Software Upgrade Kits for Version 2 Telephone Access Systems

June 20, 2006

LT-615 Rev 2

This Installation Instruction describes how to upgrade older Mircom Telephone Access System (TAS) Lobby Panels (ADC and 9500 NSL) to their most recent version of software, **Version 2.60** which include **Memory Protection** to prevent loss of Resident numbers and names. These are units based upon Rev.2 Printed Circuit Boards (PCB's), which may be identified most easily by <u>not</u> having a power on-off slide-switch. These use Version 2.00 to 2.10 software, which can be determined by watching the display as the Lobby Unit powers-up.

All currently shipping Mircom TAS products use Rev.3 or higher PCB's which have a power on-off slide-switch, and use Version 3.00 and higher software. **This upgrade is not applicable to currently shipping TAS boards using Version 3.00 and higher software !**

The **Software Upgrade Kits** include this instruction, a replacement pre-programmed 27C256 EPROM memory device, and a replacement 28C64 EEPROM memory device. The installation is as follows ...

Product	Upgrade Kit	Install 27C256 to ...	Install 28C64 to ...
ADC	ADC-UG	U15	U16
ADC Scrolling Directory	ADC-SDUG	U15	U16
NSL 9501	9501-UG	U28	U29
NSL 9502	9502-UG	U15	U16
NSL 9501 Scrolling Directory	9501-SDUG	U28	U29
NSL 9502 Scrolling Directory	9502-SDUG	U15	U16

For a French Version of the Non-Scrolling Directory units only, add F to the product number.

SOFTWARE UPGRADE PROCEDURE

1. Power down unit.

2. Replace EPROM chip U15 with *SO-011(English*) or *SO-013(French) Version 2.60*.

3. If the EEPROM chip U16 is a *XICOR* or *ATMEL 28C64*, proceed to step 6, the upgrade is complete.

    If the EEPROM chip U16 is a 28C16, then proceed to step 4.

4. Replace EEPROM chip U16 28C16 with *ATMEL 28C64.*

5. Change jumper JW4 and JW5 from 1 & 2 to 2 & 3.

6. Power up unit.

7. Short reset pins.

8. Enter *999   MASTER CODE

9. Enter *5*5   FACTORY DEFAULT

10. Re-program system as required.

PROGRAMMING INSTRUCTIONS: NON-SCROLLING DIRECTORY

Before programming the system, obtain the required information by using the form provided in APPENDIX "B". After the system initializations (power up), the display should appear as shown below.

```
<<< MIRCOM >>>
Please enter the
Resident Code...
```

This is the **Normal Mode** of the system. The system will accept all valid codes such as Access Codes, Keyless Entry Codes, and programming Master Code.

Before entering the *Programming Mode* for the first time, it is recommended to restore the factory default Master Code ***999** by shorting the reset pins for approximately 3 seconds. Please refer to Fig.12 for location of reset pins. *Note: Shorting the reset pins will only restore the factory default Master Code ***999** and __will not affect__ any programmed information.*

ENTERING PROGRAMMING MODE

Enter the MASTER CODE (factory default is ***999**) to enable PROGRAMMING MODE.

The screen should appear ...

```
PROGRAM MODE
-  Please   Wait  -
```

for a few seconds and then the display should change to...

```
Enter Code  or
<*888> for help
```

This is the PROGRAM MODE menu. At this stage, the system is waiting for valid programming code.

> **Important note:**
> Before programming the system for the first time, it is recommended to clear-up all memories and restore all factory defaults by using a special command ***5*5** while at Program Mode menu . Since this special command **(*5*5)** is a destructive command which can erase all those programmed information without the provision to undo, the user must take a precaution when using this command.

There are two ways to program the system:

1. Using ***888** for Menu Driven type of programming.

2. Using the Direct Access Programming Codes for manual programming. Entering these codes will lead the user directly to the desired function. The Direct Access Programming Codes are listed on the table below.

Direct Access Programming Codes

Code	Function	Factory Default	Program	Choices
*000	Exit Programming Mode	*000	n/a	NONE
*101	Enter Resident Code and Telephone #	Blank	See worksheet	4 digit resident code and up to 8 digit telephone number

Code	Function	Factory Default	Program	Choices
*111	Enter 11 Digit Telephone Number	Blank	See worksheet	4 digit resident code and up to 11 digit telephone number
*202	Review, Delete Dial Codes & Telephone Number	Blank	See worksheet	Up to 11 digits to review or delete
*222	Enter Prefix	(0) 0905	See worksheet	0-9 first digit and up to 4 digit area code
*303	Enter Keyless Entry Codes	Blank	See worksheet	4 digits
*333	Quit Feature using the "#" Key	11	__ __	00 Press # key once or 11 Press # key twice
*404	Review and Delete Keyless Entry Codes	Blank	See worksheet	4 digit code to review or delete
*444	Program On Line Timer for Minutes or Seconds	00	__ __	00 Seconds or 11 Minutes (2 digits)
*505	Change Master Code	*999	*__ __ __	3 digits
*606	Select Pulse(Rotary) or Tone(DTMF)	Tone 11	__ __	00 Pulse or 11 Tone (2 digits)
*707	Set Door Open Timer	10 seconds	__ __ seconds	00 to 99 seconds (2 digits)
*808	Set On Line Timer	60 seconds	__ __	00 to 99 (2 digits)
*909	Select MULTIPLE/SINGLE Entrance	Multi 00	___ ___	00 for Multi or 11 Single (2digits)

"NO MANUAL" MENU DRIVEN PROGRAMMING USING *888

Enter " *888 " to display a help menu.
The screen should appear...

```
          1=Up   3=Down
        #=Execute *= Quit
```

1 and 3 keys are used for scrolling up or down the feature menus.
key is used to access the displayed feature.
* key is used for quit, exit, cancel, or abort.

Press 3 for next menu. The screen should appear...

```
        To Exit PROGRAM
        MODE - Press #
```

At this menu, pressing * will lead you to the PROGRAM MODE menu. Pressing # will exit to NORMAL MODE.

Press 3 again for next menu. The next screen should lead you to the first feature menu.

NOTE: Repeat the above process to locate the desired feature.

To exit to Normal Mode, enter ***000** while at PROGRAM MODE menu.

RESIDENTS' DIAL CODE and TELEPHONE NUMBER ENTRY

Residents' Dial Codes can be entered in the format of 1, 2, 3, or 4 digits. These codes are used to call the Residents using the Entry Panel's keypad. The corresponding "telephone number" for each dial code is set to 7-digits by default. The system will accept telephone numbers up to 11-digits with 10 user definable 4-digit "Area Code" prefixes.

CAUTION!   *Before programming the system, the user must determine the maximum telephone number digit length. Reformatting the telephone digit length **will erase** those programmed dial codes and telephone numbers.*

SETTING THE TELEPHONE NUMBER DIGIT LENGTH

Scroll through until you reach the feature as shown below.

```
          Max. digits per
          listing-Press #
```

Press # to access the feature. The display should appear...

```
          Enter size as
        07, 08 or 11 = _ _
```

Select: **07** for seven digits telephone numbers (factory default),
08 for eight digits telephone numbers, or
11 for eleven digits telephone numbers
* to abort entry and exit to PROGRAM MODE menu.

NOTE: When 11digits telephone number is selected, the user must set the 4-digit "Area Code" prefix to form up to an 11 digit telephone number. There are ten user definable prefixes that can be assigned. Factory default for Prefixes are set to **0905**. To assign a new prefix number, follow the instructions described under "TO CHANGE PREFIX CODES" section below. Prefix numbers are not required for 7 or 8 digits telephone numbers.

After entering the choice for maximum digits per listing, the screen should change to...

```
       #=Store, *=Abort
      07,  08  or 11 = x x
```

Press **#** to store or ***** to abort entry. To quit, enter *000 while at PROGRAM MODE menu.

TO CHANGE THE PREFIX CODES:
To change the Prefix Codes, scroll through until you reach the feature as shown below.

```
        To change PREFIX
        Codes - Press #
```

Press # to access the feature. The display should change to...

```
Code              Prefix #         For Code:        enter any number from 0 to 9
{ _ )             _ _ _ _          For Prefix #:    enter up to 4-digit "Area Code"
```

Where: "**Code**" (from 0 to 9) is used to call up the corresponding Prefix number.
"**Prefix #**" (up to 4 digits) is used for "Area Code" number that can be used with standard 7-digit telephone number to form up to 11 digits. Factory defaults for 10 Prefixes are 0905.
Unused prefix digit(s) can be blanked out by pressing the "**#**" key.

After entering the desired Code and Prefix **#**, the next screen should be...

```
#=Store *=Abort
( x )    x x x x
```

Press **#** to store or ***** to abort entry. Repeat this process to edit or to assign a new prefix number.
To exit to Normal Mode, enter ***000** while at PROGRAM MODE menu.

ENTERING RESIDENTS' CODES AND TELEPHONE NUMBERS:

To enter codes and telephone numbers, scroll through until you reach the feature as shown below.

```
To Enter Resident
Codes - Press #
```

Press **#** to access the feature. The screen should change according to the digit length chosen. Below are the possible screen applications.

7 digits telephone # (default)	*8 digits telephone #*	*11 digits telephone #*
Code **Telephone** ____ ___ - ____	**Code** **Telephone** ____ ___ - ____	**Code** **Telephone** ____ ___ - ____
Enter up to 7-digit telephone number.	*Enter up to 8-digit telephone number.*	*The first digit is used for prefix CODE number assigned. The remaining digits are used for standard 7-digits tel. number.*

Enter: **000x** for one (1) digit dial code
Enter: **00xx** for two (2) digit dial code
Enter: **0xxx** for three (3) digit dial code
Enter: **xxxx** for four (4) digit dial code

0 = ZERO   **x** = RESIDENT/TENANT DIAL CODE (numeric 0 to 9)
For example: To call a resident/tenant with two digits dial codes, simply enter **xx**.

Press # key to blank-out unused telephone digits. This feature (to be able to blank-out any desired digit) is particularly useful when requiring a shorter number of digits to be dialled out through a compatible private DTMF type telephone system. When you make a mistake and wish to reenter the *code* and *tel. #*, press *****.

After entering the Code and Telephone number, the next typical screen should display...

For 7-digits	*For 8-digits*	*For 11-digits*
#=Store, *=Abort XXXX XXX - XXXX	**#=Store, *=Abort** XXXX XXX - XXXX	**#=Store, *=Abort** XXXX XXX - XXXX

Press **#** to Store or ***** to abort entry. Repeat this process until all dial codes and telephone numbers are entered. Press ***** to return to PROGRAM MODE menu. To quit, enter ***000** while at PROGRAM MODE menu to return to NORMAL MODE.

Entering up to 11-digit Residents' telephone numbers: Special Feature

As mentioned previously, the user must set the *Code* and *Prefix* number when 9 to 11-digit telephone numbers are required. The following example will illustrate how the unit should be programmed.

Example: Ten digits telephone number is required.
    Dial Code: **2863**
    Area Code: **905**
    Tel. #:   **660-4655**

Program the system as follows:
Set the telephone digit length to 11 as described above.

Enter size as
07, 08 or 11 = <u>11</u>   Enter **11** to select eleven digit tel. #.

Set the Code and prefix number (for "Area Code") as shown below.

Code   Prefix #
(1)   9 0 5 .   Press **#** to blanked-out the last (unused) digit.

Enter dial Code and Tel. # using the Code for defined Prefix #:

Code   Telephone   *Note:*   The first digit is used by prefix Code. In this
2863   1660-4655   case is "**1**".

At normal operating mode, entering the Dial Code "**2863**" on keypad, the system will dial **905 660 4655** through the public telephone network.

REVIEW AND DELETE RESIDENT CODES

To review and delete the residents' codes, scroll through until you reach the feature as shown below.

```
                To Edit Resident
              Codes - Press #
```

Press **#** to access the feature. The next display screen should appear...

```
              Code to Review

                  — — — —
```

Enter the code to review. The next typical display should appear...

7 digits telephone # (default)	*8 digits telephone #*	*11 digits telephone #*
Code Telephone	Code Telephone	Code Telephone
XXXX XXX – XXXX	XXXX XXXX – XXXX	XXXX XXXX – XXXX

Press **1** or **3** to scroll up or down the list.
To **delete** the displayed Code and Tel. Number, press **#**.
Press ***** to exit to PROGRAM MODE menu. To quit, press ***000** while at PROGRAM MODE menu to return to NORMAL MODE.

ENTER KEYLESS ENTRY CODES

The system can provide up to 1000 Keyless Entry Codes for Residents and 5 spares for building management. Entering any valid Keyless Codes on keypad will open the door without the necessity of calling the Resident. For obvious reasons, *keyless entry codes* should be **<u>kept well guarded and controlled</u>**. ADC units allow the user to assign a specific code (within the given ranges) that would activate either the Main Door or Auxiliary Door relay. The *main door relay* can be activated using the range from **0000 to 4999** and the *auxiliary door relay* can be activated using the range from **5000 to 9999**. The user is advised to program the unit using these specified ranges if such operation is required.

[***Operation:** To open door, press **#** followed by the four digits Keyless Entry Code*]

Scroll through until you reach the feature as shown below.

```
            To Enter KEYLESS
          Codes - Press #
```

Press **#** to access the feature. The display should appear...

```
            KEYLESS Entry
          Code #_ _ _ _
```

Enter the four digit Keyless Entry Code. If you make a mistake or wish to reenter the code, press ***** to enter code again. The next display should change to...

```
          #=Store,  *=Abort
           Code # x x x x
```

Press **#** to store or ***** to abort entry. Repeat this process until all codes are entered.

Press ***** to exit to PROGRAM MODE menu when finished. To quit, enter ***000** while at PROGRAM MODE menu to return to NORMAL MODE.

REVIEW AND DELETE KEYLESS ENTRY CODES

To review and delete keyless entry codes, scroll through until you reach the feature as shown below.

```
            To Edit KEYLESS
          Codes - Press #
```

Press **#** to access the feature. The display should appear...

```
            Code To Review
             # _ _ _ _
```

Enter the Keyless Entry Code to review or delete. The next display should appear...

```
            KEYLESS Entry
          Code # x x x x
```

Press **1** or **3** to scroll up or down the list. To delete the displayed code, press **#**.
When finished, press ***** to exit to PROGRAM MODE menu for programming other functions. To quit, enter ***000** while at PROGRAM MODE menu to return to NORMAL MODE.

REPROGRAM MASTER CODE
Master Code (factory default ***999)** may be changed to any three (3) digit code number. Since this code is used to access all levels of programming, it would be a good idea to change the code to one that will be known only by the installer or management personnel. Please enter the new Master Code in the space provided below for future reference.

New Master Code: _____   Date: _____

To change the MASTER CODE, scroll through until you reach the feature as shown below.

```
            To Change MASTER
          Code - Press #
```

Press **#** to access the feature. The display should appear...

```
             MASTER  CODE
              *_ _ _
```

Enter the New Master Code. Please do not use ***888** for Master Code. The next display should appear...

```
                    #=Store, *=Abort
                     *  x  x  x
```

Press **#** to store or ***** to abort entry. After pressing the store button, the next display should appear...

```
                    Press  *
                    To exit
```

Press ***** to exit to PROGRAM MODE menu. To quit, enter ***000** while at PROGRAM MODE menu to
return to NORMAL MODE.

NOTE: To restore Master Code, please refer to FIG. 12 for location of reset pads.

SELECT "*DOOR OPEN CODE*" FOR MAIN AND AUXILIARY DOORS (DTMF only)

This feature will allow the user to change the Door Open Code (DTMF only) to any desired code from 0 to 9. This feature
is particularly useful when the default Code for opening the Main or Auxiliary doors are false-triggering the door strike "open"
due to a "series of tones" produced by some older answering machines when it answers a call. It is recommended to select
a stable *Door Open Code* when a similar type of problem occurs to improve security. These "*Door Open Codes*" are used
by all Residents to release the door by simply dialling the assigned code on their telephone while on-line with their visitors.

NOTE: The *Door Open Code* for pulse (rotary) type telephones is fixed at "**9**". Dialling a pulse digit "**9**" will activate the main
door relay. An auxiliary door relay can be activated only by a standard DTMF Code as programmed; there is **no
provision** for pulse activation.

TO CHANGE THE DOOR OPEN CODE FOR MAIN DOOR:

Scroll though until you reach the feature as shown below.

```
                 To Change DTMF
                 Code#1 - Press #
```

Press **#** to access the feature. The next display screen should appear...

```
                 Enter DTMF digit
                 to open door ( _ ) Digit "9" is the factory default.
```

Enter a number from **0** to **9** for code to open the **main door**. The next display screen should appear...

```
                 #=Store, *=Abort
                 to open door ( x )
```

Press **#** to store or ***** to abort entry.
To quit, enter ***000** while at PROGRAM MODE menu to return to NORMAL MODE.

TO CHANGE THE DOOR OPEN CODE FOR AUXILIARY DOOR:

Scroll though until you reach the feature as shown below.

```
              To Change DTMF
              Code#2 - Press #
```

Press # to access the feature. The next display screen should appear...

```
   Enter DTMF digit
   to open door ( _ )        Digit "6" is the factory default.
```

Enter a number from **0** to **9** for code to open the **auxiliary door**.

Important notice: Do not use the same Code chosen for main door.

The next display screen should appear...

```
           #=Store, *=Abort
           to open door ( x )
```

Press **#** to store or ***** to abort entry. To quit, enter ***000** while at PROGRAM MODE menu to return to NORMAL MODE.

SELECT PULSE (Rotary) or TONE (DTMF) DIALING

To select Pulse or Tone (factory default is Tone) dialling, scroll through until you reach the feature as shown below.

```
            Pick Pulse/Tone
            Option - press #
```

Press # to access the feature. The display should appear...

```
            Pulse or Tone
   P=00      T=11   _ _
```

Enter **00** for pulse or **11** for tone. The next display should appear...

```
           #=Store,  *=Abort
    P=00     T=11   x x
```

Press **#** to store or ***** to abort entry. After pressing the store button, the display should be as shown...

```
             Press    *
              To exit
```

Press ***** to exit to PROGRAM MODE menu. To quit, enter ***000** while at PROGRAM MODE menu to return to NORMAL MODE.

SET DOOR TIMER

To change Door-Open Timer (factory default is 10 seconds), scroll through until you reach the feature as shown below.

```
            Adjust Door-Open
             Timer - Press #
```
Press # to access the feature. The display should appear...

```
            Door-Open Timer
            00 to 99 Sec.  _ _
```

Enter the desired door-open period. The next display should appear...

```
                    #=Store, *=Abort
                 00 to 99 Sec.  x x
```

Press **#** to store or ***** to abort entry. After pressing the store button, the next display should appear...

```
                        Press  *
                         To exit
```

Press ***** to exit to PROGRAM MODE menu. To quit, enter ***000** while at PROGRAM MODE menu to return to NORMAL MODE.

SET ON-LINE TIMER

To change the On-Line period (factory default is 60 sec.), scroll through until you reach the feature as shown below.

```
                    Adjust On-Line
                   Timer - Press #
```

Press **#** to access the feature. The display should appear...

```
                     On-Line Timer
                 00 To 99 Sec.  _ _
```

Enter the On-Line period. The next display should appear...

```
                    #=Store, *=Abort
                 00 To 99 Sec.  x x
```

Press **#** to store or ***** to abort entry. Press ***** to exit to PROGRAM MODE menu. To quit, enter ***000** while at PROGRAM MODE menu to return to NORMAL MODE.

MULTIPLE/SINGLE ENTRANCE SELECT

To select Multiple or Single entrance, scroll through until you reach the feature as shown below.

```
                    Pick Mult/Single
                   Option - Press #
```

Press **#** to access the feature. The display should appear...

```
                     Multi or Single
                 M=00    S=11    _ _
```

Enter **00** for multiple entrances or **11** for single entrance. The next display should appear...

```
                    #=Store, *=Abort
                 M=00    S=11   x x
```

Press **#** to store or ***** to abort entry. The next display should appear...

```
                        Press  *
                         To Exit
```

Press ***** to exit to PROGRAM MODE menu. To quit, enter ***000** while at PROGRAM MODE menu to return to NORMAL MODE.

11 DIGIT TELEPHONE NUMBER ENTRY

To program 11-digit telephone number, scroll through until you reach the feature as shown below.

Program 11-digit
No. - Press #

Press **#** to access the feature. The display should appear...

Code _ _ _ _
_ - _ _ _ - _ _ _ - _ _ _

Enter the four digit DIAL CODE followed by the 11-digit telephone number. Please note that a 10-digit telephone number can be programmed if desired. This is useful for calling a local number with a different area code.

Example:	Dial Code	**2863**	
	Area Code	**905**	(local or not a long distance number)
	Telephone Number	**6604655**	

Program the system as shown...

Code 2 8 6 3
9 - 0 5 6 - 6 0 4 - 6 5 5 .

Press **#** to blank the last digit or any digit as desired. When you make a mistake and wish to reenter the code, press *****. After entering all the digits, the display should change to...

#=Store, *= Abort
9 - 0 5 6 - 6 0 4 - 6 5 5 x

Press **#** to store or ***** to abort entry. After pressing the store button, the system should exit directly to PROGRAM MODE. To quit, press ***000** while at PROGRAM MODE to return to NORMAL MODE.

QUIT FEATURE

If the visitor picks up the telephone and dials an incorrect resident/tenant code, he has an option of hanging up prior to connection by pressing the # key twice. The # key must be depressed twice by default. In order to have this feature by depressing the # key once the following menu must be accessed by scrolling through to reach ...

Pick No.of # key?
Option - press #

Press # to access the feature. The display should appear ...
Once or Twice
O=00 T=11 _ _

Enter 00 to depress # key once or 11 to depress # key twice. The display should appear ...

#=Store, *=Abort
O=00 T=11 _ _

Press # to store or * to abort. The next display should appear ...

Press *
To Exit

Press * to exit to PROGRAM MODE menu. To quit, enter ***000** while at the PROGRAM MODE menu to return to NORMAL MODE.

SET ON-LINE TIMER TO MINUTES

To set the on-line timer to minutes, press the 3 key to move to the following display.

```
              Do you want to pick
              min.or sec?- Press#
```

Press # to access the feature. The display should appear...

```
              Minutes or seconds
              M=11 S=00 _ _    <== Factory default is 00
```

Enter digits 11 for minutes or 00 for seconds. The default is seconds. The next display should appear...

```
              #=Store, *=Abort
              M=11    S=00    x x
```
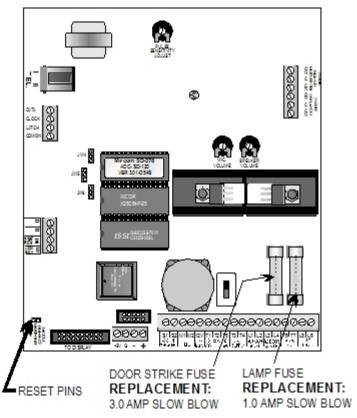
Press # to store or * to abort entry.

```
                        Press *
                        To Exit
```

Press * to exit to PROGRAM MODE menu. To quit, enter ***000** while at PROGRAM MODE menu to returen to NORMAL MODE.

**** End of Programming ****

ADC SERIES CONTROLLER

DOOR STRIKE FUSE
REPLACEMENT:
3.0 AMP SLOW BLOW

LAMP FUSE
REPLACEMENT:
1.0 AMP SLOW BLOW

RESET PINS

ADC Series CONTROLLER'S RESET PINS & FUSES

Notes