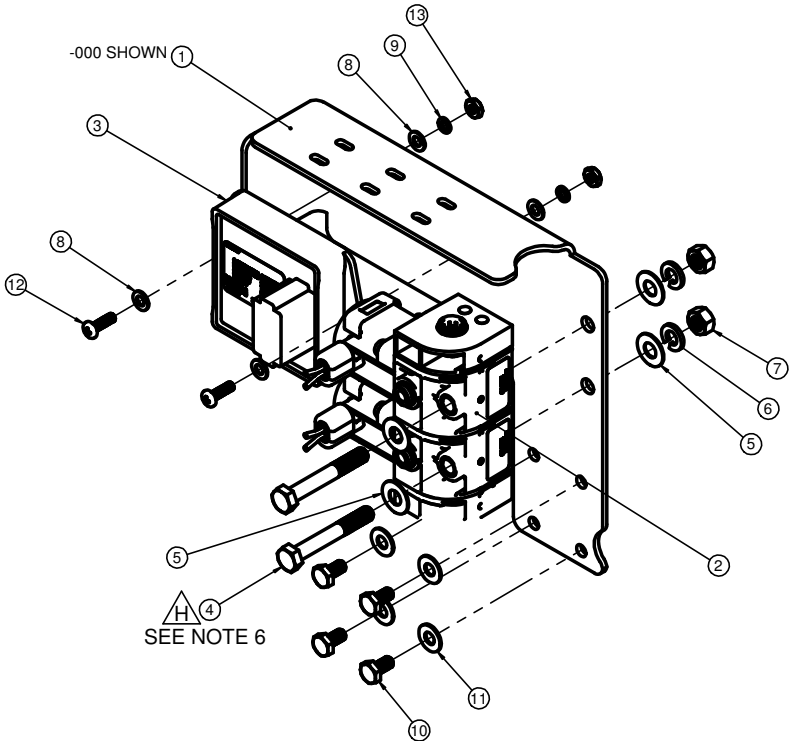
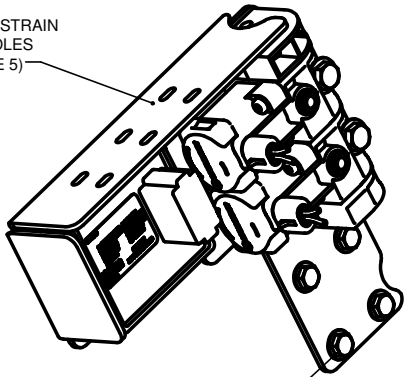
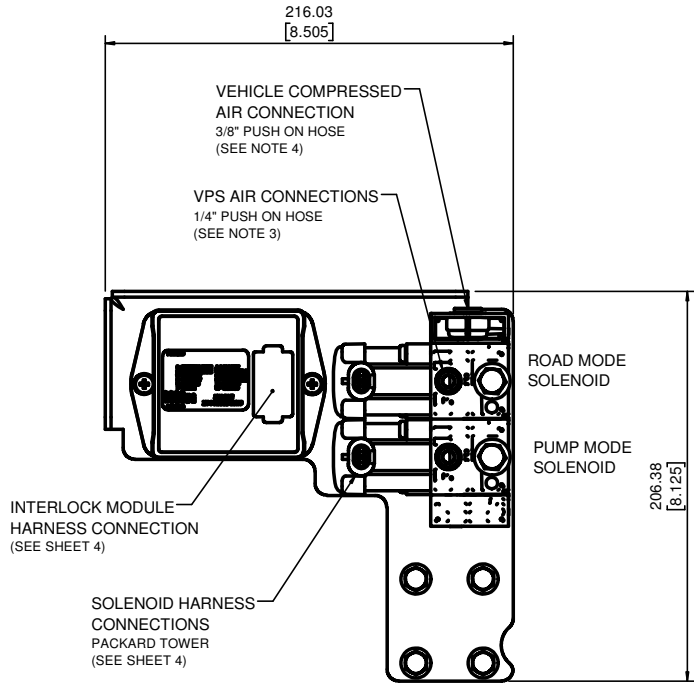
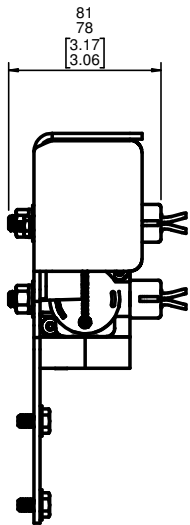


PROJECTION: 

HARNESS STRAIN
RELIEF HOLES
(SEE NOTE 5)

SEE NOTE 2

SEE NOTE 6



INSTALLATION INSTRUCTIONS:

1. INSTALL COMPONENTS ORIENTED AS SHOWN.
2. INSTALL THE BRACKET TO THE VPS HOUSING USING THE (4) 1/4-20 X 1/2 LG HEX HEAD SCREWS. APPLY LOCTITE 242 OR EQUAL TO THREADS.
3. SIZE TO LENGTH AND INSTALL 1/4" AIR BRAKE TUBING FROM THE SOLENOIDS TO THE VPS HOUSING FITTINGS SHOWN ON SHEET 4.
4. SIZE TO LENGTH AND INSTALL 3/8" AIR BRAKE TUBING FROM THE VEHICLE COMPRESSED AIR SYSTEM TO THE FITTING AS SHOWN. MINIMUM INLET SUPPLY OF 6 SCFM @ 75 PSI OF CLEAN, DRY AIR FOR RELIABLE OPERATION OF THE VPS SYSTEM.
5. CONNECT THE INTERLOCK HARNESS (513-00103-000) TO THE GEAR INTERLOCK MODULE & SOLENOIDS (WIRE & CONNECTORS NOT SHOWN IN DRAWING VIEW ABOVE). LOOP AND WIRE TIE THE HARNESS WITH STRAIN RELIEF USING THE HOLES AS SHOWN. SEE SHEET 4 FOR WIRING INSTALLATION OPTIONS.
6. TORQUE THE (2) 5/16-18 X 2.25" LG, ITEM 4, TO 10 FT-LBS AND APPLY LOCTITE #243



WARNINGS:

7. CHECK THAT ALL 1/4" OR 3/8" AIR BRAKE TUBING DO NOT HAVE ANY KINKS OR SHARP CORNERS WHEN INSTALLED. THIS MAY INCREASE AIR PRESSURE AND RUPTURE TUBING, DAMAGING ADJACENT COMPONENTS.
8. CHECK THAT ALL COMPONENTS CLEAR MOVING GEARBOX PARTS.
9. DO NOT USE ASSEMBLY FOR VACUUM APPLICATIONS.
10. ALL WIRING AND INSTALLATION DETAILS MUST CONFORM TO ALL APPLICABLE NFPA, SAE, AND DOT STANDARDS.
11. VERIFY OPERATION OF PUMP ENGAGED INDICATOR LIGHTS AND ALL INTERLOCKS BEFORE PLACING APPARATUS IN SERVICE.
12. MAKE SURE THERE ARE NO LEAKS AFTER INSTALLATION BY CHECKING WITH SOAPY WATER WHEN IN PUMP AND ROAD MODES WITH TRUCK AIR SYSTEM AT FULL PRESSURE.



CAUTION:

13. PROTECT AIR BRAKE TUBING AND WIRING FROM PAINT, KINKING, VIBRATION, ETC., WHICH MAY DAMAGE THEM.

519-01886-012 (12V) & 519-01886-024 (24V)

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	019-01886-000 019-01886-001	INTERLOCK BRACKET (STD), INTERLOCK BRACKET (REVERSE)	1
2	538-00052-012	VALVE SOLENOID ASY ASAP 12V	1
3	610-00042	GEAR INTERLOCK MODULE	1
4	018-1422-12-0	SCREW HHCS 5/16"-18 x 2.25" 18-8 SST	2
5	097-00011-106	WASHER 5/16 18-8 SST	4
6	097-0560-02-0	WASHER, LOCK 0.31 SS	2
7	110-1400-06-0	NUT HEX 5/16-18 18-8 SST	2
8	Default	FLAT WASHER, #10, SS	4
9	101662	WASHER, LOCK #10 SS	2
10	107884	CSW HH 1/4-20 X 0.50 SS	4
11	097-0020-02-0	WASHER, FLAT 1/4 X .625 OD .04 THK SS	4
12	Threaded	SCREW, PAN PH 10-32 X 0.63 SS	2
13	Threaded	NUT, HEX 10-32 SS	2

REVISIONS					
ECN	REV	ZONE	CHANGED FROM	BY	DATE
3673	B		INDIVIDUAL SOLENOIDS TO SOLENOID BANK	DMB	04AUG2016
3815	C		ADDED PINOUT DETAILS TO SHEET 4	DMB	15SEP2016
3938	D		EXTENSION HARNESS DETAILS ADDED	NG	06FEB2017
4070	E		ADDED INTERLOCK BRACKET FOR REVERSE GEARBOX, UPDATED NOTE FOR PRESSURE SWITCHES, ADDED POLARITY NOTE, AND UPDATED THE MODULE MODEL	CMB	30MAY2017
4204	F		INTERLOCK BRACKETS REDESIGNED - UPDATE ASSEMBLIES; UPDATE BILL OF MATERIALS	BMP	6OCT2017
4245	G		PICTORAL CHANGE - SHOW CORRECTED BRACKET	BMP	10NOV2017
4357	H		NO LEAK CHECKING INSTRUCTIONS, ADDED TORQUE VALUE	DMB	22FEB2018
			FIXED SHEET 2 BALLOONS, ADDED LOCTITE	JLS	

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN MILLIMETERS
[INCHES ARE FOR REFERENCE, ONLY]
TOLERANCE FOR MILLIMETER DIMENSIONS:
X: ±1
X.X: ±0.5
X.XX: ±0.25
X.XXX: ±0.125
ANGLES: ±0.25°
SURFACE TEXTURE IN µm Ra
REMOVE ALL SHARP EDGES, 0.25MAX

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FSG OF
IDEX
IDEX CORPORATION

MATERIAL

MADE FROM

FINISH

PROJECT

GODIVA **Class1**

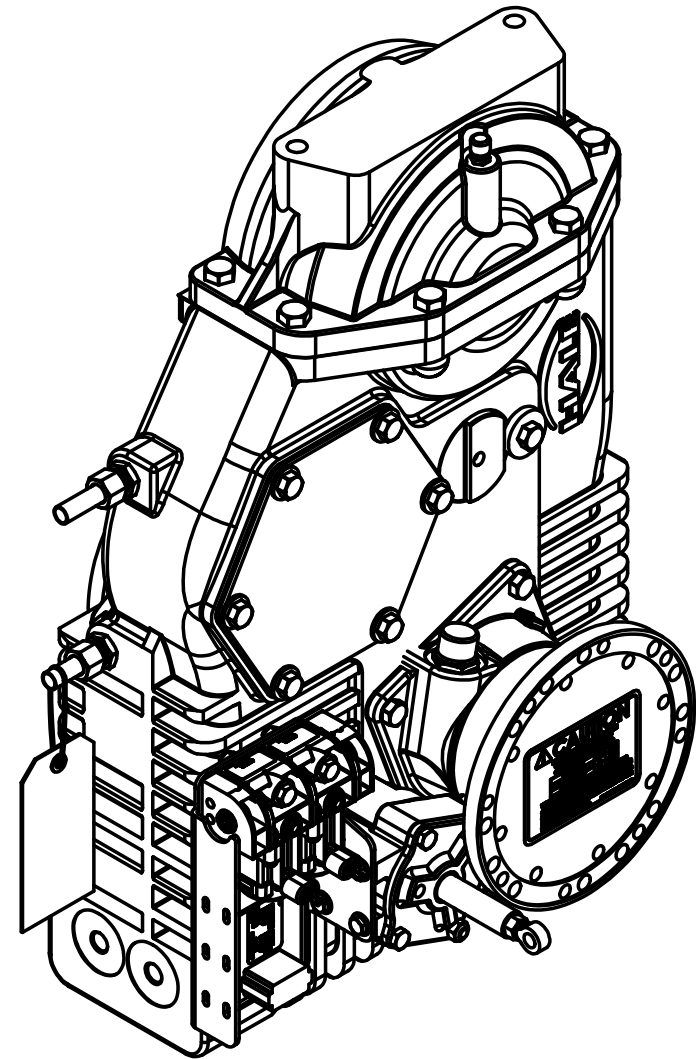
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ASSEMBLY**

DRAWN KTN
APPROVED AJG
DATE 29MAR2016

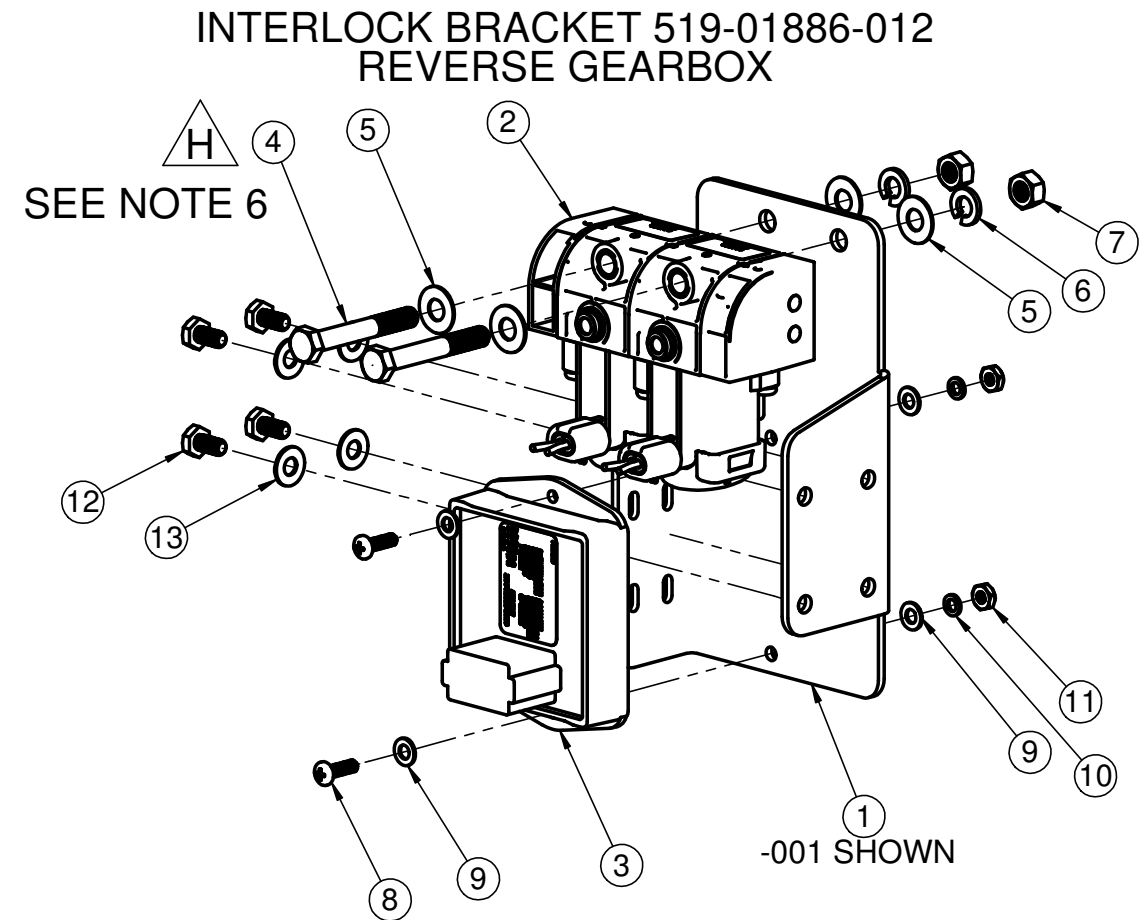
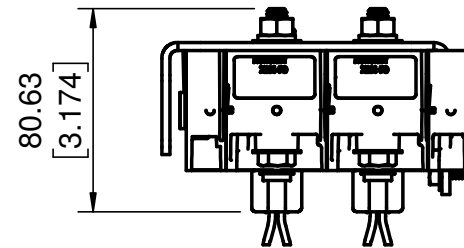
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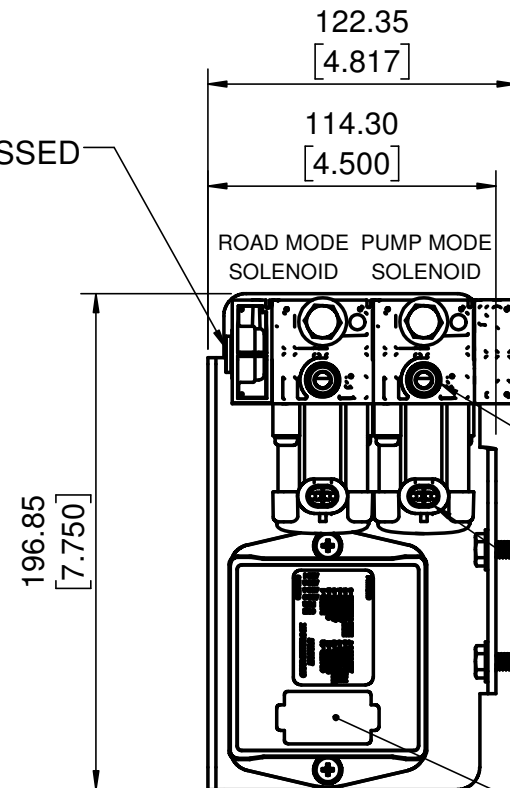
REV
H
SHEET
1 OF 5



REVERSE GEARBOX
CONFIGURATION



VEHICLE COMPRESSED
AIR CONNECTION
3/8" PUSH ON HOSE
(SEE NOTE 4)



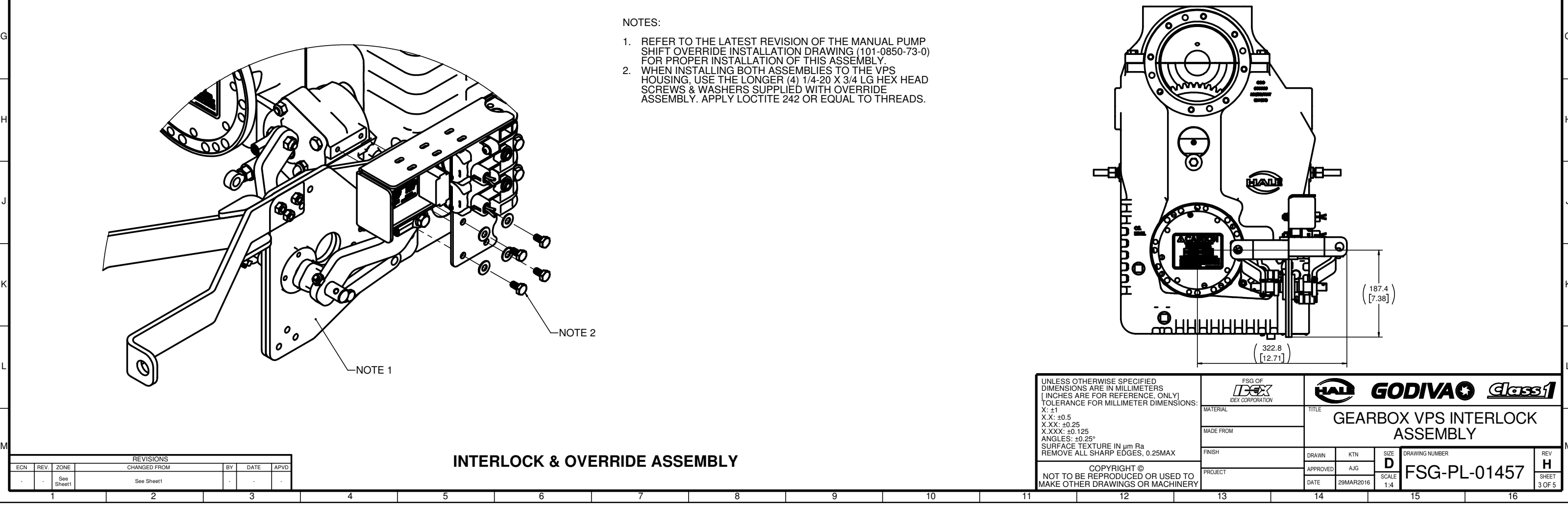
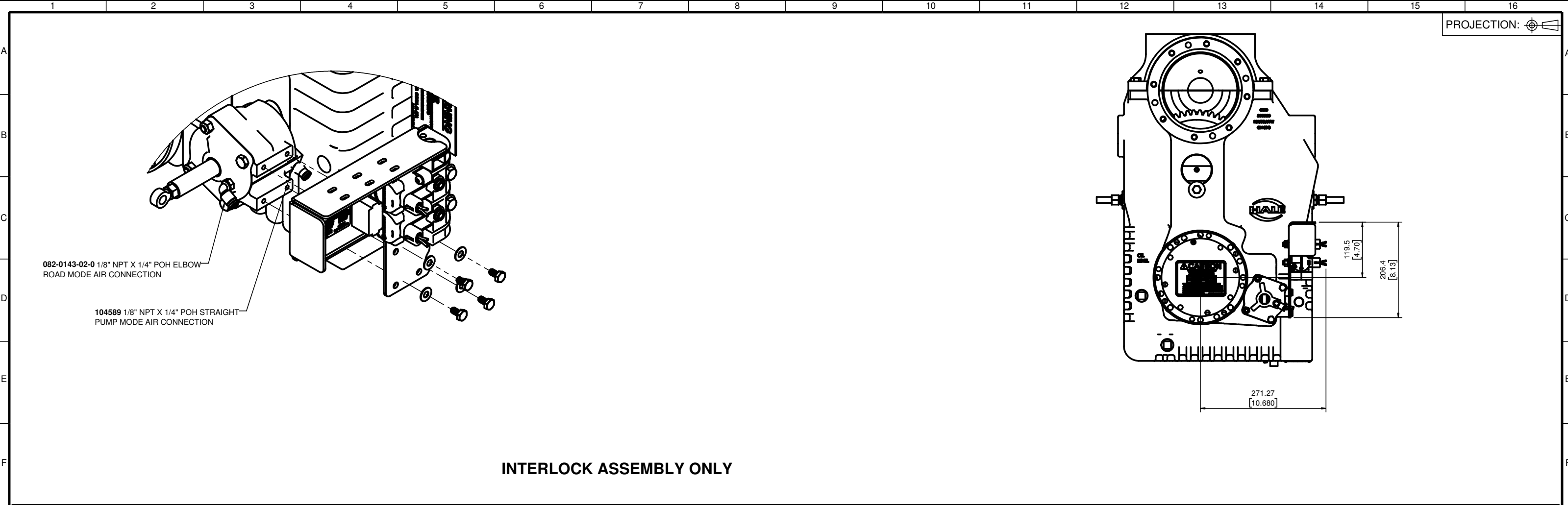
VPS AIR CONNECTIONS
1/4" PUSH ON HOSE
(SEE NOTE 3)

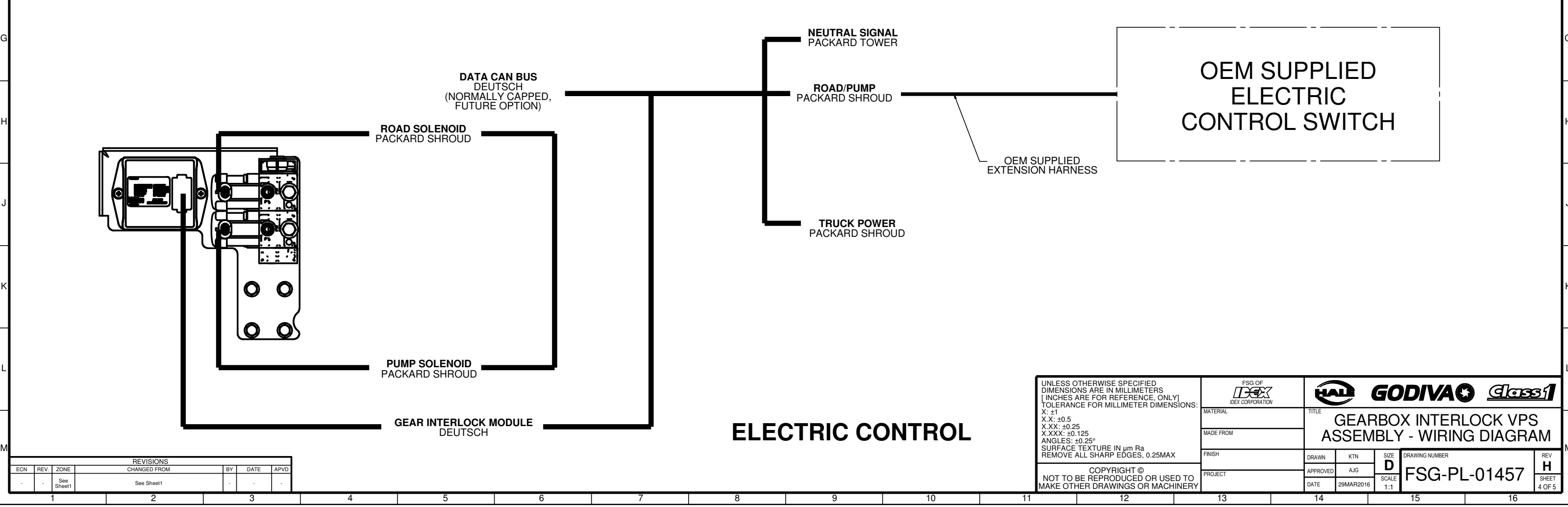
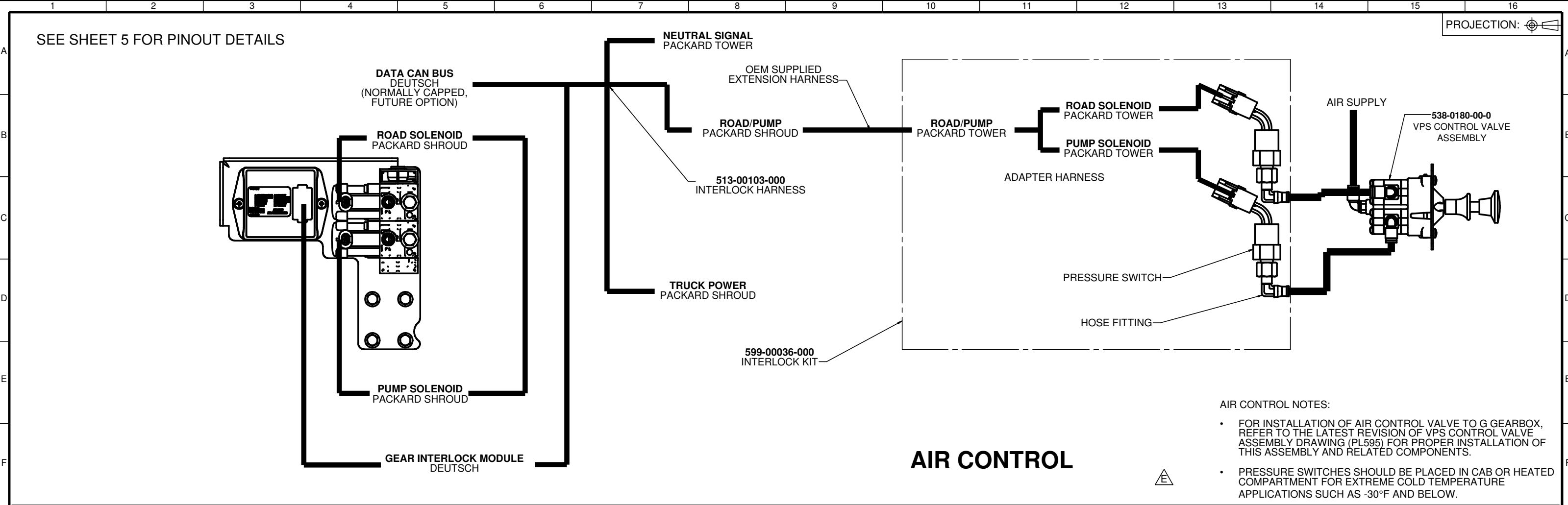
SOLENOID HARNESS
CONNECTIONS
PACKARD TOWER
(SEE SHEET 3)

INTERLOCK MODULE
HARNESS CONNECTION
(SEE SHEET 3)

REVISIONS						
ECN	REV.	ZONE	CHANGED FROM	BY	DATE	APVD
-	-	See Sheet1	See Sheet1	-	-	-

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCE FOR INCH DIMENSIONS: X: ±0.04 X.X: ±0.02 X.XX: ±0.01 X.XXX: ±0.005 ANGLES: ±0.25° SURFACE TEXTURE IN µm Ra REMOVE ALL BURRS AND SHARP EDGES, 0.01MAX			FSG OF IDEX IDEX CORPORATION		HAL GODIVA <i>Class1</i>	
			MATERIAL	Material <not specified>		TITLE
			MADE FROM			
			FINISH	DRAWN	KTN	SIZE
				APPROVED	AJG	B
			PROJECT	DATE	29MAR2016	SCALE
						1:1
COPYRIGHT © NOT TO BE REPRODUCED OR USED TO MAKE OTHER DRAWINGS OR MACHINERY			DRAWING NUMBER		REV	
			FSG-PL-01457		H	
					SHEET	
					2 OF 5	





ADAPTER HARNESS (P/N 513-00106-000)		
ROAD/PUMP		
POSITION	CIRCUIT	COLOR
A	SUPPLY+	RED
B	PUMP SW INPUT	BLUE
C	ROAD SW INPUT	VIOLET
PUMP SOLENOID		
POSITION	CIRCUIT	COLOR
C	SUPPLY+	RED
D	PUMP SW INPUT	BLUE
ROAD SOLENOID		
POSITION	CIRCUIT	COLOR
C	SUPPLY+	RED
D	ROAD SW INPUT	VIOLET

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS [INCHES ARE FOR REFERENCE, ONLY] TOLERANCE FOR MILLIMETER DIMENSIONS: X: ±1 X.X: ±0.5 X.XX: ±0.25 X.XXX: ±0.125 ANGLES: ±0.25° SURFACE TEXTURE IN µm Ra REMOVE ALL SHARP EDGES, 0.25MAX	FSG OF IDEX IDEX CORPORATION		GODIVA<u>class1</u>					
	MATERIAL		TITLE					
	MADE FROM		INTERLOCK HARNESS PINOUTS					
	FINISH		DRAWN	KTN	SIZE	DRAWING NUMBER		REV
COPYRIGHT © NOT TO BE REPRODUCED OR USED TO MAKE OTHER DRAWINGS OR MACHINERY	PROJECT		APPROVED	AJG	D	FSG-PL-01457		H
			DATE	29MAR2016		SCALE	SHEET 5 OF 6	
					1:1			