



# Industrial Data-Plus Programming Instruction Manual

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## MENU MAP

### 1 \*\*\* DISPENSER \*\*\* MEMORY FUNCTIONS

- Clear Report Data
- Restore Default Settings
- Load Setup File

### 2 \*\*\* DISPENSER \*\*\* SETUP ROUTINES

- Change Main Access Code
- Set Date and Time
- Set Unit of Measure
- System Type
- Set Concentration Setpoints
- Set Det. Conc. Display
- Set Pulse Feed Percent
- Set Det. Feed Limit
- Set Limit Time
- Set Wash Temp Sampling
- Set Wash Temp Tolerances
- Set Wash temp Alarm
- Set Wash Temp Alarm Delay
- Set Alarm Volume
- Set Probe Alarm
- Set Initial Charge Time
- Set Signal Mode

### 3 \*\*\* DISPENSER \*\*\* REPORT SETUP ROUTINES

- Set System Name
- Set Manufacturer
- Set Shift Times
- Change Product Costs
- Change Report Name
- Set Display Name
- Set Water Hardness
- Set Manual Log Interval

### 4 \*\*\* DISPENSER \*\*\* MAINTENANCE SCHEDULE

- Date Dispenser Installed
- Date Conductivity Probe Installed
- Date Squeeze Tube Last Changed
- Date Squeeze Tube Last Lubed

### 5 \*\*\* DISPENSER \*\*\* CALIBRATING ROUTINES

- Flow Rates Per Minute
- Calibrate Wash Temp
- Calibrate Rinse Temp

### 6 \*\*\* DISPENSER \*\*\* PRINTING FUNCTIONS

- Print Reports Directly From Dispenser
- Save Files to the PTM-6000

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## MOVING THROUGH THE MENUS

Industrial Data-Plus (IDP) programming is done through the use of menu selections. Any menu can be entered by pressing the ENTER button, or exited by pressing RESET (or in some cases MENU ↓ or ↑). Its that simple! Each of the main menu headings give an idea of what information can be found, entered, or changed. Within each main menu selection are several screen “prompts” that walk you through the complete programming process step-by-step.

## ACCESS CODE

The IDP system has a “main” access code for protection. The access code, allows entry into ALL of the menus and functions of the system. Systems are shipped from the factory with the access code set to zero (changing the code is explained later in this manual).

## TO PROGRAM DISPENSER PRESS “MENU DOWN ARROW” ...

### ENTER ACCESS CODE THEN PRESS ENTER

Press the “Down Arrow” button to access the system and the screen at left should appear. If the screen at left does not appear, wait 2 seconds, press RESET, then try again.

When you see the screen at left, type in the access code and press ENTER. Remember, for a new system, the access code will be zero (until you change it later).

Follow the programming steps for each section, starting on the next page.

## IMPORTANT NOTES:

- Leading zeroes on access codes are not required to be entered. For example, an access code of “010” can be typed in as “10”, then press ENTER.
- It is recommended to clear report data and restore default settings for a new system.  
See MEMORY FUNCTIONS [menu 1] for details.
- Its recommended to print the setup report each time its changed.  
See PRINTING FUNCTIONS [menu 6] for details.
- If at any time you get lost in the programming and are not sure what to do, press the RESET button until the section menu heading appears, then proceed.

# 1

## \*\*\* DISPENSER \*\*\* MEMORY FUNCTIONS

- Clear Report Data
- Restore Default Settings
- Load Setup File

### CLEAR REPORT DATA ? PRESS: YES OR NO

 

This menu selection allows you to clear report information. THIS IS MANDATORY FOR A NEW INSTALLATION. Press YES to begin clearing, or press NO to move on to the next menu selection without clearing.

### “CLEARING REPORT DATA” “PLEASE STAND BY”

This message indicates that the clearing process is active

### RESTORE DEFAULT SETTINGS PRESS: YES OR NO

 

This menu selection is used to load default settings:

- Unit of measure is set to US
- Report name is cleared (blanked out)
- Shift start times are reset: 1 = 06:00 / 2 = 11:00 / 3 = 17:00
- Maintenance schedule dates are set to zero
- Clears Report settings

Press YES to begin loading defaults, or press NO to move on to the next menu selection without loading defaults.

### ARE YOU SURE ? PRESS: YES OR NO

 

This selection will allow you to confirm that you want to clear and restore the default settings.

### “CLEARING SETUP REPORT” “PLEASE STAND BY”

This message indicates that the clearing process is active

GO TO NEXT PAGE

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**1****\*\*\* DISPENSER \*\*\*  
MEMORY FUNCTIONS**

• Continued

**LOAD A PTM SETUP FILE ?  
PRESS: YES OR NO**

This menu selection is used to load a setup file from a PTM-6000 module. Press YES to load a file, or press NO to move on to the next menu selection without loading.

**RECEIVING FILE NAMES  
PLEASE WAIT ...**

After a few seconds, this message will appear indicating that file names are being read from the PTM module. When all available setup files have been read, the following prompt will appear...

**EXAMPLE  
<SCROLL> AND PRESS ENTER**

File names appear on the top line of the display. You can use the SCROLL buttons to browse through the names of other files on your PTM (if there is more than one setup file on the module). When the desired file name appears on the top line, press ENTER.

**EXAMPLE  
TRANSFERRING DATA**

The file transfer will begin, and will take just under 1 minutes to complete. The display will show TRANSFER COMPLETE when finished.

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**MEMORY FUNCTIONS MENU HEADING**

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## 2

### \*\*\* DISPENSER SETUP ROUTINES \*\*\*

- Change Main Access Code
- Set Date and Time
- Set Unit of Measure
- System Type
- Set Concentration Setpoints
- Set Det. Conc. Display
- Set Pulse Feed Percent
- Set Det. Feed Limit
- Set Limit Time
- Set Wash Temp Sampling
- Set Wash Temp Tolerances
- Set Wash Temp Alarm
- Set wash temp alarm Delay
- Set Alarm Volume
- Set Probe Alarm
- Set Initial Charge Time
- Set Signal Mode

#### CHANGE MAIN ACCESS CODE ? PRESS: YES OR NO

This menu selection allows you to change the main access code. Press YES to invoke the command, or press NO to move on to the next menu selection.

#### MAIN ACCESS CODE = 000 THEN PRESS ENTER

Use the number buttons to enter a 3-digit main access code, then press ENTER. Press the MENU ↓ button to move on to the next menu selection.

#### SET DATE & TIME ? PRESS: YES OR NO

This menu selection allows you to set the date and time. Press YES to invoke the command, or press NO to move on to the next menu selection.

HOUR 00                      MINUTE 00  
MONTH 00                  DAY 00                  YR 00

Use the number buttons to set the date and time, then press ENTER. Press the MENU ↓ button to move on to the next menu selection.

UNIT OF MEASURE = US  
1=US 2=METRIC 3=IMPERIAL

This menu selection allows you to change the unit of measure. Use the number buttons to choose the desired unit of measure. Press the MENU ↓ button to move on to the next menu selection.

SYSTEM TYPE = SINGLE  
1 = RE-USE 2 = SINGLE USE

This Menu selection allows you to pick the type of wash system. Use the numbered keys to enter the desired system.

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**2****\*\*\* DISPENSER  
SETUP ROUTINES \*\*\***

- Continued

**CONCENTRATION 45  
AT 060F**

Set the concentration setpoint value. The higher the number the more chemical will be injected and the lower the number will inject less chemical. Press Menu Down to move through this section. Due to the Advanced Temperature Compensation Technology, you can calibrate the IDP at ambient water temperature. The system will compensate for temperature up to 200 degrees F.

**DET. CONC. DISPLAY = OFF  
1 = OFF 2 = ON**

This menu selection allows you to determine if concentration levels are to be displayed during operation. Use the numbered keys to enter the correct selection. Press MENU ↓ to move through this selection.

**PULSE FEED PERCENT = \_\_\_\_  
RANGE IS 0 – 99**

This menu selection allows you to enter the concentration level at which the pulse feed feature will activate. Use the numbered keys to enter the desired value and press ENTER when done Press MENU ↓ to move through this menu.

The percentage that is entered determines when the IDP will begin to Pulse Feed. For example, if 10% is entered, IDP will feed continuously up to 90% of the selected concentration setting (or within 10% of the setpoint) and will then pulse feed until the setpoint is achieved.

**DET. FEED LIMIT = ON  
1 = OFF 2 = ON**

Limiting the continuous feeding of detergent reduces the possibility of chemical overuse. Use the numbered keys to enter the desired selection. Press MENU ↓ to move through this menu selection.

This menu selection allows you to terminate detergent feed after the detergent limit time has counted down the value. For example, if the SET LIMIT TIME value (as set in the following menu item) is 1:30 sec, then the IDP will terminate detergent feed after 1:30 sec. If the feed limit is off, IDP will continue to feed detergent until the setpoint is satisfied.

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**GO TO NEXT PAGE**

**SET LIMIT TIME = \_\_:\_\_**  
**RANGE IS 0-3:59 MINUTES**

This menu selection allows you to determine the length of time before the detergent alarm activates and shuts the detergent pump off.

Calculate the Limit Time by starting with a fresh tank of water and timing how long it takes to achieve the concentration setpoint. Enter the value as your Limit Time.

Note: If this alarm is activated, you must turn the IDP off and then turn IDP back on to reset the alarm system.

**WASH TEMP SAMPLING =**  
**1 = ON 2 = OFF**

This menu selection allows you to decide if the system should monitor (and log onto the printed report) if the wash temperature falls outside of a given sampling range. Use the numbered keys to enter the value and press MENU ↓ to move through this menu.

For the operator an “out of range” condition can result in an audible and visual alert. You decide whether or not you want to alert the operator, or simply record the events on the report.

**WASH TEMP TOLERANCES =**  
**HIGH = 000 LOW = 000 F**

This menu selection allows you to enter the range, or tolerance, of wash water temperatures. Use the numbered keys to enter the desired value and press ENTER when done. Press MENU ↓ to move through this menu.

**WASH TEMP ALARM ?**  
**1 = ON 2 = OFF**

Enter the desired selection and press MENU ↓ to move through this menu.

GO TO NEXT PAGE



**WASH TEMP ALARM DELAY  
RANGE IS 0 – 8 MINUTES**

This menu selection will allow you to enter the wash temp delay period. Use the numbered keys to enter the desired value and press ENTER when done. Press MENU ↓ to move through this selection.

Once the detergent signal is received, the wash temperature probe can begin sensing. First, determine how long it takes the tank heater to raise the water temperature to the LOW tolerance temperature level. For most applications, enter the period from the time the wash signal is received to the time that the LOW tolerance temperature is satisfied.

If the system has a tendency to exceed acceptable high temperature levels, determine how long this condition should exist before the alarm sounds. Readjust the delay value as appropriate.

**SET ALARM VOLUME  
CHOOSE 0 –7**

This sets the alarm volume between 0 (lowest) - 7 (highest). Press MENU ↓ to move through this menu.

**PROBE ALARM  
1 = OFF 2 = ON**

This menu selection allows you to decide whether the probe alarm will be active. Use the numbered keys to enter the desired value and press MENU ↓ to move through this menu.

**INITIAL CHARGE TIME =000  
RANGE IS 0 – 255**

This menu selection allows you to enter the length of time that the pump will activate when the INITIAL CHARGE button is pressed. Use the numbered keys to enter the desired value and press ENTER when done. Press MENU ↓ to move through this menu.

**SIGNAL MODE =  
1 = OFF 2 = ON**

This menu selection sets the "IDP" to activate from an activation signal. The activation signal range is 12V – 240V.

**3****\*\*\* DISPENSER \*\*\*  
REPORT SETUP ROUTINES**

- Set System Name
- Set Manufacturer
- Set Shift Times
- Change Product Costs
- Change Report Name
- Set Display Name
- Set Water Hardness
- Set Manual Log Interval

**SET SYSTEM NAME**

This menu selection allows you to change the system name. Using the scroll keys on the keypad and type in the name and press ENTER. Press MENU ↓ to move through this menu. Max of 10 characters (i.e.: Raw CIP, Past CIP).

**SET MANUFACTURER**

This menu selection allows you to set the name of the system manufacturer. Use the scroll keys on the keypad and type in the name and press ENTER. Press MENU ↓ to move through this menu. Max of 10 characters.

**SHIFT START**                      **#1 06:00**  
**#2 17:00**                            **#3 23:00**

This menu selection allows you to enter shift times. Use the number buttons to enter the shift start times, then press ENTER. Time must be in military format (i.e. 13:00 = 1:00 PM) Press the MENU ↓ button to move on to the next menu selection.

NOTE: The third shift time must be a higher number (max 24:00) than the first shift for reports to print correctly.

**CHANGE PRODUCT COSTS ?  
PRESS: YES OR NO**

 

This menu selection allows you to change costs for the product. Pressing NO allows you to move through this menu selection.

**DETERGENT  
\$000.00 /GALS**

Pressing YES allows you to change the cost for the product. Use the SCROLL and numbered keys to enter the new data, and press ENTER. Press MENU ↓ to move through this menu.

GO TO NEXT PAGE

**3****\*\*\* DISPENSER \*\*\*  
REPORT SETUP ROUTINES**

• Continued

**SET REPORT NAME ?  
PRESS YES OR NO** 

This selection allows you to enter the report name. Pressing NO advances through the menu. Pressing YES allows to enter a new report name.

-

-

If you chose YES, type in the report name (max of 46 characters) then press ENTER. Press MENU ↓ when finished.

**SET DISPLAY NAME  
- DATA PLUS -**

This menu selection allows you to change the name on the display (what shows on the display when the system is idle). Use the numbered keys to enter the new name and press ENTER. Press MENU ↓ to move through this menu. Max of 24 characters.

**WATER HARDNESS =  
00 PPM**

This menu selection enables you to enter the number of ppm of hardness (for report purposes). Press ENTER when done, then MENU ↓ to move through this menu.

**MANUAL LOG INTERVAL \_\_\_\_  
RANGE IS 0 – 255 MINUTES**

This menu selection allows you to set the time interval to timestamp the usage data that generates various reports. If set to zero, data will only be timestamped at the change of a shift.

If the Recap report will not be used, it is recommended to set the manual log interval to zero to save space in the timestamp memory.

REPORT SETUP ROUTINES MENU HEADING

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**4****\*\*\* DISPENSER \*\*\*  
MAINTENANCE SCHEDULE**

- Date Dispenser Installed
- Date Conductivity Probe Installed
- Date Squeeze Tube Last Changed
- Date Squeeze Tube Last Lubed

**DISPENSER INSTALLED  
00/00/00**

This menu selection allows you to set the installation date. Use the number buttons to set the date, then press ENTER. Press the MENU ↵ button to move on to the next menu selection.

**COND PROBE INSTALLED  
00/00/00**

This menu selection allows you to set the probe installation date. Use the number buttons to set the date, then press ENTER. Press the MENU ↵ button to move on to the next menu selection.

**SQUEEZE TUBES CHANGED  
DETERGENT 00/00/00**

This menu selection allows you to set the date that the squeeze tubes were last changed. Use the number buttons to set the date, then press ENTER. Press the MENU ↵ button to move on to the next menu selection.

**SQUEEZE TUBES LAST LUBED  
DETERGENT 00/00/00**

This menu selection allows you to set the date that the squeeze tubes were last lubed. Use the number buttons to set the date, then press ENTER. Press the MENU ↵ button to move on to the next menu selection.

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**MAINTENANCE SCHEDULE MENU HEADING**

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**5****\*\*\* DISPENSER \*\*\*  
CALIBRATING ROUTINES**

- Flow Rates Per Minute
- Calibrate Wash Temp
- Calibrate Rinse Temp

**FLOW RATES PER MINUTE  
DETERGENT \_\_\_ GAL/MIN**

Set the flow rate and unit of measure (the button with the dot or period next to the zero button alternates between gallons and ounces, or liters and milliliters) and press ENTER. Press the MENU ↓ button to move on to the next menu selection.

**CALIBRATE WASH TEMP ?  
PRESS: YES OR NO**

This menu selection allows you to calibrate the wash temperature. Press YES to invoke the command, or press NO to move on to the next menu selection.

**PUT IN SENSOR, PRESS  
ENTER WHEN STABLE 000 MV**

Insert the probe into the wash tank and watch the MV reading on the display. Press ENTER when the reading stabilizes and you will see the following...

**ENTER TEMP VALUE \_\_\_\_**

Enter the stable temperature from the above step, then press ENTER.

**CALIBRATE RINSE TEMP ?  
PRESS: YES OR NO**

This menu selection allows you to calibrate the rinse temperature. Press YES to invoke the command, or press NO to move on to the next menu selection.

**PUT IN SENSOR, PRESS  
ENTER WHEN STABLE 000 MV**

Insert the probe into the rinse line and watch the MV reading on the display. Press ENTER when the reading stabilizes and you will see the following...

**ENTER TEMP VALUE \_\_\_\_**

Enter the stable temperature from the above step, then press ENTER..

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**CALIBRATING ROUTINES MENU HEADING**

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# 6

## \*\*\* DISPENSER \*\*\* PRINTING FUNCTIONS

- Print Reports Directly from Dispenser
- Save Files to the PTM-6000

### PRINT -> 2) SUM 3) CYCLE 4) RECAP

1	2	3	4
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Choose which type of report you wish to print (or save as a file) and press the corresponding number button.

- (1) SETUP: All dispenser settings and programming.
- (2) SUM: Shows a breakdown of product usage by shift. (Will also print Setup report).
- (3) CYCLE: Shows all IDP activity (will also print Setup and Summary).
- (4) RECAP: Uses the "Manual Log Interval" entry as its basis. The Recap Report is a stand alone report.

TIP: It is recommended to print the setup report each time it is changed.

### DIRECT PRINT -> 1) PRINTER 2) FILE

1	2
---	---

The Setup report can be printed directly to a printer or to file within the PTM. ( The file name will be the date and time).

### ASSURE PTM-6000 READY THEN PRESS ENTER

This selection allows you to check your PTM and ensure is correctly plugged into the IDP. Also check your printer cable if your sending data directly to a printer. After pressing ENTER, there will be a short delay before the following screen appears...

### PTM-6000 NOW PROCESSING

This message indicates that your request is being processed. If you get an error message that the PTM is not responding, check the cable connection between the PTM and the IDP for loose jacks, or damage to the cable.

PRINTING FUNCTIONS MENU HEADING

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**6****\*\*\* DISPENSER \*\*\*  
PRINTING FUNCTIONS**

• Continued

**START DATE    MO 01    DA 01  
END    DATE    MO 12    DA 31**

This selection allows you to choose the date range of the report. Choose start and finish dates (month and day only) then press ENTER. Be sure that the dates you choose do not cross over the end of a year. If you need to cross year-end, print 2 reports to cover both years.

**DIRECT PRINT ->  
1) PRINTER    2) FILE**

If you choose PRINTER, make sure your printer is correctly connected to the PTM. If you choose FILE, the data will be stored in the PTM (the file name will be the date and time) no printer is necessary.

**INCLUDE PRODUCT COSTS ?  
PRESS: YES OR NO**

This selection allows you to choose if you want product costs to be included on the printed report.

**ASSURE PTM-6000 READY  
THEN PRESS ENTER**

This selection allows you to check your PTM and ensure it's correctly plugged into the dispenser. Also check your printer cable if your sending data directly to a printer. After pressing ENTER, there will be a short delay before the following screen appears...

**PTM-6000 NOW PROCESSING**

This message indicates that your request is being processed. If you get an error message that the PTM is not responding, check the cable connection between the PTM and the IDP for loose jacks, or damage to the cable.

PRINTING FUNCTIONS MENU HEADING

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## DISCLAIMER

Knight Inc. does not accept responsibility for the mishandling, misuse, or non-performance of the described items when used for purposes other than those specified in the instructions. For hazardous materials information consult label, MSDS, or Knight Inc.

## WARRANTY

All Knight controls and pump systems are warranted against defects in material and workmanship for a period of ONE year. All electronic control boards have a TWO year warranty. Warranty applies only to the replacement or repair of such parts when returned to factory with a Knight Return Authorization (KRA) number, freight prepaid, and found to be defective upon factory authorized inspection. Bearings and pump seals or rubber and synthetic rubber parts such as "O" rings, diaphragms, squeeze tubing, and gaskets are considered expendable and are not covered under warranty. Warranty does not cover liability resulting from performance of this equipment nor the labor to replace this equipment. Product abuse or misuse voids warranty.

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