Rev 1

User Interface

New **Electronic LC Gate Telephone System – Station Telephone**

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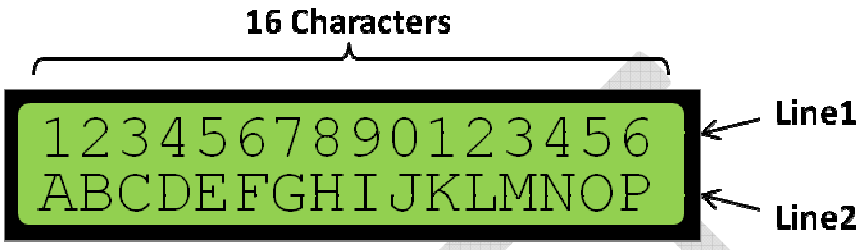
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1. LCD & Keypad Description

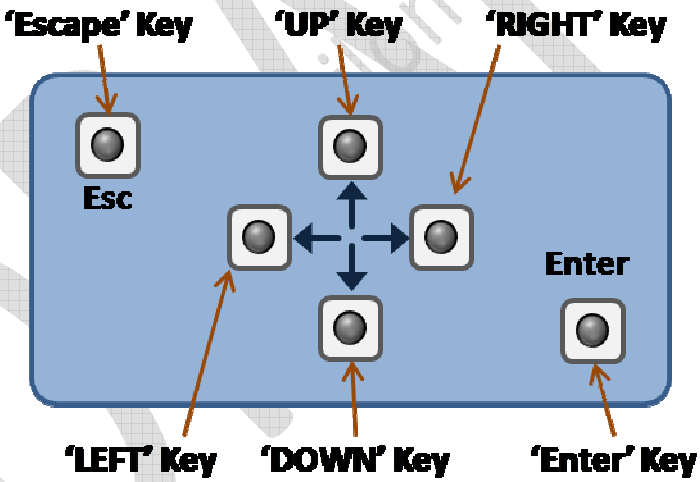
The new "Electronic LC Gate Telephone System – Station Telephone Unit" provides User Interface with one **LCD** and one user interface **Keypad**. The details of these parts are shown below.

a) 2-Line, 16-Character LCD



The LCD used here is an alphanumeric character display with two lines of 16 characters each. This has 'Back Light' which goes OFF when idle for more than 30sec.

b) User Interface Keypad (on the back side of the Master unit)

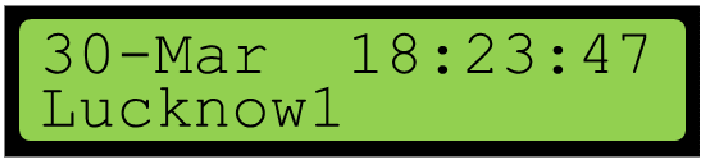


The Keypad consists of 6 keys. Out of six keys, four are direction keys – UP, DOWN, LEFT and RIGHT. The other two keys are ENTER and ESCAPE.

- The LEFT and RIGHT keys are used to select the position of cursor. These are enabled for time, date, station/gate ID and record limit setting operations.
- The UP and DOWN keys are used to scroll through the menu items and also to edit the alphanumeric characters in time, date, station/gate ID and record limit setting operations. And to select options in recording start and submenu items.
- The ENTER key is used to select a menu operation displayed on Line 2 of the LCD.
- The ESCAPE key is used to come out of the menu or discard any operation in progress.

2. Idle State

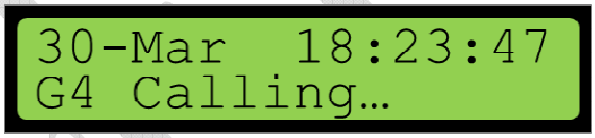
The LCD when 'idle' displays 'Date and Time' on Line1 and Station Id on Line 2. An example display is given below.



***Note**: Station Id is an 8-character string consisting of 8 alphanumeric characters without any spaces or special characters in between. The same string is used in 'audio record' file naming.*

When display is in 'idle' state, it displays the call progress messages on Line2 and returns to 'Station Id' display when there are no calls in progress. Sample displays are shown below.





The other strings that are displayed for other call states are:

"**Calling ALL...** "
"**ALL Disconnected**"
"**Answered Gate x** ", and
"**Gx Call Ended** ".

3. Main Menu

The following are eight main menu items available for user.

"**'Play Voice File**"
"**'Set Station ID** "
"**'Set Time** "
"**'Set Date** "
"**'Copy all to USB**"
"**'Set Gate ID** "
"**'Set Rec. Limit** "
"**'Set Rec. Start** "

***Note**: Please note that all main menu items are preceded by an apostrophe (') symbol as first character.*

- When display is idle, press “ENTER” key to enter into main menu display on Line2.
- Use “UP” or “DOWN” key to scroll through the main menu items on Line2. The menu items given above will be displayed one after the other on Line2 for user selection.
- Use “ENTER” to select the main item displayed on Line2.

***Note**: Press “ESC” key to come out of main menu and to set display idle.*

4. Playback of Voice Record



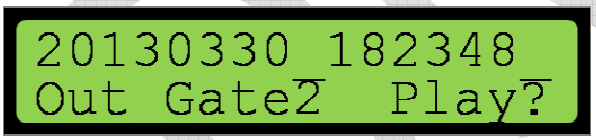
When Line2 of the display is showing “’Play Voice File” press ENTER key to enter into playback menu. User will be shown the latest voice record name first.

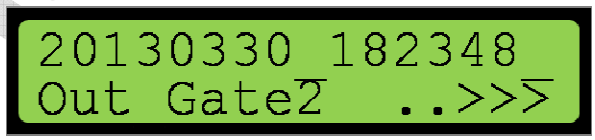
***NOTE**: Please make sure that speaker is switched ON for playback.*

***NOTE**: Pressing ESC key will terminate the playback of voice record, when in progress*

***NOTE**: If there are no voice records available, the same will be informed to the operator as “No files found!”.*

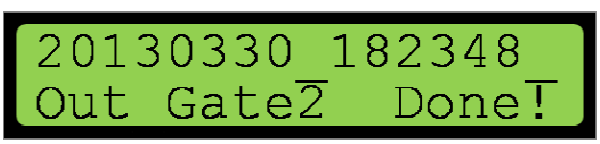
When selected, it starts from displaying the latest file (voice record) name from the stored voice records. The filename is displayed without station Id as shown below. When ENTER key is pressed, the displayed file is selected for playback and the display will be as shown below.





***NOTE**: The voice records/files are stored in the WAV file format with the following filename format:*
<Station Id>_YYYYMMDD_HHMMSS_<In/Out>_<Gate Id / All>.wav
***Ex.**: Lucknow1_20130330_182348_Out_Gate2.wav*

Once the playback of selected file is over, it will display “Done!” as shown below.



Then operator is allowed to select next file from the list of files available in the unit.

***NOTE**: Only downward selection is given for files selection.*

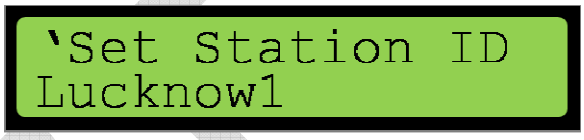
***NOTE**: If there is any Incoming/Outgoing call initiate during playback, the playback will be terminated immediately.*

If there are no more files to display, the display will show "`End of records!!`".

5. Setting Station ID

***NOTE**: Station ID is an 8-character alphanumeric string, without any special characters.*





Press ENTER key when Line2 of the display showing "Set Station ID" as above, to set/edit the station identification. It shows the current station id of the unit and allows user to edit each position/character of the Line2.

The cursor is shown as blinking character (or as a 'block' for space). The cursor position can be selected using LEFT or RIGHT keys. The character at cursor position can be changed by pressing UP or DOWN keys. Only alphanumeric characters and "space" are allowed in the following sequence.

0, 1, 2,.. 9, A, B, C, …. X, Y, Z, a, b, c, …. x, y, z and "space"

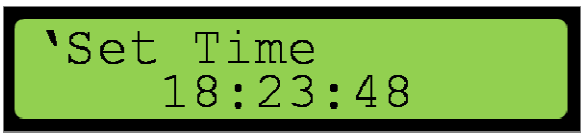
Once entry/editing are done for the required Station Id, it can be stored by pressing ENTER key. The new id will be used for voice file naming as well as for display in 'Idle State'.

***NOTE**: No spaces are allowed in the Station Id. If there is any space entered, the characters after the space are ignored and only characters before that will be taken as Station Id.*

6. Setting Time

***NOTE**: Time is always in 24-Hour format.*





Press ENTER key when Line2 of the display showing "Set Time" as above, to set/edit the unit time. It displays the current time of the internal real time clock (RTC) of the unit. Then, the user is allowed to edit the time as shown above.

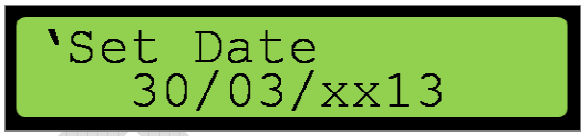
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Use LEFT and RIGHT keys to select the digit to edit. The cursor is shown as blinking character. Use UP and DOWN keys to select a number from 0 to 9. Once the required time is entered, press ENTER to set the internal RTC time with this value. The same will be used for voice file naming as well as for display during 'Idle State' of the display.

***NOTE**: Weekday setting is not possible through LCD/Keypad.*

7. Setting Date





Press ENTER key when Line2 of the display showing "Set Date" as above, to set/edit the unit date. It displays the current date of the internal real time clock (RTC) of the unit. Then, the user is allowed to edit the date as shown below.

***NOTE**: Upper two digits of the 'year' are not given for editing and are always taken as "20".*

Use LEFT and RIGHT keys to select the digit to edit. The cursor is shown as blinking character. Use UP and DOWN keys to select a number from 0 to 9. Once the required date is entered, press ENTER to set the internal RTC date with this value. The new value will be used for voice file naming as well as display during 'Idle State' of the display.

8. Copying Voice Records to USB Pen Drive



Press ENTER key when Line2 of the display showing "Copy all to USB' as above, to initiate copy of internal voice records to a USB memory device. First it tries to detect the USB device, if plugged in the USB-A receptacle connector provided at the rear side of the station telephone unit. During this process the display shows the status as below.



There may be no device available or the device plugged may not have FAT file system. If a valid device is detected, it starts copying internal WAV files one by one to the device. The display shows these states as shown below.





During successful copying of files, it shows the file numbers that are being copied to USB device. Once copying of all files is done it gives confirmation and asks to remove the USB device from the connector as shown below. If copying is interrupted by an incoming/outgoing call, the same will be informed to the user as shown below.

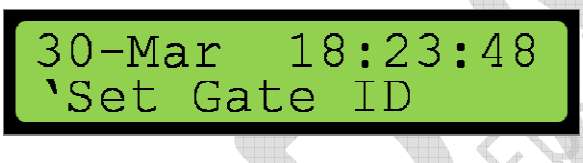


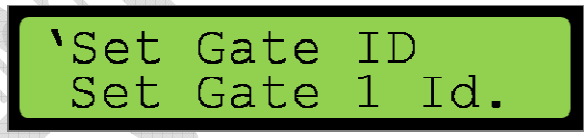


***NOTE**: Please make sure that USB Pen drive is formatted with FAT file system and sufficient free memory is available for the copy of voice records.*

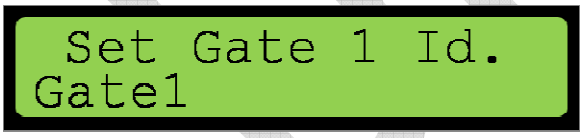
9. Setting Gate IDs

***NOTE**: Gate ID is an 8-character alphanumeric string, without any special characters.*





Press ENTER key when Line2 of the display showing "Set Gate ID" as above, to select the Gate Telephone number to set/edit it's ID. Press UP or DOWN keys to select the Gate no. Once selected, the display shows its current Gate Id on Line 2 as shown below and allows editing it.





The cursor is shown as blinking character (or as a block for space). The cursor position can be selected using LEFT or RIGHT keys. The character at cursor position can be changed by pressing UP or DOWN keys. Only alphanumeric characters and "space" are allowed in the following sequence.

0, 1, 2,.. 9, A, B, C, …. X, Y, Z, a, b, c, …. x, y, z and "space"

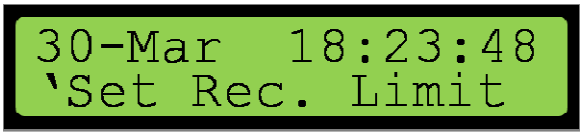
Once entry/editing are done for the required Gate Id, it can be stored by pressing ENTER key. The new Id will be used in voice file naming.

***NOTE**: No spaces are allowed in the Gate Id. If there is any space entered, the characters after the space are ignored and only characters before that will be taken as Gate Id.*

10. Setting Voice Record Time Limit

There is a provision given to limit the voice record length/time to avoid memory wastage due to missing of call termination by pressing 'DISCONNECT' button.

***NOTE**: The call limit can be set to 01 to 29 minutes. Set it to '00 minutes' to disable it.*





Press ENTER key when Line2 of the display showing "Set Rec. Limit" as above, to select the menu and set/edit call record limit time in minutes. The cursor position can be selected using LEFT or RIGHT keys. The numeric at the cursor position can be changed by pressing UP or DOWN keys. It is allowed to set values between 00 to 29 minutes.

Once set it shows "Updated Success!" on Line 2.

***NOTE**: It is always suggested to set the call limit as per the general usage of the site.*

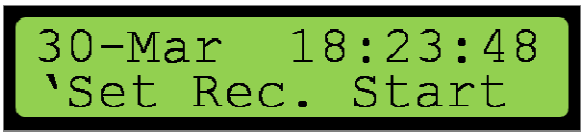
11. Setting Trigger for Voice Recording

There is a provision given to select when to start the voice recording with the following options:

(a) **With OFFHOOK**: Immediately after OFFHOOK (i.e., when handset is lifted from the master telephone).

(b) **With DIAL**: Only when there is a number Dialed (i.e., only when there is a call initiated to a Gate phone).

***NOTE**: This option (b) combined with time limit avoids the internal voice memory wastage due to unnecessary OFFHOOKs and missing of call terminations.*





Press ENTER key when Line2 of the display showing "Set Rec. Start" as above, to select the menu. Select one of the two options using UP or DOWN keys. Select the options shown on the Line 2 of the LCD by pressing ENTER key.

Once set it shows “Updated Success!” on Line 2.

12. PC Application

The following settings can be done through the PC application “LCGate Master Phone Rx” given for this instrument.

i) Time, Date and Week Day

ii) Station ID and Gate IDs

In addition to these there are other operations possible which are given below:

A. Viewing List of Voice Records (Files)

B. Saving selected voice record (.wav) in PC

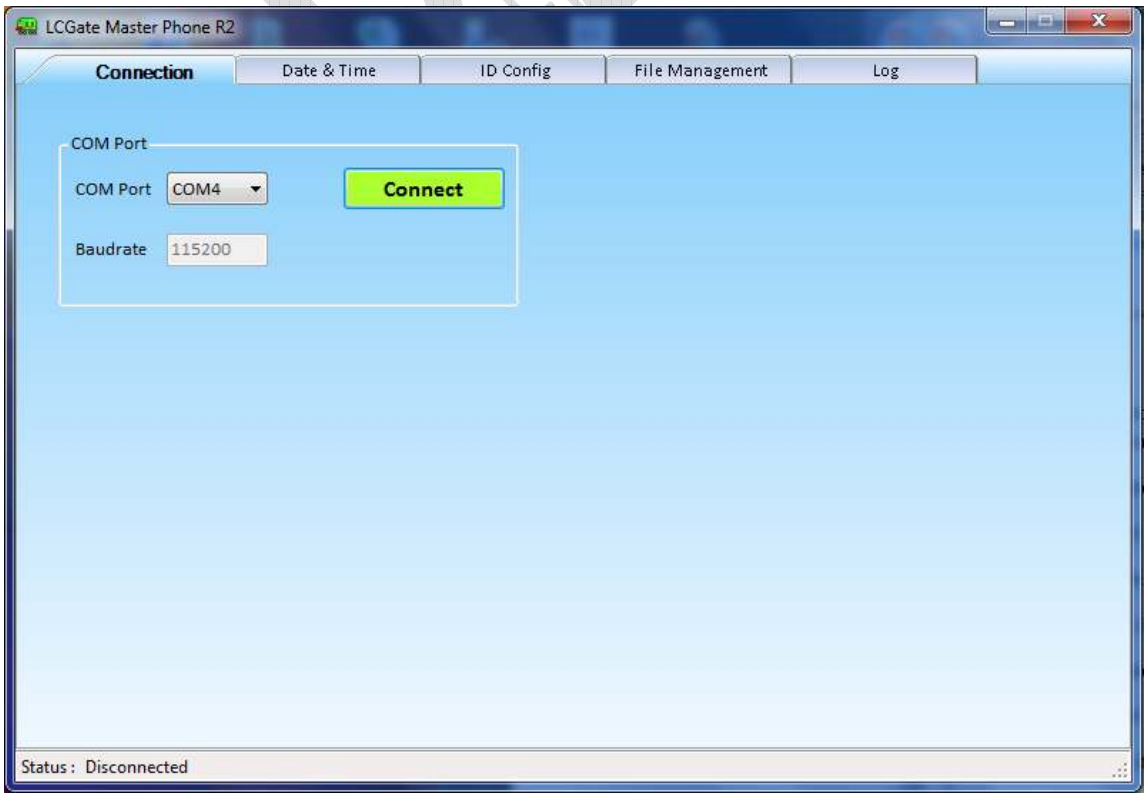
C. Playing of selected voice record in the Master Telephone

D. Viewing of Voice Memory usage status

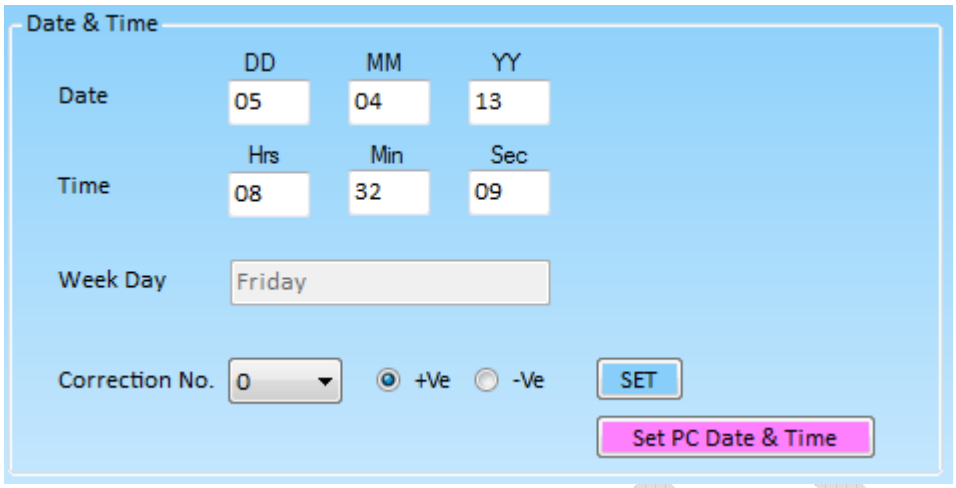
E. Viewing Event Log

F. Saving Event Log

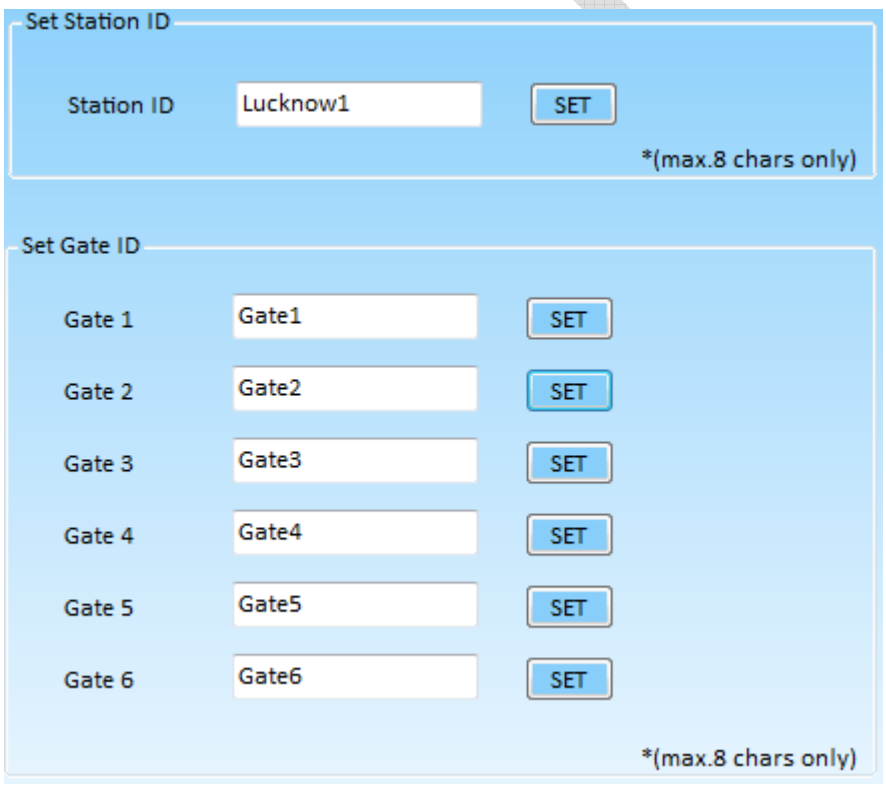
The main screen is shown as below.



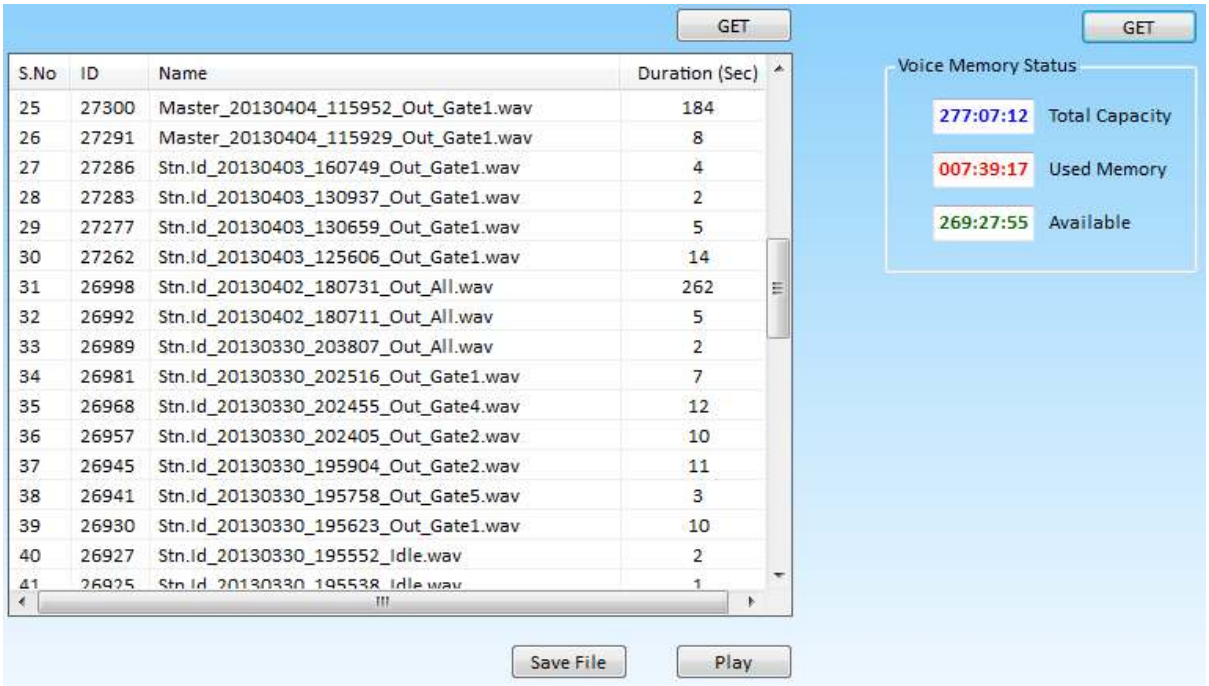
The Date & Time setting screen is shown below:



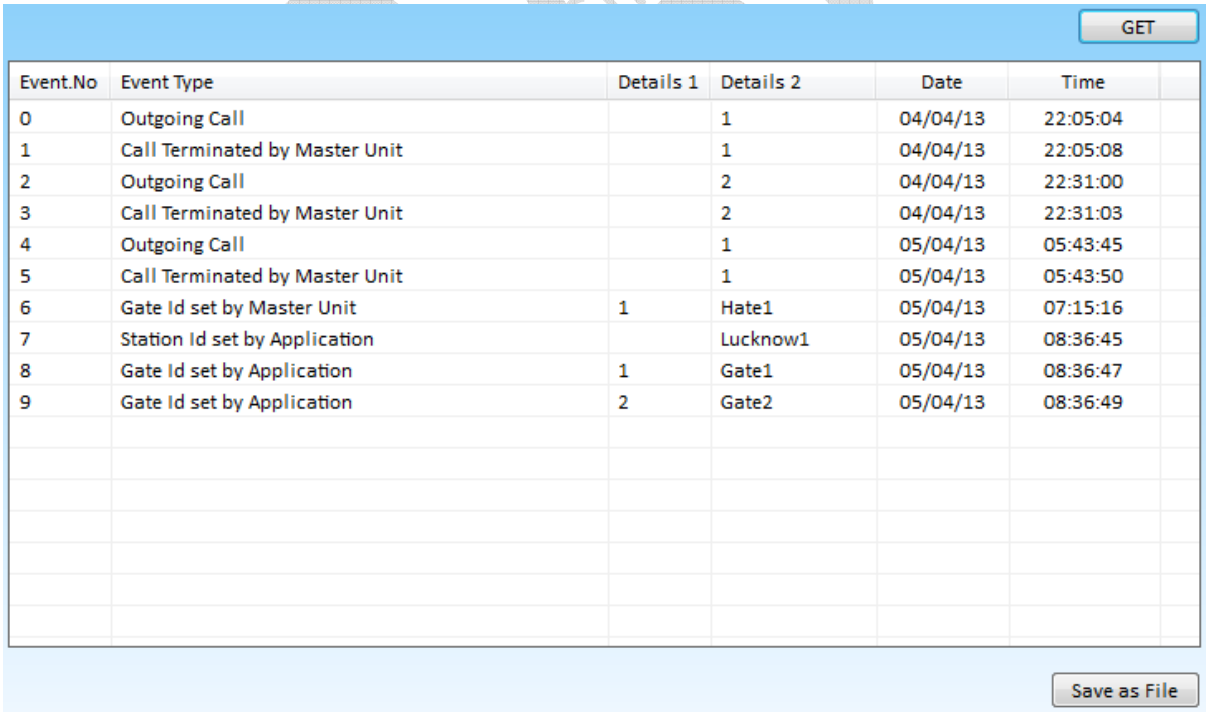
The Station and Gate IDs setting screen is shown below:



The below image shows the File Management menu of the application with the different options.



The below image shows the Log view menu with different fields.



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