

DECODER CAM INPUT FILTER/DEBOUNCE FOR DIGITRAX SFX SOUND DECODERS

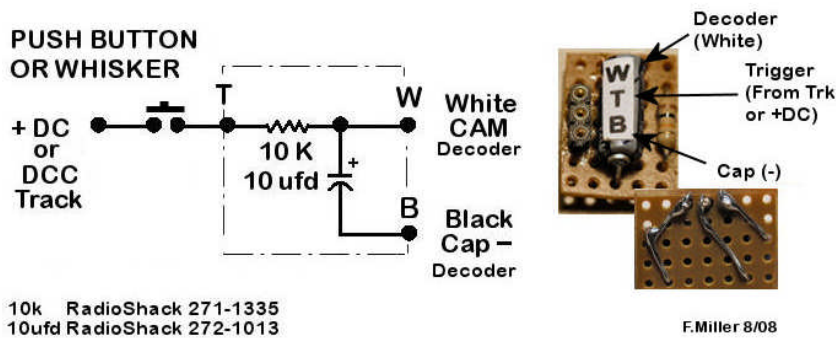
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The CAM input to a Digitrax SFX sound decoder can be a useful “trigger” for decoder activity beyond the traditional steam engine “chuff.” The input can be used to activate specific sound sequences whether onboard or as background layout sounds.

However when using the CAM input for decoder activity, it is useful to “debounce” the switching input so that the usual multiple closures of a mechanical switch do not cause multiple activations of the sound activity.

The following circuit can greatly improve the switch closure performance.

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Note that the Triggering voltage can be from either DCC track circuits, if the SFX Sound Decoder is powered by the DCC track, or from a +DC voltage source if the Decoder is powered by DC rather than DCC. Connections are made to the Decoder CAM line (white wire on speaker side of decoder) and the black lead going to the Decoder external capacitor. (This is actually the Decoder ground.)

The SPJ program should be looking for the TRIG_IN_0 input “trigger” to activate the decoder’s response. CV 133 should be set to 0 for the use of this hardware input trigger.