Repeater Power Output

The DR repeaters are calibrated in the middle of the band. For UHF that is 440.000 MHz. You may want to check the power output at that frequency as you are operating right at the band edge. While you're at it, measure the Tx current. At the lower power output the current should be lower, otherwise it could indicate a problem.

Under no circumstances should the Tx current be above 10 amps (I recommend a 10 amp fuse in the Tx power supply line) and will more typically be around 7 amps. At 30 watts it should be less.

There are differences in the DR-1X depending on when it was produced and/or which updates it has received. Early units should only be run on medium power, especially on UHF.

The DR-1 does not sense SWR. It simply looks at voltages in the output filter that should be represent a higher SWR as an apparent higher output power thus causing input power to be slightly reduced. Variations in the frequency response characteristics of the filters and amplifier gain will cause the output to vary over the 430-450 MHz range. You can always recalibrate the output at your frequency of interest but be careful. It has been my experience that the output can also be greater than 50 watts on certain frequencies.