

| REVISIONS |       |                 |          |          |          |  |
|-----------|-------|-----------------|----------|----------|----------|--|
| REV.      | ECO   | DESCRIPTION     | VERSION  | APPROVAL | DATE     |  |
| E         | 28595 | REVISED PER ECO | 2.1.1.10 | JDG3     | 10/17/16 |  |
| F         | 29644 | REVISED PER ECO | 2.2.2.16 | JDG3     | 05/24/17 |  |
| G         | 30507 | REVISED PER ECO | 2.3.0.29 | JDG3     | 12/01/17 |  |
| H         | 32723 | REVISED PER ECO | 2.4.0.70 | J GRABOW | 02/22/19 |  |

RELEASE NOTES:

|   |  |  |
|---|--|--|
| <b>VERSION: 2.4.0.70</b>  |  | FILE NAME: ISOPProductControllerII_P400V2_4_0_70.hex |
|   |  | SIZE: 2,128,268 BYTES                                |
| VERSION 2.4.0.70 (Git Commit 2832c16)   |  |  |
| 1.Added support for Wireless remote control for diagnostics and individual nozzle control with wireless remote. |  |  |
| 2.Added ability to group the on/off functionally of the 3 end nozzles together.                                 |  |  |
| 3.Enhanced the Nozzle Offline alarm to clear after a NCV reconnects.  |  |  |
| 4.Created an enhanced diagnostics screen showing switched input states of the NCVs.                             |  |  |
| 5.Added display for nozzle offline count on NCV Summary page.   |  |  |
| 6.Added ability to override individual Nozzles off.   |  |  |
| 7.Added ability to enter a decimal point in for nozzle spacing and section widths                               |  |  |
| 8.Raven Distributed Software Filtering Criteria   |  |  |
| 1.ECU Assembly P/N-0630173704, 0630173960, 0630174063   |  |  |
| 2.ECU Version-None  |  |  |
| 3.Serial Number-None  |  |  |
| 4.ID Number-None  |  |  |
| 5.Product Family-None   |  |  |
| 6.Function Code-None  |  |  |
| 7.Function Instance-None  |  |  |
| 8.Mfg. Number-None  |  |  |
| 9.Vehicle System-None   |  |  |
| 10.Vehicle System Instance-None   |  |  |
| 11.ECU Instance-None  |  |  |
| 12.Industry Group-None  |  |  |

|   |  |   |      |  |       |
|---|--|---|------|--|-------|
| <b>NOTES:</b>   |  | <b>RAVEN</b>                                    |      | TITLE:   |       |
|   |  | RAVEN INDUSTRIES, INC.<br>SIOUX FALLS, SD 57104 |      | <b>SOFTWARE SPECIFICATIONS, ISO,<br/>PRODUCT CONTROLLER II</b> |       |
|   |  |   | NAME | DATE   | SIZE  |
|   |  | DRAWN   | BJH  | 11/13/14   |       |
|   |  | APPROVED  | JDG3 | 11/13/14   |       |
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|   |  |   |      | 077-0171-400   |       |
|   |  |   |      | H  |       |
|   |  |   |      | CODE   | SCALE |
|   |  |   |      | 14979  | N/A   |
|   |  |   |      | SHEET  |       |
|   |  |   |      | 1 OF 4   |       |

RELEASE NOTES:

|          |          |            |   |
|----------|----------|------------|---|
| VERSION: | 2.3.0.29 | FILE NAME: | ISOProductControllerII_P400_V2_3_0_29.hex |
|          |          | SIZE:      | 2,051,653 BYTES                           |

VERSION 2.3.0.29 (SVN Build 76931)

1.Added optional NCV performance statistics on the main run screen (high/low/average duty cycle)

a.Low” turns red at NCV minimum duty cycle setting

b.”High” turns red at NCV saturation point (factor of rate, pressure, & tip size)

2.Added an additional NCV diagnostics screen

a.Available before completing cal wizard (# of NCVs detected, serial numbers, & voltages)

b.Available after completing cal wizard (voltages, software versions, S/Ns sorted by position on boom)

3.Added Stuck Poppet alarm

4.Improved non-volatile memory verification at startup

5.Added support for multiple service tools connected on the ISO bus at the same time

6.Improved communication with task controller and virtual terminal

7.Fixed issue where simulated flow could cause an ECU reset

8.Fixed issue where tank volume doesn’t save if power is cycled after a fill but before applying product

9.Fixed issue where tank volume decrements immediately when turning on product application

10.Fixed issue where scrolling through DTC list would not stop at the end of the list

11.Fixed issue where the incorrect screen would populate after swapping the object pool to a different VT during calibration wizard

12.Raven Distributed Software Filtering Criteria

1.ECU Assembly P/N-0630173704, 0630173960

2.ECU Version-None

3.Serial Number-None

4.ID Number-None

5.Product Family-None

6.Function Code-None

7.Function Instance-None

8.Mfg. Number-None

9.Vehicle System-None

10.Vehicle System Instance-None

11.ECU Instance-None

12.Industry Group-None

|       |                |       |        |
|-------|----------------|-------|--------|
| SIZE  | DRAWING NUMBER |       | REV    |
| A     | 077-0171-400   |       | H      |
| CODE  |                | SCALE | SHEET  |
| 14979 |                | N/A   | 2 OF 4 |

RELEASE NOTES:

|          |          |            |   |
|----------|----------|------------|---|
| VERSION: | 2.2.2.16 | FILE NAME: | ISOProductControllerII_P400_v2_2_2_16.hex |
|          |          | SIZE:      | 1,901,633 BYTES                           |

VERSION 2.2.2.16 (SVN Build 73677)

1.Improved NCV power up and power down routines

2.Improved indexing reliability

3.Improved ECU/NCV communication to reduce NB Not Ready alarms

4.Fixed slow NCV duty cycle ramp rate

5.Fixed bug where certain user settings reset to default after calibrating NCVs

6.Fixed bug where onscreen section switches would not initialize properly

7.Fixed bug where flow meter pulse counter increments upward when master switch is off resulting in a tank volume jump once the master switch is turned on

8.Fixed bug where NCV serial numbers over 65535 would not display properly in the NCV diagnostics

9.Fixed bug where NCV duty cycle would not be 100% if you were in manual mode when converting to On/Off mode

10.Fixed bug where DTCs did not move to the inactive list while viewing the DTC page

11.Raven Distributed Software Filtering Criteria

1.ECU Assembly P/N-0630173704, 0630173960

2.ECU Version-None

3.Serial Number-None

4.ID Number-None

5.Product Family-None

6.Function Code-None

7.Function Instance-None

8.Mfg. Number-151

9.Vehicle System-None

10.Vehicle System Instance-None

11.ECU Instance-None

12.Industry Group-None

|       |                |       |        |
|-------|----------------|-------|--------|
| SIZE  | DRAWING NUMBER |       | REV    |
| A     | 077-0171-400   |       | H      |
| CODE  |                | SCALE | SHEET  |
| 14979 |                | N/A   | 3 OF 4 |

RELEASE NOTES:

|          |          |            |   |
|----------|----------|------------|---|
| VERSION: | 2.1.1.10 | FILE NAME: | ISOProductControllerII_P400_v2_1_1_10.hex |
|          |          | SIZE:      | 1,898,778 BYTES                           |

VERSION 2.1.1.10 (SVN Build 70049)

1.Added new NCV control modes. Bypass, On/Off, VP and High Flow are available in addition to Standard mode

2.Added support for a remote tank fill switch and operation

3.Added additional tip sizes to the tip size selection

4.Added wireless diagnostic functionality for ECUs with compatible hardware

5.Added additional pop up alarms for ECU logic voltage, system efficiency, maximum pressure

6.Added support for Standard and Fast valves

7.Added support for multiple VTs and VT switching

8.Added text translations for Russian, Spanish, Portuguese and French languages

9.Added support for applicator mode

10.Added ability to change between HD and Virtual Section control modes as desired if unlocked

11.Fixed issue where not all nozzle based alarms were displaying properly

12.Fixed issue with the nozzle counts not always coming up correctly in the calibration wizard

13.Made general control improvements

14.Raven Distributed Software Filtering Criteria

1.ECU Assembly P/N-0630173704

2.ECU Version-None

3.Serial Number-None

4.ID Number-None

5.Product Family-None

6.Function Code-None

7.Function Instance-None

8.Mfg. Number-151

9.Vehicle System-None

10.Vehicle System Instance-None

11.ECU Instance-None

12.Industry Group-None

|       |                |       |        |
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| SIZE  | DRAWING NUMBER |       | REV    |
| A     | 077-0171-400   |       | H      |
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| 14979 |                | N/A   | 4 OF 4 |