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(54) **SYSTEM AND METHOD FOR CLASSIFYING VEHICLES**

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(52) **U.S. Cl.** **340/941**; 340/933; 340/934; 705/13; 235/384

(58) **Field of Search** 340/941, 933, 340/934; 705/13; 235/384

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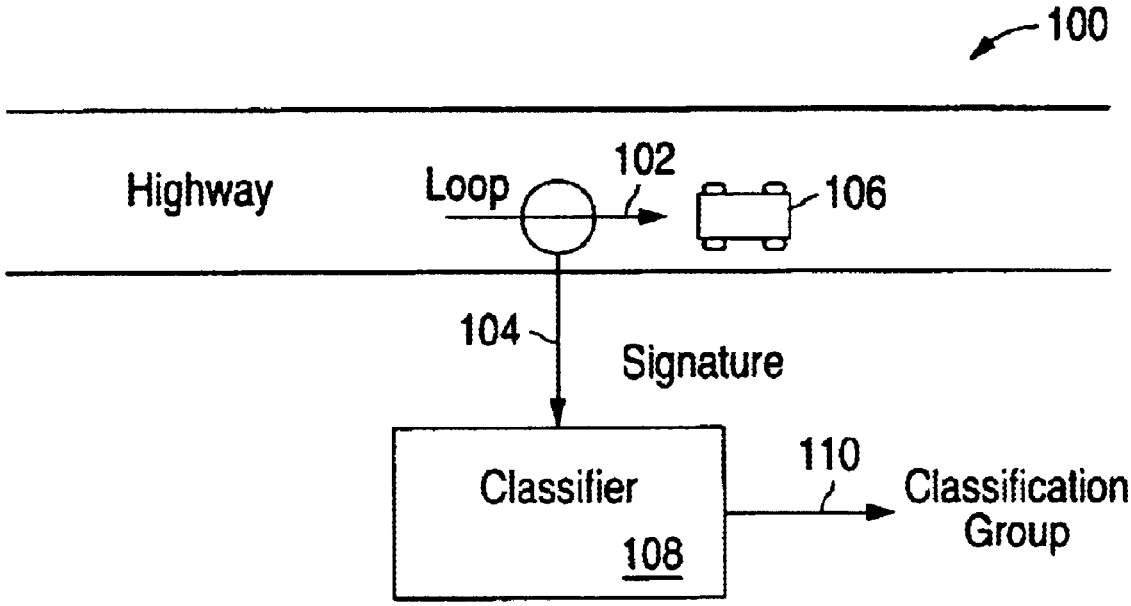
(57) **ABSTRACT**

A system and method have been provided for classifying electronic signatures, obtained through the detection of a vehicle with a single loop inductive sensor, into one of a plurality of vehicle classification groups. A neural networking process is able to learn the plurality of vehicle classifications. In response to an electronic signature stimulus, the neural networking process is able to recall the classification group corresponding to the signature.

31 Claims, 9 Drawing Sheets