

Malux

COMPONENT MAINTENANCE MANUAL

SERIES 9100 DIGITAL INTERCOM SYSTEM

Table of Contents

CAUTIONS AND WARNINGS3
INTRODUCTION4
HEADSETS
Proper Fit and Adjustment 5 OTH Styles 5 BTH Styles 6 Microphone Adjustment 7 Volume Adjustment 8 Headset Connection / Disconnection 8 Replacing Ear Seals/OTH Styles 8 Replacing Ear Seals/BTH Styles 9 Replacing Microphones and Microphone Windscreen Kits 10 Headset Cleaning 11 Application of Corrosion Inhibitors 11 Protection of Electrical Contacts 11 Use of Cloth Covers (Ear Seals, Head Pad) 12
SYSTEM MODULES
Cleaning of Headset Stations and Wireless Gateways
WIRELESS BELT STATIONS
Cleaning, Environmental Protection
STORAGE CONSIDERATIONS (HEADSETS, WIRELESS BELT STATIONS)
Storage Environment

List of Figures

1)	Headset Donning, OTH Style	5
2)	Headset Donning, BTH Style	6
3)	Microphone, Proper Positioning	7
4)	Microphone Boom, Hinge Adjustment	7
5)	Connection to the Headset Station	8
6)	Ear Seal, Stretching and Partial Install	9
7)	Overhead Gasket, Temp. Position	9
8)	Microphone Removal; Windscreen Kit Install	.10
9)	OTH Head Pad, with Comfort Cover Installed	.12
10)	Comfort Cover, Installed on Ear Seal	.12
11)	Headset Station	.13
12)	Master Station	.14
13)	IP-67 Rated RJ-45 Connector, Field Termination Kit	.15
14)	Wireless Belt Station (without rubber skin)	.17
15)	Charging Unit, 4-Bay	.17
16)	Headset Restraint, as used with Headset and Wireless Belt Station	.19
17)	Headset Carry Case	.19

CAUTIONS AND WARNINGS

READ AND SAVE THESE INSTRUCTIONS. Follow the instructions in this installation manual. These instructions must be followed to avoid damage to this product and associated equipment. Product operation and reliability depends on proper usage.



DO NOT INSTALL ANY DAVID CLARK COMPANY PRODUCT THAT APPEARS DAMAGED. Upon unpacking your David Clark product, inspect the contents for shipping damage. If damage is apparent, immediately file a claim with the carrier and notify your David Clark product supplier.



ELECTRICAL HAZARD - Disconnect electrical power when making any internal adjustments or repairs. All repairs should be performed by a representative or authorized agent of the David Clark Company.



STATIC HAZARD - Static electricity can damage components. Therefore, be sure to ground yourself before opening or installing components.



LI-POLYMER - This product is used with Li-Polymer batteries. Do not incinerate, disassemble, short circuit, or expose the battery to high temperatures. Battery must be disposed of properly in accordance with local regulations.

INTRODUCTION

The Series 9100 Digital Intercom System was designed as a simple, versatile and user-friendly crew communication solution, and built to withstand the harshest environments in a multitude of real-world applications. The key to optimal, long-term performance of the system, however, lies with the user and their understanding and adherence to the proper use and care of the system as provided.

This Component Maintenance Manual is intended to provide the knowledge and guidance necessary to properly use and maintain the Series 9100 system components, and is written in the context of *marine installations*, as this represents the majority of likely applications, as well as the most susceptible to the widest array - and harshest - of environmental exposure.

The majority of usage information on the system itself is found in detail within the Series 9100 Operation/Installation Manual (doc. #19549P-31), to which this CMM is supplemental. The exception is where knowledge pertaining to the proper use and care of Headsets in general are concerned. To this end, this CMM begins with comprehensive information related to the Headset, being the most personal and immediately necessary component for each user, and also the most susceptible to misuse, abuse and exposure to the elements.

From there, the CMM covers the necessary maintenance information for the other system components that are subject to at least partial exposure to environmental stresses and neglect from lack of cleaning, from Headset Stations to Wireless Gateways and Belt Stations.

Also included is a brief section of the least exposed components of the system, namely the Master Station, its installed add-in cards and system cabling. Related information is largely redundant to other system components, and much less immediate given the protected nature of these components upon the majority of installs, and just about universal where it pertains to marine installations. The manual concludes with considerations related to Headset and Belt Station storage, including notes on battery management.

This CMM is not intended to replace otherwise related best practices in use and care of like components subject to harsh environments. It is meant solely as a baseline of practices relating a combination of tested methods and common sense. The regularity of these steps should be determined based on use and exposure, and a reasonable schedule be established and adhered to, so as to not let any environmental residue build up to the point of difficulty of removal.

Please consult DCCI (Customer Service phone #: 508-751-5800, email: service@davidclark.com) before using alternative materials, solvents, or otherwise questionable practices in the maintenance of Series 9100 system components.

HEADSETS

Proper Fit and Adjustment

Proper fit of your headset is critical to both its communication performance and noise attenuation effectiveness (latter is not applicable to single-ear models). Consult the instructions below for proper fit.

Over-The-Head Styles (H9130, H9180, H9190)

For models worn over-the-head, first open the headband adjustment all the way and fit the headset over your ears. Push the headband down until the headpad (headband) rests comfortably on top of your head. Move the earcups slightly up or down or from side to side until you feel you have maximum attenuation (See Figure 1)

STEP 1. STEP 2. Spread headset and put ears inside of domes. Earseal should not rest on any part of ear. Pull headband adjustment slides to maximum on both sides of dual ear headset, or dome side of single ear headset. STEP 4. STEP 3. Headpad should rest gently on the top center of head. Place thumbs on headset domes and gently slide headpad and headband down so headpad lightly touches top of head.

Figure 1: Headset Donning - OTH Style

Tightening of the locknuts where the headband spring meets the stirrup assemblies (or temple pad assembly for single ear model) will provide a more permanent fit for private issue headsets.

The use of eyeglasses/sunglasses will reduce the attenuation afforded by this device, due to noise leakage at the points where the temples of your glasses create a gap at the ear seals. Use of "Stop Gaps", P/N 12500G-02, on the frame of your glasses is an inexpensive and effective method of restoring a significant degree of such lost attenuation by reclosing these gaps.

Behind-The-Head Styles (H9140, H9141, H9140-HT)

For models worn behind-the-head, first separate the hook and pile sections of the overhead support assembly, spread the headband spring and fit the headset to your ears. Next, pull both sides of overhead support strap up until weight of the headset is not resting on the top of your ears, and lock the hook and pile fasteners on the straps together (see Figure 2)

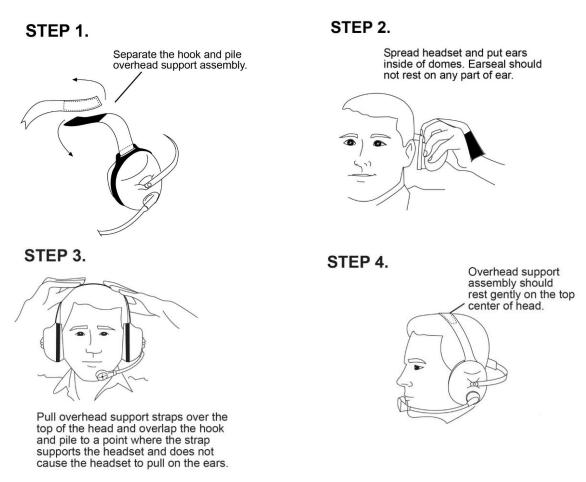


Figure 2: Headset Donning - BTH Style Microphone Adjustment

Microphone Adjustment

Microphone booms on Series 9100 Headsets are hybrid style, in that the lower half is a hinged wire type (where it meets the ear cup), mated to a bendable flex boom (terminates in the microphone bracket).

On over-the-head style Headsets, microphone booms can be rotated 280°, so as to be worn on either the user's left or right side. The same is true on behind-the head styles as well, though on these models the additional action of rotating the headband spring 180° over the top of each dome stop is necessary to change the left/right orientation of the mic boom.

For optimum mic performance, the microphone must not only pick up the user's speech but also cancel background noise. To achieve this, the microphone should be positioned zero to 1/8" away from the user's lips at the corner of the mouth for the best signal to noise ratio and maximum noise cancellation (see Figure 3)



Figure 3: Microphone, Proper Position

To help position the mic, the wire end of the mic boom is adjustable in/out of the boom guide kit as installed on the ear cup. Additionally, the hinge where the wire meets the flex boom section will swivel the mic bracket in towards the user's mouth. Use both of these adjustment points to achieve an optimal mic position; tightening the screws on these pivot points on private-issue headsets will better facilitate ease of positioning with repeated use (see Figure 4)





Figure 4: Microphone Boom, Hinge Adjustment

Volume Adjustment

Each ear is equipped with a rotating volume control knob, wired independently *(dual-ear models.)* Adjust each knob accordingly for the volume in each individual ear (Note: see User Manual P/N 19602P-31 for volume adjustments on Model H9140-HT headset)

Headset Connection/Disconnection

Connecting a headset to a powered headset station or wireless belt station will automatically power all headset electrical features, and disconnection from same will disable these features. The push-pull connector allows for one-handed insertion and removal (see Figure 5.)

To connect to a headset station or wireless belt station, insert the tip of the connector barrel into the mating connector and twist while inserting gently until you feel the keyway engage. Matching red dots are also present on both connector mates as a visual guide; aligning these dots will also help locate the keyway. Push into the keyway until an audible "click" confirms a locked mating of both connectors.

To disconnect, simply grab the knurled back-shell of the headset connector between thumb and forefinger, and pull directly backward assertively until the locking mechanism disengages and the plug is easily removed from the receptacle.

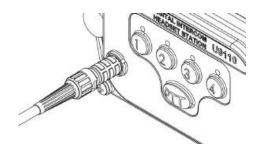


Figure 5: Connection to Headset Station

Replacing Ear Seals

Over-The-Head Styles (H9130, H9180, H9190)

- 1.) Remove old ear seals by pulling off of each ear cup.
- Hook 2 or 3 fingers into the inner lip of each side of the ear seal (top and bottom of oval shape), and tug firmly apart for 10 seconds or so, to temporarily stretch the lip overall
- 3.) Install top half of ear seal inner lip oval only on top half of ear cup ridge, align flat portions of ear seal lip and ear cup ridge in parallel fashion, then hold ear seal firmly in place (see Figure 6)

- 4.) Pull opposite half of ear seal over the opposite curve in the ear cup ridge, until inner lip of ear seal is stretched completely over the ridge on both ends, then release and repeat steps 2 through 4 on the opposite side of the headset.
- 5.) Ensure all inner headset filters are installed appropriately.

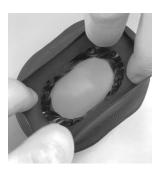




Figure 6: Ear Seal, Stretching and Partial Install

Behind-The-Head Styles (H9140, H9141, H9140-HT)

- 1.) Remove old ear seals by pulling off of each ear cup.
- 2.) Stretch gaskets from overhead support assembly over each ear cup, leaving them stretched and resting on ear cup temporarily (see Figure 7)
- 3.) Repeat steps 2 through 5 from the Over-The-Head instructions above
- 4.) Pull gaskets from overhead support assembly back into position behind the installed ear seals
- 5.) Ensure all inner headset filters are installed appropriately.



Figure 7: Overhead Gasket, Temp. Position

Replacing Microphones and Microphone Windscreen Kits

Both the Series 9100 Microphones (Model M-2H, P/N 09168P-76) and variants of their respective Windscreen Kits (stock kit P/N 41090G-23; High Wind Mic Cover Kit P/N 41090G-24) are immersion-proof assemblies, and for hygiene purposes each can be either cleaned with mild soap and water, as well as wiped down with commercial alcohol wipes (such as 70% isopropyl) to kill germs. To completely replace the windscreen kit and microphone, follow instructions below:

- To remove a mic windscreen kit, first cut the zip tie at the ratchet mechanism, or "pawl", with a pair of flush cut pliers to unlock the cloth mic cover from the boom bracket.
- 2.) Remove cloth cover and foam windscreen from microphone
- 3.) **To remove the M-2H microphone**, simply grab the top and bottom of the microphone firmly between your thumb and forefinger, and pull out assertively from the boom bracket. **Do not use pliers, as this can cause damage to the microphone** (see Figure 8)
- 4.) **To insert a new microphone**, align the notched sides of the mic and the boom bracket, and push the mic assertively into the socket until it clicks into place.
- 5.) To install a new mic windscreen kit, with microphone installed, fit the foam windscreen completely over the microphone (note: if a high-wind mic cover kit, fit concentric foam screens over the microphone) (see Figure 8)
- 6.) Next, fit the cloth microphone cover completely over the foam until the zip tie aligns with the vertical notch in the boom bracket.
- 7.) Then secure the zip tie within the notch, pull until ratcheted tight against the boom, and cut as much excess as possible with a pair of flush cut pliers (Note: if a sharp edge remains, sand slightly to remove the edge.)
- 8.) See Install Sheet, P/N 19549P-84, for instructions of replacing windscreen assemblies for Hear Through microphones on Headset Model H9140-HT.

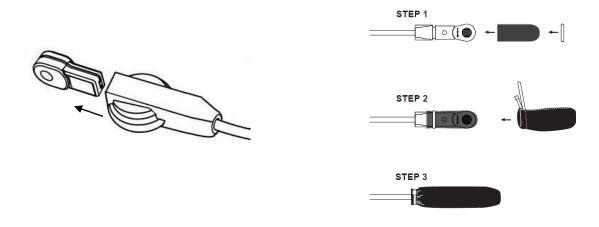


Figure 8: Microphone Removal; Windscreen Kit Install

Proper Cleaning and Application of Corrosion Inhibitors

The user's Headset, in most cases, is the most exposed component of the Digital Intercom System. Exposure to elements such as salt fog, water and wind-driven particles will work to wear away or corrode any type of marine-grade steel, even stainless steel or aluminum.

Fortunately, simple periodic cleaning and appropriate care of the headsets' hardware and connector will mitigate the corrosive effects of such exposure and ensure the unit remains in operational condition.

Headset Cleaning

- 1.) Inspect the headset for debris or salt build-up, in particular on the headband spring and/or suspension assembly, microphone boom, all fastening hardware and the communication connector.
- 2.) Brush away any debris or salt build-up with a nylon/synthetic bristled utility brush
- 3.) The entire headset and its components can then effectively be cleaned with a mixture of water and mild soap, such as a liquid dish detergent, using a clean cloth.
- 4.) For hygiene purposes when sharing headsets, head pads, overhead support straps and ear seals, as well as microphone covers, can be wiped down with commercial alcohol wipes (such as 70% isopropyl) to kill germs.

Application of Corrosion Inhibitors

The use of appropriate corrosion inhibitors will keep hardware and connectors from seizing due to salt and debris build-up, and proper application on a regular basis should effectively inhibit corrosive rust and oxidation.

Corrosion inhibitors should be applied after thoroughly cleaning the headset. Suitable products, such as Corrosion-X or Boeshield T-9 have been vigorously tested by DCCI and proven to be effective in inhibiting corrosion when properly applied.

Always follow all of the manufacturer's instructions when applying corrosion inhibitors, particularly where personal safety is involved (i.e., eye and respiratory protection,) and appropriately mask any non-steel components or items not intended for application, such as microphones, ear cups and seals and head pads.

Protection of Electrical Contacts

Finally, to ensure the integrity of all electrical contacts where the headset connector is mated, apply an appropriate measure of dielectric grease to the contact pins of the connector. This will ensure proper connection while insulating the contacts from environmental exposure.

Initiating a regular maintenance schedule that provides attention to these areas, while taking into consideration the duration and degrees of exposure to harsh, corrosive environments, will prove invaluable in preserving the reliable performance of your equipment.

Use of Cloth Covers for Head Pads (OTH models) and Ear Seals

Further hygiene measures can be applied for OTH style head pads (cloth comfort cover for OTH head pad, P/N 18981G-01 (*see Figure 9*) and for ear seals cloth cover, pair, P/N 22658G-01). These soft, cotton covers are washable with mild soap and water, and work to keep the user comfortably protected from "hot spots" and help to reduce perspiration.

Particularly when used in marine environments, users should ensure these covers are washed on a very regular basis. Further, it should be noted that cloth covers as used on ear seals (see Figure 10) can have a slightly negative impact on the headsets overall noise attenuation.



Figure 9: OTH Head Pad, with Comfort Cover Installed



Figure 10: Comfort Cover, Installed on Ear Seal

SYSTEM MODULES

Cleaning of Headset Stations and Wireless Gateways

Such as with headsets, exposure of system components to salt fog, water and wind-driven particles will work to war away or corrode any type of marine-grade materials, including stainless steel or aluminum.

With simple, periodic cleaning and appropriate care of surfaces, controls and exposed connectors, the corrosive effects of such exposure will be effectively mitigated and continual, reliable system performance will be ensured.

Headset Connector

Depending on the angle of installation and how often headsets are connected and disconnected from the headset station, an open headset connector could be subject to pooling of water if not consistently protected with a properly secured dust cap. Should a dust cap be missing or recently broken off of its tether, contact your David Clark reseller to discuss replacing this cap immediately (see Figure 11)

Even properly protected, the connector will be subject to water exposure eventually, putting the individual conductors at risk of tarnish or premature corrosion. A common and effective step to mitigate the effects of water exposure is a periodic thin application of **dielectric grease** to the contacts.

First, visually inspect both mating connectors for any dirt, dust or built up residue, blow away said residue with compressed air and/or clean with a swab suitable for the purpose, then apply (or reapply) a fresh, clean, thin coating of dielectric grease to the contacts.

Next, the exterior of the connector should be wiped down with a clean cloth. Connector exteriors can be further protected from corrosion by applying a suitable corrosion inhibitor such as Corrosion-X, Boeshield T-9 or a similar product. This can be carefully applied thus by spraying onto a swab suitable for the purpose, which can then coat the exterior steel surface of the connector without over-spraying or pooling in the connector's interior. Always re-secure the dust cap after application.

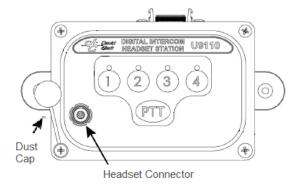


Figure 11: Headset Station

Module Surfaces

With headset connector dust caps firmly in place and network connectors fully secured with IP-rated connector housings, all exposed surfaces of Headset Stations and Wireless Gateways can be wiped down with a clean cloth and washed with a mild soap and water mixture. Liquid dish detergents are good examples of mild soaps that do not leave a residue when rinsed away with water.

Periodic application of a suitable UV protectant such as Marine 31, various 303 products, or standard Armor All protectants onto the surface of the enclosure and keypads will not only clear surface dust and debris but will protect these materials against harmful UV rays. Always follow the manufacturers recommended instructions and guidelines, but in general such protectants should be applied with a clean cloth and allowed to penetrate the surface before wiping clear.

Master Station

Where Master Stations in the vast majority of marine applications are installed in environmentally protected areas, and system aspects such as cable connections and disassembly for removal or installation of add-in cards are rarely - if ever - needed, regular cleaning and maintenance methods described elsewhere in this manual for connectors, surfaces, etc., should not be an on-going concern. Of course, wherever evidence of dust, debris or water exposure should be found on the Master Station, cleaning and basic maintenance may be called for (see Figure 12)

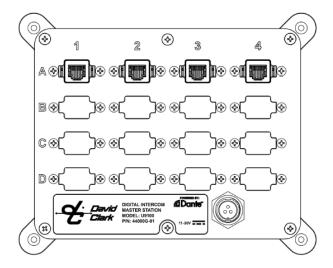


Figure 12: Master Station

In such instances, first disconnect the power cable and all network, radio and auxiliary cables from the Master Station lid. Next, temporarily remove the Master Station from its mounted location. Then, using compressed air, blow out any evidence of dust or debris from all connectors and crevices on the Master Station lid while holding the unit with the lid and a downward angle allowing said debris to fall completely from the unit.

The unit lid can then be wiped down carefully with a mild soap and moistened swab, avoiding any moisture to enter the well of any connector, and carefully dried. The remainder of the enclosure can also be cleaned with soap and water, where needed. Once dry, the Master Station can be re-secured to its original mounted position and all previous cables reconnected as prior.

Disconnection/Connection, Maintenance of Power Cable

The C91-20PW Power Cable attaches to the Master Station with a 3-pin twist-lock type connector. To disconnect, grasp the collar on the connector and turn counter-clockwise slightly until you feel the locking mechanism disengage, then pull back to disengage. To re-connect to the Master Station, align keyways and push, then firmly turn the collar clockwise until it locks into place. Pull back gently on the cable to ensure the connector is properly locked.

Where necessary, the cable jacket can be washed with mild soap and water on a clean cloth, and the power connector can be cleaned through the use of compressed air to remove any debris from the collar area and/or the well of the connector. A slight application of dielectric grease may be carefully applied to the connector pins, if needed.

Disconnection/Connection, Maintenance of IP-Protected Network Cables

Network cables with installed IP-68 connector assemblies attach to the Master Station switch card mate by use of the dual locking-tab scheme inherent on both the cable connectors and the mating jacks on the Master Station. To disconnect IP-protected network cables from their mated modules (Master Station, Headset Station, Wireless Gateway), first push the connector in towards the module slightly but assertively, then squeeze both tabs in towards the connector shell to clear their locking mates on the module, then, while squeezing the tabs, pull the connector straight out of its mate.

To re-connect to the module's mating jack, align the conductor end of the RJ-45 connector with the proper side of its mate and push the connector/shell assembly straight into its mate, without touching the locking tabs, until the tabs lock into place (see Figure 13)

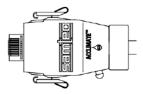


Figure 13: IP-67 Rated RJ-45 Connector, Field Termination Kit

Where necessary, the cable jacket can be washed with mild soap and water on a clean cloth and the connector assemblies can be cleaned through the use of compressed air to remove any debris from the collar area and/or the well of the connector.

Disconnection/Connection of Radio and Auxiliary Cables

The C91-20RD Radio Interface Cable and C91-20AX Auxiliary Cable both attach to their mating connector on the Radio or Radio/Aux Cards as installed on the Master Station with a quick-disconnect type connector. To disconnect the C91-20RD or C91-20AX from the U9100 Master Station end, grasp the collar on the connector and pull back to disengage.

To re-connect to the U9100 Master Station, align keyways and push until it locks into place. Pull back gently on the cable to ensure the connector is properly locked. Radio and/or auxiliary cable ends terminating in non-David Clark audio accessories (i.e., two-way radios, recorders, etc.) should not require disconnection after installation unless it is to replace the accessory unit, and therefore should not require maintenance or cleaning.

Where necessary, the cable jacket can be washed with mild soap and water on a clean cloth and the connector can be cleaned through the use of compressed air to remove any debris from the collar area and/or the well of the connector. A slight application of dielectric grease may be carefully applied to the connector pins, if needed.

WIRELESS BELT STATIONS

Cleaning, Environmental Protection

The periodic cleaning and maintenance of the Wireless Belt Station will similarly ensure the reliability and longevity of the unit. To thoroughly clean a wireless belt station, first remove the rubber exterior skin from the enclosure. The skin can be washed down with soap and water, either wiped dry with a clean cloth or air dried, and set aside.

Next, follow the earlier recommendations for cleaning and protecting the mating headset connector through the application of dielectric grease.

Similar care in cleaning and protection should then be applied to the battery compartment. Open the battery door and visually inspect the thumb-screw fastener, threads and washer stack on both sides of the door for any dirt, dust or built up residue, blow away said residue from the fastener assembly and complete interior of the battery compartment with compressed air and/or a nylon brush suitable for the purpose, then wipe away any remaining residue with a clean cloth and/or a suitable swab. Finally, apply (or reapply) a fresh, clean, thin coating of dielectric grease to the battery contacts and securely close the battery door.

With the dust cap secured to the headset connector and battery door closed, the entirety of the wireless belt station surfaces, including the Link/PTT switch, Power/Selection Button and belt clip assembly, can be washed with a mild soap and water (see Figure 14)

After drying the unit, the rubber protective skin can be reinstalled on the unit. UV protectant is not recommended for this assembly only due to its tendency to make the surface of the unit

slick to the touch. Proper storage of the unit after use will effectively protect the belt station from harmful UV rays.

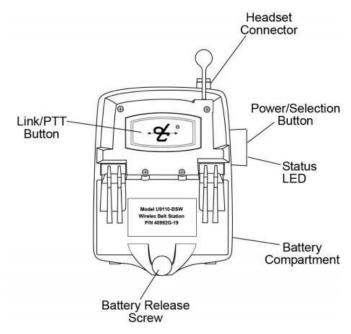


Figure 14: Wireless Belt Station (without rubber skin)

Battery Management

Wireless Belt Stations are powered by Lithium Ion rechargeable batteries (P/N 40688G-90). A relatively new battery within its warranty term (1 year from purchase, 2 years from date code on the battery label) should nominally provide 24 hours of continual use on a charge and will recharge from a fully depleted state within roughly a few hours with the use of the 4-Bay Charging Unit (Model # A99-14CRG, see Figure 15)

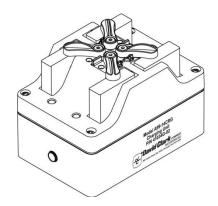


Figure 15: Charging Unit, 4-Bay

Charging Units are not rated for marine use and as such, measures should be taken to fully and completely protect charging units from the elements or else should only be deployed on shore in an office environment.

Charging Units should be periodically inspected for debris or residue inside the battery compartments and/or on the charging terminals. Caution should be exercised not to compromise the protective plating on the battery terminal through use of abrasive methods of cleaning. Use isopropyl alcohol and/or contact cleaner on a cloth or swab to remove any tarnish or evidence of oxidation from the battery terminals, then use compressed air while holding the unit at a downward angle to remove any loose dirt or debris from these compartments.

There are many factors that can affect the useful life of Lithium batteries including but not limited to extremes of heat or cold (operation or storage conditions), exposure to water or corrosive environments or chemicals, state of charge prior to storage, and/or age of battery prior to use.

Prior to use (either in wireless belt station or in charging unit), ensure that no dirt, debris, or degree of oxidation/corrosion is present on the charging terminals. If present, clean appropriately and/or remove oxidation with contact cleaner or isopropyl alcohol on a cloth or swab.

A battery that displays swelling is a normal indication of the end of that battery's useful life, at which time the battery should be discarded appropriately (they are considered non-hazardous waste and safe for normal municipal waste disposal, but are also acceptable through battery recycling programs...all local laws and rules should be adhered to.)

For complete information necessary to enact an appropriate battery management plan, please refer to the batteries Material Safety Data Sheet, available as a downloadable pdf at http://www.davidclarkcompany.com/files/literature/MSDS,%20Varta%20EZ%20Pack.pdf

STORAGE CONSIDERATIONS (HEADSETS, WIRELESS BELT STATIONS)

Storage Environment

Headsets and Wireless Belt Stations, during operations but when intermittent in use, can be hung up with the use of a Headset Restraint, Quick Release (P/N: 43200G-01, see Figure 16). Installing Headset Restraints in an elevated position above/behind/close to each Headset position will provide a simple, secure method of keeping each Headset/Wireless Belt Station off of the deck or users seat, also keeping these units dry and out of the way.



Figure 16: Headset Restraint, as used with Headset and Wireless Belt Station

David Clark also offers a Headset Carry Case (P/N 40688G-08, see Figure 17) suitable to store a single 9100 Series Headset, as well as a single Wireless Belt Station, when not in operation. Keeping the Headset and/or Wireless Belt Station in a fully-zipped Carry Case after each use will significantly improve the environmental protection of these items, provided they are, in turn, to be stored in an area onboard the vessel protected from water and direct sunlight.



Figure 17: Headset Carry Case

Regardless of whether or not a carry case is used, Headsets and Wireless Belt Stations should be stored in a dry, temperate environment. To further protect against moisture, appropriate desiccants should be used where storage is to be onboard a vessel (e.g., silicone pouch inside a carry case.) Headsets should also be stored out of direct sunlight to avoid unnecessary degradation of comfort accessories (head pads, ear seals.)

When Wireless Belt Stations are to be stored in temperature extremes (hot or cold, not recommended), care should be taken to remove the battery and either charge or store in a dry, temperate environment appropriate for battery charging (see "Battery Management".)

Other Considerations

Intermittent performance of the Series 9100 Digital Intercom System can be symptomatic of several factors not indicative of broken or defective product, such as loose cable connections, improper mic positioning or inadvertent setting during programming of the system itself. Prior to sending any units in to David Clark for service inspection, please refer to the Troubleshooting steps in the main Installation/Operation Manual (doc. # 19549P-31), and/or call David Clark Customer Service at 508-751-5800 for technical assistance.

Repairs/Customer Service

If problems persist after troubleshooting, suspect products should be sent in to David Clark Customer Service for repair inspection. To do so, please ship to the following:

David Clark Company Inc. 360 Franklin Street ATTN: CUSTOMER SERVICE Worcester, MA 01604 USA PH# 508-751-5800

Email: service@DavidClark.com

Within the package, please include a note with the following:

- 1. Primary Contact Name
- 2. Return Shipping Address
- 3. Telephone Number/Email Address for Primary Contact
- 4. Brief Description of the Issue

We will make a complete evaluation of the unit and do our best to have it back in service as soon as possible. For any non-warranty issues, we will contact you with a repair estimate and will require authorization along with pre-payment before repair work is completed and the unit is returned.