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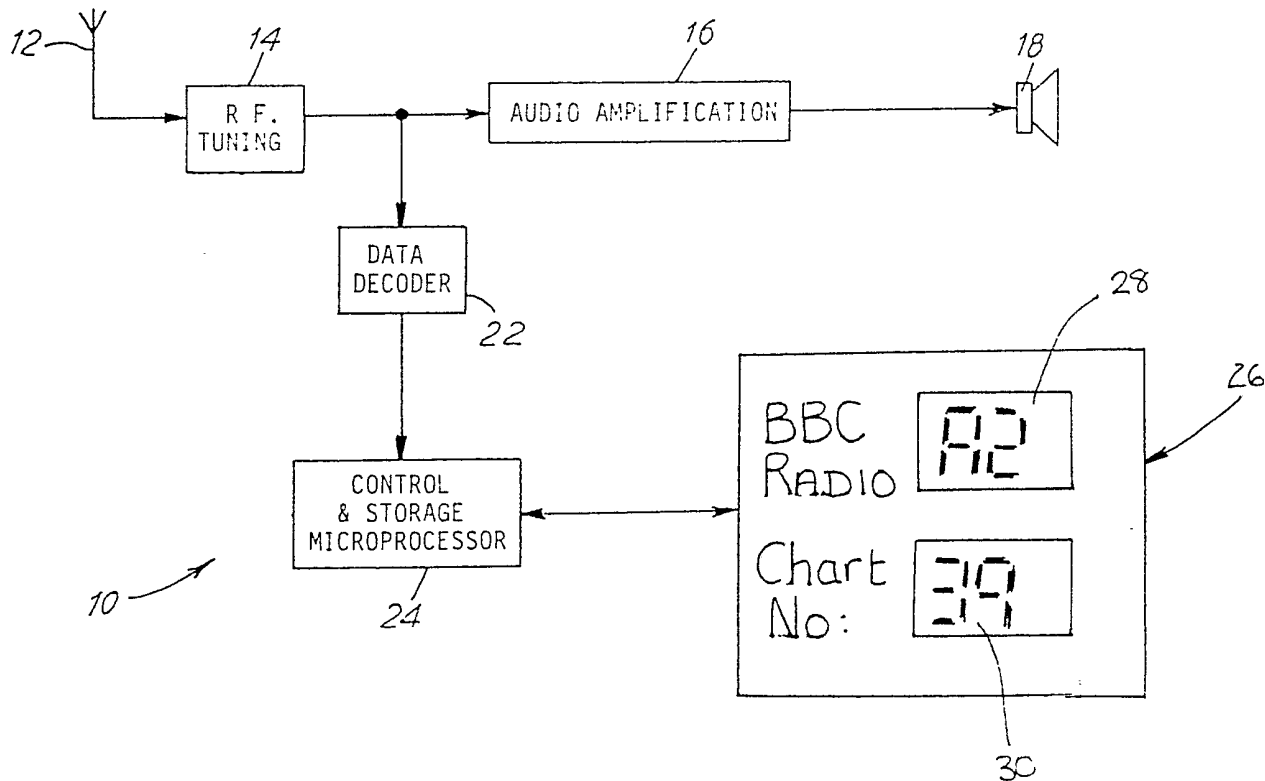
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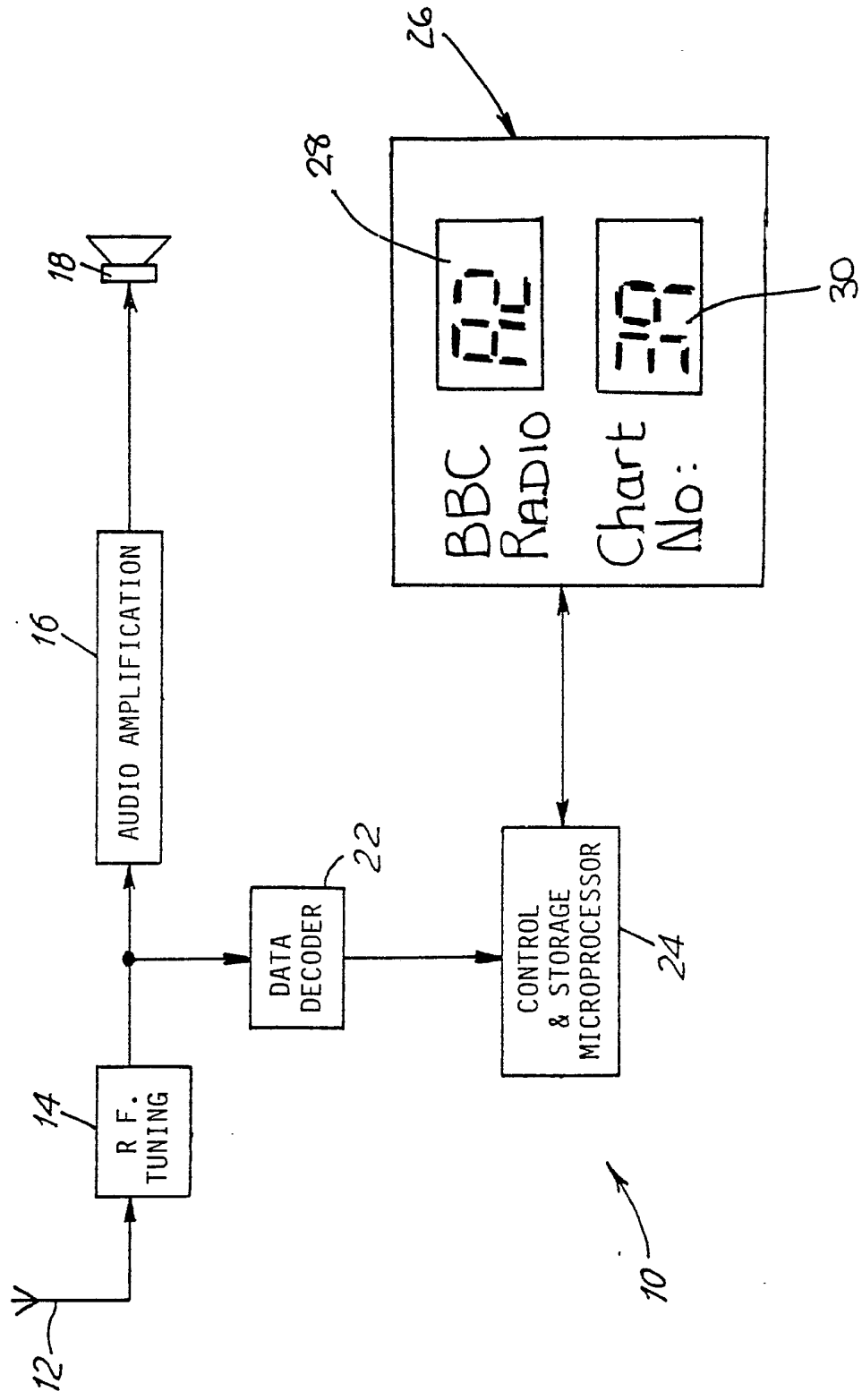
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(54) Radio receiver

(57) A data signal transmitted with a broadcast audio signal contains information concerning the content of the transmitted radio signals. A radio receiver includes a first display 28 for identifying the program service transmitting the radio signals and a second display 30 for displaying data representing the content, for example, the chart position of a given record, of the transmitted radio signals.



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RADIO RECEIVER

The present invention relates to radio receivers for receiving broadcast audio signals, in particular, those intended for domestic use or use in motor vehicles.

The Radio Data System (RDS) permits a broadcaster to send data on the same transmissions as his programs. The system has been described in "Specifications of the Radio Data System RDS for VHF/FM Sound Broadcasting" published by the European Broadcasting Union Technical Centre in Brussels, publication TECH.3244-E, March 1984. In the RDS system, inaudible data signals are broadcast with the radio signals. The signals may be decoded by a suitably equipped receiver. VHF/FM receivers incorporating the RDS system are described in our British Patent Application Nos. 8621545 and 8728363.

In existing receivers, the data signal has carried information identifying the Program Service (PS) name and the frequency of the station in question or has carried information which has aided automatic tuning of a selected station. In accordance with the invention, there is provided a radio receiver comprising a broadcast signal tuning section for receiving radio signals, sound signal amplifier means coupled to the broadcast signal tuning section to apply an audio signal to an output, data decoding means coupled to the signal tuning section to decode received data signals associated with the receiver radio signals, control and storage means coupled to the data decoding means and display means connected to the

control and storage means to display received data. The display means comprises a first display for displaying transmitted data identifying the program service transmitting the radio signals and a second display for displaying data representing information concerning the content of the transmitted radio signals.

For example, it is anticipated that the data signal might include information as to the chart position of the record currently being played and transmitted as radio signals. Other information, for example, the title or author of a play being transmitted might also be displayed in this way.

Preferably, the display used is a seven-segment or similar low-cost display.

A radio receiver in accordance with the invention will now be described in detail, by way of example, with reference to the sole figure of the drawings, which is a block circuit diagram of a radio receiver embodying the invention.

The radio receiver 10 shown in Figure 1 has an aerial 12, broadcast tuning section 14, an audio amplification channel 16 and a loudspeaker 18 connected together in a conventional fashion. In order to reduce the overall cost, the tuning section is manually operable to select the required station. However, where cost is not a major concern, the tuning section may incorporate a synthesiser tuner.

The output of the tuning section 14 is also applied to a data decoder 22 which decodes data transmitted in the RDS signal.

The output of the data decoder 22 is connected to a control and storage microprocessor 24. The microprocessor stores the decoded data signal and displays the content of the signal on display means

26. Again, with a view to reducing cost, it is envisaged that an inexpensive seven-segment or other similar low-cost display be used to display the variable information transmitted in the data signal, the information necessary to identify the variables displayed being printed or engraved permanently on the casing of the radio receiver.

As indicated above, the display consists of two display sections, 28 and 30. The display 28 displays that part of the data signal which identifies the program service transmitting the received radio signals. The information displayed will remain unchanged while the radio receiver is tuned to a particular frequency. The display 30 displays that part of the data signal which gives information regarding the content of the transmitted radio signal, for example, as shown, the chart position of the record currently being transmitted.

CLAIM

1. A radio receiver comprising a broadcast signal tuning section for receiving radio signals, sound signal amplifier means coupled to the broadcast signal tuning section to apply an audio signal to an output, data decoding means coupled to the signal tuning section to decode received data signals associated with the receiver radio signals, control and storage means coupled to the data decoding means and display means connected to the control and storage means to display received data; the display means comprising a first display for displaying transmitted data identifying the program service transmitting the radio signals and a second display for displaying data representing information concerning the content of the transmitted radio signals.
2. A radio receiver substantially as hereinbefore described.