

# Port Ludlow Amateur Radio Club

## 441.575 User Information

Prepared by

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### Physical

The Port Ludlow Amateur Radio Club Repeater, 441.575 is located atop the Swansonville Road in Port Ludlow. The repeater is at approximately 400 feet base elevation with the antenna located approximately 140 feet above ground on the tower. The repeater hardware consists of an Icom RP-3010 UHF repeater, TX-RX Duplexer, TE Systems 100-watt UHF amplifier, Wacom Band Pass Cavity and a DB Products single port isolator.



**Icom 3010 Repeater**

The Repeater antenna is a DB Products DB413. This is an eight bay folded dipole antenna and is orientated to provide the maximum gain (12db) towards the north.



**TX-RX UHF Duplexer**

Two D-8 200 Amp hour batteries for a total of 400 Amp hours supply emergency power.

### Specifications

Accessing the repeater requires a PL (CTCSS) tone of 103.5 to access the repeater and any of its ancillary functions. The repeater transmitter power is 60 watts at the duplexer and has an effective radiated power of approximately 800 watts. Receiver sensitivity is approximately .3 uv for 20db quieting.

### Operation

#### Repeater Time Out

The repeater has a 3-minute time out timer. This timer measures the amount of time a valid signal is present at the receiver. The timer is reset at the end of each user's transmission when the courtesy beep is heard. If a user begins transmitting before the courtesy beep is heard, the

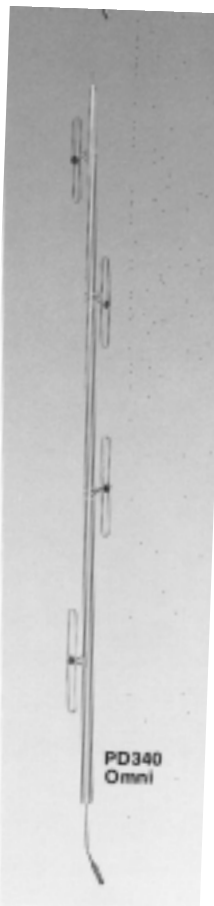
timer is not reset and continues to accumulate time. Near the end of the timer sequence those listening to the repeater will hear a series of warning beeps. When time out occurs the repeater transmitter is turned off until the offending signal is removed for at least 10 seconds. After which the repeater will operate normally.

### AutoPatch

The AutoPatch has three dialing modes: Manual Number Entry ,AutoDial and 911 Emergency.



Typical Single Port Isolator



Similar Folded Dipole Antenna

**Manual Number Entry** access is enable by pressing \*XX (where XX is the access code) and entering the seven digit phone number. For example; to dial 437-5555, you would ID your station and enter \*XX4375555. After releasing your push to talk you should hear a dial tone and then a short tone burst as the AutoPatch is dialing your phone number. After your call is complete, enter ## to end the AutoPatch and give your call sign.

**AutoDial entry** is enabled by pressing #\*ZZ, where ZZ is the number of the AutoDial slot containing the preprogrammed phone number. For example; to use the AutoDial to dial the phone number in slot 33 you would give your call sign and enter #\*33. After releasing your push to talk you should hear a dial tone followed by a short tone burst as the AutoPatch dials the preprogrammed number. After your call is complete, enter ## to end the AutoPatch and give your call sign. A control operator preprograms AutoDial slots. To request your own slot please contact Mark - WR7V. You can e-mail him at [mckibbin@olypen.com](mailto:mckibbin@olypen.com).

**Emergency 911** is enabled by pressing 911. There are no special prefix codes to access the 911 operator, just enter 911. When accessing the 911 operator be sure to identify yourself to the 911 operator as being an amateur radio station, state your location and the type of emergency. Otherwise, the operator may send the emergency aid to the Club radio site. When the call is complete, enter ## to end the AutoPatch and give your call sign.

**Sheriff Dispatch.** To place a call directly to the main Jefferson County Sheriff Dispatcher enter #\*13. This is an AutoDial number and should ONLY be used in case of a declared emergency or emergency drill. All normal emergency requests should go through the 911 operator. To hang up the patch enter ##.

### AutoPatch Time Out

The AutoPatch has a timer set between 30 and 40 seconds. As the duration of the call gets close to the time out period the controller will send a series of beeps as a warning that the patch is

about to time out. To reset the timer you must press your push to talk button momentarily, just long enough for the repeater's receiver to acknowledge the presence of a signal. During normal short conversations the AutoPatch timeout timer will be reset each time you speak. This method of monitoring the AutoPatch usage time will cause the AutoPatch to hang up within 30 seconds of no activity.

### **Touch Tone (DTMF) Pad Test**

The controller has the capability to verify that all your touch tone codes are working correctly. The Touch-Tone Pad Test is enabled by pressing #0 and entering the digits you wish to verify. For Example; place the repeater in test mode by pressing #0. Then press your push to talk and enter 1. Release PTT. The repeater will respond with dit dah dah dah. You can test each digit by repeating the above operation one digit at a time. Once you have completed the test press ## to end the test mode.

### **Repeater ID**

The call sign of the repeater can be sent on command by entering #6.

