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Global Sales

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**A/S
Guide**

**A/S application available 365 days a year
(processed within 24 hours after application)**

Application inquiry : **82-62-952-3121, 82-10-8931-8361**

- ① After displaying product information (product serial number, symptoms, address, contact information, person in charge)
 - ② A/S product factory shipment
(regular delivery or post office delivery / cash on delivery)
 - ③ A/S product completion (visit in person or send via post office delivery)
- * However, for EL-Wire, actual cost is charged (imported materials)



A Safe Society That Respects Life

4B DREAM Co., Ltd.



COMPANY HISTORY

- 2015**
 - Dec.** 4BDREAM Co., Ltd. established, factory registered
- 2016**
 - Apr.** Establishment of a corporate research center (2016112052)
 - Jun.** Conducted research on the development of a walking support system for the transportation vulnerable (Ministry of Land, Infrastructure and Transport, Korea Agency for Land, Infrastructure and Transport Science and Technology Promotion)
 - Jul.** ISO 9001, 14001 certified
 - Sep.** Received the 4th Firefighting Industry Excellence Design Award
 - Oct.** Venture business certification (20160401657)
 - Dec.** Patent registration for underwater light line system (10-1685563) Patent registration for portable linear emergency guidance device (10-1689150)
- 2017**
 - May.** Portable linear emergency guidance device design registration (30-0908622)
 - Jun.** Registered patent for light life line device capable of two-way communication with emergency call function (10-1751433) Performed start-up growth task (Small and Medium Business Administration)
 - Aug.** Evacuation guidance device design registration (30-0920347)
- 2018**
 - Feb.** Registered patent for rescue alarm flashlight (10-1834509)
 - Jun.** Obtained 50m light line performance certification (Gwangju-Jeonnam-2018218-5-01, Minister of SMEs and Startups) Registered patent in Japan (6356776) Registered patent for lifesaving alarm (10-1875184)
 - Jul.** Obtained 25m light line performance certification (Gwangju-Jeonnam-2018290-5-07, Minister of SMEs and Startups) Registered US patent for Evacuation Guidance Device for Rescue (US 10, 026, 277 B2)
 - Oct.** Acquired technology evaluation grade T4 (SCI-2018-GV000164)
 - Nov.** 56th Firefighting Day Commendation - Gwangju Metropolitan City Mayor's Award



2019

- **Mar.** Acquired excellent product certification for 25m light line and 50m light line (2019023, Director of Public Procurement Service)
- **Apr.** Linear light emitting cable with communication function patent registration (10-1973366)
- **Aug.** Selected as a subsidiary of Jeonnam Regional University Association Startup Technology Holding Co., Ltd. and attracted investment
- **Nov.** Registered as a research institute (No. 850, Ministry of Science and ICT)

2020

- **Mar.** IoT-based intelligent evacuation guidance system patent registration (10-2066564)
- **May.** Jeonnam Defense Venture Center business support agreement concluded
- **Oct.** Received the 8th Firefighting Industry Award (Industrial Technology Category) for the collision prevention system in foggy situations (patent application-10-2020-0140129)
- **Dec.** Developed underwater light line, delivered to the National Coast Guard (19 locations) and police special forces, delivered portable light line to Navy Marado ship for the first time

2021

- **Jan.** Portable light line delivered to Navy Gyeongnam and Hansando
- **May.** Registered as a partner of Jungheung Construction Co., Ltd. (signed a contract to supply safety products)
- **Jun.** Designated as pilot product for excellent defense commercial supplies in 2021
- **Aug.** Relocation of factory (branch) - 69, 203, Jingsoksan 1beon-ro, Gwangsan-gu, Gwangju Metropolitan City Contract signed with Ministry of National Defense - Negotiated contract for underwater light line (25m)
- **Sep.** Registered as a partner of Jungheung Construction Co., Ltd. (signed a contract to supply safety products)
- **Oct.** Registered factory relocation (#203, 69, Jingsoksan 1beon-ro, Gwangsan-gu, Gwangju (Oseon-dong))



CERTIFICATION

Certification Status

- Company-affiliated research certificate
- Venture business confirmation
- Competitive bidding participation qualification registration certificate
- Small and Medium Business Confirmation
- Portable light line excellent product designation certificate using two-way wired signal communication technology
- Portable light line performance certificate applying two-way wired signal communication technology
- Quality Management System Certificate
- Environmental Management System Certificate
- Technology grade confirmation



Patents and Awards Status

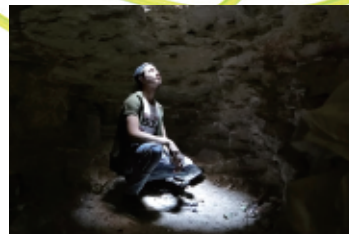
- Underwater lightline system (No. 10-1685563)
- Portable linear emergency guidance device (No. 10-1689150)
- Life device capable of two-way communication with emergency call function(No. 10-1751433)
- Flashlight for rescue alarm(No. 10-1834509)
- Emergency alarm(No. 10-1875184)
- Linear luminous cable with communication function (No. 10-1973366)
- IOT-based intelligent evacuation guidance system (No. 10-2086564)
- Evacuation induction device for rescue (Japan / No. 6356776)
- Evacuation Guidance Device For Rescue (USA / US No. 10,026,277B2)
- Life-saving warning system using crew location tracker and alarm (No. 10-2322426)
- Chemilite that can automatically detect bites(No. 10-2288153)
- Underwater Air Takagi(No. 10-2341113)
- Collision prevention system in foggy situations(No. 10-2455346)
- Stringed weight for catching cutlassfish using EL wire (No. 10-2497393)
- How to effectively extinguish and respond to electric vehicle fires by partially removing the bottom plate of an electric vehicle (No. 10-2584555)
- Design Patent - Underwater Air Takagi(30-2022-0033266)
- PCT application - Underwater Air Takagi(PCT/KR2022/015324)
- Patent application - Method for efficiently suppressing and responding to electric vehicle fires(10-2023-0027676)





Personal Light Line 25m

- ❑ **Stong tensile strength**
- ❑ **Up to Six-hour duration of usage**
- ❑ **Excellent and sufficient amount of light for visibility**
- ❑ **Equippend with Two-way communication function**



Personal light line(25m) is the equipment that is used for the fire fighter's rescue operations and rescuee's evacuation when there is a fire inside a building or at night.

| Product Features |



1. The world's first two-way communication system
(Composed of a main body and a handpiece, mutually transmitting and receiving functions)
2. 3-step two-way signal communication system (on-flashing-visual alarm)
3. Long time use (6 to 10 hours)
4. No need to charge for 30 years if not used after fully charged

- Patent Registration No. 10-1751433
- KC Certification No. MSIP-REM-4BD-4BDL-0251
- Performance Certification (Gwangju-Jeonnam-20180290-5-07, Minister of SMEs and Startups)
- Designated as an excellent product (2019023, Director of Public Procurement Service)

| Product Specifications |

Model name	4BDL-0251
Dimension	H142 x W138 x D93
EL wire Length / Diameter	25m ± 0.5m / 3.0mm ± 0.3mm
Tensile Strength	2200N
Luminance	30cd/m ²
Thermal Stab.	-30°C ~ 70°C (Max.80°C)
Batt Power	DC 7.4V
Operation Time	Light on Mo de(360min), Light Blinking Mo de 1 (600min), Light Blinking Mo de 2 (650min)
Dustproof / Waterproof	IP66
Adapter	110v / 220v, 50 /60Hz, 8.4V, 1.5A (Safety Certification No. HU10727-13001B)



Product Introduction
Personal Lightline



Personal Light Line 50m

- ❑ **World's first two-way communication**
- ❑ **High visibility luminance**
- ❑ **Strong tensile strength**
- ❑ **Firefighting Industry Excellent Design Award**
- ❑ **2020 Fire Industry Awards (KFI Award)**



A portable light-emitting evacuation guide lighting line that can mark an escape route so that you can evacuate quickly and accurately in thick smoke and darkness.



| Product Features |

1. The world's first two-way communication system
(composed of a main body and a handpiece, mutually transmitting and receiving functions)
2. 3-step two-way signal communication system (on-flashing-visual alarm)
3. Battery level indicator, light brightness adjustable
4. Removable battery enables immediate battery replacement without on-site charging

· Patent registered (10-1689150), Design Patent registered (30-0908622), International PCT application, US and Japanese patent registered

· Performance Certification (Ministry of SMEs and Startups (MSS), Designation of excellent products (Public Procurement Service), 12th Fire fighting Industry Technology Award Winner

| Product Specifications |

Model name	4BDL-0500
Size (Dimension)	H(200) × W(240) × D(110)
Weight	2.9 ± 0.2kg (Including Removable Battery)
Lighting Line Length / Diameter	50m ± 0.5m / 3.0mm ± 0.3mm
Flame Retardant	UL94-V0
Brightness	luminance 30 cd/m ² and more
Light-emitting line	High Carbon Steel Wire inserted with tensile strength 2,200N/mm ² and more
IP code	Light-emitting line – IPx8 / Main body - IP55
Portability	Single Operation
Power	12V 2.6A ~ 3.0A (Removable and Rechargeable external battery used)
Operating Time	Lighting on - Hi 170min, Mid 186min, Low 220min Flashing(1 blink per second) - Hi 338min, Mid 380min, Low 465min Visual alarm(3 blinks per second) - Hi 365min, Mid 445min, Low 555min



Product Introduction
lifesaving alarm



Lifesaving Alarm

Front of alarm



Back of alarm



An alarm is automatically generated when no movement is detected. It is a terminal that can notify its location by manually generating an alarm in case of an emergency.



| Product Features |

1. Display : OLED (128 * 32 pixel)
2. Setting function : Each function of the terminal can be set arbitrarily.
 - Motion detection(10 Levels), Impact Detection(10 Levels), Temperature Detection, Date and Time Settings
3. Preliminary alarms, Automatic alarms, and Manual alarms are generated.
4. 2,000 usage time records
5. When not in use (power off) after full charge, no charge is necessary for 1 year.

· Patent registered 10-1875184

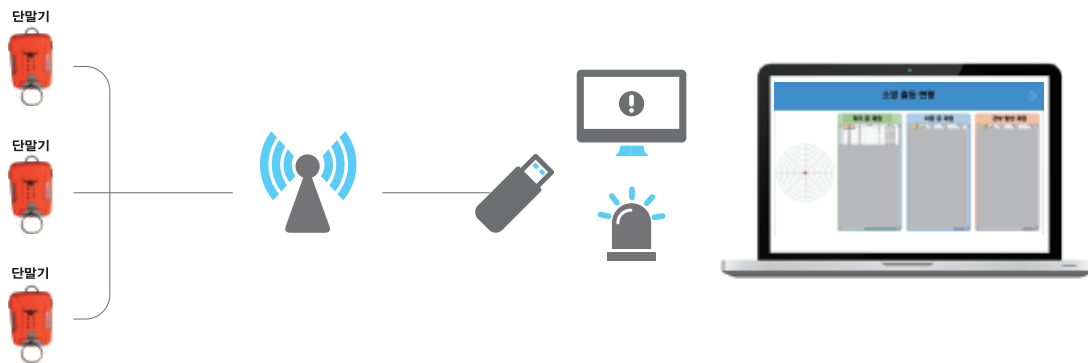
| Product Specifications |

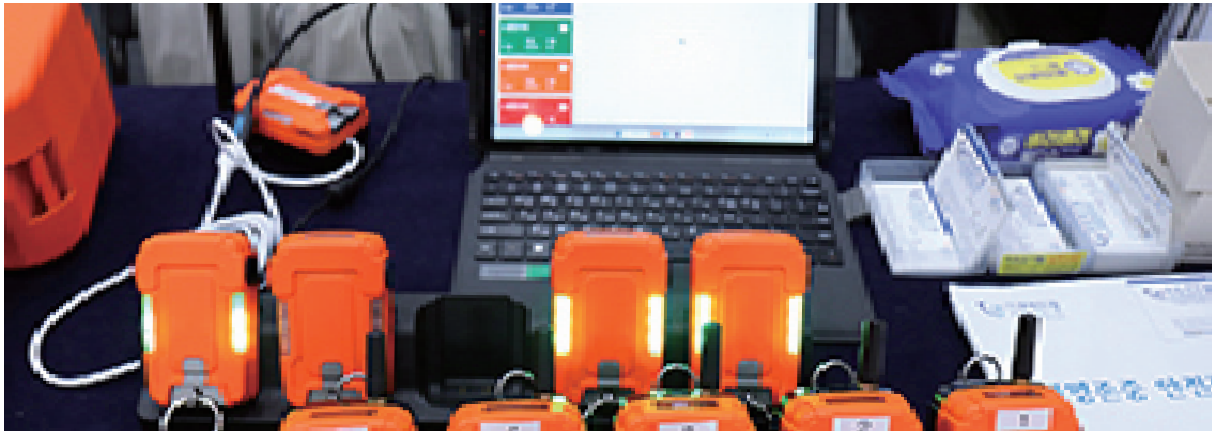
Model name	4BDM-1001
Size	55(W) * 87(H) * 30(D)mm
Weight	120g ± 10g
Body material	Heat and Impact resistant plastic (Polycarbonate)
IP Code	IP68
Alarm	98dB or more (measured from 3m away)
LED Lamp Brightness	10,000cd/m ²
Power	Lithium polymer battery with built-in protection circuit (3.7V@1400mAh)
Operating time	Power off (Standby time) - about 10,000 hours(Safety pin ○, Alarm ×) Power ON - about 100 hours(Safety pin ×, Alarm ×) Alarm ON - about 20 hours(Safety pin ×, Alarm ○)



Location Tracker

Equipment that detects the movement and location of firefighters and transmits them to a receiver and can automatically and manually generate an alarm to request rescue in an emergency situation





| Product Features |

1. Automatic alarm occurs when there is no movement of firefighters for 10 to 99 seconds (Directly changing alarm modes is possible).
2. An alarm occurs manually by pressing the SOS button on the lifesaving alarm.
3. Measures movement of firefighters with built-in IMU sensor
4. Transmits firefighters' movement data to the receiver using an IMU sensor through RF communication
5. Built-in GPS for location tracking of outdoor activities
6. Displays height information of lifesaving alarm through altitude sensor
7. When an alarm occurs, a wireless signal is transmitted to detect the location with a lifesaving alarm.
8. When an alarm occurs, the alarm is displayed with a high-brightness LED and buzzer.
9. Displays low voltage alarm function in lamp flashing method

· Type registration certificate (KC certification) related to Radio Wave Act is submitted.

| Product Specifications |

Model name	4BDM-1004
Size	60(H)x120(W)x45(D)(mm)
Weight	180g or less
Material	Heat-resistant, Impact-resistant, High-strength plastic
Power source	Built-in rechargeable battery (1600mAh)
Communication band	1Ghz or less
GPS performance	Built-in patch antenna that supports 99 channel search including GPS/CLONASS/GALILEO
Dustproof / Waterproof	IP68 or higher
Screen	OLED LCD, battery remaining display and notification settings possible
Alarm method	Alarm 95dB or higher (measured at 3m away)
Software	Program for access control and location confirmation (Windows-based)

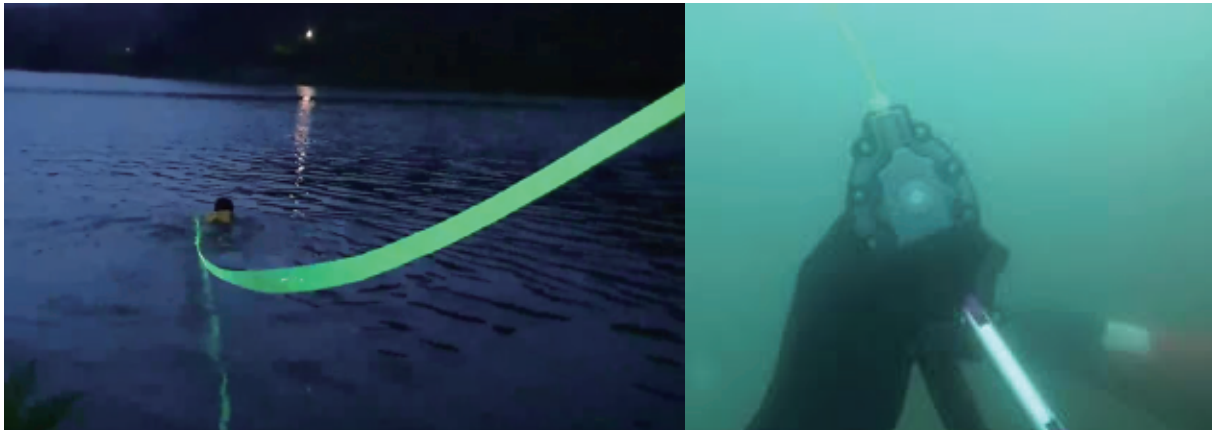


Lighting Line (for underwater) 25m

A personal underwater light-emitting evacuation guide lighting line that can mark an escape route so that you can evacuate quickly and accurately for underwater rescue and search activities

- The world's first two-way communication**
- Highly visible brightness**
- Strong tensile strength**
- 2021 Ministry of Defense Excellent Commercial Products Promotion**
- Waterproof up to 50m depth**





| Product Features |

1. An essential tool for ensuring visibility and indicating an escape route for rescue workers.
2. The world's first two-way communication system (composed of the main body and handpiece, enabling mutual transmission and reception)
3. Long-term use (6 to 10 hours)
4. 4-stage mode change [flashing-lighting-flashing-visual alarm] possible
5. No need to recharge for 30 years when not in use after fully charged
6. The Ministry of National Defense and the National Coast Guard Rescue Team are using it.

· Patent Registration No. 10-1751433

· KC Certification No. MSIP-REM-4BD-4BDL-0251

| Product Specifications |

Model name	4BDL-0252(for underwater)
Size (Dimension)	H(200) × W(138) × D(93)
Weight	1.3kg ± 0.3kg
Lighting Line Length / Diameter	25m ± 0.5m / 3.0mm ± 0.3mm
Flame Retardant	UL94-V0
Brightness	luminance 30 cd/m ² and more
Light-emitting line	High Carbon Steel Wire inserted with tensile strength 2,200N/mm ² and more
Waterproof	Depth of water - 50m
Portability	Single Operation
Power	Rechargeable Lithium-ion battery – 7.2V, 5.2A
Operating Time	Lighting on-360min, Flashing(1 blink per second)-600min Visual alarm(1 blink per second)-650min



Product Introduction
Underwater Air Tacker



Underwater Air Tacker

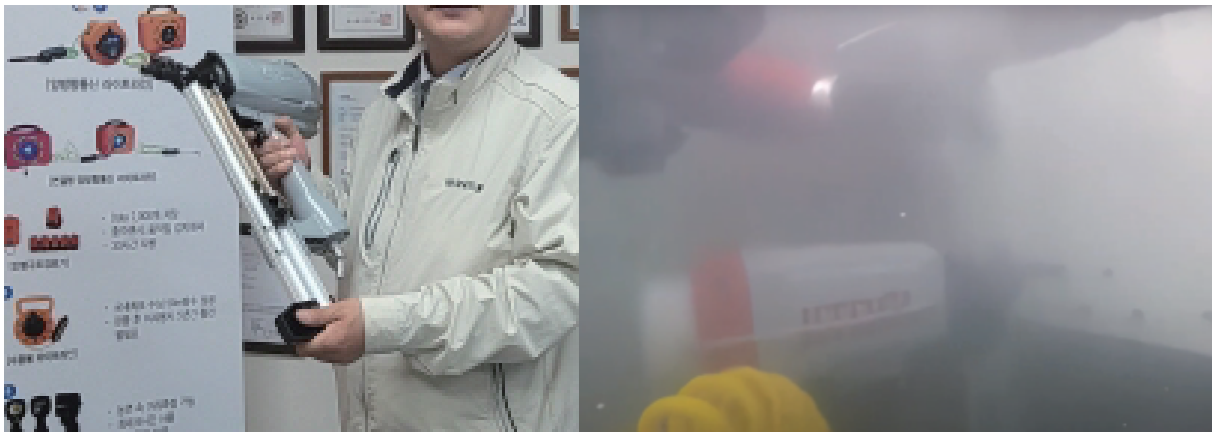
When a ship is breached, it is possible to prevent the sinking of the ship by quickly repairing the breached part for minimizing ship losses and protecting people.

Korea's first development success!



Components

Main body, 1000 pins, Oil, Wrench, Safety glasses, User manual, Case



| Product Features |

Air Tacker is waterproof and can be used underwater

- Quick and accurate drilling and repair of breached areas are possible.

· Patent registration (10-2341113), International PCT application (PCT/KR2022/015324)

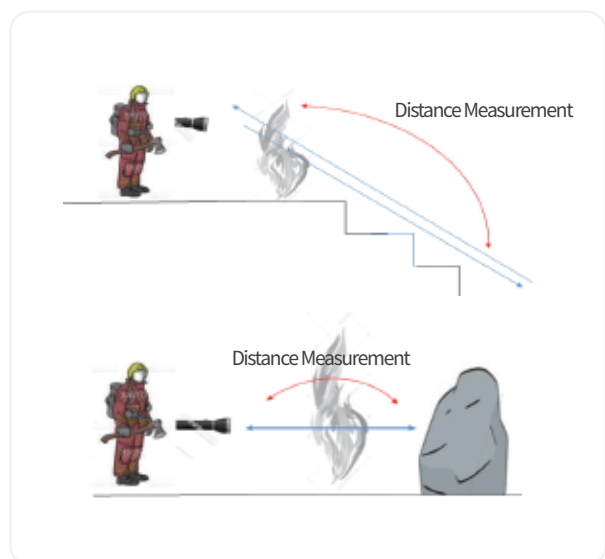
| Product Specifications |

Model name	4BD - 0900
Body size	400mm x 470mm x 115mm
Magazine	400mm x 60mm x 25mm
Weight	4.2kg ± 0.1kg
Power source	Air pressure or air tank using an air compressor
Appropriate atmospheric pressure	6.0kgf/cm ² ~ 8.0kgf/cm ²
Magazine capacity	50pins
Pin length	16mm ~ 22mm
Pin diameter	2.6mm
Pin head diameter	6.4mm
Rate of fire	47 rounds per minute
Portability	Single use
Material	Aluminum



Smoke-seeing Fire Lantern

The smoke-seeing fire-fighting lantern is a distance-measuring lantern that can measure the distance in smoke in the event of a fire, preventing safety accidents caused by obstacles, manholes, etc. in situations where visibility is not possible.





| Product Features |

1. Distance measurement function and distance display in Nongyeon
(Nongyeon measurement distance: 4m)
2. Maximum luminous flux : 1,090lm Illuminance : 784lx (measured at a distance of 5m)
3. Laser point, emergency function
4. Battery remaining amount display
5. Lamp brightness 3 levels adjustable and strobe available
6. Removable battery allows for easy battery replacement

· Patent registration 10-1834509

| Product Specifications |

Model Name	4BDL-100L
Dimension	H193 x W56 x D81
Weight	760g (Battery included)
Body Material	Aluminum
Waterproof	IP67
Power	Rechargeable lithium-ion battery - 12V, 2.6A (removable rechargeable battery)
Operation Time	Hi : 2Hr, Mid : 4Hr, Low : 6Hr
Charging Time	40minutes quick charging
Adapter	100~240V, 60Hz, 8.5V, 1.5A
Dimension	D87 x W55 x D30