![MagneTek Drives & Systems logo]

S-CURVE MODIFICATION

(3306 KITS: MODEL 73448R, MODEL 73493)

PCB 46S02271-0010   SCHEMATIC 45S02271-0010
PCB 46S02271-0020   SCHEMATIC 45S02271-0020

DESCRIPTION

This modification is one of a series available for Louis Allis Saber DC Drives. It consists of components necessary for modifying the basic Controller for a voltage follower which provides automatic drive speed control. It also includes a modification overlay for the basic Controller schematic diagram.

The addition of this modification to the Controller provides a soft acceleration and deceleration when used with the linear acceleration circuit on the Volt/Speed PCB (3306) or Regulator PCB (3412). The S-Curve mod adds a .25 second delay in the reference circuit to the Voltage/Speed comparator. By closing 1SS (turning the screw fully

clockwise), the time is increased to 1.9 seconds. This option has an internal clamp such that when the linear acceleration circuit on the Volt/Speed Main PCB (3306) or Regulator PCB (3412) is released to Run, the cascaded S-Curve mod is also released to Run.

INSTALLATION

WARNING

REMOVE ALL INPUT POWER TO THE DRIVE BEFORE INSTALLING MODIFICATION KIT.

The modification PCB is to be installed as shown in Figure 1 after removing the jumper plug from 10CONN. Installation instructions are contained in the Controller instruction manual.
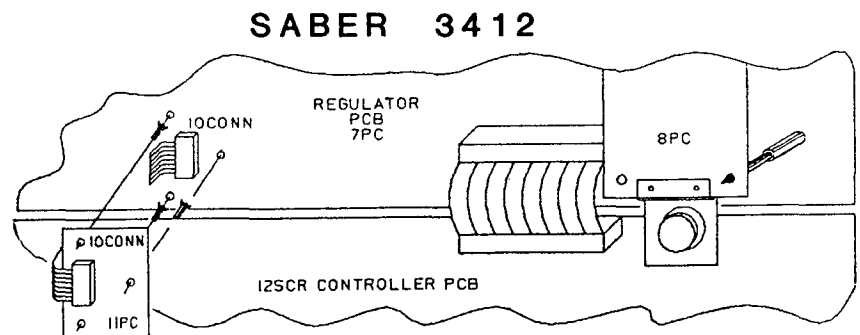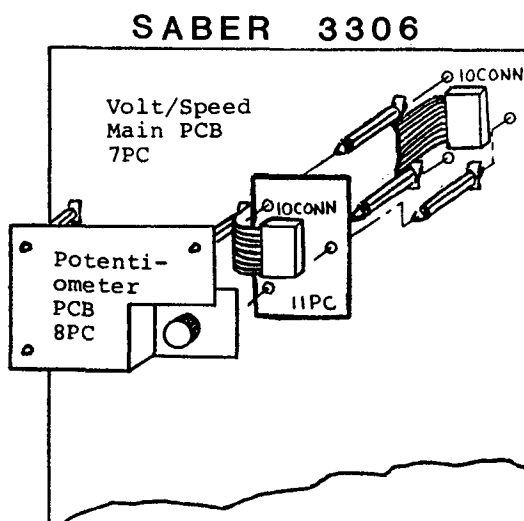
Figure 1.

CHANGE RECORD						DWG. NO. 02Y00025-0048
1	STD-1430 3/4/82					SHEET 1 OF 2
2	STD-2666 2-3-87 RRR					EFF. 5/5/82 (J)
3	STD-2733 3-20-87 RRR					

After installing the modification PCB, apply the schematic overlay to basic schematic diagram as described in the Controller instruction manual.

INTERCONNECTION

No interconnections are required for this modification.

ADJUSTMENTS

The only adjustment is the selection of either a standard delay of .25 seconds or turning screw in (fully clockwise) on 1SS to obtain a 1.9 second delay.

MODIFICATION RECORDS

After completing installation of all modifications:

A. Modify the Controller identification number using Method 1 in the Controller instruction manual. Insert the appropriate designator in Block 3.

B. If not already present, affix the OPTION ADJUSTMENTS label to the inside of the Power Cube cover, to the right of the STANDARD ADJUSTMENTS label.

C. On the OPTION ADJUSTMENTS label, record the final settings of all pots or switches on this modification.

D. Insert this instruction sheet immediately behind the front cover of the Controller instruction manual.

TROUBLESHOOTING

Troubleshooting consists of checking the input and output voltages of the circuit while the drive is operating.

If other mod boards have been installed, troubleshoot them thoroughly before discarding this board as faulty.

1. Apply AC power to the drive. Measure the input to the S-Curve from 1TP on the S-Curve PCB to 33TP (common) on the Volt/Speed Main PCB. Both should read zero volts.

2. Press RUN to start drive. Adjust the SPEED control to obtain -10V from 1TP on the S-Curve PCB to 33TP (common) on the Volt/Speed Main PCB (3306) or 63TP (common) on the Regulator PCB (3412). The output should read -10V from 2TP on the S-Curve PCB to 33TP or 63TP. Replace the S-Curve PCB if test fails.