AN-1000HC (for helicopter)

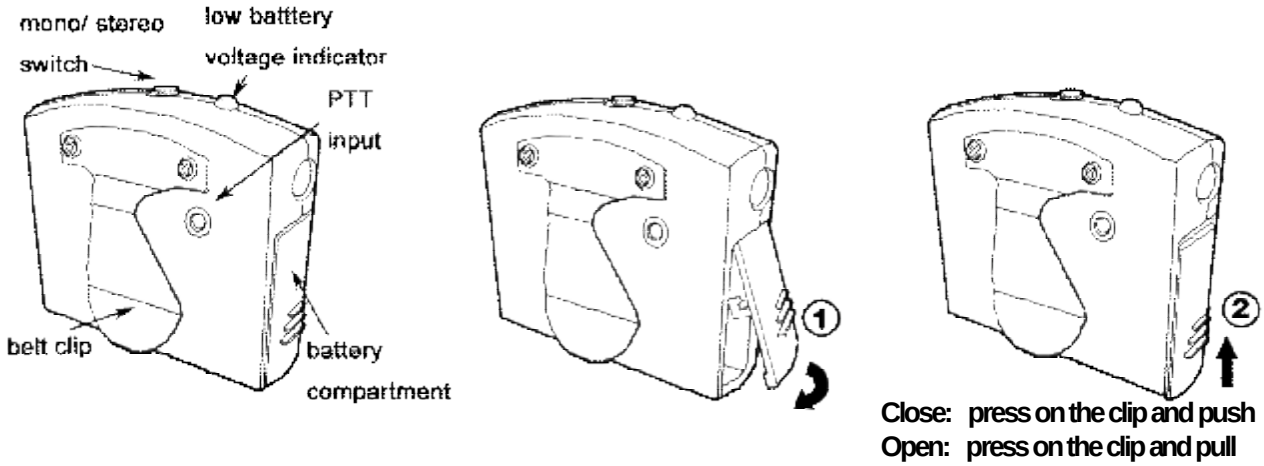
ANR AVIATION HEADSET

The Active Noise Reduction Pilot Headset is a headset that can isolate, offset and cancel noises. In comparison with conventional headsets, it can, under noisy circumstances, provide a quieter and more comfortable sensation, by reducing background noise. Therefore, make it possible to improve the telecommunication quality and articulation, resulting in a higher operation safety factor. The noise cancelling circuitry reduces outside noise considerably more than a standard headset, making it more comfortable for the pilot in the aircraft.

HEADSET OPERATION

1. Rotate the spring tension boom overhead to wear the microphone on either the right or left side of the head.
2. Rotate the headset volume control (on the side of the headset opposite the microphone boom) fully counter-clockwise to the minimum position. before the headset plug is inserted into the aircraft or intercom
3. With the headband resting securely on the top of the head, check that the earseal are centered over the ears.
4. For best noise cancellation, position the microphone 0-6 mm from your lips.
5. Insert the plug (U174/U) into the aircraft or intercom jack.
6. Volume Adjustment Procedure
   Rotate the headset volume knob clockwise to a comfortable level.

BATTERY MODULE OPERATION



1. The battery module requires one 9 volt battery.
2. Hold down the back-end lip chip and then pull to open it on the battery compartment. Refer to positive (+) and negative (-) symbols when replacing the battery.
3. Adjust the lip and press its back-end, push back until it clicks into place.
4. This battery can be shut off automatically by itself.
5. There is a switch on the battery module which you could select MONO or STEREO.
6. PTT input can be connected with “Aviation Push-to-Talk Switch”.

NOTICE：

1. This ANR headset can only work when the plug is connected with the running aircraft equipments or intercoms. The power of ANR function comes from 9V battery, not equipments or intercoms.
2. When the battery power is low, the red LED indicator will flash. Note that the headset will continue to operate as a normal headset under low battery power or no battery power; however the active noise reduction will cease to operate after one hour.

Cautions:

1. Proper Fit: Proper fit is critical to its noise attenuation effectiveness.
   i. Push the headband down until it rests comfortably on the top of your head. Move the earcups slightly up or down or from side to side until you feel Maximum attenuation.
   ii. The use of eyeglasses will reduce the attenuation. Use thin temples on your glasses to keep noise leakage at a minimum.
2. Use in Impulsive Noise Area
   NRR is based on continuous noise, may not be an accurate indicator of the impulsive noise such as gunfire. For maximum protection, you can use ear plugs in addition to it.
3. Maintenance and Cleaning
   In order for your headset working properly, always comply the following:
   i. Never alter your headset.
   ii. If you see a defect such as splits in cups, seek immediate replacement.
4. Cleaning Instructions
   i. Do not immerse in water.
   ii. Clean regularly with mild soap water. Sponge off headpad and earseals, Taking care to rinse thoroughly.

HEADSET NOISE ATTENUATION DATA

The noise reduction or attenuation characteristics of communication headsets must be measured according to an accepted standard procedure if the characteristics of different headset are to be compared in a meaningful way.
The Noise Reduction Rating (NRR) is provided in accordance with U.S.EPA Regulation 40 CFR Part 211.Subpart B. The Range of Noise Reduction Rating for Existing Hearing Protectors is approximately 0 to 30. (Higher Numbers Denote Greater Effectiveness)

Frequency [Hz]	125	250	500	1000	2000	3000	4000	6000	8000
Attenuation [dB]	14.3	21.5	27.1	31.8	36	39.5	41.3	39.7	37.0
Standard Deviation	3.3	2.4	1.5	1.6	1.3	2.1	2.1	2.0	1.3

Specifications

Noise Reduction Ratings (NRR) : 24dB

Headphone

Type: Dynamic （Φ30）

Frequency Response: 50 Hz to 20 kHz

Sensitivity: 95±5 dB SPL (1 kHz, 1 mW input per earcup side full volume on ear simulator)

Active Noise Attenuation:

Dynamic 42 ohms: Rate Input: 30mW Max. Input: 100mW

Speech Sound:

Dynamic 300 ohms: Rate Input: 30mW Max. Input: 100mW

Microphone and Amplifier:

Element Type: Noise-canceling electret

Frequency Response: 100Hz to 5 kHz

Operating Voltage (supplied by aircraft): 8-32 Volts DC

Matching Impedance: 150-1000 ohms

Sensitivity: -33±4 dB

(Ref: 0dB SPL=20.0uPa at 1 kHz with 10 Vdc 150 ohms AC load)

General:

Temperature: Operating: - 20 to 70°C

Cordage:
AN-1000C Straight cord from headset to molded plug, 150CM
AN-1000HC Coiled cord from headset to molded plug, 70CM

Intercom Connections:
Plug： U174/U

Weights:
AN-1000HC -----650g

Noise Reduction Specifications:

Attenuation Frequency Band .....20Hz~20KHz
Main Attenuation Frequency Band .....20Hz~600Hz
Attenuation Capability.....18~21dB
Power Consumption 30mW

Headset size range

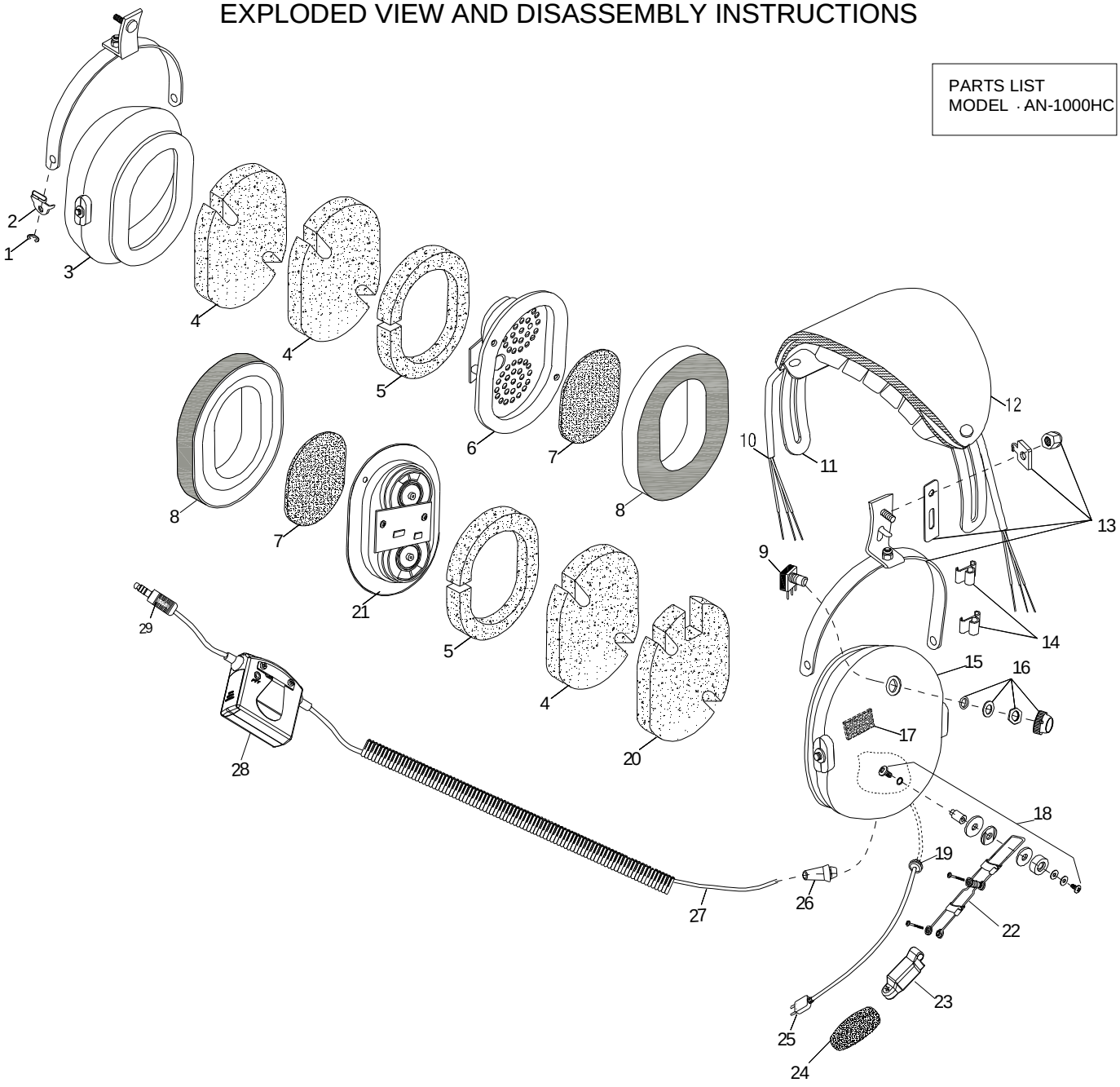
Height: 10 to 14 cm

Color:
Green/Black

Boom:
Spring tension boom

EXPLODED VIEW AND DISASSEMBLY INSTRUCTIONS

PARTS LIST
MODEL · AN-1000HC



PARTS LIST

No	P/N	DESCRIPTION	No	P/N	DESCRIPTION
1	10ME0001	RETAINING RING	**16**	10KI0002	VOLUME KNOB KIT
2	10ME0002	DOME STOP , STAINLESS STEEL	**17**	10EL0003	junction Board , PCB
3	10PL0001	RIGHT EARCUP	**18**	10KI0003	MIC BOOM ATTACHMENT KIT
4	10SP0007	ABSORBENT NOISE FILTER (1)	**19**	10PL0004	GROMMET , RUBBER
5	10SP0008	ABSORBENT NOISE FILTER (2)	**20**	10SP0011	ABSORBENT NOISE FILTER (3)
6	10EL0006	NOISE CANCELING PCB (RIGHT)	**21**	10EL0007	NOISE CANCELING PCB (LFET)
7	10SP0009	FELT	**22**	10KI0004	Spring tension boom ASSEMBLY
8	10SP0010	GEL EARSEAL (PAIR)	**23**	10EL0004	Electret Microphone
9	10EL0002	VOLUME CONTROL 1KΩ	**24**	10SP0006	MICROPHONE WINDSCREEN
10	10CR0001	OVERHEAD CORD	**25**	10CR0002	MICROPHONE PLUG CORD
11	10ME0004	HEADBAND , STAINLESS STEEL	**26**	10PL0005	STRAIN RELIEF
12	10SP0005	HEADBAND CUSHION	**27**	10CR0003	COMM CORD , COILED
13	10KI0001	STIRRUP & CLAMP KIT	**28**	10KI0006	BATTERY MODULE
14	10PL0002	OVERHEAD CORD CLAMP	**29**	10ME0005	U174/U PLUG FOR HELICOPTER
15	10PL0003	LEFT EARCUP			

HEADSET SCHEMATIC DIAGRAM