



## EAS APPLICATION NOTE No. 1001

### EAS 941 OR 941A TO AUTOMATION SYSTEM INTERFACE

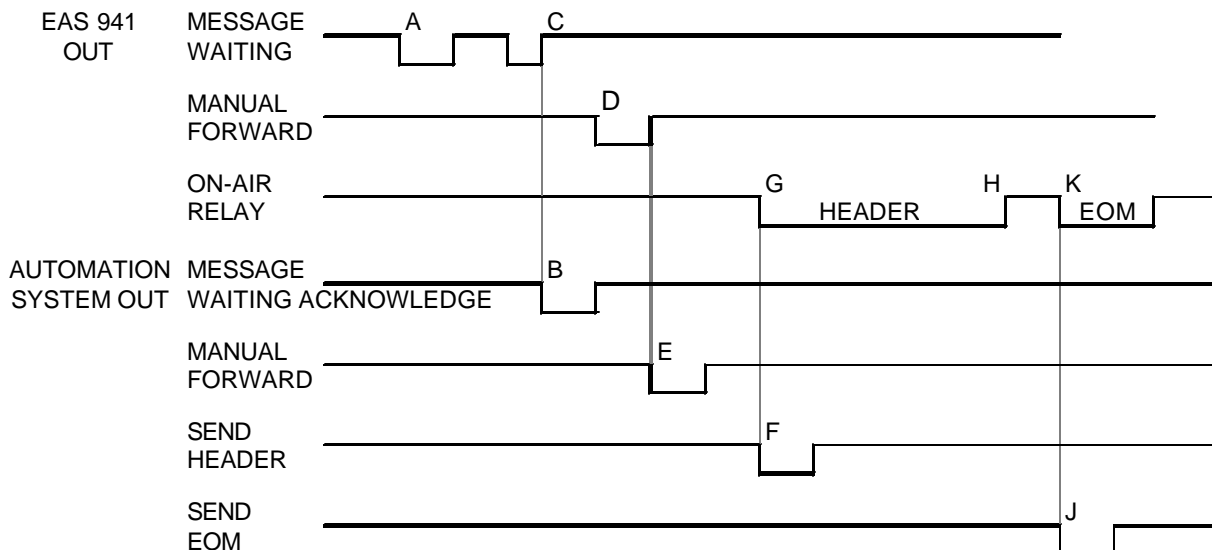
Interfacing an EAS 911 Encoder/Decoder to a station's automation system can be accomplished easily by using an EAS 941 or EAS 941A Remote Control/Status Module. The EAS 941 provides logic level status information to the automation system; the automation system provides contact closures to the EAS 941 to activate the forwarding functions in the EAS 911. The automation system can be connected in parallel with a user's control panel switches to permit both manual and automated control of the EAS 911.

System connections include the EAS 941's ON-AIR and MESSAGE WAITING outputs and its MESSAGE WAITING, SEND HEADER and SEND EOM inputs. A typical system interface is shown in the Schematic; the Sequence of Operations is described below and is illustrated in the Timing Diagram.

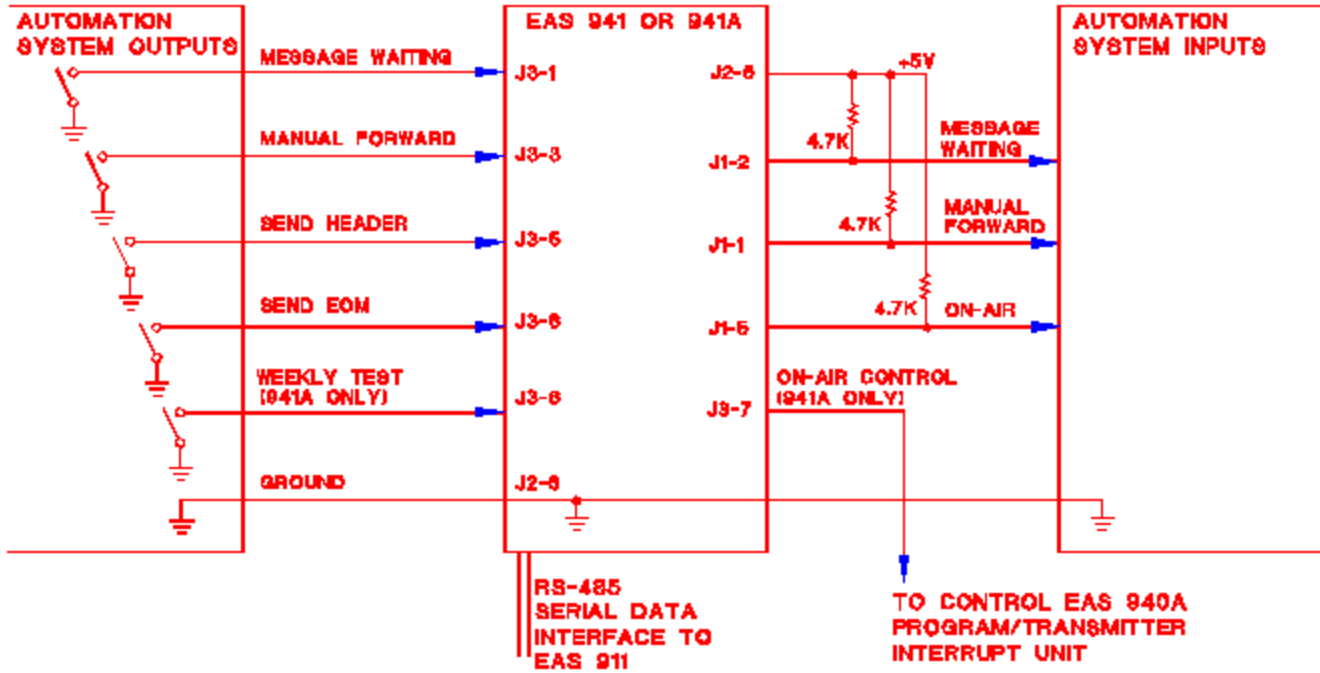
#### Sequence of Operations:

- A. The MESSAGE WAITING output of the EAS 941 (J1-2) will go low to indicate that a forwardable message has been received. The output will cycle between low and high at a one second rate.
- B. The automation system must acknowledge that a message has been received with a momentary contact closure to ground at the EAS 941's MESSAGE WAITING input (J3-1).
- C. The MESSAGE WAITING output will go high.
- D. If the message has been programmed to be automatically forwarded by the EAS 911, the MANUAL FORWARD output of the EAS 941 (J1-1) will go low.
- E. The automation system must initiate message forwarding with a contact closure at the EAS 941's MANUAL FORWARD input (J1-1). The MANUAL FORWARD output will go high.
- F. The automation system can then forward the header, two-tone attention signal and voice message with a momentary contact closure at the EAS 941's SEND HEADER input (J3-5).
- G. The EAS 941's ON-AIR RELAY output (J1-5) will go low to indicate that the header, tone and voice are being transmitted.
- H. When the transmission is concluded, the ON-AIR relay output will go high.
- J. The automation system can now forward the End Of Message with a momentary contact closure at the EAS 941's SEND EOM input (J2-1).
- K. The ON-AIR output (J1-5) will go low to indicate that the EOM is being transmitted. At the conclusion of the EOM transmission, the ON-AIR output will go high.

#### Timing Diagram:



**EAS 941 to Automation System Interface Schematic:**



EAS 941 and 941A logic levels in the configuration above are TTL and CMOS compatible. High (Off) = 5V; Low (Active) = 0 to 0.4V.

**Required Weekly Test:**

A Required Weekly Test can be transmitted with a momentary contact closure at the EAS 941A's Weekly Test input (J3-6).

**Multiple Station Operation:**

With appropriate automation interfaces, as many as 16 EAS 941 and 941A modules can be paralleled on the RS-485 interface to the EAS 911 to control as many as 16 stations. Each EAS 941A can independently control one or more relays of the EAS 940A Program/Transmitter interrupt unit.