

# Introduction of the Tire Pressure Detection/Adjustment System

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## Abstract

In modern vehicles, mechatronic systems are increasingly used. To improve reliability, safety and economy, an early recognition of tire pressure detection is becoming increasingly important. In this paper, we describe the tire pressure detection/adjustment system that we designed is able to solve the problem which current single monitoring mode fails to deal with the actual control of the pressure. The design of this system will provide four modes accordingly: 1.the sensor and adjustment of vehicle loading capacity (to coordinate with restarting after a stop or midway change of loading); 2.Low-speed (normal) running; 3.Bumpy road running; 4.High-speed running. When the vehicle is running, ECU will decide on the above modes and make an adjustment on the tire pressure for maximum safety.

Keywords : Tire pressure detection system ; ECU microcomputer control