

APPENDIX E

Conair Serial Operator Interface and Optional Remote Control For Velocity Servo Systems



Description of Operation

The Conair serial operator interface and optional remote control are designed to allow simple, yet accurate control of the velocity controlled servo system on Conair Belt Pullers.

All information entered in either the master operator interface or via the remote unit is directly communicated to the servo amplifier via serial communications. In this way, electrical noise and voltage fluctuations will not adversely effect speed control.

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Programming Screen

When the Belt Puller is first powered up, this screen will appear after 5 seconds.
Note: This is the **Sm** screen (small scroll speed changes)



By depressing the **Inc/Dec Values** button, the Program screen can be accessed.
Note: This screen is only used to pre-program values for scroll inputs



- Lg** Value assigned for each depression of the **Raise** and **Lower** button when in the Lg screen.
- Sm** Value assigned for each depression of the **Raise** and **Lower** button when in the Sm screen.
- Rm** Value assigned for each depression of the **Raise** and **Lower** button when in any screen.

Note: This can be used for the optional remote control raise and lower buttons or may be used to interface with a laser gauge control system.

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The cursor will always start at the **Lg** tenths point when this screen is initially activated.

To move the cursor from Lg to Sm to Rm, simply push the **Enter** button. When in Rm, if the **Enter** button is depressed, you will exit from this screen. You may also use the **Next** or **Prev** buttons to move from Lg to Sm to Rm.

When entering values, there is no need to enter a decimal point

Example: To enter a 5 feet per minute change for **Lg** scroll inputs, simply depress 5 0 and then the **Enter** button.

Once the values are programmed to your desired settings, you may return to the main screen by pushing the Enter button when in the Rm or push the Exit button from any position.

Value Ranges for these settings

Lg = 0-99.9 feet per minute per contact

Sm = 0-9.9 feet per minute per contact

Rm = 0-99.9 feet per minute per contact

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Changing Speeds (Scrolls Buttons)



When in the Sm screen, you may push the **Raise** or **Lower** scroll buttons to effect a speed change per your pre-programmed values previously set for Sm.



To move from the Sm to the Lg screen, simply toggle the arrow button below the Sm or Lg
Once in the Lg screen, each push of the **Lower** or **Raise** button will effect a scroll speed change per your pre-programmed Lg value.

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Speed Changes (Program Values)



From the Sm or the Lg screen you may enter the Speed entry screen by pushing the button below the word Change



This screen allows the operator to input the actual speed desired.

Simply push the numbers desired, which will display as the button is depressed. No decimal point is used. Once the number is correct, push the Enter button, and the new speed will entered, and the terminal will return to the previously displayed screen.

Push the button with the arrow below the word Exit to go back to the previous screen if no change in speed is desired.

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The maximum speed which the unit can be programmed is listed on the third line. If this number is exceeded, a message will be displayed.



To return to the screen to enter a correct speed, push any button. Then enter a speed within the maximum limit.

Footage Counter



From the main screen with either Sm or Lg, push the button below the word **Ftg.** to access the Footage Counter screen.

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Footage Counter Screen



This screen will let you observe the footage passing through the belt puller.

You may reset the footage counter at any time in this screen by pushing the button below the word **Rst.**

At any time you may return to the main screen by pushing the button below the word **Exit.**

Note: The Footage Count will continue to count even when you are not in that screen

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Servo Systems Diagnostics Screens



ACCEPT

There are (3) servo systems diagnostics screens:

ALL

- 01 Drive Fault
- 02 Drive Torque Limit Exceeded
- 03 Communications Failure

Note: If any (1) of these fault screens appears, you must push the button below the word ACCEPT or ALL to acknowledge the fault. If the fault is not acknowledged, even after the fault is corrected, the display will not go back to the main screen.

Refer to the Servo Drive and Amplifier manuals which came with your belt puller for servicing the system. The servo amplifier will have a window with letters or numbers to signify operational conditions.

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Optional Hand-Held Remote Speed Control and Display



The optional remote speed control has one button with an up arrow and one button with a down arrow. Each time either of the buttons are pushed, a scroll speed change will occur at the pre-programmed value assigned to the Rm (Remote)

Note: If either button is held in a depressed state, one change will occur per (1) second . The display will always show the actual speed of the belt puller