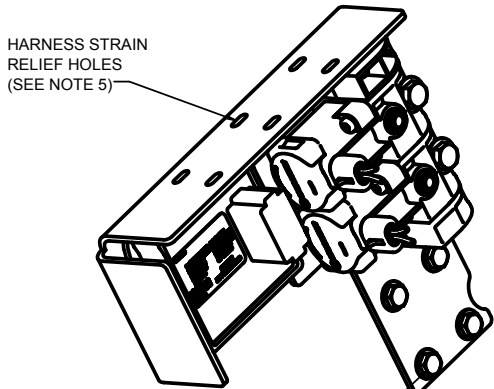
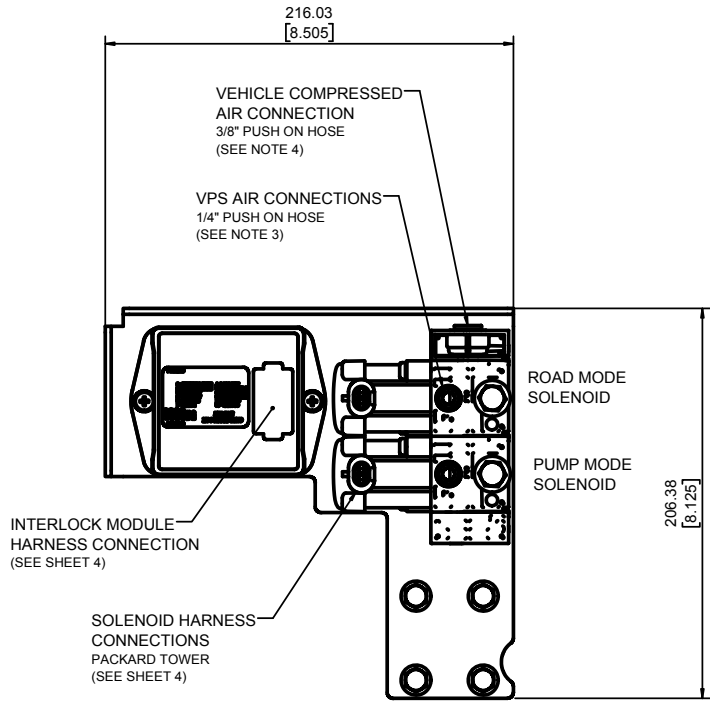
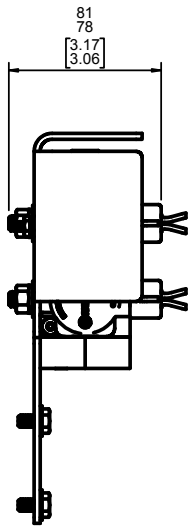
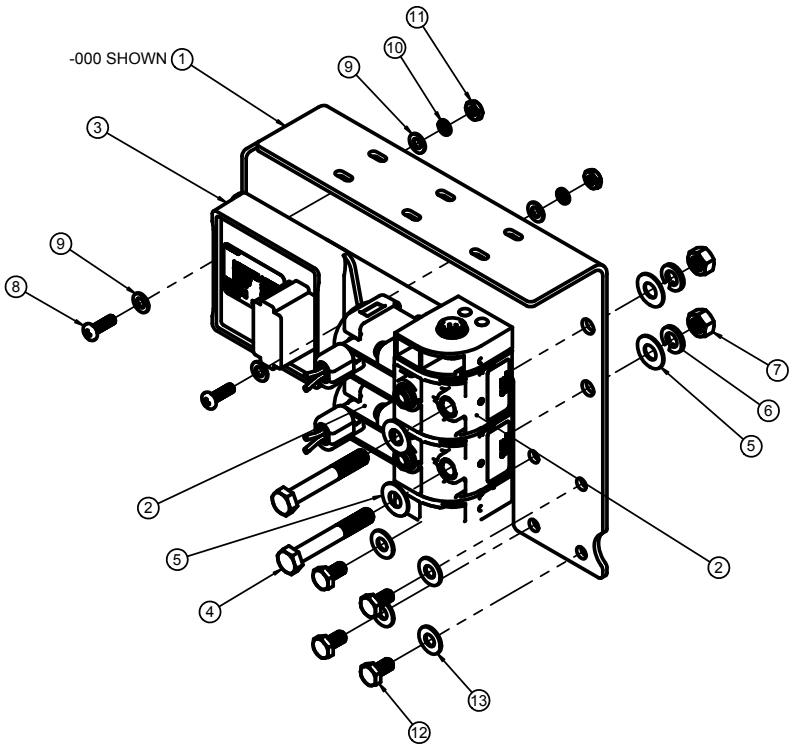


PROJECTION: 



SEE NOTE 2



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.

WARNINGS:

6. 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.
7. CHECK THAT ALL COMPONENTS CLEAR MOVING GEARBOX PARTS.
8. DO NOT USE ASSEMBLY FOR VACUUM APPLICATIONS.
9. ALL WIRING AND INSTALLATION DETAILS MUST CONFORM TO ALL APPLICABLE NFPA, SAE, AND DOT STANDARDS.
10. VERIFY OPERATION OF PUMP ENGAGED INDICATOR LIGHTS AND ALL INTERLOCKS BEFORE PLACING APPARATUS IN SERVICE.

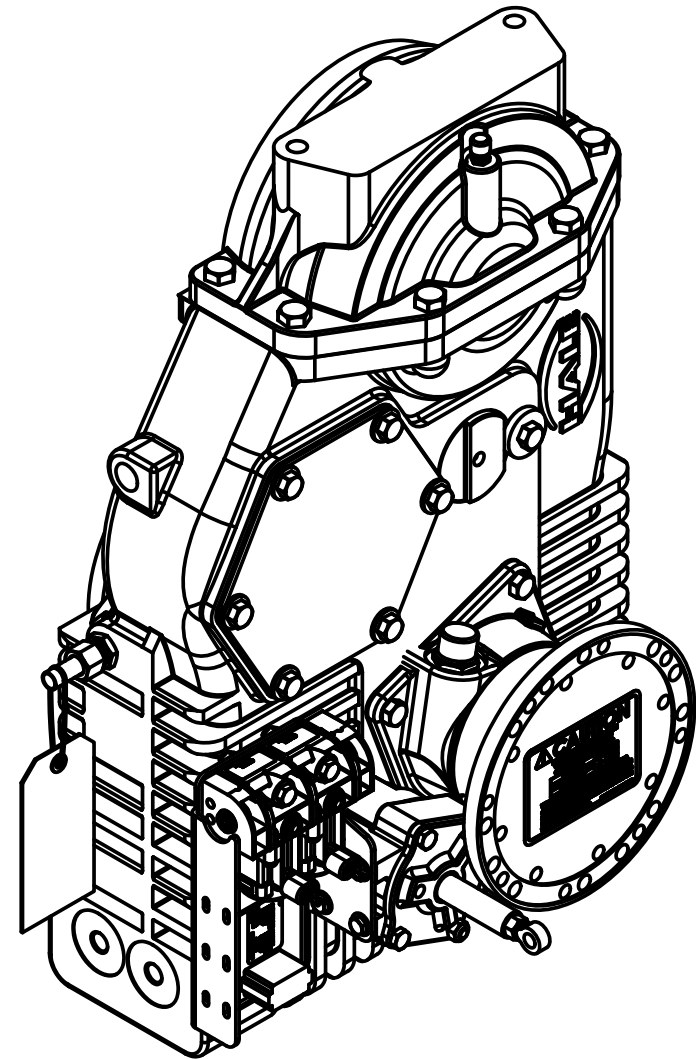
CAUTION:

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

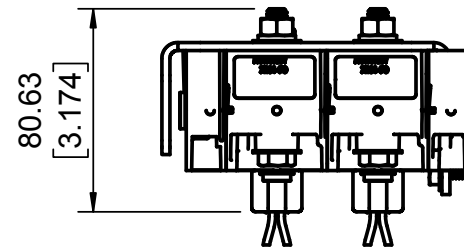
REVISIONS					
ECN	REV	ZONE	CHANGED FROM	BY	DATE
3673	B		INDIVIDUAL SOLENOIDS TO SOLENOID BANK	DMB	04AUG2016
3815	C		ADDED PINOUT DETAILS TO SHEET 4	DMB	15SEP2016
3938	D		EXTENSION HARNESS DETAILS ADDED	NG	06FEB2017
4070	E		ADDED INTERLOCK BRACKET FOR REVERSE GEARBOX, UPDATED NOTE FOR PRESSUIRE SWITCHES, ADDED POLARITY NOTE, AND UPDATED THE MODULE MODEL	CMB	30MAY2017
4204	F		INTERLOCK BRACKETS REDESIGNED - UPDATE ASSEMBLIES; UPDATE BILL OF MATERIALS	BMP	6OCT2017

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	102561	SCREW, PAN PH 10-32 X 0.63 SS	2
9	097-0750-01-0	WASHER, FLAT#10, SS	4
10	101662	WASHER, LOCK #10 SS	2
11	102537	NUT, HEX 10-32 SS	2
12	107884	CSW HH 1/4-20 X 0.50 SS	4
13	097-0020-02-0	WASHER, FLAT 1/4 X .625 OD .04 THK SS	4

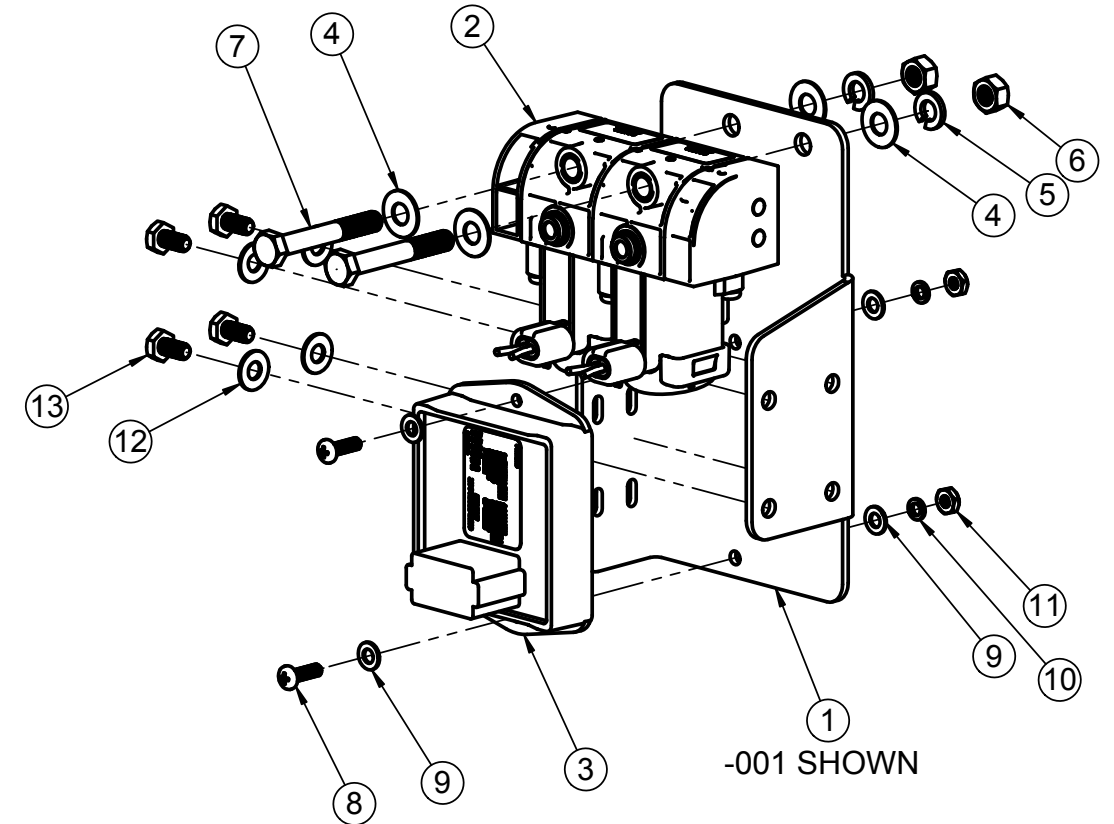
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS [INCHES ARE FOR REFERENCE, ONLY] TOLERANCE FOR MILLIMETER DIMENSIONS: X: ±1 X.X: ±0.5 X.XX: ±0.25 X.XXX: ±0.125 ANGLES: ±0.25° SURFACE TEXTURE IN µm Ra REMOVE ALL SHARP EDGES, 0.25MAX		FSG OF IDEX IDEX CORPORATION		HAL GODIVA Class1	
MATERIAL		MADE FROM		TITLE GEARBOX VPS INTERLOCK ASSEMBLY	
FINISH		PROJECT		DRAWN KTN	REV F
APPROVED A.J.G.		DATE 29MAR2016		SIZE D	SCALE 1:2
NOT TO BE REPRODUCED OR USED TO MAKE OTHER DRAWINGS OR MACHINERY		DRAWING NUMBER FSG-PL-01457		SHEET 1 OF 5	



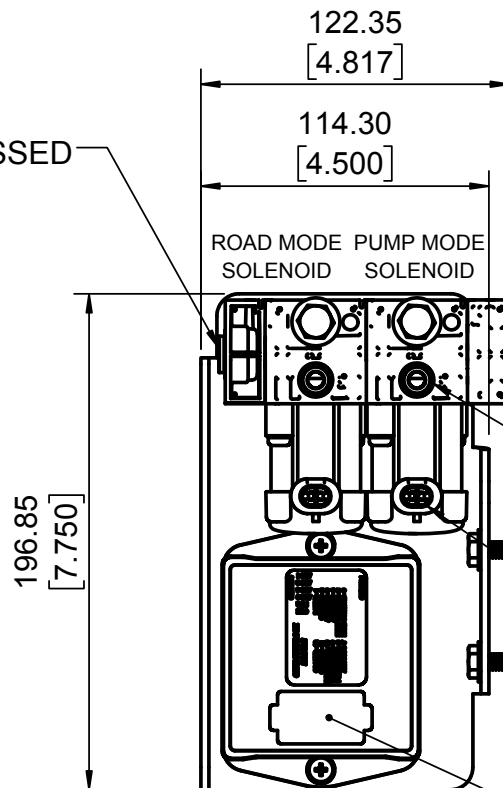
REVERSE GEARBOX
CONFIGURATION



INTERLOCK BRACKET 519-01886-012
REVERSE GEARBOX



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



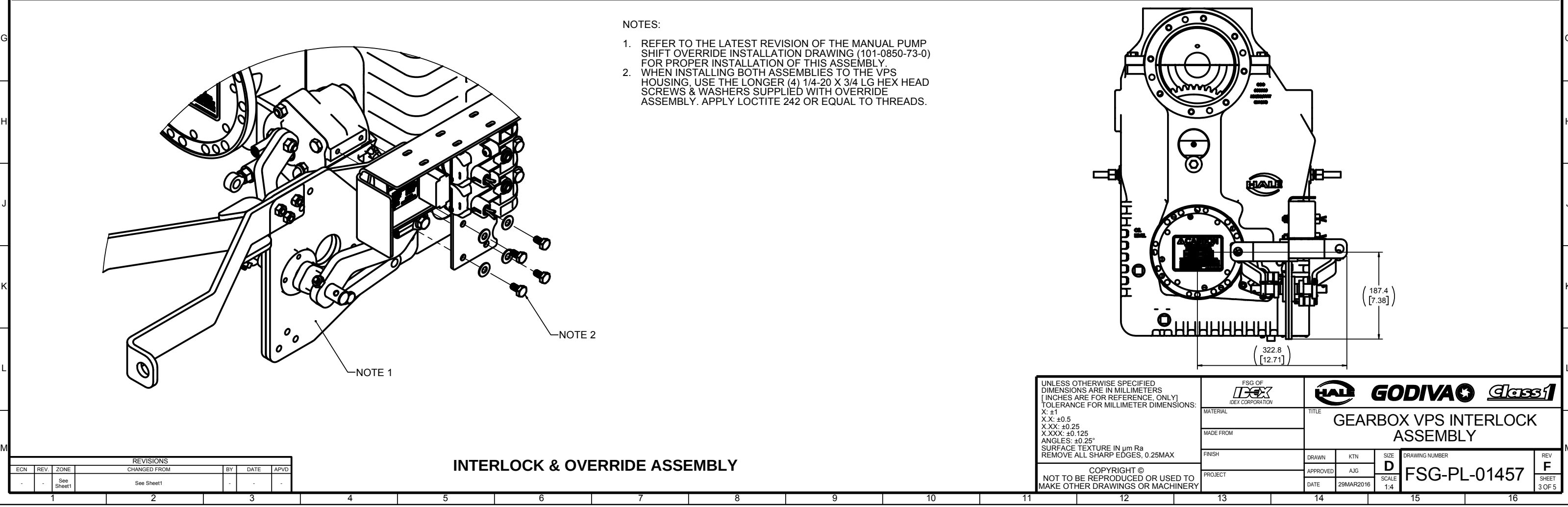
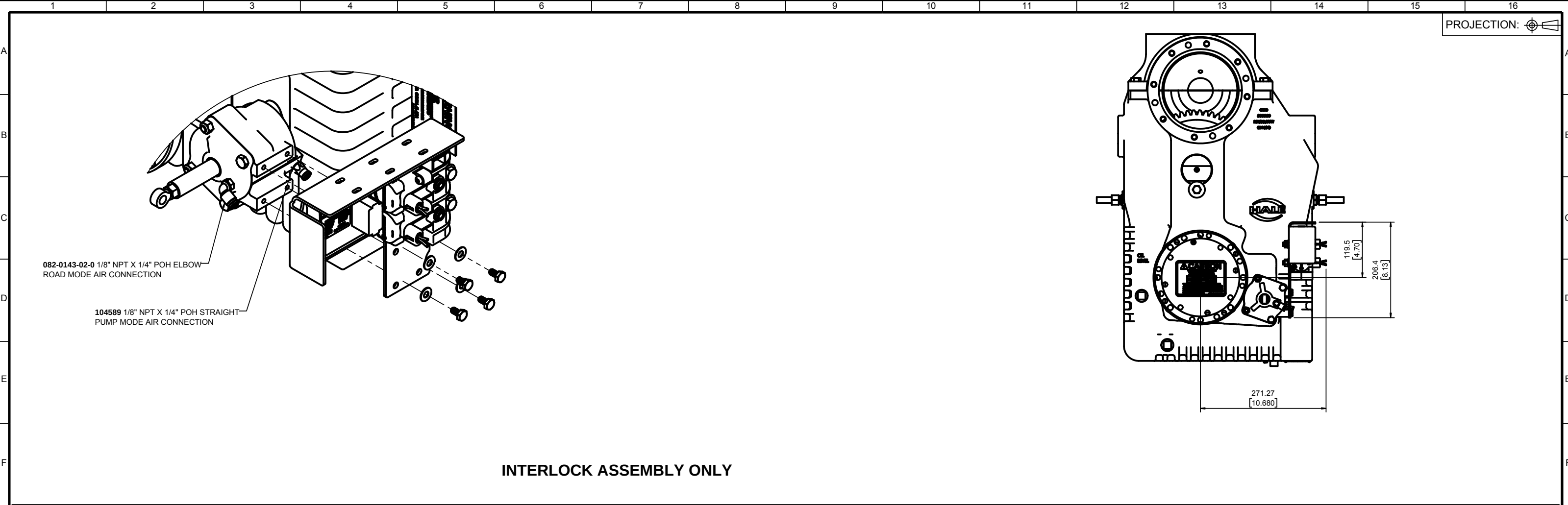
VPS AIR CONNECTIONS
1/4" PUSH ON HOSE
(SEE NOTE 3)

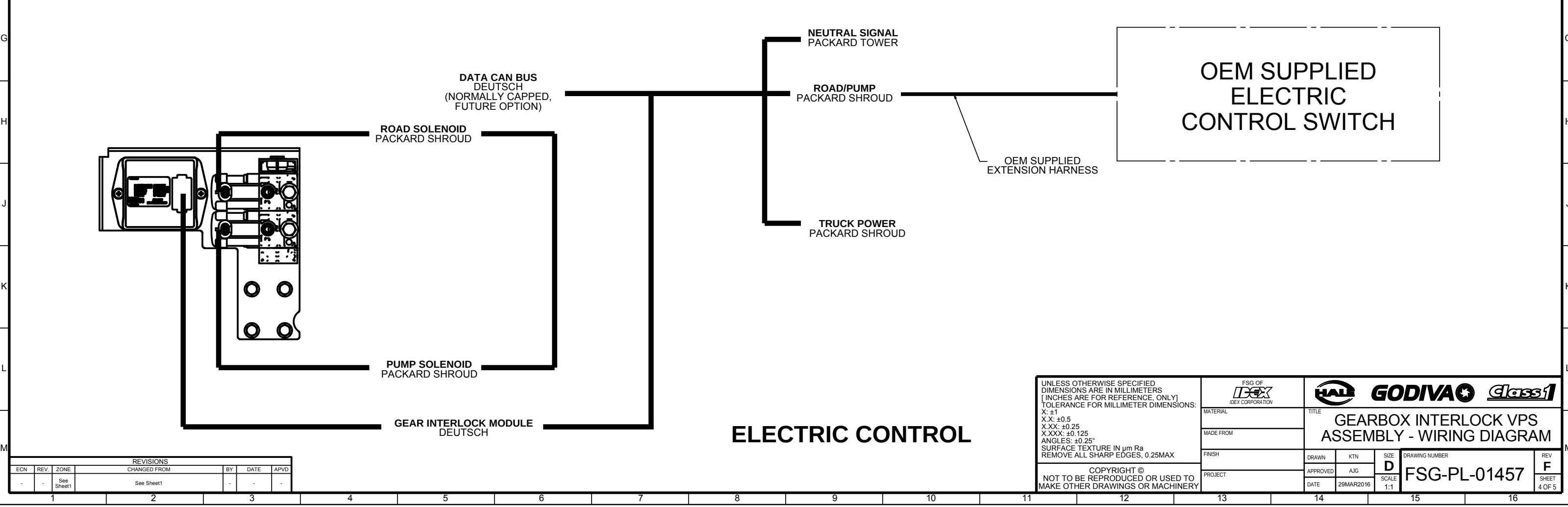
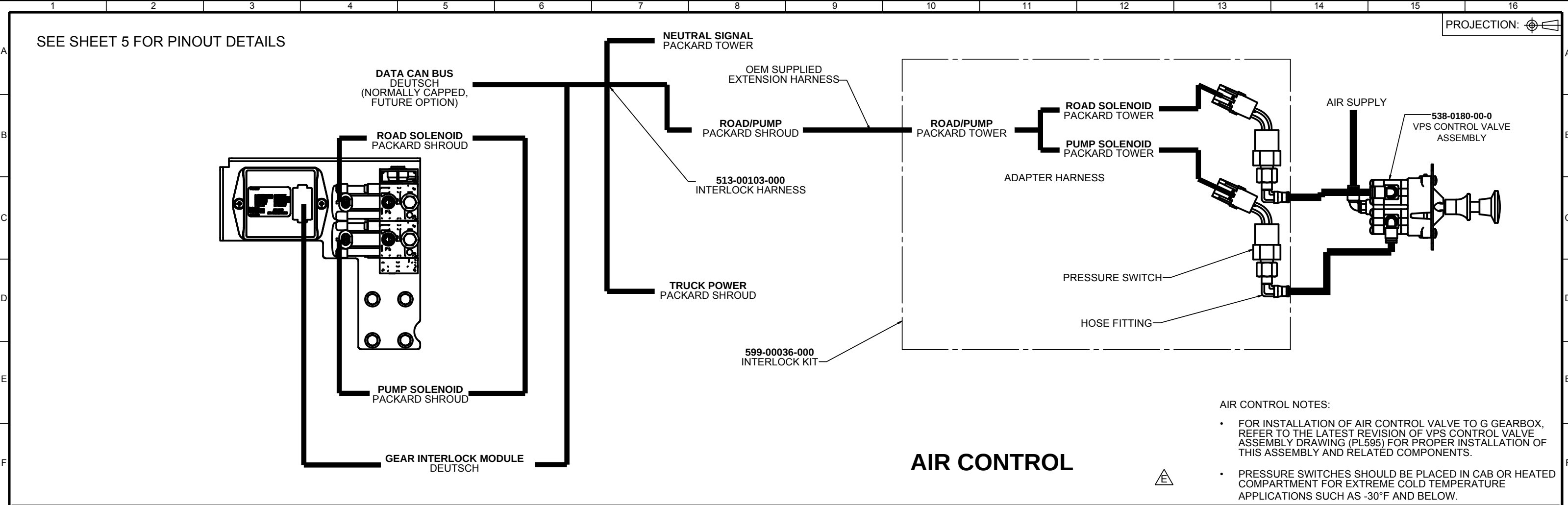
SOLENOID HARNESS
CONNECTIONS
PACKARD TOWER
(SEE SHEET 3)

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
			PROJECT	APPROVED	AJG	B
				DATE	29MAR2016	SCALE 1:1
COPYRIGHT © NOT TO BE REPRODUCED OR USED TO MAKE OTHER DRAWINGS OR MACHINERY			DRAWING NUMBER FSG-PL-01457			REV F SHEET 2 OF 5





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

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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MAKE OTHER DRAWINGS OR MACHINERY

FSG OF DEX IDEX CORPORATION	
MATERIAL	
MADE FROM	
FINISH	
PROJECT	

 GODIVA 	
TITLE GEARBOX INTERLOCK VPS ASSEMBLY - WIRING DIAGRAM	
DRAWN KTN	REV F
APPROVED AJG	SHEET 4 OF 5
DATE 29MAR2016	SCALE 1:1
DRAWING NUMBER FSG-PL-01457	

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 CORPORATION		  				
	MATERIAL		TITLE INTERLOCK HARNESS PINOUTS				
	MADE FROM						
	FINISH	DRAWN	KTN	SIZE	DRAWING NUMBER FSG-PL-01457		REV
PROJECT	APPROVED	AJG	D	F			
	DATE	29MAR2016	SCALE	1:1	SHEET 5 OF 6		