

Release Notes
Z90 Firmware version 610
04 November 2007

Version 610 implements optional reverse sweep for the display, i.e., higher frequencies are to the left of center instead of to the right. This allows the Z90's display to show the correct relationship when used with a receiver that inverts the IF sense, such as Elecraft's Z90 on lower frequency bands.

The reverse sweep is applied to all frequencies selected until canceled.

The sweep direction may be set either via the Z90's soft buttons, or via RS232 command:

Via Soft Buttons:

1. Enter setup mode. This can be done in two ways:
 - a. Within 5 seconds after power-on press the Setup soft button.
 - b. If the Z90 is running, press and hold the top and bottom soft buttons for a few seconds. This will cause a software reset, displaying the power-on menu. Press the Setup button at this time.
 - c. From the setup screen, press the Define Misc Display soft button



2. This will lead to a further setup menu, shown below.



3. Press the Sweep Direction button and the sweep direction will cycle between normal and reverse.
4. When you have the correct sweep direction entered, press the Exit Save Changes soft button.

Via RS232:

You may also select the sweep direction via commands sent over the Z90's RS232 port. The commands are:

> sweep low to high (normal mode; lower frequencies are to the left of center)

< sweep high to low (inverted or reverse mode; lower frequencies are to the right of center)

>? Or <? Will echo back the current sweep direction. 1 is normal; 0 is reverse sweep.

A new status report line is added to the RS232 status report (send a ? and the Z90 echoes back the status.) The following is a typical status report from the Z90 with 610 firmware.

```
Z90/91 Firmware v. 610
VidAvg 1
RBW Index 1
Dwell 6
Cspan3: 25000
```

IF Index 3 IF Freq 4915000 KHz
CIF1: 1600000
Skip 1
CIF2: 21400000
Span Index 4
Serial: 0
Center 12912000
Ref Val 10
Span 100000
CIF3: 40455000
Vert Val 0
Cspan1: 7500
Cspan2: 12500
Sweep Dir 1
Call K8ZOA

1. When in normal display mode, reverse mode is indicated via a "r" appended to the KHz suffix.



2. When installing 610 release firmware it is NOT necessary to overwrite the EEPROM, so your custom frequency, span, callsign and oscillator calibration will remain unchanged.
3. Note that you must follow the instructions provided with your Z90 (on the CD-ROM) when updating the firmware in order to preserve the EEPROM settings.

Interaction with Z90 Control Software

Sweep reversal is intended primarily for Z90's used stand-alone. If you use your Z90 with Z90 Control software, the computer screen sweep will reverse as well. There is no control linkage between the Z90 Control software and the Z90 firmware sweep direction. I do not recommend operating with the Z90 firmware set to reverse mode and the Z90 Control software in K2 automatic direction mode.