DIGITECH

User Manual

Frequency Relay Module for Cars

AA-0377

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Technical Specifications:

- Power: 12VDC
- Dimensions: 72(L) x 65(W) x 43(H) mm

Instructions:

- Decide what you will be using the unit for – detecting a frequency that is rising to the trip point or falling to the trip point. On the module, set the link LK1 to L/H for rising, and set the link LK1 to H/L for falling (default has been set to L/H)
- Connect the module according to the wiring diagram depending on your use of the module. Incorrect wiring will damage the module and your vehicle if you connect it in the incorrect polarity:
    - Three connections should be made to your car, (1) +12V (ignition switched); (2) chassis (0V); and (3) signal wire from car sensor:
        - Road speed sensor
        - ECU tacho output
        - Switching side of an injector
        - Crankshaft or camshaft position output sensor
    - Use the car's wiring diagram to find these connections, and then use a multimeter to check that they're correct (e.g. check that the +12V supply switches off when you turn off the ignition).

- The device that is to be triggered by the module will normally be switched via the Normally Open (NO) and Common (COM) relay contacts. Because this module uses a double-pole, double-throw (DPDT) relay, another completely independent circuit can also be switched simultaneously.

Setting the Trip Point:

- If you want to have the shift-light trigger at 6000 RPM, you don't have to start off holding the engine at 6k. Instead, adjust the VR1 trimpot until the LED comes on at (say) 3000 RPM and then goes off again as the revs drop. By adjusting the hysteresis pot VR3, you should be able to alter how much the engine speed drops before the LED turns off. With the system working as it should, turn VR1 a little more anticlockwise to increase the trip-point frequency and then blip the engine until it again switches on the LED. By making changes to VR1 and then assessing the results with blips of the throttle, you should be able to set the trip point at the correct engine revs.

  NOTE: VR1 is a multi-turn pot so that the trip point can be adjusted very precisely – it will never reach a clear 'stop' if you keep turning. If the LED flashes on and off around the switch-point, increase VR3 by turning it anticlockwise.

Notes:

- Never get any part of the module wet.
- Never attempt to open, modify or repair any part of the module.

VR1 (upper limit) and VR2 (lower limit) are used to set the input frequency. VR1 : 100-500Hz; VR2 : 10-50Hz

Wiring Diagram: