

Wizard Messages - Suggested Guidelines

Wizard will accept any message. Each message can be up to 15 seconds long. However, to maximize effectiveness, please follow the following guidelines as much as possible. Bear in mind that the Wizard is an FCC-approved device, intended for specific traffic advice, not generic messages (such as “Drive safely”).

1. Minimize background noise Recording in a quiet area (in a vehicle or off site) is best. When recording on site, try to choose a break in the traffic noise and hold the mic close to the mouth.
2. Keep the message short Most messages can be delivered in less than 10 seconds. Include only enough information to get the message across.
3. Keep the message relevant A pattern of broadcasting outdated or not at the moment applicable messages will eventually cause them to be ignored.
4. Include key information If the message only concerns north-bound traffic or a particular exit or location, say so.
5. Use a higher pitch Female voices are more likely to get everyone’s attention. Extremely low male voices do not transmit as well.
6. Speak clearly Be sure to enunciate and speak slowly enough to avoid run-together words
7. Be Pleasant In many situations, the message may be heard several times. An unpleasant message will be annoying.
8. Identify the authority Messages should first announce the authority giving the message, i.e. “This is the Colorado DOT” or “This is the Maryland State Police”. This gives credibility to the message that follows.

RF Safety Warning

The antenna for this device must be mounted on top of the roof of the vehicle or on top of the construction site trailer away from nearby personnel. All personnel must remain at least 8” from an unobstructed antenna to avoid extended periods of RF exposure.

STANDARD SPECIFICATIONS

CASE	TRANSMISSION	ANTENNA
Height – 5”	5 Watts Output	Not Supplied
Width – 8”	Transmit Interval - 30 to 90 sec.	Connector – Std., PL259
Depth – 3”	Messages - any 1 of 3 user recordable	Recommended Antennas:
Weight – 5 lbs.	Transmit Channels - 1 or 2 of any CB channel (1-40)	Wilson 500
		American Antenna– K40
Epoxy Powder Coat		
Mounting – Dash or seat		
POWER		
12v Neg. Grd.		
Connector – 2 pin Amphenol		
Fuse – 5 amp		

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THE WIZARD[®]

Work Zone alert and Information Radio



Wizard Field Operations Procedures

A guide for settings and message selection
under varying operating conditions

Highway Technologies, Inc
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Why a Wizard?

With trucks logging more than 50 billion vehicle miles on the nation's roads, more maintenance and more work zones increases the opportunity for more accidents. Higher speeds, inattentive driving and closer spacing contribute to rear-end vehicle collisions and hazardous conditions for road construction workers.

The Wizard® is designed to provide advanced warning of impending traffic slowdowns to give all vehicles, especially heavy trucks, the necessary time to stop. The Wizard is a completely portable wireless broadcasting system adaptable to any work site, sending localized messages on selected CB channels.

The Wizard counts down the selected interval for sending, listens for a break in activity on channels 9 and 19 (or other user selected and emergency CB channels), and broadcasts when clear. Care is taken to not interfere with normal CB communication between vehicles.

A short message alerts the driver to slow down. The message can be broadcast on a second user selected channel if desired. Messages can be changed at the site, broadcast distances adjusted for traffic backup, and message frequency modified to compensate for average speeds.

WARNING

The Citizens Band (CB) Radio Service is under the jurisdiction of the Federal Communications Commission (FCC). Any adjustments or alterations which alter the performance of the transceiver's original FCC type acceptance, or change the frequency determining method, are strictly prohibited. Replacement or substitution of crystals, transistors, ICs, regulator diodes, or any other part of a unique nature, with parts other than those recommended by Highway Technologies, Inc., may cause violation of the technical regulations of Part 95 of the FCC rules or violation of type acceptance requirements of Part 2 of the rules.

This radio has been type accepted and certified by the FCC.

Elimination of Licensing

The Federal Communications Commission has ruled that Citizens Band Radio Service operators are no longer required to obtain an FCC license to operate their CB equipment. In doing so, the FCC also permits CB stations to operate without station identification.

Elimination of individual station licenses results in no lessening of the operating privileges or responsibilities of CB users. An operator of a CB radio station is still required to comply with the Communications Act and with the rules of CB Radio Service.

Rules You Should Know

In common with all other CB operators, you must comply with the general rules prohibiting music, profanity, promotion of illegal activities, selling of merchandise or services, and blasting others off the air with illegally amplified transmitters.

Although one-way communications are generally not allowed, operation of the Wizard for its intended purpose is permitted. Rule 18 (d) provides specific permission to establish one-way communications concerning highway conditions to assist travelers.

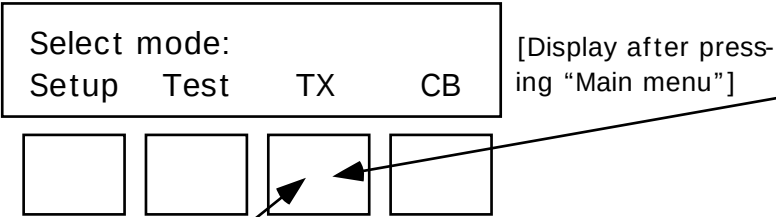
Since Rule 7 (b) reserves Channel 9 for emergency communications or travelers assistance, channel 9 may be a good choice as channel B.

The Wizard is not intended for unattended operation. An operator should be in control of the system at all times.

Standard Menu Structure

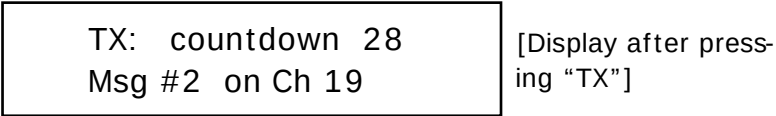
Although the Wizard is capable of many variations of settings, experience to date has shown that most operators use only channel 19 with a brief message. If this is your intended use, the standard menu will allow quick and simplified operation.

To begin: Press “Main menu”
[This is the only button that is permanently identified.]



Look in the LCD display above each button to learn the assigned function for that particular menu.

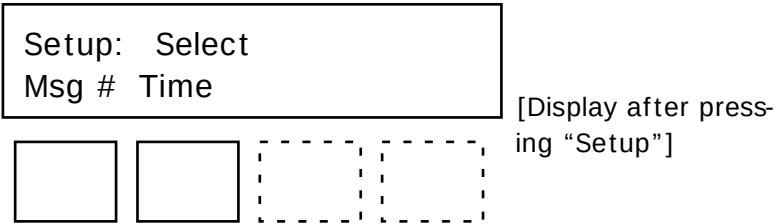
If you are re-starting a previously selected message, simply press TX, and the Wizard will resume transmission according to the last selections before shut down.



The LCD display will tell you the number of seconds remaining before attempting transmission, the message # and the channel #. If you wish to change anything, press “Main menu” and go to “Setup”.

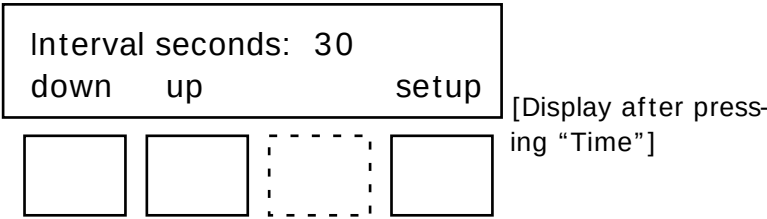
SETUP

In Setup, you can change the message # or the time interval between transmissions.



Msg # - To choose a different message, press “down” or “up” to go to message 1 or 2 or 3. To hear each message press PLAY when the message # appears in the window. If the message is acceptable, press “Setup” to adjust the time interval or “Main menu” to get ready to transmit. [Then press TX when the main menu appears.]

If you wish to record a new message, select the message # to be replaced, hold the microphone close to your mouth, squeeze the mike key and speak. The window will indicate the number of available seconds remaining. Try to keep the message as short as practical. When finished, release the key and press PLAY to confirm that it is satisfactory.

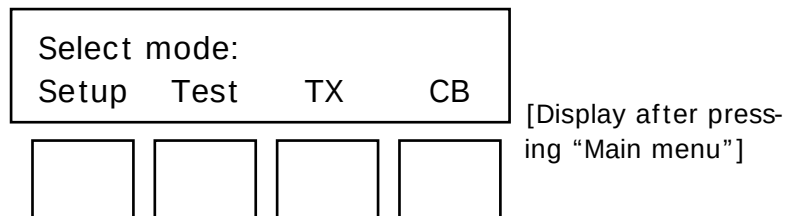


Time - When in “Setup”, press “Time” to select a desired interval. Press “down” or “up” to shorten or lengthen the time between transmissions. Any interval between 30 and 90 seconds may be chosen (in 10 second increments). When your selection has been made, press “Setup” to change messages or “Main menu” to get ready to transmit

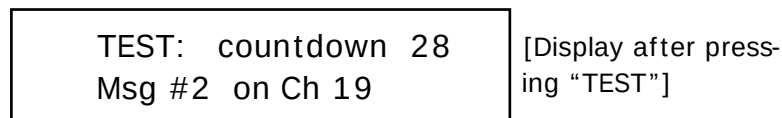
Standard Menu Structure cont.

TEST

Test allows the operator to check out the system without actually broadcasting on the selected channel - it only activates the Wizard speaker - not the transmitter.



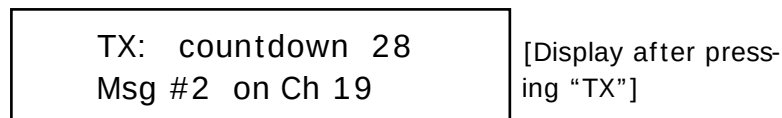
The TEST menu displays the number of seconds until the next attempt to broadcast, the message # and the channel #.



After the countdown, the message will display TX if simulating a transmission or BUSY if waiting for someone to finish their sentence. If you wish to change anything, press "Main menu" and go to "Setup".

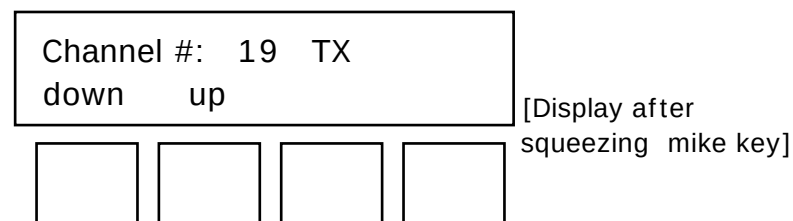
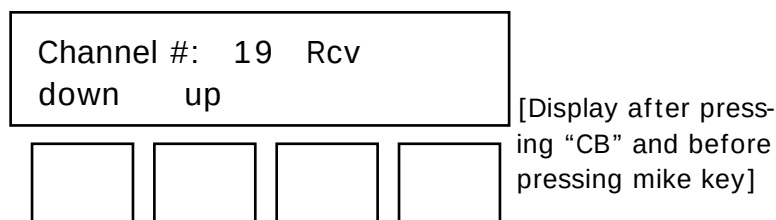
TX

In TX, you are actually broadcasting when the wait time is over. Otherwise it is the same as TEST.



CB

- To choose a different channel, press "down" or "up" to select any of the normal 40 channels.



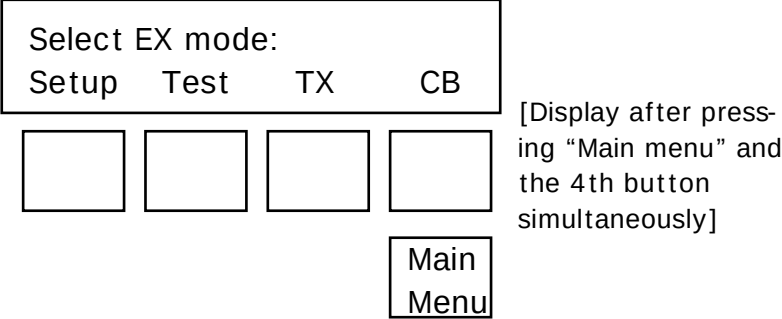
When you are ready to talk on your selected channel, simply squeeze the mike key, bring it close to your mouth and talk normally. When finished speaking, release the mike. The system will then revert back to listen (receive) mode.

Remember that you are governed by the FCC rules just like any other CB operator. In this mode, the system performs as if it were a standard CB.

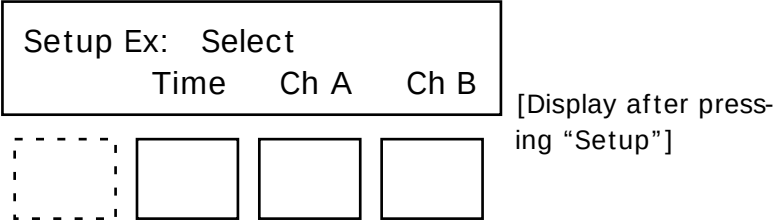
Note: To stop broadcasting, press MAIN MENU and then any other mode but TX

Extended Menu Structure

To access the extended menu press MAIN MENU and the button above it (the 4th button) at the same time for at least 2 seconds. The system functions will be the same as the standard menu except there are greatly expanded setup possibilities



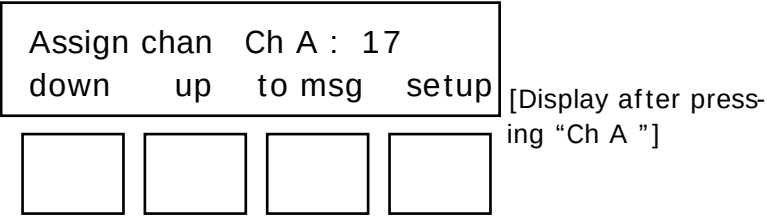
The extended SETUP menu allows the choice of any channel for Wizard broadcast (not just ch 19 as with the standard menu). It also allows the option of broadcasting on a second channel in between broadcasts on the main channel. The second message may be the same or a different message.



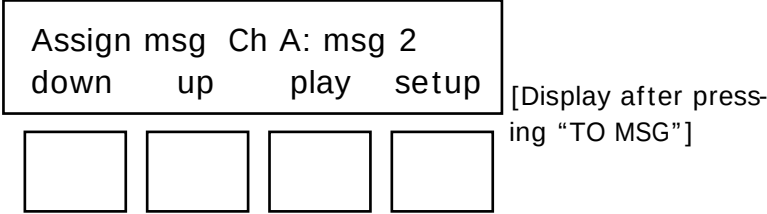
SETUP EX

In SETUP, you can change the message # or the time interval between transmissions as with the standard menu. However you can also assign the first channel - channel A and, if desired, a second channel - channel B. The system will default to using only channel A unless a channel is assigned to be channel B. The timing interval is governed by channel A. You cannot set a different interval for channel B.

To begin establishing the assignments, press channel A.



Ch A - To assign a different channel, press "down" or "up" to select any of the normal 40 CB channels.
To then select a message, press TO MSG. [if the message has previously been selected, press SETUP to return to the setup menu.]



Msg # - To choose a different message, press "down" or "up" to go to message 1 or 2 or 3. To hear any message press PLAY when the message # appears in the window. If the message is acceptable, press "Setup" to return to the setup menu.

If you wish to record a new message, select the message # to be replaced, hold the microphone close to your mouth, squeeze the mike key and speak. The window will indicate the number of available seconds remaining. Try to keep the message as short as practical. When finished, release the key and press PLAY to confirm that it is satisfactory.

If you wish to use channel B, press CH B and repeat as above. Note: the system will not allow channel A and B to be the same channel.

For information on TEST, TX and CB, turn to the standard menu description.