



# **CB300-D COMPUTER PROGRAMMING SOFTWARE INSTRUCTIONS**

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# CB300D PROGRAMMER INSTRUCTIONS

The CB300D can be quickly programmed both from the devices on-board controls and by using a CB300D programmer. The programmer is typically used for the provisioning of many units, or for loading a unified prerecorded message.

This guide will assist you in installing the programming software and then configuring that software to properly program your CB300D call box.

The proper setup of this programmer will ensure it's ability to offer trouble free and very rapid programming of any number of CB300D call boxes without any further attention. Take time to read through this instruction set step-by-step.

**NOTE:**

**The CB300 Programmer is available for purchase from Alert Tech, Inc.**

**Send request to order@alerttech.net for fulfillment.**

**NOTE: Do not connect the PC USB port directly to the CB300D Unit.**

**Tools for successful installation:**

- PC running Windows XP or 10
- CB300D programmer hardware
- All included wires
- (1) CB300D unit with battery pack (wait to install batteries)

**PC Requirements:**

- Processor: 1 gigahertz (GHz) or faster processor
- RAM: 1 gigabyte (GB)
- Hard disk space: 250 MB.
- Audio Output: 3.5mm stereo connector
- USB: 1 USB port
- Display: 800x600.

**IMPORTANT NOTE:**

Some Windows installations do not have the required serial drivers pre-installed. Click on the link and select the operating system in use for your PC. Follow the ftdichip install instructions to ensure your computer has the proper driver.

If your computer is running 32 bit (x86) Windows use the following link:

<https://www.ftdichip.com/Drivers/CDM/CDM%20v2.12.28%20WHQL%20Certified.zip>

If your computer is running 64 bit (x64) Windows use the following link:

<https://www.ftdichip.com/Drivers/CDM/CDM%20v2.12.28%20WHQL%20Certified.zip>

# INSTALLING THE COMPUTER PROGRAMING SOFTWARE

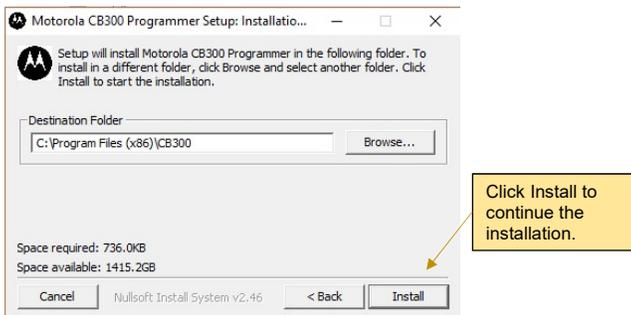
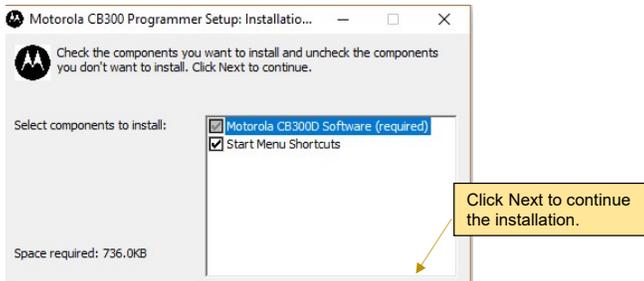
## STEP 1: INSTALL MOTOROLA CB300D PROGRAM SOFTWARE

DOWNLOAD THE LATEST VERSION OF THE CB300D PROGRAMMING SOFTWARE FROM MOTOROLA SUPPORT SITE:

[https://www.motorolasolutions.com/en\\_us/products/two-way-radio-accessories/call-boxes/cb-series-callboxes.html#tabresource](https://www.motorolasolutions.com/en_us/products/two-way-radio-accessories/call-boxes/cb-series-callboxes.html#tabresource)

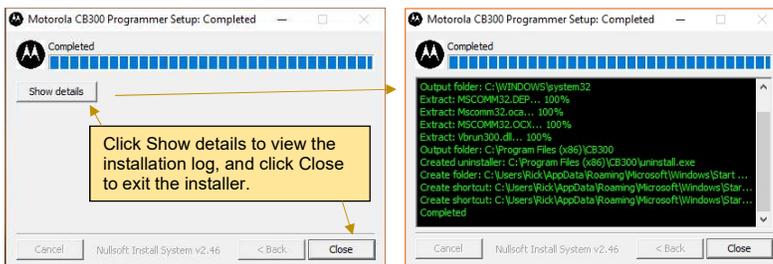
Once downloaded and unzipped open the setup.exe file from the unzipped folder.

NOTE: You may need to right-click and "Run as Administrator" if any install errors are encountered.



Change or accept the installation folder for the provisioning app installation.

Click install.



After installation is complete, click Show details to view the installation log, or click Close to exit the installer.



Start the programming Application:

**This PC > OS(C:) > Program Files (x86) > CB300**

## RECORDING MESSAGES

### STEP 2: RECORDING MESSAGES FOR USE WITH THE PROGRAMMER

The CB300D Programmer requires messages that are recorded with the proper characteristics for optimal sound quality. If these message recording instructions are not followed, the quality of the audio messages cannot be assured.

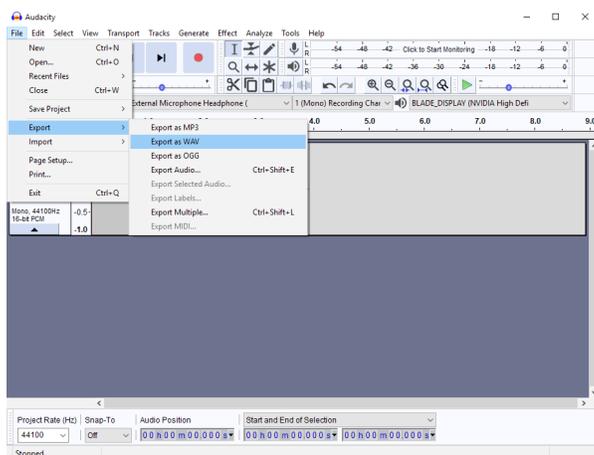
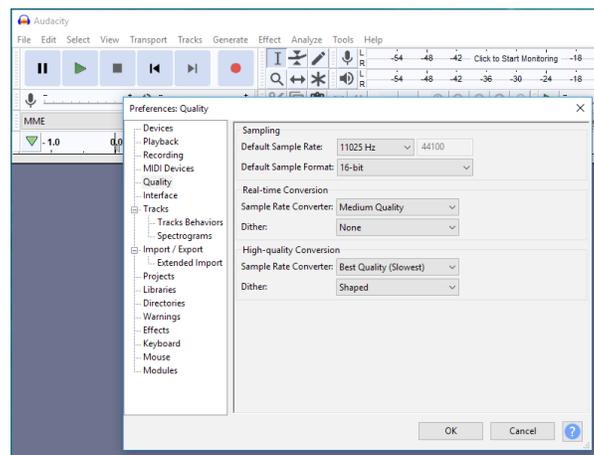
Create the message wave files on the PC. The wave (Wave PCM) files must have the following characteristics:

**Sample Rate: 11.025 kHz**

**16 Bit**

**Mono**

**Message Length < 10 seconds**



Suggested audio software:

Audacity is a free, open source audio software that we will use in these examples. Many other audio recording programs can be used as long as all the settings required are present.

<https://www.audacityteam.org/>

Set the recording preferences according to the requirements by navigating to

**Edit>Preferences>Quality**

Once these are set your project will be in the proper bit rate and sample rate.

Record or edit your messages ensuring you stay under a 10 second maximum.

Once your recording is complete navigate to

**File>Export>Export as WAV**

## RECORDING MESSAGES

Save your files to a folder that will contain all three of your CB300D's programmable messages.

**NOTE:**

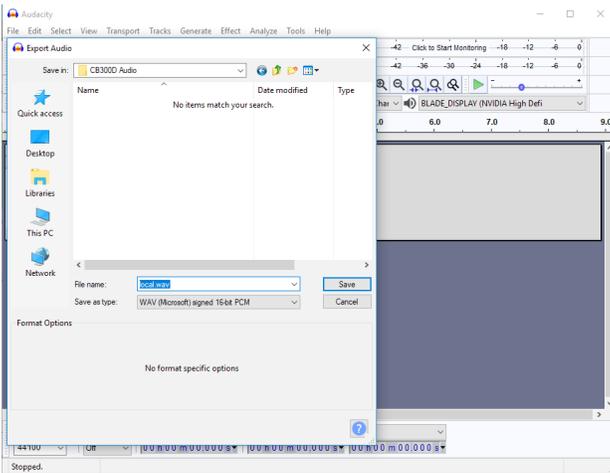
You must save each message according to the naming below. Not naming your files properly will result in a failure in programming them to the CB300D.

Save all files to the same folder on your drive.

LOCAL MESSAGE: local.wav

RADIO MESSAGE: radio.wav

LOW BATTERY MESSAGE: lowbatt.wav



## CONNECTING THE PROGRAMMER TO YOUR COMPUTER

### STEP 3: CONNECTING AND CONFIGURING THE CB300D PROGRAMMER

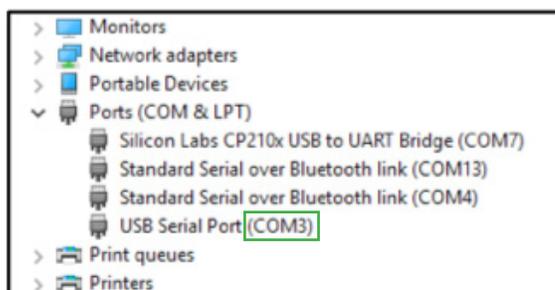
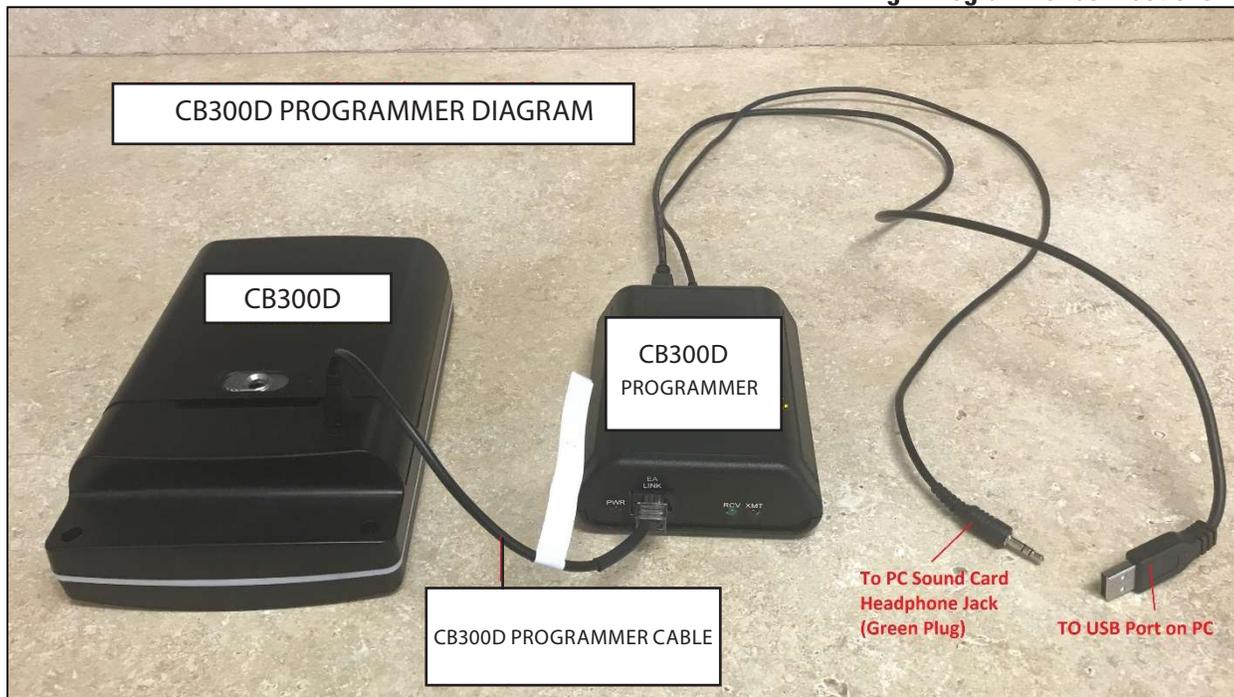
The CB300D programmer acts as an interface between your computer and the CB300D. There are settings that must be properly configured to make sure your computer is passing information to the CB300D programmer on the correct port.

Make all connections according to fig.1 taking care to seat the PC Sound Card and USB connections securely. Ensure the USB is plugged directly into the computer and not into any USB hub, keyboard, or extender.

#### NOTE:

The CB300 Programmer is available for purchase from Alert Tech, Inc. Send request to [order@alerttech.net](mailto:order@alerttech.net) for fulfillment.

fig.1 Programmer connections



Once the programmer is connected and plugged into power  
Navigate to

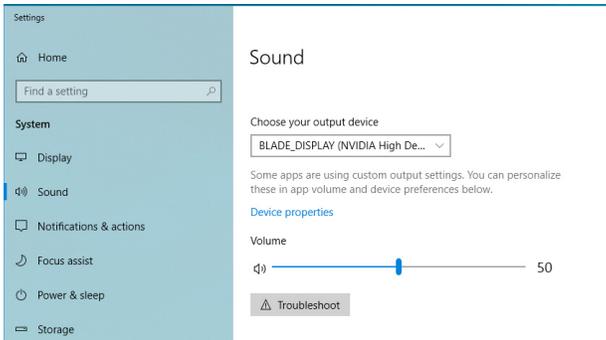
Control Panel > Device Manager > Ports (Com&LPT)

Note the COM number next to the USB Serial Port

To ensure this is the CB300D programmer try unplugging and replugging the USB from the CB300D and noting the connection disappearing and reappearing.

# FINAL SETTINGS BEFORE PROGRAMMING

## STEP 4: FINALIZE SETTINGS



The quality of the audio recorded to your CB300D is directly related to the PC's sound card volume. First time use may require several record and listen cycles to understand how your computers audio output should be set for best results.

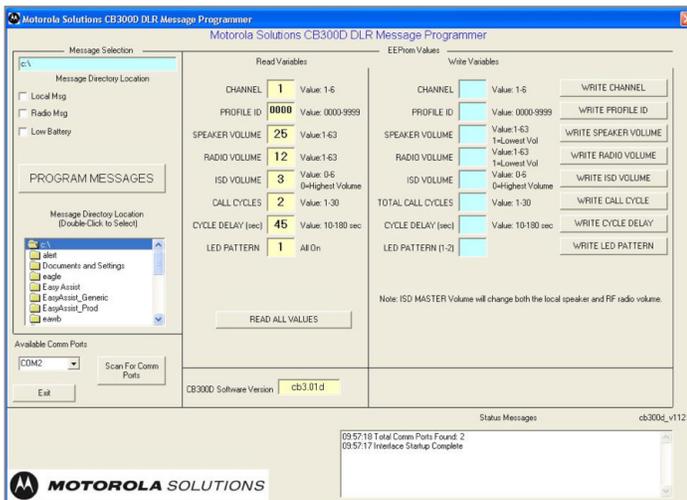
### Suggested Initial Settings:

PC Volume - 50% to 75% of maximum volume

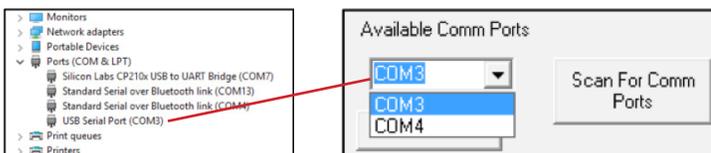
Wave File Normalized - 75%



Open the CB300 Programmer software that was previously installed.



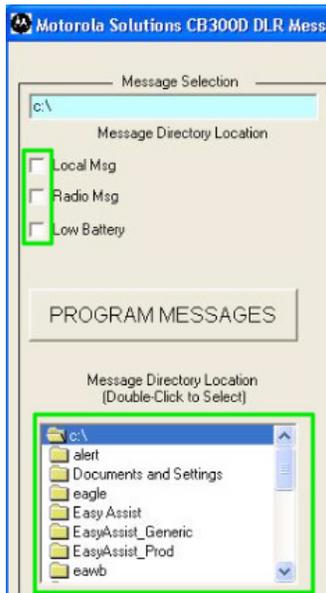
You will see the startup screen.



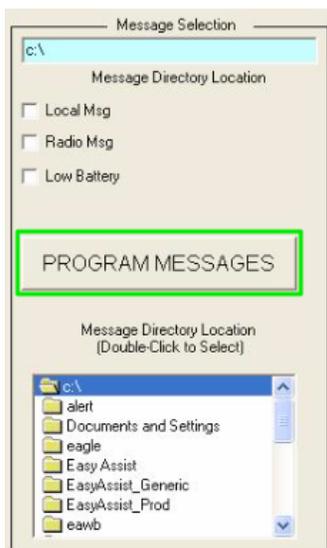
Select the COM port that was previously determined to be the USB port connected to the CB300D programmer.

NOTE: If the CB300D was plugged in after the programming software was started, you will have to click the "Scan For Comm Ports" button to have that port appear.

## PROGRAMMING MESSAGES



INTERFACE ENA  
-ESC to Exit-



Using the Message Directory Location selector navigate to and select the folder where the recorded messages were stored.

Select the messages you wish to program by ticking the boxes next to each message.

### REMINDER:

The messages must be named correctly to be recognized by the CB300D programmer software. If the programmer does not find the files in the selected folder an error message will be displayed.

The correct naming convention is:

local.wav

radio.wav

lowbatt.wav

The CB300D must be in interface mode before the programming can take place.

1. Apply power to the CB300D by placing its battery pack on the unit.
2. Wait until the front status LED flashes 3 times.
3. Verify that the display shows INTERFACE ENA

Click PROGRAM MESSAGES

After the message programming is complete you can verify that the messages were successfully programmed by following this process of the CB300D

Press ESC

Press UP ARROW until you reach MSG PLAYBACK

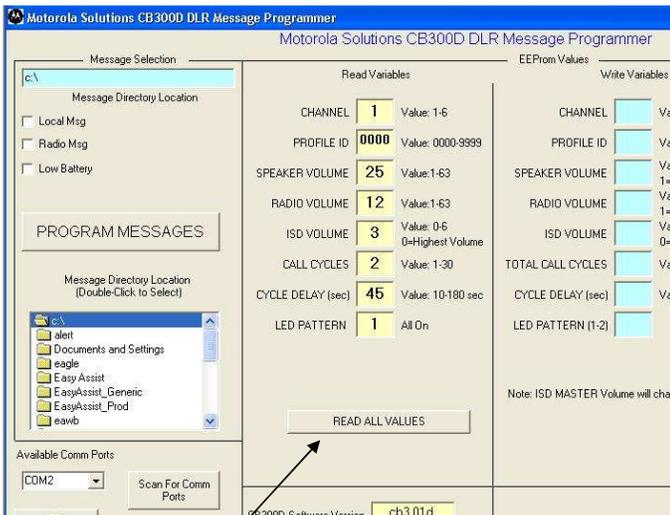
Select each message and listen to the playback on the local speaker

## PROGRAMMING BEHAVIORS AND SETTINGS

The CB300D has many settings. Call cycles, volume settings, delays, and other options that are available in the CB300D are all available within the programmer.

The CB300D Programmer allows you to read all settings on a CB300D call box as well as programming all of the settings.

Helpfully, the system remembers the settings and allows you to very rapidly provision a large number of CB300D units to the same configuration.



With the CB300D connected to the programmer and in INTERFACE ENA mode.

Click the READ ALL VALUES button to have all current settings displayed.

If the CB300D is not connected or asleep, a COMM FAIL error message is generated.

## PROGRAMMING BEHAVIORS AND SETTINGS

The Settings that can be written to the CB300D are as follows.

### WRITE THE CHANNEL NUMBER

Click the “WRITE CHANNEL” command button. If the CB300D is not connected or asleep, a COMM FAIL error message is generated and the write attempt is aborted.

### WRITE THE SPEAKER VOLUME SETTING

Click the “WRITE SPEAKER VOLUME” command button. If the CB300D is not connected or asleep, a COMM FAIL error message is generated and the write attempt is aborted. The volume setting is ranged checked, and will generate an error message if the value is out of range.

*Speaker Volume Range: 1-63*

*Speaker Default Setting: 50 (63 = Highest volume setting)*

### WRITE THE RADIO VOLUME SETTING

Click the “WRITE RADIO VOLUME” command button. If the CB300D is not connected or asleep, a COMM FAIL error message is generated and the write attempt is aborted. The volume setting is ranged checked, and will generate an error message if the value is out of range.

*Radio Volume Range: 1-63*

*Radio Default Setting: 20 (63 = Highest volume setting)*

### WRITE THE ISD MASTER VOLUME SETTING

Note: The ISD volume setting is modified directly by the setting for the RF and Local Speaker volume settings. Any value configured for the ISD will be overwritten.

Click the “WRITE ISD VOLUME” command button. If the CB300D is not connected or asleep, a COMM FAIL error message is generated and the write attempt is aborted. The ISD volume setting is ranged checked, and will generate an error message if the value is out of range.

*ISD Master Volume Range: 0-6*

*ISD Master Volume Default: 1 (0 = Highest volume setting)*

The ISD volume is the MASTER volume setting for the entire CB300D system. Changing this value will change both the local speaker volume and the RF Radio volume. Typically, the ISD master volume is set and never changed unless there is not enough volume adjustment range in either the local speaker or the RF Radio volume settings.

The ISD master volume setting operates “backwards” from a typical volume setting.

*0 = Highest volume setting, while 6 = Lowest volume setting.*

### TOTAL CALL CYCLE SETTING

The total Call Cycles refer to the repeating RF broadcasts that will occur when the call button is active. The system will automatically clear an active call when the Total Call Cycle value is reached.

## PROGRAMMING BEHAVIORS AND SETTINGS

*System Default: 2 cycles*

### **CYCLE DELAY SETTING**

The Cycle Delay refers to the delay (in seconds) between repeating RF broadcasts that occur when the call button is active.

*System Default: 45 seconds*

### **SET LED PATTERN**

The CB300D will support two LED patterns: All ON or Logo Only. The "All ON" selection is not recommended due to the battery powered application (the "all ON" pattern will shorten battery life). Available Pattern Selections:

*All ON:* All 5-LED's will turn ON when the Call is active.

*Logo Only:* The front Logo LED will turn ON with the Call is active. All other LED's will remain OFF. This pattern is the most energy efficient for battery power.