

Albrecht Electronic GmbH
AE 50 H Hand Scanner
Data Sheet

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

SUBJECT : VHF/UHF DIRECT ENTRY PROGRAMMABLE HAND-HELD SCANNER
MODEL AE50H

1. GENERAL

- 1 Programmable channel : 20 channels and 1 monitor channel
- 2 Receiving system : Direct key entry PLL synthesizer superheterodyne
- 1st IF (10.7MHz): the 1st Local OSC frequency for VHF
Low Band employs upper side of
receiving frequency range
: the 1st Local OSC frequency for VHF
High and UHF Band employs lower
side of receiving frequency range
- 2nd IF (455kHz) : the 2nd Local OSC frequency employs
lower side of 1st IF
- | -3 Frequency range | : | <u>Freq.</u> | <u>Step</u> | <u>Mode</u> |
|--------------------|---|----------------------|-------------|-------------|
| | | 68.0000~ 88.0000MHz | 5.0kHz | FM |
| | | 137.0000~174.0000MHz | 5.0kHz | FM |
| | | 380.0000~512.0000MHz | 12.5kHz | FM |
- 4 Scanning rate : 16 channels/sec.
- 5 Search rate : 16 channels/sec.
- 6 Frequency display : LCD 6 digits
- 7 Channel display : LCD 2 digits
- 8 Audio output : 200m watts
- 9 Speaker : Built-in 36mm 8 ohms dynamic speaker
- 10 Operating Voltage : DC 9 volts "AA" cell x 6pcs.
- 11 Ext. power or charge : DC 9 volts
voltage

- 12 Dimension : Approx. 60 (W) x 44 (D) x 160 (H) mm
- 13 Weight : Approx. 260g
- 14 Accessory : Rubber antenna and Owner's manual
- 15 Memory backup : Capacitor

<u>2. ELECTRICAL</u>		<u>Nominal</u>	<u>Limit</u>
-1	Frequency range : VHF Low VHF High UHF		68- 88MHz 137-174MHz 380-512MHz
-2	Sensitivity : VHF Low (S+N)/N=20dB DEV.: 3kHz at 1kHz	1 μ V 1 μ V 1 μ V	2 μ V 3 μ V 4 μ V
-3	Image ratio : All band		Not specified
-4	Squelch sensitivity (Band center) Threshold : Tight: (S+N)/N :	1 μ V 25dB	4 μ V 15dB
-5	Selectivity : -6dB -50dB	\pm 10kHz \pm 20kHz	\pm 14kHz \pm 25kHz
-6	Spurious rejection : VHF Low at 78MHz (Except Primary image) VHF High at 154MHz UHF	50dB 50dB	40dB 40dB Not specified
-7	IF rejection : 10.7MHz at 154MHz	70dB	60dB
-8	Modulation acceptance :	\pm 8kHz	\pm 5kHz
-9	Signal to noise ratio : VHF Low at 78MHz RF : 100 μ V VHF High at 154MHz DEV. : 3kHz at 1kHz UHF at 450MHz	45dB 45dB 35dB	30dB 30dB 25dB
-10	Residual noise : Vol. min. and Squelched	3mV	5mV
-11	Scanning rate :	16ch/sec.	14-18ch/sec.
-12	Search rate :	16 steps/sec.	14-18 steps/sec.
-13	Scan and Search delay time:	2sec.	1-3sec.

		<u>Nominal</u>	<u>Limit</u>
-14	Audio output (T.H.D. 10%) : RF input : 100 μ V	200 mwatt	150 mwatt
-15	T.H.D. at 50 mwatt output : RF input : 100 μ V	3%	8%
-16	Audio max. power : RF input : 100 μ V	250 mwatt	180 mwatt
-17	Audio frequency response : RF input : 100 μ V at -6dB	200Hz 2.0kHz	150Hz-300Hz 1.5kHz-3.0kHz
-18	Intermediate frequency : 1st 10.7MHz 2nd 455kHz		
-19	Current drain : Squelched	65 mA	75 mA
-20	Charging current	__ mA	__ mA
Note: This specification is obtained AC 220V with ____ power supply without the scanner on after ten hours.			
-21	Memory hold time :	10 Hours	1 Hour
-22	Birdies and step frequency : Under discussion when search		
-23	Filter : Monolithic crystal filter for 10.7MHz and ceramic filter for 455kHz		
-24	Antenna impedance : 50 ohms		
-25	Temperature range : Test to specification between: +18°C - +35°C Operate (Need not meet spec.): -10°C - +60°C		

3. OPERATING CONTROLS

- 1 Volume control with power switch
- 2 Squelch control
- 3 Keyboard (20 Keys)
- 4 6 digit frequency display by LCD
- 5 2 digit channel indicator by LCD
- 6 Indicator by LCD: FREQUENCY, CHANNEL, SCAN, MANUAL, SEARCH, ▲, ▼, MONITOR, DELAY, LOCK-OUT, LOW BATT, KEY-LOCK and ERROR
- 7 BNC type antenna connector
- 8 Earphone jack (D = 3.5mm)
- 9 External power jack and charge jack
- 10 Reset switch
- 11 Battery compartment for 6 "AA" cells (User service)

4. FEATURES

- 1 Direct key entry
- 2 20 channels automatic scanning for VHF to UHF band
- 3 1 monitor temporary memory
- 4 Direct search
- 5 Up and down search direction
- 6 16 channels/sec scan speed
- 7 16 steps/sec search speed
- 8 2 second scan and search delay
- 9 Manual selection for channel
- 10 Scan mode
- 11 Search mode
- 12 Program mode
- 13 8 digit channel and frequency display with all function indicators
- 14 LCD backlighting with bulb
- 15 Low battery indicator by LCD
- 16 Crystal filter for 1st IF and Ceramic filter for 2nd IF section
- 17 Belt clip attached