

DUAL TURRET WINDER OPTION ASSEMBLY

46S02371-0171 SCHEMATIC 45S02371-0171

DESCRIPTION

This option is one of a series available for Louis Allis Saber DC drives. This option when used with two Dancer Position Winder options consists of the components necessary for controlling the static DC winder drives in a dual turret winder stand.

The static DC winder drive has two modes of operation: speed and tension. The speed mode is used in the transfer operation to bring the empty core up to line speed. The tension mode is used once a flying splice is complete to maintain constant tension in the web via regulation of the Dancer Position. The dual turret winder logic operates in the following manner.

From a stop condition, SPEED "A" IS energized by either the push button or an external contact. Spindle "A" starts and accelerates until core surface speed

is equal to line speed. Material is spliced onto the empty core and the TENSION "A" push button is pressed. Spindle "A" now winds on the tension control until the roll approaches the maximum allowable build-up. At this time, the turret is indexed to transfer position. Spindle "B" drive is started and accelerated until core surface speed is equal to line speed. (The signal to start the drive may be obtained from a customer-supplied contact, or may be originated by a push button closure). The knife cuts and splices the material to the empty core of Spindle "B". Spindle "B" remains on speed control for a brief period of time, then transfers to tension control. (Transfer is initiated by closure of a customer-supplied contact). At this time, Spindle "A" is braked to a stop. When the roll Spindle "B" approaches the maximum allowable buildup, the turret is indexed to transfer position. Spindle "A" drive is started and accelerated

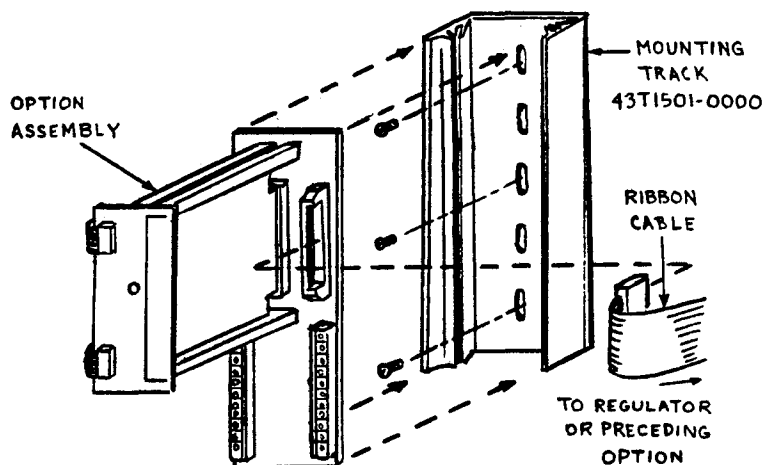


Figure 1.

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until core surface speed is equal to line speed. (The signal to start the drive may be obtained from a customer-supplied contact, or may be originated by a push button closure). The knife cuts and splices the material to the empty core of Spindle "A". Spindle "A" remains on speed control for a brief period of time, then transfers to tension control. (Transfer is initiated by closure of a customer-supplied contact). At this time, Spindle "B" is braked to a stop.

INSTALLATION

WARNING

REMOVE ALL INPUT POWER TO THE DRIVE BEFORE INSTALLING OPTION COMPONENTS.

See Figure 1. Install the option in the following manner:

1. Install PVC mounting track (L.A. part no. 43T1501-0000) to panel where option is to be mounted, using appropriate hardware.
2. Install option assembly by pressing firmly into mounting track.
3. Using 40 conductor ribbon, fabricate and install a double-ended ribbon cable of sufficient length to fit from 12CONN on the right side of the option to 12CONN on the Main PCB in the regulator power cube, or to 12CONN on the left side of a previously installed option.

Cable 12CONN provides the power and signal interface between this option and the Controller 40 pin data bus.

INTERCONNECTION

For completely automatic operation, the following contacts must be supplied:

- 1 - Contact, normally open, which momentarily closes when transfer is to be initiated. (Transfer)

- 1 - Contact, normally open, which momentarily closes when Spindle "A" is to start running on speed control. (AST)

- 1 - Contact, normally open, which momentarily closes when Spindle "B" is to start running on speed control. (BST)

Perform interconnection wiring according to Figure 2.

ADJUSTMENTS

The only adjustment in this option assembly is 4RH, TRANSFER DELAY, which sets the amount of delay after a transfer is requested. This adjustment should be made only after performing the adjustments in the Controller instruction manual and the Dancer Position Winder Option instruction sheet (02Y00025-0071).

1. Set 4RH at 50%. Connect meters to measure voltage (0 to +15 VDC) at 8TP and 7TP, both with respect to common.
2. Start one of the winders in the Speed mode.
3. Press the TRANSFER push button. Record the amount of time it takes for the voltage at 8TP to go to ground after the voltage at 7TP goes to ground. The time recorded, represents the transfer delay.
4. To increase the delay, turn 4RH clockwise; to decrease the delay, turn 4RH counterclockwise.
5. Repeat Steps 2 through 4 until the desired delay is obtained.

TROUBLESHOOTING

Troubleshooting consists of checking the output logic levels as the input switches are operated.

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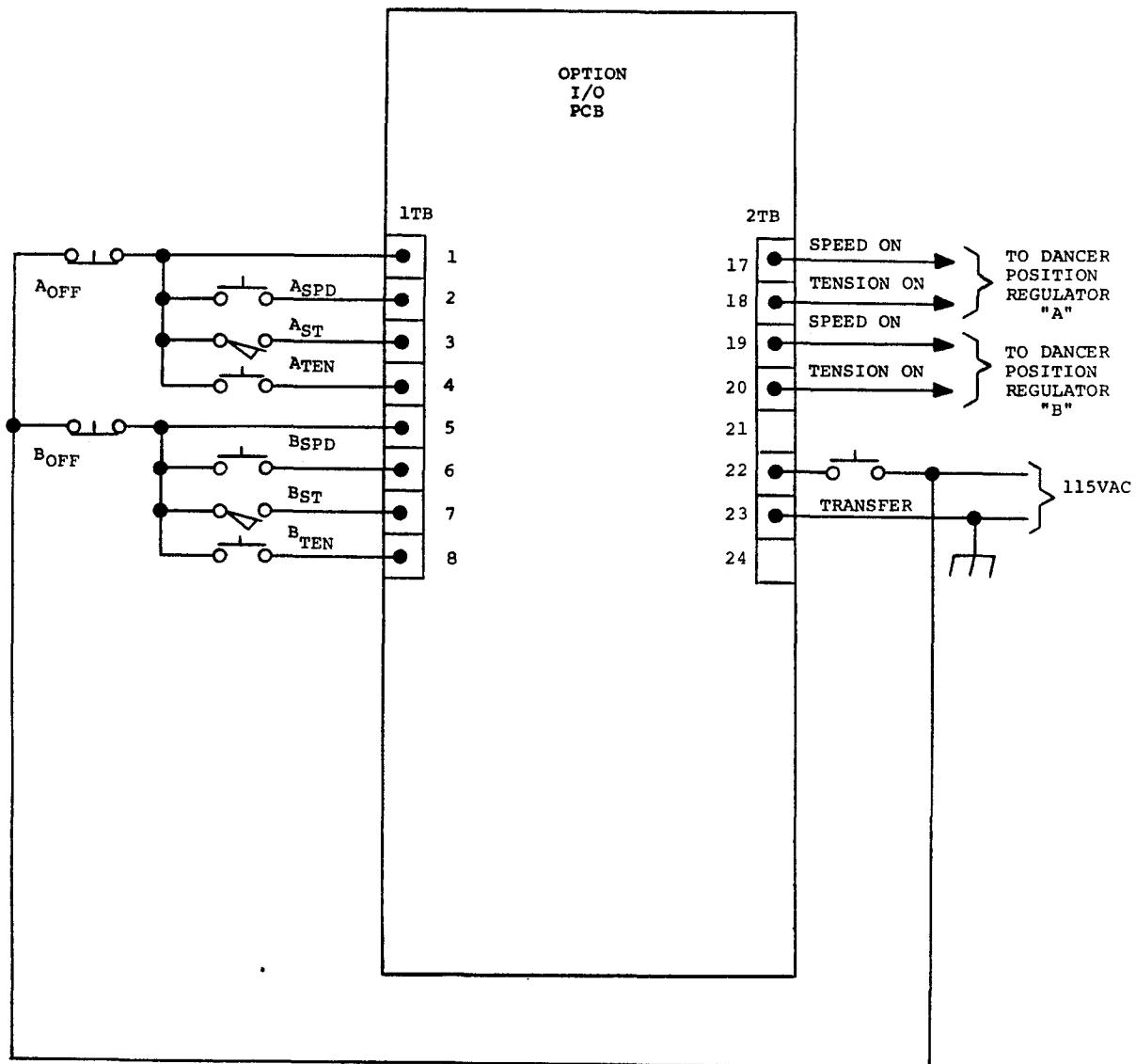


Figure 2. Interconnection Diagram

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1. Verify that the input switches are properly wired and that the input signals are getting to the assembly.

2. Refer to the schematic diagram of the Dual Turret Winder Option and the functional operation description in this instruction sheet. Verify that the output logic levels are functionally correct. If not, replace the Dual Turret Winder Option.

MODIFICATION RECORDS

After completing installation of this option, insert this instruction sheet immediately behind the front cover of the Controller instruction manual.

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