

# MICOM 2E - ASTIC PABX

## Automatic Ssb Telephone InterConnect

ASTIC PABX IN EXTERNAL UNIT

**FLN2824A**

**Ver 3.4**



INSTRUCTION

MANUAL

REVISION

**6886854J01**

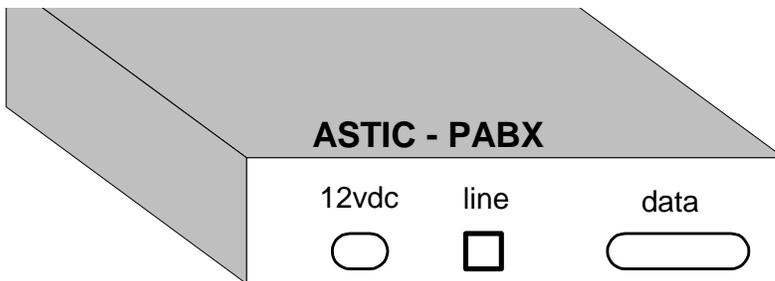
## **GENERAL**

THIS REVISION OUTLINES CONTENT CHANGES THAT HAVE TAKEN PLACE FOR OPERATING ASTIC UNIT WITH MICOM-2E ALE RADIO

## **REVISION DETAILS**

THIS REVISION INCLUDES TEXTUAL INFORMATION,PARTS LISTS AND DRAWINGS.

## **EXTERNAL ASTIC UNIT**



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# 1.INSTALLATION

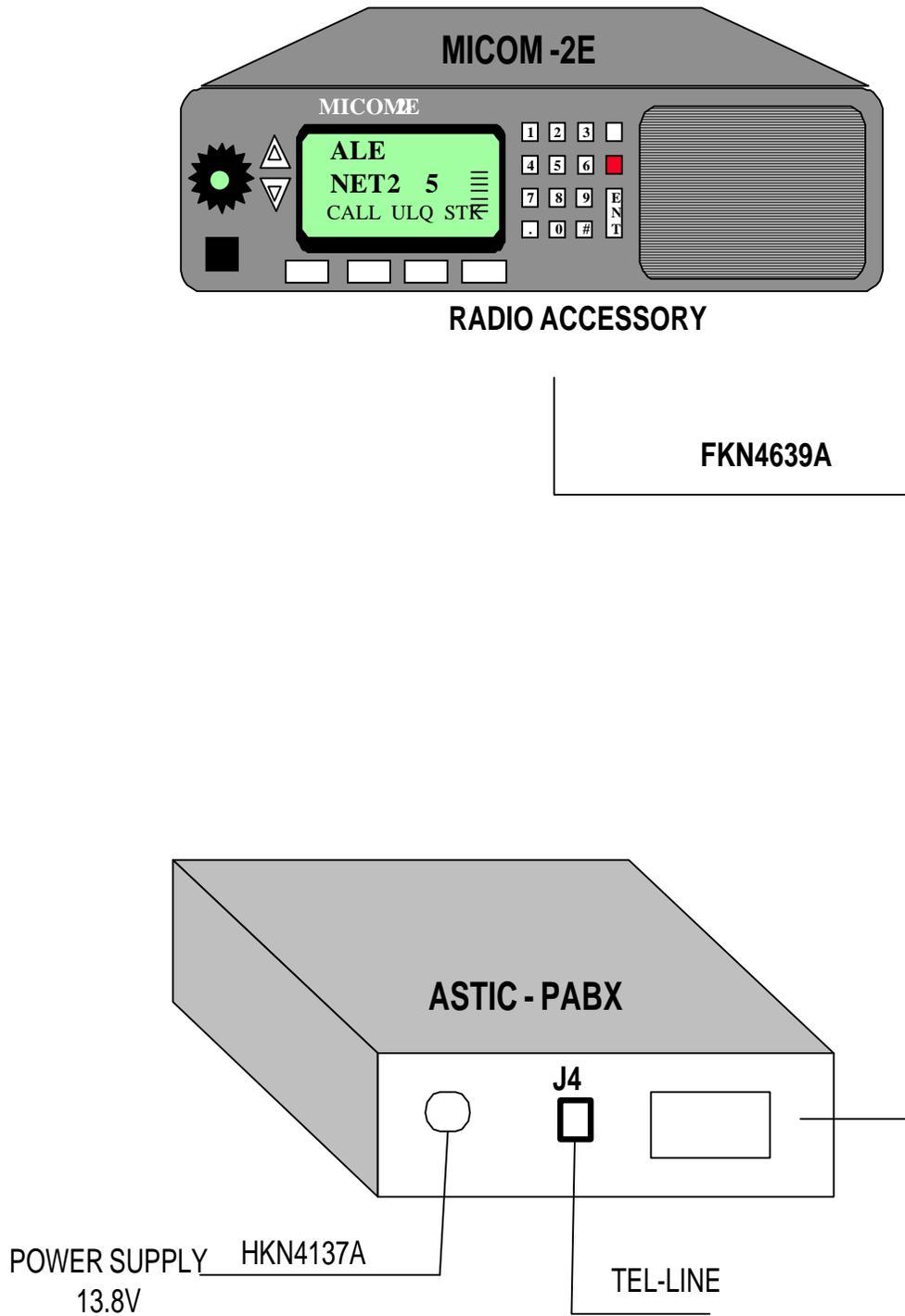


FIGURE 1

## **TIC BOARD JUMPERS POSITION**

JU1 - IN  
JU2 - IN  
JU3 - IN  
JU4 - IN  
JU5 - IN  
JU6 - IN  
JU7 - ( 2-3 )  
JU8 - ( 2-3 )  
JU9 - ( 2-3 )  
JU10 - (2-3 )  
JU11 - ( 1-2 )  
JU12 - ( 1-2 )  
JU13 - (2-3 )

FIVE DIP SWITCHES ARE IN THE OPEN POSITION

## 2 .Procedure Programming

1. Press the [ Menu ] button , and then press [ MORE ] until you can select < UTIL > function key.
2. Press < UTIL > function key and then press < ASTC > function key ,the display will show ASTIC and three new function keys.
3. Press the < PROG > function key , the display will show ASTIC PARAMETERS and ASTIC programming function keys.
4. To move among the ASTIC parameters press the < SCROLL > function key.
5. Press < DIAL > function key to select between PULSE and DTMF(tone) dialing ( according to the telephone exchange type). Select the desired dial type and press < ENTER > and move to next step.
6. Press < VTOT > function key to select the Voice operated relay Time Out Timer, the duration of time from the moment there is no activity on the telephone line ,until the link is disconnected automatically by the ASTIC. The range is between 3-20 minutes. Select the desired time for the Vox Time Out Timer , press < ENTER > to move to the next step.

### note

The selected VOX TOT value should be smaller then the ALE PTT time out programmed value, in order to take advantage of the ASTIC VOX TOT.

Recommended values are :

VOX TOT = 3 minutes

ALE PTT TOT = 5 minutes

7. Press the < ANS > function key ,to program the number of ‘ring back ‘ tones before the ASTIC will send Off-Hook signal to the subscriber. The possible parameters are 3,6,9 rings. Select the desired number of rings , press < ENTER > to move to the next step.
8. Press < MORE > to program more parameters.
9. Press the < PRIV > function key to program the ASTIC PRIVATE tone mode. This mode is necessary in places where the pabx requires additional number to get the line, **and wait** a few seconds to get the dial tone , in those places this parameter must be programmed to < YES > , in all other cases this parameter must be programmed to < NO >.
10. If this parameter is programmed to NO skip to step 12. If the private parameter is programmed to YES you must program the wait time to get the dial tone .

**note**

In places where you have to dial one digit and get **immediate** dial tone the PRIVATE parameter **must** be programmed to NO.

11. Press the < WAIT > function key to program the time to wait for the dial tone .The available range is 1-30 seconds . Select the desired time and press < ENTER >.

**note**

The ASTIC will dial the first number to get the line ,and wait for dial tone **OR** duration of 'WAIT' seconds, and then the ASTIC will dial the rest of the telephone number.

12. Press the < VOFF > function key to program the relative sensitivity for VOX relay disconnection. This parameter value is dependent on the quality of the line. The better the quality of the line , the lower the required value , and vise versa. The possible range is 0- less then VOX ON parameter. Select the desired value and press <ENTER >.

**note**

If the VOX OFF value is too low in relation to line quality, it will prevent the telephone user from returning to the receive mode after finish talking. On the other hand , if VOX OFF value is too high , the telephone user will have to speak loudly in order to maintain the MICOM-2E in transmit mode.

13. Press the < VON > function key to program the relative sensitivity for VOX relay activation. This parameter value is dependent on the quality of the line. The better the quality of the line , the lower the required value , and vise versa. The possible range is 0-10 .Select the desired value and press < ENTER >.

**note**

If the VOX ON value is too low in relation to line quality, it may cause false activation of the vox. On the other hand , if the VOX ON value is too high the telephone user will have to speak loudly in order to activate the VOX and key the MICOM-2E into transmit mode.

Recommended values are :

VOX OFF = 7

VOX ON = 8

### **3 BUILED IN TEST (BITE)**

Checking the hardware of the ASTIC card .

1. Press the [ Menu ] button , and then press < MORE > until you can select < UTIL > function key.

Press < UTIL > function key and then press < ASTC > function key, the display will show ASTIC and three new function keys.

2. Press the < BITE > function key, and wait aproccemetly 12 sec for the ASTIC to check his hardware.

3. If the build In Test passed successfully the display shows:  
BITE ...

If the Build In Test is O.K the display will show : ASTIC BITE PASSED

If the Build In Test fails the display will show the errors , possible error are :

- Dtmf failure. (U9,Y2,Q1,U25,U28)
- Band Pass Filter failure. (U15,U17,U19,U21,Q14,Q15)
- Notch filter failure. (U17,U18,U19,U21,Q23,Q27)
- RGC failure. (U26)
- Bypass Failure. (U14,U25,Q15,Q23)

then one error scroll through the errors.

#### **4. View card versions**

In order to view card version:

1. Press the [ Menu ] button , and then press < MORE > until you can select < UTIL > function key.
2. Press < UTIL > function key and then press < ASTC > function key, the display will show ASTIC and three new function keys.
3. Press the < VER > function key.
4. To view software version press < SOFT > function key.
5. To view hardware version press < HARD > function key.

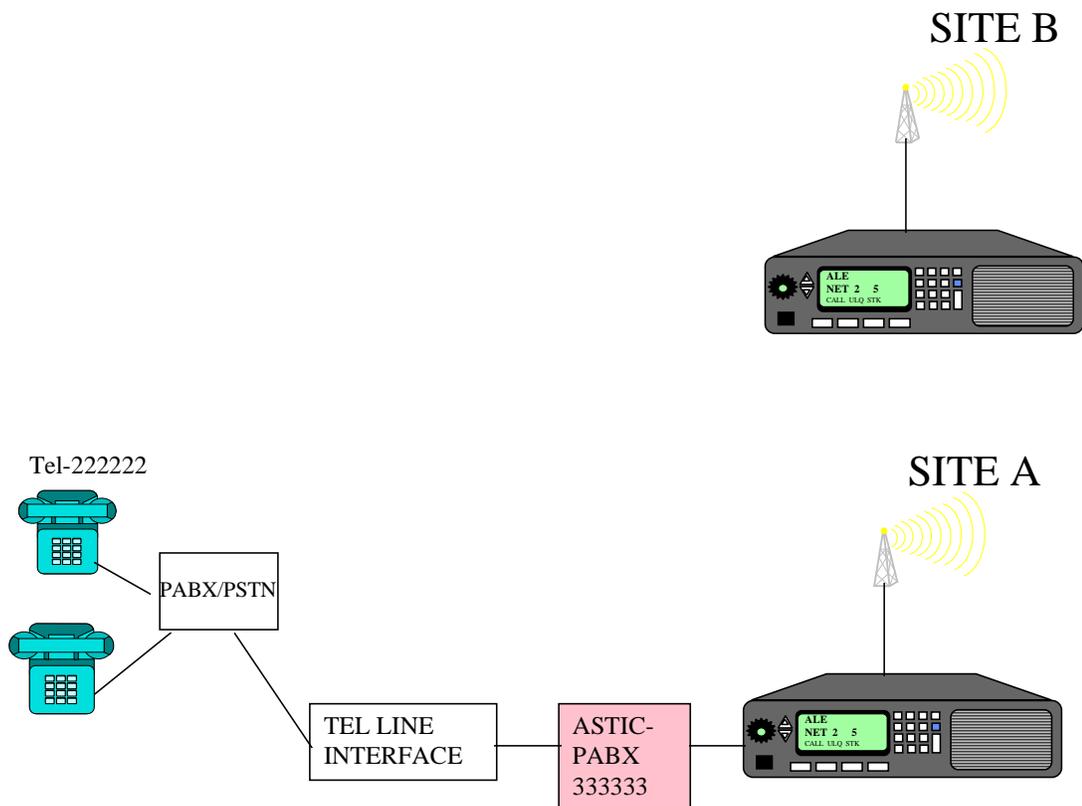
To view card type press < CARD > , the only type available is PABX.

## 5. Operation Procedure

### 5.1. Telephone Subscriber Calling Remote Station

For this mode of operation the following data is assumed as an example:

- The telephone number at site A is 333333 ( this is the assigned telephone number for the ASTIC at site A).
- The Micom-2E ALE address at site A is 1212.
- The Micom-2E ALE address at site B is 1111.



A Telephone ( number 222222) calling remote Micom-2E radio at site B.

1. Pick-up the handset . When you hear the dial tone , dial the ASTIC telephone number (333333).You will hear a ring back or busy tone.
2. If a busy tone is heard ,go on hook and try again later.
3. If the line is not busy , after several rings ( ASTIC programmable number (ANS) ),a series of beeps will be heard , indicating your entry into the ASTIC system.
4. At the end of the beeps ,dial the destination radio's ALE address terminating with # ,  
( ex. station B address is 1111 so dial 1111# ).

**note**

A delay of more then 30 seconds between the digits is interpreted by the system as end-of-dial.

5. After dialing is completed , wait tone (beeps) are heard ,if the ALE destination address is valid ( programmed in the Micom-2E radio at site A).If the dialed ALE address is not valid , an error chirp tone will be heard. Try dialing once again from step 4 above. If the Micom-2E radio at site A is busy , a busy tone will be heard . Try again later.

The wait beeps continue until the radio link is established .

If the radio link is not established , a disconnect tone is heard . Try again later.

6. After a link is established , start the conversation. Speak in a loud and clear voice.

**note**

Before answering , the Micom-2E user at the remote site B should wait for a beep after the telephone user finished talking.

7. The call ends:

- when the user at the telephone press the [#] key .
- when the Micom-2E radio user returns the ale to scan, by pressing < ESC >.
- If the telephone user does not speak for the duration set by the VTOT parameter ( vox time out timer).

## **5.2. Remote Station Calling Telephone Subscriber.**

Station B calls site A. The call should be initiated when the remote Micom-2E (site B) is operating in ALE scanning mode.

The call consists of two parts:

- Call the ALE address of the radio at site A.
- Put the telephone number of the desired subscriber.

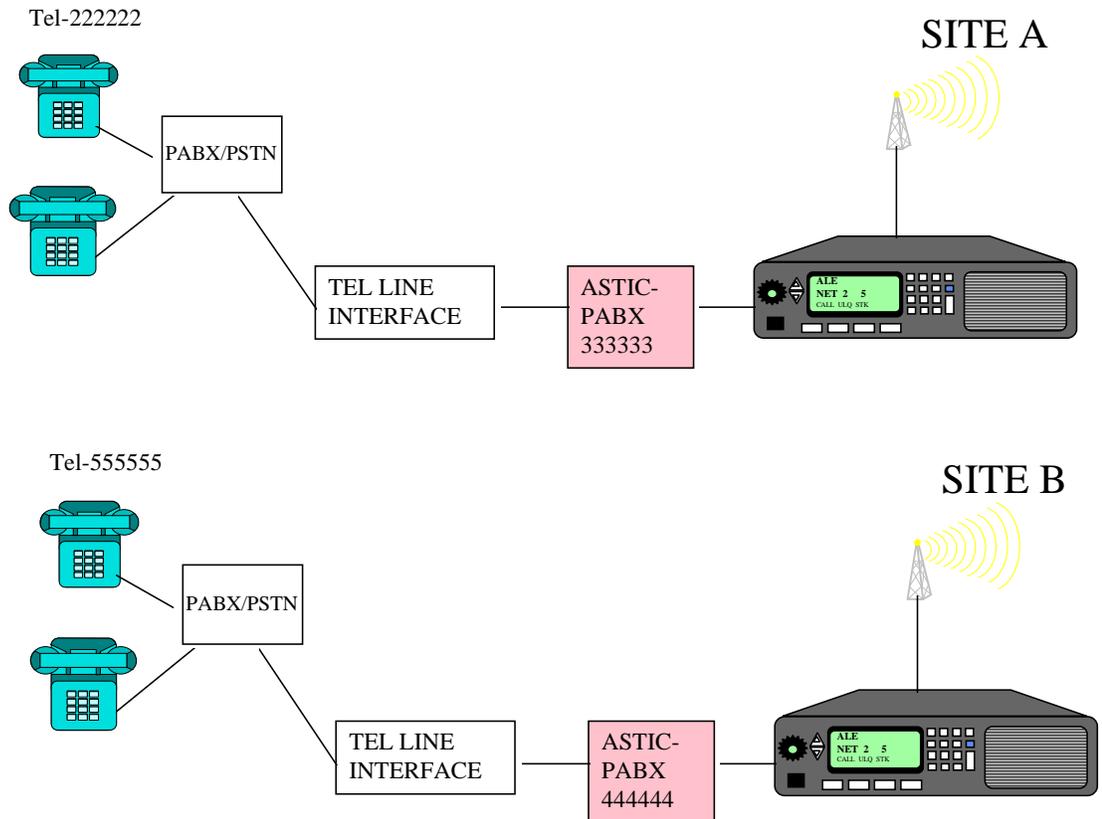
### **At the remote site B**

1. Enter into sending call mode: While the ALE is scanning, press < CALL > select the desired ALE address by using the < SCROLL > button.  
ex. : ALE address - 1212
2. To enter the desired telephone number press < PAGE >, you may edit a new message or select a predefined message by pressing <SCROLL> to the next message.
3. If you decide to edit a message press < EDIT >.
4. The message should include the telephone number preceded by the word DIAL.  
Ex. : DIAL222222 where DIAL is keyword and 222222 is the telephone number.
5. After entering the DIAL and the telephone number ,if you want to save this message in one of the predefined messages press < SAVE > , if you want to send without saving the message press < ENTER > , to send the call press the < SEND > button.
6. When the link is established the display shows LINK with the called station .After a few seconds the radio user hears the telephone call tones being processed at the receiving end (site A) , the tones can be Dial , Ring-Back, or Busy.
7. In case of a busy tone the ASTIC module will automatically disconnect the line. Try again later .
8. If the ring back tone is heard , wait until the telephone subscriber answers and then start the conversation. Speak in loud clear voice.
9. The call ends :
  - when the user at the telephone press the [ # ] key .
  - when the Micom-2E radio user returns the ale to scan, by pressing < ESC > .
  - If the telephone user does not speak for the duration set by the VTOT parameter ( vox time out timer).

### 5.3. Telephone Subscriber Calling Telephone Subscriber Through HF Link.

For this mode of operation the following data is assumed as an example:

- The telephone number at site A is 333333 ( this is the assigned telephone number for the ASTIC at site A).
- The Micom-2E ALE address at site A is 1212.
- The telephone number at site B is 444444 ( this is the assigned telephone number for the ASTIC at site B).
- The Micom-2E ALE address at site B is 1111.



A Telephone ( number 222222) calling remote telephone at site B(number 555555 ).

1. Pick-up the handset . When you hear the dial tone , dial the ASTIC telephone number (333333).You will hear a ring back or busy tone.
2. If a busy tone is heard , go on hook and try again later.
3. If the line is not busy , after several rings ( ASTIC programmable number (ANS) ),a series of beeps will be heard , indicating your entry into the ASTIC system.
4. At the end of the beeps ,dial the destination radio's ALE address with \* followed by the destination Tel. number terminating with # ( ex. dial 1111\*55555# ).

**note**

A delay of more then 30 seconds between the digits is interpreted by the system as end-of-dial.

5. After dialing is completed , wait tone (beeps) are heard ,if the ALE destination address is valid ( programmed in the Micom-2E radio at site A).If the dialed ALE address is not valid , an error chirp tone will be heard. Try dialing once again from step 1 above. If the Micom-2E radio at site A is busy , a busy tone will be heard . Try again later.

The wait beeps continue until the radio link is established .

If the radio link is not established , a disconnect tone is heard . Try again later.

6. After a link is established , start the conversation. Speak in a loud and clear voice.

**note**

Before answering , the Micom-2E user at the remote site B should wait for a beep after the telephone user finished talking.

7. The call ends:

- when the user at the telephone press the [#] key .
- when the Micom-2E radio user returns the ale to scan, by pressing < ESC >.
- If the telephone user does not speak for the duration set by the VTOT parameter ( vox time out timer).