



# Code Plug Basics

Building a Code Plug for the  
Anytone D878UV

## What is a Code Plug?

A data file which contains configuration information such as the Frequency, Color Code, Offsets, Talk Groups, etc.

The codeplug is uploaded to a radio using computer software (Customer Programming Software - CPS) and cable.

# Terminology

**Zone** - Grouping of Individual Channels into folder like structure

**Talk Group** - Virtual Channel (ID, Alias Name)

**Color Code** - Like a PL Tone, Access Tone

**Talkaround** - Simplex

**Channel** - Contains Frequency, Talk Group, CC Assigned

**Timeslot** - Assignment of Talkgroup to TS1 or TS2

# What is Needed

- 1.) List of **Talk Groups** you want to talk on
- 2.) **Frequency, Offset, Timeslot**
- 3.) **Color Code**
- 4.) **Software** loaded on a Computer
- 5.) **Cable**
- 6.) **Radio**

# Code Plug Hierarchy

The order of how a code plug should be programmed

- 1.) Program **Talk Groups** you want to use
- 2.) Program **Channel** (Freq, Talk Group, CC, TS)
- 3.) Create and Select Channels into **Zone** (folder)
- 4.) **Scan List** (if you want to scan)
- 5.) **Radio ID** (Subscriber ID) - get ID at <http://RadioID.net>

# Example Setup

We will use the following **Talk Groups** for the example

Talk Group ID	Alias (Talk Group Name)
91	World
3106	California
3132	Nevada
310	TAC310

# Example Setup

We will use the following **Frequencies** for the example

<b>TX</b>	<b>RX</b>	<b>CC</b>	<b>Offset</b>	<b>Name</b>
<b>448.500</b>	<b>443.500</b>	<b>1</b>	<b>+5MHz</b>	<b><u>O</u>akland</b>
<b>449.275</b>	<b>442.275</b>	<b>1</b>	<b>+5MHz</b>	<b><u>P</u>leasanton</b>
<b>440.2125</b>	<b>445.2125</b>	<b>1</b>	<b>+5MHz</b>	<b><u>W</u>alnut</b>
<b>449.850</b>	<b>445.850</b>	<b>1</b>	<b>+5MHz</b>	<b><u>H</u>award</b>

# Example Setup

## General Rule for Time Slot Usage

Use Time Slot 1 - Out of Area Talk Groups

Use Time Slot 2 - Local Talk Groups

\*this is a general practice but will vary by location. Check with repeater listings for details on how talk groups should be assigned to the time slots.



# Example Setup

Enter the Following **Channels** for the First Repeater

<b>Name</b>	<b>TX</b>	<b>RX</b>	<b>TG</b>	<b>TS</b>	<b>CC</b>
<b>O CALIFORNIA</b>	<b>448.500</b>	<b>443.500</b>	<b>3106</b>	<b>1</b>	<b>1</b>
<b>O Nevada</b>	<b>448.500</b>	<b>443.500</b>	<b>3132</b>	<b>2</b>	<b>1</b>
<b>O World</b>	<b>448.500</b>	<b>443.500</b>	<b>91</b>	<b>1</b>	<b>1</b>
<b>O TAC310</b>	<b>448.500</b>	<b>443.500</b>	<b>310</b>	<b>1</b>	<b>1</b>

# Example Setup

Enter Following **Channels** for the Second Repeater

<b>Name</b>	<b>TX</b>	<b>RX</b>	<b>TG</b>	<b>TS</b>	<b>CC</b>
<b>P CALIFORNIA</b>	<b>449.275</b>	<b>442.275</b>	<b>3106</b>	<b>1</b>	<b>1</b>
<b>P NORCAL</b>	<b>449.275</b>	<b>442.275</b>	<b>31068</b>	<b>2</b>	<b>1</b>
<b>P Nevada</b>	<b>449.275</b>	<b>442.275</b>	<b>3132</b>	<b>1</b>	<b>1</b>
<b>P SNARS</b>	<b>449.275</b>	<b>442.275</b>	<b>31328</b>	<b>1</b>	<b>1</b>

# Example Setup

Create the Following **Zone** for the First Repeater

Zone	Ch #	Channel Name
<b>OAKLAND</b>	1	<b>O CALIFORNIA</b>
	2	<b>O NORCAL</b>
	2	<b>O Nevada</b>
	4	<b>O SNARS</b>

# Example Setup

Create the Following **Zone** for the Second Repeater

Zone	Ch #	Channel Name
<b>PLEASANTON</b>	1	P CALIFORNIA
	2	P NORCAL
	2	P Nevada
	4	P SNARS

# Example Setup

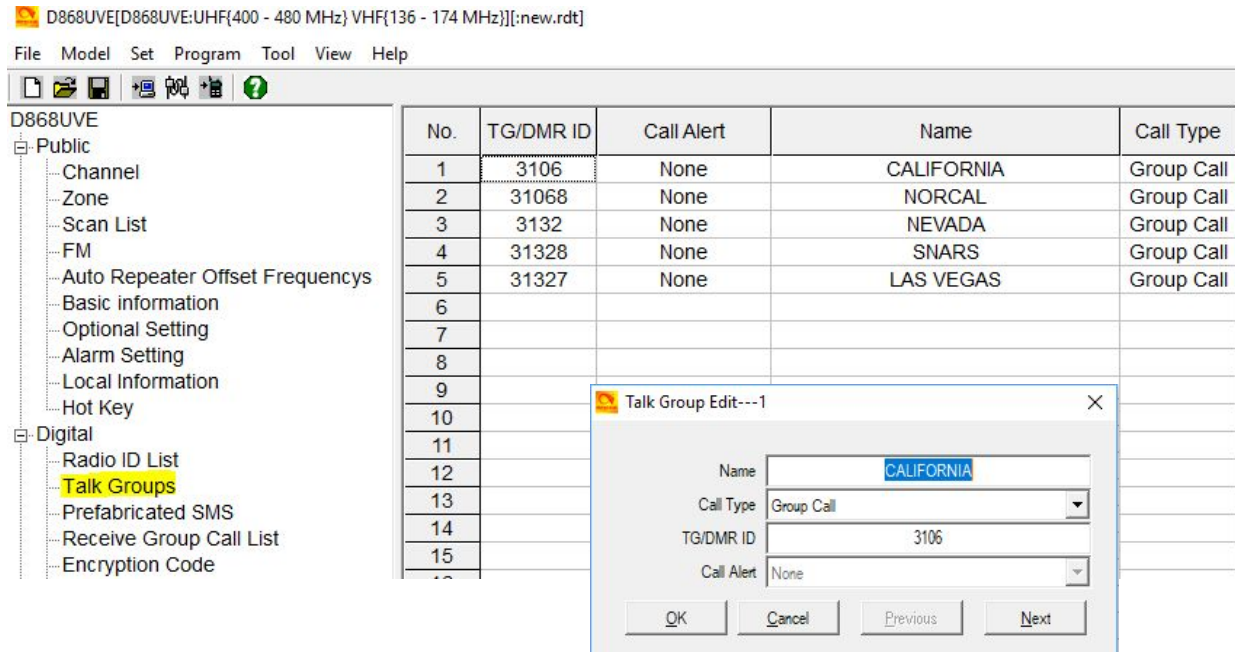
**LET'S BUILD A CODE PLUG**

# Setup Talk Groups to use

**First Step** - build out your talk group list.

These will be the talk groups you wish to talk on.

You will add the Name, then select Group Call in the Call Type dropdown and enter the Talk Group ID in the TG/DMR ID box.



D868UVE[D868UVE:UHF(400 - 480 MHz) VHF(136 - 174 MHz)][:new.rdt]

File Model Set Program Tool View Help

D868UVE

- Public
  - Channel
  - Zone
  - Scan List
  - FM
  - Auto Repeater Offset Frequencies
  - Basic information
  - Optional Setting
  - Alarm Setting
  - Local Information
  - Hot Key
- Digital
  - Radio ID List
  - Talk Groups**
  - Prefabricated SMS
  - Receive Group Call List
  - Encryption Code

No.	TG/DMR ID	Call Alert	Name	Call Type
1	3106	None	CALIFORNIA	Group Call
2	31068	None	NORCAL	Group Call
3	3132	None	NEVADA	Group Call
4	31328	None	SNARS	Group Call
5	31327	None	LAS VEGAS	Group Call
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				

Talk Group Edit---1

Name: CALIFORNIA

Call Type: Group Call

TG/DMR ID: 3106

Call Alert: None

OK Cancel Previous Next

# Setup Channel

**Second Step** - build out your channels.

Enter Channel Name, RX/TX Frequency

Select TX Permit to “Channel Free or Same Color Code”

Select Contact (Talk Group), Set Color Code and Time Slot.

The screenshot shows a software window titled "Channel Information Edit---1" with a close button in the top right corner. The window contains the following fields and options:

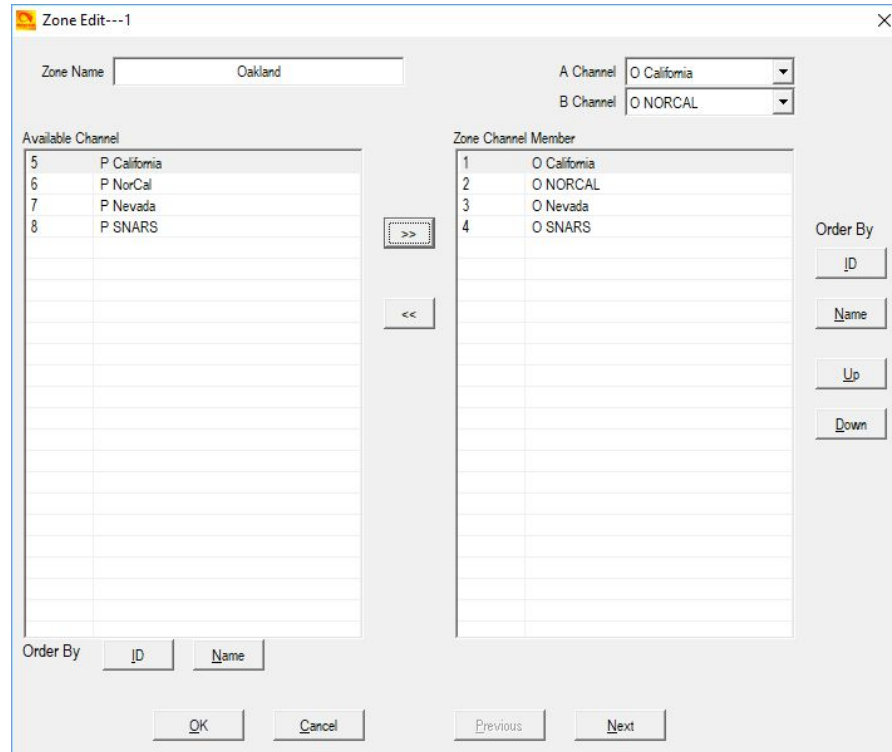
- Channel Name: O California
- Receive Frequency: 443.50000
- Transmit Frequency: 448.50000
- Channel Type: D-Digital
- Transmit Power: Low
- Band Width: 12.5K
- TX Permit: Always
- CH Scan List: None
- APRS Report: Off
- APRS Report Channel: 1
- TX Prohibit
- Work Alone
- Talk Around
- Through Mode
- Digital section:
  - Contact: CALIFORNIA
  - Radio ID: My Radio
  - Color Code: 1
  - Slot: Slot1
  - Receive Group List: None
  - Digital Encryption: Off
  - Encryption Type: Normal Encryption
  - Simplex TDMA
  - TDMA Adaptive
  - Call Confirmation
  - Ranging

# Setup Zone

**Third Step** - add channels to a zone (memory bank, folder).

Add name of Zone and select the channels to include.

This is how your radio will allow you to see the channels and use the channel selector knob.





# Setup Radio ID

**Fourth Step** - Set your Radio ID to the one assigned to you.

Double click the first entry in the Radio ID List.

Enter your Radio ID on the first line and your call and or name on the second line.

The screenshot shows a software window titled "D868UVE[D868UVE:UHF(400 - 480 MHz) VHF(136 - 174 MHz)][:new.rdt]". The menu bar includes "File", "Model", "Set", "Program", "Tool", "View", and "Help". A toolbar contains icons for file operations and help. On the left, a tree view shows a hierarchy: "D868UVE" > "Public" > "Channel", "Zone", "Scan List", "FM", "Auto Repeater Offset Freq", "Basic information", "Optional Setting", "Alarm Setting", "Local Information", "Hot Key", "Digital" > "Radio ID List" (highlighted in yellow), and "Talk Groups".

The main area displays a table with columns "No.", "Radio ID", and "Name". The table has 12 rows, with the first row containing the number "1".

Overlaid on the table is a "Radio ID Edit---1" dialog box. It contains two input fields: "Radio ID" with the value "16776415" and "Radio ID Name" with the value "Your Call Sign". Below the fields are four buttons: "OK", "Cancel", "Previous", and "Next".

# Load Code Plug Into Your Radio

**Last Step** - Load the code plug into your radio.

Click Program on the top menu and then click on

Write to Radio.

Select “Other Data” to load the code plug and click OK.

Radio will reboot upon completion of writing to the radio

