

OPERATOR'S MANUAL  
MODEL AP15Q  
Wireless Alarm Dialer

Micro Seven, Inc.  
1095-K N.E. 25<sup>th</sup> Ave.  
Hillsboro, OR  
97124  
U.S.A.  
phone: 503-693-6982  
fax: 503-693-9742  
[www.microseveninc.com](http://www.microseveninc.com)

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Printed in U.S.A.

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## SECTION 1

### INTRODUCTION

Micro Seven model AP15Q, Alarm Dialer, transmits Contact-ID, SIA-FORMAT, and pulse 4X2 messages wirelessly from iPhone® app. The app sends telephone number and ASCII alarm message for Contact-ID, Pulse 4X2 or SIA-FORMAT. After AP15Q dials a telephone number for a receiver, the receiver answers the call and transmits the handshake tones. Depending on which protocol mode that is selected on iPhone screen, AP15Q transmits one of three protocol messages to alarm receiver. AP15Q sends status messages back to the app. If the alarm reporting is not successful, AP15Q transmits a different status message to the app. Transmission of alarm messages is repeated for three times if AP15Q does not receive positive acknowledge tone. The sequence, which involves re-dialing of telephone number, may be repeated for three times. AP15Q contains audio monitor internally to hear dialing process, handshake signals, alarm signal transmission, and acknowledge tone/kiss-off tone. AC/DC adapter for 117VAC is included as an accessory. International AC/DC power adapter is available as an option. The iPhone screen shows status messages of alarm message transmission. The app provides three alarm messages for each dialing. Various alarm messages for three different protocols are programmed as files in the app.

**Figure 1. The picture below shows iPhone and ap15q.**



Figure 2 The front and rear panel views of model ap15q are shown below.



## SECTION2

### SPECIFICATIONS

**Wireless standard: IEEE 802.15.1 transparent UART operation, BLE operation**

**Telephone number:** D<telephone number-maximum fifteen digits><CR>

for example D5035551212<CR> for dialing 5035551212. Note <CR> is a carriage return. It is stored in EEROM (non-volatile memory) in AP20.

**Warning: each telephone number digit must be 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, \*, #, or , (comma).**

**Note: comma adds two seconds delay between digits.**

**Alarm message for Contact-ID or Pulse 4X2:**

S( in maximum 15 ASCII characters for Contact-ID or 6 ASCII characters for Pulse 4X2)<CR>  
for Contact-ID or Pulse 4X2

Note: BT70 prepares checksum at the end of string for Contact-ID.

**Warning: ASCII character must be 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, B, C, D, E, or F. All other character may result in failed transmissions. Please note that 'A' is an illegal character for Contact-ID alarm message..**

**Alarm message for SIA-FORMAT:**

Because alarm messages for SIA-FORMAT include binary data, hexadecimal data needs to be entered as follows:

S(hexadecimal two character ASCII) (hexadecimal two character ASCII)-----.

For example, sending an address block data of 46 23 30 30 30 31 31 31 31 requires the following:

S0623303030313131<CR>

Note: The column-parity byte is automatically prepared and attached at the end of message by BT70.

**Protocol selection:**

W7F00 for selecting Contact-ID as default protocol, W7F01 for selecting SIA-FORMAT, or W7F02 for selecting Pulse 4X2.

**Start alarm reporting: G**

Start alarm reporting process by dialing the telephone number, receive handshake tones, transmit data blocks, and receive kiss-off tones.

**Hang-up command or Abort command: A**

Turn off off-hook relay or abort alarm-reporting process.

**Repeat alarm message command: B**

It transmits alarm message again. Transmitting alarm messages must be programmed prior to sending this repeat alarm message command.

**Continuous message transmission mode without turning off telephone relay:**

Instead of transmitting single message, multiple messages are transmitted by sending "WACB2".

**Single message transmission mode:**

WACB0

**Multiple message transmission mode:**

WACB2

**Handshake tone detection:** 1400/2300Hz for Contact-ID, 1400Hz for Pulse 4X2, or 2225Hz for SIA-FORMAT

**Control Edit Window:**

When 'a' is included in the Control Edit Window, continuous auto dialer mode is enabled, and alarm message transmissions including telephone dialing are continued.

When 'f' is included in the Control Edit Window and when the Status Message is enabled, a number of "Call failed" is shown.

When 'c' is included in the Control Edit Window, it is in the Continuous Mode where wireless connection to the ap15q is not removed after each dialing sequence. The auto dialer mode includes the Continuous Mode.

**SAVE button, File# edit window, and '+' and '-' buttons** for storing and loading programmed data for alarm messages, telephone number, and protocol mode.

In the auto-dialer mode, the file #0 is selected at first. The file number is incremented for each file. At the end of files, it goes back to file #0.

**SIA-FORMAT mode:**

Signal transmission of data block for SIA-FORMAT: 300 baud or 110 baud selectable

Parity bit (9<sup>th</sup> bit): enabled/disabled

Wrong column parity: enabled/disabled

Acknowledge tone detection: 2025Hz for positive acknowledgement and 2225Hz for negative acknowledgement.

**Messages received from ap15q:**

MESSAGE SUCCESS

Note: "MESSAGE SUCCESS" messages are also generated when messages do not require kiss-off tones.

CALL FAILED

**Front panel controls:**

Power switch

Power indicator

Wireless connection status indicator

**Audio monitor:** audio speaker is included for hearing dialing process, handshake tones and alarm messages from alarm receivers.

**Rear panel controls:**

DC power input, DC12V, 200 mA

RJ11 connector

**AC/DC Adapter** supplied: 117VAC +/- 5%, or 220VAC +/- 5%(for 220V unit optional)

**Dimensions:** 19 cm (4") W x 4.5 cm (1.75") H x 10 cm (7.5") L

**Weight:** 750g (1.65 LBS)

**Environmental:** Operating temperature with power on: 0 to 35 degree C, Humidity: 85% RH at 35 degree C, storage temperature and operating temperature without power on

**No Warranty**

**Accessories:** AC/DC power adapter for 117VAC input power

**Options:** International AC/DC power adapter option

Available central station device to be purchased:

[LS15-E+ TRIPLE](#) Contact ID, 4+2 pulse and SIA-format alarm-receiver, one simulated CO line and one modem port.

**Status messages:**

The following status messages are shown when the "Status Message" button is enabled.

S00<CR>: telephone relay is on

S01<CR>: begin to dial

S02<CR>: contact-ID handshake signal is detected

S03<CR>: SIA format handshake signal is detected

S04<CR>: 4+2 handshake signal is detected

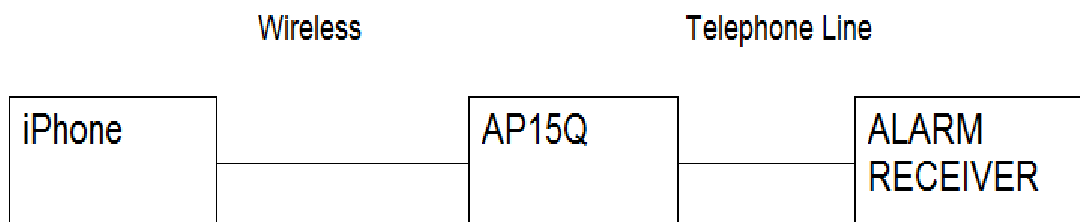
S05<CR>: transmission of Contact-ID message

S06<CR>: Sequential synch signal transmission for SIA format

S07<CR>: SIA-FORMAT message transmission

S08<CR>: Pulse 4+2 message transmission

S0A<CR>: hang up telephone line



**IPhone originates telephone calls and transmits popular digital alarm messages over telephone lines.**

### SECTION3

#### App Operation 1

Push “Personal Contact-ID Dialer” in the bottom of the screen. When the app is opened, the screen shot below is shown. In this screen, alarm messages are prepared for Contact-ID format.

1. Enter 4-digit account which is assigned to you when you signed up with your alarm company. If you are using your own Contact-ID receiver like Micro Seven’s CT10, CT400, or LS15E+, this number may be assigned by yourself.
2. Enter a 2-digit partition or area number.
3. Enter a 3-digit room number or address.
4. A telephone number of your central station receiver or your own alarm receiver.
5. Push one of “Send Test Message”, “Fire Alarm”, “Burglary Alarm”, or “Panic Alarm”, “Medical Alarm” to send a contact-ID message.
6. Push “Cancel/Stop” to abort sending messages.

The status display in the white window shows all current messages using fingers moving the screen window up/down.

Push “Cancel/Stop” five times to clear the status display when there is no message transmission activities.

10:47 📶 📶 🔋

Send Test Message Cancel/Stop

Fire Alarm Burglary Alarm

Panic Alarm Medical Alarm

Your Account Number(4 digit given by your alarm company)

Partition or Area (2digit)

Zone, Room Number or Address (3 digit)

Alarm Central Station Telephone Number

Check out about ap15q device at [www.microseveninc.com](http://www.microseveninc.com).

2020-06-19 10:33 Valid character in the Account, Area, and Address is 0-9, B, C, D, E, or F.  
Push Cancel/Stop button five times to clear display.

Scanning found ap15q 2020-06-19 10:34  
Fire Alarm  
Account: 2226 Area: 36 Address: 785  
Contact-ID Message: 222618111036785  
Dialing Telephone Number: 213  
Begin dialing and transmitting the message.  
MESSAGE SUCCESS

Scanning found ap15q 2020-06-19 10:37  
Burglar Alarm  
Account: 2226 Area: 36 Address: 785  
Contact-ID Message: 222618113036785  
Dialing Telephone Number: 213  
Begin dialing and transmitting the message.  
MESSAGE SUCCESS

Scanning found ap15q 2020-06-19 10:39  
Medical Alarm  
Account: 2226 Area: 36 Address: 785  
Contact-ID Message: 222618110036785  
Dialing Telephone Number: 213...

Personal Contact-ID Dialer
Complete Alarm Dialer



## SECTION4 App Operation 2

Push “Complete Alarm Dialer” in the bottom of the screen.

### 4.1 Contact-ID

The screen picture below shows a typical app operation example of sending Contact-ID message at AP15Q to an alarm receiver. The screen set up are as follow:

1. telephone number: 213
2. Showing status message: Enabled
3. Audio Monitor: Enabled
4. Mode: 0 for Contact-ID
5. Contact-ID messages: 123418110113345, 234518113156789 and 442918160100129 entering exactly fifteen character long
6. Pushing “Start” button to start the process.

10:49

Check out about ap15q device at [www.microseveninc.com](http://www.microseveninc.com)

Protocol  Status Message  Result

Message 1

Message 2

Message 3

Tele. N...  Control

Start Stop Audio Monitor

Save File#  + -

Supported alarm protocols include Contact-ID with Mode = '0', Pulse 4+2 with Mode = '2', and SIA-FORMAT 300 baud with Mode = '1' and SIA-FORMAT 110 baud with Mode = '3'. In the 'Control' area, enter 'a' for dialing and transmitting alarm messages continuously in non-disconnecting socket mode, 'f' for showing error results, and 'c' for non-disconnecting socket after messages transmission.

Automatic telephone dialer that continuously transmits alarm messages.  
Scanning  
--found ap15q  
WACB2  
WABAO  
2020-06-19 10:48 mode2 W7F02  
S123418 D213 G S00 S00 -Stopped and socket disconnected  
Automatic telephone dialer that continuously transmits alarm messages.  
Scanning  
--found ap15q  
WACB2  
WAB20  
2020-06-19 10:49 mode2 W7F02  
S123418 D213 G S00 S00 -Stopped and socket disconn...

Personal Contact-ID Dialer Complete Alarm Dialer

## 4.2 Pulse 4+2

The screen picture below shows a typical app operation example of sending Pulse 4+2 message at AP15Q to an alarm receiver. The screen set up are as follow:

1. telephone number: 22344555
2. Showing status message: Enabled
3. Audio Monitor: Enabled
4. Mode: 2 for Pulse 4+2
5. Messages: 123467 and 234567 entering exactly six character long
6. Pushing "Start" button to start the process

The screenshot displays the app's configuration and execution interface. At the top, the Protocol is set to 2, Status Message is enabled, and the Result is shown. Below this, Message 1 is 123467 and Message 2 is 234567, both with 'Yes' status. Message 3 is empty. The Telephone Number is 22344555, and the Control button is disabled. The Start button is highlighted in green, and the Stop button is disabled. The Audio Monitor is enabled. The File# is 3, and the Save button is highlighted in green. The bottom section shows the execution log:

```
Scanning
-found ap15q
WACB2
WAB20
2019-11-19 09:12 mode2 W7F02
S123467 D22344555 G S00 S01 S04 S08 MESSAGE
SUCCESS S234567 B S08 MESSAGE SUCCESS
```

### 4.3 SIA-FORMAT

The screen picture below shows a typical app operation example of sending SIA-FORMAT message at AP15Q to an alarm receiver. The screen setup is:

7. telephone number: 23456789
8. Showing status message: Enabled
9. Audio Monitor: Enabled
10. Mode: 1 for SIA-FORMAT
11. Messages: 4623303031313131, 444E51413030, and 424C3930 in hexadecimal value of ASCII characters
12. Pushing "Start" button to start the process

The screenshot displays the application's configuration and execution interface. At the top, the Protocol is set to 1, Status Message is enabled, and the Result is shown. Three messages are configured: Message 1 (4623303031313131), Message 2 (444E51413030), and Message 3 (424C3930), each with a 'Yes' result. The telephone number is 23456789, and the Control button is disabled. The Start button is highlighted in green, and the Audio Monitor is enabled. The File# is 4, and there are '+' and '-' buttons for file management. The execution log shows the following output:

```
Scanning
-found ap15q
WACB2
WAB20
2019-11-19 09:15 mode1 W7F01
S4623303031313131 D23456789 G S00 S01 S03 S06 S07
MESSAGE SUCCESS S444E51413030 B S07 MESSAGE
SUCCESS S424C3930 B S07 MESSAGE SUCCESS
```