Thank you for purchasing a TAPR [PennyWhistle](https://openhpsdr.org/pennywhistle.php). The associated directions can be obtained from the web. Here is some basic information and a link to the documentation:

## The PennyWhistle RF Amplifier

PennyWhistle is a compact RF power amplifier stage that puts out 16 to 20 Watts. It covers 160 Meters through 6 Meters. It is 10 cm by 8 cm (half Euro-board size.)

The output stage is a single stage amplifier that uses a pair of TO-220 "16 Watt" Mitsubishi RD16HFF1 parts in push pull and has approximately 19 dB gain, depending where you bias it, so it will deliver 16 to 20 watts output with 1/4 watt drive.

It uses surface mount, but these are large (1206) and are easy to solder. The transformers are easily wound.

It generates about 30 watts of heat when transmitting. Dissipation in standby is negligible. The circuit is capable of continuous duty, provided that the heatsink is big enough to hold a reasonable temperature.

See the HPSDR website (<https://openhpsdr.org/pennywhistle.php>) for more information.

Manual: <https://openhpsdr.org/pennywhistle.php>

Contact us at **contact@tapr.org** for assistance, help or troubleshooting.

Best Regards, TAPR