

Operator's manual  
Model CP200

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All requests for repairs should be directed to the factory.

This instrument is warranted against defective workmanship and materials for a period of six months. There will be no warranty when the instrument is misused, or when the factory seal on the instrument is broken.

Printed in U.S.A.

Specification and price change privileges are reserved.



The CP200 is shown in the above picture of power indicator, RS232 connector, telephone connector, power connector, arming/disarming switches, loop status, power indicator, panic button (red switch on top) and audio speaker.



External temperature/humidity box, BT30 with wall-mount bracket is available as shown below. Temperature and humidity data is sent to CP200 with cable.

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## SECTION1

### INTRODUCTION

CP200 is a general-purpose alarm panel that detects burglary loop for violation, excessive sound, medical/panic condition or optional high/low ambient temperature and humidity conditions. CP200 sends alarm messages over telephone lines to an alarm central station or delivers voiced alarm messages to your families, parents, guardian, or friends.

After siren ends, voice messages for incident description are generated from audio speaker. Voice messages need to be recorded in your own voices for type of alarms and emergency words.

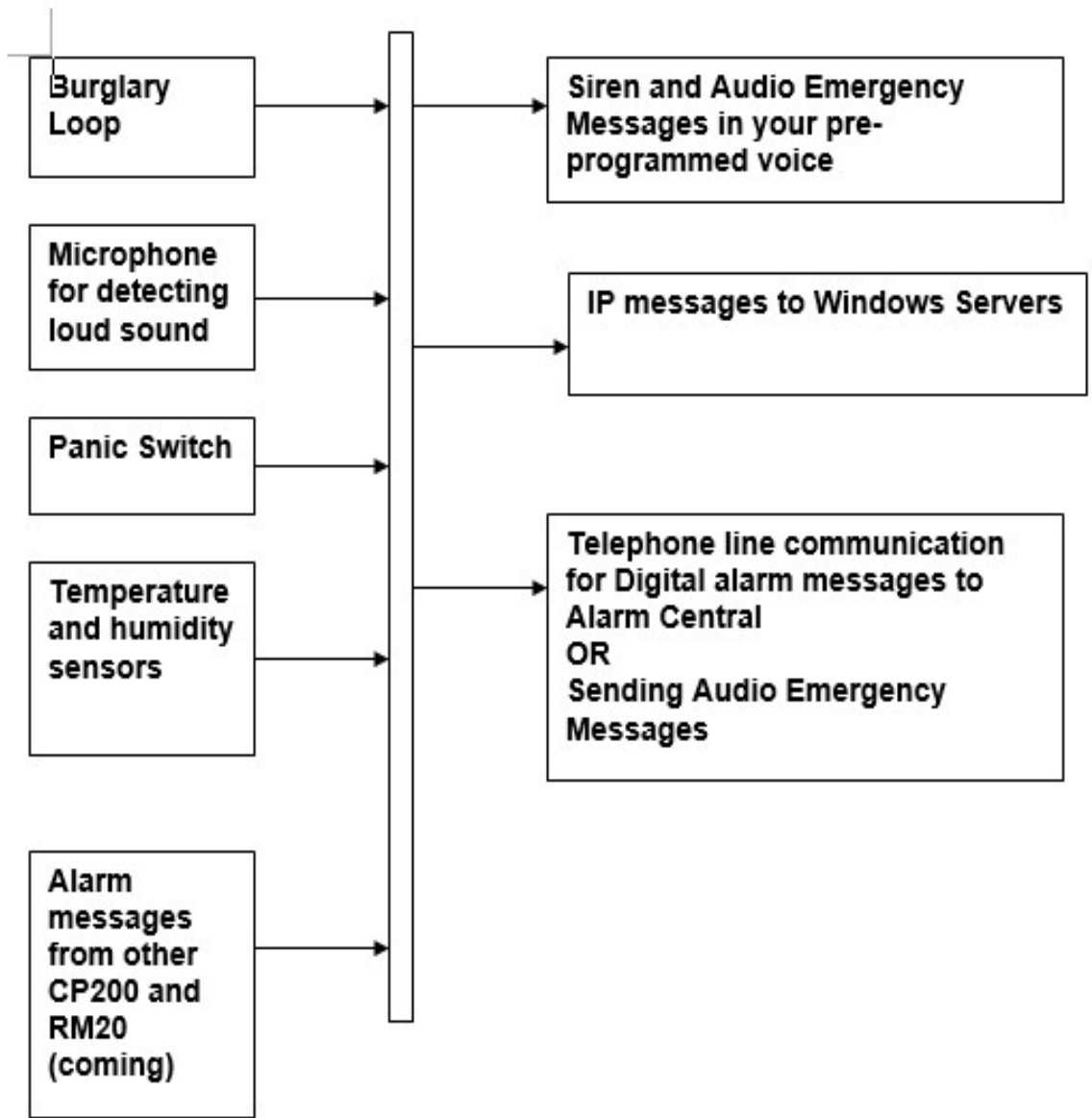
Internet/Wi-Fi and temperature/humidity options provide and monitoring of temperature and humidity on PC screen.

With email (SMTP) server, email and text messages are transmitted in addition to telephone reporting.

CP200 is also able to receive emergency messages from another CP200 for sounding sirens and transmitting alarm messages via telephone lines.

Optional alarm receiver for receiving Contact-ID alarm messages from any alarm panel.





## SECTION2

### SPECIFICATION

#### Alarm messages:

1. Digital alarm message (Contact-ID) or voice message via telephone line
2. Custom IP message to Windows server. (with Internet/Wi-Fi option)
3. Email or text message (requires your own SMTP server)

#### Voice messages:

The voice message by telephone consists of identification field with name and address and description field of the following:

1. Burglary
2. Excessive sound
3. Panic/Medical
4. Temperature (with optional temperature and humidity features)
5. Humidity
6. Test

Voices may be recorded and played using app.

Built-in microphone and speaker: Microphone is used as a sound detector. Speaker is used for siren and warning sound.

#### LED indicators:

Telephone relay on/off  
Power indicator  
Arm indicator  
Violation indicator

#### Arming on/off switch

#### Power on/off switch

RS232 connector: 115200 baud

Panic Button: mounted on panel

Audio Speaker: mounted on panel

Weight: 1 LBS

Power input: 12vdc via provided 117VAC/12VDC power adapter

Size: 5"x6"x2.5"

#### Options:

1. Temperature and humidity measurement  
Data is transmitted to an IP server consisted by your PC and provided Windows app continuously. And alarm signals are produced if their data are violated against high and low of temperature and humidity thresholds.
2. Internet and Wi-Fi

3. Contact-ID alarm receiver for any alarm panel including other CP200.

Made in U.S.A.

# SECTION 3

## PROGRAMMING

### 3.1 App “alarm20prog.exe”

Turn on power of CP200. Connect RS232 cable or USB/RS232 adapter to PC and CP200. Find comport designation of the communication port in Windows.

Run alarm20prog.

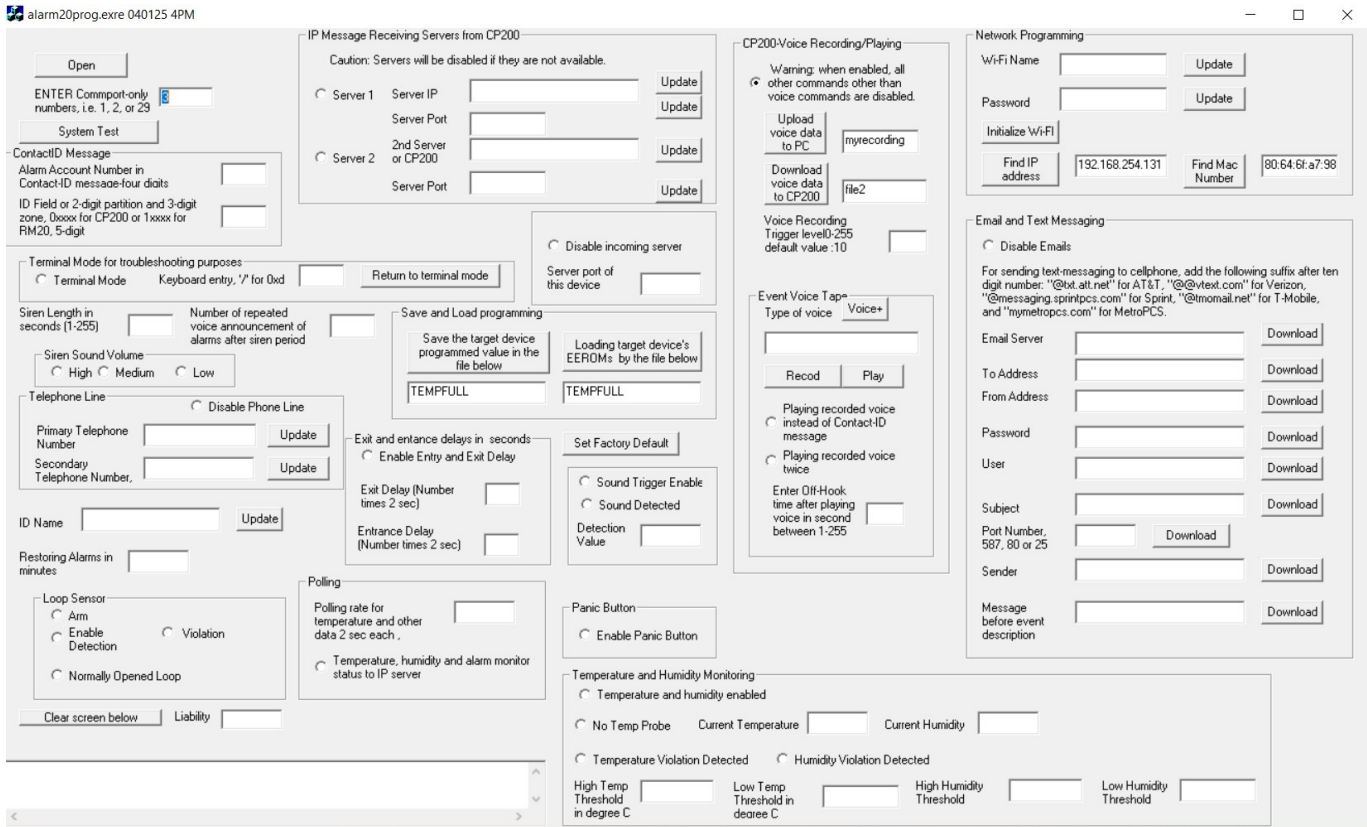
Enter the communication port number in the edit window on the upper left corner.

Click the button, “OPEN”.

After about five seconds, most of edit window on the screen will be filled.

**Warning: App “alarm20prog.exe must be exited for alarm panel operation and the green power LED must be flashing. When the app is opened, CP200 does not run the normal alarm panel operations.**

The screen shot of Alarm20prog is shown below:



### 3.2 Network Programming

This section may be skipped if your CP200 is not equipped Wi-Fi option.

#### 3.2.1 Set-up Wi-Fi

On the upper right-hand corner, enter Wi-Fi Name. Then click the button next to the edit window.

Enter Password below Wi-Fi Name. Then click the button next to the edit window.

Click 'Initialize" button.

The image shows a 'Network Programming' window. It contains two input fields for 'Wi-Fi Name' and 'Password', each with an 'Update' button to its right. Below these is an 'Initialize Wi-Fi' button. At the bottom, there are two buttons: 'Find IP address' and 'Find Mac Number'. The 'Find IP address' button is positioned above a text box containing '192.168.254.131'. The 'Find Mac Number' button is positioned above a text box containing '80:64:6f:a7:98'.

### 3.2.2 Dynamic IP address

A dynamic IP address is assigned by your Internet router. For obtaining full capability of CP200 with Wi-Fi option, dynamic IP address must be obtained.

### 3.2.3 Finding IP address for CP200

Click the button : "Find IP address".

### 3.2.4 Finding MAC Number for CP200

Click the button : "Find MAC Number".

## 3.3 Alarm Message Receiving Server Ports programming

CP200 can transmit IP message to Windows 10 servers, Server 1 and Server 2, which IP address and IP port are programmed as follows:

The image shows a window titled 'IP Message Receiving Servers from CP200'. At the top, it says 'Caution: Servers will be disabled if they are not available.' Below this, there are two server entries, each with a radio button, a label, and two input fields. For 'Server 1', the 'Server IP' is '192.168.254.37' and the 'Server Port' is '9999'. For 'Server 2', the '2nd Server or CP200' is '192.168.254.19' and the 'Server Port' is '9999'. Each input field has an 'Update' button to its right.

### 3.3.1 Server 1 and Server 2 IP address and port of app "Alarm20IPserver.exe" in Windows type PC

Enter IP address of your PC, which you will be able to obtain from your Internet router, in an edit window and click "download" button.

Enter port address which you will select like "9999" and click download.

Repeat the above procedure for Server 2.

### 3.3.2 Enable Server1 and Server 2 by radio buttons, Server 1 and Server 2

Enable each radio button turn or turnoff for enabling or disabling IP message sending to Server 1 or Server 2.

### 3.4 Email programming

To enable or disable email/text message sending alarm messages, radio button "Disable Emails" must be off. And the following smtp server information is required in edit windows and downloaded into CP200.

#### 3.4.1 Email Server (SMTP Server)

Most likely email server is obtained from your domain hosting service.

Email and Text Messaging

Disable Emails

For sending text-messaging to cellphone, add the following suffix after ten digit number: "@txt.att.net" for AT&T, "@@vtext.com" for Verizon, "@messaging.sprintpcs.com" for Sprint, "@tmomail.net" for T-Mobile, and "mymetropcs.com" for MetroPCS.

Email Server	<input type="text"/>	Download
To Address	<input type="text"/>	Download
From Address	<input type="text"/>	Download
Password	<input type="text"/>	Download
User	<input type="text"/>	Download
Subject	<input type="text"/>	Download
Port Number, 587, 80 or 25	<input type="text"/> Download	
Sender	<input type="text"/>	Download
Message before event description	<input type="text"/>	Download

#### 3.4.2 To Address

For sending text-messaging to cellphone, add the following suffix after ten digit number: "@txt.att.net" for AT&T, "@@vtext.com" for Verizon, "@messaging.sprintpcs.com" for Sprint, "@tmomail.net" for T-Mobile, and "mymetropcs.com" for MetroPCS.

#### 3.4.3 From Address

It is your email address from your domain hosting service.

#### 3.4.4 Password

Same password from your email address

### 3.4.5 User

Another email address or the same address as “From Address”

### 3.4.6 Subject

### 3.4.7 Port Number

### 3.4.8 Sender

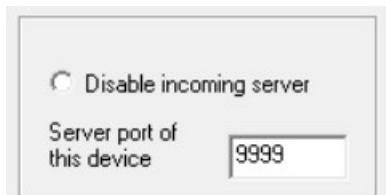
Your name <your email address> or blank space

### 3.4.9 Message before event description

A short alarm message or blank which may be inserted before alarm messages that are prepared by CP200.

## 3.5 Incoming Server

CP200 may be able to receive IP messages from PC client or other CP200 when a radio button “Disable Incoming Server” is not enabled.

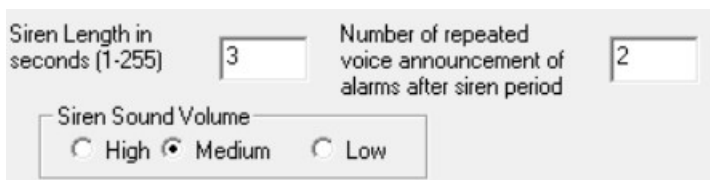


Disable incoming server

Server port of this device

When another CP200 is sending an IP message to a CP200, receiving CP200 will send alarm messages via telephone and siren sounds.

## 3.6 Siren



Siren Length in seconds (1-255)  Number of repeated voice announcement of alarms after siren period

Siren Sound Volume

High  Medium  Low

### 3.6.1 Siren Sound Length

Enter a number of siren sound length between 1 and 255. Siren is always generated after alarms and system tests.

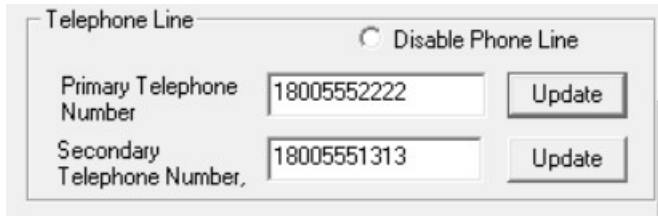
### 3.6.2 Siren Sound Volume

There are three volume controls among high, medium and low sounds.

### 3.6.3 Number of Voice Announcement of Alarm Conditions

Voice announcement of alarms conditions starts after end of siren period for a number of times programmed in an edit window. The voice announcement is the same one that you recorded.

### 3.7 Telephone numbers



Telephone Line

Disable Phone Line

Primary Telephone Number: 18005552222 [Update]

Secondary Telephone Number: 18005551313 [Update]

There are primary and secondary telephone numbers. If there is a problem dialing or sending alarm or voice messages, CP200 dials the secondary telephone numbers. After inputting each telephone numbers, click the “Download” button for primary or secondary telephone numbers.

#### 3.7.1 Disable telephone line

If the “Disable Telephone line” radio button is on, there is no dialing and sending messages over telephone line.

### 3.8 Contact-ID, Digital Alarm Message

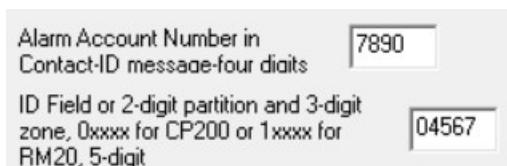
4-digit account number and 5-digit account number need to be programmed.

CP200 transmits Contact-ID messages as a default condition. The Contact-ID messages are the most popular alarm message standard which employs simple DTMF signaling method with fifteen digit and checksum digit DTMF signal of 50 milliseconds on and 50 milliseconds off timing.

The Contact-ID message consists of 4-digit account number, event, partition, and zone. Account number and 5-digit number are programmable, i.e. account number 1234 and 5-digit 02578 where the first digit in 5-digit number field must be 0 for model CP200.

If there is a dialing or message transmission problem with telephone number 1, hang up the line and dialing the second telephone number for transmitting the Contact-ID message.

If you do not have access to alarm central station, there is a low-cost alarm receiver model [CT10](#) is available from Micro Seven, Inc. Then you can set up for your own alarm monitoring service without any contract from nobody.



Alarm Account Number in Contact-ID message-four digits: 7890

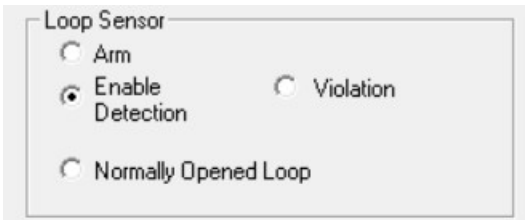
ID Field or 2-digit partition and 3-digit zone, 0xxxx for CP200 or 1xxxx for RM20, 5-digit: 04567

### 3.9 Loop Sensor with ARM, Loop sensor Enable/Disable, Loop detection method and Violation

Loop sensor wires are connected at the screw terminals 1 and 2. As a factory default, it is set for Normally Opened Loop.

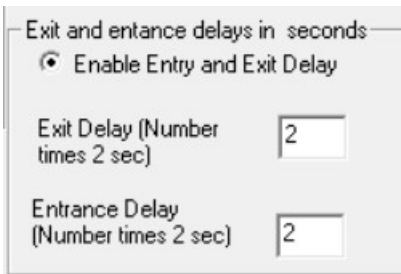
Loop sensor controls are ARM, Enable Detection, and Loop detection method of Normally Opened/Normally Closed.





Violation indicates any violation condition of loop, sound, temperature and humidity.

### 3.10 Exit and Entrance Delay

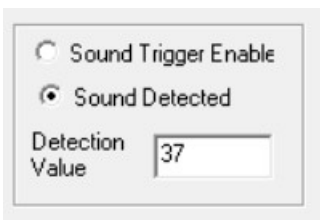


The exit delay is the time you need to exit your premise after arming CP200 without setting alarm condition. The time may be 30-60 seconds.

The entrance delay is time you need not to setting alarm condition when you reenter your premise. The time may also be 30-60 seconds.

### 3.11 Sound Triggering alarm

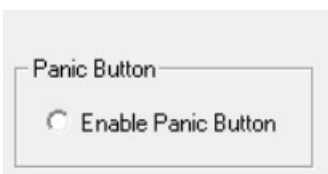
Sound Trigger Enable must be on and Armed condition need to cause Excessive sound triggering alarm. The sound detection level may be adjusted for your application between 1-255. Smaller number is more sensitive.



The violation red LED shows triggered state.

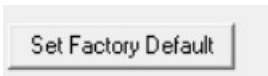
### 3.12 Panic Button

The Panic Button is located on the upper section of the CP200, and it needs to be enabled.



### 3.13 Factory Default

**Warning: CP200 is restored with the factory condition. Wi-Fi setup will not be changed.**



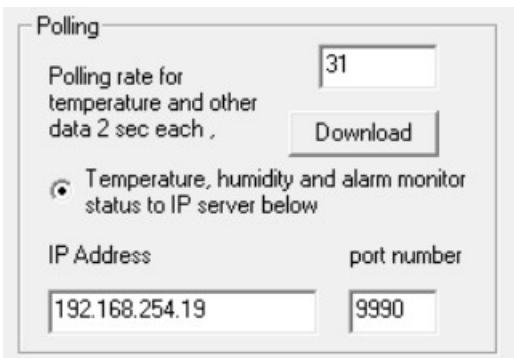
### 3.14 Alarm restore period

Alarm setting condition is restored after the Alarm restore period. Enter number of minutes for the alarm restore period.



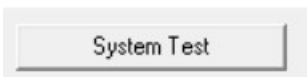
### 3.15 Polling of temperature and humidity data to PC server1

Temperature and humidity data is sent to a PC server at a rate that is programmed if it is enabled. The PC server may be the same one for the alarm message or another one.

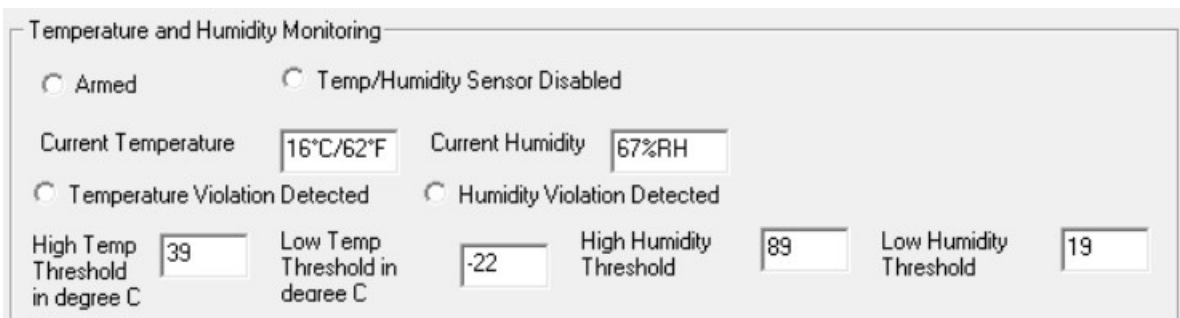


### 3.16 System test

System test is started for sending IP messages to PC servers, sending email/text messages, telephone dialing/sending Contact-ID messages or voice messages, siren sound and voiced "Test messages".



### 3.17 Temperature and Humidity



Current temperature and humidity are read and tested for high and low temperature and high and low relative humidity if it is not disabled in the “Temp/Humidity Sensor Disabled”. And there is a dedicated “Armed” condition for Temperature and humidity detection. If it is armed, any temperature or humidity violation will result in alarm condition. If temperature and humidity sensor become defective, the radio button “Temp/Humidity Sensor Disabled” will be automatically on.

### 3.18 Voice recording and playing

The screenshot shows a web-based configuration interface for CP200 voice recording and playing. The interface is titled "CP200-Voice Recording/Playing". It contains several sections:

- Warning:** A warning message states: "Warning: when enabled, all other commands other than voice commands are disabled." A radio button is selected next to this warning.
- Upload voice data to PC:** A button labeled "Upload voice data to PC" is next to a text input field containing "file1".
- Download voice data to CP200:** A button labeled "Download voice data to CP200" is next to a text input field containing "file2".
- Voice Recording Trigger level:** A label "Voice Recording Trigger level 0-255 default value :10" is next to a text input field containing "10".
- Play entire tape:** A button labeled "Play entire tape".
- Event Voice Tap:** A section titled "Event Voice Tap" containing:
  - A label "Type of voice" next to a button labeled "Voice+".
  - A text input field containing "Your name and address".
  - Two buttons labeled "Recod" and "Play".
  - Two radio button options:
    - Unselected: "Playing recorded voice instead of Contact-ID message"
    - Selected: "Playing recorded voice twice"
  - A label "Enter Off-Hook time after playing voice in second between 1-255" next to a text input field containing "20".

Your own voice for alarm messages and identification messages of your name and address are recorded.

Type of voice is selected by clicking :Voice+ sign:

Click Record for recording the following condition in your own voice:

1. Your name and address for eight second duration for inserting in the first part of telephone voice messaging if voice delivery is selected instead of Contact-ID.
2. “Emergency-Loop sensor is broken” for five seconds
3. “Emergency-Sound Triggered” for five seconds

4. "Emergency-Temperature Problem" for five seconds
5. "Testing" for five seconds
6. "Panic Emergency" for five seconds
7. "Emergency Humidity Problem" for five seconds

Sending voice file on telephone line instead of sending digital Contact-ID message may be selected. Sending voice file is available dialing the primary telephone number.

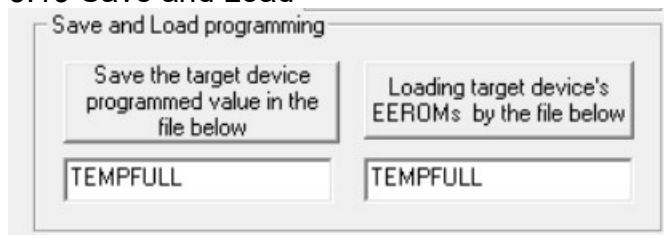
**Caution: if the primary telephone number is not available or in busy condition, there will be no dialing the secondary telephone number and sending voice file.**

After sending voice file, the telephone circuit may be programmed to stay in off-hook condition.

How to record your voice:

1. Open the app if it is not opened.
2. Disarm
3. Disable "Sound Trigger Enable"
4. Select "Name and Address"
5. Push "Record" button
6. Wait to see the Power indicator (green LED) flashing fast few times and "Violation LED" tuned on. You have five seconds for starting recording.
7. Find microphone area on CP200 and speak for seven seconds. At the end of seven seconds after starting recording, "Violation LED" is turned off for end of recording period.
8. Push "Play" for hearing your recorded voice. If not good recording, go back to procedure (5) to recording session again.
9. If satisfied with your recording, push "Voice+" button for next recording.
10. Continue next recording for "Loop Sensor is broken" for five seconds long recording.
11. Continue for recording "Sound Triggered",
12. Continue for recording "Temperature problem".
13. Continue for recording "Testing".
14. Continue for recording "Panic".
15. Continue for recording "Humidity problem".
16. Save your recording by entering file name of your recording and push "Upload voice data to PC". Wait the uploading complete message in the lower left hand window. That is the end.

### 3.19 Save and Load



Programmed value may be saved and loaded.

### 3.20 Terminal mode

Terminal Mode for troubleshooting purposes

Terminal Mode    Keyboard entry, '/' for 0xd       

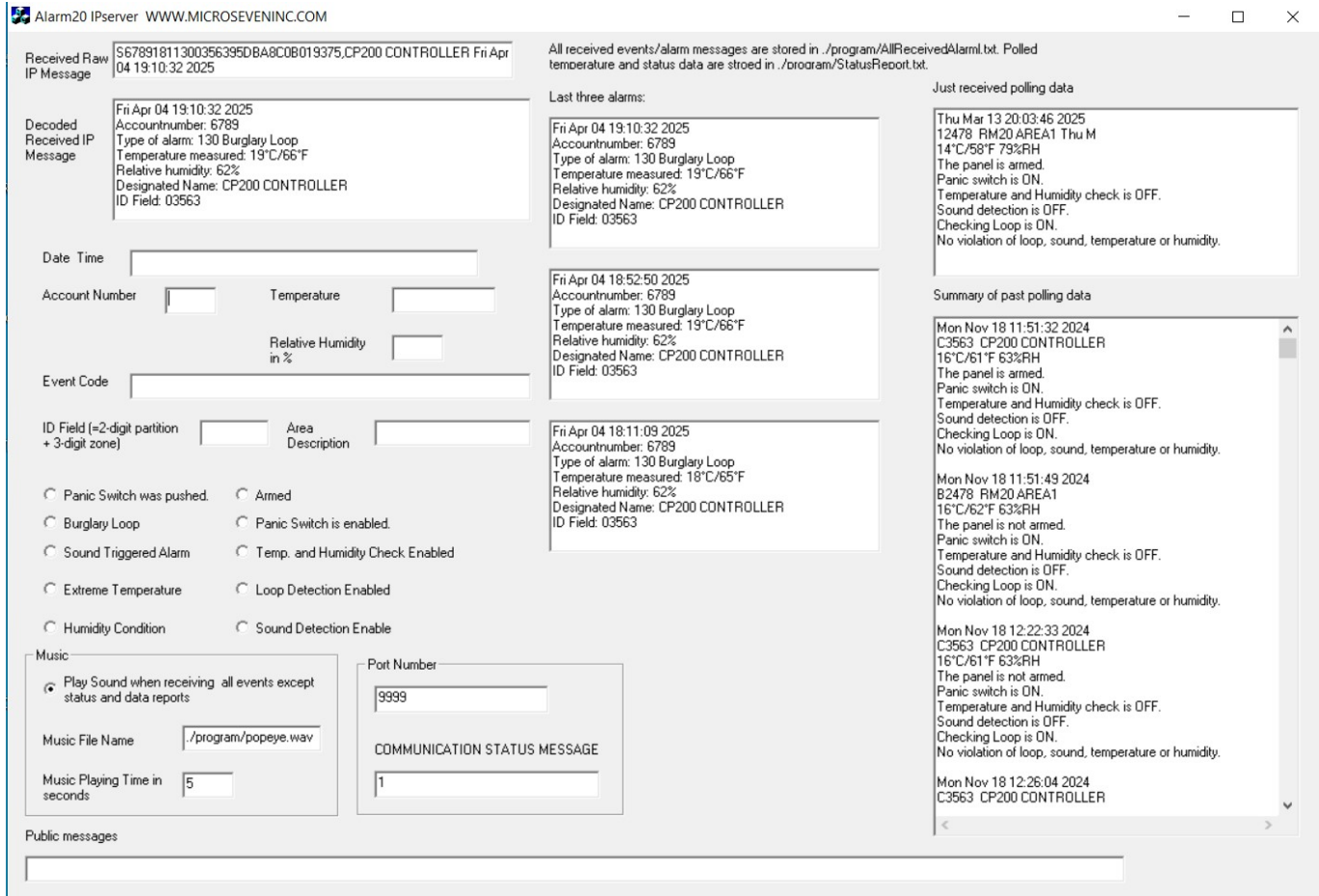
This area is used for Micro Seven service.

## SECTION 4

### Alarm20 server for PC

The screen shot of IP server, Alarm20IPserver.exe, is shown below.

Enter a port number in the edit window. The IP address and port number should match with the Server1 or Server 2 in the IP Message Receiving Servers from CP200 in the alarm20prog.exe.



After Alarm20IPserver.exe is opened, the server waits incoming socket connection for the port number, i.e. 9999.

CP200 is trying to open a socket with this server.

The server finds incoming socket connection request from CP200.

The server makes a connection with a socket.

Sending a greeting transmission to CP200.

CP200 sends a data string of Contact-ID messages and other status data.

The server receives the data string.

The server keeps socket connection with CP200 until CP200 closes the socket or after a long time without actions.

Here is the data string format from CP200:

S (16-digit Contact-ID message)  
( one byte hex temperature high value )  
( one byte hex temperature low value )  
( one byte hex humidity high value )  
( one byte hex humidity low value )  
( one byte hex of sensor status )  
( one byte hex of RM20control )  
( one byte hex of rccontrol2 )

,  
(ID Name from the Alarm20prog.exe)  
<0XD>

The detail information of the temperature, humidity, and other register information is confidential.

If temperature/humidity polling is enabled in the Alarm20prog.exe, the event code in the Contact-ID message is "900".

## SECTION 5

### Alarm20IPprogram App

The screen shot of IP server, Alarm20IPprogram is shown below:

This app is for reading status and programmed value without RS232 interface by IP server function inside CP200. However, this app does not contains all programming function that is available in the CP200program.exe.

Enter IP address and port number of CP200 and pushing “Open” button.

Then Armed condition, Enabling Loop Detection, Enabling detecting high level sound, Enabling temperature and humidity sensors, temperature and humidity reading, temperature thresholds for high and low temperature, humidity thresholds for high and low humidity are shown.

System test may be started for CP200.

The screenshot shows the 'Alarm20 IP Programming' application window. At the top, there is a note: 'Note: select target device and open before any change or starting system test.' and a 'Clear Screen Below' button. The interface includes several input fields and buttons:

- Open** button
- Target IP Address** and **Target MAC device** input fields
- MAC Number** and **IP Address** input fields (IP Address is pre-filled with 192.168.254.131)
- CP200** (selected) and **RM20 Unit 1** radio buttons
- PORT NUMBER** input field (pre-filled with 9999)
- Make socket connection again** button
- Monitoring of the conditions below for violation** section with **Armed condition** radio button
- Loop Sensor** section with **Enable Loop Detection** and **Violated Loop** radio buttons
- Microphone** section with **Enable detecting high level sound** radio button
- Front-Panel Panic Button** section with **Enable Panic Button** radio button
- Temperature and Humidity Measurements** section with **Enable Testing Temperature and Humidity testings for High and Low Limits** radio button, and input fields for **Current Temperature at CP100**, **Current Humidity at CP100**, **High Temperature Threshold in degree (°C)**, **Low Temperature Threshold in degree (°C)**, **High Humidity Threshold in degree (%RH)**, and **LowHumidity Threshold in degree (%RH)**.
- System test** button
- Load screen value in CP100, one change at a time.** button
- A large empty text area on the right side of the window.

After receiving data from CP200, socket connection is maintained for starting system test, changing programming values, and starting telephone operation in CP200 for sending Contact-ID.

Here is the sequence for CP200 server:

1. PC-client program opens IP address and port of CP200.
2. CP200 replies sending NOENCR"<0Xd>.
3. PC-client sends "D"<0xd>.



4. CP200 sends 17 hexadecimal data.
5. PC-client and CP200 will keep the socket.
6. PC may send contact-ID messages to CP200 starting S and sixteen ASCII character.  
i.e. S1234181131010158<0xd>
7. Or new programming value.
8. Close sockets or close app to end socket connection.

## SECTION 6

### FIRST-TIME OPERATION

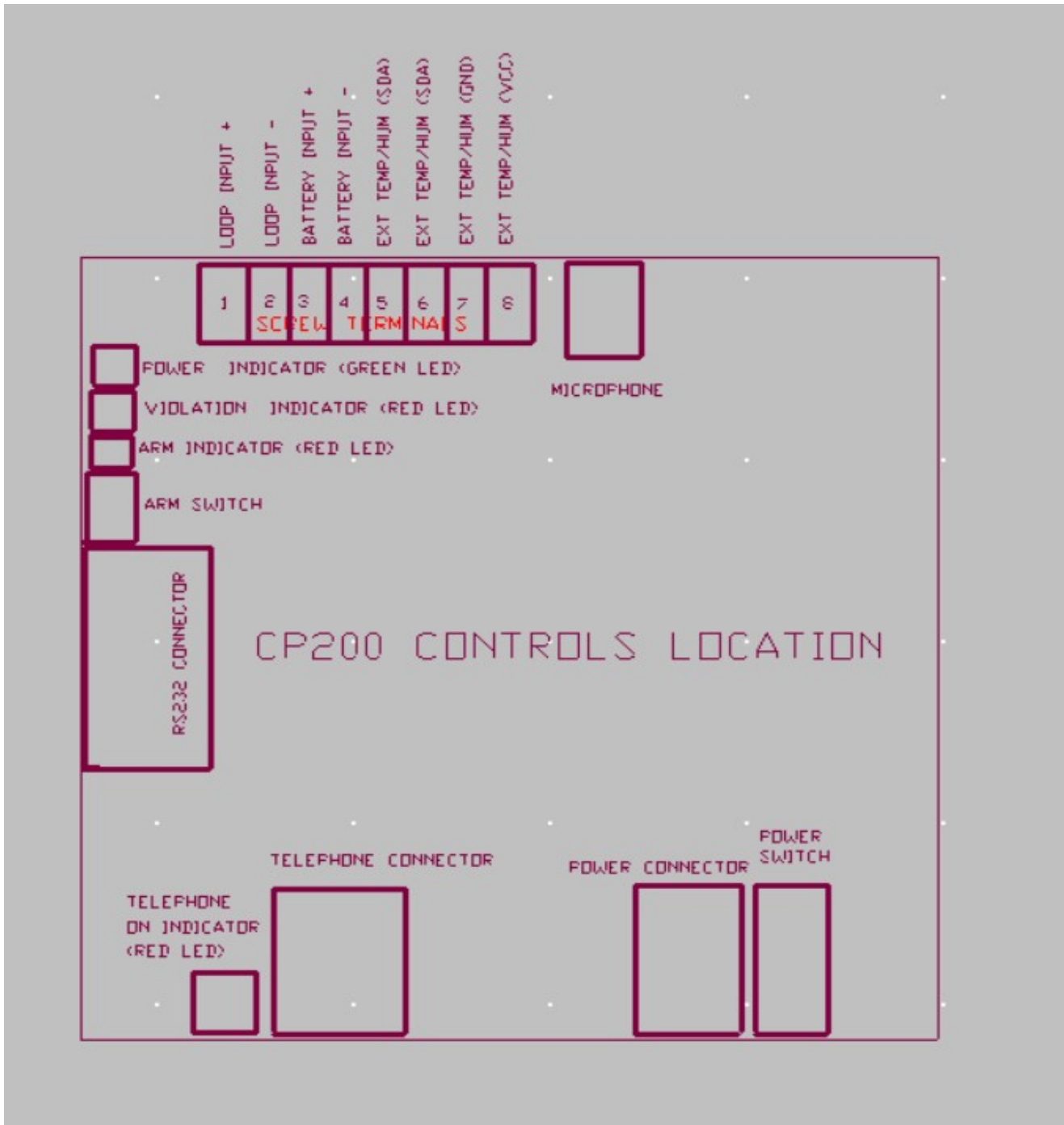


Figure 6 CP200 Controls Location

#### 6.1 Burglary loop

Note: This first-time operation requires for CP200 as a factory-default condition.

1. Connect AC/DC power input module at the power connector.
2. Power switch off

3. Connect loop inputs at the Screw Terminal 1 and 2 in the Figure 6 CP200 Controls Location
4. Connect phone line to the telephone connector
5. Power switch ON.
6. Check power indicator is turned on.
7. Connect RS232 cable or USB/RS232 adapter to PC and CP200. Find comport designation of the communication port in Windows "Device Manager".
8. Run "alarm20prog.exe" and start.
9. Enter the communication port number in the edit window on the upper left corner.
10. Click the button, "OPEN".
11. Most of edit window on the screen will be filled within five seconds.
12. Check the following factory-default conditions in the screen of "alarm20prog.exe" as the following:
  - Burglary loop: Normally opened
  - Loop detection is enabled.
  - Non-armed condition
  - Sound detection is disabled.
  - Email is disabled.
  - All IP transmission is disabled.
  - Phone-line reporting is done for transmission of Contact-ID instead of playing voice recording.
13. Enter primary telephone number for central station or other CP200 with alarm receiver option
14. Push Download button.
15. Enter secondary telephone number for central station or other CP200 with alarm receiver.
16. Exit "alarm20prog.exe".
17. Push arm switch
18. Armed LED is on and hearing pre-alarm 1400 Hz tone.
19. Wait till sound is off.
20. Short the burglary loop for few seconds. Violation LED is on.
21. Sound comes back on with entry pre-alarm 1400 Hz.
22. Dialing sound is heard.
23. Contact-ID handshake tone is heard.
24. CP200 is sending sixteen short DTMF tones for Contact-ID with the following event code: 130, Burglary.
25. Kiss-off tone is heard.
26. CP200 hangs up the phone line.
27. Siren is heard.
28. After siren ends, voice announcement of alarm condition is heard twice.
29. Alarm restoring period starts.
30. When alarm restoring period ends, Violation LED is off.
31. END.

## 6. 2 Sound Detection Operation

1. Open "alarm20prog.exe", and start.
2. Push the Arm Switch for Non Armed condition. See the Arm LED is turned off.
3. Read the section " 3.11 Sound Triggering Alarm" to be familiar with the trigger level.
4. Push the radio button "Sound Trigger Enable". There is no need to exit the app.
5. Shout "Hello" or "Hi" near CP200

6. Notice the Violation LED may be turned on. If it does not turn on even though you sounded louder, adjust trigger level by entering smaller number between 1-255. The factory default is decimal 37.
7. Push arm switch. Be quiet so that it does not trigger the sound detection.
8. Armed LED is on and hearing pre-alarm 1400 Hz tone.
9. Wait till sound is off.
10. Shout "Hello" or "Hi" near CP200. Violation LED is on
11. Sound comes back on with entry pre-alarm 1400 Hz.
12. Dialing sound is heard.
13. Contact-ID handshake tone is heard.
14. CP200 is sending sixteen short DTMF tones for Contact-ID with the following event code: 132, Burglary Interior.
15. Kiss-off tone is heard.
16. CP200 hangs up the phone line.
17. Siren is heard.
18. After siren ends, voice announcement of alarm condition like "Sound Triggered" is heard twice.
19. Alarm restoring period starts.
20. When alarm restoring period ends, Violation LED is off.
21. Push the radio button "Sound Trigger Enable" to disable sound detection.

### 6.3 Panic Button

The Panic Button is always enabled with or without Armed condition. The red-colored Panic Switch is located on the cover of CP200.

1. Open "alarm20prog.exe".
2. Read "3.12 Panic Button" section of Programming.
3. Check a radio button Enable Panic Button is on. If not, push the radio button.
4. Sound comes back on with entry pre-alarm 1400 Hz.
5. Dialing sound is heard.
6. Contact-ID handshake tone is heard.
7. CP200 is sending sixteen short DTMF tones for Contact-ID with the following event code: 120, Panic Alarm.
8. Kiss-off tone is heard.
9. CP200 hangs up the phone line.
10. Siren is heard.
11. After siren ends, voice announcement of alarm condition like "Panic Mode" is heard twice.

### 6.4 Temperature and Humidity monitor

Temperature and Humidity Monitoring

Armed
  Temp/Humidity Sensor Disabled

Current Temperature 
 Current Humidity

Temperature Violation Detected
  Humidity Violation Detected

High Temp Threshold in degree C 
 Low Temp Threshold in degree C 
 High Humidity Threshold 
 Low Humidity Threshold

#### 6.4.1 High temperature monitor and violation check

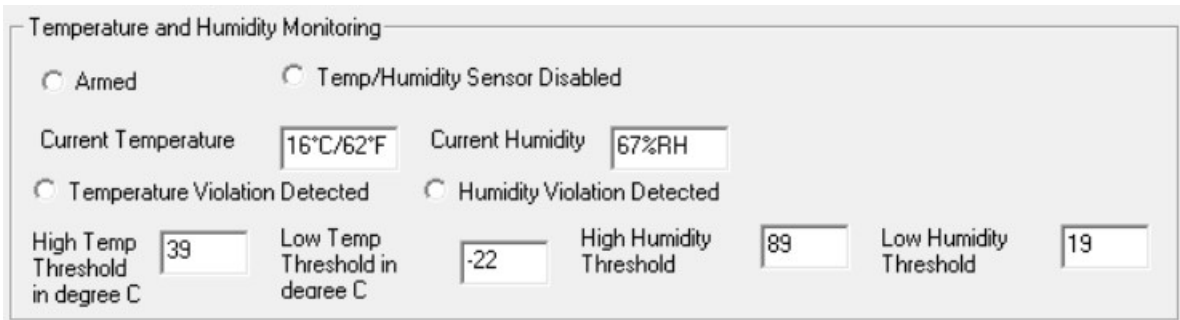
1. Read "3.17 Temperature and Humidity section of Programming.
2. Open "alarm20prog.exe" and hit "Start". Wait few seconds until screen is filled.
3. See the current temperature 16 degree C. Here setting "High Temperature Alarm" artificial setup for 10 degree C high temperature threshold
4. See the Violation LED in the Loop Sensor is on.
5. Make sure telephone is set up for dialing.
6. Click the radio button "Armed" in Temperature and Humidity monitor.
7. Dialing sound is heard.
8. Contact-ID handshake tone is heard.
9. CP200 is sending sixteen short DTMF tones for Contact-ID with the following event code: 158, High Temp.
10. Kiss-off tone is heard.
11. CP200 hangs up the phone line.
12. Siren is heard.
13. After siren ends, voice announcement of alarm condition like "Temperature Problem" is heard twice.
14. Click the radio button "Armed" for disarming.
15. Set the High Temp Threshold for 39.
16. Exit the app.

#### 6.4.2 Low temperature monitor and violation check

1. If the last 6.4.1 high temperature monitor and violation check was completed, skip to 3. Otherwise, read "3.17 Temperature and Humidity section of Programming.
2. Open "alarm20prog.exe" and hit "Start". Wait few seconds until screen is filled.
3. See the current temperature 16 degree C. Here setting "Low Temperature Alarm" artificial setup by 25 degree C in the low temperature threshold.
4. See the Violation LED in the Loop Sensor is on.
5. Make sure telephone is set up.
6. Click the radio button "Armed" in Temperature and Humidity monitor.
7. Dialing sound is heard.
8. Contact-ID handshake tone is heard.
9. CP200 is sending sixteen short DTMF tones for Contact-ID with the following event code: 159, High Temp.
10. Kiss-off tone is heard.
11. CP200 hangs up the phone line.
12. Siren is heard.
13. After siren ends, voice announcement of alarm condition like "Temperature Problem" is heard twice.

14. Set the Low Temperature Threshold back to -22 degree C. And click the radio button “Armed” in Temperature and Humidity monitor to turn off armed condition.
15. Exit the app.

#### 6.4.3 High humidity monitor and violation check



Temperature and Humidity Monitoring

Armed       Temp/Humidity Sensor Disabled

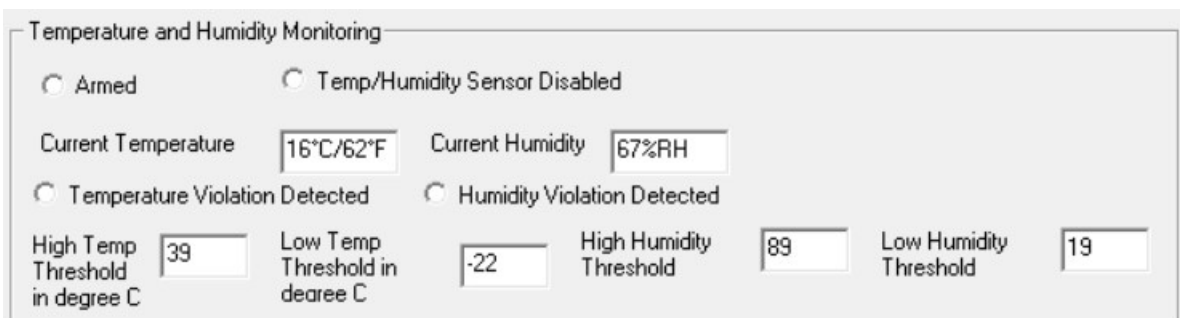
Current Temperature       Current Humidity

Temperature Violation Detected       Humidity Violation Detected

High Temp Threshold in degree C       Low Temp Threshold in degree C       High Humidity Threshold       Low Humidity Threshold

1. If the last 6.4.2 low temperature monitor and violation check was accomplished, skip to 3.
2. Read “3.17 Temperature and Humidity section of Programming.
3. Open “alarm20prog.exe” and hit “Start”. Wait few seconds until screen is filled.
4. See the current humidity 67%. Here setting “High Humidity Alarm” artificial setup for 50 %.
5. See the Violation LED in the Loop Sensor is on.
6. Make sure telephone is set up for dialing.
7. Click the radio button “Armed” in Temperature and Humidity monitor.
8. Dialing sound is heard.
9. Contact-ID handshake tone is heard.
10. CP200 is sending sixteen short DTMF tones for Contact-ID with the following event code: 164, High Humidity.
11. Kiss-off tone is heard.
12. CP200 hangs up the phone line.
13. Siren is heard.
14. After siren ends, voice announcement of alarm condition like “Humidity Problem” is heard twice.
15. Click the radio button “Armed” for disarming.
16. Set the High Humidity Threshold for 89.
17. Exit the app.

#### 6.4.4 Low humidity monitor and violation check



Temperature and Humidity Monitoring

Armed       Temp/Humidity Sensor Disabled

Current Temperature       Current Humidity

Temperature Violation Detected       Humidity Violation Detected

High Temp Threshold in degree C       Low Temp Threshold in degree C       High Humidity Threshold       Low Humidity Threshold

1. If the last 6.4.3 High Humidity monitor and violation check was accomplished, skip to 3.
2. Read “3.17 Temperature and Humidity section of Programming.
3. Open “alarm20prog.exe” and hit “Start”. Wait few seconds until screen is filled.
4. See the current humidity 67%. Here setting “High Humidity Alarm” artificial setup for 80%.

5. See the Violation LED in the Loop Sensor is on.
6. Make sure telephone is set up for dialing.
7. Click the radio button “Armed” in Temperature and Humidity monitor.
8. Dialing sound is heard.
9. Contact-ID handshake tone is heard.
10. CP200 is sending sixteen short DTMF tones for Contact-ID with the following event code: 165, Low Humidity.
11. Kiss-off tone is heard.
12. CP200 hangs up the phone line.
13. Siren is heard.
14. After siren ends, voice announcement of alarm condition like “Humidity Problem” is heard twice.
15. Click the radio button “Armed” for disarming.
16. Set the Low Humidity Threshold for 19.
17. Exit the app.

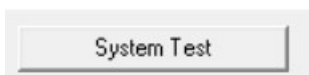
#### 6.4.5 Panic Button check



*Panic alarm is created by pushing Panic Button on top of CP200. Alarms are created with or without armed.*

1. Read “3.12 Panic Button” section of Programming.
2. Open “alarm20prog.exe” and hit “Start”. Wait few seconds until screen is filled.
3. Check Enable Panic Button is on; otherwise, click the radio button,
4. Make sure telephone is set up for dialing.
5. Click the Panic button on top of CP200.
6. Dialing sound is heard.
7. Contact-ID handshake tone is heard.
8. CP200 is sending sixteen short DTMF tones for Contact-ID with the following event code: 120, Panic Alarm.
9. Kiss-off tone is heard.
10. CP200 hangs up the phone line.
11. Siren is heard.
12. After siren ends, voice announcement of alarm condition like “Panic Mode” is heard twice.
13. Exit the app.

#### 6.4.6 System Test Check



##### 6.4.6.1 System Test for telephone dialing and transmitting digital alarm message of Contact-ID.

1. Read “3.16 System Test” section of Programming.
2. Open “alarm20prog.exe” and hit “Start”. Wait few seconds until screen is filled.

3. Make sure telephone is set up for dialing.
4. Push the System Test Button of the upper left corner of the app.
5. Dialing sound is heard.
6. Contact-ID handshake tone is heard.
7. CP200 is sending sixteen short DTMF tones for Contact-ID with the following event code: 601, Manual Trigger Test.
8. Kiss-off tone is heard.
9. CP200 hangs up the phone line.
10. Siren is heard.
11. After siren ends, voice announcement of alarm condition like “Testing” is heard twice.
12. Exit the app.

## 6.5 Wi-Fi and Internet programming

This section 6.5 is only applicable if Wi-Fi/Internet option is equipped in CP200.

### 6.5.1 setting up Wi-Fi

Complete programming of 3.2.1 Set-up Wi-Fi

The screenshot shows a 'Network Programming' window with the following fields and buttons:

- Wi-Fi Name:** An empty text input field with an 'Update' button to its right.
- Password:** An empty text input field with an 'Update' button to its right.
- Initialize Wi-Fi:** A button located below the password field.
- Find IP address:** A button with the IP address '192.168.254.131' displayed in a text box to its right.
- Find Mac Number:** A button with the MAC address '80:64:6f:a7:98' displayed in a text box to its right.

### 6.5.2 Alarm Message Receiving Server Ports programming

The screenshot shows a window titled 'IP Message Receiving Servers from CP200' with a caution message: 'Caution: Servers will be disabled if they are not available.' It contains two server configurations:

- Server 1:** Selected with a radio button. Fields include 'Server IP' (192.168.254.37) and 'Server Port' (9999), each with an 'Update' button.
- Server 2:** Selected with a radio button. Fields include '2nd Server or CP200' (192.168.254.19) and 'Server Port' (9999), each with an 'Update' button.

Figure 6.5.2 Example of setting up two servers for two PCs, IP address 192.168.254.37 with port 9999 and IP address 192.168.254.19 with port 9999

Complete 3.3.1 Server 1 and Server 2 IP address and port of app “Alarm20IPserver.exe” in Windows type PC

Complete 3.3.2 Enable Server1 and Server 2 by radio buttons, Server 1 and Server 2



Enable each radio button turn or turnoff for enabling or disabling IP message sending to Server 1 or Server 2.

### 6.5.3 setting up email parameter

Complete 3.4 Email programming

To enable or disable email/text message sending alarm messages, radio button “Disable Emails” must be off.

Email and Text Messaging

Disable Emails

For sending text-messaging to cellphone, add the following suffix after ten digit number: "@txt.att.net" for AT&T, "@vtext.com" for Verizon, "@messaging.sprintpcs.com" for Sprint, "@tmomail.net" for T-Mobile, and "mymetropcs.com" for MetroPCS.

Email Server	<input type="text"/>	Download
To Address	<input type="text"/>	Download
From Address	<input type="text"/>	Download
Password	<input type="text"/>	Download
User	<input type="text"/>	Download
Subject	<input type="text"/>	Download
Port Number, 587, 80 or 25	<input type="text"/> Download	
Sender	<input type="text"/>	Download
Message before event description	<input type="text"/>	Download

### 6.5.4 Setting up PC server

Read Section 4, Alarm20server, app for Windows PC. Enter the same port number as port number in 6.5.2 Alarm Message Receiving Server Ports programming.

### 6.5.5 System Test Transmission of IP messages and emails

System Test for telephone dialing and transmitting digital alarm message of Contact-ID.

1. Open “alarm20prog.exe” and hit “Start”. Wait few seconds until screen is filled.
2. Make sure telephone is set up for dialing.
3. Push the System Test Button of the upper left corner of the app.

4. IP messages and email is sent.
5. Dialing sound is heard.
6. Contact-ID handshake tone is heard.
7. CP200 is sending sixteen short DTMF tones for Contact-ID with the following event code: 601, Manual Trigger Test.
8. Kiss-off tone is heard.
9. CP200 hangs up the phone line.
10. Siren is heard.
11. After siren ends, voice announcement of alarm condition like "Testing" is heard twice.

Exit the app

The screenshot shows the Alarm20 IPserver interface with the following sections:

- Received Raw IP Message:** 5678918160103563658418E06000371\_CP200 CONTROLLER Sat Apr 12 07:31:56 2025
- Decoded Received IP Message:** Sat Apr 12 07:31:56 2025, Accountnumber: 6789, Type of alarm: 601 System Test, Temperature measured: 15°C/59°F, Relative humidity: 63%, Designated Name: CP200 CONTROLLER, ID Field: 03563
- Account Number:** 6789, **Temperature:** 15°C/59°F, **Relative Humidity in %:** 63
- Event Code:** 601 System Test
- ID Field:** 03563, **Area Description:** CP200 CONTROLLER
- Settings:**
  - Panic Switch was pushed.  Armed
  - Burglary Loop.  Panic Switch is enabled.
  - Sound Triggered Alarm.  Temp. and Humidity Check: Enabled
  - Extreme Temperature.  Loop Detection Enabled
  - Humidity Condition.  Sound Detection Enable
- Music:**
  - Play Sound when receiving all events except status and data reports
  - Music File Name: ./program/popeye.wav
  - Music Playing Time in seconds: 5
- Port Number:** 9999, **COMMUNICATION STATUS MESSAGE:** 1
- Public messages:** (Empty field)
- Information:** All received events/alarm messages are stored in ./program/AllReceivedAlarm.txt. Polled temperature and status data are stored in ./program/StatusReport.txt.
- Last three alarms:**
  - Sat Apr 12 07:31:56 2025, Accountnumber: 6789, Type of alarm: 601 System Test, Temperature measured: 15°C/59°F, Relative humidity: 63%, Designated Name: CP200 CONTROLLER, ID Field: 03563
  - Sat Apr 12 07:26:54 2025, Accountnumber: 6789, Type of alarm: 130 Burglary Loop, Temperature measured: 15°C/59°F, Relative humidity: 63%, Designated Name: CP200 CONTROLLER, ID Field: 03563
  - Fri Apr 11 16:46:19 2025, Accountnumber: 6789, Type of alarm: 601 System Test, Temperature measured: 18°C/65°F, Relative humidity: 65%, Designated Name: CP200 CONTROLLER, ID Field: 03563
- Just received polling data:** Sun Apr 06 11:16:36 2025, C3563 CP200 CONTROLLER, 17°C/63°F 64%RH, The panel is not armed. Panic switch is ON. Temperature and Humidity check is ON. Sound detection is OFF. Checking Loop is ON. No violation of loop, sound, temperature or humidity.
- Summary of past polling data:**
  - Mon Nov 18 11:51:32 2024, C3563 CP200 CONTROLLER, 16°C/61°F 63%RH, The panel is armed. Panic switch is ON. Temperature and Humidity check is OFF. Sound detection is OFF. Checking Loop is ON. No violation of loop, sound, temperature or humidity.
  - Mon Nov 18 11:51:49 2024, B2478\_RM20\_AREA1, 16°C/62°F 63%RH, The panel is not armed. Panic switch is ON. Temperature and Humidity check is OFF. Sound detection is OFF. Checking Loop is ON. No violation of loop, sound, temperature or humidity.
  - Mon Nov 18 12:22:33 2024, C3563 CP200 CONTROLLER, 16°C/61°F 63%RH, The panel is not armed. Panic switch is ON. Temperature and Humidity check is OFF. Sound detection is OFF. Checking Loop is ON. No violation of loop, sound, temperature or humidity.
  - Mon Nov 18 12:26:04 2024, C3563 CP200 CONTROLLER

Here are detailed screen shots of incoming decoded alarm messages:

The screenshot shows a detailed view of a decoded alarm message:

- Decoded Received IP Message:** Tue Apr 08 19:42:17 2025, Accountnumber: 6789, Type of alarm: 601 System Test, Temperature measured: 17°C/63°F, Relative humidity: 64%, Designated Name: CP200 CONTROLLER, ID Field: 03563

Date Time

Account Number  Temperature

Relative Humidity in %

Event Code

ID Field (=2-digit partition + 3-digit zone)  Area Description

Panic Switch was pushed.     Armed  
 Burglary Loop                     Panic Switch is enabled.  
 Sound Triggered Alarm         Temp. and Humidity Check Enabled  
 Extreme Temperature          Loop Detection Enabled  
 Humidity Condition             Sound Detection Enable

Music

Play Sound when receiving all events except status and data reports

Music File Name

Music Playing Time in seconds

Port Number

COMMUNICATION STATUS

If email or text messaging transmission is enabled, a typical text message is shown below:

SUBJ:CP200  
 MSG:Events reporting  
 System Test  
[03563](#)  
 CP200 CONTROLLER

The sender is not in your contact list.  
[Report Junk](#)

The “03565” in the text message above identifies a CP200, and it is the same ID field that is programmed in the Alarm20program.exe. The five digit field is also a zone and partition in a Contact-ID alarm message.

ContactID Message

Alarm Account Number in Contact-ID message-four digits

ID Field or 2-digit partition and 3-digit zone, 0xxxx for CP200 or 1xxxx for RM20, 5-digit

6.1 Burglary loop

6.2 Sound Detection Operation

6.3 Panic Button

6.4 Temperature and Humidity monitor

6.4.1 High temperature monitor and violation check

6.4.2 Low temperature monitor and violation check

6.4.3 High humidity monitor and violation check

6.4.4 Low humidity monitor and violation check

6.4.5 Panic Button check

6.4.6 System Test Check

6.4.6.1 System Test for telephone dialing and transmitting digital alarm message of Contact-ID.

6.5 Wi-Fi and Internet programming

6.5.1 setting up Wi-Fi

6.5.2 Alarm Message Receiving Server Ports programming

6.5.3 setting up email parameter

Email and Text Messaging

Disable Emails

For sending text-messaging to cellphone, add the following suffix after ten digit number: "@txt.att.net" for AT&T, "@vtext.com" for Verizon, "@messaging.sprintpcs.com" for Sprint, "@tmomail.net" for T-Mobile, and "mymetropcs.com" for MetroPCS.

Email Server	<input type="text"/>	<input type="button" value="Download"/>
To Address	<input type="text"/>	<input type="button" value="Download"/>
From Address	<input type="text"/>	<input type="button" value="Download"/>
Password	<input type="text"/>	<input type="button" value="Download"/>
User	<input type="text"/>	<input type="button" value="Download"/>
Subject	<input type="text"/>	<input type="button" value="Download"/>
Port Number, 587, 80 or 25	<input type="text"/> <input type="button" value="Download"/>	
Sender	<input type="text"/>	<input type="button" value="Download"/>
Message before event description	<input type="text"/>	<input type="button" value="Download"/>

#### 6.5.4 Setting up PC server

Read Section 4, Alarm20server, app for Windows PC. Enter the same port number as port number in 6.5.2 Alarm Message Receiving Server Ports programming.

#### 6.5.5 System Test Transmission of IP messages and emails

System Test for telephone dialing and transmitting digital alarm message of Contact-ID.

12. Open "alarm20prog.exe" and hit "Start". Wait few seconds until screen is filled.
13. Make sure telephone is set up for dialing.
14. Push the System Test Button of the upper left corner of the app.
15. IP messages and email is sent.
16. Dialing sound is heard.
17. Contact-ID handshake tone is heard.
18. CP200 is sending sixteen short DTMF tones for Contact-ID with the following event code: 601, Manual Trigger Test.
19. Kiss-off tone is heard.
20. CP200 hangs up the phone line.
21. Siren is heard.
22. After siren ends, voice announcement of alarm condition like "Testing" is heard twice.
23. Exit the app

Received Raw IP Message: 5678918160103563658418E06000371,CP200 CONTROLLER Sat Apr 12 07:31:56 2025

All received events/alarm messages are stored in ./program/AllReceivedAlarm.txt. Polled temperature and status data are stored in ./brogram/StatusReport.txt.

Decoded Received IP Message: Sat Apr 12 07:31:56 2025  
Accountnumber: 6789  
Type of alarm: 601 System Test  
Temperature measured: 15°C/59°F  
Relative humidity: 63%  
Designated Name: CP200 CONTROLLER  
ID Field: 03563

Last three alarms:  
Sat Apr 12 07:31:56 2025  
Accountnumber: 6789  
Type of alarm: 601 System Test  
Temperature measured: 15°C/59°F  
Relative humidity: 63%  
Designated Name: CP200 CONTROLLER  
ID Field: 03563

Just received polling data  
Sun Apr 06 11:16:36 2025  
03563 CP200 CONTROLLER  
17°C/63°F 64%RH  
The panel is not armed.  
Panic switch is ON.  
Temperature and Humidity check is ON.  
Sound detection is OFF.  
Checking Loop is ON.  
No violation of loop, sound, temperature or humidity.

Date Time: Fri Apr 11 16:39:37 2025, Fri Apr 11 16:41:29 2025, Fri Apr 11 16

Account Number: 6789 Temperature: 15°C/59°F

Relative Humidity in %: 63

Event Code: 601 System Test

ID Field (-=2-digit partition + 3-digit zone): 03563 Area Description: CP200 CONTROLLER

Sat Apr 12 07:26:54 2025  
Accountnumber: 6789  
Type of alarm: 130 Burglary Loop  
Temperature measured: 15°C/59°F  
Relative humidity: 63%  
Designated Name: CP200 CONTROLLER  
ID Field: 03563

Fri Apr 11 16:46:19 2025  
Accountnumber: 6789  
Type of alarm: 601 System Test  
Temperature measured: 18°C/65°F  
Relative humidity: 65%  
Designated Name: CP200 CONTROLLER  
ID Field: 03563

Summary of past polling data  
Mon Nov 18 11:51:32 2024  
C3563 CP200 CONTROLLER  
16°C/61°F 63%RH  
The panel is armed.  
Panic switch is ON.  
Temperature and Humidity check is OFF.  
Sound detection is OFF.  
Checking Loop is ON.  
No violation of loop, sound, temperature or humidity.  
Mon Nov 18 11:51:49 2024  
B2478 RM20 AREA1  
16°C/62°F 63%RH  
The panel is not armed.  
Panic switch is ON.  
Temperature and Humidity check is OFF.  
Sound detection is OFF.  
Checking Loop is ON.  
No violation of loop, sound, temperature or humidity.  
Mon Nov 18 12:22:33 2024  
C3563 CP200 CONTROLLER  
16°C/61°F 63%RH  
The panel is not armed.  
Panic switch is ON.  
Temperature and Humidity check is OFF.  
Sound detection is OFF.  
Checking Loop is ON.  
No violation of loop, sound, temperature or humidity.  
Mon Nov 18 12:26:04 2024  
C3563 CP200 CONTROLLER

- Panic Switch was pushed.
- Burglary Loop
- Sound Triggered Alarm
- Extreme Temperature
- Humidity Condition
- Armed
- Panic Switch is enabled.
- Temp. and Humidity Check Enabled
- Loop Detection Enabled
- Sound Detection Enable

Music  
 Play Sound when receiving all events except status and data reports  
Music File Name: ./program/popeye.wav  
Music Playing Time in seconds: 5

Port Number: 9999  
COMMUNICATION STATUS MESSAGE: 1

Public messages

Here are detailed screen shots of incoming decoded alarm messages:

Decoded Received IP Message: Tue Apr 08 19:42:17 2025  
Accountnumber: 6789  
Type of alarm: 601 System Test  
Temperature measured: 17°C/63°F  
Relative humidity: 64%  
Designated Name: CP200 CONTROLLER  
ID Field: 03563

Date Time

Account Number  Temperature

Relative Humidity in %

Event Code

ID Field (=2-digit partition + 3-digit zone)  Area Description

Panic Switch was pushed.     Armed  
 Burglary Loop                     Panic Switch is enabled.  
 Sound Triggered Alarm         Temp. and Humidity Check Enabled  
 Extreme Temperature          Loop Detection Enabled  
 Humidity Condition             Sound Detection Enable

Music

Play Sound when receiving all events except status and data reports

Music File Name

Music Playing Time in seconds

Port Number

COMMUNICATION STATUS

If email or text messaging transmission is enabled, a typical text message is shown below:

SUBJ:CP200  
 MSG:Events reporting  
 System Test  
[03563](#)  
 CP200 CONTROLLER

The sender is not in your contact list.  
[Report Junk](#)

The “03565” in the text message above identifies a CP200, and it is the same ID field that is programmed in the Alarm20program.exe. The five digit field is also a zone and partition in a Contact-ID alarm message.

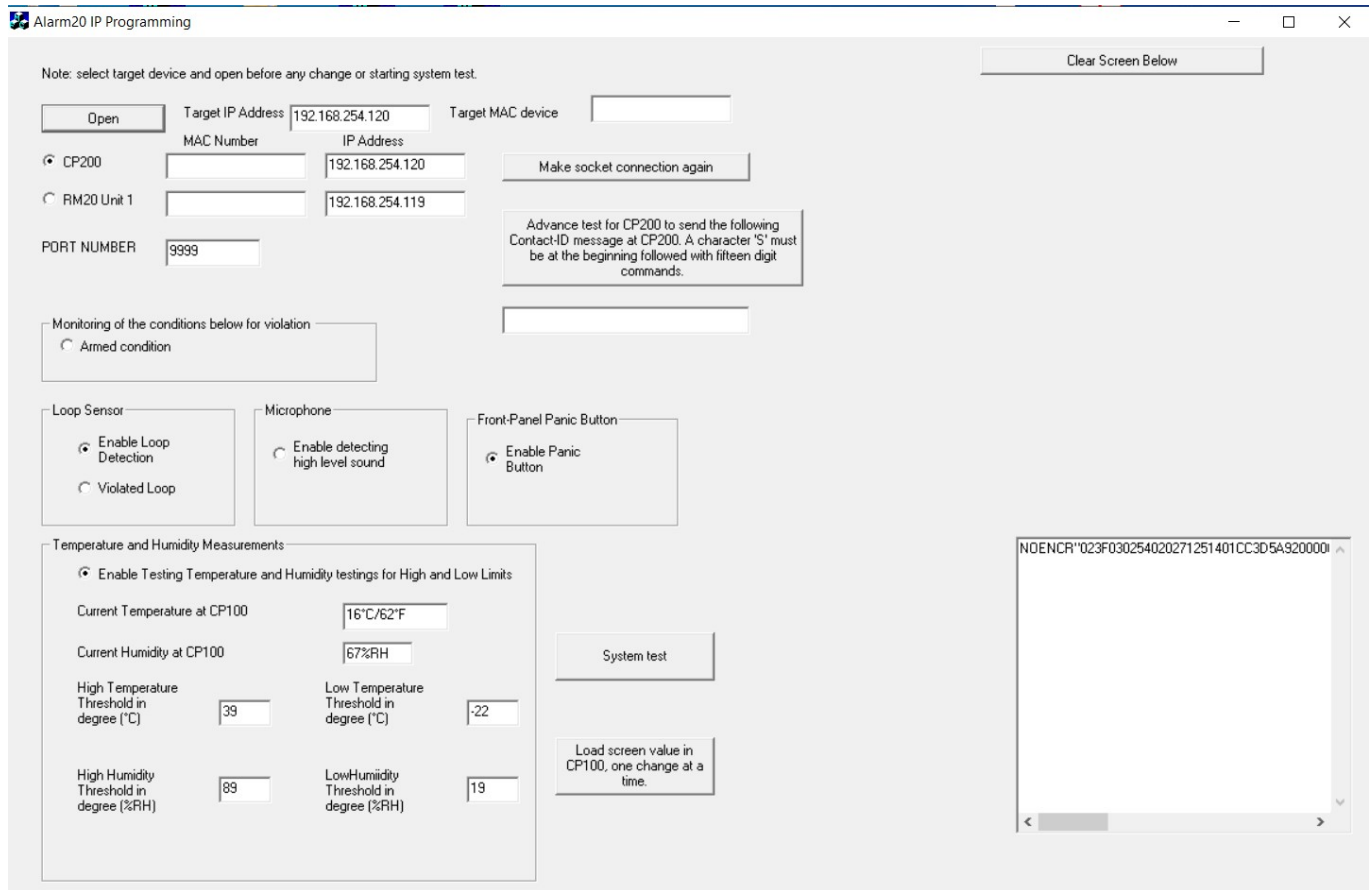
ContactID Message

Alarm Account Number in Contact-ID message-four digits

ID Field or 2-digit partition and 3-digit zone, 0xxxx for CP200 or 1xxxx for RM20, 5-digit

## 6.6 Running Alarm20IPprogramming.exe

The screenshot of Alarm20IPprogramming is shown below:



1. Enter CP200's IP address in a text input window as shown as 192.168.254.120 at an upper left-hand side. Enter port number of 9999 in the PORT NUMBER window.
2. Select radio button CP200.
3. Click "Open" button.
4. See received new text in a large edit window.
5. It shows loop status of non-armed condition, Enable Loop Detection, disabled Microphone for sound detection, and Enable Panic Button. Temperature and Humidity data of the CP200 with temperature and humidity high and low threshold values.
6. Changing setting or values may be done, but it is limited for one subject only at a time. For example, if you want to change High Temperature Threshold from 39 degree C to 35, enter 35 in the edit window and click a button "Load screen value CP200, one change at a time".
7. If you want to do system test, click the "System Test". But there is time window of one minute, so any change of value or running system test must be done before socket between PC and CP200 is closed.