

## Dip Switch (S2) Functions

R\*I\*C\*K DIP switch S2 positions ( \* = typical setup):

**S2-1:** S2-1 routes the PL/DPL & CSQ I/O signal (active low) from J3 pin 8 of the "transmitter" radio to J3 pin 3, the PTT, of the "receiver" radio in the bi-directional repeater configurations. For unidirectional repeaters, S2-1 should be OFF.

S2-1: OFF for uni-directional repeaters \*  
ON for bi-directional repeaters

**S2-2 and S2-3:** S2-2 selects pin 14 of "J5-RX" as the COR input from the "receiver" radio; S2-3 selects pin 8 of "J5-RX" for the same function. Either S2-2 or S2-3 should be ON with the other switch in the OFF position. No harm to the R\*I\*C\*K or the "receiver" radio will occur if both of the switches are accidentally ON. In the bi-directional repeater configuration continuous keying of the transmitter of the "receiver" radio will occur if S2-3 is ON; therefore, S2-2 (pin 14 I/O) must be used.

S2-2: OFF for PIN 8 I/O (CSQ or PL/DPL) \*  
ON for PIN 14 I/O (CSQ or PL/DPL)

S2-3: OFF for PIN 14 I/O (CSQ or PL/DPL)  
ON for PIN 8 I/O (CSQ or PL/DPL) \*

**S2-4:** S2-4 enables the remote Setup/Knockdown feature which requires the MDC-1200 RapidCall signaling format with an M200 series radio for the "receiver" radio. The R\*I\*C\*K supplies operating voltage to J3 pin 10, the ignition control input, of the "transmitter" radio. See the section of these instructions for "Setup/Knockdown Operation."

S2-4: OFF for local only repeater Setup/Knockdown \*  
ON to enable remote Setup/Knockdown (MDC-1200)

**S2-5 and S2-6:** S2-5 and S2-6 are used to select the routing of the audio from the receiver of the "receiver" radio to the proper audio input of the "transmitter" radio. If a normal EIA de-emphasized audio response is selected from the "receiver" radio, then an EIA pre-emphasized response is required in the "transmitter" radio and S2-6 should be ON (S2-5 should be OFF). If a flat audio response is selected from the "receiver" radio, then a flat audio response is required in the "transmitter" radio and S2-5 should be ON (S2-6 should be OFF).

S2-5: OFF for EIA de-emphasized/pre-emphasized audio \*  
ON for flat audio

S2-6: OFF for flat audio

ON for EIA de-emphasized/pre-emphasized audio \*

**S2-7:** S2-7 enables the audio path through the audio gate (Q8). S2-7 is ON when VOX is used. EIA de-emphasized/muted audio must be provided by the "receiver" radio.

S2-7: OFF for COR applications \*  
ON for VOX operation

**S2-8 and S2-9:** S2-8 and S2-9 duplicate the functions of S2-6 and S2-5 for the audio input to the transmitter of the "receiver" radio in a bi-directional repeater (note the reverse order for the corresponding functions). The typical bi-directional repeater will use de-emphasized receiver audio from the "transmitter" radio and S2-8 should be ON (S2-9 should be OFF).

S2-8: OFF for flat audio  
ON for EIA de-emphasized/pre-emphasized audio \*

S2-9: OFF for EIA de-emphasized/pre-emphasized audio \*  
ON for flat audio

**S2-10 and S2-11:** S2-10 and S2-11 select the desired drop-out delay (hang time). With both switches OFF, the "transmitter" radio will unkey approximately 3 seconds after loss of the COR indication by the "receiver" radio (J3 pin 8 or pin 14 goes high). The dropout delay is decreased to approximately 1.5 seconds if S2-10 is ON. The shortest dropout delay, essentially "zero" seconds, is enabled by placing S2-11 in the ON position. For a bi-directional repeater, the "0" seconds dropout delay (S2-11 ON and S2-10 OFF or ON) should be used.

S2-10: OFF for 3 second drop-out delay \*  
ON for 1.5 second drop-out delay

S2-11: OFF for 1.5/3 second drop-out delay \*  
ON for 0 second drop-out delay

**S2-12:** S2-12 allows the output of the VOX circuit to key the "transmitter" radio in the "VLC" repeater configuration. Note that the "zero" dropout delay should NOT be used with the VOX keying; a delay of 1.5 or 3 seconds should be used to "smooth" the output of the VOX. The audio gate must be enabled by placing S2-7 in the ON position. The VOX circuit operates only in a unidirectional mode (i.e., from the handset audio of the "receiver" radio). The VOX will also respond to the noise burst, or "squelch tail", at the end of a transmission and the dropout delay will increase by that amount; use of coded squelch (PL or DPL) is recommended.

S2-12: OFF for VOX disable \*  
ON for VOX enable