

The DATA Mode in Icom HF Transceivers

by Adam M. Farson VA7OJ/AB4OJ

Introduction.

All current Icom HF and HF/VHF transceivers feature a DATA Mode, which facilitates digital-mode operation via one of the following emission types: USB/LSB, AM, FM. The reason for the DATA key in Icom transceivers is to provide simplified one-button selection of the proper transmit settings for the AFSK modes (RTTY or PSK).

The DATA mode is activated by pressing the **DATA** key (IC-7700, IC-7800, IC-7850/51) or by pressing and holding the relevant mode key (IC-7200, IC-7410, IC-7600, IC-9100) or via the touch-screen (IC-7100, IC-7300). The IC-7600, IC-7700, IC-7800 and IC-7850/51 offer 3 independent DATA set-ups: DATA1, DATA2, DATA3. These are selected by toggling the **DATA** key or repeatedly pressing and holding the mode key (IC-7600 only).

Functions.

Switching from non-DATA to DATA mode reconfigures the radio as follows:

1. TBW (transmit bandwidth) is locked in at default MID (300-2700 Hz). The default MID TBW setting is selected as the optimum compromise for RTTY and PSK, and is fixed. The cutoff frequencies cannot be adjusted via the TBW menu in SET Mode.
2. The receive filter selection changes from the SSB filter set to the CW filter set. (However, the user can still adjust the "set" RX filter bandwidths by holding down the Filter key and adjusting BW, or by rotating the Twin PBT controls.)
3. The Compression (COMP) function is disabled.
4. The 1/4-speed tuning-dial setting is enabled. (**Note**: The minimum tuning step size remains at 1 Hz.)
5. The MOD (modulation) input group (MIC, MIC/ACC, ACC, LAN etc.) is changed from DATA OFF MOD to DATA MOD, DATA1 MOD, DATA2 mod etc. as appropriate to the radio model. This allows tremendous flexibility in the selection of data baseband sources.

⚠ Enabling DATA mode does **not** shift the TX or RX virtual carrier frequency or the frequency display.

When operating in a digital mode where adjustable TBW is desired, an appropriate non-DATA mode can always be selected.

Copyright © 2004-2016 A. Farson VA7OJ/AB4OJ. All rights reserved.

Last updated: 08/02/2016

