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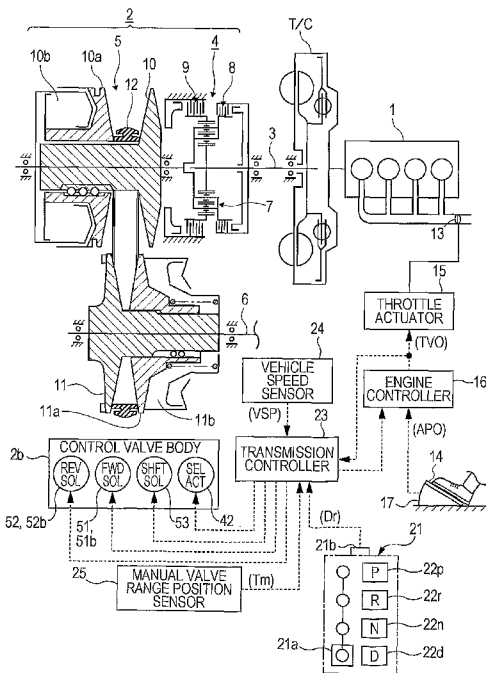
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[Continued on next page]

(54) **Title:** SHIFT-BY-WIRE FAIL CONTROL DEVICE FOR VEHICLE WITH AUTOMATIC TRANSMISSION

FIG. 1



(57) **Abstract:** A shifting apparatus includes an actuator to direct a travel range setting of a vehicle transmission, a selector to indicate a desired travel range setting, a transmission controller to move the actuator into the travel range setting in response to the desired travel range setting of the selector, and a restrictor to restrict an output of a drive motor if the vehicle transmission is in a travel range setting other than the desired travel range setting. A method to control a vehicle transmission includes detecting a travel range setting of the vehicle transmission, detecting a desired travel range setting of a selector, and entering a limp-home mode if the detected travel range setting is different from the desired travel range setting and a detected vehicle travel direction corresponding to the detected travel range setting is the same as a desired travel direction corresponding to the desired travel range setting.

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B. FIELDS SEARCHED		
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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 2004-52819 A (AISIN AW KABUSHIKI KAISHA)	1-4, 7, 9
Y	2004.02.19, the whole document & US 2004/0053743 A1	5-6, 8, 10-14
Y	JP 52-10178 B2 (TOYOTA JIDOSHA KOGYO KABUSHIKI KAISHA) 1977.03.22, the whole document (No Family)	5, 8, 11-14
Y	JP 2004-125061 A (NISSAN JIDOSHA KABUSHIKI KAISHA) 2004.04.22, figures 13,14 (No Family)	6, 10
Y	JP 6-213025 A (TOYOTA JIDOSHA KABUSHIKI KAISHA) 1994.08.02, the whole document (No Family)	11-14
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