

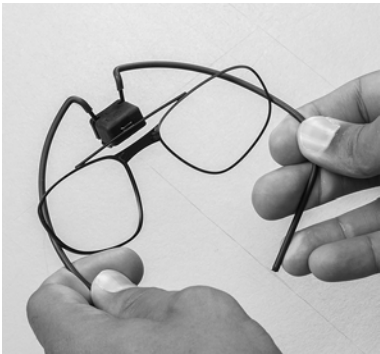
17 Spectacle Kit

**WARNING**

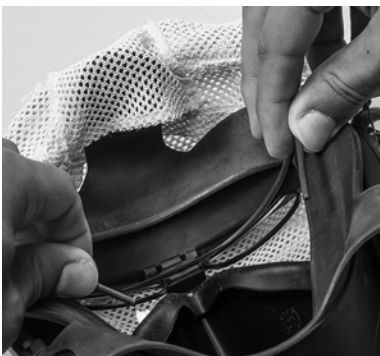
Before using a spectacle kit, an optometrist must inspect the spectacle kit and prescribe the correct lenses to fit into the lens frame on the spectacle kit. Failure to follow this warning could result in serious personal injury or death.



- (1) Flip the head harness over the front of the facepiece so the harness is covering the lens of the facepiece.
 - ▷ This will open up the faceblank to make it easier to install the spectacle kit.



- (2) Squeeze in on the wire frame of the spectacle kit at the large bends about 2" from the ends.



- (3) Push the top part of the frame into the lens. The faceblank has three rubber tabs to grab the frame.
 - ▷ Place the frame in the middle of the lens with the smaller tabs grabbing the wire frame.



- (4) Take one end of the wire frame and push it up into the facepiece so it follows the edge where the lens and the faceblank meet.
- ▷ The end of the wire frame must be positioned into small pockets in the faceblank on the edge of the lens.



- (5) Repeat step (4) on the opposite side.



- (6) The lens frame can be adjusted up/down and in/out depending on the facial features. Don the facepiece and adjust to optimize visibility.

18 Telemetry Module

The telemetry module is designed to allow the SCBA to communicate with a remote base station while in use. The SCBA with telemetry module installed will transmit vital statistics such as cylinder pressure, thermal alarm (if thermal alarm is enabled), service time remaining, and PASS alarm to the base station. The base station also has the ability to send an evacuation command to the SCBA. The telemetry module uses a special version of the power module.

All basic functions of the SCBA are the same as those described in the During Use section of this manual except for the following differences:

- **Turning the control module ON:** When the control module is activated in the presence of a remote base station, the SCBA automatically begins to log on to that base station. When the SCBA is successfully logged on to the base station, a radio link indicator will appear on the display of the control module.
- **Evacuation Signal:** The SCBA has the ability to receive an evacuation signal from the remote base station after it has been successfully logged on to the base station. When an evacuation signal has been sent by the base station, the “running man” icon will appear, and flash, on the display of control module and a unique audible alarm will be emitted from the power module. The evacuation signal must be manually confirmed by the user by pressing the reset button (green) twice within approximately one second. This confirms the evacuation signal by sending a confirmation signal back to the base station. Once the evacuation signal has been manually confirmed by the user, the “running man” icon will stop flashing and remain on the display until the control module has been turned off.
- **PASS Alarm:** The PASS alarm will sound and function normally with the telemetry module. When the SCBA emits a full PASS alarm, a signal is automatically sent to the base station to alert Incident Command.
- **Thermal Alarm:** When the SCBA is exposed to temperature conditions that warrant a thermal alarm, a signal is automatically sent to the base station to alert Incident Command.
- **Low Battery:** When the power module reaches a low battery condition, a signal is automatically sent to the base station to alert Incident Command.
- **Data Log:** The data logging feature of the control module logs the status of the radio link to the base station as well as any evacuation signals that the SCBA has received.
- **Radio Link Indicator:** The control module has a radio link indicator on the secondary screen. When this icon is displayed, the SCBA is logged on to a base station and within range. When the radio link indicator is red, it means the radio contact has been lost or interrupted. When the radio link indicator is grey, it means the radio contact was never established.
- **Turning the control module Off:** To turn the control module off, press the reset button (green) twice within approximately one second. If the SCBA is logged on to the base station, there will be a delay between the two presses of the reset button and the actual shutdown of the device. Before the control module completely turns off, the base station must remove the SCBA from its registry. This causes the slight delay between pressing the reset button and the actual shutdown of the device.

Scanning the ID Tag into the Power Module

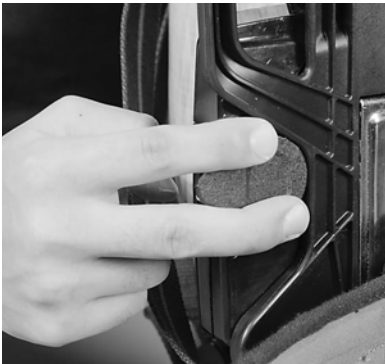
Prior to pressurization of the SCBA and during use, the user can “tag in” to the SCBA. The most recent ID Tag data that is stored in the power module will be used as the identification for the SCBA in the data log or on the MSA Accountability System Software. If no ID Tag data has been assigned to the SCBA, the power module serial number will be used as its identification on the base station PC screen.

Tagging In when Unit is Off

- (1) Take the ID tag and place in hand as shown.
- (2) Move hand to the RFID reader location on the power module. It is located on the user side of the backplate on the left side.



- (3) Press and hold the green reset button until the RFID symbol appears.



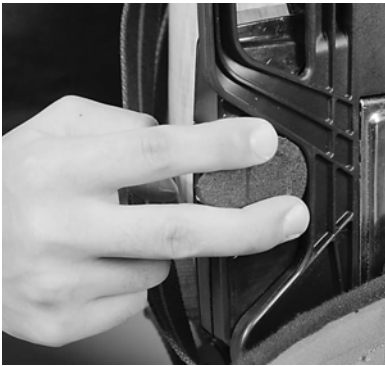
- (4) Keep the tag located at the power module until the blue bar moves across the screen.
 - ▷ If the tag was successful, the information will be displayed on the tag. If it is not, repeat the steps above until the tag information is displayed on the screen.

Tagging In During Use

- (1) Take the ID tag and place in hand.
- (2) Move hand to the RFID reader location on the power module. It is located on the user side of the backplate on the left side.



- (3) Press and hold the green reset button until the RFID symbol appears.



- (4) Keep the tag located at the power module until the blue bar moves across the screen.
 - ▷ If the tag was successful, the information will be displayed on the tag. If it is not, repeat the steps above until the tag information is displayed on the screen.



WARNING

When using an ID Tag with the G1 power module, the ID Tag must touching the power module during this process. If the tag is not, the PASS device can lockup. To fix the lockup, the batteries must be removed for 30 seconds and then reinstalled.

Misuse can result in serious injury or death.

Using the Base Station with the Telemetry Module

The telemetry module is designed to work in conjunction with a remote base station unit. This base station unit must be connected to a personal computer or notebook computer before use. Refer to the MSA A2 Software Instructions (P/N 10162374) for more information.

**WARNING**

Follow the PC or notebook computer manufacturer's recommendations for exposure to environmental conditions to prevent damage to the system.

Failure to do so may cause system failure and the loss of monitoring capability on the PC or notebook computer.

18.1 Using the SCBA with Telemetry Module**Logging the SCBA on to the Base Station**

- (1) Turn on the control module on by opening the cylinder valve or by pressing and holding the alarm button.
- (2) An icon representing the user of the SCBA will appear on the base station PC screen.
- (3) When the base station has established contact with the SCBA and all initial information has been obtained, the radio link indicator will appear in the upper left corner of the control module display.
- (4) Periodically check the status of the radio link indicator on the display of the control module. If the signal indicator turns yellow, this means that the SCBA is out of range from the base station. The signal strength indicator will stop flashing when the SCBA returns within range of the base station.

**CAUTION**

If the signal strength indicator does not appear on the control module display or the base station has not logged the unit on, the base station cannot monitor the status of that user.

Logging the SCBA off of the Base Station

- (1) Once the user has returned to fresh air the control module may be turned off.
- (2) Close the cylinder valve and purge the remaining air from the system using the regulator bypass. When the pressure falls below 200 psi, turn the control module off (sleep mode) by pressing the reset button twice in approximately one second. (When the SCBA is logged on to a base station, there may be a delay between the two rapid presses of the reset button and the actual shutdown of the control module. Before the control module completely turns off, the base station must log off the SCBA and send out a final confirmation signal.)

Evacuation Signal

If the SCBA is logged on to the base station, the incident command will have the ability to send an evacuation signal to the SCBA. When an evacuation signal is sent to the SCBA, the power module will begin to beep repeatedly and a flashing evacuation icon will appear on the control module display. The evacuation alarm will continue to sound until the reset button on the control module has been pressed twice within approximately one second. This confirms the evacuation by sending a confirmation signal back to the base station. The evacuation alarm can only be reset on the SCBA after the unit has been turned off and restarted.

19 Maintenance

19.1 Batteries



WARNING

- Replace the batteries following the use of the SCBA were the low battery alarm became active.
- Changing of alkaline batteries must be performed in a non-hazardous environment.
- Battery modules must only be removed and installed in a non-hazardous environment.
- Use only approved batteries in the battery module.
- Use of other batteries, or a combination of batteries from different manufacturers, will affect the performance of the unit and void the Intrinsic Safety Approval.

Failure to follow this warning could result in serious injury or death.



WARNING

DO NOT dispose of the batteries in fire. They may explode. Contact the local municipality for proper disposal of batteries.

Misuse can result in serious injury or death.



WARNING

Use only approved alkaline batteries in the battery module. Use of other batteries, or a combination of batteries from different manufacturers, will affect the performance of unit and void the Intrinsic Safety Approval.

CAUTION

Do not use force to remove or replace the battery pack, otherwise the power module could get damaged.



Battery status can be checked while the SCBA is still in the jump seat, the battery pack can also be replaced without taking the SCBA out of the jumpseat.

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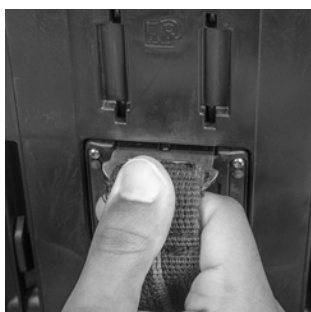
List of approved batteries that can be used in the alkaline battery pack

- Duracell Procell PC1400
- Duracell MN1400
- Panasonic Evolta C-LR14
- Panasonic Industrial LR14XWA
- Industrial Panasonic Powerline
- Rayovac Ultra Pro LR14
- Rayovac LR14
- Energizer EN93
- Energizer E93

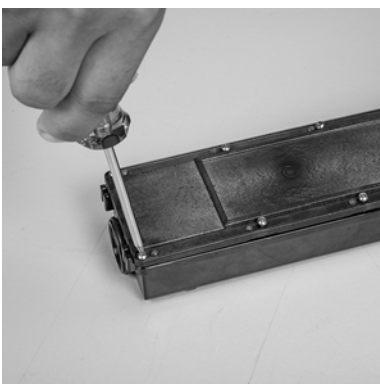
NOTE: The temperature class is T4 when the above alkaline cells are installed within the alkaline battery pack, except the temperature class is T3C when the Energizer EN93 alkaline cells are installed within the alkaline battery pack.

Replacing the Batteries in the Battery Module

The battery module is installed on the user side of the SCBA in the middle of the backplate.



- (1) Unlock the battery module with the battery removal tool.
 - ▷ Push the removal tool into the slot in the battery module and click into place.
 - ▷ Pull the removal tool and the battery module out of the power module.

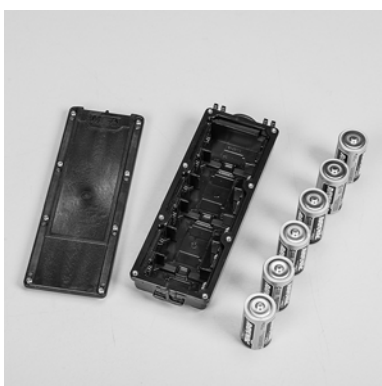


Open the battery module:

- (2) Loosen the Torx screws in the battery housing lid.



- (3) Remove the battery housing lid.



- (4) Remove all 6 batteries.
- (5) Check the inside of the battery module for damage, battery acid, corrosion, dirt and debris.
- (6) Ensure the battery contacts are in place and secure.
- (7) Insert 6 fresh C-cell batteries, ensuring the + contacts are in alignment.

- (8) Check the cover of the battery module for damage, dirt and debris, make sure the gasket is still in place and does not have any nicks or tears.

▷ Replace cover if necessary.

Close battery module:



- (9) Place the battery lid on the housing and install the screws until the lid makes contact with the standoffs (4 in-lbs max torque).



NOTE: This is the position of the battery lid to the housing once the screws are tightened.



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Install the battery module in the power module:

- (10) Make sure before inserting the battery pack that the power module is clean and that no pins or grooves are damaged.



- (11) Insert the battery pack into the power module, ensure to align it with the grooves in the power module.
 - ▷ Release the battery module and push in its top.
 - ▷ The battery module will click into place.

- (12) To make sure that the battery pack fits securely, push on the opposite side of the power module, the battery pack should not move.

19.2 Maintenance Instructions

This product should be regularly checked and serviced by trained specialists. Inspection and service records must be maintained. Always use original parts from MSA.

Repairs and maintenance must be carried out only by authorized service centers or by MSA. Changes to devices or components are not permitted and will result in an unapproved configuration.

MSA is liable only for maintenance and repairs carried out by MSA.



MSA recommends maintenance intervals which follow the overhaul and flow test requirements.

Observe national laws and regulations!

If in any doubt, ask your local MSA contact person.

20 Safekeeping and Storage

20.1 Storage



WARNING

- Prior to storage of the SCBA at temperatures below 0°F (-18°C), verify that the power module is equipped with full charge batteries. Verify that the control module displays a full charge battery status icon and that the HUD does not display low battery status indicators.
- DO NOT drop the cylinder or bump the valve knob. An unsecured cylinder can become an airborne projectile under its own pressure if the valve is opened even slightly.

Misuse can result in serious injury or death.

- Do not store the SCBA or spare cylinders within or near an area where the SCBA can or might be exposed to any substances that will or might attack any part of the SCBA, causing the SCBA to not perform as designed and approved.
- Prior to storing the SCBA in a jumpseat, ensure there is no interference between the SCBA and the seat. Ensure the SCBA and cylinder can be removed easily without damaging the components.
- Do not store the SCBA for extended periods with the batteries installed in the electronic components if the SCBA is not intended for service. If the SCBA is in service, ensure that the batteries in the electronic components have an adequate charge.
- Do not store the SCBA with an empty or partially filled cylinder. Always install a fully-charged cylinder so that the SCBA is ready for use.
- Complete Inspection and Cleaning and Disinfecting Procedures outlined in this manual. Ensure the entire SCBA is clean and dry.
- Ensure the facepiece head harness adjustment straps are fully extended. Place the complete SCBA in the storage case or suitable storage location so it can be easily reached for emergency use.
- For prolonged storage of the SCBA, remove the batteries from all electronic components and housings to prevent battery corrosion. Store the units in a cool, dry place.

NOTE: Fresh batteries must be installed in the power module prior to storage of the SCBA at cold temperature for an extended period of time.

20.2 Facepiece



WARNING

In order to avoid damage to or the deformation of the facepieces keep no additional loose objects in the facepiece container. Failure to follow this warning can result in serious injury or death.

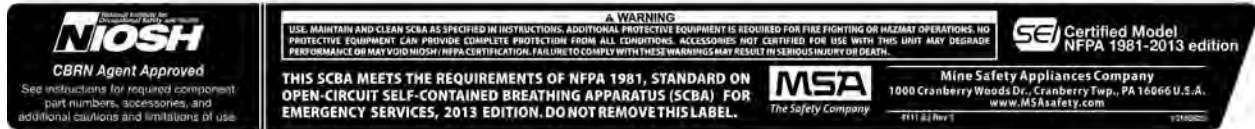
For the safekeeping of the facepiece, a facepiece pouch or container should be used.

MSA rubber products are protected by an anti-ageing agent that can become visible as a light coating. This coating is harmless and can be removed.

To ensure a long life of rubber components, follow ISO 2230 by storing them in a cool, dry place protected from ultraviolet radiation.

21 Product Labels

NFPA 1981 (SCBA)/CBRN



NFPA 1982 (PASS)/INTRINSIC SAFETY/FCC (Power Module)

With Telemetry

Without Telemetry



2216 Pressure



4500 Pressure



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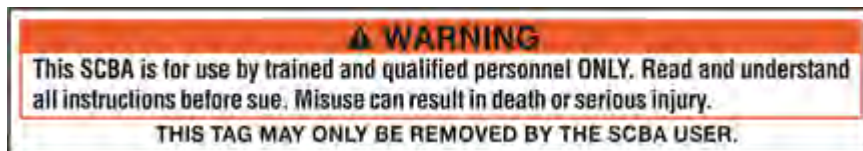
Facepiece



G1 Tag



User Removable PASS Warning (Battery Pack)



Battery pack

P/N 10148740

G1 Alkaline Battery Pack Model 7-2813-1


▲ WARNING / ADVERTENCIA / AVERTISSEMENT



THIS BATTERY PACK IS EXCLUSIVELY DESIGNED FOR INSTALLATION AS THE POWER SUPPLY FOR THE MSA G1 SCBA! TO PREVENT IGNITION OF FLAMMABLE OR COMBUSTIBLE ATMOSPHERES, READ, UNDERSTAND, AND ADHERE TO THE INSTRUCTIONS CONTAINED IN THE MANUAL BEFORE OPERATING! DO NOT REMOVE OR REPLACE THE BATTERY PACK FROM THE G1 SCBA IN A HAZARDOUS LOCATION! REPLACE CELLS ONLY WITH SIX CELLS OF THE FOLLOWING TYPES OF "C" SIZE ALKALINE CELLS IN A NONHAZARDOUS LOCATION:

ENERGIZER E93
 DURACELL PROCELL PC1400
 DURACELL MN1400
 PANASONIC INDUSTRIAL LR14XWA
 PANASONIC EVOLTA C-LR14
 INDUSTRIAL PANASONIC POWERLINE

SEE INSTRUCTIONS FOR ADDITIONAL APPROVED BATTERIES! DO NOT MIX OLD/NEW OR DIFFERENT TYPE BATTERIES! FAILURE TO FOLLOW THE ABOVE CAN RESULT IN SERIOUS INJURY OR DEATH!

LEER Y COMPRENDER LAS INSTRUCCIONES DE USO ANTES DE UTILIZAR EL PRODUCTO.
 COMPRENEZ LES INSTRUCTIONS À L'INTENTION DE L'UTILISATEUR AVANT USAGE.



 BVS 14 ATEX E 178 X / II 1G Ex ia IIC T4 Ga
 IECEx BVS 14.0120X / Ex ia IIC T4 Ga
 -30°C ≤ Ta ≤ +60°C 

Mine Safety Appliances Company
 1000 Cranberry Woods Dr., Cranberry Twp., PA 16066 U.S.A.
 www.MSAafety.com

PRODUCT OF U.S.



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22 MSA G1 SCBA Limited Warranty

MSA - The Safety Company (MSA) warrants MSA G1 SCBA (SCBA) to be free from defects in materials and/or faulty workmanship for a period of fifteen (15) years from the date of sale by MSA. This warranty applies to all components of the SCBA including all accessories and optional equipment purchased and supplied at the time of the original sale of the SCBA, except consumable parts, as defined by the terms of sale. MSA's obligation under this warranty is limited to the repair or replacement, at MSA's option, of the SCBA or components shown to be defective in either workmanship or materials.

No agent, employee or representative of MSA may bind MSA to any affirmation, representation or modification of the warranty concerning the goods sold under this contract. MSA makes no warranty concerning components or accessories not manufactured by MSA, but will pass on to the Purchaser all warranties of manufacturers of such components.

MSA shall be released from all obligations under this warranty in the event that repairs or modifications are made by persons other than its own or authorized service personnel, or if the warranty claim results from accident, alteration, misuse, or abuse.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED, IMPLIED, OR STATUTORY INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN ADDITION, MSA EXPRESSLY DISCLAIMS ANY LIABILITY FOR ECONOMIC, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES IN ANY WAY CONNECTED WITH THE SALE OR USE OF MSA PRODUCTS, INCLUDING, BUT NOT LIMITED TO, LOSS OF ANTICIPATED PROFITS.

For local MSA contacts, please visit us at [MSAafety.com](https://www.MSAafety.com)

Because every life has a **purpose...**