



THE SOUND OF SAFETY

USER MANUAL

Argonaut™ IC2

Industrial Communication and
Double Hearing Protection System

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Description

The Argonaut™ IC2 is Aegisound's industrial communication, double hearing protection system, designed for ambient noise fields above 105 dB.

The Argonaut™ IC2 integrates with many commonly used radios via the accessories connector specific to the radio manufacturer and model.

Some Argonaut™ IC2 versions are available with UL913 Intrinsically Safe Entity certification.

Contact Aegisound or visit **www.aegisound.com** for specific information on available radio interfaces and options.

Features

- Integrated double hearing protection
- Excellent 2-way communications capability in noise fields up to and exceeding 120 dB
- The Argonaut™ IC2 utilizes power from the radio (matching connector interface required), no external battery required

Before Proceeding

Always evaluate the adequacy of your protective gear before entering hazardous environments.

The wearer should ensure that:

- The headset and earplugs are fitted and maintained in accordance with the manufacturer's instructions. Improper fit of this device will reduce its effectiveness in attenuating noise. Consult the included instructions for proper fit.
- The headset and earplugs have been inspected for serviceability.
- The headset and earplugs are worn at all times in noisy surroundings.

The use of any hearing protective device will not guarantee adequate protection for hearing loss for all persons under all circumstances. Consult your physician frequently when being exposed to high noise levels. If exposure to high noise levels occurs during employment activities, consult your employer regularly as well.

US Federal Law requires the following additional statements:

The level of noise entering a person's ear, when hearing protector is worn as directed, is closely approximated by the difference between the A-weighted environmental noise level and the NRR.

Example:

1. The environmental noise level as measured at the ear is 92 dBA.
2. The NRR is 35 decibels (dB).
3. The level of noise entering the ear is approximately equal to 57 dB(A).

Caution: For noise environments dominated by frequencies below 500 Hz the C-weighted environmental noise level should be used.

Although hearing protectors can be recommended for protection against the harmful effects of impulsive noise, the Noise Reduction Rating (NRR) is based on the attenuation of continuous noise and may not be an accurate indicator of the protection attainable against impulsive noise such as gunfire.

Basic Operation

Attachment to Radio

The configuration of the connector attachment to the specific radio being used will differ depending on the manufacturer and model of radio. See the User's manual for the particular radio being used for attachment instructions.



Typical radio attachment

Earplug Attachment



Insert the 3.5 mm plug of the stereo communications earplugs into the mating receptacle located on the microphone

Fitting Earplugs

See Aegisound Stereo Communication Earplugs user manual for compatible eartip options and fitting instructions. As applicable, also refer to Aegisound's LPCCE and FCCCE user manuals for custom earplug fitting instructions.

Donning Headset



Don headset by pulling outward on earcups and lowering over the ears (earplugs not shown)

Headset may be adjusted by separating the Hook and Loop fastener that goes over the top of the head and adjusting the length such that the headset fits comfortably on the head



For best performance, adjust position of microphone as close to the mouth as possible

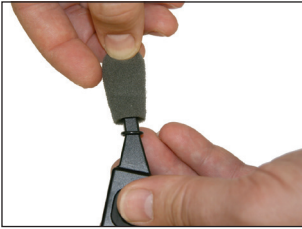


With the radio powered on, press the Push to Talk Button to transmit voice over the radio. Adjust the radio per the radio instruction manual



Double hearing protection should be worn at all times in high noise environments. Single hearing protection is only acceptable in moderate to low noise environments.

Windguard Replacement



Push o-ring securing old windguard off windguard. After removing old windguard pull o-ring off boom



Slip new windguard into position on boom (alternate: slip o-ring over windguard about ½ way down and work o-ring and wind guard into position. This method does risk tearing of the wind guard)



O-ring may be applied over the windguard using a mandrel to aid installation. A 3/8 inch socket is shown here, used as an application tool

Earseal Replacement



To remove old earseal, pull the earseal away from cup over the flanged lip of the cup



To install the new earseal, stretch the flap of the earseal slightly over the flanged lip of the cup

Troubleshooting

The following table provides some suggestions for troubleshooting the Argonaut™ IC2 if it does not seem to be operating as expected:

Symptom	Recommendation
Cannot hear incoming audio	<ul style="list-style-type: none">• Check radio and radio volume level• Check radio battery charge• Ensure all connections are properly made• Ensure power to the radio is ON• Ensure earplugs are properly inserted in the ear
People cannot hear me talking	<ul style="list-style-type: none">• Make sure you are pressing the PTT button to talk• Check battery charge on radio• Ensure all connections are properly made• Ensure power to your radio is ON• Adjust microphone closer to the mouth
Audio is present in only one ear	<ul style="list-style-type: none">• Verify 3.5 mm connector is clean and fully inserted• There is likely a problem with one of your earplugs - contact the manufacturer

Replacement Parts

To reorder parts or to order replacement parts, please contact Aegisound at **(866) 951-1027** or visit our website at **www.aegisound.com**.

Please refer to the following part numbers when ordering:

Part Number	Description
Contact Aegisound for radio specific configuration	Argonaut™ IC2 Headset
05-016009	Triple Flange Earplug Tips - Short
05-016019	Comply Foam Eartips, Mixed Size
05-016023	Comply Foam Tips - Slim Size (Box of 100 Pair)
05-016024	Comply Foam Tips - Standard Size (Box of 100 Pair)
05-016020	Set of LPCCE Earplugs
05-016032	Set of FCCCE Earplugs
05-016040	4 FT Communication Earplug Assembly
05-016041	2 FT Communication Earplug Assembly
05-016030	Communication Earplug Kit, 2 FT
05-016043	Communication Earplug Kit, 4 FT
05-999001	Replacement Earseal Kit
05-999002	Aegisound Ear Gel
05-999003	Replacement Windguard Kit

Intrinsically Safe (IS) Rating

If labeled with an IS sticker, the Argonaut IC2 System (comprised of communication microphone, headset, communication earplugs, and associated cables) when properly used, is approved as Intrinsically Safe (IS) and is compliant with UL 913 Class I, Division 1, Group D.

Unauthorized modification of the Argonaut IC2 or its accessories can negate the IS approvals for this product.

Intrinsically Safe Approval labels are attached to the Argonaut IC2 circumaural protector to identify the unit is approved for hazardous locations.

The product label specifies the hazardous Class/Division/Group along with other required information.

High-noise hearing protection and communication products must ship from the Aegisound manufacturing facility with the hazardous atmosphere compatibility and the intrinsic safety approval labeling. High-noise hearing protection and communication products cannot be upgraded to this capability and labeled once they have been shipped to the field.

IS Rating *(Continued)*

- Do not operate high-noise hearing protection and communication products in hazardous environments unless it is a type especially qualified and labeled for such use. An explosion or fire may result.
- Do not operate an IS approved product in a hazardous atmosphere if it has been physically damaged (e.g., cracked housing). An explosion or fire may result.
- Do not disassemble an Argonaut IC2 unit in any way that exposes the internal electrical circuits of the unit.

Use of any unapproved combination of the Argonaut IC2 high-noise hearing protection and communication product, with approved or unapproved radios, and/or accessories may negate the IS approval and the Argonaut IC2 may not be Intrinsically Safe for that configuration. Refer to the Control Drawing for the specific version of Argonaut IC2 for additional information regarding system compatibility.

Warning



Custom earplugs are custom made to fit your ear. They will not work for anyone else's ear. Attempting to use custom earplugs that are not your own, may result in damage to the ear canal.



Never remove earplugs or headset while in high noise environments.



Failure to comply with general safety precautions violates the safety intent of this product and may result in bodily harm or damage to the product. Aegisound claims no liability for damage or injury resulting from a failure to comply with the safety precautions outlined in this manual.



Always wear both the headset and earplugs when in high noise environments.



Generic Triple Flange and Foam eartips should be disposed of and replaced when they become soiled.

Caution



Inserting or removing earplugs too quickly may result in air pressure or suction against the eardrum causing temporary pain. Earplugs should be inserted or removed slowly with a twisting motion to prevent excess pressure buildup. Gently moving the earplug while opening the jaw fully may remove excess pressure buildup.



Prolonged use of earplugs (exceeding several hours) may result in temporary soreness near the ear canal. Use of custom earplugs may reduce the risk of this irritation when compared to expandable foam type plugs. The use of earplugs may require a “break-in” period to accustom the ear canal to the presence of the earplug.



In order to ensure maximum performance, your ear canal should be clean and free of excess ear wax and debris before inserting ear plugs. Long term usage of earplugs could result in the buildup of ear wax within the ear. In the event that ear wax or debris becomes impacted in your ear canal, seek medical consultation.



When not in use, store earplugs in earcups. Surfaces that have been dyed should be avoided to prevent the possibility of having the dye transfer onto your earplugs. Plug surfaces should remain clean and free of other contaminants that could cause irritation of the ear canal such as sand and grit.



Custom earplugs should be cleaned periodically with warm, soapy water to prevent buildup of dirt and bacteria. Ear inflammation, otitis externa, or infection could result from the use of dirty earplugs. In the event of pain or discharge from the ear canal, seek medical consultation.



Aegisound custom fit earplugs are made from an immunologically inert material and allergic reactions would be rare. In the event an allergic reaction is suspected, discontinue use and seek medical consultation.



Do NOT hang or swing headset by earplugs or cables.

Argonaut IC2 with Compy Foam Earplugs tested to ANSI S3.19-1974

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000
Mean (dB)	40.7	40.8	47.9	45.8	45.3	49.7	51.3	50.5	50.8
Stand. Dev. (dB)	5.3	4.9	4.3	4.4	3.6	5.1	4.5	4.0	5.6
Mean-2SD (dB)	30.1	31.0	39.3	37.0	38.1	39.5	42.3	42.5	39.6

**Noise
Reduction
Rating**

36 DECIBELS

(WHEN USED AS DIRECTED)

THE RANGE OF NOISE REDUCTION RATINGS FOR EXISTING
HEARING PROTECTORS IS APPROXIMATELY 0 TO 30
(HIGHER NUMBERS DENOTE GREATER EFFECTIVENESS).

Aegisound
Christiansburg, Virginia

Argonaut IC2 with
Compy Foam Earplugs

Federal law prohibits
removal of this label
prior to purchase



Label Required by U.S. EPA
regulation 40 CFR part 211,
subpart B

Argonaut IC2 with Triple Flange Earplugs tested to ANSI S3.19-1974

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000
Mean (dB)	35.1	35.3	41.8	42.6	44.8	49.9	52.2	49.5	51.0
Stand. Dev. (dB)	6.3	5.2	5.6	5.7	5.7	5.5	5.6	4.6	5.1
Mean-2SD (dB)	22.5	24.9	30.6	31.2	33.4	38.9	41.0	40.3	40.8

**Noise
Reduction
Rating**

31 DECIBELS

(WHEN USED AS DIRECTED)

THE RANGE OF NOISE REDUCTION RATINGS FOR EXISTING
HEARING PROTECTORS IS APPROXIMATELY 0 TO 30
(HIGHER NUMBERS DENOTE GREATER EFFECTIVENESS).

Aegisound
Christiansburg, Virginia

Argonaut IC2 with
Triple Flange Earplugs

Federal law prohibits
removal of this label
prior to purchase



Label Required by U.S. EPA
regulation 40 CFR part 211,
subpart B

Argonaut IC2 with LPCCE Earplugs tested to ANSI S3.19-1974

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000
Mean (dB)	33.9	37.7	44.8	43.0	41.5	49.6	52.2	49.6	48.8
Stand. Dev. (dB)	4.6	2.9	4.0	3.7	3.3	3.9	4.1	3.3	4.3
Mean-2SD (dB)	24.7	31.9	36.8	35.6	34.9	41.8	44.0	43.0	40.2

Noise Reduction Rating


35 DECIBELS
(WHEN USED AS DIRECTED)

THE RANGE OF NOISE REDUCTION RATINGS FOR EXISTING HEARING PROTECTORS IS APPROXIMATELY 0 TO 30 (HIGHER NUMBERS DENOTE GREATER EFFECTIVENESS).

Aegisound
Christiansburg, Virginia

Argonaut IC2 with
LPCCE Earplugs

Federal law prohibits removal of this label prior to purchase

 EPA

Label Required by U.S. EPA regulation 40 CFR part 211, subpart B

Argonaut IC2 with FCCCE Earplugs tested to ANSI S3.19-1974

Frequency (Hz)	125	250	500	1000	2000	3150	4000	6300	8000
Mean (dB)	33.4	38.3	45.3	42.4	45.5	50.9	50.7	51.2	50.9
Stand. Dev. (dB)	4.7	4.5	3.6	3.8	3.1	5.2	5.6	6.0	6.0
Mean-2SD (dB)	24.0	29.3	38.1	34.8	39.3	40.5	39.5	39.2	38.9

Noise Reduction Rating


35 DECIBELS
(WHEN USED AS DIRECTED)

THE RANGE OF NOISE REDUCTION RATINGS FOR EXISTING HEARING PROTECTORS IS APPROXIMATELY 0 TO 30 (HIGHER NUMBERS DENOTE GREATER EFFECTIVENESS).

Aegisound
Christiansburg, Virginia

Argonaut IC2 with
FCCCE Earplugs

Federal law prohibits removal of this label prior to purchase

 EPA

Label Required by U.S. EPA regulation 40 CFR part 211, subpart B



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US Patents 6,963,649, 7,248,708 and 7,245,726