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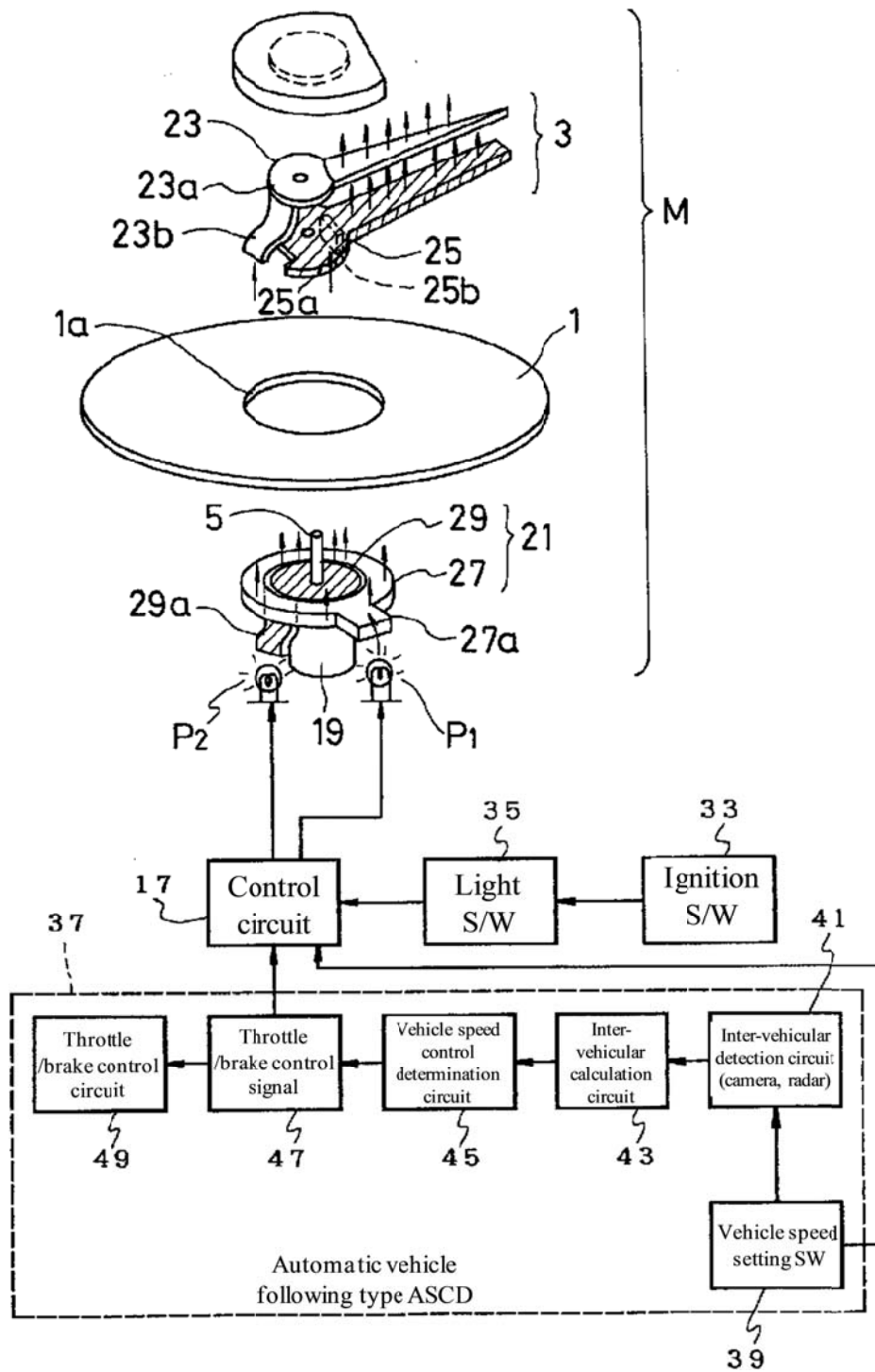
(54) Title of the Invention: AUTOMOTIVE DISPLAY UNIT

(57) Abstract:

Subject: To enable to display various states of a vehicle handling auxiliary device(s) with a simple structure

Resolution means: A meter device M that displays at least a state of an engine for traveling drive and a state of vehicle traveling, and an auxiliary device state detection means 17 that detects a state of an automatic vehicle following type cruise control 37 to assist vehicle speed control of a vehicle are included; display information, such as brightness, color or blinking of an indicator 3 of the meter device M, is changeable; and a control means that variably controls the indicator 3 according to at least the state of automatic vehicle following type cruise control 37 is established. Then, the display information, such as brightness, color or blinking of the indicator

3, is changed according to the state of the automatic vehicle following type cruise control 37, and it can cause a driver to recognize [the change of information] with excellent visual recognition.



CLAIMS

1. An automotive display unit, comprising:
 - a meter device that displays at least a state of an engine for traveling drive and a state of vehicle traveling, and
 - auxiliary device state detection means that detects a state of a vehicle handling auxiliary device to assist vehicle speed control, wherein
 - a variable display part where display information is changeable is established in the meter device; and
 - control means that variably controls the variable display part according to at least the state of the vehicle handling auxiliary device is established.

2. The automotive display unit according to claim 1, wherein
 - the meter device is an analog type with an indicator display; and
 - the variable control part is an indicator to change the display information, such as brightness, color or blinking.

3. The automotive display unit according to claim 1, wherein
 - the meter device is a digital type with a number display; and
 - the variable display part is a light-emitting part that is located next to the number display, and where the display information, such as brightness, color or blinking, is changed.

4. The automotive display unit according to any of claim 2 or 3, wherein
 - the vehicle handling auxiliary device is an automatic vehicle following type cruise control that controls its own speed to a set vehicle speed according to the state of a forward [moving] vehicle; and
 - the variable display part gives a driver a realization of information about whether the cruise control is in operation, [the cruise control is] in operation and accelerating or decelerating, [the cruise control is] in operation and [its own vehicle] is following a leading vehicle, or [the cruise control is] in operation and [its own vehicle] is traveling at the set vehicle speed according to display information, such as brightness, color or blinking.

5. The automotive display unit according to any of claims 1 to 3, wherein
the vehicle handling auxiliary device is a navigation device that presents map information;
vehicle speed detection means that detects a vehicle speed is established; and
the control means changes the variable display part according to map information, such as a
type or a curvature of a traveling road, and a vehicle speed.

6. The automotive display unit according to claim 5, wherein
the vehicle handling auxiliary device includes an antilock brake control device for antilock
brake control and a traction control device for drive force control of drive wheels;
brake control detection means for detecting an activation state of the antilock brake control
device and drive force control detection means for detecting an activation state of the traction
control device are established; and
the control means changes the variable display part according to map information, such as a
type or a curvature of a traveling road, a vehicle speed, the activation state of the antilock brake
control device and the activation state of the traction control device.

7. The automotive display unit according to claim 5, wherein
the vehicle handling auxiliary device includes a headlight and a wiper device, and
headlight detection means for detecting whether or not the headlight is illuminated and wiper
detection means for detecting whether or not wipers are activated are established; and
the control means changes a variable display part according to map information, such as a
type or a curvature of a traveling road, whether or not the headlight is illuminated and whether or
not the wipers are activated.

8. The automotive display unit according to any of claims 4 to 7, wherein
vehicle speed detection means for detecting its own vehicle speed is established;
collision measuring means for measuring a distance from a leading vehicle and relative speed
is established; and
the control means calculates an upper limit speed so as not to collide against the leading
vehicle by its own car according to the measured inter-vehicular distance and relative speed, and

changes the variable display part according to the upper limit speed and the detected vehicle speed of its own car.

9. The automotive display unit according to any of claims 4 to 7, wherein
vehicle speed detection means for detecting its own vehicle speed is established;
shift position detection means for detecting a shift position is established; and
the control means calculates an allowable vehicle speed with excellent gas mileage from the detected vehicle speed and shift position, and changes the variable display part according to the allowable vehicle speed and the detected own vehicle speed.

10. The automotive display unit according to any of claims 4 to 7, wherein
vehicle speed detection means for detecting its own vehicle speed is established;
steering angle detection means for detecting a steering angle is established;
environment detection means for detecting traveling environment, such as weather or a coefficient of road surface friction, is established; and
the control means calculates a steering angle so as not to cause its own vehicle to spin out/fishtail according to the detected vehicle speed and traveling environment, and changes the variable display part according to the allowable steering angle and the detected steering angle.

11. The automotive display unit according to any of claims 4 to 10, wherein
a pointer that indicates a specific traveling state, such as the set vehicle speed, the upper limit speed, the allowable vehicle speed or the allowable steering angle, is established.

12. The automotive display unit according to any of claims 1 to 3, comprising:
a plurality of types of the vehicle handling auxiliary device are provided, wherein
activation state detection means for detecting an activation state and a vehicle state of the plurality types of vehicle handling auxiliary device is established; and
the control means automatically selects the variable control of the variable display part according to a state of each vehicle handling auxiliary device, according to a vehicle state and a state of each vehicle handling auxiliary device.

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