

4.2 PROGRAMMING THE NEW CB440, CB475, CB511 AND CB514

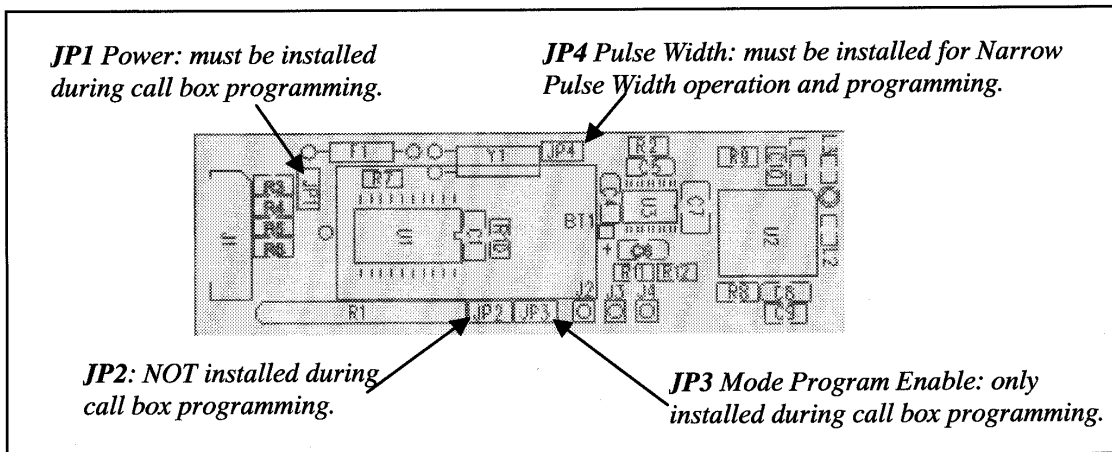
The Address and Mode for each call box are listed in the *Store Installation and Operation Manual* for the specific store install. Refer to the data tables in Appendix A of that manual for the correct Address and Mode for each call box you are programming.

Note: *earlier models of these call boxes are not "Mode" programmable and do not have JP4. Before programming a new call box, identify what version of circuit board is installed in the unit per the serial number on the unit or the illustration below. (Note: Only boards with JP4 present can be programmed for Narrow Pulse Mode.)*

Address Programming:

Press and hold the RESET button for approximately 5 seconds. LED 1 will flash when the RESET button has been held down long enough. The system is now in address programming mode. (Note: if installed, jumper JP2 must be removed during programming as it will disable the programming of the address).

1. Press button 1 to increment the hundreds digit. LED 1 will flash with each press.
2. Press the RESET button when finished with the hundreds digit.
3. Press button 1 to increment the tens digit. LED 1 will flash with each press.
4. Press the RESET button when finished with the tens digit.
5. Press button 1 to increment the ones digit. LED 1 will flash with each press.
6. Press the RESET button when finished with the ones digit.
7. The address that you just programmed in should flash back on the LED 1 with a pause between each digit. (Note: the LED will indicate a zero value by staying on for a longer period of time, approximately 1 second).



Mode Programming:

CB440/475/511/514 Call Box PCA call boxes have two possible pulse width settings: *Narrow Pulse Width* or *Wide Pulse Width*. The Pulse Width Programming is enabled

depending on the jumper position of **JP4** on the call box circuit board and is identified by the second digit of the Mode Programming. Default setting for JP4 is jumper on both pins.

- Call boxes programmed with "**Narrow Pulse Width Mode Enabled**", will only work with a CB451B Receiver. Jumper must be installed on JP4.
- Call Boxes programmed with "**Wide Pulse Width Mode Enabled**", will work with a CB451A Receiver or a CB451B Receiver. No jumper on JP4.

Note: *The receiver type is easily identified by the color of the operation LED. CB451A has a green operation LED and CB451B has a red operation LED.*

Mode Summary

- **Mode 1** - Standard Call Box with 8 minute Timeout (4 programmable channels)
Press the channel (HELP) button to trigger the call box. The LED next to the HELP button flashes and then extinguishes after approximately 8 minutes if the RESET button (small white circle) is not pressed.
Channel 4 is programmed as an External input. When a valid input (momentary only) is received, it transmits a call box "Channel 4" transmission to the MTS. When alarm state is removed, no reset is sent. When pressed, the RESET button will reset (or clear) the call box .
- **Mode 2** – Call Box with 30 second Timeout (4 programmable channels)
Press the channel (HELP) button to trigger the call box. The LED next to the channel (HELP) button flashes and then turns off after approximately 30 seconds if the RESET button (small white circle) is not pressed.
Channel 4 is programmed as an External input. When a valid input (momentary only) is received, it transmits a call box "Channel 4" transmission to the MTS. When alarm state is removed, no reset is sent. When pressed, the RESET button will reset (or clear) the call box .
- **Mode 3** – Ext Momentary Switch Call Box w/8 min Timeout (1 programmable channel)
Press the channel (HELP) button to trigger the call box. The LED next to the channel button flashes, then extinguishes after approximately 8 minutes if the RESET button (small white circle) is not pressed.
Channel 1 is programmed for an External momentary input and transmits as a call box "channel 1" signal to the MTS. When alarm state is removed, no RESET is sent. When pressed, the RESET button will reset (or clear) the call box .
- **Mode 4** – N/O (Normally open) Switch Contact Call Box (1 programmable channel)
External input (closed) is used to trigger the call box. When activated, the LED begins to flash, then extinguishes after approximately 30 seconds.
Channel 1 is programmed as an External momentary input and transmits as a standard call box "Channel 1" SET. When alarm state is removed, a RESET is sent.
- **Mode 5** – N/C Switch Contact Call Box (1 channel max)
External input (open) is used to trigger the call box. When activated, the LED begins to flash, then extinguishes after approximately 30 seconds.

Channel 1 is programmed as an External momentary input and transmits as a standard call box "Channel 1" SET. When alarm state is removed, a RESET is sent.

- **Mode 6 - CU3000 Compatible – 8 min timeout (4 programmable channels)**

Mode 1 is compatible with CU3000 systems. This mode will not send a supervisory transmission, but will send a RESET transmission at 8 minutes and battery status.

- **Mode 7 - Standard Call Box with Acknowledge (4 channels max)**

Press the channel (HELP) button to trigger the call box. The LED flashes. If the same channel (HELP) button is not pressed again, the LED continues to flash for approximately 8 minutes, then extinguishes with no reset transmissions sent.

If the same channel (HELP) button is pressed a second time, the LED decreases the flash rate and an Acknowledge transmission is sent to the MTS. The LED flashes for approximately 8 minutes, then extinguishes with no reset sent. The External input is a valid input (momentary only) and transmits call box channel 1. If alarm state is removed, no reset is sent. When pressed, the RESET button will reset (or clear) the call box.

Programming CB440/475/511/514 Call Box Mode And Pulse Width Values:

Before programming the call box, the call box must be open and the jumpers moved to accommodate programming sequences.

1. Verify jumper **JP4** is set correctly. (*on both pins for Narrow Pulse, off for Wide Pulse*)
2. Install the jumper on both pins of **JP3** (next to the battery).
3. Press the **RESET** button to determine the current mode setting. The current Mode and Pulse Width value will flash back on LED 1.
4. Press **Button 1 "X"** times to program the Mode (Modes 1-7 are available). LED 1 will light for each press.
5. Press the **RESET** button to save the new Mode value.*
6. Press **Button 1** to program Pulse Width: press once for Narrow Pulse Width or press twice for Wide Pulse Width.
7. Press **RESET** to save the new Pulse Width value.
8. The Mode and Pulse Width values will flash back on LED 1: Mode, pause, Pulse Width.
9. **Remove the jumper from JP3** and re-install the back panel. **Note:** *failure to remove JP3 before standard call box operation will prevent the call box from operating properly.*

Example 1: Programming for Mode 2 with Narrow Pulse Width #1

Note: Narrow Pulse Width is available only when using a CB451B Receiver.

1. **Install the JP4 jumper.** *Jumper JP4 is installed by default at the factory.*
2. **Jumper both pins of JP3.**
3. Press Button 1 twice (for Mode 2). Button #1 LED will flash for each press.
4. Press RESET.
5. Press Button 1 one time (for Narrow Pulse Width), the LED will flash once.
6. Press RESET. Watch as Button 1 LED flashes twice (for Mode 2), pauses, and then flashes once (for "Narrow Pulse Width").
7. **Remove the jumper from JP3.** Do not remove the jumper from JP4.

Example 2: Programming for Mode 2 with Wide Pulse Width #2

1. **Remove the JP4 jumper.**
2. **Jumper both pins of JP3.**
3. Press Button 1 twice (for Mode 2). Button #1 LED will flash for each press.
4. Press RESET.
5. Press Button 1 twice (for Wide Pulse Width). LED1 will flash for each press.
6. Press RESET. Watch as Button 1 LED flashes two times (for Mode 2), pauses, and then flashes twice (for "Wide Pulse Width").
7. **Remove the jumper from JP3. Do not install a jumper on JP4.**

4.3 PROGRAMMING THE CB440, CB475, CB511, AND CB514 (PRE-2002)

The earlier versions (older PCA) of these particular call boxes are all programmed similar. The Address and House Code for each call box is listed in the *Store Installation and Operation Manual* for the specific store. Refer to the data tables in Appendix A of that manual for the correct Address and House Codes for each call box you are programming. The Address and House Code, when combined, is typically identified as a three-digit number such as: 2-3-1.

To Program a Call Box:

Press and hold the **RESET** button until the SET Button LED comes on. Then enter the new Call Box programming by following the steps below.

1. Press the **SET** Button x number of times to program the 1st digit. (First digit of call box button address)
2. Press **RESET**.
3. Press the **SET** Button x number of times to program the 2nd digit. (Second digit of call box button address)
4. Press **RESET**.
5. Press the **SET** button x number of times to set the House code digit.
6. Press **RESET**. The Call Box will blink out the newly programmed code and exit to operate mode.

To read an existing code:

Press and hold the **RESET** button until the SET button LED comes on. Press the **RESET** button again, the programmed code will be blinked out and the Call Box will resume normal operating mode.

BUTTON CODES:

Call Box button codes range from 1-1 to 8-8. Overflow results in wrapping around, for example, if you press the button 10 times, it will program as a 2 (10-8=2).

HOUSE CODES:

The third digit programmed is the **HOUSE CODE**, it must match the control unit's **HOUSE CODE**. For older systems, the house code equivalents are listed below. In most cases, the house code will remain at hc 12 (or 1).

- 1 = hc 12
- 2 = hc 54
- 3 = hc 45
- 4 = hc 20
- 5 = hc 6A