

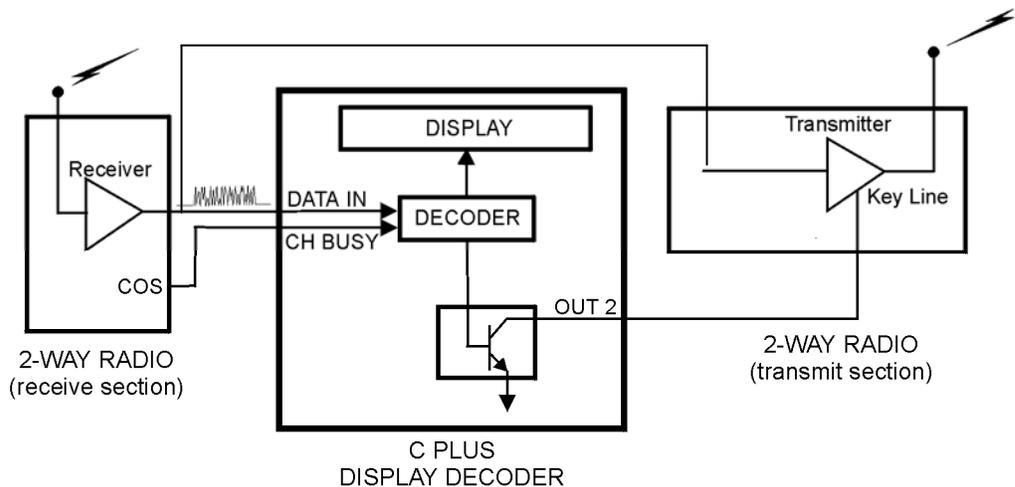
Repeater Controller

Two radios can be connected to the C Plus to create a rudimentary repeater. Any radios can be used with any mix of frequencies/bands. If the ANI ID is present and the ID is in the alias table, then the C Plus will key the associated transmitter. The Transmitter will remain keyed until Channel Busy from the receiver changes state. If someone without an authorized ANI ID attempts to access the repeater, the C Plus will not respond and the transmitter will not be keyed.

Enabling the Feature

To enable repeater controller mode, the following steps must be taken:

1. The Channel Busy line of the C Plus must be attached to a point in the radio receiver that changes state with carrier detect. This could be at the radio squelch gate, the audio amplifier mute line, or an accessory port with CSQ (carrier squelch) connectivity.
2. The Channel Busy line must be activated.
3. Authorize mode must be selected in the main programming menu of the C Plus. In Program mode, at the main menu, select *Enable "Authorize Mode"*.
4. OUT2 must be attached to the transmitter PTT line.



Why it Works:

When the C Plus is in the "Authorize mode" the previously programmed functions of OUT1 and OUT2 are superseded and they perform as follows:

1. Open collector OUT1 goes to within 0.7v of signal ground (capable of sinking up to 500mA), while OUT2 remains inactive, providing a high impedance.
2. The C Plus begins monitoring channel busy for activity.
3. If activity is detected on channel busy, the C Plus listens for ANI.
4. If ANI data is detected, and the ID is present in the ALIAS table, OUT1 and OUT2 reverse states, bringing OUT1 to high impedance and OUT2 to within 0.7V of signal ground.
5. This reversal remains in effect until channel busy becomes inactive, then OUT1 and OUT2 reverse to their original states.

6. If no ANI data is detected or the decoded ANI ID is not present in the ALIAS table, OUT1 and OUT2 remain in their original states.

Additional Information:

This repeater controller will allow only those users with the correct PTT ANI to use the repeater. If this is too restrictive, you can use the C Plus to allow anyone with ANI to use the repeater. This form of repeater control is covered under Repeater Control using COS Qualified Mute.

See Also:

Alias

COS Qualified Mute

Mute Feature

Channel Busy

Repeater Control using COS Qualified Mute

Authorize Feature used for Repeater Access Control