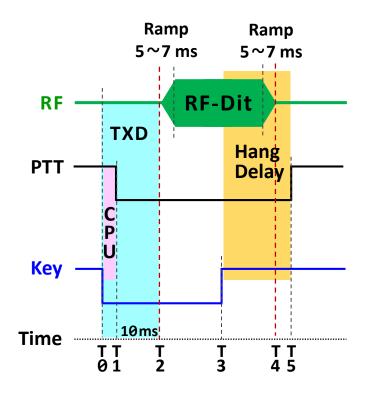
CW AMP-KEY TIMING

Amps with Vacuum T/R Relays (i.e., ACOM, some Alpha's, etc.)

Drawing not to Scale.



T0: First (Logical) Dit is Keyed

T0 to T1: [CPU] Processor Time (negligible on most radios)

T1: PTT Line Activates

T0 to T2: TX Delay (time RF is delayed after T0)

T2: RF of first Dit begins to Transmit

T3: First (Logical) Dit Completes

T4: RF of first Dit Completes Transmitting

T3 to T5: Hang Delay Completes

T0 to T3 (Logical Dit Length) = T2 to T4 (RF Dit Length)

For Amps with Vacuum Relays:

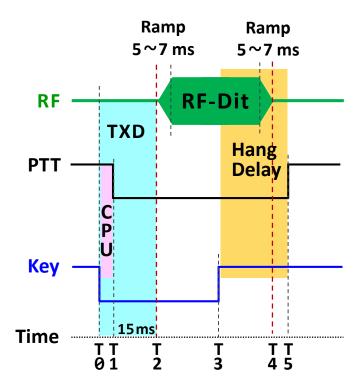
TXD = CPU Process Time + 10 ms

Hang Time = TXD + 3 ms

CW AMP-KEY TIMING

Amps with Fast Plastic T/R Relays (i.e., Ameritron ALS-600, Panasonic Relays, etc.)

Drawing not to Scale.



T0: First (Logical) Dit is Keyed

T0 to T1: [CPU] Processor Time (negligible on most radios)

T1: PTT Line Activates

T0 to T2: TX Delay (time RF is delayed after T0)

T2: RF of first Dit begins to Transmit

T3: First (Logical) Dit Completes

T4: RF of first Dit Completes Transmitting

T3 to T5: Hang Delay Completes

T0 to T3 (Logical Dit Length) = T2 to T4 (RF Dit Length)

For Amps with Open-Frame Relays:

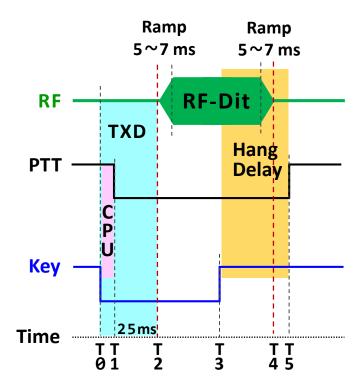
TXD = CPU Process Time + 15 ms

Hang Time = $TXD + 3 ms + \frac{1}{4} Sec.$ or more

CW AMP-KEY TIMING

Amps with Open-Frame T/R Relays (i.e., Ameritron)

Drawing not to Scale.



T0: First (Logical) Dit is Keyed

T0 to T1: [CPU] Processor Time (negligible on most radios)

T1: PTT Line Activates

T0 to T2: TX Delay (time RF is delayed after T0)

T2: RF of first Dit begins to Transmit

T3: First (Logical) Dit Completes

T4: RF of first Dit Completes Transmitting

T3 to T5: Hang Delay Completes

T0 to T3 (Logical Dit Length) = T2 to T4 (RF Dit Length)

For Amps with Open-Frame Relays:

TXD = CPU Process Time + 25 ms

Hang Time = $TXD + 3 ms + \frac{1}{4} Sec.$ or more