

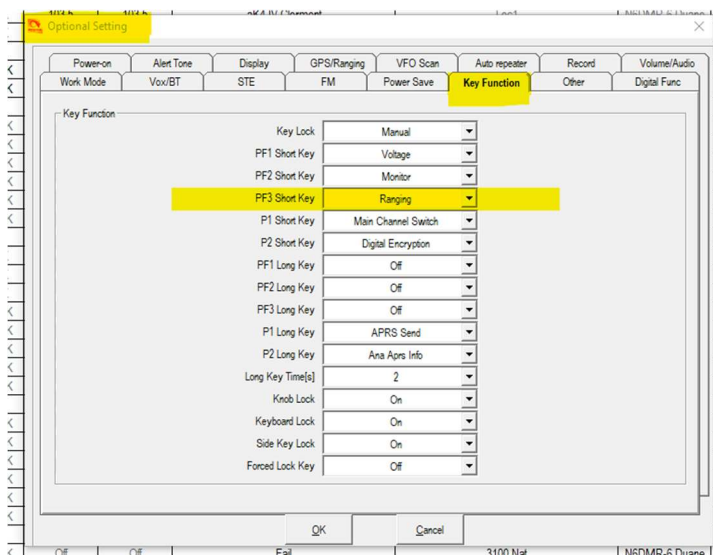
AnyTone D578, D868, D878 Digital Ranging Setup Guide

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.

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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

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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

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Channel Information Edit---25

Channel Name: Dig VHF Simplex

Receive Frequency: 146.50000
Transmit Frequency: 146.50000
Correct Frequency[Hz]: 0

☐ 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

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