TECHNICAL INFORMATION FOR THE VERSION 8.0 CS-230-AC

Copyright 2000 Basic Technologies Corporation

All rights reserved.

Reproduction or use of editorial or pictorial content in any manner is prohibited without the express permission of:

BASIC TECHNOLOGIES CORPORATION

While every precaution has been taken in the preparation of this manual, the publisher assumes no responsibility for error or omissions. Neither is any liability assumed for damages resulting in the misuse of the printed material contained herein.

First Edition 2000

Printed in Canada for: Basic Technologies Corporation
3426 Mainway Drive
Burlington, ON L7M 1A8
Canada

Phone: (877)-COMPU-11
Fax: (905) 335-9859

Lotus is a registered trademark of Lotus Development Corporation. Excel, Windows 95/98/NT are registered trademarks of Microsoft Corporation. Windows graphical environment is also a registered trademark of Microsoft Corporation.

S P E E D I N G B U Z Z E R (P 4 5)

P45 = 0, Disabled (Default)
P45 > 1, Enabled (1- 150 km/h, 1-93mi/h)

The speeding buzzer becomes active only when the ground speed is greater than the speed set in P45 and the conveyor speed > 0.

The Productivity Software is easy to install on a computer with either Window95 or Windows NT operating system. An intuitive and user friendly Graphics User Interface (GUI) is at your finger tips within minutes.

M A T E R I A L D E T E C T (P 6 8)

This digital input is used to detect if the material is low or empty. It can be configured to work with two different active voltage levels.

P68 = 0, Disabled (Default)
= 1, Ground Voltage Level to activate
= 2, Positive Voltage Level to activate

To enable select P68 and select ground or 12V reference depending on incoming signal to activate this mode of operation.

N o r m a l M o d e o f O p e r a t i o n

- Active signal means material flowing from conveyor
- When material stops flowing from conveyor signal is lost and/or de-activated
- After Error time out setting has elapsed and material flow remains stopped error will be initiated.
- Operator will be warned with the following message
- Controller references severity code and changes regulation/control mode accordingly
- Utilize standard severity codes structure as per all other Errors
- Default from factory should change all "Output to Zero"
- Operator will confirm that load is empty and turn application rate dial to zero and/or power controller off. Providing application rate is at zero and/or mode of operation is such that conveyor is not turning error will not re-activate.

C a b l e o r S e n s o r F a i l u r e M o d e o f O p e r a t i o n

- Action Error 09 becomes active as identified earlier
- Severity goes active "Output to Zero"
- Operator acknowledges error by pushing increment or arrow button.
- Controller resets error timer
- Controller logs Error 09
- Normal operation resumes the Error 09 would re-occur upon acknowledgement by operator
- Only when the problem is fixed or the Material detect is disabled in P68 the Error 09 will not re-occur

GATE READ BACK (P75, P76, P77)

P75 – Gate Read Back Select
P76 – Minimum Gate Opening
P77 – Maximum Gate Opening

P75 = 0, Disabled (Default)
= 1 Enabled

P76 defaults to 0. To calibrate the minimum gate:
- Adjust the gate all the way down to the closed position
- Press 'BLAST' button to enter into editing mode
- Press 'REVERSE' button to read the minimum gate value
- Press 'BLAST' to record the value

P77 defaults to 255. To calibrate the maximum gate:
- Adjust the gate up to the maximum opening
- Press 'BLAST' button to enter into editing mode
- Press 'REVERSE' button to read the maximum gate value
- Press 'BLAST' to record the value

Normal Mode of Operation

- Select P75 and select 1 to turn Gate Read Back ON
- Calibrate P76 and P77
- Operator will read

i.e. 1-100 percent of gate position. For gate position calculations in operation mode calculation will be based on percent position not whole integer.

Failure Mode of Operation (sensor out of range or cables broke)

- Upon detecting failed feedback signal that is below P76 (minimum) or above P77 (maximum) an Error 02 will be generated within the Error 02 conditions, i.e. Timeout and severity.
- Error 02 text to be changed to "AR/GATE ERROR"
- With the Error 02 on the display the OPERATOR have to press UP/DOWN to remove the error
- After the Error 02 is removed the GATE function will be set to Manual GATE mode. The Operators will be alerted by putting the text "CHECK GATE" on the display. Then the Operator has to check the actual gate setting, acknowledge or change to the correct gate setting by pressing UP/DOWN ->BLAST. Cycling the CS-230 –AC power will put the GATE function back to Gate Read Back mode since the P75 has not been changed.

L I Q U I D R E A D B A C K (P 7 8)

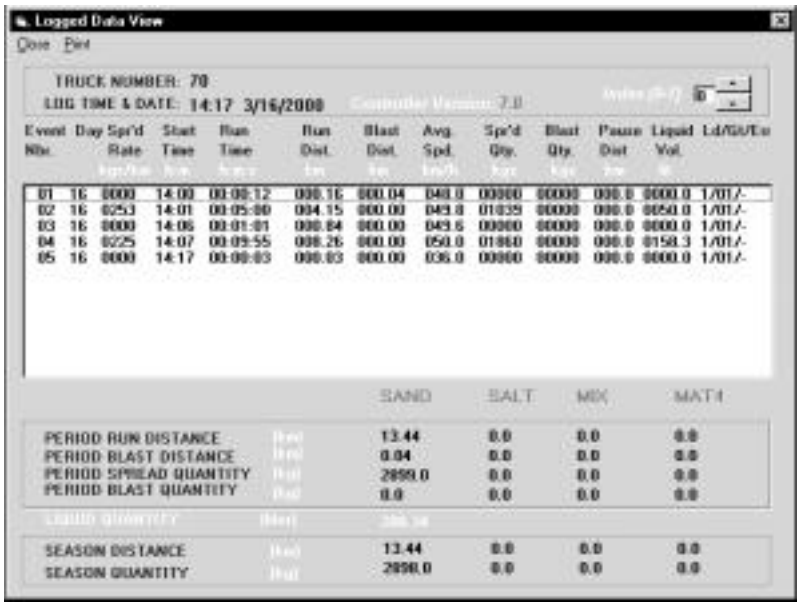
P78 is the pulses/Gallon or pulses/Liter.

P78 = 0, OFF (Default)
P78 > 1, ON (1-9999 pulses/gallon, 1-2642 pulses/liter)

For instance, sensor specs: 1.5 GPM = 42.2 Hz
P78 = 42.2 x 60 pulses/min /1.5 gallon = 2532/1.5 = 1688 pulses/gallon

For operator to view the liquid flow on the display a value of 1024 has to be added to the P55. Once it is selected operators can view the liquid flow on the display in Gallon/Ton for or Liter/Ton by pressing Up/Down Buttons on the front panel. And the operator will read:

The cumulated liquid volume is also logged in the controller together with other spreading data. The following is a sample log data printout.



SPINNER OPERATION (P35)

Two extra selections have been added to the existing parameter P35 (Spinner Stop/No Stop) function as show below.

P35 = 0, Spinner will not stop regardless of ground speed, but it will stop on PAUSE
= 1, Spinner will stop without GS and at PAUSE mode
= 2, Spinner will not stop with PAUSE but will without ground speed
= 3, Spinner will not stop regardless of PAUSE or GS

TRUE OPEN LOOP

To enable the "true open loop" or SLP as it is referenced to,
- P51 must be set to 3
- Proceed with Auto cal. Similar to CLP.
- Load vehicle
- P21 vehicle start weight
- P24 auto calibration
- P22 vehicle end weight

OR

Perform a material catch
- Enter any value in P21. E.g. – 1000 lbs.
- Perform a material catch using P24
- Weigh the material caught. E.g. 100 lbs.
- Subtract that value from P21
- Enter that value into P22. E.g. 900 lbs.

A P25 calibration value will be derived based on a simulated conveyor maximum rpm.

The logs in SLP will be similar to the data produced in a closed loop system, including application rates, distances and accumulated quantities.

CAUTION: All the new parameters are not implemented in the Caliprompter. They have to be manually entered on the CS-230-AC controllers.