

United States Patent [19]

DiLullo et al.

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[54] **VEHICLE STATUS MONITOR AND MANAGEMENT SYSTEM EMPLOYING SATELLITE COMMUNICATION**

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[21] Appl. No.: **258,162**

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[51] Int. Cl.⁴ **H04B 1/00; G08B 5/22**

[52] U.S. Cl. **340/825.060; 340/991; 340/988; 340/825.540; 340/825.050; 455/54; 455/99; 364/424.01; 235/385; 379/58**

[58] Field of Search **340/825.06, 825.07, 340/825.08, 825.35, 825.54, 505, 539, 572, 901, 988, 991, 952, 993; 307/9.1, 10.1; 379/58, 59; 235/384, 385; 364/424.01, 449, 424.03; 342/457; 455/11, 12, 89, 95, 54, 99, 345**

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Primary Examiner—Donald J. Yusko

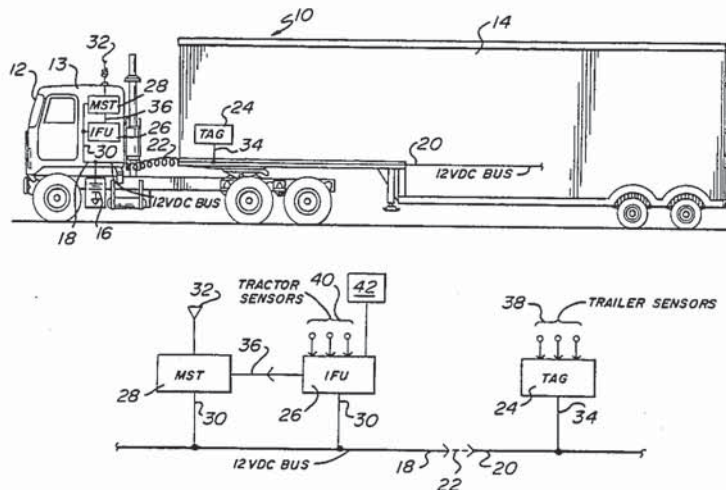
Assistant Examiner—Eric Pudpud

Attorney, Agent, or Firm—Woodcock Washburn Kurtz Mackiewicz & Norris

[57] **ABSTRACT**

Apparatus and method for monitoring the status of a multiple part vehicle are disclosed. Apparatus according to the invention comprises a tag on a second part of the vehicle which impresses a unique ID code of the vehicle's existing electrical system. An interface unit in a first part of the vehicle detects the presence of a valid ID code on the vehicle's electrical system and in response provides an indication that the second part of the vehicle is connected. A mobile satellite transmitter provides data indicative of the status of the vehicle to an earth station via a satellite. Vehicle position data is also provided to the earth station with each transmission.

35 Claims, 10 Drawing Sheets



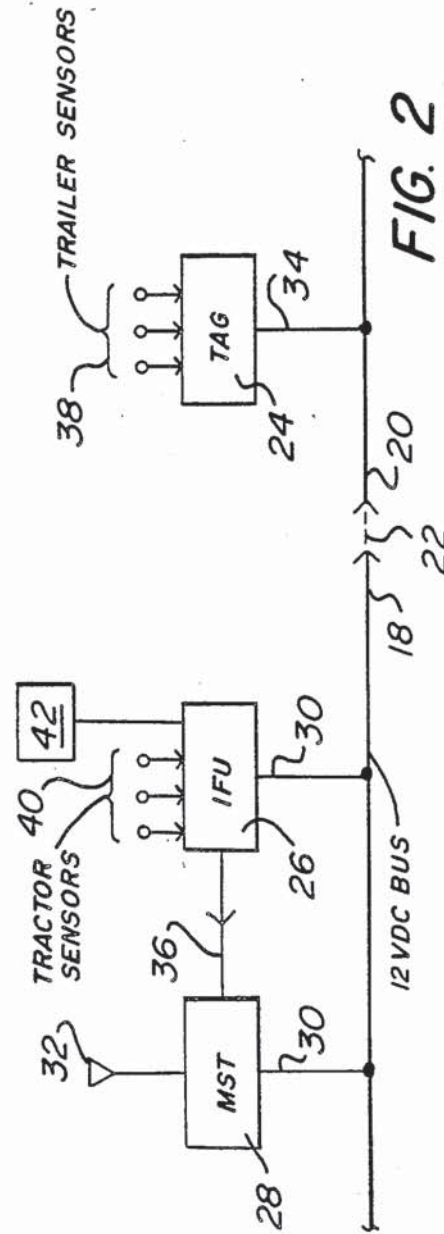
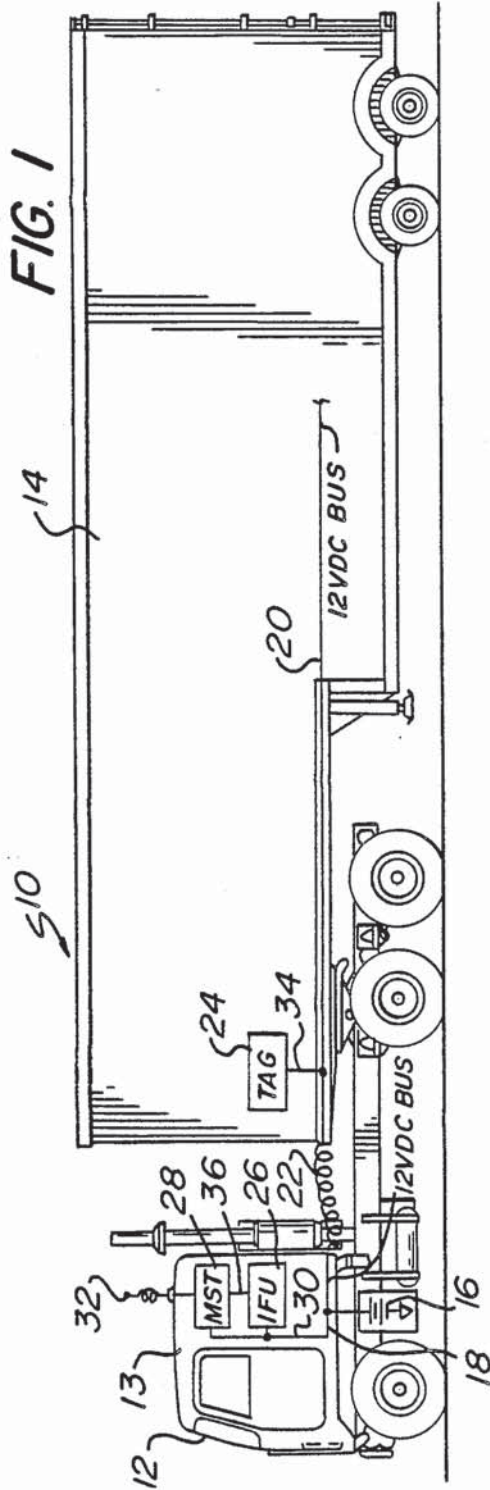


FIG. 3

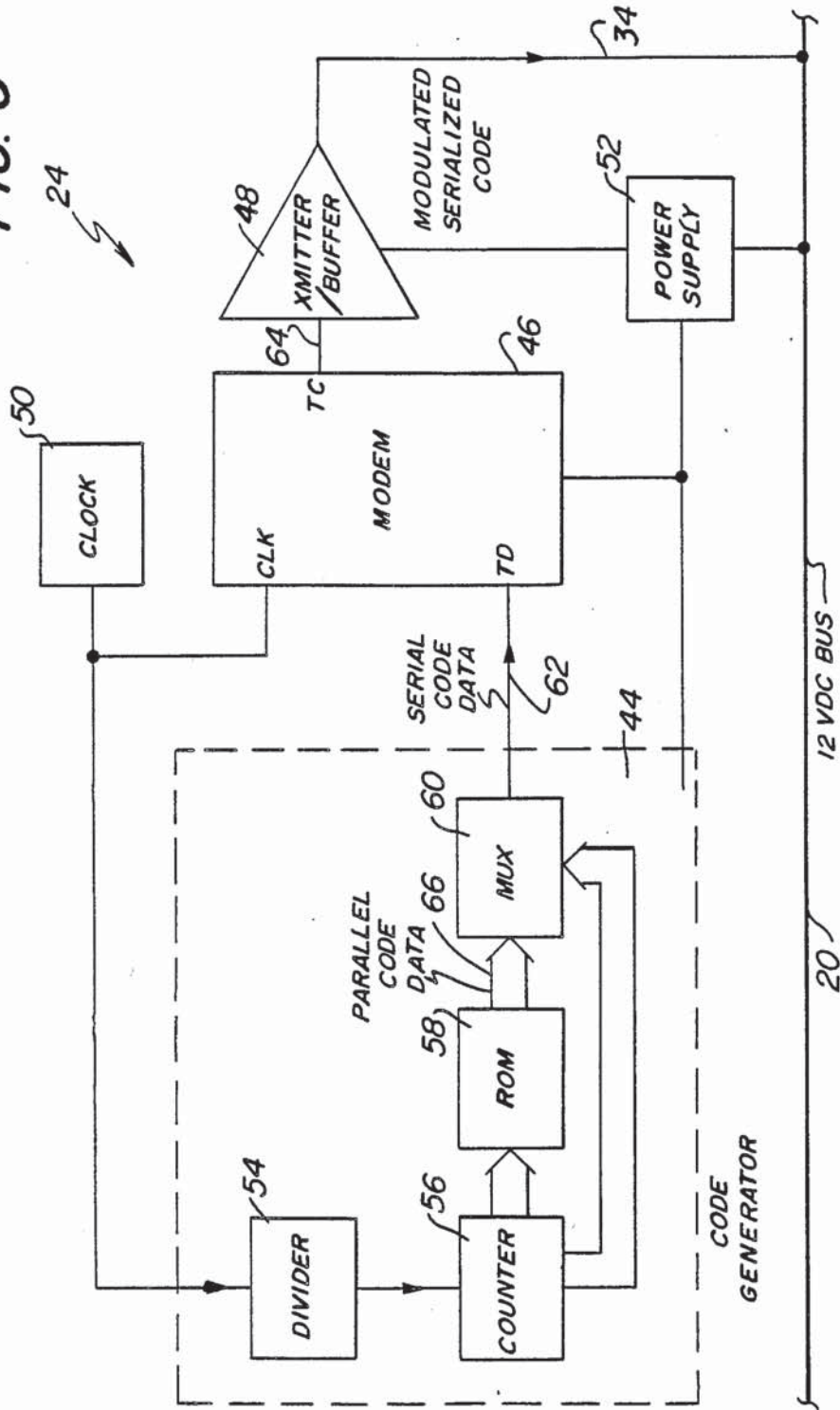


FIG. 4

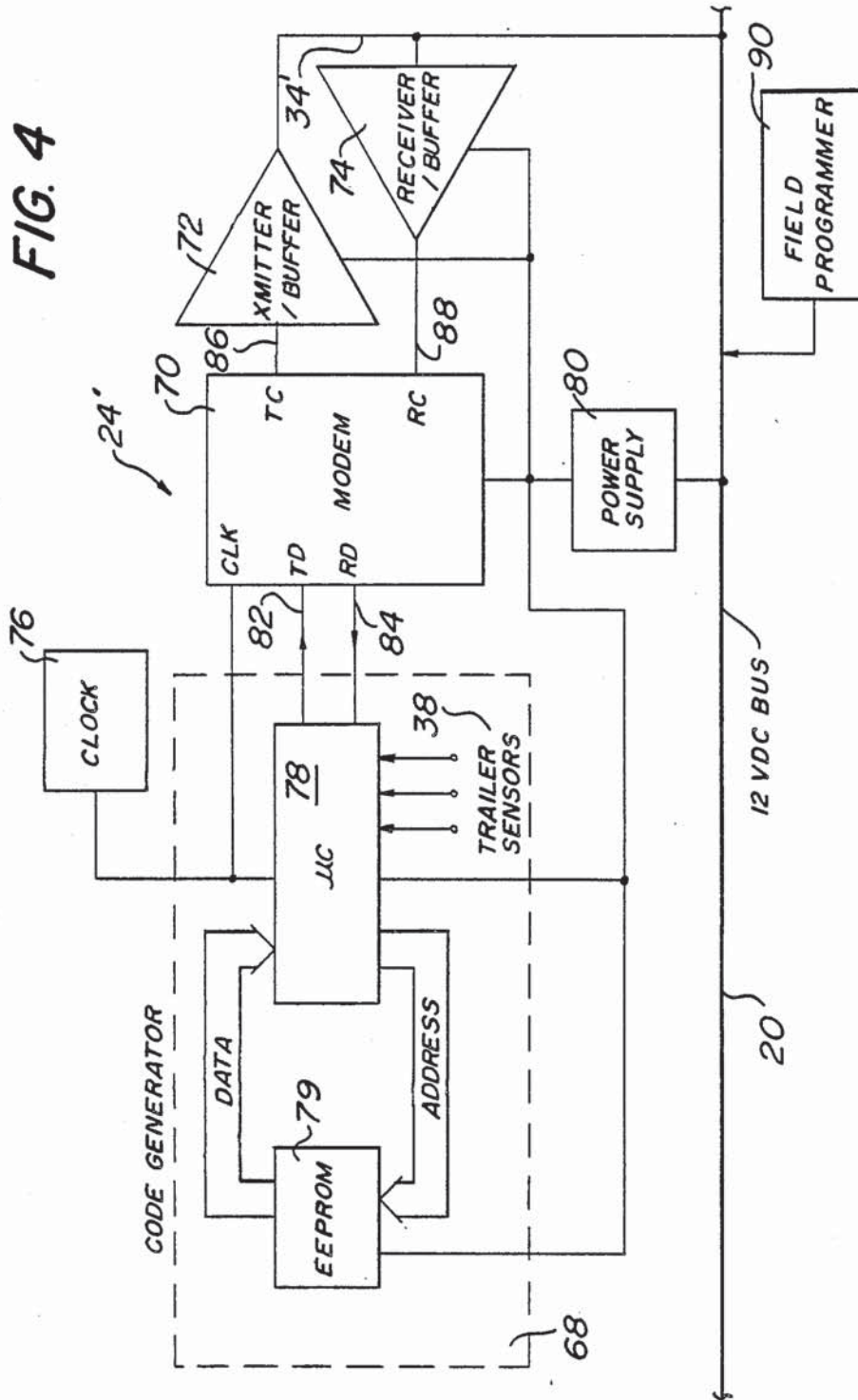
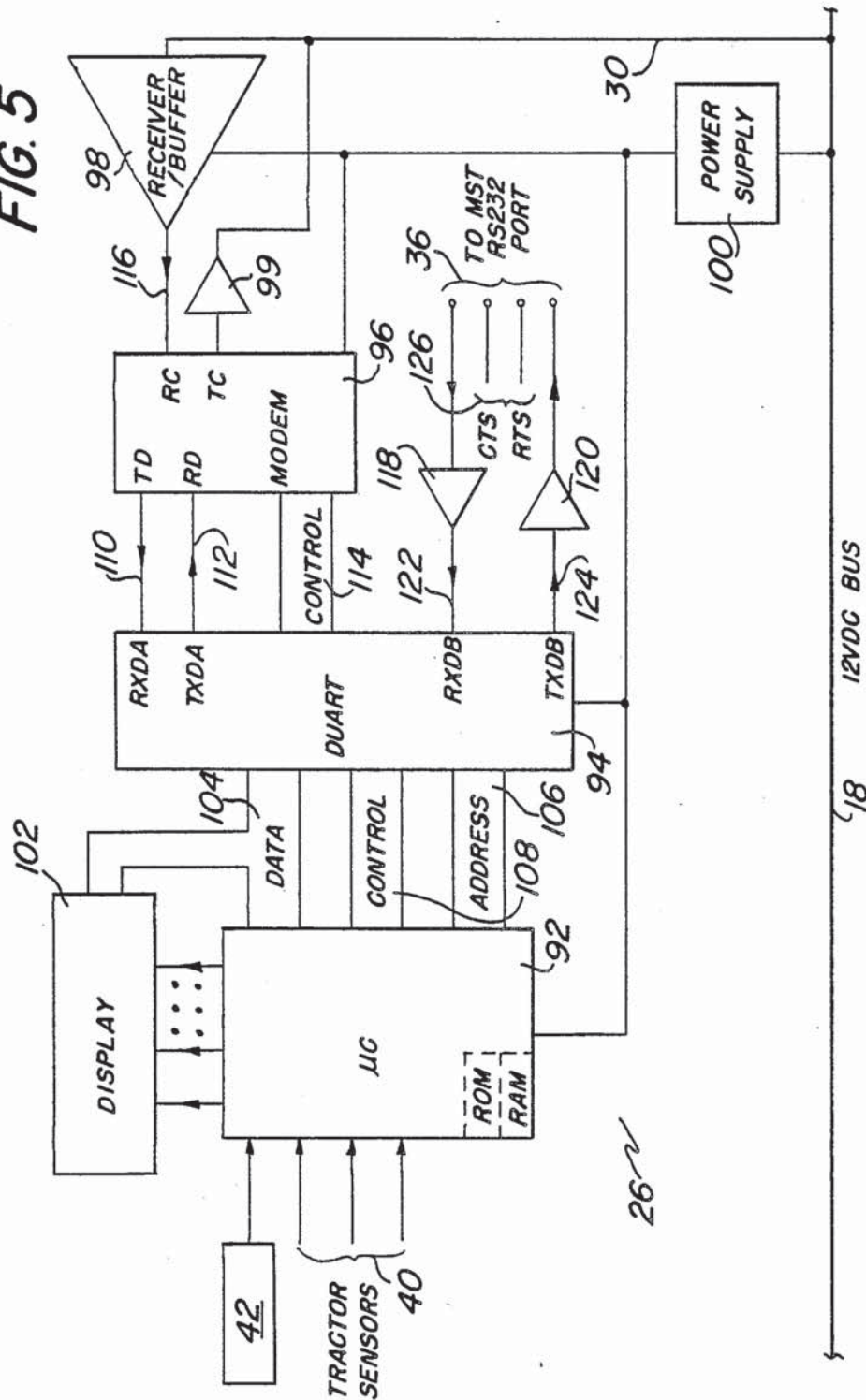


FIG. 5



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