

Programming the COTRE CO01D



Hey! Updated on 2021-05-18: Added new links to the CPS software and added information about the programming cables.

COTRE CO01D now has documentation and CPS software to program it. All you need to add is a Baofeng style programming cable.

Warnings:

Save your initial code plug. If you erase all of ReceiveGroups, you won't be able to add channels to new group. There might be other bugs, be careful.

Using this software it is possible to program the radio to transmit on frequencies outside of the amateur 70 cm band limits. Stay legal.

Connecting to the radio

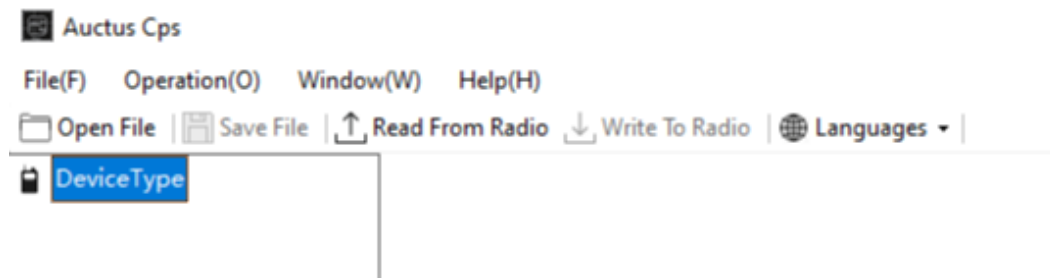
There have been reports that radio and CPS software cannot communicate using cables that work for Baofeng radios. The cable I used came with a UV5RX3 radio and uses the CH340 chipset. The CPS software communicates with the radio at 921600 baud and some cables may not work reliably with this high baud rate.

To program this radio gather the following 4 items:

- CO01D radio
- [Baofeng programming cable](#)
- A Windows computer with the [serial drivers](#) for the Baofeng cable
- [The CPS software](#)

Just hook up the cable to your USB port and to the radio and that is it for the connection.

The CPS software



Download the CPS software for the CO01D from the COTRE [support site](#). and you should be set. The software is under the FAQ section.

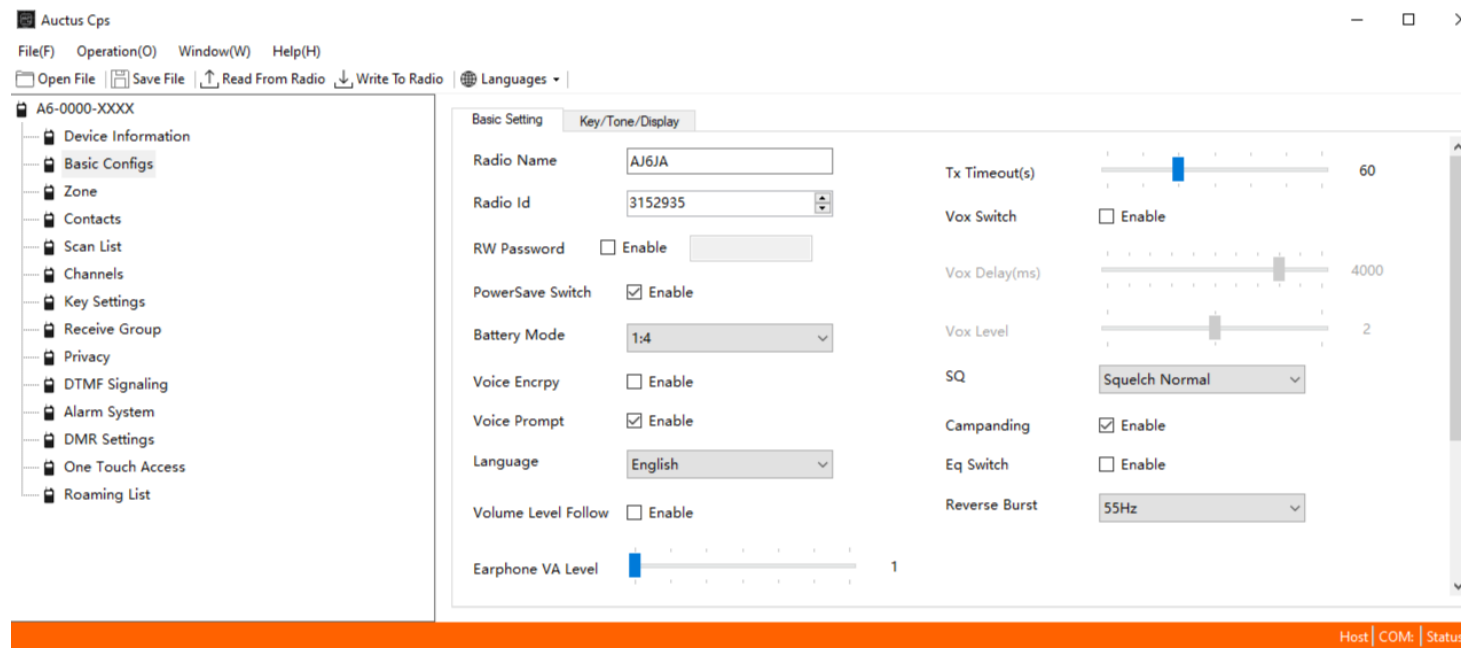
With the radio connected via the Baofeng cable, I hit "Read from Radio" and codeplug downloaded!

Save this initial code plug. It is possible to make a mistake in the programming that will lead to a codeplug that cannot be recovered.

Programming

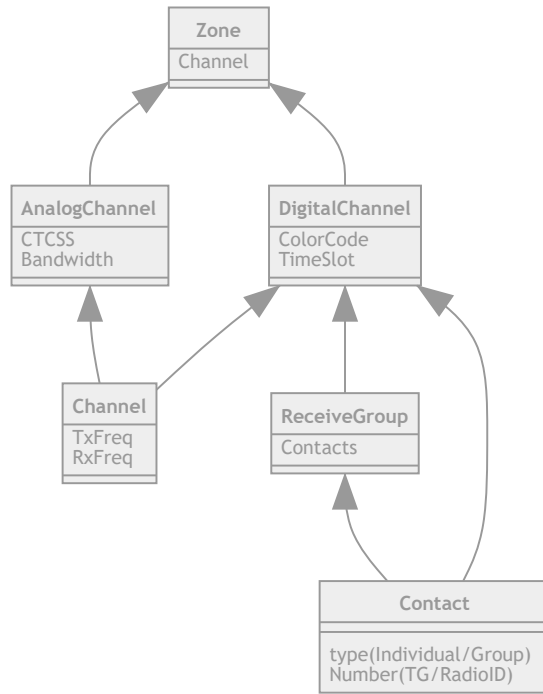
Just like any DMR radio, setting up things can take a while. I will walk through the settings and the present examples.

Basic settings



First the easy settings. Set your radio name and [radio ID](#). You really need to get a RadiolD and not just enter some random number. It takes a little bit of time and a copy of your license to get a RadiolD assigned to you.

Relationship of the settings



I know this looks daunting, but lets go through the settings from the bottom up.

Contacts

Auctus Cps

File(F) Operation(O) Window(W) Help(H)

Open File Save File Read From Radio Write To Radio Languages

A6-0000-XXXX

- Device Information
- Basic Configs
- Zone
- Contacts**
- Scan List
- Channels
- Key Settings
- Receive Group
- Privacy
- DTMF Signaling
- Alarm System
- DMR Settings
- One Touch Access
- Roaming List

Create Individual Call Create Group Call Create All Call Delete Clear

	Edit	Contact Name	Type	Number
1	Edit	Worldwide Test	Group Call	98
2	Edit	Parrot US	Individual Call	310997

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Contacts holds the talk groups and individuals you would like to talk with on DMR. Just type in as many and you think you might want. The names are just for your own information as there is no display to show them. Talk groups should be set as "Group Call" and people should be "Individual Call."

ReceiveGroup

The screenshot shows the Auctus Cps software interface. The title bar reads "Auctus Cps". The menu bar includes "File(F)", "Operation(O)", "Window(W)", and "Help(H)". Below the menu bar are buttons for "Open File", "Save File", "Read From Radio", "Write To Radio", and "Languages". The sidebar on the left lists various configuration options: "A6-0000-XXXX", "Device Information", "Basic Configs", "Zone", "Contacts", "Scan List", "Channels", "Key Settings", "Receive Group", "Privacy", "DTMF Signaling", "Alarm System", "DMR Settings", "One Touch Access", and "Roaming List". The "Receive Group" option is selected. The main window displays a table titled "Rcv Group List" with columns for "Name" and "Type". A single entry is visible: "Worldwide Test" with a checked checkbox and "GroupCall" type. The status bar at the bottom right shows "Host | COM: | Statu".

	Name	Type
<input checked="" type="checkbox"/>	Worldwide Test	GroupCall

ReceiveGroup determines which contacts you will receive in a channel. For example, if your local repeater has Talk Groups 3106 and 3100 on time slot 1, if you select both in a ReceiveGroup you will hear transmissions to either group.

Only talk groups will appear in this area.

Channels

Auctus Cps

File(F) Operation(O) Window(W) Help(H)

Open File | Save File | Read From Radio | Write To Radio | Languages

default.accps

- Device Information
- Basic Configs
- Zone
- Contacts
- Scan List
- Channels
- Key Settings
- Receive Group
- Privacy
- DTMF Signaling
- Alarm System
- DMR Settings
- One Touch Access
- Roaming List

Create Channel | Batch Add | Batch Del | Delete All

	Edit	Check	Name	Type	TxFreq	RxFreq
6	Edit	<input type="checkbox"/>	CH6 Digital	DMR	467.875000MHz	467.875000MHz
7	Edit	<input type="checkbox"/>	CH7 Digital	DMR	467.900000MHz	467.900000MHz
8	Edit	<input type="checkbox"/>	CH8 Digital	DMR	467.925000MHz	467.925000MHz
9	Edit	<input type="checkbox"/>	CH9 Analog	ANA	464.500000MHz	464.500000MHz
10	Edit	<input type="checkbox"/>	CH10 Analog	ANA	464.550000MHz	464.550000MHz
11	Edit	<input type="checkbox"/>	CH11 Analog	ANA	467.762500MHz	467.762500MHz
12	Edit	<input type="checkbox"/>	CH12 Analog	ANA	467.812500MHz	467.812500MHz
13	Edit	<input type="checkbox"/>	CH13 Analog	ANA	467.850000MHz	467.850000MHz
14	Edit	<input type="checkbox"/>	CH14 Analog	ANA	467.875000MHz	467.875000MHz
15	Edit	<input type="checkbox"/>	CH15 Analog	ANA	467.900000MHz	467.900000MHz
16	Edit	<input type="checkbox"/>	CH16 Analog	ANA	469.987500MHz	469.987500MHz
17	Edit	<input type="checkbox"/>	446.000 Simplex	ANA	446.000000MHz	446.000000MHz
18	Edit	<input checked="" type="checkbox"/>	Channel 18	ANA	442.320000MHz	447.320000MHz

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C:\Users\jonat\Downloads\606c30ddfacc73\Auctus_CPS_V005.18(Win8以上)\Data\default.accps Host COM: STA

Channels come in two flavors Analog and Digital. Both hold the transmit and receive frequency information. Analog channels can also have CTCSS. Digital channels have Color Codes, Time Slots, ReceiveGroup and Contact. The contact is the person or talk group you will transmit to.

Zone

Auctus Cps

File(F) Operation(O) Window(W) Help(H)

Open File | Save File | Read From Radio | Write To Radio | Languages

A6-0000-XXXX

- Device Information
- Basic Configs
- Zone
- Contacts
- Scan List
- Channels
- Key Settings
- Receive Group
- Privacy
- DTMF Signaling
- Alarm System
- DMR Settings
- One Touch Access
- Roaming List

+ Create | Delete Selected Zone | Set Selected Item As Current Zone | Batch Add Items | Batch Remove Items

Name: Home Zone

Optional Channel

Check	Name	Tx Freq	Rx Freq
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			

Zone Channel

Check	Name	Tx Freq	Rx Freq
<input checked="" type="checkbox"/>	446.000 Simplex	446.000000	446.000000
<input type="checkbox"/>	WB6WLV Kear...	442.320000	447.320000
<input type="checkbox"/>	Hotspot Parrot	438.800000	438.800000
<input type="checkbox"/>	Hotspot WW T...	438.800000	438.800000
<input type="checkbox"/>	WUD Parrot	440.960000	445.960000

0 / 5, Maximum Number : 16

Host COM: STA

Finally, Zone sets what the channels on your radio are. There are 16 channels available.

The number of the channel within the Zone is the channel you can select on the radio. The row numbers in the channels area **are not** the channels on the radio.

Analog FM Simplex

The screenshot shows the ANA software interface for configuring a channel. At the top, the Channel Name is "446.000 Simplex" and the display name is "ANA". Below this is a "Configuration" tab with several settings:

- Freq:** Tx Freq and Rx Freq are both set to 446.000000.
- Channel Spacing:** Set to 25K.
- Tx Power:** Checked and set to High.
- Scan Enable:** Unchecked (None).
- Scan List:** Set to None.
- PTT ID:** Set to None.
- PTT State:** Set to Always.
- Alarm System:** Set to None.
- NScambler:** Set to Off.
- CTCSS:** Tx CTCSS/CDCSS and Rx CTCSS/CDCSS are both set to None.

At the bottom, there are navigation buttons: <-(P), 1/2, -(N), OK(O) (highlighted with a blue border), and Close(C).

Make an analog channel and set the RxFreq, TxFreq equal to the frequency you would like to use. Add this channel to your Zone (you might need to click Batch Add to get this to update). Finally, write the code plus to your radio.

Just as with other USB programmable radios, **don't transmit with the programming cable still attached.**

Analog FM Repeater

Channel Name

The display name of channel , which only could be within 16 characters

Configuration

Freq

Tx Freq	<input type="text" value="442.320000"/>	Rx Freq	<input type="text" value="447.320000"/>
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Channel Spacing	<input type="text" value="25K"/>	Tx Power	<input checked="" type="checkbox"/> High
Scan Enable	<input type="checkbox"/> Enable	Scan List	<input type="text"/>
PTT ID	<input type="text"/>	PTT State	<input type="text" value="Always"/>
Alarm System	<input type="text"/>	NScambler	<input type="text" value="Off"/>

CTCSS

Tx CTCSS/CDCSS	<input type="text" value="CTCSS"/>	Rx CTCSS/CDCSS	<input type="text" value="None"/>
CTCSS	<input type="text" value="107.2"/>		<input type="text"/>

<-(P) 2 / 2 -(N) OK(O) Close(C)

Make an analog channel and set the RxFreq, TxFreq equal to the frequency you would like to use. Add in the CTCSS code you need, usually you only need this on the TX side, but it depends on the repeater. Add this channel to your Zone(you might need to click Batch Add to get this to update). Finally, write the code plug to your radio.

DMR Simplex

To use DMR, you need to set up contacts and ReceiveGroups first. Make a digital channel and set the RxFreq, TxFreq to the desired frequency. Add in the contact and ReceiveGroup. Add this to your Zone and write the code plug to your radio.

DMR Repeater

Name
DMR
✕

Channel name, you can input no more than 16 characters

Configuration

Freq

Tx Freq <input style="width: 90%;" type="text" value="440.960000"/>	Rx Freq <input style="width: 90%;" type="text" value="445.960000"/>
---	---

Receive Group <input style="width: 90%;" type="text" value="1"/>	Scan List <input style="width: 90%;" type="text"/>
Scan Enable <input type="checkbox"/> Enable	Encryption <input style="width: 90%;" type="text"/>
Tx Power <input checked="" type="checkbox"/> High	Roaming List <input style="width: 90%;" type="text" value="None"/>
Private Confirm <input type="checkbox"/> Enable	Alarm System <input style="width: 90%;" type="text"/>
Slot <input style="width: 90%;" type="text" value="1"/>	PTT State <input style="width: 90%;" type="text" value="Always"/>
Contact <input style="width: 90%;" type="text" value="Parrot US,310997"/>	Color Code <input style="width: 90%;" type="text" value="1"/>
AES Mode <input type="checkbox"/> Enable	AES Authenticate <input type="checkbox"/> Enable
Auto Roaming <input type="checkbox"/> Enable	MicConfirmed <input type="checkbox"/> Enable
GPS Report <input type="checkbox"/> Enable	GPS Revert Channel <input style="width: 90%;" type="text" value="Current Channel"/>

<-(P)
3 / 3
->(N)
OK(O)
Close(C)

Again, you need to start with contacts and ReceiveGroup before setting up a repeater. Make a digital channel and set the RxFreq, and TxFreq to the desired frequencies. Add in the Time Slot and Color Code for the repeater. Set the contact and ReceiveGroup. Put this channel in your Zone and write the code plug.

DMR Hotspot

DMR

Name
 Channel name,you can input no more than 16 characters

Configuration

Freq

Tx Freq	<input type="text" value="438.800000"/>	Rx Freq	<input type="text" value="438.800000"/>
Receive Group	<input type="text" value="1"/>	Scan List	<input type="text"/>
Scan Enable	<input type="checkbox"/> Enable	Encryption	<input type="text"/>
Tx Power	<input type="checkbox"/> High	Roaming List	<input type="text" value="None"/>
Private Confirm	<input type="checkbox"/> Enable	Alarm System	<input type="text"/>
Slot	<input type="range" value="2"/>	PTT State	<input type="text" value="Always"/>
Contact	<input type="text" value="Parrot US,310997"/>	Color Code	<input type="range" value="1"/>
AES Mode	<input type="checkbox"/> Enable	AES Authenticate	<input type="checkbox"/> Enable
Auto Roaming	<input type="checkbox"/> Enable	MicConfirmed	<input type="checkbox"/> Enable
GPS Report	<input type="checkbox"/> Enable	GPS Revert Channel	<input type="text" value="Current Channel"/>

<-(P) 1 / 3 ->(N) **OK(O)** Close(C)

Again, you need to start with contacts and ReceiveGroup before setting up a repeater. Make a digital channel and set the RxFreq, TxFreq to the desired frequency. Add in the Time Slot(usually TS2) and Color Code(usually CC1) for the hotspot. You will probably want to turn off the high power mode as well. Set the contact and ReceiveGroup. Put this channel in your Zone and write the code plug.

Example Codeplug

[Here](#) is an example codeplug for the COTRE CO01D that I made using the GD100 CPS software. It should give you a starting place for making your own codeplug.

Conclusion

It works. It can be programmed. The software was hard to find and is poorly translated, but it isn't impossible to figure out. Having a pretty simple radio makes it easier to set up than my Anytone. With on 16 channels and no display, there is no reason to mess around with downloading contact lists and adding in 1000s of talk groups. Try it out on 310997 Parrot or on Talk Group 98 Worldwide Testing to get the feel for it.