

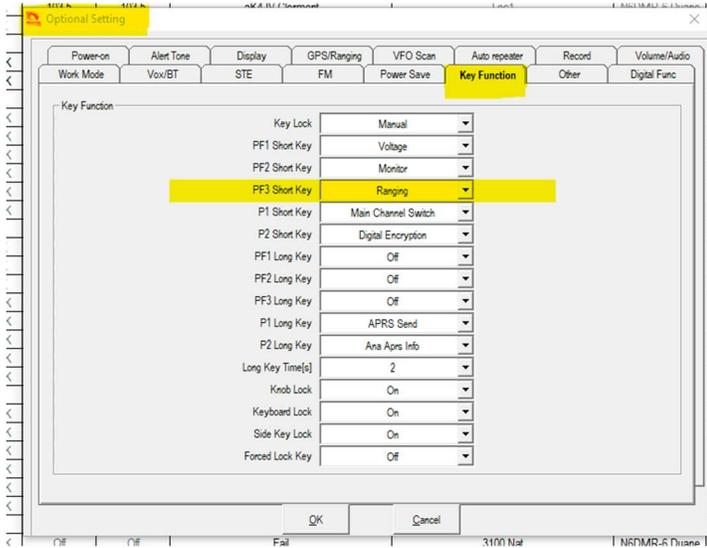
# AnyTone D578, D868, D878 Digital Ranging Setup Guide

## Duane Reese N6DMR

### 10-25-21

Anytone radios are capable of receiving distance and direction location data between two AnyTone radios while in Simplex mode. This feature is relatively easy to setup and use.

- 1.) In the Optional Setting menu -> Key Function Tab you select a function key and set it to Ranging. This is the activation key you will use to do a Range request.



- 2.) To use the Ranging feature, you need to program the same Simplex channel frequencies and settings in both radios.
  - a. This can be a UHF, VHF or 220 Band frequency.
  - b. Use the standard Digital Simplex Talk Group (TG) of 99, set as a group call.
  - c. Set the DMR Mode on all channels to Simplex.
  - d. Tune both radios to the same channel.

23	223.50000	223.00000	D-Digital	Low	12.5K	Off	Off	Dig 220 Simplex	Dig Simplex TG99	N6DMR-6 Duane	Off
24	446.50000	446.50000	D-Digital	Low	12.5K	Off	Off	Dig UHF Simplex	Dig Simplex TG99	N6DMR-6 Duane	Off
25	146.50000	146.50000	D-Digital	Low	12.5K	Off	Off	Dig VHF Simplex	Dig Simplex TG99	N6DMR-6 Duane	Off

- 3.) The Transmitting radio can be queried for a Ranging request by Receiving radio immediately after the transmission ends by selecting the Ranging Function Key. This must be done fairly quickly within the Group call hold timing and before the Transmitting radio is keyed (PTT) again.
- 4.) See the following pages for detailed examples of the three channel settings.

**AnyTone D578, D868, D878 Digital Ranging Setup Guide**  
**Duane Reese N6DMR**  
**10-25-21**

Channel Information Edit---23

Channel Name	Dig 220 Simplex
Receive Frequency	223.50000
Transmit Frequency	223.00000
Correct Frequency[Hz]	0
Channel Type	D-Digital
Transmit Power	Low
Band Width	12.5K
TX Permit	Always
Scan List	None
APRS Report Type	Off
Analog APRS PTT Mode	Off
Digital APRS PTT Mode	Off
Digital APRS Report Channel	1
Exclude channel from roaming	off
DMR MODE	Simplex

PTT Prohibit     Talk Around(Simplex)     APRS RX  
 Work Alone     DataACK Disable     Auto Scan

Digital

Contact	Dig Simplex TG99
Radio ID	N6DMR-6 Duane
Color Code	1
Slot	Slot1
Receive Group List	None
Digital Encryption	Off
AES Digital Encryption	Off
Multiple Key	Off
Random Key	Off
SMS Forbid	Off

Send Talker Alias     Call Confirmation     Ranging  
 Slot Suit     SMS Confirmation

Analog

CTCSS/DCS Decode	Off
CTCSS/DCS Encode	Off
Squelch Mode	Carrier
Optional Signal	Off
DTMF ID	
2Tone ID	1
5Tone ID	1
PTT ID	Off

Reverse

2TONE Decode	1
Custom CTCSS	251.1
R5toneBot	1
R5ToneEot	1

OK    Cancel    Previous    Next

**AnyTone D578, D868, D878 Digital Ranging Setup Guide**  
**Duane Reese N6DMR**  
**10-25-21**

Channel Information Edit---24

Channel Name: Dig UHF Simplex

Receive Frequency: 446.50000  
Transmit Frequency: 446.50000  
Correct Frequency[Hz]: 0

Channel Type: D-Digital  
Transmit Power: Low  
Band Width: 12.5K  
TX Permit: Always  
Scan List: None  
APRS Report Type: Off  
Analog APRS PTT Mode: Off  
Digital APRS PTT Mode: Off  
Digital APRS Report Channel: 1  
Exclude channel from roaming: off  
DMR MODE: Simplex

PTT Prohibit     Talk Around(Simplex)     APRS RX  
 Work Alone     DataACK Disable     Auto Scan

Digital

Contact: Dig Simplex TG99  
Radio ID: N6DMR-6 Duane  
Color Code: 1  
Slot: Slot1  
Receive Group List: None  
Digital Encryption: Off

AES Digital Encryption: Off  
Multiple Key: Off  
Random Key: Off  
SMS Forbid: Off

Send Talker Alias     Call Confirmation     Ranging  
 Slot Suit     SMS Confirmation

Analog

CTCSS/DCS Decode: Off  
CTCSS/DCS Encode: Off  
Squelch Mode: Carrier  
Optional Signal: Off  
DTMF ID:   
2Tone ID: 1  
5Tone ID: 1  
PTT ID: Off

Reverse

2TONE Decode: 1  
Custom CTCSS: 251.1  
R5ToneBot: 1  
R5ToneEot: 1

OK    Cancel    Previous    Next

# AnyTone D578, D868, D878 Digital Ranging Setup Guide

## Duane Reese N6DMR

### 10-25-21

Channel Information Edit---25
✕

Channel Name

Receive Frequency	<input style="width: 90%;" type="text" value="146.50000"/>	<input type="checkbox"/> PTT Prohibit	<input type="checkbox"/> Talk Around(Simplex)	<input type="checkbox"/> APRS RX
Transmit Frequency	<input style="width: 90%;" type="text" value="146.50000"/>	<input type="checkbox"/> Work Alone	<input type="checkbox"/> DataACK Disable	<input type="checkbox"/> Auto Scan
Correct Frequency[Hz]	<input style="width: 90%;" type="text" value="0"/>			

Channel Type	D-Digital
Transmit Power	Low
Band Width	12.5K
TX Permit	Always
Scan List	None
APRS Report Type	Off
Analog APRS PTT Mode	Off
Digital APRS PTT Mode	Off
Digital APRS Report Channel	1
Exclude channel from roaming	off
DMR MODE	Simplex

Contact

Radio ID	N6DMR-6 Duane
Color Code	1
Slot	Slot1
Receive Group List	None
Digital Encryption	Off
AES Digital Encryption	Off
Multiple Key	Off
Random Key	Off
SMS Forbid	Off

Send Talker Alias
 Call Confirmation
 Ranging

Slot Suit
 SMS Confirmation

Analog

CTCSS/DCS Decode	Off	<input type="checkbox"/> Reverse
CTCSS/DCS Encode	Off	
Squelch Mode	Carrier	
Optional Signal	Off	2TONE Decode <input style="width: 80%;" type="text" value="1"/>
DTMF ID		Custom CTCSS <input style="width: 80%;" type="text" value="251.1"/>
2Tone ID	1	R5toneBot <input style="width: 80%;" type="text" value="1"/>
5Tone ID	1	R5toneEot <input style="width: 80%;" type="text" value="1"/>
PTT ID	Off	