

ALCON

ALCON

AT-3000

LONG-RANGE CORDLESS TELEPHONE

User Guide



ALCON AT-3000 LONG-RANGE CORDLESS TELEPHONE

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FEATURES:

- ◆ Multi-handsets available: AT-3000 up to 9 handsets
- ◆ Base Frequency: UHF
- ◆ Multi-channel access (40).
- ◆ Handset auto power control.
- ◆ Standard code for extra security: CTCSS
- ◆ Standard scrambler feature; not necessary to purchase wire-tapping prevention equipment.
- ◆ 2-way paging, Base station speaker phone.
- ◆ Multi-handset intercom function.
- ◆ Touch any key to answer.
- ◆ Handset with power-saving device.
- ◆ High capacity Ni-MH rechargeable battery (2 pcs).
- ◆ Handset power saving device.
- ◆ Base station group call to all handset users in the network.
- ◆ Base station individual intercom to handsets.
- ◆ Signal strength & battery status on LCD screen.
- ◆ Voice volume adjustable.
- ◆ Ringer volume adjustable.
- ◆ Tone/pulse adjustable.
- ◆ 10 memories fast dial.
- ◆ Last number redial.
- ◆ Base station with V.S.W.R. protection device.

FEATURES UNIQUE TO THE AT-3000:

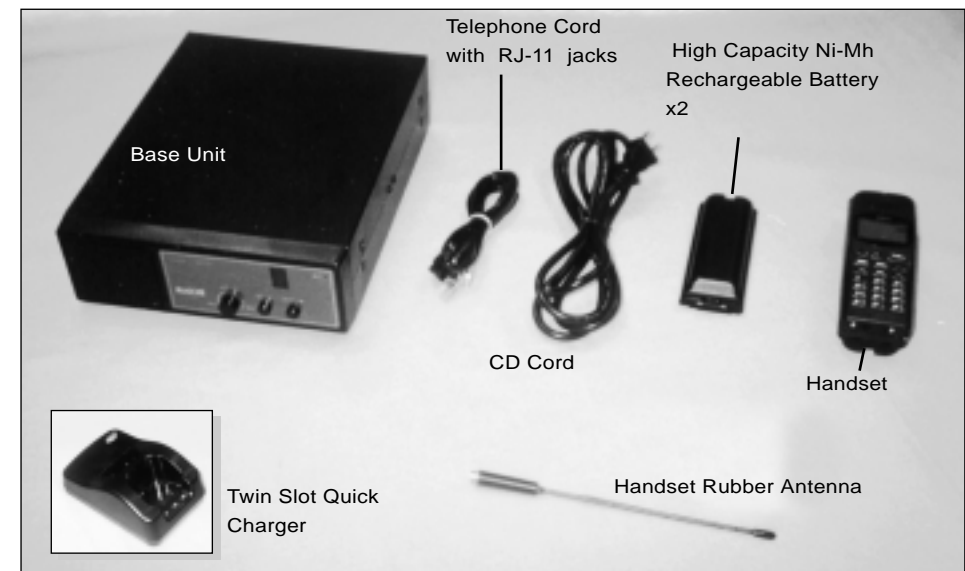
- ◆ Ultra-slim housing and cellular-like functions.
- ◆ Auto Power level control for energy saving.
- ◆ Call transfer and group conference intercom.
- ◆ Outgoing call restriction.
- ◆ Signal & battery status indicated on LCD screen.
- ◆ High quality communication.

STANDARD EQUIPMENT:

1. **Handset**
2. **Base Unit**
3. **High Capacity Ni-Mh Rechargeable Battery x2**
4. **Handset Rubber Antenna**
5. **Twin Slot Quick Charger**
6. **Charger Adaptor**
7. **Roof Antenna**
8. **Telephone Cord with RJ-11 jacks**
9. **Coaxial Cable 30 M (AT-3000)**
10. **Handset Leather Case**

Optional Equipment

1. **Car Antenna w/magnetic mount**



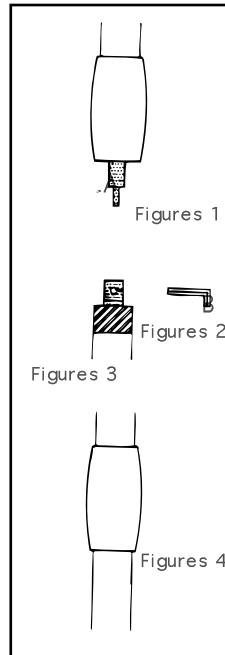
OA-2538 HI-GAIN ANTENNA INSTALLATION:

NOTE : It is essential that the outdoor antenna be placed in a strategic area to provide maximum communication range and clarity.

Before the Base Station and the Handset unit are activated, be sure to connect the Base Antenna to avoid damage.

ATTACHING THE TWO SECTIONS

1. Connect the two middle wires of each section of the antenna together.
2. Use the mini-L wrench to fasten the screw given into the place provided on the middle wire.
3. Dab the glue included around the top 8-10 cms of the bottom half of the base antenna making sure you use all the glue.
4. Connect the two sections together as tightly as possible.



ANTENNA MOUNTING

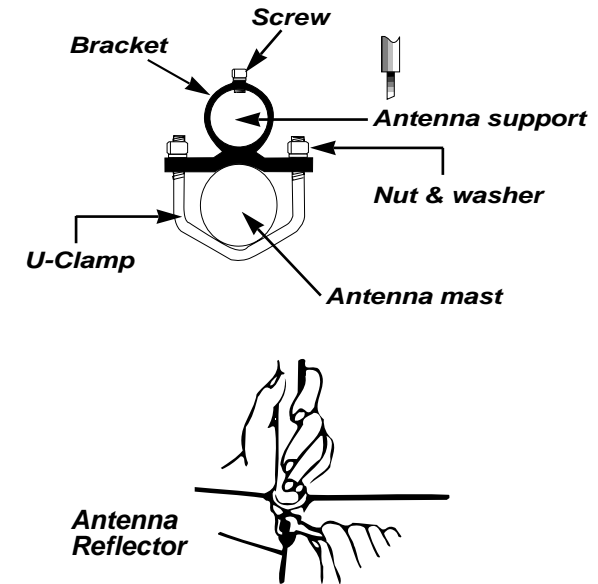
1. Mount the antenna support, using the U-Clamps given to an antenna mast (a long thin piece of wood or metal or fibreglass etc.) to extend the overall height.

Note: Make sure that the material you use can withstand any climatic condition.

2. Connect the M-Jacks provided to both ends of the coaxial cable included (if necessary).

ANTENNA REFLECTOR MOUNTING

3. Screw the three reflectors securely in the bottom part of the antenna into the places provided.



COAXIAL CABLE MOUNTING

4. Feed the coaxial cable through the support. Mount the high gain antenna on the support by aligning the holes found on the antenna support with those found on the antenna. Secure the structure by inserting the screws into the aligned holes found on the antenna support. Secure the structure tightly (see illustration).
5. Fix the cable securely on the ground by using cable clamps and run the cable to the base station unit, then connect it to the coaxial cable plug located on the back of the base unit.

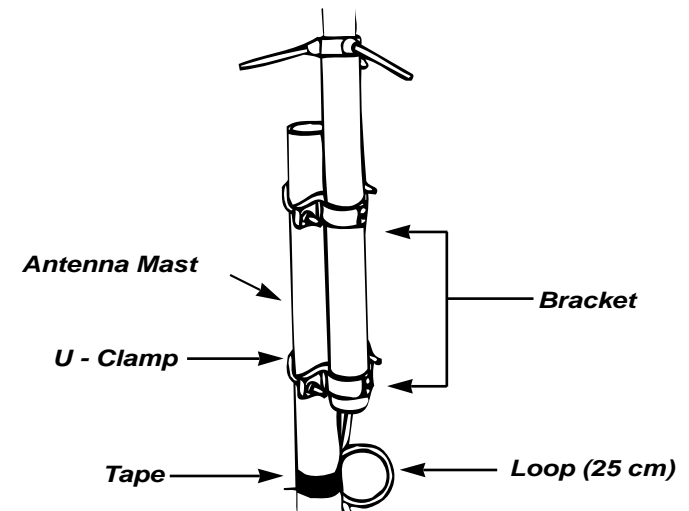
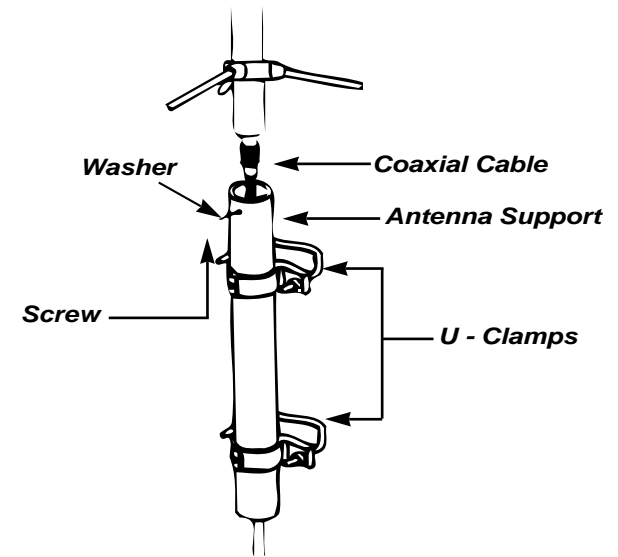
Note: It is necessary to use the coaxial cable included in our package since cable specification is compatible with our equipment. Any modification

of the cable or connector should be done by a qualified ALCON service center.

6. When securing the coaxial cable, we recommend you turn the coaxial cable once to make a small loop (about 15 to 25 cm in diameter) near the antenna support to prevent excessive load from the cable on the antenna connection and to protect the coaxial cable and antenna connection from being damaged when accidentally pulled. See illustration for more details.

STANDARD OA-2538 HIGH GAIN ANTENNA :

1. Hi Gain Antenna x 1 2 sections
2. Antenna Support x 1 including 3 screws
3. U-Clamps x 2 (including their respective screws)
4. Antenna Brackets x 2 (including their respective screws)
5. Antenna Reflector x 3
6. Glue
7. Mini L-Wrench and Small Combining Screw




Note: Battery Charging

Please charge completely the battery before each use and fully discharge the battery once a month. It is necessary to charge the battery a full 12 hours or more, especially when charging for the first time or after discharging; otherwise, the battery life will be less. If the Handset battery becomes weak, replace it with an original battery sold by the manufacturer. Never purchase and use a similar looking battery since the specifications may be incompatible.

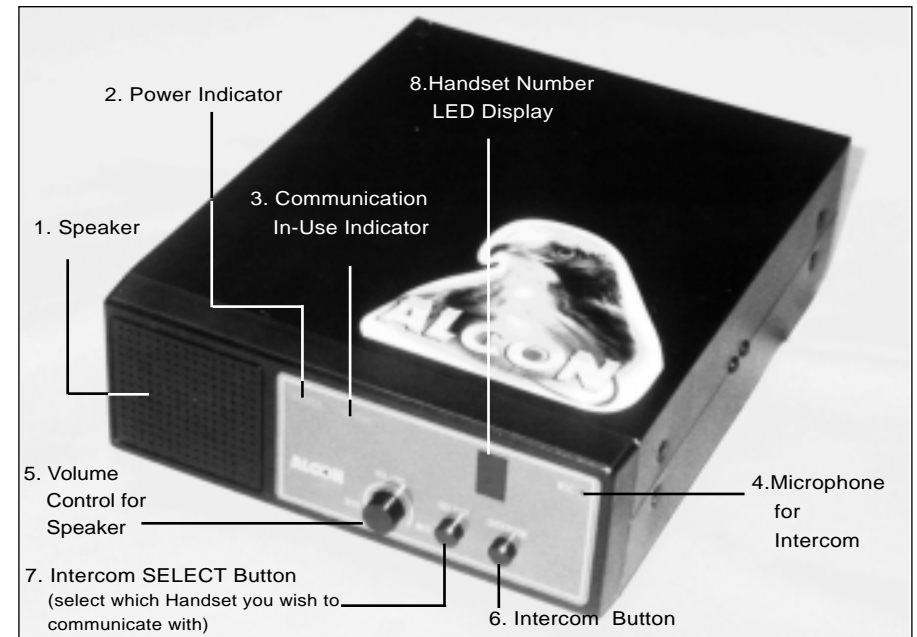
Replacing a Weak Battery During a Conversation

Sometimes your Handset battery can get weak at the worst of times.....during an important conversation.

1. Please tell the person that you are having a conversation to not hang up the phone.
2. Press **CAL** + **1** the same ID No. of your Handset, and press **1** to turn off the power.
3. Replace the weak battery with a fully charged one.
4. Press again to turn on the power.
5. Press 
6. Now you can continue your conversation.

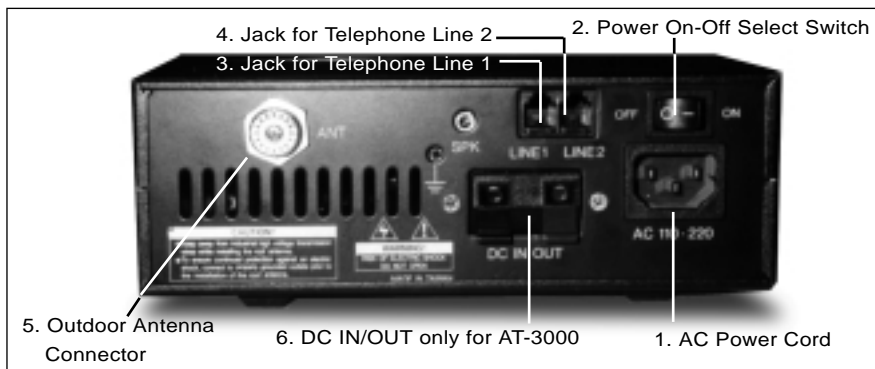
BASE UNIT CONTROL AND FUNCTION KEYS BASE UNIT FRONT PANEL

1. Speaker
2. Power Indicator
3. Communication In-Use Indicator
4. Microphone for Intercom
5. Volume Control for Speaker
6. Intercom Button
7. Intercom SELECT Button (select which Handset you wish to communicate with)
8. Handset Number LED Display



BASE UNIT REAR PANEL

1. AC Power Cord
2. Power On-Off Select Switch
3. Jack for Telephone Line 1
4. Jack for Telephone Line 2
5. Outdoor Antenna Connector
6. DC IN/OUT only for AT-3000



INSTALLATION WARNING :

Never subject the Base Unit to excessive heat or flame. Please keep the Base Unit away from the wall to allow the heat sink to function properly.

Always install and connect the antenna and coaxial cable **BEFORE** turning on the power. Never turn on the system before connecting the antenna!!

When connecting the outside PSTN phone line to the system, place the normal telephone off hook to avoid shocking yourself if a call happens to come in during installation.

BASE UNIT INSTALLATION

1. Plug in the AC Power Cord to the power source.
2. Install the outdoor antenna according to the instructions found in the section “ OUTDOOR ANTENNA INSTALLATION GUIDE” .
3. Connect the outdoor antenna cable to the Antenna connector jack found on the rear panel of the Base Unit.
4. Use the telephone cord included in the standard package to connect the Base Unit to the local PSTN telephone system. Plug the telephone cord into the LINE 1 socket. If you are using two incoming telephone lines, plug the second telephone cord into the LINE 2 socket.

BASE UNIT OPERATING INSTRUCTIONS:

- ◆ Turn the power switch found on the rear panel to “ON” . The base unit is now in Standby mode.

Base to Handset INTERCOM:

- ◆ To page another Handset user from the Base Unit, press the SELECT button to select the handset user. Then press the “INTERCOM” button once to enter the intercom mode. The “IN USE” indicator LED is lit. The Handset user can hear the ring and press any key to answer (except the key) and start a conversation.
- ◆ There is a microphone and speaker located inside the Base Unit to allow handsfree communication from the Base Unit.
- ◆ It is possible to adjust the volume in INTERCOM mode as per your preference.
- ◆ When a call is being made by the handset, the IN USE indicator is lit.
- ◆ Pressing the “ **CAL** ” on the handset will activate the INTERCOM mode on the Base Unit automatically.

HANDSET UNIT CONTROL & FUNCTION KEYS EXPLANATIONS:

- | | |
|--|---|
| 1. Microphone | 10. L: Flash key |
| 2. Number keypad | 11. Power switch |
| 3. Placing a call (Line 1) | 12. LCD screen |
| 4. Placing a call (Line 2/Hold) | 13. Battery statue display |
| 5. CAL: Intercom Base or other handset | 14. Key-lock function operating |
| 6. END: End the call | 15. Phone In-Use |
| 7. MEM: Memory function | 16. Signal strength statue display |
| 8. RED: Redial | 17. Keypad & ringer tone & ringer tone on/off |
| 9. FUN: Function | |



HANDSET UNIT OPERATING INSTRUCTIONS

Press **(I)** key once to turn the power on. The Handset is in Standby mode



when you see  shown on the LCD screen.

Press **(I)** key for a few seconds until the power off tone is heard.

DIALING A TELEPHONE NUMBER :

Input the telephone number you wish to call for example:


2 7 0 7 2 7 6 6

Then press  key to connect and dial or press  key if you have a second telephone line connected to the Base Unit (line 2 jack).

ENDING THE TELEPHONE CALL:

Press the **(END)** key.

RE-DIAL:

To use the Redial function, it is necessary to first connect to the Base Unit and then enter the telephone number you wish to communicate with. If you do not get through and wish to re-dial then press the **(FUN)(RED)** ; then press  or if the second telephone line is connected to the Base Unit (line 2 jack). However, if you input the telephone number first and then press **(SND)**, the redial function will not be activated.

RECEIVING A CALL:

If the Handset begins to ring, press any key (except the **(I)** key) to pick up the incoming phone call.

STORING A PHONE NUMBER IN THE MEMORY:

Input the phone numbers that you want to store in the memory for fast dialing such as:

2 7 0 7 2 7 6 6

Press **MEM** 1 keys to store the phone number to memory 1. It is possible to store up to ten numbers from 0-9. If you happen to make a mistake inputting any of the telephone digits, it is necessary to re-input all the telephone numbers.

FAST DIALING:

Press **MEM** 1 key to recall the phone number that was stored in Memory 1. Then press **1** key to dial the phone number out, or you can press **2** if you have 2 telephone lines.

HOLDING THE PHONE LINE DURING A CONVERSATION:

Press **2** key to place the call on hold. Press the **1** key once again to return to normal operation.

INTERCOMMUNICATION:

To page the Base Unit and have intercommunication with it, just press the **CAL** key and wait for the response. To finish the intercom mode, press the **END** key.

HANDSET TO HANDSET INTERCOM:

Press **FUN** **CAL** to call all the other Handset users for conference use.

Press 1-9 **CAL** to call the Handset you wish to communicate with.

Press any key to talk and continuously press this key during your conversation.

Release the key to listen to the Handset you are communicating with.

FLASH:

When you finish a telephone call, press the **L** key, which represents the flash function, to retrieve the dial tone and begin to dial the next telephone

number. The flash time is 0.6 secs.

Another function of the FLASH button is to change the channel if the channel you are using has too much interference. If the channel you are using during your conversation has too much interference, press the **L** button 2 secs and the Handset will automatically change to a different and cleaner channel.

WARNING: It is not possible to transfer a call after you have manually changed the channel using the above method.

CALL TRANSFER:

If the incoming call received by one Handset user is not for him, the call can be transferred to the correct Handset user. Press the Handset user number and, this call will automatically transfer to the Handset User you choose.

NO SVC:

When the "NO SVC" is shown on the LCD screen, it means that you are out of communication range. Get closer to the Base Unit and try communicating with the Base Unit again.

FUNCTION KEY EXPLANATION:

FUN 1	: Key Lock	FUN 5	: Display ID Code
FUN 2	: Ring Tone	FUN 6	: Program ID Code
FUN 3	: Tone/Pulse	FUN 7	: Encode Function (00-039)
FUN 4	: Scrambler	FUN 8	: Set Program Code
		FUN 9	: Headphone Volume (1-8)

FUN **1** **KEY LOCK :**

Press **FUN** 1 and number 2538 to lock the **SND** key on the keypad to prevent unauthorized use. Take note that both **SND** 1 and **SND** 2 will both be locked. Repeat the same procedure to unlock the **SND** key. If the **SND** key is locked it will be possible to receive incoming calls.

FUN **2**
Press **FUN** **2**

RING TONE ADJUST :

and 0 to set the ring to “OFF”.
and 1 to set the ring to “LOW”.
and 2 to set the ring to “HIGH”.

WARNING: *On the side of the Handset there is an ON/OFF switch to turn off the sound completely of the unit. If you turn the switch to “OFF” you will be able to receive incoming calls, but you will not know since there will be no sound.*

FUN **3**

DIAL SYSTEM SELECT :

Press **FUN** **3** **#** to choose “TONE” mode. This will be shown on the LCD.

Press **FUN** **3** ***** to choose “PULSE” mode. This will be shown on the LCD.

FUN **4**

SCRAMBLER:

There are two scramble functions incorporated into this system SCRB 1 & SCRB 2. It is necessary that Handset 1 completes this procedure first and then all the other Handsets follow the same procedure for the Base Unit to accept the scramble function of any Handset in the system. Also all the Handsets in the system must be programmed to either SCRB 1 or SCRB 2 for the Base Unit to accept the scrambled signal. You cannot have some using SCRB 1 and others using SCRB 2

Press **FUN** **4** and **0** **MEM** to cancel the scrambler.
and **1** **MEM** to set scrambler 1.
and **2** **MEM** to set scrambler 2.

FUN **5**

SERIAL NO. & HANDSET NO. DISPLAY :

FUN **5** **1** **2** **3** **4** **5** - **1**

This function displays the Serial Number and the Handset Number of the Handset you are using. The first **5** digits **1** **2** **3** **4** **5**

is your Serial Number. The last digit **1** is the Handset Number (from 1-9 depending on how many handsets you have in your system).

PROGRAM NEW HANDSET INTO YOUR SYSTEM FUNCTION:

FUN **6**



In the STBY mode press **FUN** **6** You will see -CODE-- shown on the LCD Display. Enter the Base Unit Serial Number (5 digits) followed by the Handset Number you wish to have this Handset be represented by xxxxx x (as shown in FUN 5). After entering this information, please press MEM to complete this procedure.

REMEMBER: It is necessary to match the GROUP & TYPE of the new Handset with the original GROUP & TYPE of Base Unit; otherwise, the Handset will not be able to link with the Base Unit.

FUN **7**



Adding an Extra Security Code To Your System:

The encode function is another security measure added to your system to further prevent unwanted use of your system using CTCSS tones for example if one of your Handsets is stolen and you wish to cancel it from the system. To change the CTCSS code it is necessary that Handset 1 is the only Handset that can change this function and the other Handsets will follow it (ie. Handset 1 wishes to change the CTCSS tone to No. 23. All other Handsets in the system must change to No. 23 as well, otherwise they will not be able to link). If your Handset is not Handset 1 (Handset 2-9) and by mistake you change this function, you will not be able to link with the Base Unit. Unless it is absolutely necessary, please do not change the factory set CTCSS tone.

Please enter **FUN** **7** then 01-040 (Handset ID No.) **MEM** to set your CTCSS tone.

FUN 8

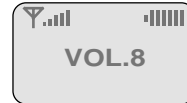


Not available.

FUN 9

HANDSET VOLUME :

FUN 9



Please press the number key “ 1-8 ” to adjust the handset volume.

TROUBLESHOOTING GUIDE:

If the equipment appears to be faulty during normal use, please follow the simple troubleshooting steps below. If symptoms persist, you should contact your local distributor to have the equipment serviced. Do not attempt to disassemble the equipment yourself; otherwise local warranties will be void.

Symptom: Procedure:

1. Poor Communication Quality: Check if outdoor antenna is installed correctly. Is there any visible damage? Refer to the Antenna Installation section of this Instruction Manual.
2. Units Do Not Ring:
 - Is the Base Unit power turned on?
 - Is the Base Unit connected to the phone line?]
 - Is the Handset battery sufficiently charged?
 - Is the battery pack installed correctly?
 - Is the handset ring disabled? (FUN 2)
3. Cannot make calls:
 - Is the Base Unit connected to the phone line?
 - Is the handset battery fully charged?
4. Effective range too short:
 - Is the handset antenna correctly installed?
 - Is the handset battery fully charged?
5. Handset unit will not operate: Is the handset battery sufficiently charged?
6. Noisy reception of handset unit: Is the handset antenna correctly installed?
 - Is the handset battery fully charged?
 - Is there any electrical equipment operating near the Base Unit?
 - Is there any moisture or oxidation in the telephone connection box?
7. Unit rings once and cuts off: Are there too many telephone outlets?
8. Power indicator not lit on Base Unit. Is the Base Unit plugged in?

Note: If after using the above procedures the problems still exist, it is necessary to take our equipment to an authorized service center for repair.

TA K I N G C A R E O F Y O U R E Q U I P M E N T :

1. Avoid dust, moisture, shock, high temperature and direct sun light.
2. Base Unit should be placed away from heat, mechanical equipment or T.V. ' s to avoid interference.
3. Avoid dropping either the Handset or the Base Unit.
4. Use the battery charger provided in the standard accessories.
5. The outdoor antenna should be installed away from high electricity power lines and metal rods.
6. In areas where lightning is prevalent, it is highly preferable to install anti-lightning equipment and good earth grounding to protect the equipment from lightning. It is also recommended that the equipment be protected from voltage irregularities and spikes with some kind of equipment.
7. To prevent AC power cord damage, be sure to hold the plug instead of the cord itself when unplugging from an AC outlet. Also avoid a strong magnetic field.
8. NEVER operate units before the Base antenna is installed and connected with the Base.
9. NEVER operate units before the Handset antenna is installed.

ALCON

WIRELESS RURAL TELECOM PRODUCTS



AT-520

NOMAL TELEPHONE

- HANDSFREE DIALING
- HOOK
- REDIAL
- FLASH
- PAUSE
- HOLD
- TONE/PULSE
- VOLUME
- RINGER ON/OFF
- RINGER LED
- IN USE LED
- HOLD LED



MINI-7

CORDLESS TELEPHONE 4-8Km Range

- Two Way Page and Intercom.
- 10 Telephone Number 16 Digit Memory.
- Last Number Redial.
- Pulse and Tone DTMF Dialing Selectable.
- 65,536 Random Set Two-way Security Code
- 48 Hours Handset Standby.
- Auto On/Standby Function.
- Optional Hand Charger Available.
- Range : 500-800m Indoors.
With Optional Roof Antenna : Up To 3Km.
- Can Monitor Area Near Base Unit Remotely.



AT-2000

MULTI-HANDSET CORDLESS TELEPHONE WITH FULL-DUPLEX TRANSCEIVER FUNCTION

- 40 Channels Autoscan
- More Than 100-hrs Stand-By Time and 6-hrs In-Use Time for Handset
- Scrambler Function
- Handset to Handset Intercom (2Km in Open Areas)
- Hand-Free Function for Base Unit and Handset



CT-8X-TRA STATION TO STATION
SUPER PRIVATE STATION TO MOBILE
WIRELESS TELEPHONE LINE SYSTEM

- LCD DISPLAY
- HIGH PERFORMANCE
- FULL DUPLEX
- CONTINUOUS DUTY CYCLE
- MODULAR DESIGN
- UNIVERSAL INTERFACE
- SOFTWARE CONTROL LED (4 CPU)
- FREQUENCY SCANNING
- TWO-WAY PAGING & INTERCOM
- 1048576 DIGITAL SECURITY CODE
- ALL IN ONE DESIGN WITH POWER SUPPLY INCORPORATED

Up to 100Km
Range



CT-8
RURAL CORDLESS TELEPHONE SYSTEM

- HIGH PERFORMANCE
- FULL DUPLEX
- CONTINUOUS DUTY CYCLE
- MODULAR DESIGN
- UNIVERSAL INTERFACE
- SOFTWARE CONTROLLED(4 CPU)
- FREQUENCY SCANNING
- TONE/PULSE
- TWO-WAY PAGING & INTERCOM
- 1048576 DIGITAL SECURITY CODE



Mega®
RURAL CORDLESS TELEPHONE SYSTEM

- HIGH PERFORMANCE
- FULL DUPLEX
- CONTINUOUS DUTY CYCLE
- MODULAR DESIGN
- UNIVERSAL INTERFACE
- SOFTWARE CONTROLLED(4 CPU)
- FREQUENCY SCANNING
- TONE/PULSE
- TWO-WAY PAGING & INTERCOM
- 1048576 DIGITAL SECURITY CODE



60-100Km
Range

ST-600 SERIES
RURAL CORDLESS TELEPHONE SYSTEM

Multi REMOTE UNITS
Multi LINES
DISA

Bases Unit

- 25 watt Base Unit
- 2 lines for each Base
- Expandable incoming line system for the Base Unit i.e.:
 - 4 lines for 2 Bases,
 - 6 lines for 3 Bases...

Remote Unit

- Up to 254 remote units expandable,
- managed by DISA function
- Intercom between remote units

