

WIZARD®
Work Zone Alert and Information Radio

GENERAL DESCRIPTION

The WIZARD is a safety device which broadcasts prerecorded traffic alert and warning voice messages to the motoring public to prevent accidents and improve traffic flow. It employs the Citizens Band radio to air these messages. The messages are transmitted at regular fixed intervals of 30, 60, or 90 seconds as determined by the operator of the WIZARD. Three messages - each with a length of up to 18 seconds - may be recorded for transmission. A typical message takes 12 seconds. The WIZARD can broadcast any one of the prerecorded messages on 2 selected CB radio channels in a sequential manner. As an example, MESSAGE # 2 might be selected for broadcast. It will be transmitted on channel A (the first CB channel assigned). Immediately thereafter, the same message could be broadcast on channel B if a second CB channel was assigned and active. With a standard configuration, the operator can choose channel 3, 9, 17, 19, 21, or 36. Channel 19 is the favorite channel because it is the choice of truckers. However, on request to the factory, any of the 40 normal CB channels may be designated as one of the 6 available.

SEQUENCE OF OPERATION

1. The operator selects the time interval between messages, and assigns one of the 6 available channels as Channel A. If desired, another channel may be assigned as channel B. Using the microphone, an alert message can be recorded. If a suitable message has previously been recorded, it can be selected instead. The message can be previewed by pressing the **PUSH TO LISTEN** switch. It can be re-recorded if needed to improve clarity and completeness. Once set up, the mode is switched to TRANSMIT, and the rest is automatic.
2. The WIZARD begins by examining channel A for activity. If the activity on this channel is below the factory set threshold, the channel is considered clear and the message is broadcast. If the channel is found to be "busy", activity is continuously monitored until it is found to be clear. The message is broadcast immediately after the channel is found to be clear. Once the message has been transmitted, the interval timer starts the countdown to the next channel A transmission. While it is counting down, the Wizard checks to see if channel B has been enabled. If so, activity is monitored on that channel until it is clear. Then the message is broadcast.
3. In a typical configuration, the channel chosen to be channel B is likely to be a relatively quiet channel that will usually be clear at first try. However, If

channel B should be “busy” for very long, it will not be allowed to interfere with the next scheduled channel A transmission. Thus, if channel B is busy for more than 20 seconds, no message will be broadcast on this channel for this cycle. After the next channel A transmission, the system will test channel B again and transmit promptly when the channel is determined to be clear.

IMPORTANT NOTE

A UNIDEN (brand) Citizens Band transceiver model PRO 510 XL as produced by the manufacturer is used as the transmitter for the WIZARD. The F.C.C. I.D. number for this transceiver is AMW3K2-317. Please refer to the appropriate documents for this make and model of transceiver for details on the operation of this device.

This unit is very similar to the previously approved unit (NB3103) except that a different Uniden model CB is used and the control circuitry is driven by a microprocessor rather than discrete components.