

DMX-K-SA-11 Integrated NEMA 11 Step Motor Driver/Controller

Addendum A

8-Bit Absolute Encoder Upgrade



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Revision History:

1.00 – 1st Release

Table of Contents

1. Introduction.....	5
2. Upgrade Files	6
Firmware	6
Software	6
3. Commands	7
4. GUI	8

1. Overview

The standard DMX-K-SA-11 is integrated with an 8-bit incremental encoder.

This new firmware upgrade allows the incremental encoder to be used in 8-bit absolute mode.

2. Upgrade Files

Firmware

In order to use the DMX-K-SA-11 in 8-bit absolute encoder mode, you must first upgrade the firmware to the version below:

Version: V327BL

Firmware is field upgradable. Visit the link below for the latest firmware and firmware download tools:

<http://www.arcus-technology.com/support/downloads/section/7-firmware-upgrade.html>

Software

The following GUI is required to run the V327BL firmware.

Version: V316

Visit the following link to below to download the latest software:

<http://www.arcus-technology.com/support/downloads/section/2-software-installation.html>

3. Commands

ASCII Command

To read the absolute encoder value from the ASCII command interface, send the EA command.

Command	Description	Return
EA	Return the absolute encoder value	0-256

Stand-alone Command

To read the absolute encoder value from the stand-alone language, use the EA command.

EA

Description:

Read: Get the 8-bit absolute encoder value

Syntax:

Read: Variable = EA

Conditional: IF EA=[variable]
ENDIF

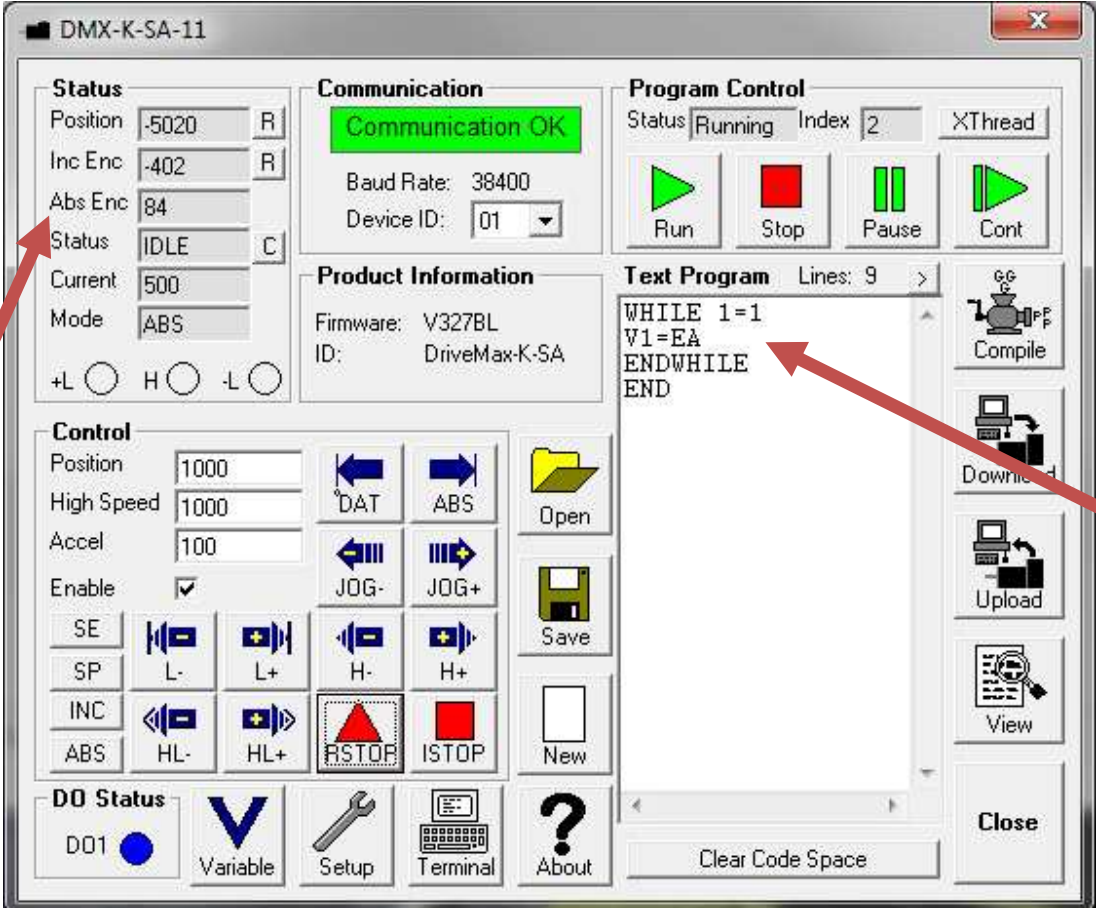
IF EA=[value]
ENDIF

Examples:

```
JOGX+           ;***Jogs axis to positive direction
DELAY=1000      ;***Wait 1 second
ABORTX          ;***Stop without deceleration
V1=EA           ;***Sets variable 1 to absolute encoder value
```

4. GUI

See below for a screen shot of the V316 DMX-K-SA-11 GUI



The screenshot displays the DMX-K-SA-11 GUI with the following sections:

- Status:** Position: -5020, Inc Enc: -402, Abs Enc: 84, Status: IDLE, Current: 500, Mode: ABS. Includes radio buttons for +L, H, and -L.
- Communication:** Communication OK (green bar), Baud Rate: 38400, Device ID: 01.
- Program Control:** Status: Running, Index: 2, XThread. Includes Run, Stop, Pause, and Cont buttons.
- Product Information:** Firmware: V327BL, ID: DriveMax-K-SA.
- Control:** Position: 1000, High Speed: 1000, Accel: 100, Enable: checked. Includes buttons for SE, SP, ABS, HL-, HL+, DAT, ABS, JOG-, JOG+, H-, H+, RSTOP, and ISTOP. Includes Open, Save, and New buttons.
- Text Program:** Lines: 9. Contains the code:


```
WHILE 1=1
V1=EA
ENDWHILE
END
```
- DD Status:** DD1: blue circle, Variable, Setup, Terminal, About.
- Right Panel:** Compile, Download, Upload, View, Close buttons.
- Bottom:** Clear Code Space button.

Red arrows point from external labels to the 'Abs Enc' field and the 'WHILE' code block.

Contact Information

Arcus Technology, Inc.

3159 Independence Drive
Livermore, CA 94551
925-373-8800

www.arcus-technology.com