

# T30 X-TRAIL LOCKING BEEP

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To access the lock actuator, first remove the cardboard panel on the tailgate. Note that this cardboard piece is just secured with press-on studs. The easiest way to remove this is to first find a loose section, and gently start to pry off the remaining studs. The wiring harness for the lock actuator is circled.



A closeup view of the wiring harness. There are 2 wires inside the connector, a red (R), and a red/green (R/G). In my 2005 XTrail when the lock signal is sent, R is (+), R/G is (-). When an unlock signal is sent, the reverse applies. You should confirm this with a multimeter before proceeding.

I was only interested in the lock signal, and I soldered a diode on my buzzer to allow only the lock signal to pass through. I elected to use a pizeo buzzer for lower power consumption, and lighter weight. The light weight buzzer was important because I was just going to zip-tie the buzzer in place, and with the tailgate being slammed down each time, I wanted to ensure that the buzzer would stay in place.

Note that if you wanted a beep on both lock/unlock, then you could use a polarity independent buzzer (like a low current electro-mechanical horn), or use a bridge rectifier to supply a fixed polarity supply to the piezo buzzer.



To access the signals, I cut open the heat shrink cover over the wires, and spliced the two wires using a pair of automotive cable splicers for 14-18 gauge wire. These cable splicers have an insulated cover, and I zip-tied both together after the splice to maintain cable integrity. If you are using some other method to splice the wires, ensure that you maintain the cable integrity and insulate the splice appropriately!



This is the piezo buzzer I used. To mount this, I first used double sided foam tape to secure the buzzer in place on the underside of the inner frame, then zip tied it in place once everything had been tested. The foam tape also serves as a vibration damper. Note that the wiring has been routed inside the tailgate panel.



The completed unit, secured to the inside of the tailgate. That's all there is to it. Pop the cardboard cover back into place, and enjoy your new locking beeper!



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