# Motorola R1200AX Service Monitor

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At present I do not have a manual but the unit does turn on and most functions seem to work. I did find limited instructions
here: http://www.antiqueradios.com/forums/viewtopic.php?f=8&t=62528

This is a copy of the relevant post. If you have relevant information, please leave a comment about it.

The R-1200AX is the basic 1200 with the option of a high stability timebase (the "X.")
The modules have been added later.

There is no internal load in this model. It is designed to monitor off-the-air signals or
to be used with a pick-off enroute to an external dummy load or antenna.

I don't have the manual anymore, but this is how it works to measure deviation and frequency:

1) Dial up the known carrier frequency
2) Press the RECEIVE button
3) Press 1.5, 5 or 15 KHz to select range (FREQ ERROR)
4) Connect whip antenna or cable from pick-off to broadband mixer
5) Place wide/narrow switch in "wide" unless there's interference, in which case use "narrow."
6) Read frequency error on ERROR KHZ meter
7) Set deviation meter range as desired
8 ) Read deviation on meter when transmitter is being modulated

Unfortunately these are 30+ year old instruments which have usually seen a hard life.
They are worth little on today's market, as they have no value to commercial shops, thus
intensive labor to get one running has to be considered a lost cause at some point.

I have had some where the electrolytics in the deviation meter module were totally dried out
and open circuit. Other electrolytics in the unit, same story. Tantalum dip capacitors can
be shorted, they are becoming notorious for this.

The manual, as I recall, is rather huge and would be a life's work for someone to scan
and put on the internet. Operating the thing should be a pretty intuitive process.

For generating a signal, use the CW position generally as that is locked to the TCXO.
The red "Leveled" lamp should be lit normally. If it is out, it means the output has
either become unstable or the overload protect circuit has tripped (hence the reset button.)

The FM Cal knob sets the frequency when the generator is in the modulated FM mode.
It should be zeroed with the zero center meter. The stability while in the FM modulated mode

is rather poor, it's just for testing receivers and not frequency setting. Leave it in
CW normally.
posted by: Geoff Fors

OK, so after reading the above I setup to test the Service Monitor on the bench. I decided to use it in FM modulated mode to see how unstable that might be too.  This video pretty much tells the story of how that worked out.
https://www.youtube.com/watch?v=a5lSJb3t4nc

Ron Morell
KA7U