

# S P E C I F I C A T I O N

ISSUED : 2005.8.15

REVISED:

SCANNING RECEIVER MODEL : AE72H (UB339A)

## GENERAL

1. Band Coverage : See followings

2. Frequency Range

Conventional Mode :

Band Plan 1	[Range]	13 Bands		
		[Step]	[Mode]	
	25.0000 to 29.9950	MHz	5 kHz	FM
	30.0000 to 79.9875	MHz	12.5 kHz	FM
	80.0000 to 82.9900	MHz	10 kHz	FM
	83.0000 to 87.2625	MHz	12.5 kHz	FM
	108.0000 to 136.9875	MHz	12.5 kHz	AM
or	108.0000 to 136.9916	MHz	8.33 kHz	AM
	138.0000 to 157.9875	MHz	12.5 kHz	FM
	158.0000 to 160.5900	MHz	10 kHz	FM
	160.6000 to 162.5875	MHz	12.5 kHz	FM
	162.6000 to 173.9900	MHz	10 kHz	FM
	406.0000 to 439.99375	MHz	6.25 kHz	FM
	440.0000 to 465.9950	MHz	5 kHz	FM
	466.0000 to 469.9900	MHz	10 kHz	FM
	470.0000 to 512.0000	MHz	6.25 kHz	FM

Band Plan 2 (=Default Setting)	[Range]	12 Bands		
		[Step]	[Mode]	
	25.0000 to 84.0100	MHz	5 kHz	FM
	84.0150 to 87.2550	MHz	20 kHz	FM
	108.0000 to 136.9875	MHz	12.5 kHz	AM
or	108.0000 to 136.9916	MHz	8.33 kHz	AM
	137.0000 to 143.9950	MHz	5 kHz	FM
	144.0000 to 145.9875	MHz	12.5 kHz	FM
	146.0000 to 155.9900	MHz	10 kHz	FM
	156.0000 to 162.0250	MHz	12.5 kHz	FM
	162.0300 to 173.9900	MHz	10 kHz	FM
	406.0000 to 439.99375	MHz	6.25 kHz	FM
	440.0000 to 449.99375	MHz	6.25 kHz	FM
	450.0000 to 469.9900	MHz	10 kHz	FM
	470.0000 to 512.0000	MHz	6.25 kHz	FM

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Band Plan 3

	[Range]		8 Bands	[Step]	[Mode]
	25.0000 to	87.2650	MHz	5 kHz	FM
	108.0000 to	136.9875	MHz	12.5 kHz	AM
or	108.0000 to	136.9916	MHz	8.33 kHz	AM
	138.0000 to	157.9950	MHz	5 kHz	FM
	158.0000 to	173.9950	MHz	5 kHz	FM
	406.0000 to	439.99375	MHz	6.25 kHz	FM
	440.0000 to	465.99375	MHz	6.25 kHz	FM
	466.0000 to	469.99375	MHz	6.25 kHz	FM
	470.0000 to	512.0000	MHz	6.25 kHz	FM

3. Memory : Programmable Channels : 100 CH  
 Channels Banks : 10 Banks  
 Search Skip Memory frequencies : 50

4. Step Size : 5/ 6.25 / 8.33/ 10 / 12.5 / 20 kHz

5. Display : LCD with Back Light (Color: Amber)  
 Some of these icons will not be used for this model.



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6.Keys (PROGRAM & OPERATION): Total 17 Keys

- [1] : Numeric "1"  
Set Priority Scan Mode (Function Mode)
- [2] : Numeric "2"  
Channel UP (Hold Mode)
- [3] : Numeric "3"
- [4] : Numeric "4"
- [5] : Numeric "5"  
Set Delay (Function Mode)
- [6] : Numeric "6"  
Set the search programming (Function Mode)
- [7] : Numeric "7"
- [8] : Numeric "8"  
Channel DOWN (Hold Mode)
- [9] : Numeric "9"  
Change Step for Air band (Function Mode)
- [0] : Numeric "0"  
Channel Lock Out (Function Mode)
- [.] : Decimal Key and Clear Key
- [E] : Enter  
Program Mode (Function Mode)
- [HOLD] : Direct Channel Access  
Scan Hold mode or Search Hold mode  
Channel UP (Scan Hold mode)  
Close call Mode (Function Mode)
- [SCAN] : Start Scan Mode  
Start Search Mode (Function Mode)
- [LIGHT] : LCD back light on/off  
Key lock on/off (Function Mode)
- [FUNC] : Set Function Mode
- [PWR] : Power on/off

7. Controls/Switches : Volume Control  
Squelch Control  
"Reg. Alk. Battery - NI-MH Battery" Slide Switch

8. External Jacks : ANT. Jack : BNC Type  
Phone Jack : 3.5  $\phi$  (Stereo Type)  
DC Power Jack : EIAJ TYPE-II (Center Positive)

9. Internal Speaker : 8 ohm, 1.0 W Max. (32  $\phi$ )

10. Power Requirements : 2 x AA Size Standard Batteries 3.0V DC  
2 x AA Size Ni-MH Batteries 2.4V DC  
AC Adapter 6V DC 500mA Output (AC 230V 50Hz)

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11. Operating TEMP. : -20°C ~ +60°C  
(-10°C ~ +50°C Close Call Operation)
12. Storage TEMP. : -30°C ~ +60°C
13. Size (mm) : 68 (W) x 31.5 (D) x 115 (H) (Without Antenna, knob, clip & other projections)
14. Weight : 165 g (without Antenna & Battery)
15. Accessories : Rubber Antenna  
Belt Clip  
Owner's Manual  
AC Adapter  
Ni-MH Battery
16. Heterodyne System
- 1st Heterodyne
- |                        |                           |                        |
|------------------------|---------------------------|------------------------|
| 25.0000 ~ 173.995 MHz  | : Upper Heterodyne 1st IF | 380.6050-380.7000 MHz  |
| 406.0000 ~ 512.000 MHz | : Upper Heterodyne 1st IF | 380.60625-380.7000 MHz |
- 2nd Heterodyne
- |           |                    |        |            |
|-----------|--------------------|--------|------------|
| ALL Bands | : Lower Heterodyne | 2nd IF | 21.3000MHz |
|-----------|--------------------|--------|------------|
- 3rd Heterodyne
- |           |                    |        |        |
|-----------|--------------------|--------|--------|
| ALL Bands | : Lower Heterodyne | 3rd IF | 450kHz |
|-----------|--------------------|--------|--------|
17. Filter
- |           |                                      |
|-----------|--------------------------------------|
| 380.70MHz | : SAW Filter                         |
| 21.30MHz  | : Monolithic Crystal Filter          |
| 450kHz    | : Ceramic Filter( BW±10kHz ) ; FM/AM |

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MEASUREMENT CONDITIONS

- 1. Power Source : 3.0V DC at Battery Jack
- 2. Antenna Impedance : 50 ohm
- 3. Test Temperature : +25 ± 5°C
- 4. Modulation Frequency : 1kHz
- 5. Deviation : FM ± 3kHz Dev.  
AM 60% Modulation
- 6. Mean Signal Input Level : 1mV
- 7. Audio Output Load : 8 Ω Resistive Load
- 8. Standard Ref. Audio Output : 50mW (0.632 Vrms)

<u>ITEM</u>	<u>UNIT</u>	<u>NOMINAL</u>	<u>LIMIT</u>
1. Sensitivity (12dB SINAD)			
VHF Low Band			
(FM) 25.005 MHz	μV	0.3	0.8 Max
(FM) 54.050 MHz	μV	0.3	0.8 Max
(FM) 86.275 MHz	μV	0.3	0.8 Max
Aircraft Band			
(AM) 118.800 MHz	μV	0.5	1.6 Max
(AM) 127.175 MHz	μV	0.5	1.6 Max
(AM) 135.500 MHz	μV	0.5	1.6 Max
VHF High Band			
(FM) 138.150 MHz	μV	0.3	1.0 Max
(FM) 162.400 MHz	μV	0.3	1.0 Max
(FM) 173.220 MHz	μV	0.3	1.0 Max
UHF Band			
(FM) 406.875 MHz	μV	0.4	1.2 Max
(FM) 453.250 MHz	μV	0.4	1.2 Max
(FM) 511.9125MHz	μV	0.4	1.2 Max
2. Threshold Squelch (Manual)			
VHF Low Band (FM) 54.050 MHz	μV	0.3	1.3 Max
Aircraft Band (AM) 127.175 MHz	μV	0.3	3.0 Max
VHF High Band (FM) 162.400 MHz	μV	0.3	1.6 Max
UHF Band (FM) 453.250 MHz	μV	0.3	2.5 Max
3. Tight Squelch (Manual) (S+N)/N			
VHF Low Band (FM) 54.050 MHz	dB	25	15 Min
Aircraft Band (AM) 127.175 MHz	dB	16	8 Min
VHF High Band (FM) 162.400 MHz	dB	25	15 Min
UHF Band (FM) 453.250 MHz	dB	25	15 Min
4. Hum & Noise			
VHF Low Band (FM) 54.050 MHz	dB	39	30 Min
Aircraft Band (AM) 127.175 MHz	dB	50	35 Min
VHF High Band (FM) 162.400 MHz	dB	39	30 Min
UHF Band (FM) 453.250 MHz	dB	39	25 Min

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<u>ITEM</u>		<u>UNIT</u>	<u>NOMINAL</u>	<u>LIMIT</u>
5. Audio Frequency Response -6dB				
(AM) 127.175 MHz	Low	Hz	200	100~ 350
	High	Hz	1900	1300~3000
(FM) 162.400 MHz	Low	Hz	230	100~ 350
	High	Hz	1900	1300~3000
6. Audio Output Power				
(at 8Ω/Int.Speaker, (AM) 127.175 MHz)				
Max. Output Power		mW	490	200 Min
(at 8Ω/Int.Speaker, (FM) 162.400 MHz)				
Max. Output Power		mW	400	200 Min
(at 32Ω/Stereo-Headphone, (FM) 162.400MHz)				
Max. Output Power		mW	35	15~60
(at 64Ω/Earphone, (FM) 162.400 MHz)				
Max. Output Power		mW	7	3~16
7. Distortion at 50mW Output Power				
(AM) 127.175 MHz		%	0.8	10 Max
(FM) 162.400 MHz		%	1.8	8 Max
8. Power Consumption @162.400 MHz, Manual Mode				
at Squelched (Light: Off)		mA DC	110	150 Max
at full output (Light: Off)		mA DC	310	350 Max
9. Residual Noise @ Volume.:MAX SQ: Close				
(FM) 162.400 MHz		mV	0.6	2 Max
10. Scan Rate at Test Frequency		CH/Sec	40	25 Min
11. Search Rate at Test Frequency				
(28.5~29.5MHz)		STEP/Sec	140	50 Min
12. Acceptable Radio Frequency Displacement (EIA RS-204-D)				
(FM) 162.400 MHz		kHz	±6	±3 Min
13. IF Rejection				
(FM) 162.400 MHz (IF=380.700 MHz)		dB	90	50 Min
14. Close Call Sensitivity				
(FM) 54.050 MHz		dBm	-57	-30 Max
(FM) 163.400 MHz		dBm	-60	-30 Max
(FM) 511.9125MHz		dBm	-55	-30 Max
15. Battery Low turn on voltage		V	2.30	2.15~2.45
16. Auto power off voltage		V	2.15	2.0~2.3
17. Battery charge current		mA	150	110~190

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