRIDGE 40MM, PRACTICE K234

USE

This cartridge is used to firing marksmanship training of 40mm Rifle Grenade Launchers M79, KM203 and K201. And it is proved that use the actual cartridge and combat actioning.

FUNCTION

This cartridge is consist of generally small ammunition form, and when the cartridge arrives at the target, the impact fuze in the projectile is operated. And then it appears bursting-sound (100dB) and white color smoke.



DATA

- NSN : 1310-37-290-5029 • Model(DODIC) : K234/KB577
- Size : $\phi 41.37 \times 100.0\text{mm}$
- Firearms of use : Rifle Grenade Launchers M79, KM203 and K201
- Weight : $210 \pm 2\text{g}$ • A kind of Cartridge : Target Practice
- Color : Case-Olive Drab, Projectile - Blue
- Material : Aluminum, Resin, Steel
- Performance : Muzzle Velocity- $75.3 \pm 2.1\text{m/s}$ Max. Range : 400m
- Packing : 36Rds/1Carton(Barrier Bag), 2Cartons/Wooden Box(72Rds)
- Weight : 22.7 Kg • Cube : 0.049m^3
- Dimensions : $393.0 \times 369.0 \times 316.0(\text{mm})$ (Ref. Of outside size)

CHARACTERISTIC

It appears bursting-sound and white color smoke. (When a night time, appears a flash)
Other company's item is appeared smoke by breakage of the projectile, but our company's item is appeared them by operation of the impact fuze in the projectile. (Misfire rate down.)

OPERATING METHOD

- Rifle Grenade Launchers are operated as follow :
OPENNING THE CHAMBER → CLOSING THE FIRING PIN →
EJECTION THE CASE → DISCHARGING THE CASE → ARMING THE
CARTRIDGE → CLOSING THE CHAMBER → FIRING function.
 - When the barrel ass'y of a gun locates the front, Cartridge armed in the bore, and the barrel ass'y of a gun pulled completely and then finished firing preparing. At this time, pull the trigger, the firing pin strikes the primer of the Cartridge, and fire.
-

PRACTICING MINES



MINE, ANTI-TANK, PRACTICE KM15

MINE, ANTI-PERSONNEL, **PRACTICE**, KM16

MINE, ANTI-PERSONNEL, NONMETALLIC, **PRACTICE**, KM14

MINE, ANTI-TANK, PRACTICE KM19

MINE, ANTI-TANK, PRACTICE K441

BANGALORE TORPEDO, PRACTICE KM758 FOR 1/2LB TNT CHARGE DEMOLITION BLOCK

MINE, CLAYMORE, PRACTICE KM18A1

FIRING DEVICE, MULTIPURPOSE, KM142

FIRING DEVICE, MULTIPURPOSE, K471

MINE, ANTI-INFANTRY, PRACTICE PMD-57

MINE, ANTI-TANK, PRACTICE TM-46

MINE, **ANTI-TANK**, PRACTICE TMD-B

MINE, **ANTI-INFANTRY**, PRACTICE POMZ-2

BANGALORE **TORPEDO**, PRACTICE KM3A1 FOR 40LB CHARGE **DEMOLITION SHAPED**

BANGALOR **TORPEDO**, PRACTICE KM1A1

BANGALORE TORPEDO, **PRACTICE** KM754 FOR 40LB AMMONIUM NITRATE

NONELECTRIC BLASTING CAP, **PRACTICE** KM769

ELECTRIC BLASTING CAP, PRACTICE KM752

■ MINE, ANTI-TANK, PRACTICE KM15




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MINE, ANTI-TANK, PRACTICE KM15

USE

When installing on the place pass through a anticipative passage tank of the enemy, this mine is used for the laying and removing training and a movement delay or a destruction of the tank or wheeled vehicles by the pressure plate is forced downward.

FUNCTION

This mine uses the mechanical pressure type fuze. After connected the smoke charge to the body, the fuze of the mine is ignited the smoke charge by a actuation the pressure plate is forced downward or by a pulling of the booby trap. This initiates the smoke charge in the bottom of the fuze.

DATA

- NSN : 1345-37-294-5019
- Model(DODIC) : KM15/KK12
- Size : $\phi 334.0 \times 124.0\text{mm}$
- Weight : 7.0Kg
- Color : Blue
- Packing : 3 per wooden box
- Weigh : 30.5Kg
- Cube : 0.069m^3
- Dimensions : $405.0 \times 342.0 \times 342.0(\text{mm})$

OPTION

- Smoke chaarge KM762(KK13)
- Emission time of smoke min. 5 sec



MINE, ANTI-PERSONNEL,
PRACTICE, KM16




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MINE, ANTI-PERSONNEL, PRACTICE, KM16

USE

The Mine, Anti-Personnel, Practice, KM16 is used for the effective laying and removing training of the actual antipersonnel mine M16.

FUNCTION

After the KM16 mine is connected the smoke charge to the fuze KM605, the mine is ignited the smoke charge under vertical loading in the top of the fuze or by a pulling of the pull ring attached trip wire.

DATA

- NSN : 1345-37-294-5000/KK03
- Model(DODIC) : KM16/KK03
- Size : $\varnothing 101.5 \times 135.0\text{mm}$
- Weight : 2.32 Kg
- Color : Blue
- Packing : 8 per wooden box
- Weight : 23.5 Kg
- Cube : 0.028m^3
- Dimensions : $508.0 \times 374.0 \times 226.0(\text{mm})$

OPTION

- Smoke charge KM760(KK08)
- Fuze KM605(KK09)
- * Emission time of smoke min. 6sec



KM605



KM760

MINE, ANTI-PERSONNEL, NONMETALLIC,
PRACTICE, KM14





MINE, ANTI-PERSONNEL, NONMETALLIC, PRACTICE, KM14

USE

The Mine, anti-personnel, nonmetallic, practice, KM14 is used for the laying and removing training of the actual antipersonnel mine M14.

FUNCTION

With mine set on "A" and safety clip removed by pulling a force applied to the pressure plate will depress the belleville spring. At this time, the mine is ignited the smoke charge by driving the firing pin.

DATA

- NSN : 1345-37-294-5017
- Model(DODIC) : KM14/KK10
- Size : $\varnothing 55.6 \times 42.0\text{mm}$
- Weight : 0.05Kg
- Color : Blue
- Packing : 200 per wooden box
- Weight : 26.6 Kg
- Cube : 0.06m^3
- Dimensions : $485.0 \times 347.0 \times 243.0(\text{mm})$

OPTION

- Smoke charge KM761(KK11)



■ MINE, ANTI-TANK, PRACTICE KM19



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MINE, ANTI-TANK, PRACTICE KM19

USE

When installing on the place pass through a anticipative passage tank of the enemy, this mine is used for the laying and removing training and a movement delay or a destruction of the tank or wheeled vehicles by the pressure plate is forced downward.

FUNCTION

This mine uses the mechanical pressure type fuze. After connected the smoke charge to the body, the fuze of the mine is ignited the smoke charge by a actuation the pressure plate is forced downward or by a pulling of the booby trap.
This initiates the smoke charge in the bottom of the fuze.



DATA

- NSN : 1345-37-294-5005
- Model(DODIC) : KM19/KK01
- Size : 332.0×332.0×85.0(mm)
- Weight : 9.3Kg
- Color : Blue
- Packing : 3 per wooden box
- Weight : 48.3Kg
- Cube : 0.06 m³
- Dimensions : 413.0×354.0×406.0(mm)

OPTION

- Smoke charge KM757(KK02)
-

■ MINE, ANTI-TANK, PRACTICE K441



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MINE, ANTI-TANK, PRACTICE K441

USE

The K441 mine is used for the effective laying and removing training of the actual M21 anti-tank mine.

FUNCTION

After connected the smoke charge and the fuze KM607 to the K441 body, the fuze is actuated by a loading of the pressure ring or from side load effects on the tilt rod. At this time, bursting-sound and smoke are occurred.

DATA

- NSN : 1345-37-501-6749
- Model(DODIC) : K441/KK32
- Size : $\varnothing 219.0 \times 93.8\text{mm}$
- Weight : 8.7Kg
- Color : Blue
- Fuze : KM607
- Packing : 4 per wooden box
- Weight : 36.0Kg
- Cube : 0.056m^3
- Dimensions : $593.0 \times 329.0 \times 286.0(\text{mm})$



Fuze KM563



Fuze KM607



Smoke charge K955

BANGALORE TORPEDO, PRACTICE
KM758 FOR 1/2LB TNT CHARGE
DEMOLITION BLOCK




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BANGALORE TORPEDO, PRACTICE KM758 FOR 1/2LB TNT CHARGE DEMOLITION BLOCK

USE

This practice bangalore torpedo KM758 is designed for training personnel proper method to be observed in the care during arming, disarming or handling in the same method as the actual demolition block M2 in order to use cutting of bridges, breaching or demolition work.

FUNCTION

After connected the smoke charge and the practice electric blasting cap, practice KM752 to the body, the charge is initiated by the firing device, electrical KM57. At this time, bursting-sound and smoke are occurred.

DATA

- NSN : 1375-37-295-9007
- Model(DODIC) : KM758/KM01
- Size : $48.5 \times 48.5 \times 182.0$ (mm)
- Weight : 450.0g
- Method of actuation :
Initiating by firing device, electrical KM57.
- Color : Blue
- Packing : 50 per wooden box
- Weight : 38.5 Kg
- Cube : 0.049 m^3
- Dimensions : $603.0 \times 304.0 \times 266.0$ (mm)

OPTION

- Smoke charge KM759(KM02)
- Electric blasting cap, practice KM752(KM07)
- Firing Device, electrical KM57
- Conducting wire A'ssy
- Electroscope KM40
- * Bursting-Sound 80dB(at 23M distance)



■ MINE, CLAYMORE, PRACTICE KM18A1




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FIRING DEVICE, MULTIPURPOSE, KM142

USE

The Firing device, multipurpose, KM142 is a mechanical firing device intended for use with antipersonnel mines and when setting up booby traps or demolition materials using demolition charges.

FUNCTION

The basic component of the firing device is a mechanical switch designed for mechanical actuation by pressure, pull, pressure release or tension (pull) release.

In addition, to its four mode capability, the KM142 can be used to ignite either a nonelectric blasting cap or a time blasting fuze for setting a short delay type booby trap.

The firing device is weather sealed and will also function under water.

DATA

- NSN : 1375-37-503-9862
 - Model(DODIC) : KM142/KML03
 - Size : 10.1 × 41.0 × 29.0(mm)
 - Weight : 0.037 Kg
 - Color : Olive drab
 - Primer : Percussion M42
 - Method of actuation :
pressure, pull, pressure release or tension (pull) release
 - Actuating force :
Pressure - 6.81~11.33 Kg
Pull - 1.82~ 4.08 Kg
Pressure release - When the restraining load of 1.81Kg is removed
Pull release - Release of tension under load of 1.36 ± 0.11 Kg
 - Packing : 90 per wooden box
 - Weight : 27.5Kg
 - Cube : 0.089m³
 - Dimensions : 307.0 × 247.0 × 297.0(mm)
-

■ FIRING DEVICE, MULTIPURPOSE, K471



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FIRING DEVICE, MULTIPURPOSE, K471

USE

The Firing device, multipurpose K471 is a mechanical firing device intended for training personnel in the use with anti-personnel mines and when setting up booby traps or demolition materials using demolition charges.

FUNCTION

The firing device K471 is a mechanical switch designed for mechanical actuation by pressure, pull, pressure release or tension(pull) release.

In addition, to its four mode capability, the K471 can be used to ignite either a nonelectric blasting cap or a time blasting fuze for setting a short delay type booby trap.

The firing device is weather sealed and will also function under water.

DATA

- NSN : 1375-37-503-9864
 - Model(DODIC) : K471/KM33
 - Size : 10.1 × 41.0 × 29.0mm
 - Weight : 37.0Kg
 - Color : Blue
 - Primer : Percussion KM42
 - Method of actuation :
pressure, pull, pressure release or tension(pull) release
 - Actuating force :
Pressure - 6.81~11.33 Kg
Pull - 1.82~ 4.08 Kg
Pressure release - When the restraining load of 1.81Kg is removed
Pull release - Release of tension under load of 1.36 ± 0.11 Kg
 - Packing : 90 per wooden box
 - Weight : 27.3Kg
 - Cube : 0.027 m³
 - Dimensions : 307.0 × 247.0 × 297.0(mm)
-

■ MINE, ANTI-INFANTRY, PRACTICE PMD-57




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A N
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MINE, ANTI-INFANTRY, PRACTICE PMD-57

USE

The PMD-57 mine is used to North Korea army and is designed for training personnel proper method to be observed in the care during laying, removing or handling in the same method as the actual anti-infantry mine.

FUNCTION

After the PMD-57 is loaded with the smoke charge KM765 in the smoke charge case and connected primer in fuze MUV-2 for practicing, the PMD-57 assembly is ignited the smoke charge under vertical loading of the pressure ring of from side load effects on the tilt rod. At this time, bursting-sound and white smoke is accured.

DATA

- NSN : 1345-37-294-5022
- Model(DODIC) : PMD-57/KK15
- Size : 219.0×81.0mm
- Weight : 0.744Kg
- Color : Blue
- Fuze : Practicing MUV-2
- Smoke charge : KM765 smoke charge
- Report : 100-150dB minimum at 5 meters
- Packing : 25 per wooden box
- Weight : 20.0Kg
- Cube : 0.039m³
- Dimensions : 506.0×264.0×287.0(mm)

OPTION

- Smoke charge KM765(KK24)
 - Fuze, Practice MUV-2(KK20)
 - * Bursting-Sound 100~150dB(at 5M distance)
-

■ MINE, ANTI-TANK, PRACTICE TM-46



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MINE, ANTI-TANK, PRACTICE TM-46

USE

The TM-46 mine is used to North Korea army and is designed for training personnel proper method to be observed in the care installing on the place pass through a anticipative passage tank of the enemy, this mine is used for the laying and removing training of the actual anti-tank mine.

FUNCTION

The TM-46 is loaded with the smoke charge KM768 to the lower of the body. Either a fuze MV-5 for practicing or a pull type firing device connected upper and lower of the body and then it is operated by a pressure or by a trip wires. The fuze is ignited the smoke charge and the mine is emitted orange or white smoke.

DATA

- NSN : 1345-37-294-5024
- Model(DODIC) : TM-46/KK17
- Size : $\phi 303.0 \times 73.0\text{mm}$
- Weight : 5.72 Kg
- Color : Blue
- Packing : 4 per wooden box
- Weight : 29.0Kg
- Cube : 0.062m^3
- Dimensions : $484.0 \times 350.0 \times 367.0(\text{mm})$

OPTION

- Smoke charge KM768(KK23)
 - Fuze, practice MV-5(KK21) & pull type firing device, practice VPG(KM15)
 - * Bursting-Sound min. 90dB(at 5M distance)
-

■ MINE, ANTI-TANK, PRACTICE TMD-B



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MINE, ANTI-TANK, PRACTICE TMD-B

USE

The TMD-B mine is used to North Korea army and is designed for training personnel proper method to be observed in the care installing on the place pass through a anticipative passage tank of the enemy, this mine is used for the laying and removing training of the actual antitank mine.

FUNCTION

The TMD-B is loaded with the smoke charge KM768 to the lower of the body. Either a fuze MV-5 for practicing or a pull type firing device connected upper and lower of the body and then it is operated by a pressure or by a trip wires. The fuze is ignited the smoke charge and the mine is emitted orange or white smoke.



Fuze MV-5



Firing device VPG



Smoke charge KM768(B/T)



Smoke charge KM768(Pressure)

DATA

- NSN : 1345-37-294-5023
- Model(DODIC) : TMD-B/KK16
- Size : 315.0×315.0×138.0(mm)
- Weight : 3.5Kg
- Color : Blue
- Packing : 4 per wooden box
- Weight : 29.0Kg
- Cube : 0.062 m³
- Dimensions : 484.0×350.0×367.0(mm)

OPTION

- Smoke charge KM768(KK23)
- Fuze, practice MV-5(KK21) & pull type firing device, practice VPG(KM15)
- * Bursting-Sound min. 90dB(at 5M distance)

■ MINE, ANTI-INFANTRY, PRACTICE POMZ-2




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AN
OPERATING
MANUAL

MINE, ANTI-INFANTRY, PRACTICE POMZ-2

USE

The POMZ-2 mine is used to North Korea army and is designed for training personnel proper method to be observed in the care during laying, removing or handling in the same method as the actual anti-infantry mine.

FUNCTION

After the POMZ-2 is loaded with the smoke charge KM764 to the body, combined fuze MUV-1 for practicing to the body assembly and the POMZ-2 assembly is ignited the smoke charge under vertical loading of the pressure ring of from side load effects on the tilt rod. At this time, bursting-sound and white smoke are occurred.

DATA

- NSN : 1345-37-294-5021
- Model(DODIC) : POMZ-2/KK14
- Size : $\phi 59.0 \times 135.0\text{mm}$
- Weight : 1.8Kg
- Color : Blue
- Fuze : Practicing VPF & Practicing MUV-1
- Smoke charge : KM764 smoke charge
- Report : 100-150dB minimum at 5 meters
- Packing : 10 per wooden box
- Weight : 33.6Kg
- Cube : 0.03m^3
- Dimensions : $418.0 \times 304.0 \times 226.0(\text{mm})$

OPTION

- Smoke charge KM764(KK25)
- Fuze, Practice VPF(KK18) & MUV-1(KK19)
- * Bursting-Sound 100~150dB(at 5M distance)



BANGALORE TORPEDO, PRACTICE KM3A1 FOR 40LB CHARGE DEMOLITION SHAPED




KORYO
Pyrotechnics Co.,Ltd.

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BANGALORE TORPEDO, PRACTICE KM3A1 FOR 40LB CHARGE DEMOLITION SHAPED

USE

This practice bangalore torpedo KM3A1 is designed for the purpose of training to teach the installation, disarming or handling of the live bangalore torpedo be used to bore holes in earth, metal, masonry, concrete and paved and unpaved roads and be used fortification and makes it suit for cratering and ditching operations.

FUNCTION

After connected the smoke charge and the electric blasting cap, practice KM752 to the body, the charge is ignited by firing device, electrical KM57.

At this time, bursting-sound and smoke are occurred.

DATA

- NSN : 1375-37-295-9014
- Model(DODIC) : KM3A1/KM09
- Size : $\phi 2,370.0 \times 382.0\text{mm}$
- Weight : 6.0Kg
- Method of actuation :
Initiating by firing device, electrical KM57.
- Color : Blue
- Packing : 1 per wooden box
- Weight : 13.2 Kg
- Cube : 0.051 m^3
- Dimensions : $515.0 \times 306.0 \times 326.0(\text{mm})$

OPTION

- Smoke charge KM763(KM10)
 - Electric blasting cap, practice KM752(KM07)
 - Firing Device, electrical KM57
 - Conducting wire A'ssy
 - Electroscope KM40
 - * Bursting-Sound 95dB(at 23M distance)
-

■ BANGALOR TORPEDO, PRACTICE KM1A1





BANGALOR TORPEDO, PRACTICE KM1A1

USE

This practice bangalore torpedo KM1A1 is designed for the purpose of training personnel proper method to be observed in the care, during arming, disarming or handling in the same method as the live bangalore torpedo M1A1 in order to use breaching the path of the entanglements or minefields.

FUNCTION

After connected the smoke charge and the electric blasting cap, practice KM752 to the body, the charge is initiated by firing device, electrical KM57. At this time, bursting-sound and smoke are occurred.

DATA

- NSN : 1375-37-295-9009
- Model(DODIC) : KM1A1/KM03
- Size : $\varnothing 51 \times 1,525$ mm
- Weight : 6.6 Kg
- Method of actuation :
Initiating by firing device, electrical KM57.
- Color : Blue
- Packing : 6 per wooden box
- Weight : 45.7 Kg
- Cube : 0.088 m³
- Dimensions : 1,598.0 $\times$ 274.0 $\times$ 203.0(mm)

OPTION

- Smoke charge KM756(KM04)
- Electric blasting cap, practice KM752(KM07)
- Firing Device, electrical KM57
- Conducting wire A'ssy
- Electroscope KM40
- * Bursting-Sound 80dB(at 23M distance)



BANGALORE TORPEDO, PRACTICE KM754 FOR 40LB AMMONIUM NITRATE




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A N
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M A N U A L

BANGALORE TORPEDO, PRACTICE KM754 FOR 40LB AMMONIUM NITRATE

USE

This practice bangalore torpedo KM754 is designed for the purpose of training to teach the installation, disarming or handling of the actual bangalore torpedo be used destroying building and fortifications or overturning bridge abutment and makes it suited for cratering and ditching operations.

FUNCTION

After connected the smoke charge and the electric blasting cap, practice KM752 to the body, the charge is ignited by firing device, electrical KM57. At this time, bursting-sound and smoke are occurred.

DATA

- NSN : 1375-37-295-9011
- Model(DODIC) : KM754/KM05
- Size : $\phi 175.0 \times 610.0\text{mm}$
- Weight : 9.0Kg
- Method of actuation :
Initiating by firing device, electrical KM57.
- Color : Blue
- Packing : 2 per wooden box
- Weight : 27.5Kg
- Cube : 0.066m^3
- Dimensions : $693.0 \times 401.0 \times 237.0(\text{mm})$

OPTION

- Smoke charge KM755(KM06)
- Electric blasting cap, practice KM752(KM07)
- Firing Device, electrical KM57
- Conducting wire A'ssy
- Electroscope KM40
- * Bursting-Sound 80dB(at 23M distance)



NONELECTRIC BLASTING CAP, PRACTICE KM769



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NONELECTRIC BLASTING CAP, PRACTICE KM769

USE

This nonelectric blasting cap, practice KM769 is used to initiate the smoke charge of the demolition materials and the antipersonnel mines.

FUNCTION

The nonelectric blasting cap, practice KM769 is ignited the smoke charge of the demolition materials and the antipersonnel mines by the time-blasting fuze or the primers.

DATA

- NSN : 1375-37-295-9027
 - Model(DODIC) : KM769/KM097
 - Size : $\varnothing 6.5 \times 60.0\text{mm}$
 - Weight : 0.013 Kg
 - Container material : Aluminium alloy
 - Color : Unpainted
 - Method of actuation :
Flame of the time blasting fuze or firing device coupling base
 - Packing : 2,400 per wooden box
 - Weight : 14.6 Kg
 - Cube : 0.05m^3
 - Dimensions : $498.0 \times 294.0 \times 341.0(\text{mm})$
-

ELECTRIC BLASTING CAP, PRACTICE KM752



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ELECTRIC BLASTING CAP, PRACTICE KM752

USE

This electric blasting cap, practice KM752 is used to initiate the smoke charge of the demolition materials and the antipersonnel mines with a blasting machine or other suitable source of electric power.

FUNCTION

After the electric blasting cap connected to the demolition materials or the antipersonnel mines, the cap is ignited the smoke charge by firing device, electrical KM57 and T-200 or the similar apparatus such like it.

DATA

- NSN : 1375-37-295-9013
 - Model(DODIC) : KM752/KM07
 - Size : $\phi 6.50 \times 60.0\text{mm}$
 - Weight : 0.09 Kg
 - Container material : Stainless steel
 - Color : Unpainted
 - Method of actuation : Electric current
 - Packing : 1,000 per wooden box
 - Weight : 20.5 Kg
 - Cube : 0.064 m^3
 - Dimensions : $445.0 \times 395.0 \times 190.0(\text{mm})$
-

DISTRESS SIGNALS

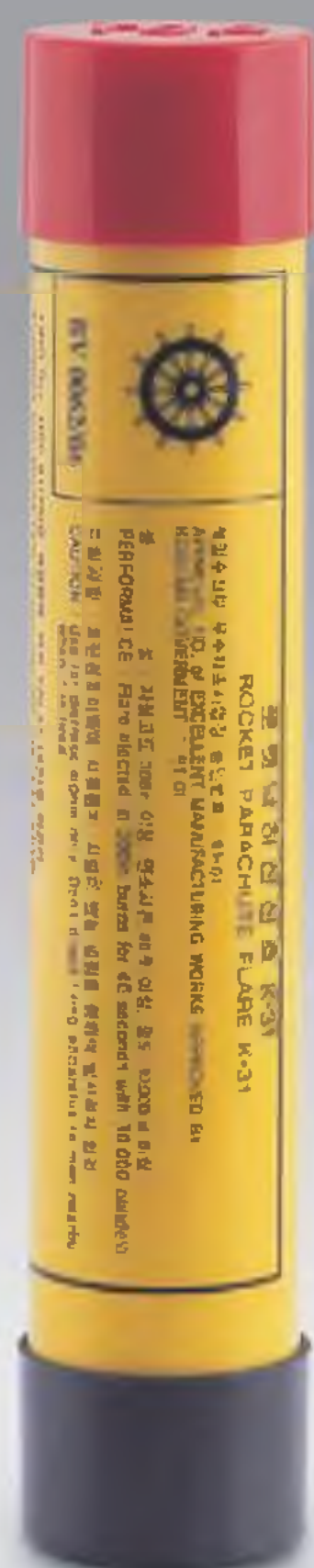


Kogyo
Pyrotechnics Co.,Ltd.

ROCKET PARACHUTE FLARE K-31
RED HAND FLARE K-23
BUOYANT SMOKE SIGNAL K-35
SELF-ACTIVATING SMOKE SIGNAL K-24
LIGHT-SMOKE SIGNAL K-32
LINE THROWING APPLIANCE K-19
LINE-THROWING APPLIANCE K-21
LIFEBUOY SELF-IGNITING LIGHT K-26
EMERGENCY MEDICAL TREATMENT CASE K-18
FIRST AID KIT K-18

DISTRESS SIGNALS

ROCKET PARACHUTE FLARE K-31




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ROCKET PARACHUTE FLARE K-31

USE

Pick up a distress signal on the sea.

TABULATED DATA

- Form : Cylindrical Body
- Bursting Height : Over 300 meters
- Materials : Resin
- Burning Time : Over 40 seconds
- Case Color : Yellow
- Ignition Color : vivid red
- Size : $\phi 41.0 \times 221.0\text{mm}$
- Luminous Intensity : Over 30,000 candela
- Weight : 0.37Kg
- Expiry Period : 3 years

OPERATION

1. Take off top and bottom plug.
2. Take the ring at bottom and pull it.
3. Lift the ring.
4. Hold the rocket parachute flare with both hands firmly and upright to fire.
Squeeze top of ring holder with base of thumb.
To release striker rocket will be instantaneously discharged.

CAUTION

- Keep to over level of head.
- Use for distress signal only.

RED HAND FLARE K-23




KORYO
Pyrotechnics Co., Ltd.



RED HAND FLARE K-23

USE

Pick up a distress signal on the sea.

TABULATED DATA

- Form : Cylindrical Body
- Ignition Time : Over 1 minute
- Materials : Aluminum
- Luminous Color : vivid red
- Case Color : Silver Color
- Luminous Intensity : Over 15,000 candela
- Size : $\phi 27.2 \times 172.7\text{mm}$
- Expiry Period : 3 years
- Weight : 0.18Kg
- Package : 6 Rounds/Set

OPERATION

1. Turn handle to slot and unscrew cap.
2. Pull out ignition-cord, and then ignition.

CAUTION

- Use for distress signal only.
-

■ BUOYANT SMOKE SIGNAL K-35




KORYO
Pyrotechnics Co.,Ltd.



BUOYANT SMOKE SIGNAL K-35

USE

Pick up a distress signal on the sea.

TABULATED DATA

- Form : Cylindrical Body
- Size : $\phi 84.0 \times 140.0\text{mm}$
- Materials : Tin Coated Steel Plate
- Weight : 0.63 Kg
- Smoke Color : Orange
- Expiry Period : 3 years

OPERATION

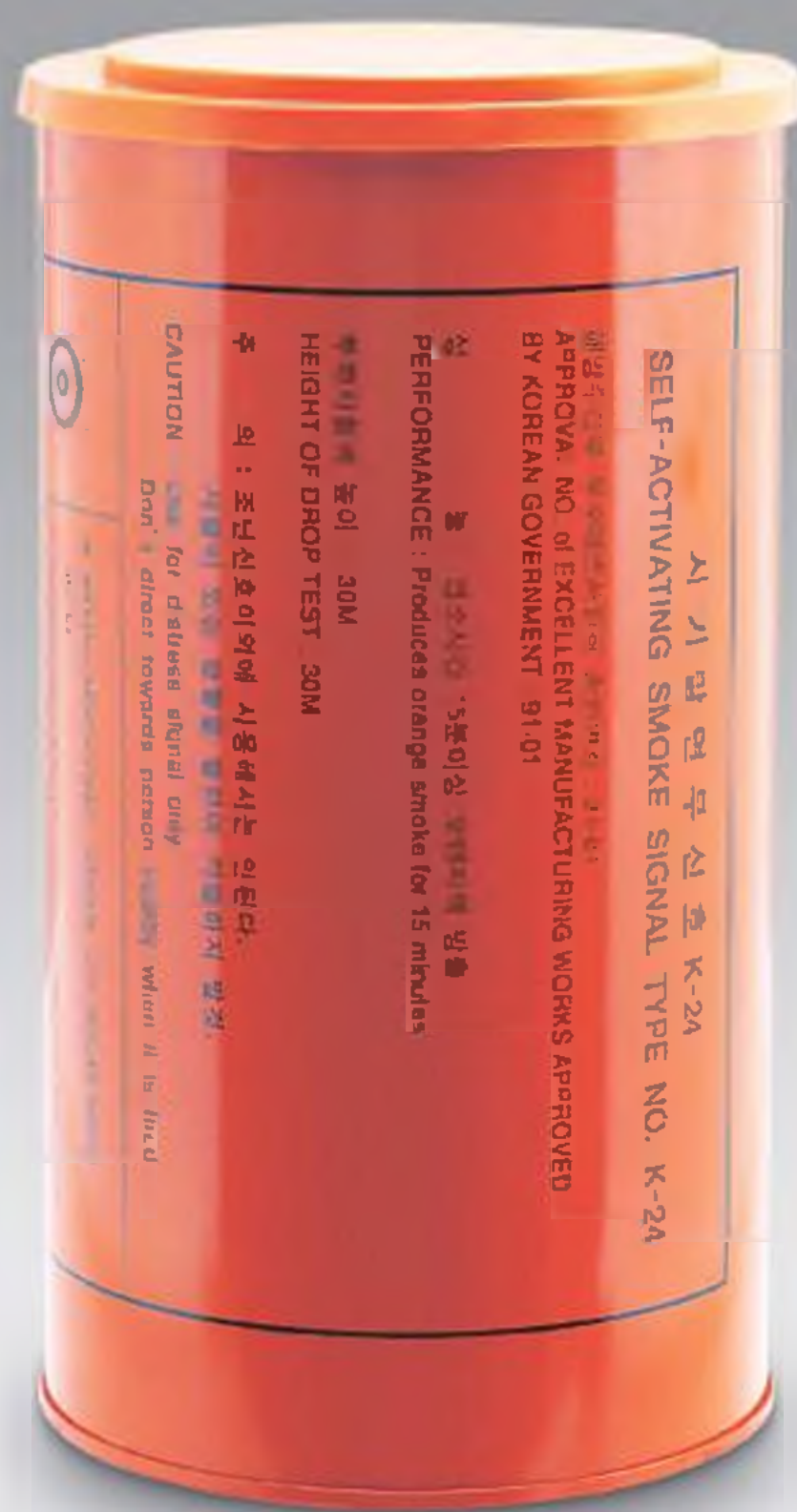
1. In order to ignite, pull off the pulling rope.
2. Throw into a sea. (Burning time : over 3 minutes)

CAUTION

- Use for distress signal only.



SELF-ACTIVATING SMOKE SIGNAL K-24




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Pyrotechnics Co.,Ltd.

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SELF-ACTIVATING SMOKE SIGNAL K-24

USE

Pick up a distress signal on the sea.

TABULATED DATA

- Form : Cylindrical Body
- Weight : 2.6Kg
- Materials : Tin Coated Steel Plate
- Burning Time : Over 15 minutes
- Case Color : Orange
- Smoke Color : Orange
- Size : $\phi 126.0 \times 231.0\text{mm}$
- Expiry Period : 3 years

OPERATION

1. The pulling rope on the top should be fixed to the ship body, and the other rope on the side should be attached to a lifebuoy.
2. Hold it by hand and throw it overboard on the water.
3. It is automatically ignited, and instantly generates a volume of dense orange colored smoke for 15 minutes.

CAUTION

- Use for distress signal only.



■ LIGHT-SMOKE SIGNAL K-42




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LIGHT-SMOKE SIGNAL K-42

USE

This light-smoke signal K-42 is combined type of self activating smoke signal and self-igniting light, and intended to the lifebuoy having arrangement of quick release from ship's navigation bridge at side.

PARTICULARS

- Light Time : Min. 2 hours
- Luminous Intensity of Light : Min. 2 cd
- Duration of Smoke Emission : Min. 15 minutes
- Smoke Color : Orange
- Light Power Source : 1 lithium battery with 3.6V
- Size : $\phi 270.0 \times 180.0$ (at top) $\times 485.0$ mm(height)
- Weight : App. 5.0Kg(Including bracket 5.8kg)
- Package : 2 Rounds / Carton Box
- In accordance with SOLAS 74/96 convention, IMO Res. A689(17) as amended IMO Res. 80(70) and LSA Code (IMO Res. 48(66))

FUNCTION

Emission of smoke by self-activation of striker igniter by pulling out of activating cord on top, and automatic "light-on" in self-up-right position afloat in water at sea.

CAUTION

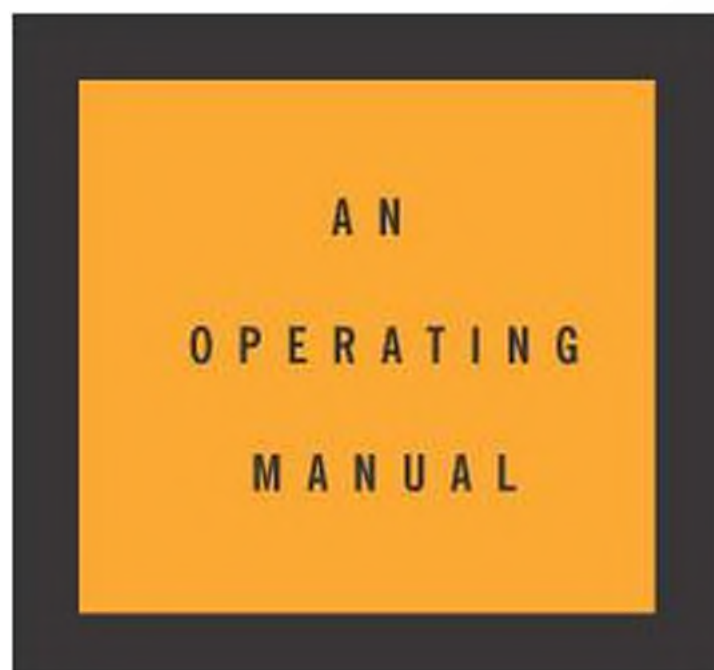
- Avoid heating or excessive impact as fire may occur.



LINE THROWING APPLIANCE K-19




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LINE THROWING APPLIANCE K-19

USE

Line throwing appliance K-19 should be used that quickly and accurately rescue of a vessel or human life at a far-off place.

TECHNICAL DATA

- Overall size : $\phi 183.0\text{mm} \times 333.0\text{mm}$
- Weight : 3.9Kg, approx.
- Body color : Yellow
- Propelling distance : 230 meters min.
- Length of line : 320.0m($\pm 10\%$)
- Method of ignition : Detonator striking
- Packing : 4 Line throwing appliances per paper box
- Packing box : $495.0 \times 495.0 \times 375.0(\text{mm})$ 0.09188m³

FUNCTION AND INSTRUCTION

Remove the upper cap and bind firmly up hall with the line with red band, and point arrow on unit in the direction of firing and then, press the line throwing appliance against your thigh and the remove safety pin.

And the last, held the body and pull trigger in the direction of firing.

When fulling the trigger, trigger pull the firing pin latch in a consequence, firing pin strikes detonator, and after ignited ignition charge.



LINE-THROWING APPLIANCE K-21





LINE-THROWING APPLIANCE K-21

USE

Use for saving people on the sea.

TABULATED DATA

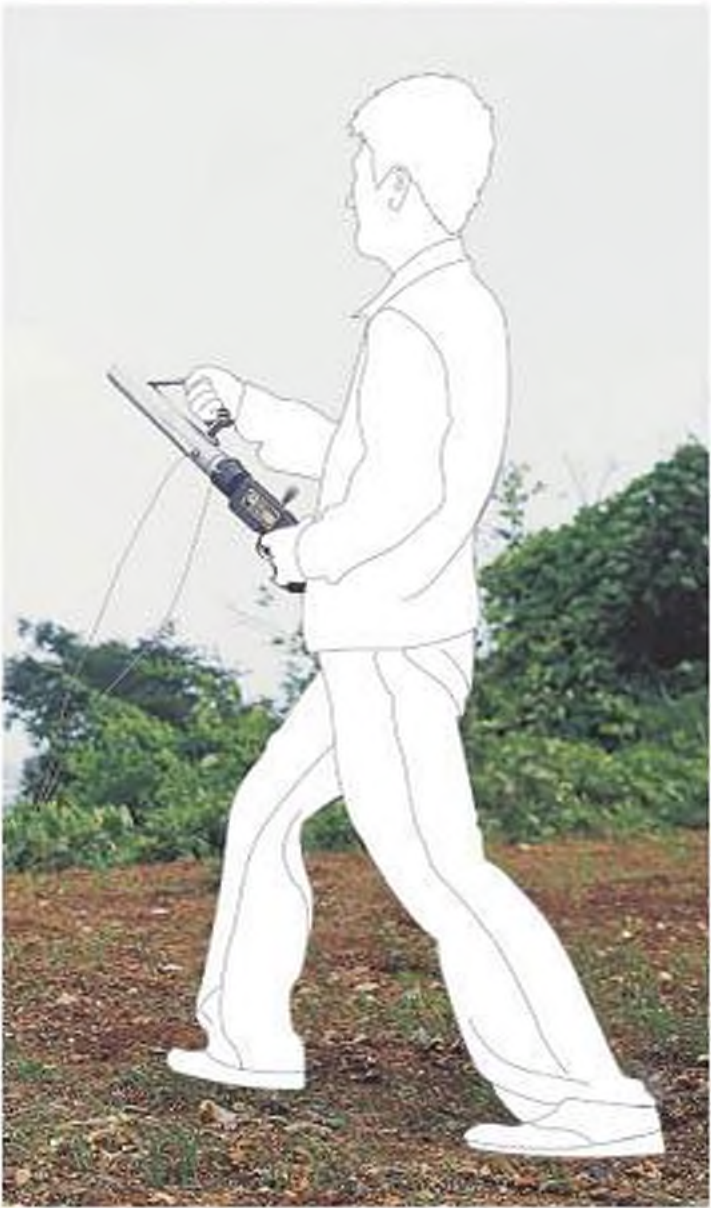
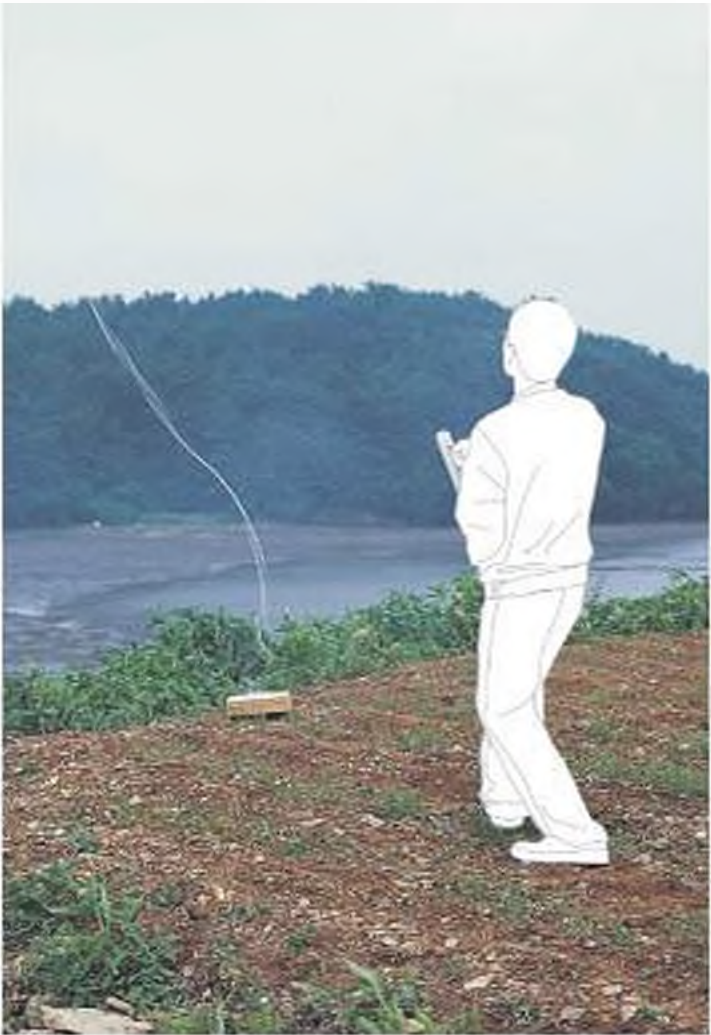
- Performance : Rocket Propulsion Type
- Size : Projectile 42.0 × 375.0mm
 Firing Tube 47.0 × 360.0mm
- Weight : Rocket 1.0 Kg
 Firing Tube 1.6 Kg
- Expiry Period : 3 years

COMPONENTS (1 SET)

- Rocket 4
- Firing Gun 1
- Life Line 4
- Firing Tube 1
- Cartridge 5
- Screw-driver for cartridge 1

OPERATION

1. After fixed one end of the life line that is located bottom of the life line box to a ship body, and connected upper of it to the rope attached to the rocket and the cartridge is loaded to the bottom of the firing tube.
2. Fix together the prepared firing tube and firing gun fitting boss in slot of rocket and insert the prepared rocket into the firing tube.
3. When the life line is launched by pulling trigger of the K-21, the rocket will launch carrying line to the target.



■ LIFEBUOY SELF-IGNITING LIGHT K-26




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LIFEBUOY SELF-IGNITING LIGHT K-26

USE

Pick up a distress signal on the sea.

TABULATED DATA

- Form : Cylindrical Body
- Weight : 1.26 Kg
- Materials : Resin
- Luminous Intensity : Over 2 candela
- Size : $\phi 128.0 \times 450.0\text{mm}$
- Lasting Luminous Time : Over 2 hours

OPERATION

1. When the K-26 locked the cap to the end, and then turned on the light.
 2. At this time, be put out the lights as it is sloped.
-

EMERGENCY MEDICAL TREATMENT
CASE K-18

FIRST AID KIT K-18




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EMERGENCY MEDICAL TREATMENT CASE K-18

FIRST AID KIT K-18

USE

For emergency measure of a patient on the sea.

TABULATED DATA

- Form : Cylindrical Body
- Size : $\phi 178.0 \times 272.0$ mm
- Materials : Resin
- Weight : 1.31Kg

COMPONENTS

NAME OF COMPONENTS	SIZE	QUANTITY(E/A)	REMARKS
Bandage	10 × 540cm	5	Expiry Period : 3 years
	5 × 540cm	8	
Bandage Gauze	45cm × 45cm	3	
Adhesive Tape	1cm × 330cm	3	
Triangular Bandage	105 × 105 × 150cm	3	
Eye Dressing Bandage	-	3	
Tourniquet	-	1	
Pincet	-	1	
Scissors	-	1	
Safety Pin	-	12	
Furasolon Ointment	15g	3	
Ophthalmic Ointment	5g	2	
Mercurochrome	25ml	2	
Sedabon	100 tablets	1	
Vaseline Gauze	7.5 × 90cm	6	
Betasol	20 tablets	1	
Splint	-	1	