

4		3		2		1		
D			REVISIONS					
			LTR.	DESCRIPTION	DATE	APPR.		
	FILE NAME	SIZE						
	P398_V1_0_19.hex	213 KB	A	Released per ECO23912 Version 1.0.19	10/06/14	DDK		
	P398_V1_0_38.hex	218 KB	B	Revised per ECO24178 Version 1.0.38	11/20/14	DDK		
	P398V1_1_27.hex	229,866 bytes	C	Revised per ECO26911 Version 1.1.27	11/23/15	JDG3		
C	P398V1_2_11.hex	236,935 bytes	C1	Revised per ECO28025 Version 1.2.11 (not released to web)	06/10/16	JDG3		
	P398V1_3_2.hex	236,248 bytes	D	Revised per ECO28025 Version 1.3.2	10/25/16	JDG3		
B								
A	UNLESS OTHERWISE SPECIFIED		NOTICE: THIS DRAWING AND THE INFORMATION PROVIDED ARE PROPERTY OF RAVEN INDUSTRIES INC., AND MAY ONLY BE USED AS AUTHORIZED BY RAVEN INDUSTRIES INC.		RAVEN		INDUSTRIES, INC SIOUX FALLS, SOUTH DAKOTA	
	DIMENSIONS ARE IN INCHES ONE PLACE DECIMALS ±.06 TWO PLACE DECIMALS ±.03 THREE PLACE DECIMALS ±.010 FRACTIONS ± 1/16 ANGLES ± 0°-30° BREAK EDGES .005-.015				TITLE SOFTWARE SPECIFICATION, HAWKEYE NOZZLE, FIELD SERVICE PROGRAM			
	MATERIAL				CODE IDENT. NO. SIZE DRAWING NUMBER			
	FINISH				14979 A 077-0171-398			
	DO NOT SCALE DRAWING		DRAWN	DDK	106/14	SCALE	NA	SHEET 1 OF 2
	4		3		2		1	

HAWKEYE NOZZLE RELEASE NOTES:

VERSION 1.3.2

1. Added capability for new control types associated with ECU version 2.1.1.10 and greater
2. Made several improvements to calibration process and error detection
3. Fixed erroneous ECU No Master errors
4. Changed initialization to prevent future board revisions from 'bricking' the ECU
5. Fixed issue with the switched input reading false low signals
6. Raven Distributed Software Filtering Criteria
 1. ECU Assembly P/N - None
 2. ECU Version - None
 3. Serial Number - None
 4. ID Number - None
 5. Product Family - None
 6. Function Code - 128
 7. Function Instance - 2
 8. Mfg. Number - 151
 9. Vehicle System - 6
 10. Vehicle System Instance - 0
 11. ECU Instance - None
 12. Industry Group - 2

VERSION 1.2.11 (not released to web)

1. Added troubleshooting LED color during index
 - a. Prior to index – LED blinks magenta
 - b. During index – LED blinks magenta/red
 - c. After index – LED blinks magenta/green
2. Added compatibility with new control modes for CNH version 2.1.0.64 and higher
3. Raven Distributed Software Filtering Criteria
 1. ECU Assembly P/N - None
 2. ECU Version - None
 3. Serial Number - None
 4. ID Number - None
 5. Product Family - None
 6. Function Code - 128
 7. Function Instance - 2
 8. Mfg. Number - 151
 9. Vehicle System - 6
 10. Vehicle System Instance - 0
 11. ECU Instance - None
 12. Industry Group - 2

VERSION 1.1.27

1. Improved Hawkeye nozzle detection, indexing & programming processes
2. Improved error handling to eliminate Hawkeye nozzles from turning off
3. Fixed bug with runtime hour counting
4. Fixed bug that allowed nozzles to ignore the task controller commands when in turn compensation mode while moving backwards or stopped. Each nozzle is now commanded only through the task controller.

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SCALE	NA	SHEET 2 OF 3

VERSION 1.0.38

1. Nozzles don't echo setting after changes in order to reduce CAN traffic
2. Added an LED state to detect if the OS crashes
3. Fixed a bug with Software Version reporting which caused issues with NVM
4. Changed the minimum operating voltage from 8V to 6V
5. Voltage errors are only checked if the hardware rev is greater than 'E'

VERSION 1.0.19

1. INITIAL RELEASE (for field support and service updates only)

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SCALE	NA		SHEET 3 OF 3	