Albrecht® AE 66M

Kommunikationstechnik aus Norddeutschland

INSTRUCTIONS FOR USE

The AE 66M is a compact mobile/base scanner, and one of the most advanced communications products available today.

The AE 66M features:

- **JETSCAN:** this lightening fast technology enables the AE 66M to scan nearly 100 channels or steps per second. The AE 66M scans about five times faster than any standard scanner sold in Europe. Because the frequency coverage within the service banks is so large a very fast scanning system is essential.

- **SIX BANKS:** Five pre-programmed Service banks and one standard programmable Private bank.

These banks include:

HAM/EMG Pre-programmed Channels and ten Programmable Channels
MARINE Pre-programmed Channels only
TEL Pre-programmed Channels only
AIR Pre-programmed Channels only
POL Pre-programmed Channels and twenty Programmable Channels
MEM Twenty Programmable Channels only.

- **LIQUID CRYSTAL DISPLAY** Shows selected channels and frequencies and numerous other indications.

OUTLINE OF FUNCTIONS

SERVICE BANK 5 frequencies have been pre-programmed and a MEMORY BANK where desired frequencies can be programmed by user are provided on this unit.
The SERVICE BANK is divided into POL, HAM/EMG, AIR, TEL and MARINE.

50 CH MEMORY All 50 channels can be stored as programming frequencies by user. Details are as follows.
MEMORY BANK : 20 CH
POL BANK : 20 CH
HAM/EMG BANK : 10 CH
POL, HAM/EMG Banks have pre-programmed frequencies but also have CH MEMORY which the user can use for storing frequencies.

The 10 BAND Search feature

A Frequency search in the following selected BAND range can be performed.

No.	Range (MHz)	Step (Khz)	MODE
1	66.0000 - 88.0000	5	NFM
2	108.0000 - 136.9750	12.5	AM
3	137.0000 - 144.0000	5	NFM
4	144.0000 - 148.0000	5	NFM
5	148.0000 - 174.0000	5	NFM
6	406.0000 - 420.0000	12.5	NFM
7	420.0000 - 450.0000	12.5	NFM
8	450.0000 - 470.0000	12.5	NFM
9	470.0000 - 512.0000	12.5	NFM
10	806.0000 - 960.0000	12.5	NFM

INSTALLING THE AE 66M

For Home Use

1: Insert the DC plug end of the AC adaptor into the DC 13.8V socket on the rear panel.
2: Plug the AC adaptor into the standard 230v AC wall outlet.
3: Plug the telescoping Antenna into the ANT connector. Extend the Antenna to its full height. For frequencies higher than 406 MHz shortening the Antenna may improve the reception.
4: Use the desktop stand to improve the viewing and operating angle .

For Mobile Use

1: Select an ideal location in your vehicle to mount the AE 66M. Avoid a location that could interfere with your driving. In a passenger vehicle the ideal location is underneath the dash board on the passenger side.
2: Use the AE 66M mounting bracket as a template for marking the location of the mounting screws.
NOTE: If there are screws already holding the dashboard, you can use the same screw holes to mount the bracket.
3: Drill the necessary holes and secure the mounting bracket in place using the screws provided.
4: Mount the radio to the bracket only after the wiring has been connected to the rear panel.

Connecting the Antenna plug

Connect the mobile antenna plug into the ANT connector on the rear panel.

Connecting the Power Cord

NOTE: If you are not experienced in connecting accessories to the vehicle fuse box then please see your automotive dealer for advise on proper installation.
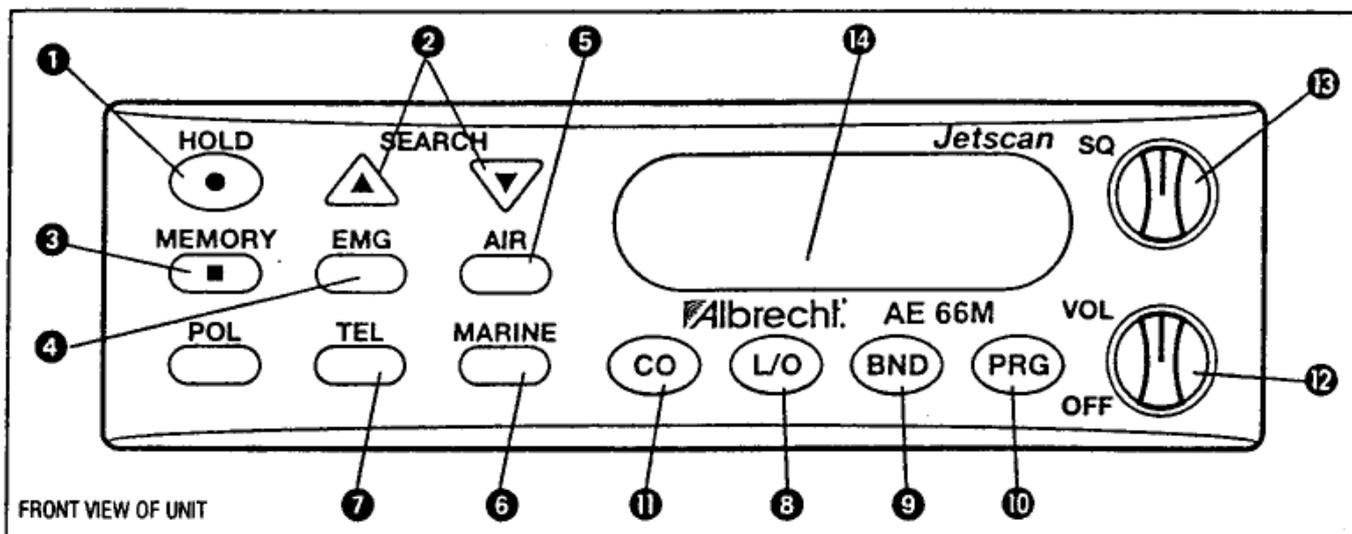
Installation for everyday use

1: Check the vehicle battery connections to determine which battery terminal (positive or negative) is grounded to the engine block or chassis. Most vehicle today use a negative ground. If your vehicle has a negative ground follow steps 2 and 3. Otherwise skip to the note following step 3.
2: Connect the RED wire of the DC power cord to the accessory contact in your vehicles + 13.8VDC fuse box.
3: Connect the Black wire of the DC power cord to the negative side of the vehicle (usually the Chassis)
NOTE: In vehicles with positive ground, the RED wire connects to the Chassis and the BLACK wire connects to the accessory contact in the fuse box.
4: Insert the DC Plug into the 13.8V jack on the back of the scanner.

Installation for Temporary Use

A cigarette Lighter Power cord is provided for easy temporary installation.
WARNING: Do not use the cigarette lighter power cord in a positive ground vehicle.
Plug one end of the Cigarette power cord into the cigarette lighter and the other end into the DC 13.8V jack on the back of the scanner.
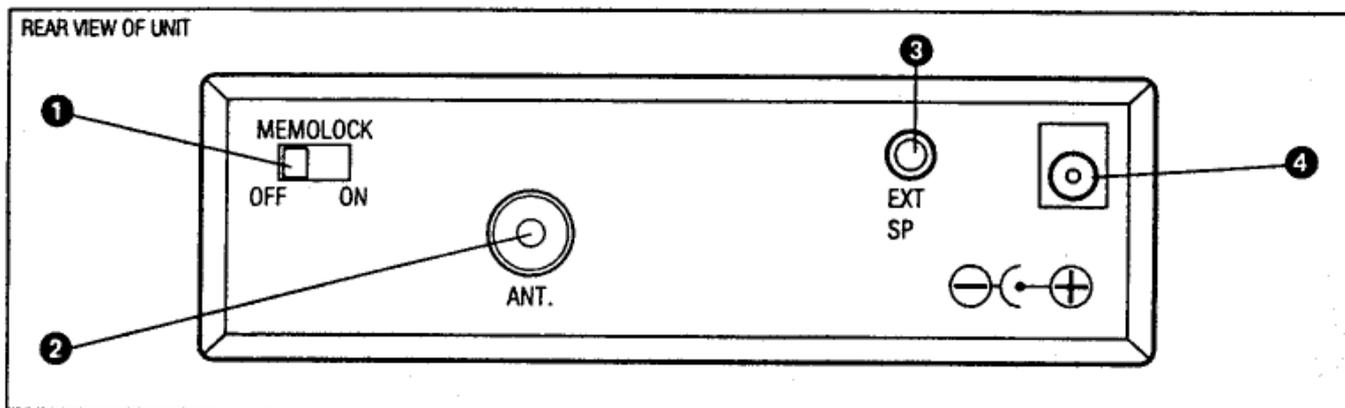
Please read the software update information on the last page!

FRONT VIEW OF UNIT

CONTROLS AND FUNCTIONS

1 HOLD KEY Press [HOLD] to stop scanning or searching. Press any Bank key or [SEARCH] to deactivate Hold Mode. In the Hold Mode, [UP] and [DOWN] are active.

2 [UP] & [DOWN] KEYS These keys are used in several different ways: To manually step up or down a frequency in any HOLD mode, use the [UP] or [DOWN] keys. Frequency steps are all pre-set for each band (see technical Specifications)·
To Change the direction of the search during SEARCH mode, press [UP] to search upward to a higher frequency or [DOWN] to search downward to a lower frequency.
To retrieve search or scan frequencies/channels upwards or downwards press [UP] or [DOWN] for more than one second. To stop the search/scan release the key.

3 [MEMORY] KEY Use [MEMORY] to instantly access your private collection of favourite frequencies. You can program up to 20 channels in the MEMORY Bank. There are no pre programmed frequencies in this bank. After programming, press [MEMORY] to activate MEMORY scan. In the Memory scan mode press [HOLD] to stop scanning and then use the [UP] or [DOWN] to step through all 20 channels manually (including locked out channels).

4 [EMG] KEY Press EMG key to scan through the emergency frequencies.

5 [AIR] KEY Press AIR key to search through the air band frequencies (108.000 -,136.975MHz)

6 [MARINE] KEY Press MARINE key to scan through the Marine channels.

7 [TEL] KEY Press the TEL key to scan through the telephone frequencies

8 [L/O] KEY Press L/O to "Lock Out" or prevent scanning of the displayed frequency. L/O is active only during opened squelch or in Hold Mode. Locked out channel can be displayed on the screen by using the [UP] or [DOWN] key to manually scan through the selected bank in the HOLD Mode only. L/O appears on the display to indicate that the channel is locked out. NOTE locking out a channel does not erase the programmed frequency.

9 [BND] KEY This key is active in search mode only (when SRCH is displayed on the screen. When you press BND, the upper and lower limits of the band you are searching are displayed for 3 seconds. Press BND again within 3 seconds to step up one higher band of the Ten Pre-Programmed frequency bands (Refer to Chart at beginning c manual). Press this key as many times as it takes to find the band your want to be searched.

10 [PRG] KEY This key initiates and completes programming. It is active whenever a steady frequency appears on the display. Press PRG to start programming mode. "CH" appears and blinks, indicatin(your are in programming mode, and urges you to select the channel of the bank to be programmed. Press a programmable bank key [MEM] [POL] or [EMG] to be programmed.

11 [CO] KEY This Key enables you to select either Germany, Holland France or UK for the pre programmed frequencies.

12 VOLUME Control/Power Switch This control turns the scanner on and off and also adjusts the volume.

13 SQ (Squelch Control) Adjust SQ to set the scan threshold. When you are monitoring a single Channel in Manual mode adjust S(to eliminate the back ground rushing noise heard in the absence of ; an incoming signal.

14 LCD Display The Liquid Crystal display LCD shows the current channel or its frequency. It also displays the mode indicators, status indicators and bank indicators.

❶ **MEMO LOCK Switch** In the ON position the program [PRG] key is disabled. This prevents any unauthorised programming or accidental entries. When programming is disabled, pressing [PRG] emits an error entry tone and displays "Prg-Loc"

❷ **ANT** Connect your Antenna plug here.

❸ **EXT SP** When using an optional External Speaker system connect the External Speaker plug here.

❹ **DC 13.8V** Connect the DC Power cable here. Note use only the specified AC adaptor or DC power cord.

SCANNING OVERVIEW

You can scan in one of three ways.

SERVICE BANK SCANNING

Press one of the five service bank keys. [POL], [EMG], [AIR], [TEL] or [MARINE] to find an active frequency.

BAND SEARCH

Select a frequency band to search. The Search function is different from scanning. It searches for any active frequency step by step within the lower and upper limits of the band. When an active frequency is found, the scanner will stop and stay on that frequency as long as that transmission lasts. If that frequency is interesting to you, press [HOLD] to hold the frequency in the display. Then program it into one of the programmable banks [MEMORY] [POL] or [EMG]. If you do not want to program that frequency, press [UP] or [DOWN] keys or just wait till the transmission ends. The Search resumes automatically 2 seconds after the last transmission ends and looks for more active frequencies.

MEMORY Bank Scanning

If you have programmed frequencies into this bank, press MEMORY to scan only those that you have programmed into this bank.

When scanning stops on an active frequency, it remains on that channel as long as the transmission continues or the [UP] or [DOWN] key is pressed. When the transmission ends, the scanner will remain on the same channel for 2 more seconds, waiting for a responding transmission. If there is no responding transmission within 2 seconds then the scanning cycle resumes.

Getting Started

The following instructions apply when using your AE 66M for the very first time. Each time you turn on the scanner, it always retains the previous settings in its memory. That is the scanner operates in the mode and bank last used, until you change the settings. Note: In case of memory loss to the scanner (indicated by "MEMO LOSS" on the display, all settings will be lost. Memory Loss occurs if the scanner is left for 2 weeks or more without power.

1: Turn the Squelch [SQ] Control fully clockwise to the end.

2: Power on the scanner by turning [VOLUME] clockwise. Adjust the volume to where you can hear a steady noise.

3: Set the Squelch at the scanning threshold by turning the [SQ] counterclockwise just until the noise disappears

4: Press any of the Service Bank keys:[POL] [MARINE] [EMG] [TEL] or [AIR]. The scanner automatically starts scanning the selected bank.

5: Adjust the volume to a comfortable listening level.

Adjusting the Squelch

1: Open the Squelch by turning the [SQ] clockwise to the end. You should hear a steady sound (scanning stops)

2: Turn [SQ] counterclockwise slowly until the sound disappears. This is the threshold point at which scanning starts. At the squelch threshold, an incoming signal just slightly stronger than the noise will open the squelch.

NOTE: When squelch is open, you can hear the voice (scanning is stopped). If the squelch is set too tight, that is , too far counterclockwise from the threshold point, a stronger signal is required to open the squelch.

If the squelch is set on a point clockwise from the threshold, you will hear a constant sound (noise, if no signal is present). The scanner will not scan.

Programming Frequencies

Before you can scan the MEMORY bank, you must first program the channels. You can program one frequency per channel. Press PRG to start the program mode and also to complete the programming. If you do not want to finish programming, press [BND] to leave the Program mode.

You can program any displayed frequency on the screen.

If you do not know any local frequency to program, find an active frequency by scanning any service band or searching any selected band. Then, when you find a desired frequency, program that frequency to the MEMORY bank.

You can also program a non-active frequency. If you know a local frequency, press [UP] or [DOWN] keys to start searching. Then press BND key to select the band which covers that frequency. When the search is near the frequency you want displayed on the screen, press HOLD to stop searching. Then use the [UP] or [DOWN] keys to display the frequency you want to program.

Scanning

To Start scanning press any bank key.

When the AE 66M is scanning you can see the "SCAN" message moving across the display. Scanning stops on any active channel automatically and displays its frequency, except those channels programmed with L/O (Lockout). Scanning resumes automatically two seconds after the channel becomes inactive or the [UP] or [DOWN] key is pressed.

To stop scanning at any time, press [HOLD]. When you press [HOLD], you are in the Scan/Hold mode. The scanner remains on the displayed channel until you press any bank key again to resume scanning. (Or you can press [UP] or [DOWN] keys to start scanning)

In the Scan Hold mode, each time you press [UP] or [DOWN] you step up or down one channel at a time (one frequency step each for AIR/TEL or MARINE). Press and hold [UP] or [DOWN] to rapidly step through that bank. In the Scan/Hold mode, you do not skip a locked out (L/O) channel using the [UP] or [DOWN].

Programming from SCAN Mode

Example.: When you find an interesting active frequency while scanning the AIR bank and want to program it into the POL bank.

1: Press [HOLD] key and HOLD appears on the display.

2: Press [PRG] key and "CH" appears on the display and Blinks to indicate that you are in the programming mode. To change the displayed frequency use the [UP] or [DOWN] keys while "CH" is blinking.

3: Press the [POL] key. The "PO" icon appears on the display and two screens alternate on the display. One of these screens is the frequency you wish to program and the other screen is the channel you wish to program this frequency into. To select which channel you want to store the frequency into use the [Up] or [DOWN] keys.
If you wish to cancel the programming then press [BND] key.

4: Press [PRG] key to end the programming

Programming from SEARCH Mode

Example.: When you find an interesting active frequency while searching 806-956 band and wish to program this into the HAM/EMG bank.

1: Press [HOLD] button and "HOLD" appears in the display

2: Press [PRG] button and "CH" appears and blinks in the Programming mode.

3: Press [EMG] button and "HAM/EMG" appears on the display. 2 screens alternate to indicate that Channel 1 is available to be programmed.

If you wish to cancel programming then press [BND] key.

4: Press [PRG] to end programming.

Erasing Programmed Frequencies

To erase the frequency once stored into a channel, recall that channel manually by using [UP] or [DOWN] keys, and select "0" by pressing [BND] key. Press [PRG], the Display alternates between the frequency stored and "0". Press [PRG] again, the frequency stored in the channel recalled is now erased and automatically locked out while scanning.

Program Lock Feature

The AE 66M has a program lock feature (Memory Lock) to prevent accidental programming entries or unauthorised programming. Simply turn on the MEMO LOCK switch on the rear panel to disable [PRG] and protect memory.

Channel Lock Out

You can lock out a channel to effectively increase scan speed. This does not erase the frequency from the channel when it is locked out.

You can lock out all the channels in a bank, if desired. However if you do pressing that bank key will emit an error tone and the scanner will not scan

L/O is only active when the squelch is opened (scan is stopped) or in Hold Mode.

You cannot lockout any frequency in the MRN, TEL or AIR banks. These are frequency search banks and you cannot lock out any frequency in search mode.

Locking out Unwanted Channel

In scan mode press [L/O] when the scanner stops on a channel you do not want to hear. The scanner locks out that channel and immediately advances to the next channel to resume scanning.

In scan/Hold mode press [L/O] to lock out the displayed channel/frequency. In this case pressing [L/O] will not advance to the next channel "L/O" will appear on the screen to indicate that the displayed channel is Locked out.

Searching For Locked Out Channels

In Scan mode, you will not see locked out channels. However, to search for Locked out channels and display them on screen use [UP] or [DOWN] keys. These will enable you to search manually through the bank in Hold Mode only. "L/O" will appear on the screen to indicate the locked out channel.

Restoring A Locked Out Channel

Suppose you want to unlock Channel 12 of the MEM bank. Press [MEM] to start scanning. Press [HOLD] to stop scanning. ("HOLD" & "SCAN" must appear on the screen.) Use [UP] or [DOWN] to find locked out Channel 12 (which shows "L/O"). Then press [L/O] key. "L/O" disappears to indicate that channel 12 is now unlocked and restored for scanning.

Restoring all Locked Out Channels

You can unlock all locked out channels in any bank at one time. To do this, first press a bank key to start scanning. Then press [HOLD] to stop scanning. Press and hold down [L/O] ("L/O" appears on the screen) for more than 2.5 seconds until you hear the multi beep ("L/O" disappears). Now all locked out channels in the Bank are unlocked and restored for scanning.

POL Channel Lockout

All frequencies in the POL bank can be locked out by pressing and holding down the [POL] button for longer than 2 seconds. A beep tone will sound to confirm this action and scanner goes into [MEM] bank scan mode.

To cancel this mode, just press and hold for 2 seconds the [POL] button and a confirmation tone will sound to confirm this action.

MEMORY BACKUP

Your AE 66M has a convenient type of memory back up system. In the event of a power failure , the scanner provides approximately 14 days of memory retention so you don't immediately lose the frequencies you stored in any of the channels.

Software Update Information

The software of AE 66 M scanner has been revised to ensure better frequency band matching in some European countries for more practical use.

We have introduced a new country setting specially for Germany (country code **F**). Press **country key** several times until the display shows "**F**"

Now the scanner starts with following pre-programmed frequency ranges:

84.010 MHz to 87.250 MHz

144.0000 MHz to 146.0000 MHz

885.0125 MHz to 887.0125 MHz

930.0125 MHz to 932.0125 MHz

914.0125 MHz to 914.9875 MHz

959.0125 MHz to 959.9875 MHz

Important notes:
The channel spacing will be automatically adapted to the most used channel spacing system in the different frequency bands. It cannot be changed by user.

Please note that the amateur radio range 144 to 146 MHz can only be covered in 5 kHz steps. Listening to stations working on 12.5 kHz channel steps is possible with a maximum error of 2.5 kHz (due to 5 kHz steps in AE 66 M), but this error is within the bandwidth of the receiver, which is optimised for 25 kHz spacing systems with 16 F 3 modulation parameters