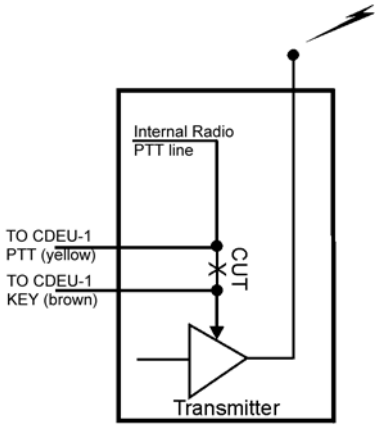
Radio Kill using CDEU-1 and C Plus

A radio is lost or stolen. Maybe it ends up in the hands of an inmate at a prison or a fugitive at an active crime scene. This application allows the dispatcher to send a digital message to the radio, killing both transmit and receive function. The radio can still be controlled by the dispatcher (to key up and transmit ambient noise) and can be restored over the air as well.

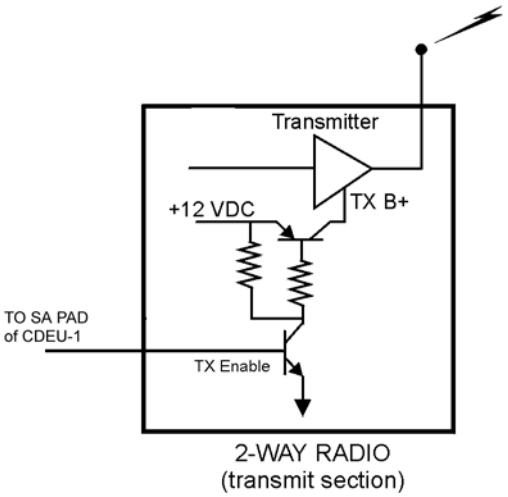
How it Works:
Using a Cimarron CDT or a computer interface with dispatching software attached to the C Plus, send the radio kill command to the targeted units ID. The radio to be disabled will execute the command and then send an acknowledgment back to the C Plus. The radio will remain disabled even if power is turned off and back on again. Full functionality can only be restored by sending a radio enable command over the air.

How to make it work:
There are a couple of different ways to implement the transmit side disable for this application. The easiest is to place the CDEU-1 key circuit in series with the radio keyline. This way, the radio keyline tells the CDEU-1 to key the radio. If the CDEU-1 is in kill mode, it doesn't relay the keying information to the radio. This method requires the keyline of the radio to be broken in order to add the CDEU-1 circuitry in series and "Key Follows PTT" to be enabled in the CDEU-1 programming.



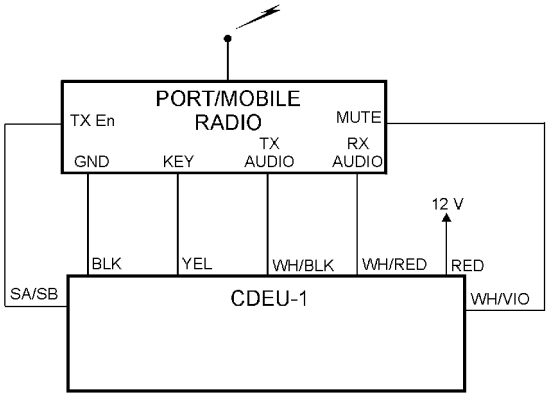
2-WAY RADIO
(transmit section)

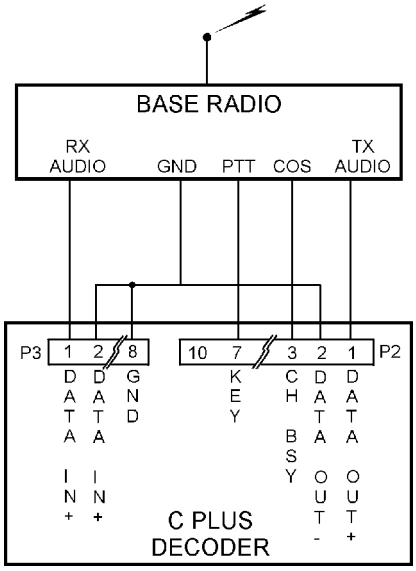
The other method of transmit side disable is to use the SA or SB pads on the back of the CDEU-1. When the CDEU-1 receives a GE Star® radio kill message, the SA pad goes low (near ground potential) and the SB pad goes high (pulled to 5VDC via 39K resistor). They stay in this state until a radio enable message is received. Even if the power is removed, (radio turned off) the states are remembered and restored at power-up.



2-WAY RADIO
(transmit section)

The receive side of the radio is disabled using the mute function of the CDEU-1. Normally, this line goes low during received data bursts to limit the amount of annoying data heard by the user. When the CDEU-1 is in kill mode, the line remains low until a radio enable message is received.





Additional Information:
Suppose the bad guy has the radio but keeps it turned off except when he wants to transmit and disrupt communications. Using the Ambush feature, you can have the C Plus lay in wait for the next time the radio is used. When the C Plus hears from the radio, it automatically sends the kill command, disabling the radio.

See Also:
Encode Capability

Operating with a Cimarron CDT

Data Output

Data Input

Channel Busy

Ambush