Model 7230 DSP Lock-in Amplifier Firmware History since Rev 2.00

Purpose

This document summarizes the changes made to the **SIGNAL RECOVERY** Model 7230 DSP Lock-in Amplifier's operating firmware since revision 2.00

7230 Firmware History

The table below lists the major firmware revisions. Revision numbers missing from the sequence were not formally released.

| Revision | Date | Changes Included |
|----------|-------------------|---|
| 2.22 | 24 September 2018 | Line filter corrections not applied if unit is a 7230K (param[88] = 1) |
| 2.21 | 4 July 2017 | Fixed overload indicator error introduced in version 2.20, whereby ADF command was causing virtual front panel overload indicator to come on. |
| 2.20 | 20 January 2017 | Further updates to reference channel to make dual external reference work reliably. Maximum frequency of this second external reference (TTL input) is 3.1 kHz |
| 2.181 | 23 August 2016 | Added CP command to duplicate DCCOUPLE command. Corrected TC. command as it was giving TC one below the correct one |
| 2.14 | 14 August 2015 | Added change of FET, FLOAT, or DCCOUPLE to list of items that force filter reset |
| 2.13 | 27 April 2015 | Fixed bug with operation of 18dB/octave output filters that was introduced in error in version 2.06.6 or 2.06.7 |
| 2.12 | 9 December 2014 | Fixed lock problem for reference frequencies below 2Hz |
| 2.11 | 12 November 2013 | Added support for dual external reference channel, Required addition commands FRQ1 and FRQ2 to read external reference frequencies, IE1 and IE2 to select source of reference. INT command removed as it was superseded by IE1 and IE2 |
| 2.10 | 7 May 2013 | Changed correction factor for noise. Noise mode extended to allow 200 ms TC |
| 2.09 | 8 April 2013 | Fixed daisy chain RS232 port. Fixed X and Y offsets on DAC outputs when in FAST mode (was OK in normal mode) |
| 2.08 | 4 January 2013 | Fixed problem in fast curve buffer mode of incorrect data sent via DC command |
| 2.07 | 10 October 2012 | USBTERM command added with parameter values of f 0=NULL, 1=Status bytes. Changing sensitivity no longer causes TC filters to null and then charge up |
| 2.06.8 | 3 October 2012 | Fixed problem with SYNC not working below 10Hz on internal reference mode |
| 2.06.1 | 2 December 2011 | Added ADF 2 that set oscillator amplitude to zero. Limited fast curve buffer to LEN>=300 |
| 2.04 | 30 August 2011 | Fixed phase relationship between reference and signal to be same as 7265 and 7280, adding PHASEPOL command to switch between new and old phase relationship. Added CONFIG MENU 2 so that the phase polarity can be changed from the front panel. Removes CR from commands sent to Ethernet ports 50000 and 50001. |

(Continued on next page)

SIGNAL RECOVERY

| Revision | Date | Changes Included |
|----------|-----------------|---|
| 2.00 | 25 January 2011 | Initial release |
| 2.03 | | Fixed phase inversion on external TTL reference. Fixed external trigger modes on curve buffer that didn't work correctly when the oscillator sweep was linked to the curve buffer. Updated Ethernet stack. |

SIGNAL RECOVERY_

801 SOUTH ILLINOIS AVENUE OAK RIDGE TN 37831-2011 USA Phone: +1 865 482 4411 Fax: +1 865 481 2410

5 ASHVILLE WAY MOLLY MILLARS LANE WOKINGHAM, BERKS RG41 2PL UNITED KINGDOM Phone: +44 (0)1252 556800 Fax: +44 (0)1252 556899

E-mail: si.info@ametek.com

SIGNAL RECOVERY is part of **AMETEK** Advanced Measurement Technology, Inc