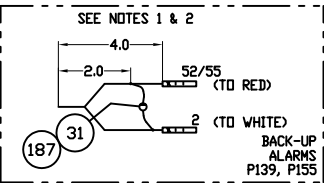
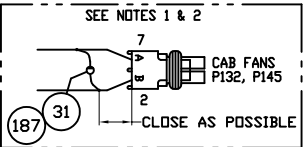
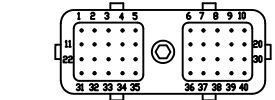
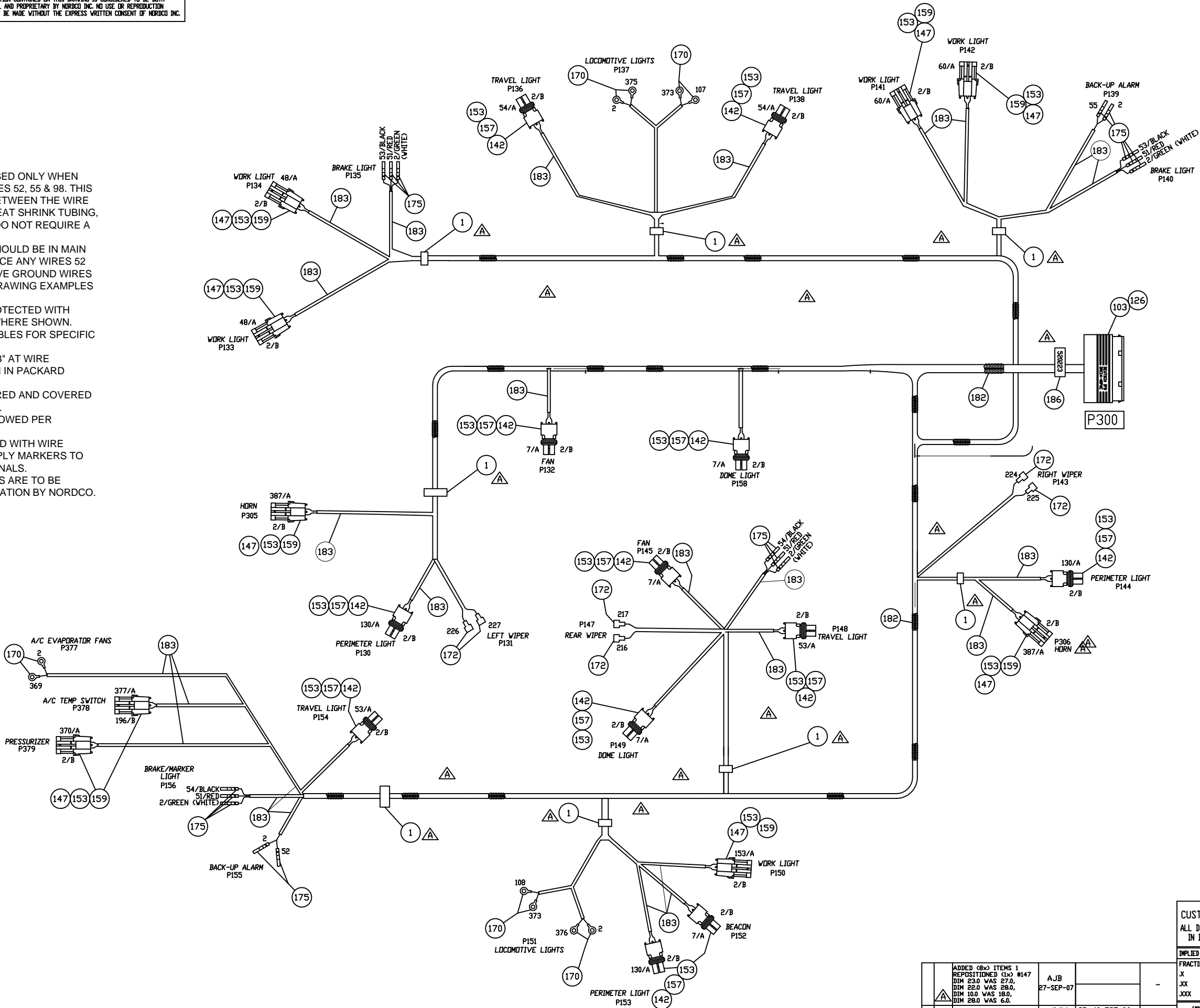
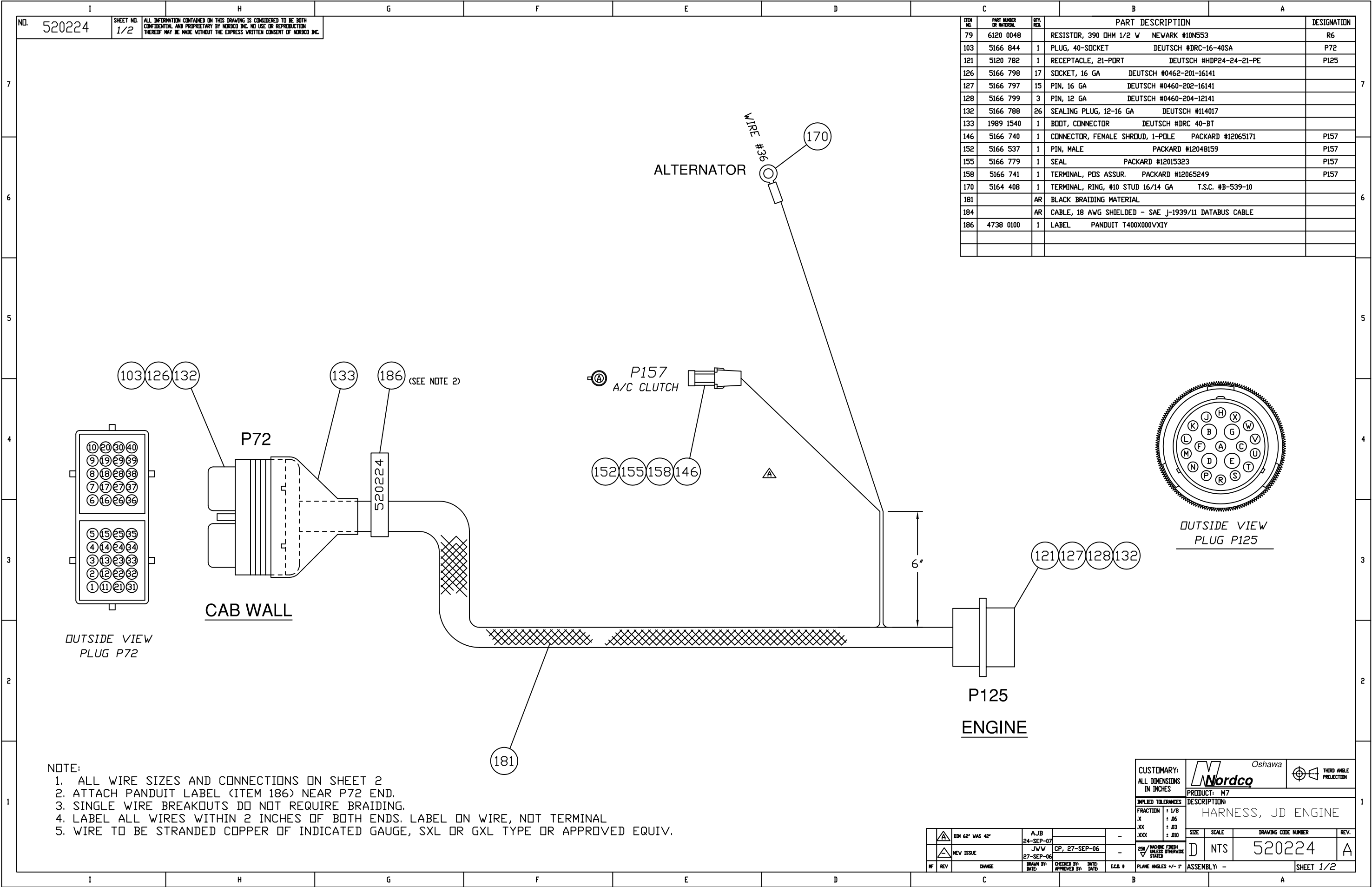


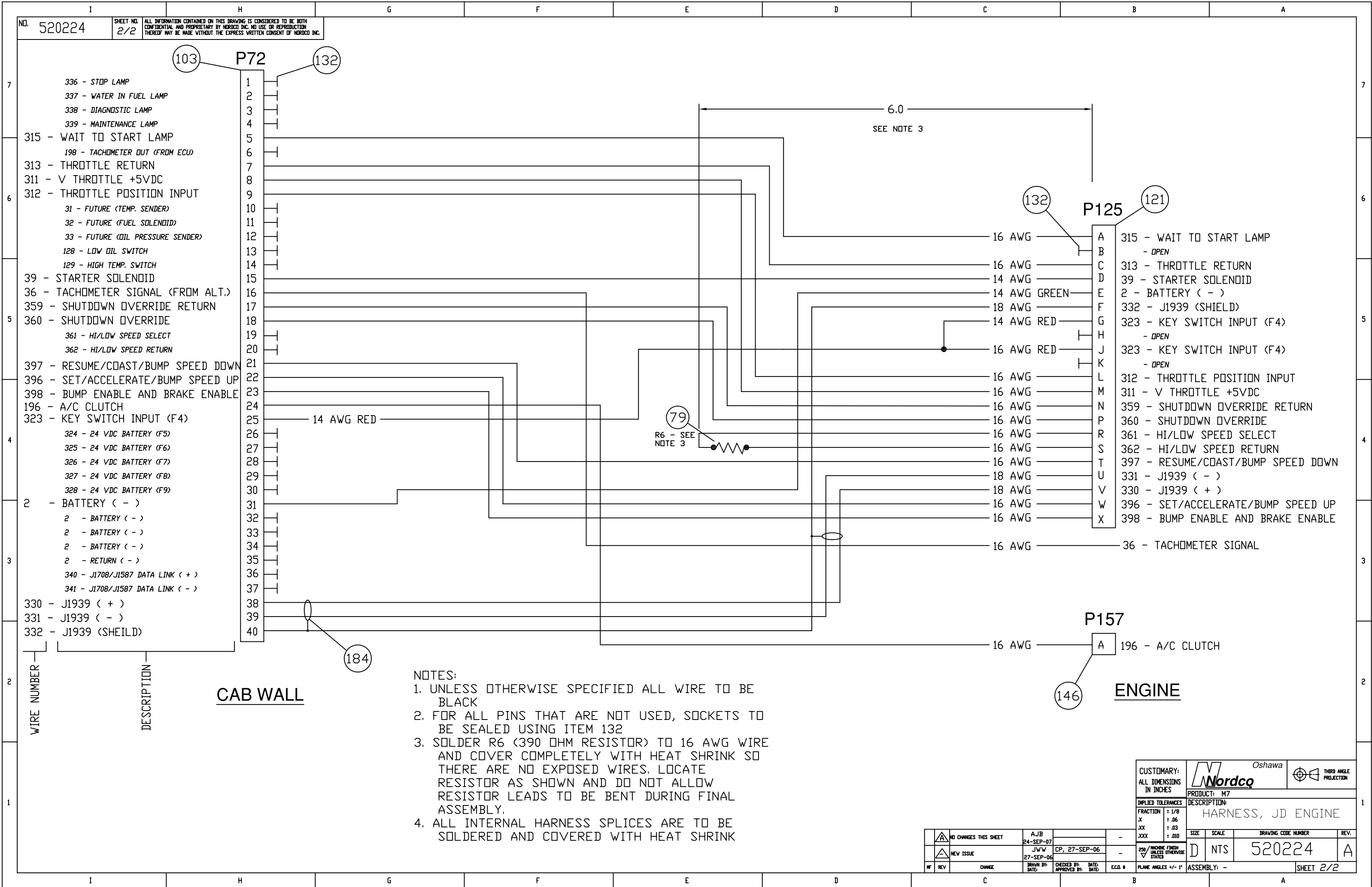
- NOTES:
1. DIODE, ITEM 31, IS TO BE USED ONLY WHEN WIRE #2 IS PAIRED WITH WIRES 52, 55 & 98. THIS DIODE IS TO BE SOLDERED BETWEEN THE WIRE PAIRS AND COVERED WITH HEAT SHRINK TUBING, ITEM #12. ALL OTHER WIRES DO NOT REQUIRE A DIODE.
  2. ALL NON-DIODE SPLICES SHOULD BE IN MAIN HARNESS BODY. DO NOT SPLICE ANY WIRES 52 AND 55 AND THEIR RESPECTIVE GROUND WIRES 2, EXCEPT TO DIODES. SEE DRAWING EXAMPLES FOR LOCATION OF DIODES.
  3. ALL BREAKOUTS TO BE PROTECTED WITH TEFLON TUBING, ITEM #183, WHERE SHOWN.
  4. SEE WIRE CONNECTION TABLES FOR SPECIFIC WIRE SIZING AND ROUTING.
  5. DESIGNATIONS OF "A" OR "B" AT WIRE NUMBERS INDICATE POSITION IN PACKARD CONNECTOR.
  6. ALL SPLICES TO BE SOLDERED AND COVERED WITH HEAT SHRINK SLEEVING.
  7. NO MORE THAN 1 WIRE ALLOWED PER CRIMPED TERMINAL.
  8. ALL WIRES TO BE IDENTIFIED WITH WIRE MARKERS AT BOTH ENDS. APPLY MARKERS TO THE WIRE NOT ON THE TERMINALS.
  9. ALL PACKARD CONNECTORS ARE TO BE SHIPPED LOOSE FOR INSTALLATION BY NORDCO.

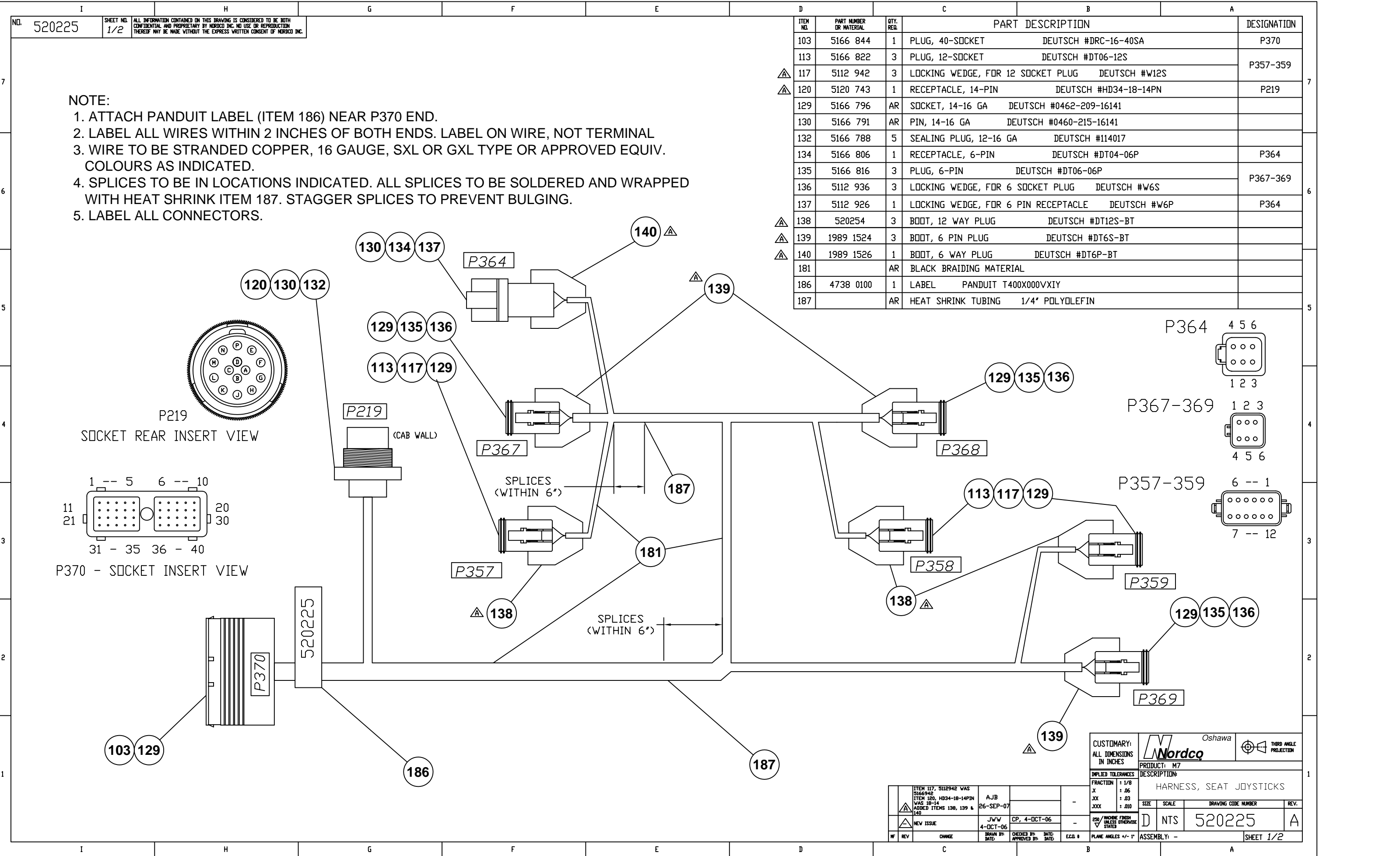


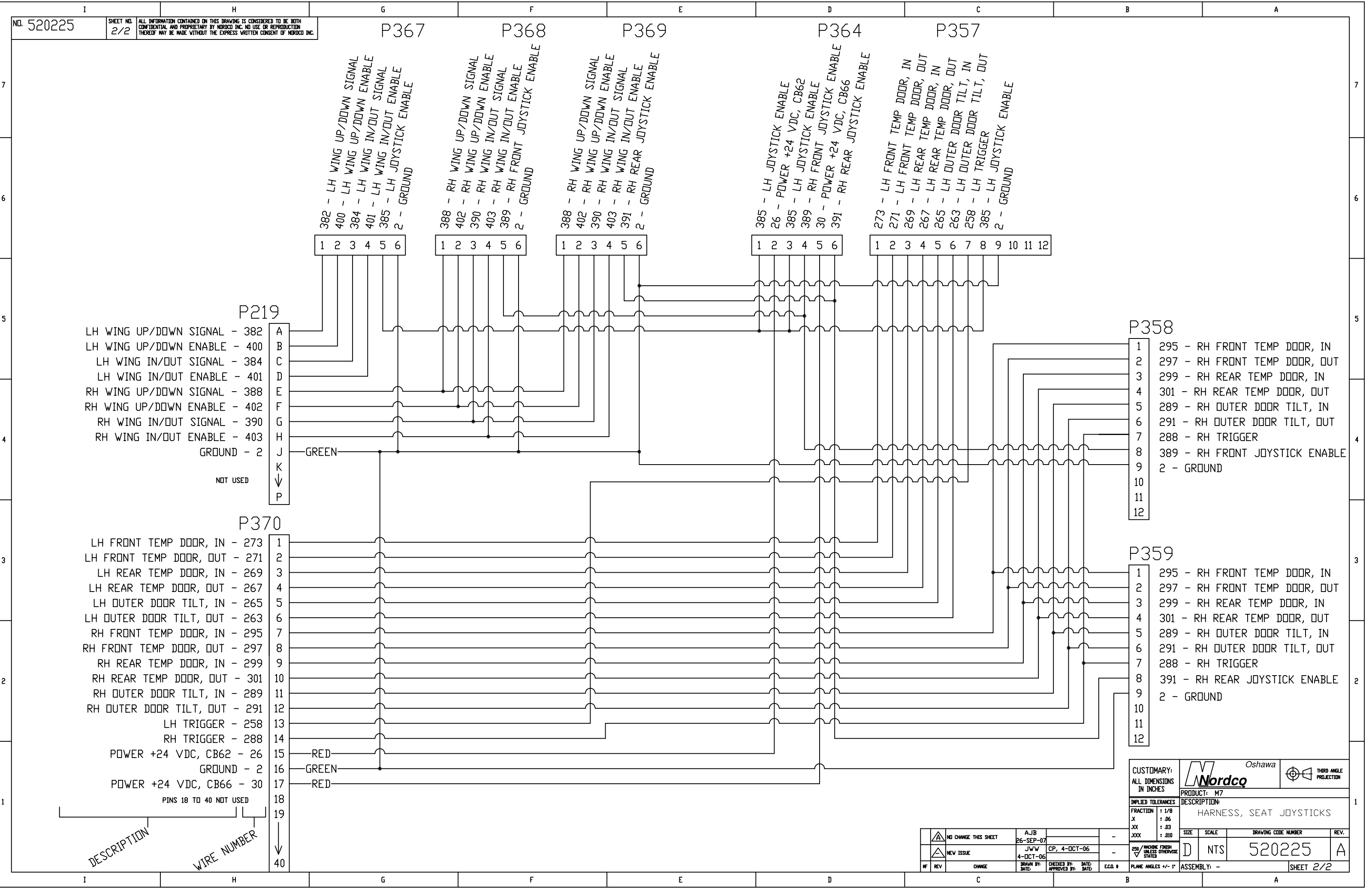
		ADDED (8x) ITEMS 1 REPOSITIONED (1x) #147 DIM 23.0 WAS 27.0, DIM 22.0 WAS 28.0, DIM 10.0 WAS 18.0, DIM 28.0 WAS 6.0.		AJB 27-SEP-07		-		FRACTION X ± 1/8 XX ± .06 XXX ± .03 XXXX ± .010		HARNESS, CAB LIGHTING & MISC.	
		NEW ISSUE		JW/W 10-OCT-06		CP, 10-OCT-06		-		SIZE SCALE DRAWING CODE NUMBER REV.	
								250 / MACHINE FINISH UNLESS OTHERWISE SPECIFIED		D NTS 520223 A	
HF REV		CHANGE		DRAWN BY: DATE:		CHECKED BY: DATE:		E.C.D. #		PLANE ANGLES ± 1°	
										ASSEMBLY: - SHEET 1/2	









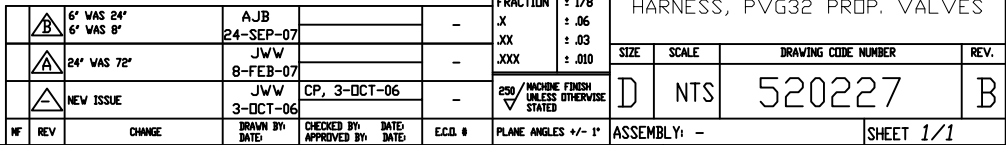
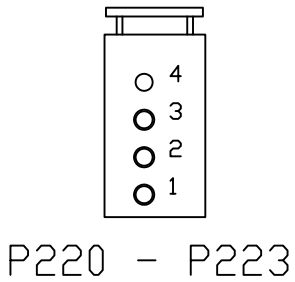


7  
6  
5  
4  
3  
2  
1

7  
6  
5  
4  
3  
2  
1

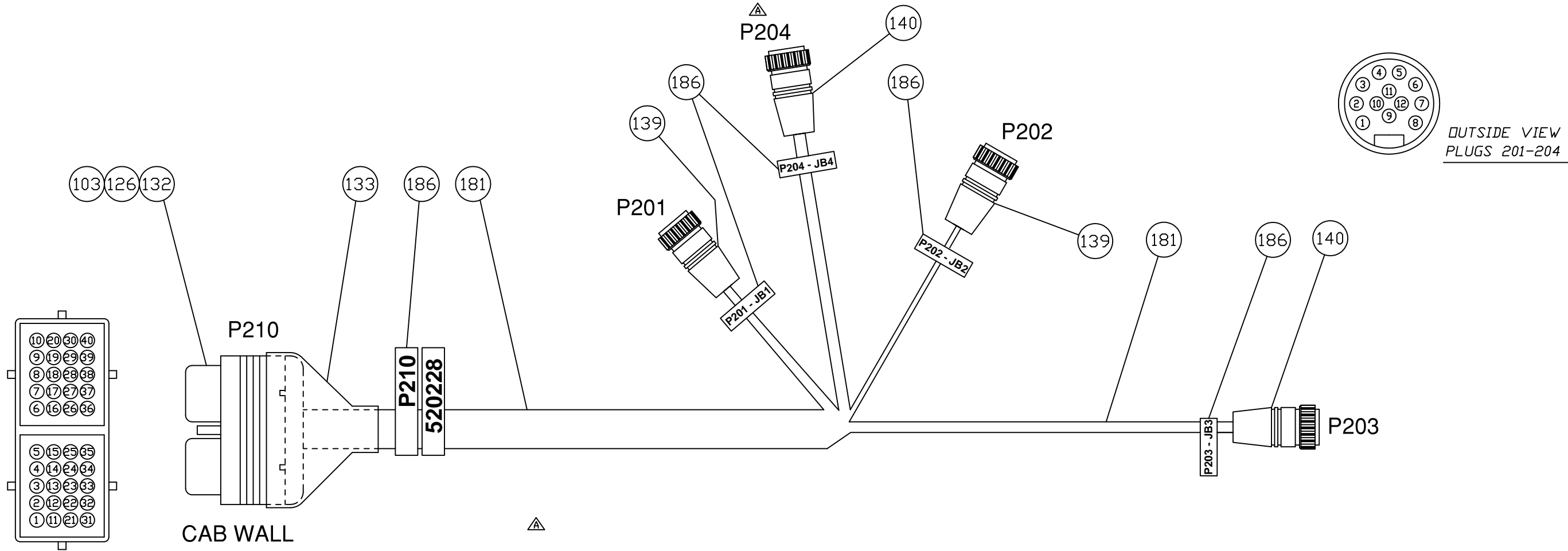
11

OUTSIDE VIEW  
PLUG P219



ITEM NO.	PART NUMBER OR MATERIAL	QTY. REQ.	PART DESCRIPTION	DESIGNATION
103	5166 844	1	PLUG, 40-SOCKET DEUTSCH #DRC-16-40SA	P210
126	5166 798	37	SOCKET, 16 GA DEUTSCH #0462-201-16141	
132	5166 788	3	SEALING PLUG, 12-16 GA DEUTSCH #114017	
133	1989 1540	1	BOOT, CONNECTOR DEUTSCH #DRC 40-BT	P201, 202
139	2231 1619-072	2	PLUG, FEMALE, 12-PORT W/ 6' LEADS LUMBERG RK120M-624/6F	
140	2231 1619-144	2	PLUG, FEMALE, 12-PORT W/ 12' LEADS LUMBERG RK120M-624/12F	P203, 204
181		AR	BLACK BRAIDING MATERIAL	
186	4738 0100	6	LABEL PANDUIT T400X000VXIY	

- NOTE:
- FOR WIRE CONNECTIONS SEE SHEET 2
  - ATTACH PANDUIT LABEL (ITEM 186) NEAR ALL CONNECTORS.
  - REMOVE OUTER JACKET OF ITEMS 139 AND 140 WHERE THE CABLES MEET. REPLACE WITH ITEM 181 BLACK BRAIDING MATERIAL AFTER COMBINING.
  - ALL SPLICES ARE TO BE SOLDERED AND COVERED WITH HEAT SHRINK. SPLICES ARE TO BE MADE WITHIN 6" OF INTERSECTION. STAGGER SPLICES TO PREVENT BULGING.
  - ALL UNUSED WIRES TO BE CUT AND CAPPED TO PREVENT SHORT CIRCUITS.



RECONFIGURED THE WIRE LAYOUT FOR P201 - P204  
DIM 36" WAS 48"  
DIM 43" WAS 60"

AJB  
27-SEP-07

NEW ISSUE

JW/W  
27-SEP-06

CP, 27-SEP-06

CUSTOMARY:  
ALL DIMENSIONS  
IN INCHES

IMPLIED TOLERANCES  
FRACTION ± 1/8  
X ± .06  
XX ± .03  
XXX ± .010

PRODUCT: M7

DESCRIPTION:  
HARNESS, JUNCTION BOXES 1-4

SIZE SCALE DRAWING CODE NUMBER REV.

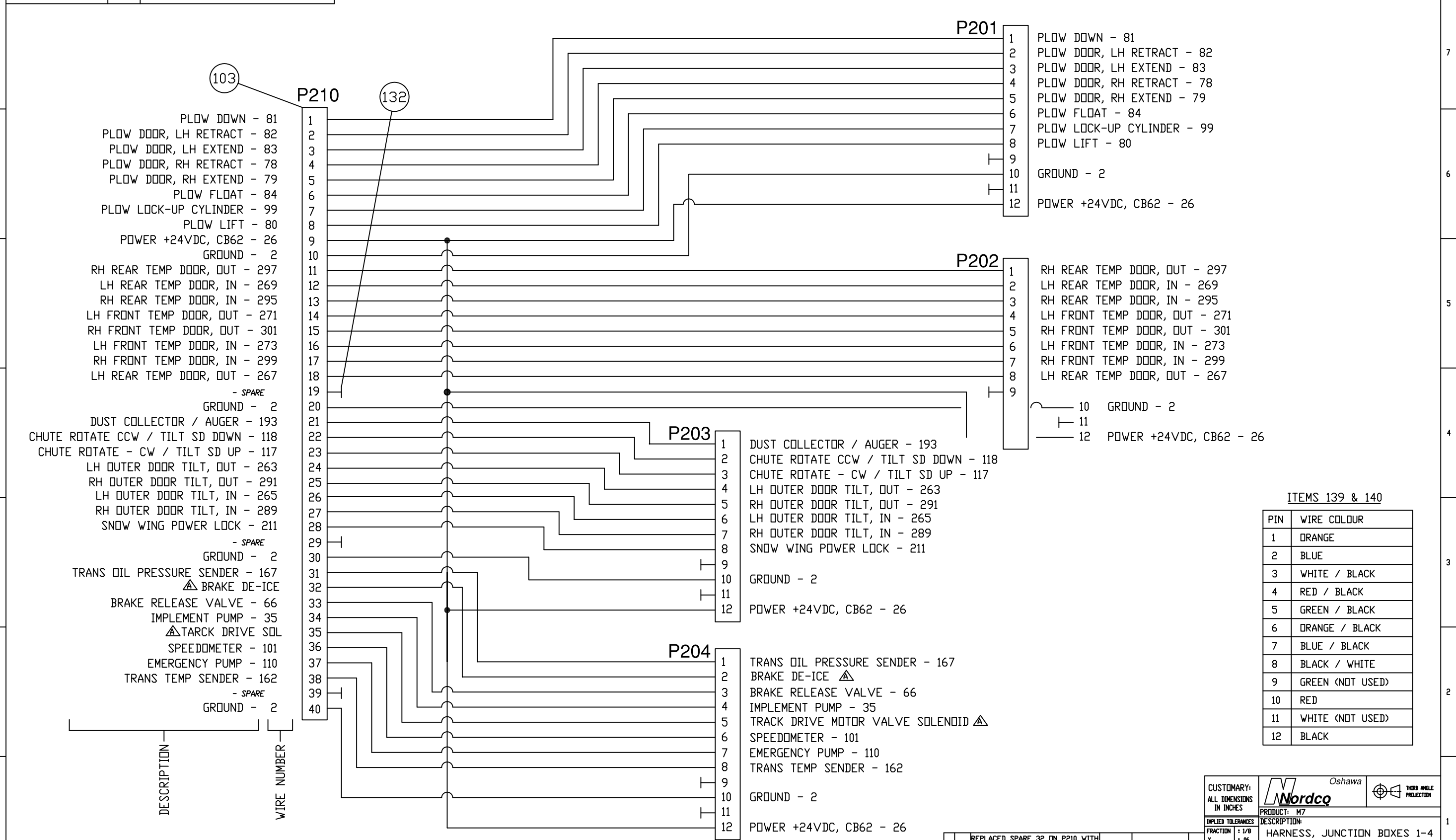
D NTS 520228 A

ASSEMBLY: - SHEET 1/2

Oshawa

THIRD ANGLE  
PROJECTION



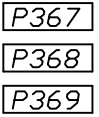


PIN	WIRE COLOUR
1	ORANGE
2	BLUE
3	WHITE / BLACK
4	RED / BLACK
5	GREEN / BLACK
6	ORANGE / BLACK
7	BLUE / BLACK
8	BLACK / WHITE
9	GREEN (NOT USED)
10	RED
11	WHITE (NOT USED)
12	BLACK

A	REPLACED SPARE 32 ON P210 WITH BRAKE DE-ICE.	AJB	24-SEP-07	-	JX JOK JOK	± .06 ± .03 ± .010	HARNESSES, JUNCTION BOXES 1-4			
	REPLACED SPACE 35 ON P210 WITH TRACK DRIVE SOL.						SIZE	SCALE	DRAWING CODE NUMBER	REV.
A	NEW ISSUE	JWV	27-SEP-06	-	250 / INCHES FRESH UNLESS OTHERWISE STATED	D	NTS	520228	A	
REV	CHANGE	DRAWN BY: DATE	CHECKED BY: DATE	DATE	ECN	PLANE ANGLES 4° ± 1°	ASSEMBLY: -			SHEET 2/2

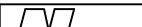

**1**

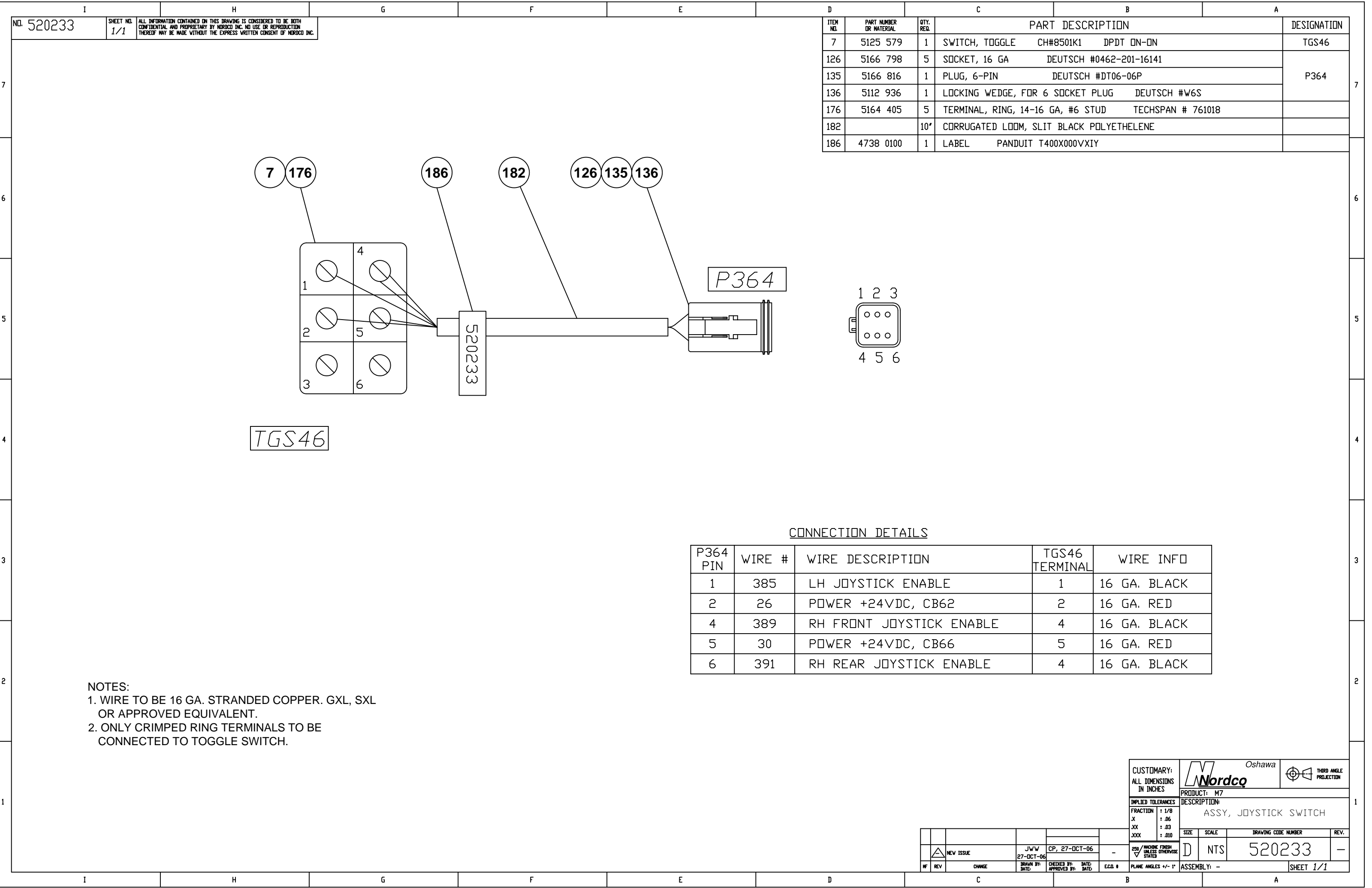
A diagram of a 12-pin connector. The pins are arranged in two rows of six. The top row is numbered 7, 8, 9, 10, 11, 12 from left to right. The bottom row is numbered 1, 2, 3, 4, 5, 6 from left to right. The connector has a rectangular body with two latching tabs on the sides.



NOTES:

1. LH, RH FR, AND RH RR WIRE #'S ARE FOR REFERENCE ONLY (BASED ON INSTALLED LOCATION).
2. JOYSTICK IS SUPPLIED WITH APPROX. 24" OF 18 GA. COLOUR CODED WIRE.

CUSTOMARY: ALL DIMENSIONS IN INCHES			Oshawa		THIRD ANGLE PROJECTION												
	PRODUCT: M7 DESCRIPTION: ASSY, SEAT JOYSTICK																
IMPLIED TOLERANCES	<table><tr><td>FRACTION</td><td>±</td><td>1/8</td></tr><tr><td>.X</td><td>±</td><td>.06</td></tr><tr><td>.XX</td><td>±</td><td>.03</td></tr><tr><td>.XXX</td><td>±</td><td>.010</td></tr></table>					FRACTION	±	1/8	.X	±	.06	.XX	±	.03	.XXX	±	.010
FRACTION	±	1/8															
.X	±	.06															
.XX	±	.03															
.XXX	±	.010															
FIN / MACHINE FINISH UNLESS OTHERWISE STATED	<table><tr><th>SIZE</th><th>SCALE</th><th>DRAWING CODE NUMBER</th><th>REV.</th></tr><tr><td>D</td><td>NTS</td><td>520232</td><td>A</td></tr></table>	SIZE	SCALE	DRAWING CODE NUMBER	REV.	D	NTS	520232	A	PLANE ANGLES +/- 1° ASSEMBLY: -							
SIZE	SCALE	DRAWING CODE NUMBER	REV.														
D	NTS	520232	A														
		SHEET 1/1															



ITEM NO.	PART NUMBER OR MATERIAL	QTY. REQ.	PART DESCRIPTION	DESIGNATION
7	5125 579	1	SWITCH, TOGGLE CH#8501K1 DPDT ON-ON	TGS46
126	5166 798	5	SOCKET, 16 GA DEUTSCH #0462-201-16141	P364
135	5166 816	1	PLUG, 6-PIN DEUTSCH #DT06-06P	
136	5112 936	1	LOCKING WEDGE, FOR 6 SOCKET PLUG DEUTSCH #W6S	
176	5164 405	5	TERMINAL, RING, 14-16 GA, #6 STUD TECHSPAN # 761018	
182		10'	CORRUGATED LOOM, SLIT BLACK POLYETHELENE	
186	4738 0100	1	LABEL PANDUIT T400X000VXIY	

CONNECTION DETAILS

P364 PIN	WIRE #	WIRE DESCRIPTION	TGS46 TERMINAL	WIRE INFO
1	385	LH JOYSTICK ENABLE	1	16 GA. BLACK
2	26	POWER +24VDC, CB62	2	16 GA. RED
4	389	RH FRONT JOYSTICK ENABLE	4	16 GA. BLACK
5	30	POWER +24VDC, CB66	5	16 GA. RED
6	391	RH REAR JOYSTICK ENABLE	4	16 GA. BLACK

- NOTES:
- WIRE TO BE 16 GA. STRANDED COPPER. GXL, SXL OR APPROVED EQUIVALENT.
  - ONLY CRIMPED RING TERMINALS TO BE CONNECTED TO TOGGLE SWITCH.

CUSTOMARY:  
ALL DIMENSIONS  
IN INCHES

N

Nordco

Oshawa

THIRD ANGLE  
PROJECTION

PRODUCT: M7

DESCRIPTION:  
ASSY, JOYSTICK SWITCH

IMPLIED TOLERANCES

FRACTION  
X  
XX  
XXX

± 1/8  
± .06  
± .03  
± .010

250 / MACHINE FINISH  
UNLESS OTHERWISE  
STATED

✓

SIZE

SCALE

DRAWING CODE NUMBER

REV.

D

NTS

520233

—

ASSEMBLY: —

SHEET 1/1

WF

REV

CHANGE

NEW ISSUE

△

DRAWN BY:  
DATE

JWW  
27-OCT-06

CHECKED BY:  
DATE

CP, 27-OCT-06

ECN #

—

BILL OF MATERIALS

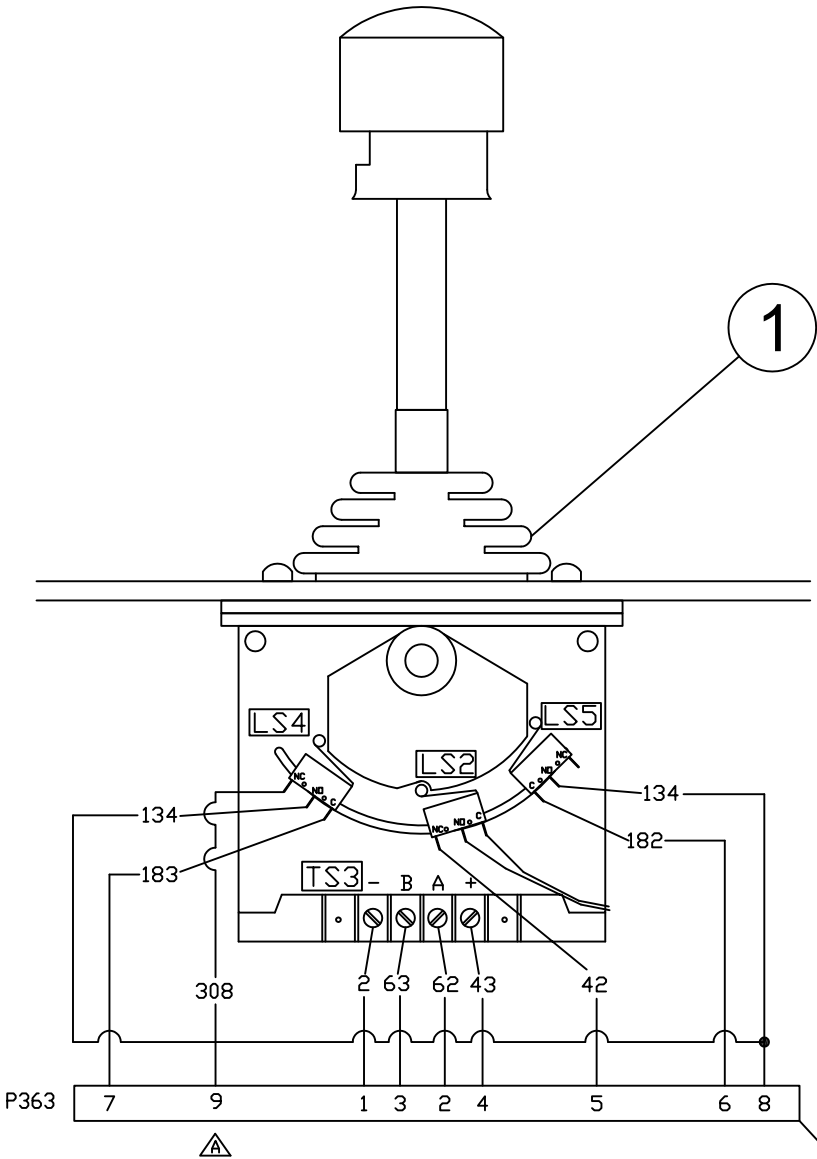
ITEM NO.	PART NUMBER OR MATERIAL	QTY. REQ.	PART DESCRIPTION	DESIGNATION
1	520210	1	JOYSTICK, EDC FWD / REV, MCH	
110	5166 822	1	PLUG, 12-PIN DEUTSCH #DT06-12S	
112	5112 942	1	LOCKING WEDGE, FOR 12 SOCKET PLUG DEUTSCH #W12S	
130	5166 796	12	SOCKET, 14-16GA DEUTSCH #0462-209-16141	
185	5170 240	AR	CABLE TIES	
186	4738 0100	1	LABEL PANDUIT T400X000VXIY	

CONNECTION LIST

WIRE DESCRIPTION	END 1 LOCATION	END 2 LOCATION	WIRE #
16 AWG GREEN	TS3 @ -	P363 @ 1	2
16 AWG BLACK	LS2 @ NC	P363 @ 5	42
16 AWG BLACK	TS3 @ +	P363 @ 4	43
16 AWG BLACK	TS3 @ A	P363 @ 2	62
16 AWG BLACK	TS3 @ B	P363 @ 3	63
16 AWG BLACK	LS4 @ NO	LS5 @ NO	134
16 AWG BLACK	LS5 @ NO	P363 @ 8	134
16 AWG BLACK	LS5 @ C	P363 @ 6	182
16 AWG BLACK	LS4 @ C	P363 @ 7	183
16 AWG BLACK	LS4 @ NC	P363 @ 9	308

NOTES:

1. USE CABLE TIES, ITEM 185, AS REQUIRED.
2. ALL WIRES TO BE IDENTIFIED WITH WIRE MARKERS AT BOTH ENDS. MARKERS ARE TO BE APPLIED ON WIRE, NOT ON TERMINALS.
3. ALL WIRE SIZES AND CONNECTIONS TO BE PER WIRE CONNECTION LIST.
4. ALL COMPONENT IDENTIFICATIONS SHOWN BOXED ARE TO BE LABELLED WITH TEXT SHOWN.
5. WIRES TO BE STRANDED COPPER OF INDICATED GAUGE, GXL, SXL TYPE OR APPROVED EQUIVALENT.
6. ALL WIRE TO HAVE A TERMINAL CRIMPED TO ENDS. NO BARE WIRE CONNECTIONS TO COMPONENTS. AT POINTS WHERE 2 WIRES ARE AT ONE CONNECTION, CRIMP IN SAME TERMINAL, BUT USE TERMINAL ONE SIZE LARGER TO ACCOMODATE BOTH WIRES. NO MORE THAN 2 WIRES ARE ALLOWED PER CRIMPED TERMINAL.
7. USE CABLE TIES (ITEM 185) AS REQUIRED.
8. ATTACH LABEL ITEM 186 NEAR P363 CONNECTOR AROUND WIRES. LABEL TO READ "520234".
9. REMOVE ALUMINUM PLATE AND BLACK PLASTIC COVER. SHIP ALUMINUM PLATE AND SCREWS SEPARATELY (DO NOT REASSEMBLE). BLACK PLASTIC COVER MAY BE DISCARDED.
10. USE PROPERLY SIZED, FULLY INSULATED RING TERMINALS TO CONNECT TO TERMINAL STRIP.
11. USE PROPERLY SIZED, FULLY INSULATED SPADE TERMINALS TO MAKE LIMIT SWITCH CONNECTIONS.



110112130

CUSTOMARY: ALL DIMENSIONS IN INCHES		Oshawa <b>Nordco</b>		THIRD ANGLE PROJECTION	
IMPLIED TOLERANCES		PRODUCT: M7			
FRACTION : 1/8 X : .06 XX : .03 XXX : .010		DESCRIPTION: ASSY, EDC JOYSTICK W/ CONNECTOR			
250 / MACHINE FINISH UNLESS OTHERWISE STATED		SIZE : D		SCALE : NTS	
DRAWN BY: JWW DATE: 31-OCT-06		CHECKED BY: CP, DATE: 31-OCT-06		DRAWING CODE NUMBER : 520234	
REV : NEW ISSUE		ECLA # : -		ASSEMBLY: -	
CHANGE		DATE: -		SHEET 1/1	