

# AN-1000AC

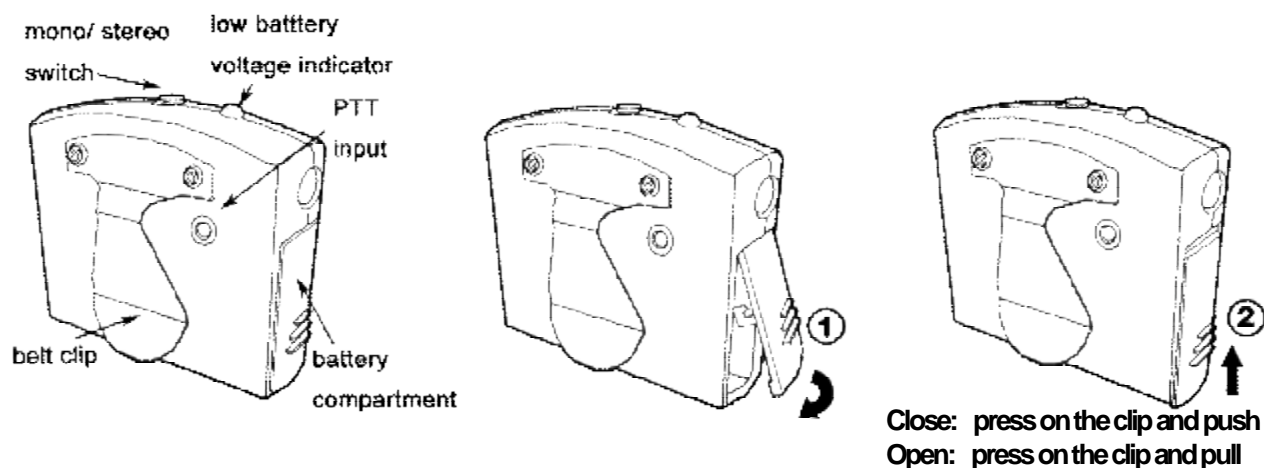
## ANR AVIATION HEADSET

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 flexible 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 microphone plug (PJ068) into the aircraft or intercom microphone jack. Insert the earphone plug ( PJ055 ) into the aircraft or intercom earphone 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 (  $\Phi 30$  )

Frequency Response: 50 Hz to 20 kHz

Sensitivity:  $95 \pm 5$  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:  $-33 \pm 4$  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-1000AC      Straight cord from headset to molded plug, 150CM

### **Intercom Connections:**

Earphone Plug :      PJ-055    ( .25"   6.3Φ phone plug)

Microphone Plug :   PJ-068   ( .206"   5.2Φ phone plug)

### **Weights:**

AN-1000AC -----600g

## ***Noise Reduction Specifications:***

Attenuation Frequency Band .....20Hz~20 KHz

Main Attenuation Frequency Band .....20Hz~600Hz

Attenuation Capability.....18~21dB

Power Consumption .....30 mW

## **Headset size range**

Height: 10 to 14 cm

### **Color:**

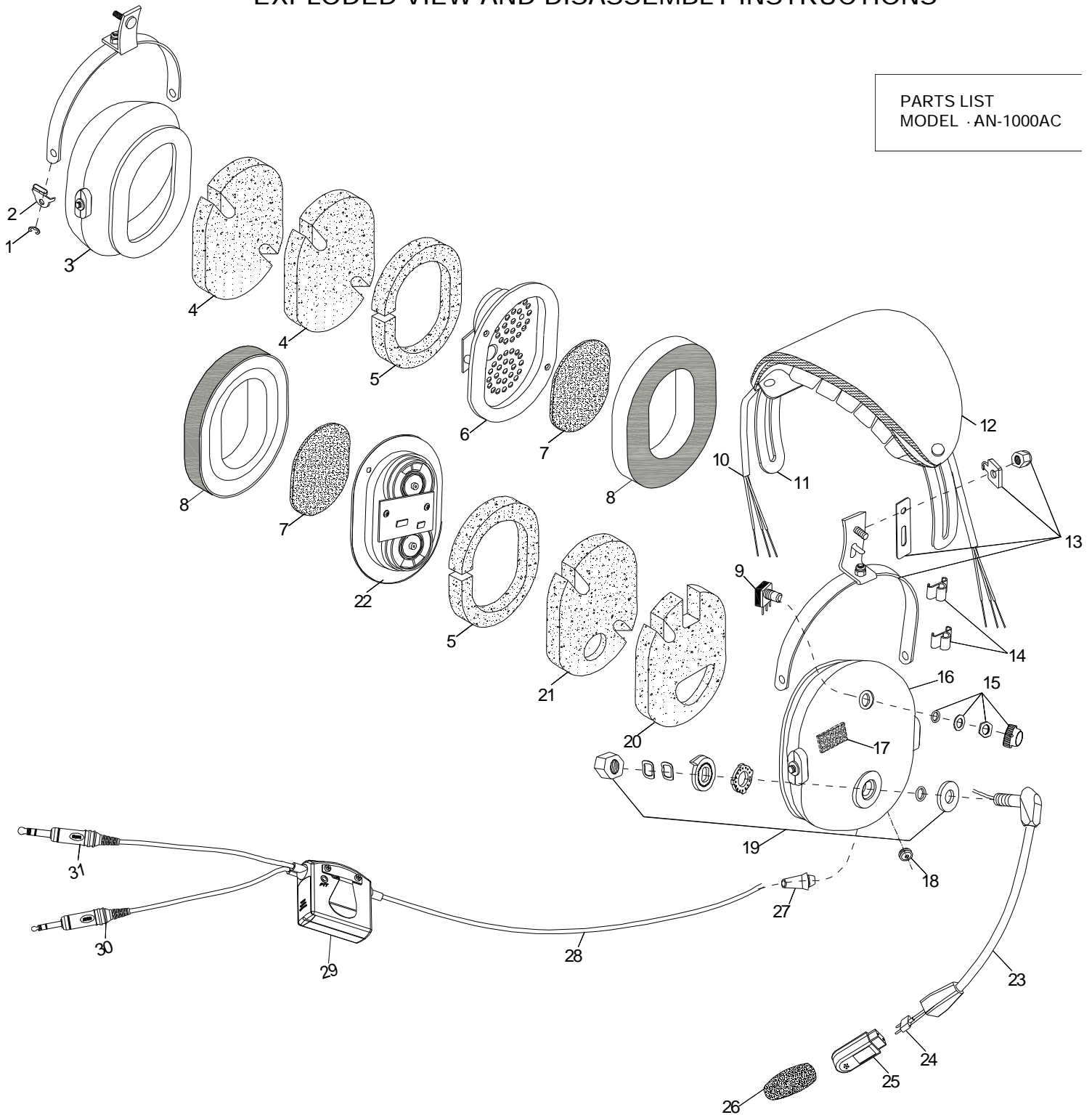
Green/Black

### **Boom:**

Flexible Boom

## EXPLODED VIEW AND DISASSEMBLY INSTRUCTIONS

PARTS LIST  
MODEL · AN-1000AC



## PARTS LIST

ITEM	P/N	DESCRIPTION	ITEM	P/N	DESCRIPTION
1	10ME0001	RETAINING RING	17	10EL0003	JUNCTION BOARD , PCB
2	10ME0002	DOME STOP , STAINLESS STEEL	18	10PL0004	GROMMET , RUBBER
3	10PL0001	RIGHT EARCUP	19	10KI0005	MIC BOOM ATTACHMENT KIT
4	10SP0007	ABSORBENT NOISE FILTER (1)	20	10SP0012	ABSORBENT NOISE FILTER (4)
5	10SP0008	ABSORBENT NOISE FILTER (2)	21	10SP0013	ABSORBENT NOISE FILTER (5)
6	10EL0006	NOISE CANCELING PCB (RIGHT)	22	10EL0007	NOISE CANCELING PCB (LFET)
7	10SP0009	FELT	23	10KI0006	FLEXIBLE BOOM ASSEMBLY
8	10SP0010	GEL EARSEAL (PAIR)	24	10CR0007	MICROPHONE PLUG CORD
9	10EL0002	VOLUME CONTROL 1K $\Omega$	25	10EL0005	ELECTRET MICROPHONE
10	10CR0001	OVERHEAD CORD	26	10SP0006	MICROPHONE WINDSCREEN
11	10ME0004	HEADBAND , STAINLESS STEEL	27	10PL0005	STRAIN RELIEF
12	10SP0005	HEADBAND CUSHION	28	10CR0004	COMM CORD , STRAIGHT
13	10KI0001	STIRRUP & CLAMP KIT	29	10KI0007	BATTERY MODULE
14	10PL0002	OVERHEAD CORD CLAMP	30	10CR0005	Φ5.2 MOLDED PLUG CORD (PJ068)
15	10KI0002	VOLUME KNOB KIT	31	10CR0006-1	Φ6.3 MOLDED PLUG CORD ((PJ055 STERO))
16	10PL0003	LEFT EARCUP			

# HEADSET SCHEMATIC DIAGRAM

