



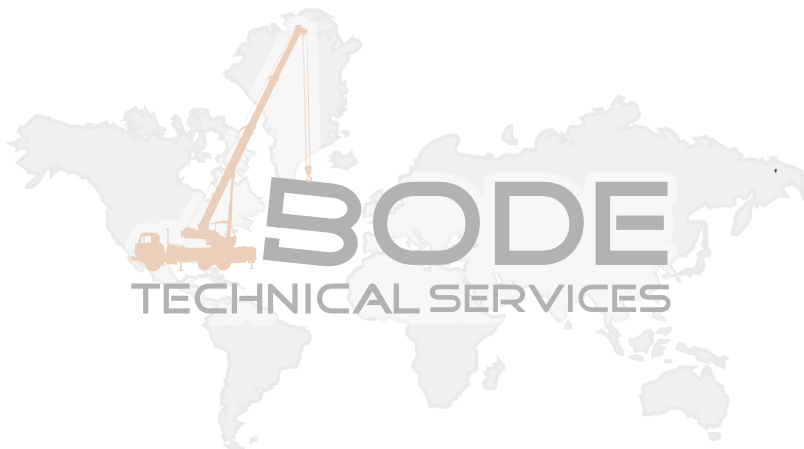
GROVE[®]
CRANE

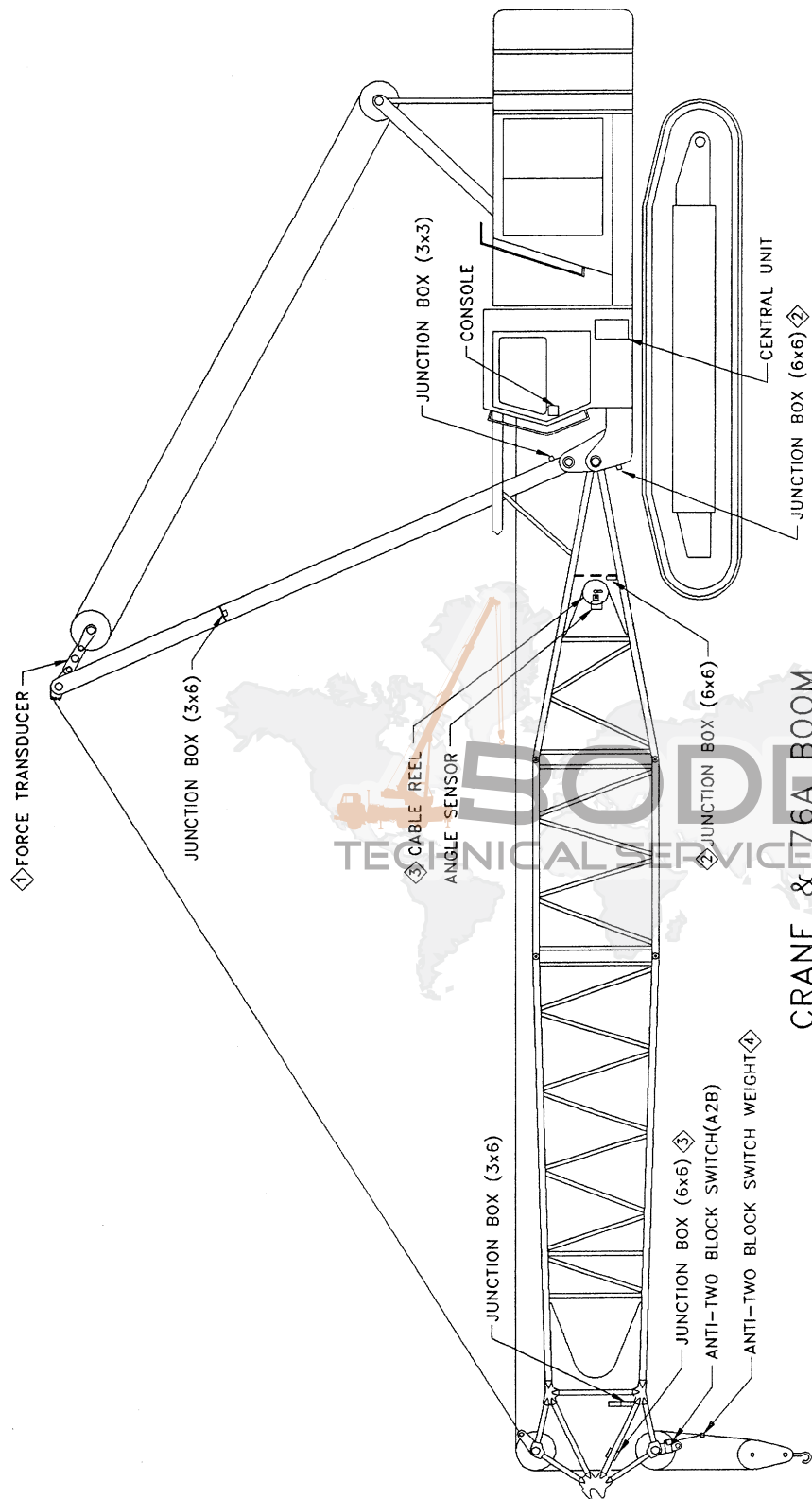
A GROVE WORLDWIDE COMPANY

**PARTS AND
INSTALLATION
MANUAL**

*BODE
TECHNICAL SERVICES*

**HL150T&C
76A BOOM OPTION
LMI SYSTEM**





CRANE & 176A BOOM

INSTALLATION OF LMI COMPONENTS

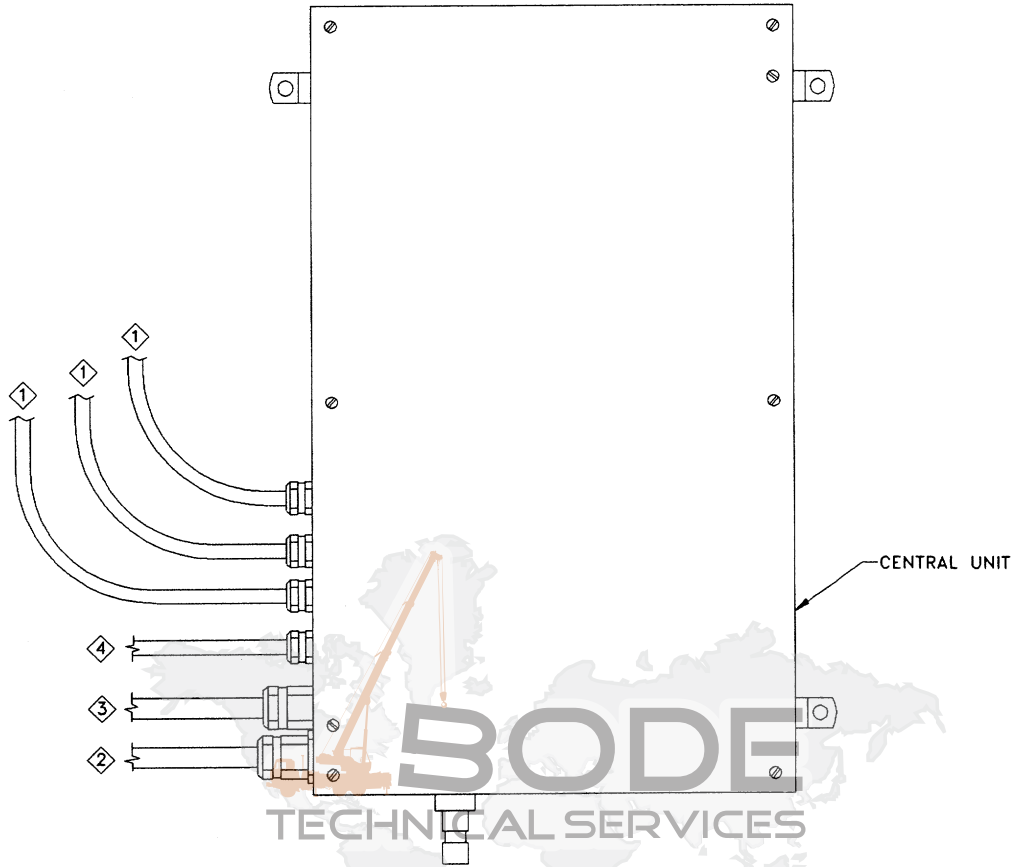
NOTES:

ADD DIELECTRIC LUBRICANT (e.g. NYOGEL 759G) TO INSIDE OF RECEPTACLES, PLUGS, AND ELECTRICAL CONNECTORS. TO IMPROVE PROTECTION AGAINST CORROSION AND MALFUNCTION DUE TO CONDENSATION.

- A. CLEAN ELECTRICAL CONTACTS AND CONNECTORS OF ALL FOREIGN MATERIAL SUCH AS GREASE, OIL, AND DIRT BEFORE APPLYING LUBRICANT.
- B. APPLY A GENEROUS AMOUNT OF LUBRICANT ON THE ELECTRICAL CONTACTS AND CONNECTORS BEFORE MOUNTING.
- C. AFTER MATING CONTACTS AND CONNECTORS, CLEAN OFF THE EXCESS SQUEEZED OUT.

FOR ELECTRICAL CONNECTIONS REFER TO THE WIRING SCHEMATIC IN THIS PARTS AND INSTALLATION MANUAL.

- ① ALLOW AMPLE CABLE LOOP TO COVER ALL MAST ANGLES.
- ② TO CONNECT MAIN BOOM TO SUPER-STRUCTURE: SCREW CABLE WITH PLUG ORIGINATING FROM (6 x 6) JUNCTION BOX BENEATH CABLE REEL TO RECEPTACLE ON (6 x 6) JUNCTION BOX.
- ③ TO CONNECT CABLE REEL TO MAIN BOOM NOSE; UNROLL CABLE FROM CABLE REEL AND SCREW PLUG INTO RECEPTACLE ON (6 x 6) JUNCTION BOX ON MAIN BOOM NOSE.
- ④ REFER TO OPERATOR'S HANDBOOK FOR PROPER USE OF A2B SWITCH WEIGHT AND RETAINER FLAG.



DETAIL A
(SUPER-STRUCTURE)

NOTES:

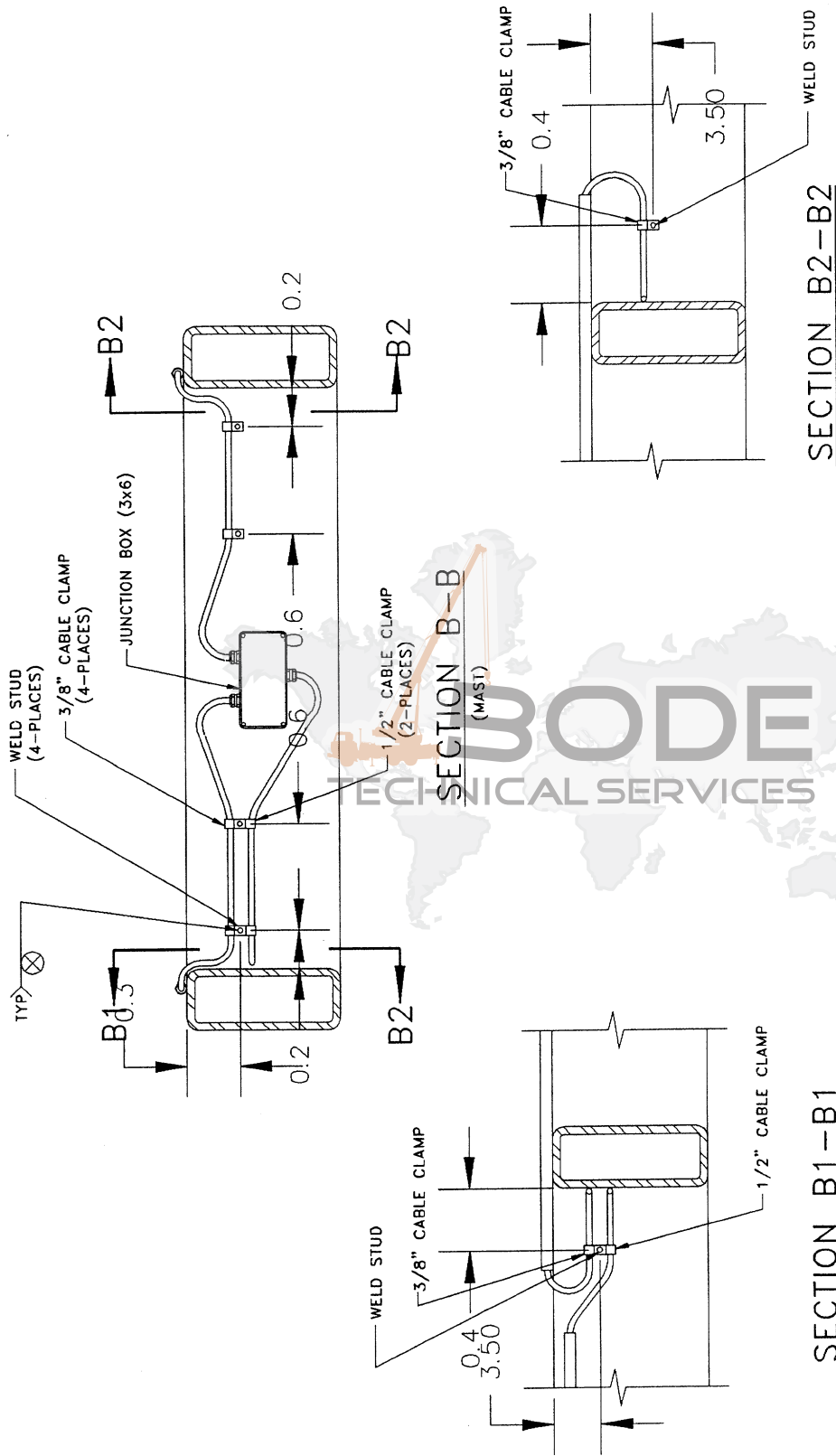
ADD DIELECTRIC LUBRICANT (e.g. NYOGEL 759G) TO INSIDE OF RECEPTACLES, PLUGS, AND ELECTRICAL CONNECTORS, TO IMPROVE PROTECTION AGAINST CORROSION AND MALFUNCTION DUE TO CONDENSATION.

- A. CLEAN ELECTRICAL CONTACTS AND CONNECTORS OF ALL FOREIGN MATERIAL SUCH AS GREASE, OIL, AND DIRT BEFORE APPLYING LUBRICANT.
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- C. AFTER MATING CONTACTS AND CONNECTORS, CLEAN OFF THE EXCESS SQUEEZED OUT.

FOR ELECTRICAL CONNECTIONS REFER TO THE WIRING SCHEMATIC IN THIS PARTS AND INSTALLATION MANUAL.

REFER TO SUPER-STRUCTURE COMPONENT KIT FOR INSTALLATION HARDWARE.

- ① REFER TO GROVE ELECTRICAL SCHEMATIC FOR WIRING DETAIL.
- ② WIRE TO CONSOLE IN CAB.
- ③ WIRE TO (6 x 6) JUNCTION BOX ON SUPER-STRUCTURE.
- ④ WIRE TO (3 x 3) JUNCTION BOX ON MAST.



NOTES:

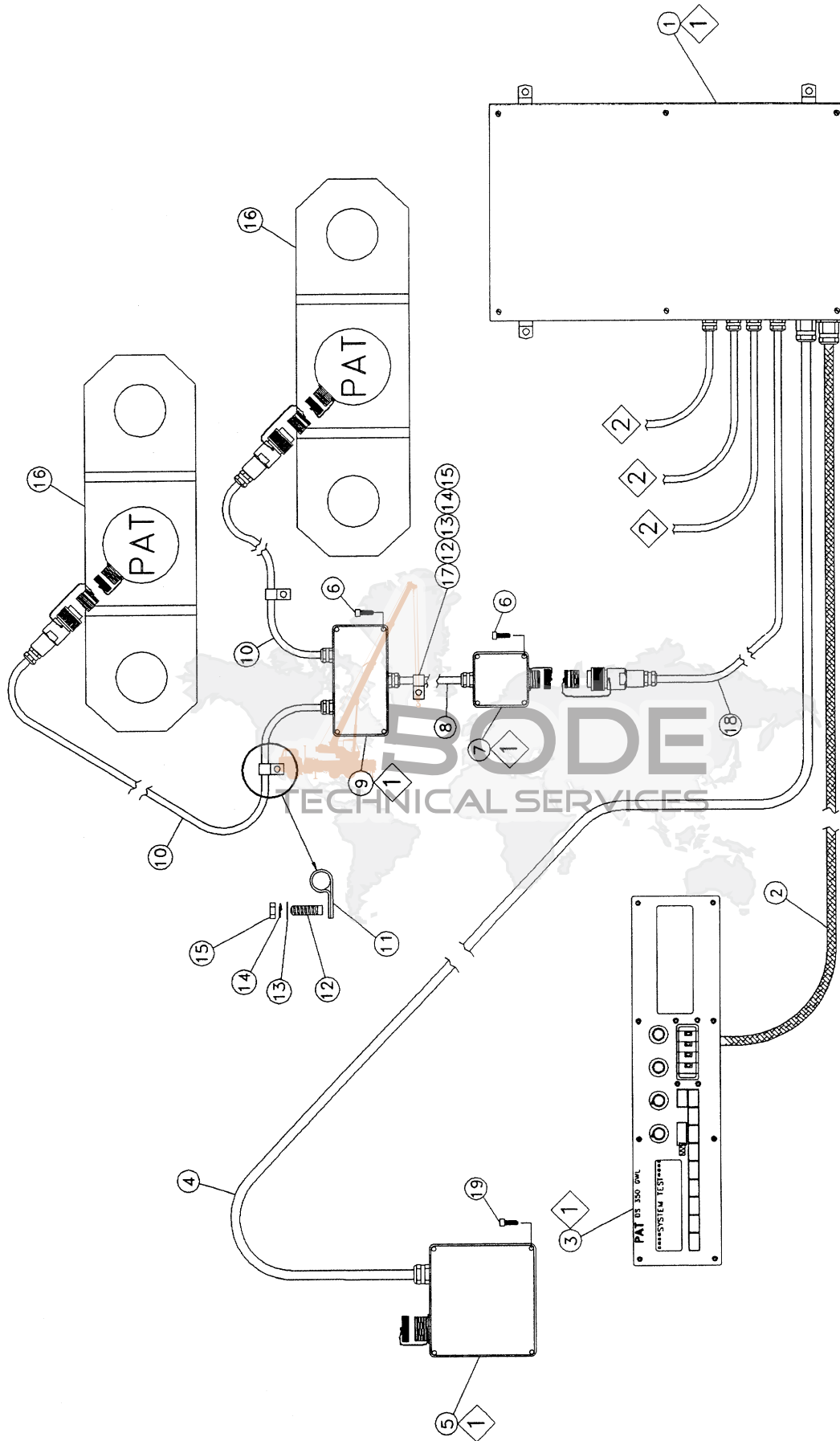
ADD DIELECTRIC LUBRICANT (e.g. NYOGEL 7596) TO INSIDE OF RECEPTILES, PLUGS, AND ELECTRICAL CONNECTORS, TO IMPROVE PROTECTION AGAINST CORROSION AND MALFUNCTION DUE TO CONDENSATION.

- A. CLEAN ELECTRICAL CONTACTS, AND CONNECTORS OF ALL FOREIGN MATERIAL SUCH AS GREASE, OIL, AND DIRT BEFORE APPLYING LUBRICANT.
- B. APPLY A GENEROUS AMOUNT OF LUBRICANT ON THE ELECTRICAL CONTACTS AND CONNECTORS BEFORE MOUNTING.
- C. AFTER MATING CONTACTS AND CONNECTORS, CLEAN OFF THE EXCESS SQUEEZED OUT.

ALL DIMENSIONS IN INCHES TO CENTER LINE OF WELD STUDS.

FOR ELECTRICAL CONNECTIONS REFER TO THE WIRING SCHEMATIC IN THIS PARTS AND INSTALLATION MANUAL.

REFER TO SUPER-STRUCTURE COMPONENT KIT FOR INSTALLATION HARDWARE.

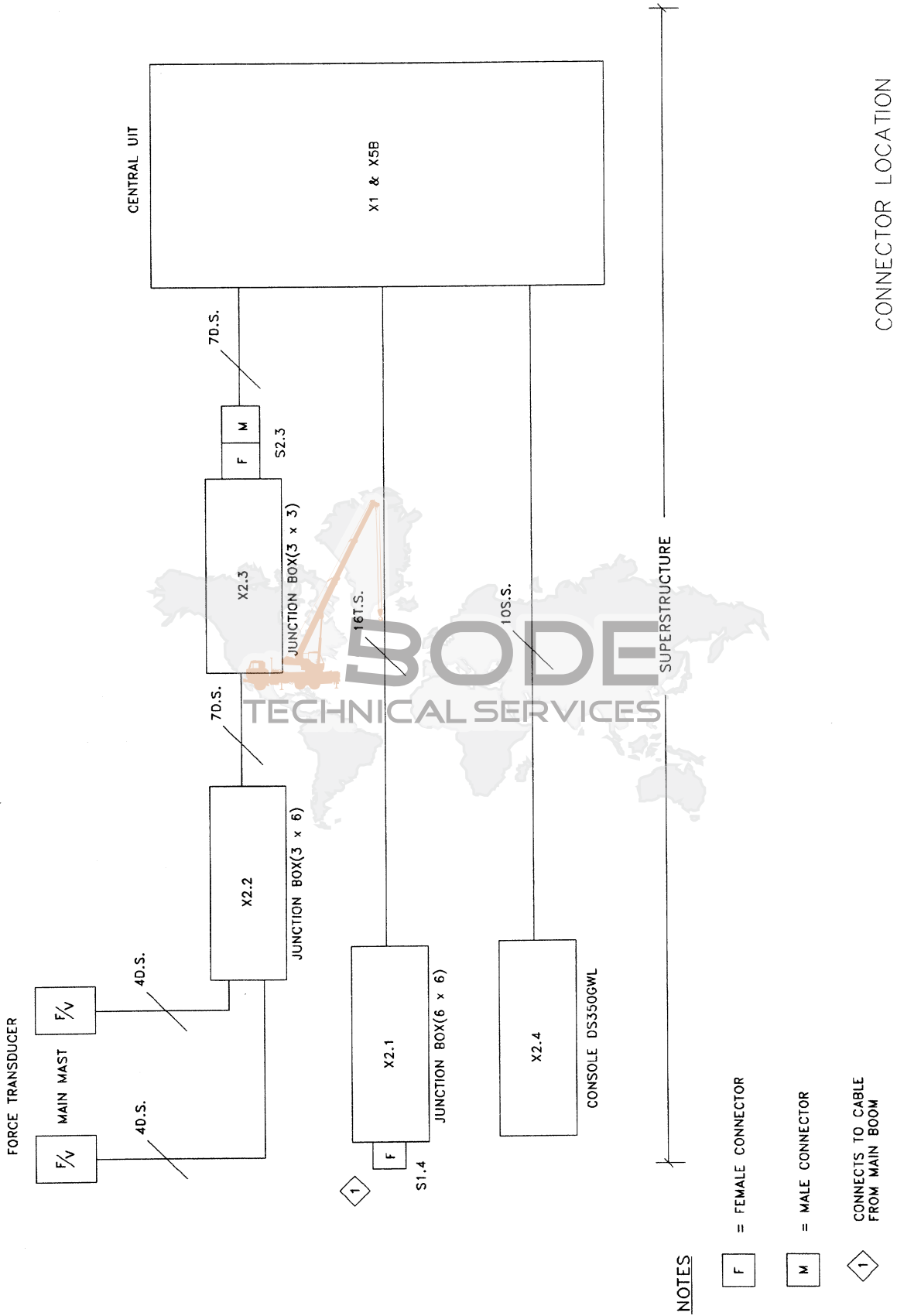


NOTES:

- ① SEE PART BREAKDOWN DWG. FOR PARTS DETAIL
- ② REFER TO GROVE ELECTRICAL SCHEMATIC FOR WIRING DETAIL.

NO.	PART NO.	QTY	DESCRIPTION	NO.	PART NO.	QTY	DESCRIPTION
1 +	9-333-102631	1	CENTRAL UNIT ASSEMBLY				
2	9-333-102579	1	CABLE, 10 X 0.5 S. S. 20' <MUST CUT TO LENGTH>				
3 +	9-333-102632	1	CONSOLE, ASSEMBLY				
4	9-333-102578	1	CABLE, 16 X 0.5 T. S. 15' <MUST CUT TO LENGTH>				
5 +	9-333-102580	1	JUNCTION BOX ASSEMBLY <6 X 6>				
6	9-333-102581	8	SCREW				
7 +	9-333-102582	1	JUNCTION BOX ASSEMBLY <3 X 3>				
8	9-333-101746	1	CABLE, ELEC. 7 X 0.5 D. S. 20'				
9 +	9-333-102583	1	JUNCTION BOX ASSEMBLY <3 X 6>				
10	9-333-101483	2	CABLE, ELEC. 4 COND. D. S. 4 PIN FEMALE PLUG				
11	9-333-102584	6	CLAMP, CABLE 3/8"				
12	7-866-142140	9	STUD 1/4"-20 X 7/8"				
13	7-450-140141	9	WASHER 1/4" NARROW				
14	7-450-140050	9	LOCKWASHER 1/4" REG				
15	7-660-140000	9	NUT, HEX 1/4"-20 NC - GRD A				
16	9-333-101787	2	FORCE TRANSDUCER <60 TON>				
17	7-300-000101	3	CLAMP 1/2"				
18	9-333-102585	1	CABLE ASSEMBLY, 7 COND. D. S. 7 PIN FEMALE PLUG				
19	9-333-102586	4	SCREW				

+ SEE FURTHER BREAKDOWN THIS GROUP



NOTES

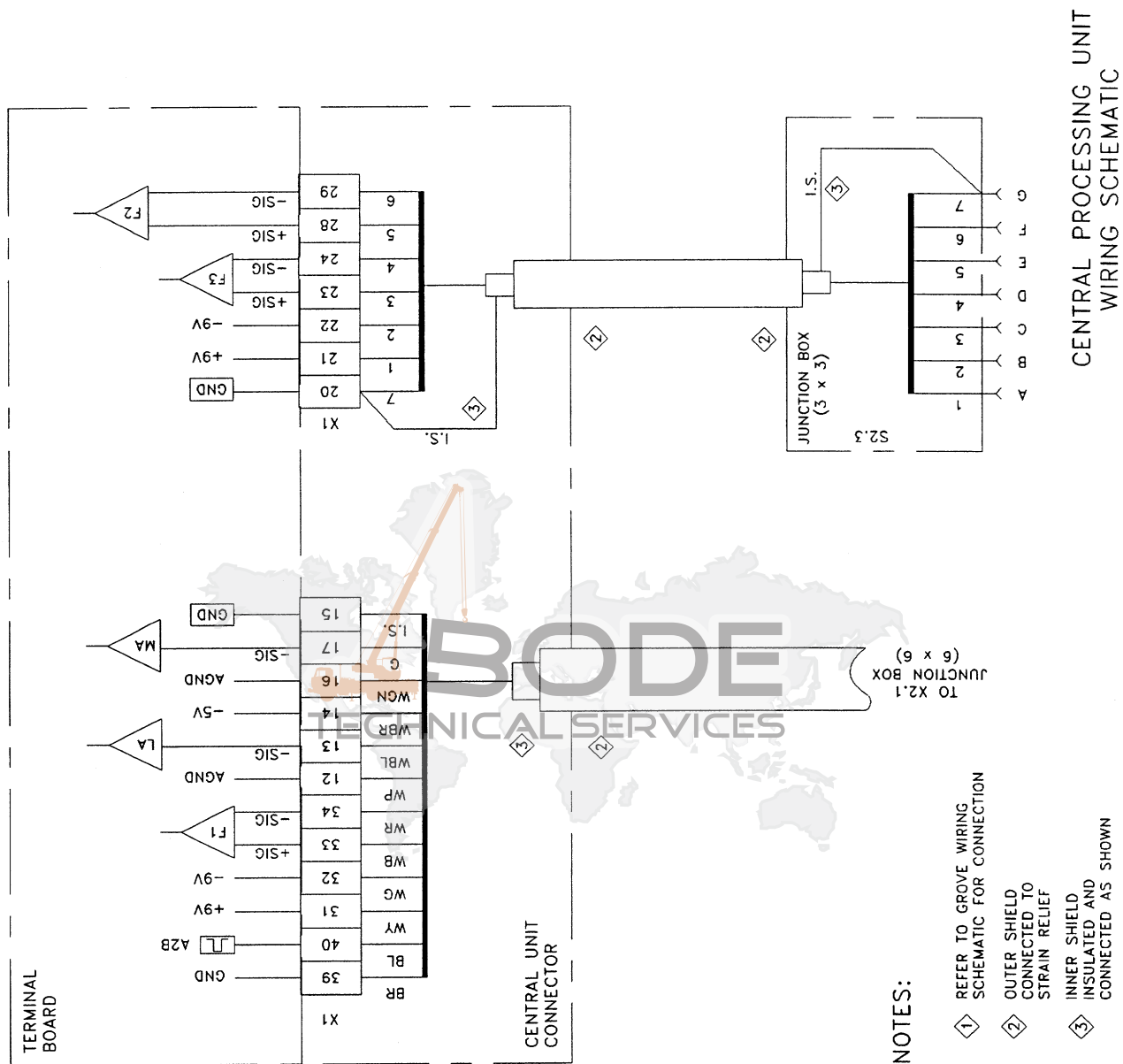
F = FEMALE CONNECTOR

M = MALE CONNECTOR

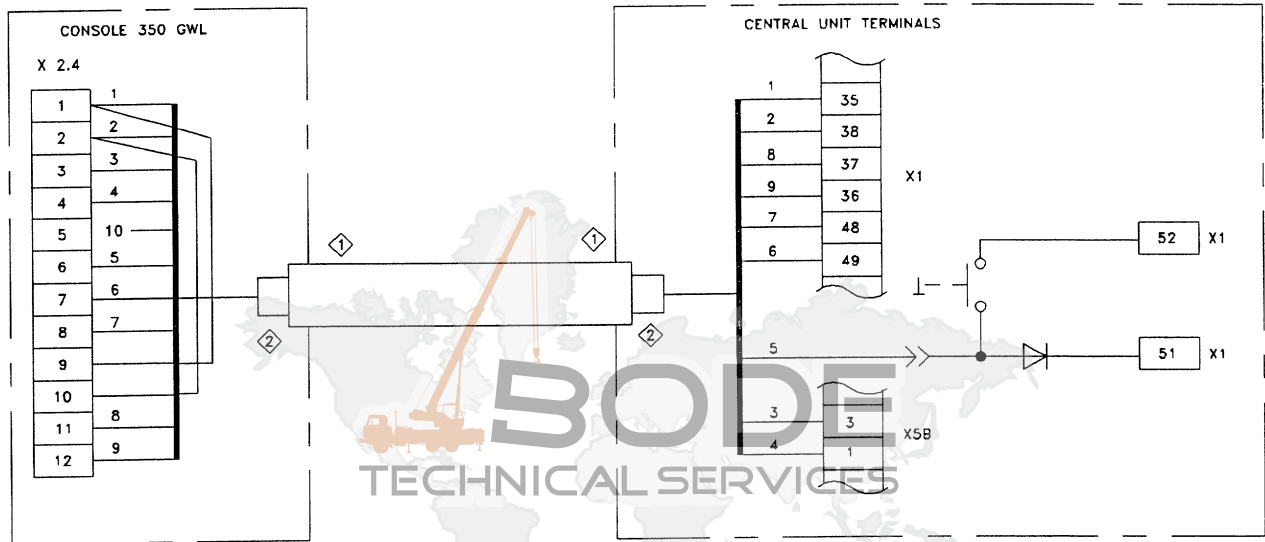
1 = CONNECTS TO CABLE FROM MAIN BOOM

SS = SINGLE SHIELDED CABLE
 DS = DOUBLE SHIELDED CABLE
 TS = TRIPLE SHIELDED CABLE

CONNECTOR LOCATION



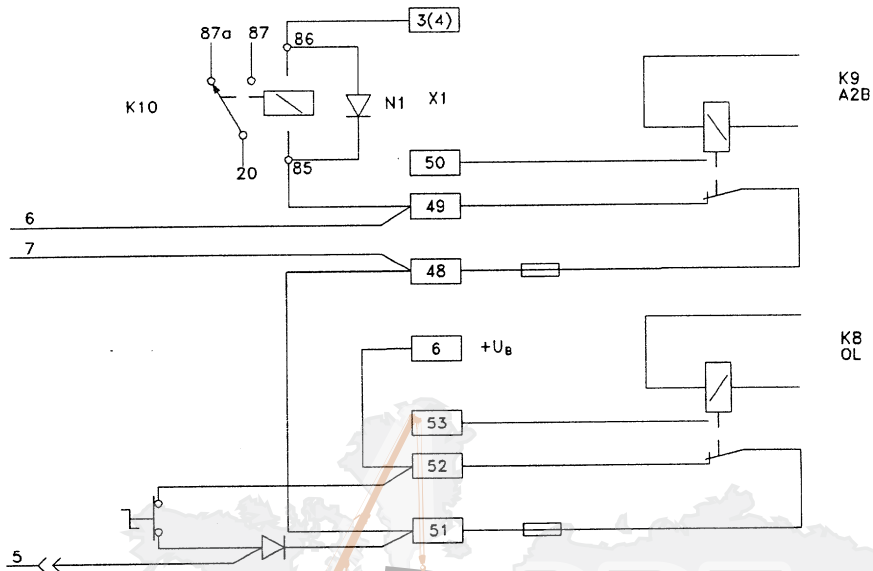
CENTRAL PROCESSING UNIT
WIRING SCHEMATIC



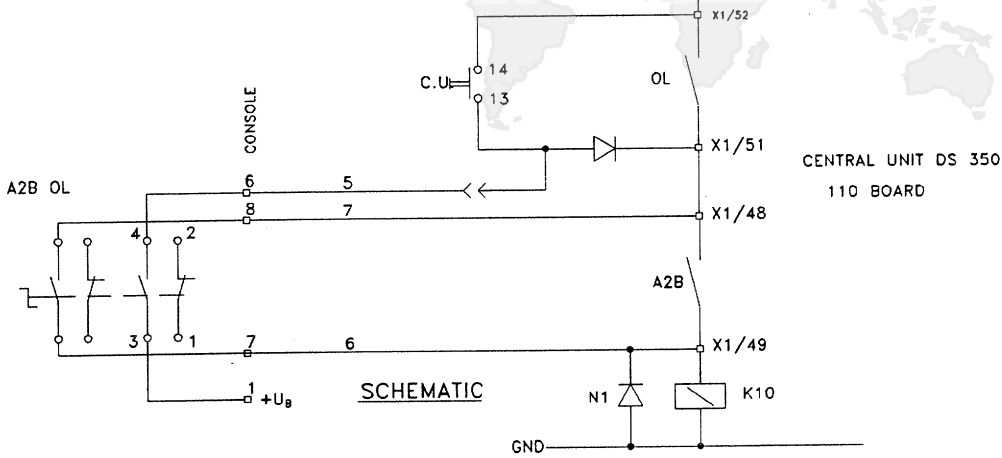
NOTES:

- ① OUTER SHIELD CONNECTED TO STRAIN RELIEF
- ② INNER SHIELD CUT AND INSULATED ON BOTH ENDS

CENTRAL PROCESSING UNIT
TO CONSOLE
WIRING SCHEMATIC



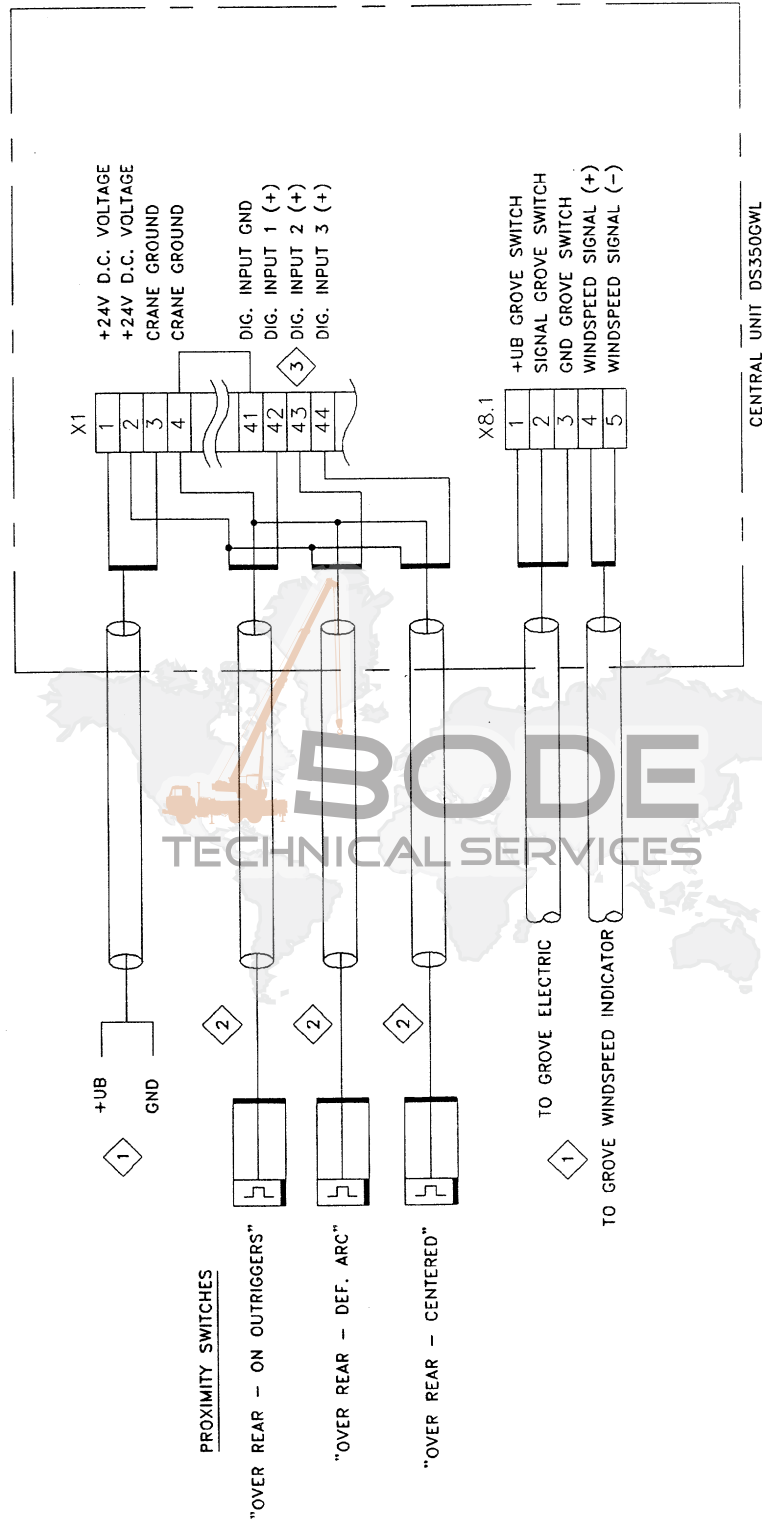
BY-PASS SWITCH CONNECTION



NOTES:

- A2B = ANTI-TWO BLOCK
- OL = OVER/LOAD

BY-PASS SWITCH SCHEMATIC



CENTRAL UNIT DS350GWL

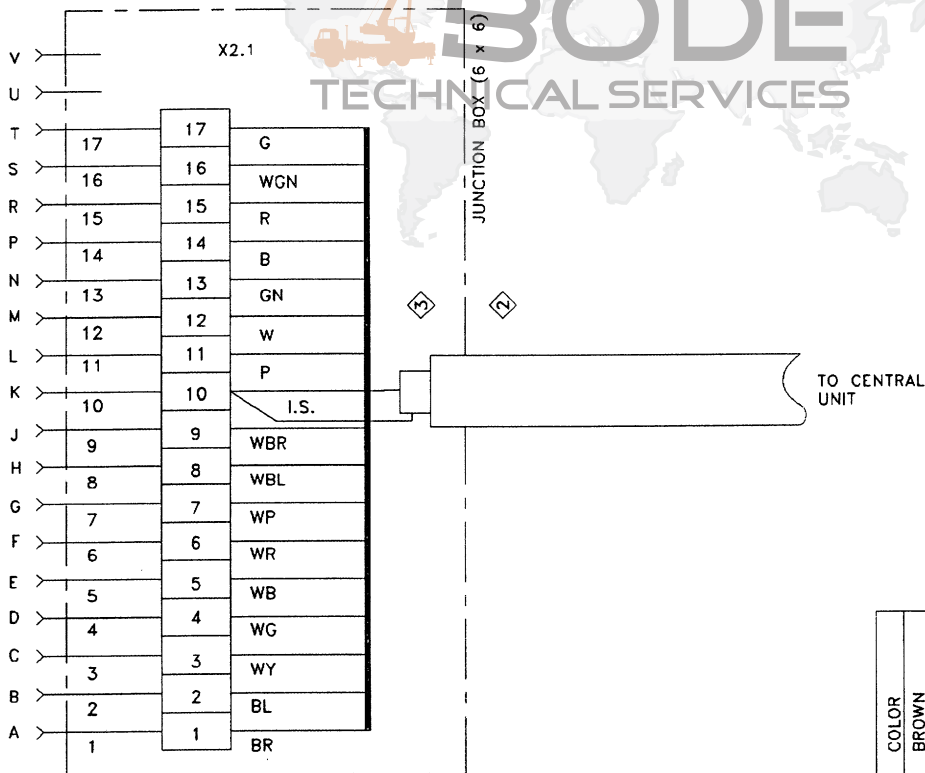
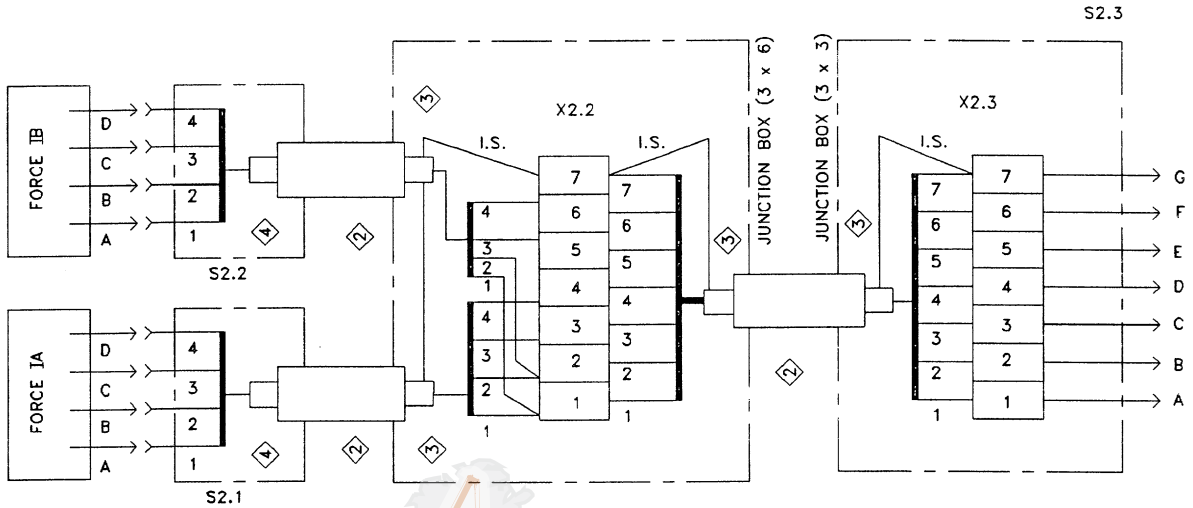
CRANE ELECTRIC, INTERFACE



NOTES

- 1 REFER TO GROVE SCHEMATICS AND DOCUMENTATION
- 2 FOR HOIST ONLY! NOT USED FOR HL150C
- 3 CONNECTED FOR HL150T ONLY! NOT CONNECTED FOR HL150C

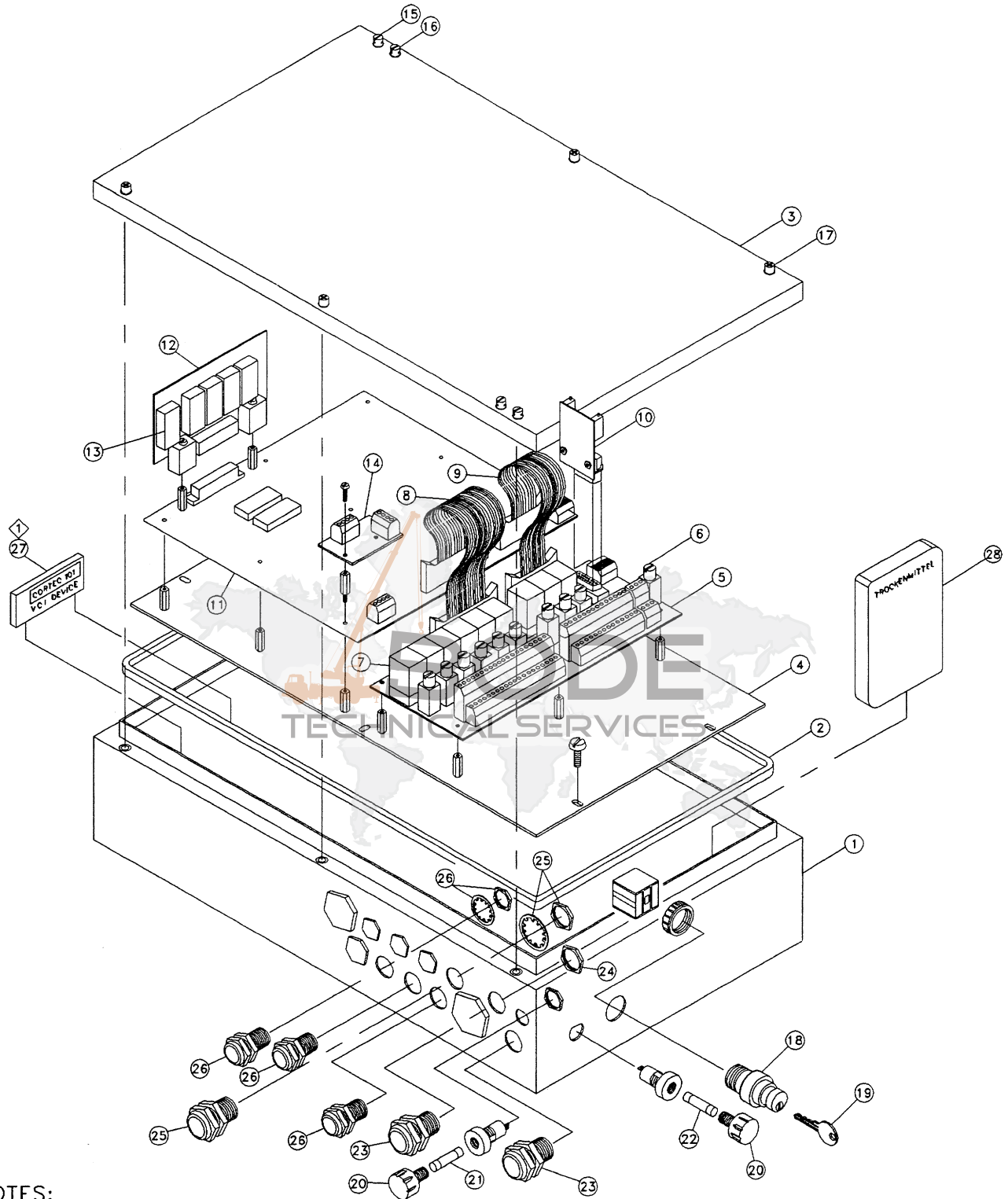
MAIN MAST



- NOTES:
- ② OUTER SHIELD CONNECTED TO STRAIN RELIEF
 - ③ INNER SHIELD INSULATED AND CONNECTED AS SHOWN
 - ④ INNER SHIELD CUT AND INSULATED

CODE	COLOR
BR	BROWN
BL	BLACK
WY	WHITE\YELLOW
WG	WHITE\GRAY
WB	WHITE\BLUE
WR	WHITE\RED
WP	WHITE\PINK
WBL	WHITE\BLACK
WBR	WHITE\BROWN
P	PINK
W	WHITE
CN	GREEN
B	BLUE
R	RED
WGN	WHITE\GREEN
G	GRAY
I.S.	INNER SHIELD

S1.4



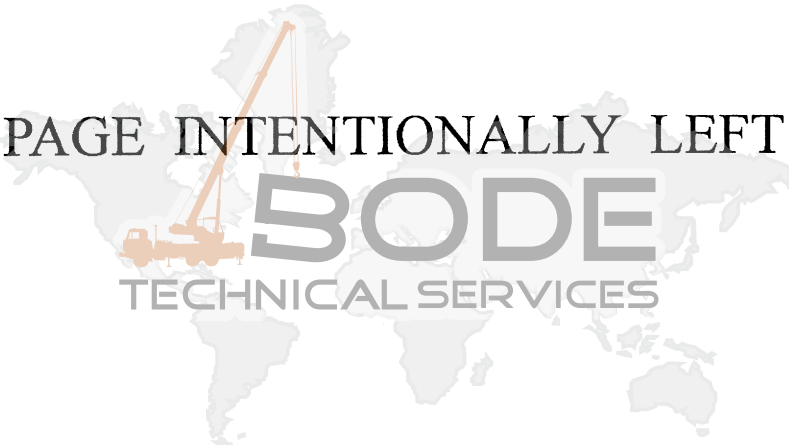
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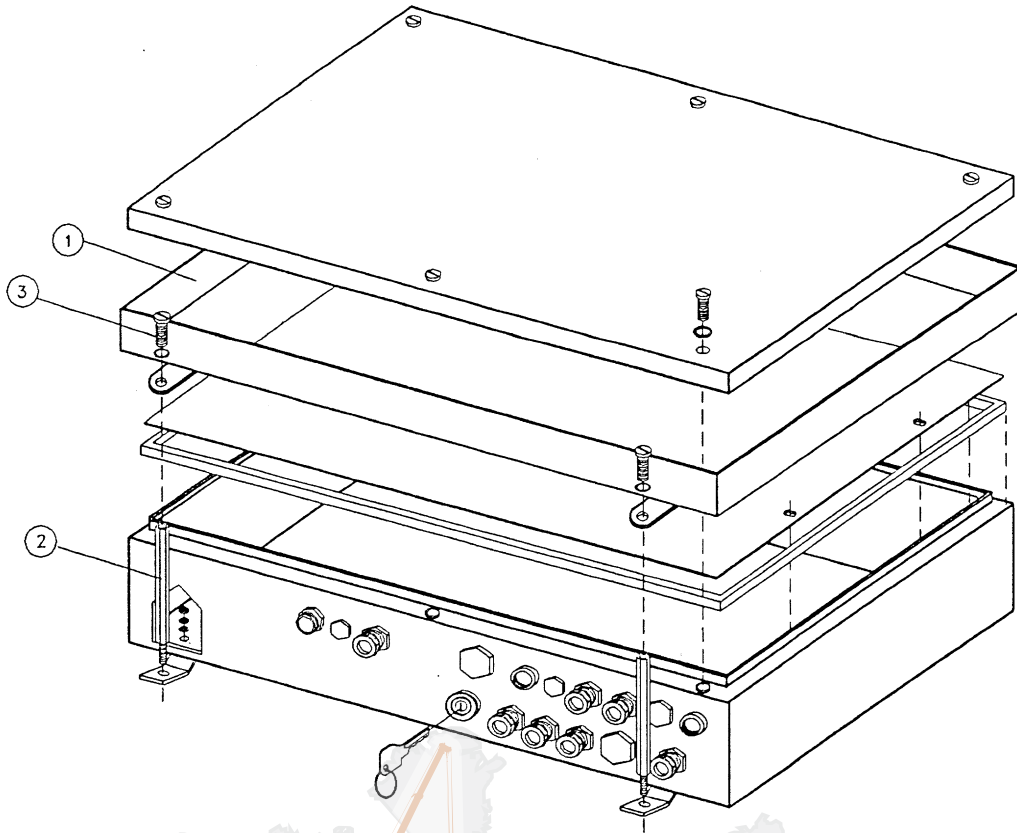
SEE PAGE 6 FOR BILL OF MATERIAL.

- ◊ PEEL OFF PROTECTIVE PAPER FROM SELFADHESIVE ON BACK OF DEVICE. ADHERE TO INSIDE WALL OF ENCLOSURE.

NO.	PART NO.	QTY DESCRIPTION	NO.	PART NO.	QTY DESCRIPTION
	9-333-102631	COMPLETE ASSY			
1	9-333-101662	1 HOUSING			
2	9-333-101591	1 SEAL, COVER			
3	9-333-101589	1 COVER			
4	9-333-102083	1 PLATE, MOUNTING			
5	9-333-102587	1 BOARD, CONNECTION			
6	9-333-102089	1 FUSE, 4 AMP			
7	9-333-101596	9 RELAY			
8	9-333-101595	1 CABLE, CONNECTING 40 CORE			
9	9-333-101594	1 CABLE, CONNECTING 26 CORE			
10	9-333-102588	1 BOARD, AMPLIFIER			
11	9-333-102589	1 BOARD, MAIN			
12	9-333-102590	1 BOARD, MEMORY			
13	9-333-102088	9 FUSE, 2 AMP			
14	9-333-102288	1 BOARD, INTERFACE			
15	9-333-102380	2 SCREW M5 X 30 W/HOLE			
16	9-333-102381	2 SCREW M5 X 10 W/HOLE			
17	9-333-102379	4 SCREW M5 X 30 W/O HOLE			
18	9-333-101981	1 SWITCH, BYPASS			
19	9-333-101982	1 KEY			
20	9-333-101666	2 HOLDER, FUSE			
21	9-333-101667	1 FUSE, AMP 2			
22	7-482-000019	1 FUSE, 10 AMP			
23	9-333-101735	2 STRAIN RELIEF GREY - WHITE INSERT PG13.5			
24	9-333-101547	2 LOCKNUT PG 13.5			
25	9-333-102444	1 STRAIN RELIEF RED INSERT - PG11 W/OUT AND WASHER			
26	9-333-101599	3 STRAIN RELIEF GREEN INSERT - PG11			
27	7-296-000004	1 INHIBITOR, CORROSION			
28	9-333-101918	1 DESSICANT PACK			

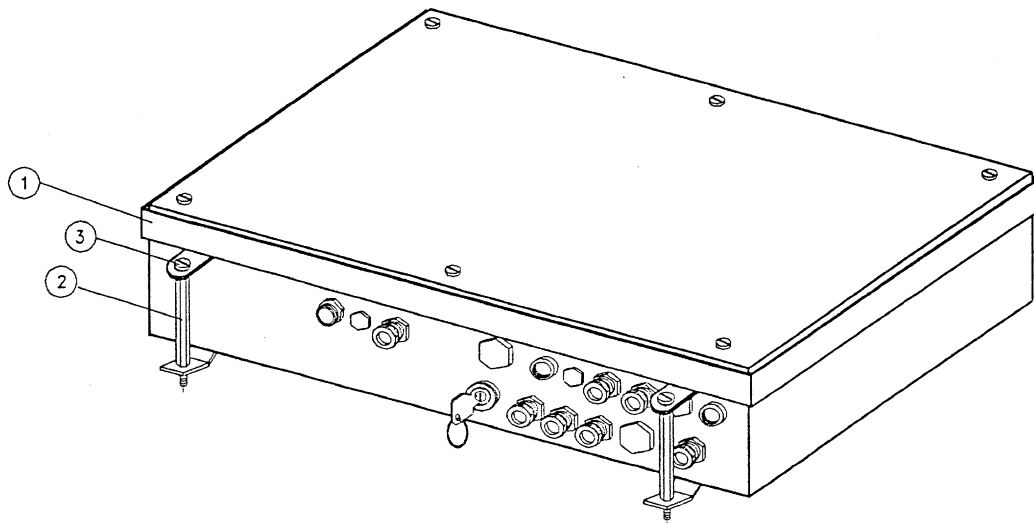
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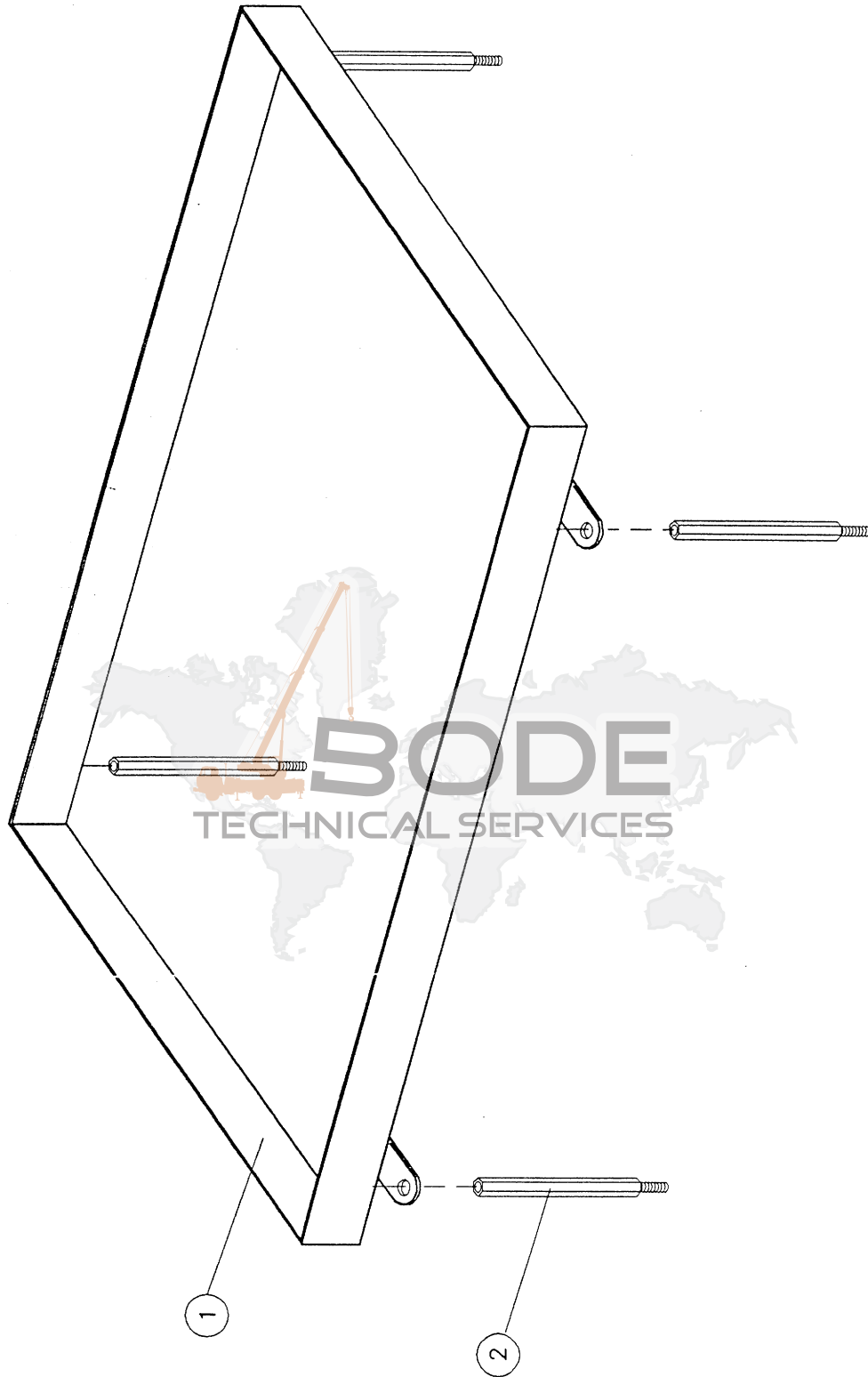




WATER DEFLECTION FRAME INSTALLATION

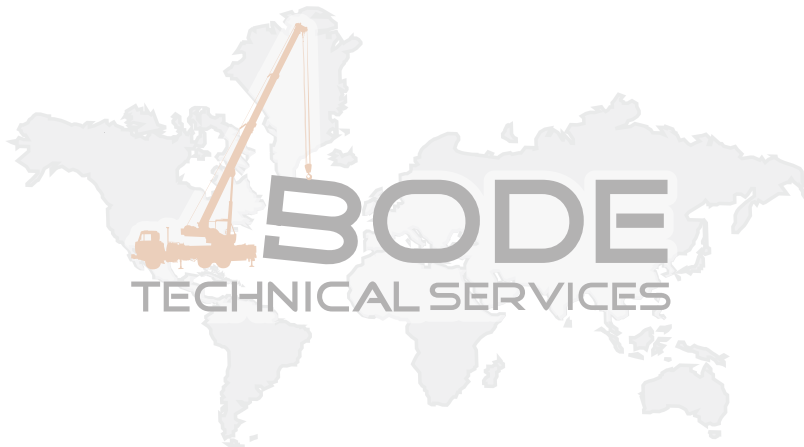
1. REMOVE EXISTING MOUNTING HARDWARE SCREWS (3) AND REPLACE THEM WITH THE REQUIRED STAND-OFFS (2) TO FIT YOUR APPLICATION.
2. PLACE THE WATER DEFLECTION FRAME (1) ATOP THE STAND-OFFS AND SECURE THE FRAME WITH THE MOUNTING SCREWS (3) REMOVED PREVIOUSLY.
3. ENSURE THAT THE WATER DEFLECTION FRAME (1) SURROUNDS THE SEAL WHERE THE CENTRAL UNIT COVER MEETS THE HOUSING.

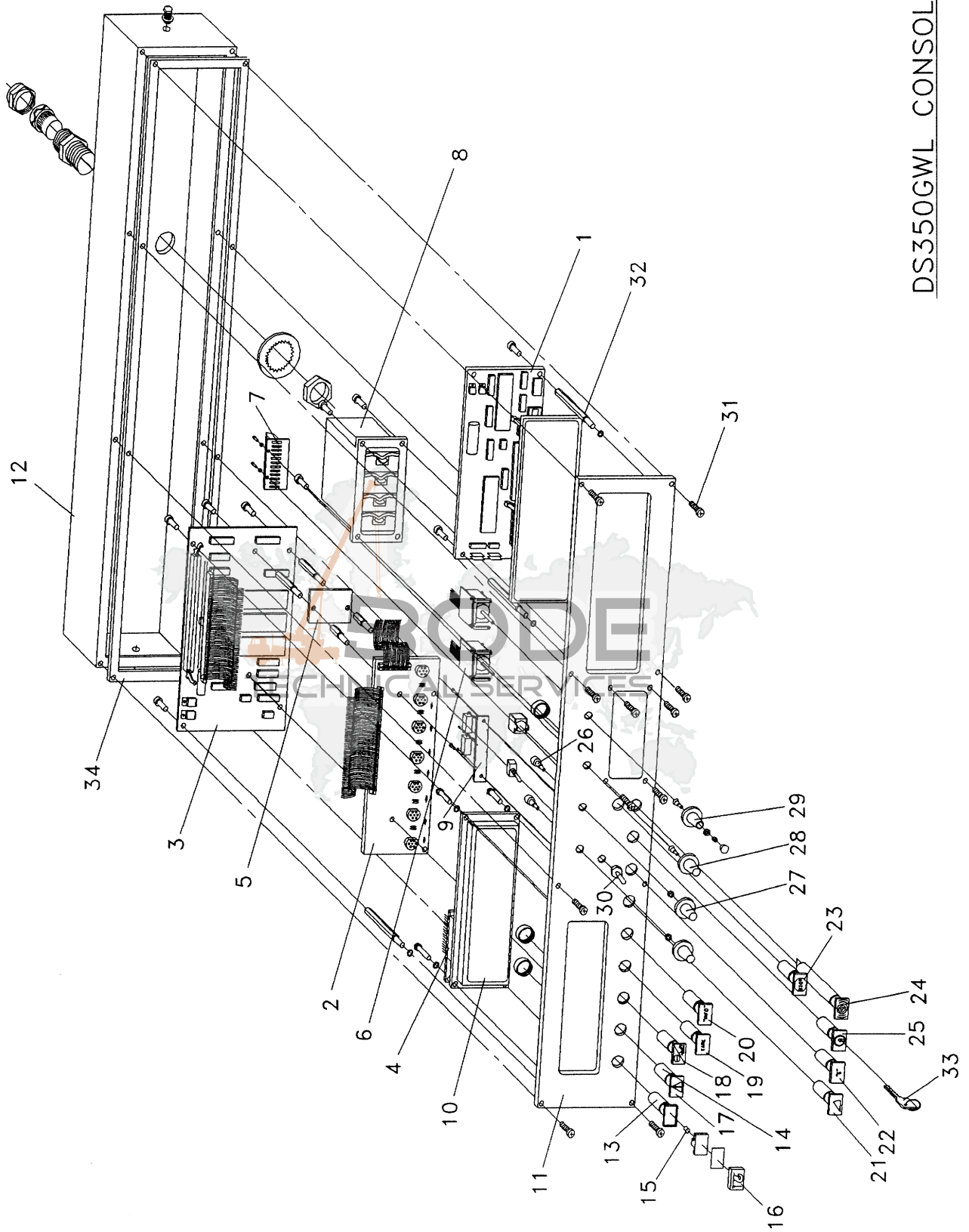




WATER DEFLECTION
FRAME ASSY

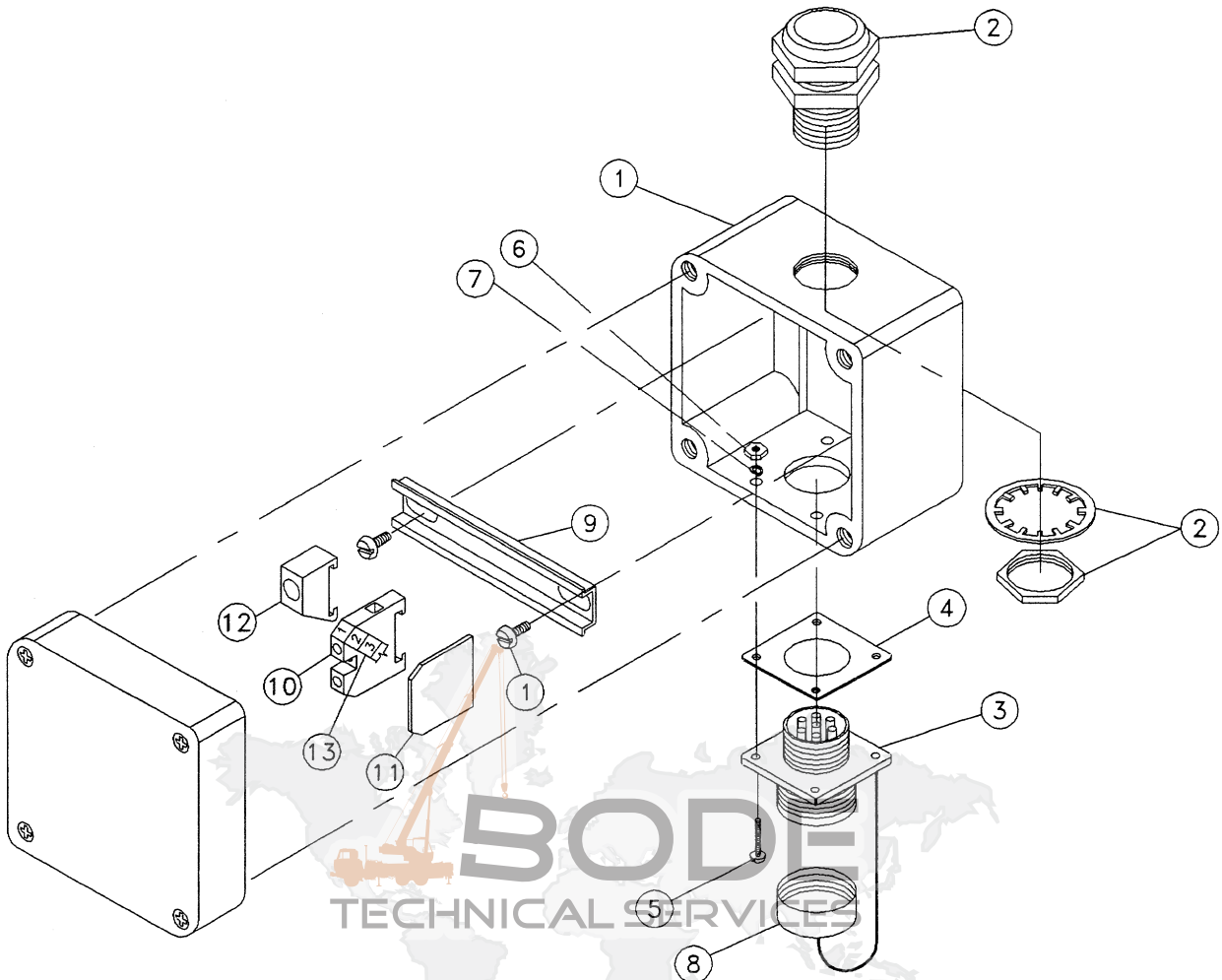
NO.	PART NO.	QTY	DESCRIPTION	NO.	PART NO.	QTY	DESCRIPTION
	3-486-0-00379		COMPLETE ASSY				
1	9-333-102576	1	FRAME				
2	9-333-102627	1	HARDWARE, FRAME MOUNTING				



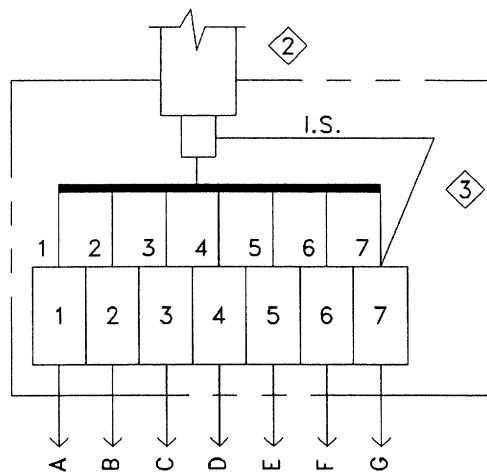


DS350GWL CONSOLE

NO.	PART NO.	QTY DESCRIPTION	NO.	PART NO.	QTY DESCRIPTION
	9-333-102632	COMPLETE ASSY			
1	9-333-102771	1 PROCESSOR BOARD, DATA DISPLAY (REG)			
2	9-333-102772	1 TERMINAL BOARD, DOT MATRIX DISPLAY			
3	9-333-102189	1 BOARD, COMPUTER			
4	9-333-102774	1 DISPLAY ADAPTER, DOT MATRIX			
5	9-333-102775	1 ADAPTER, BY-PASS ELECTRONIC			
6	9-333-102776	1 REEVING SWITCH MODULE, W/ MOUNTING			
7	9-333-102079	1 STRIP, TERMINAL			
8	9-333-102777	1 THUMBWHEEL SWITCH ASS'Y, W/ SCREWS			
9	9-333-102778	1 ILLUMINATION VOLTAGE DIVIDER, 12/24 VOLT			
10	9-333-102779	1 DOT MATRIX, LCD ASS'Y			
11	9-333-102780	1 FRONTFACE, W/ GLASS			
12	9-333-102781	1 ENCLOSURE, COMPLETE			
13	9-333-102782	3 INDICATOR LIGHT BASE			
14	9-333-102783	5 INDICATOR, PUSH BUTTON BASE			
15	9-333-102073	8 BULB			
16	9-333-101682	1 CAP, YELLOW			
17	9-333-101681	1 CAP, RED			
18	9-333-101676	1 CAP, RED			
19	9-333-102127	1 CAP, YELLOW			
20	9-333-101678	1 CAP, ORANGE			
21	9-333-101679	1 CAP, ORANGE			
22	9-333-101680	1 CAP, GREEN			
23	9-333-102784	1 LENS, RED BY-PASS WARNING			
24	9-333-102125	1 BUZZER			
25	9-333-102785	1 BY-PASS KEYSWITCH ASS'Y			
26	9-333-102786	1 ROTARY SWITCH FOR GEOM. DATA SELECTION			
27	9-333-102787	1 KNOB, SCALE (POINTER) HOIST ROPE MODEL			
28	9-333-102078	1 KNOB			
29	9-333-101997	1 KNOB			
30	9-333-102167	1 SWITCH			
31	9-333-102788	8 MOUNTING SCREWS, FRONTFACE			
32	9-333-102789	1 MOUNTING SCREW SET, INTERNAL COMPONENTS			
33	9-333-101691	1 KEY, CONSOLE			
34	9-333-102713	1 GASKET			



EXPLODED VIEW



WIRING DETAIL

NOTES:

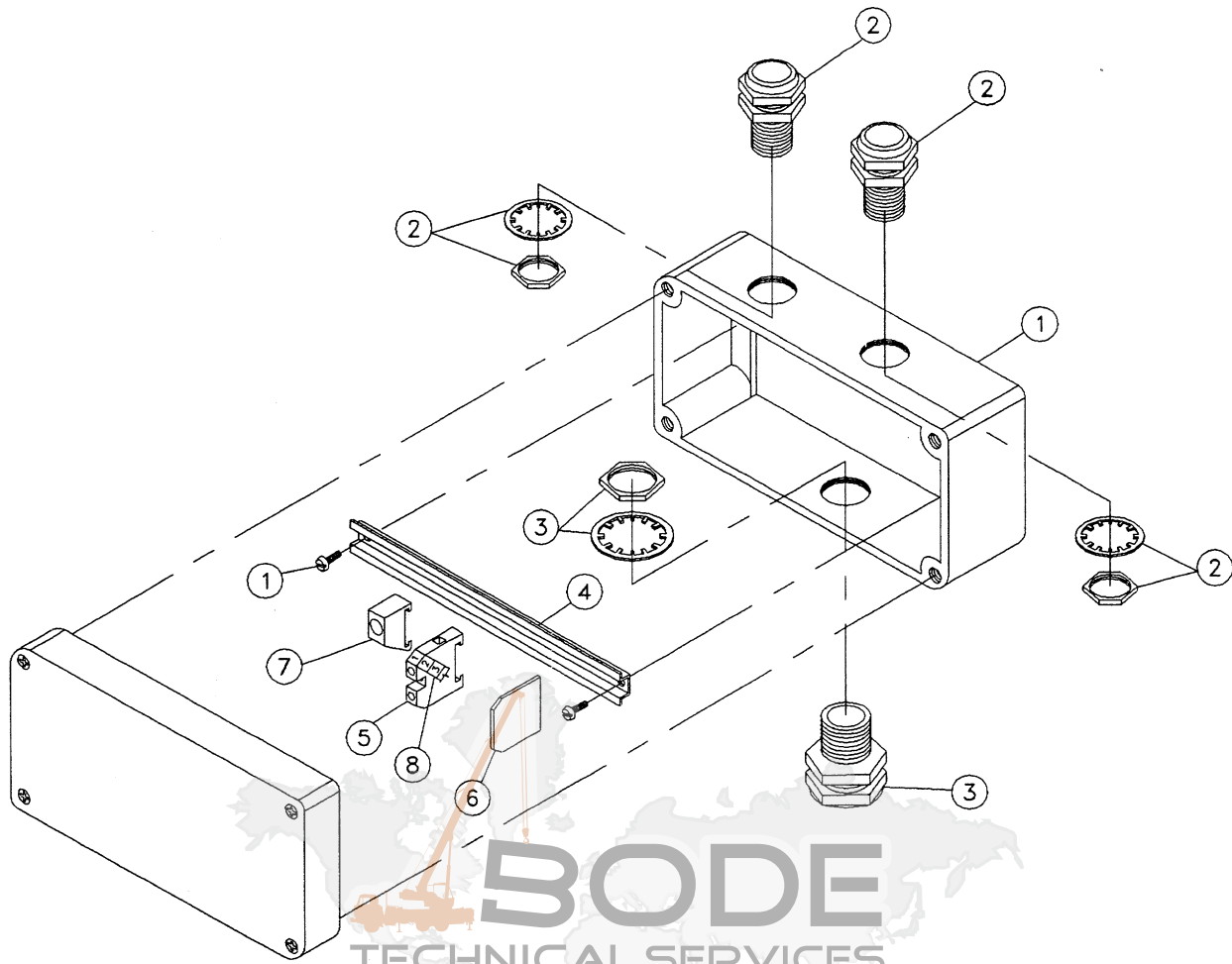
- ② OUTER SHIELD CONNECTED TO STRAIN RELIEF INSERT.
- ③ INNER SHIELD INSULATED AND CONNECTED AS SHOWN.

JUNCTION BOX ASSEMBLY (3 X 3)

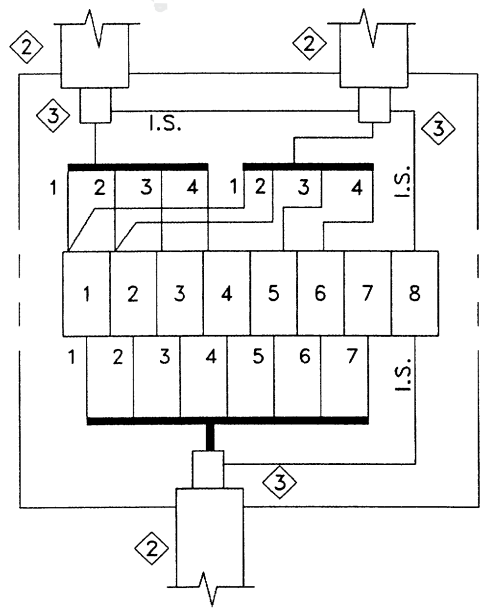
GROVE

NO.	PART NO.	QTY	DESCRIPTION	NO.	PART NO.	QTY	DESCRIPTION
	9-333-102582		COMPLETE ASSY				
1	9-333-102591	1	BOX, HAMMOND				
2	9-333-101579	1	STRAIN RELIEF PG13.5				
3	9-333-102704	1	CANNON CONNECTOR, 7-PIN MALE RECEPTACLE				
4	9-333-102482	1	GASKET				
5	9-333-102265	4	SCREW 4-40 X 1/2"				
6	9-333-102480	4	NUT #4				
7	9-333-102266	4	LOCKWASHER #4				
8	9-333-102268	1	CAP. DUST				
9	9-333-102662	1	MOUNTING RAIL, TERMINAL STRIP				
10	9-333-102663	7	BLOCK, TERMINAL STRIP				
11	9-333-102664	1	END PLATE, TERMINAL STRIP				
12	9-333-102665	1	END BRACKET, TERMINAL STRIP				
13	9-333-102666	1	TAGS, TERMINAL STRIP				





BODE
 TECHNICAL SERVICES
 EXPLODE VIEW



WIRING DETAIL

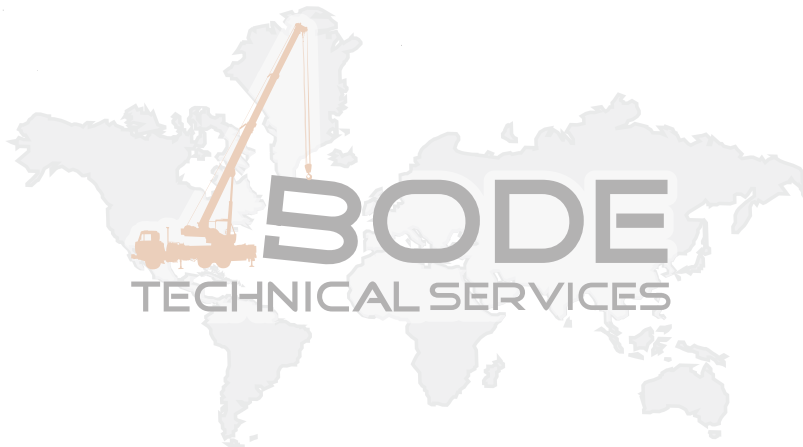
NOTES:

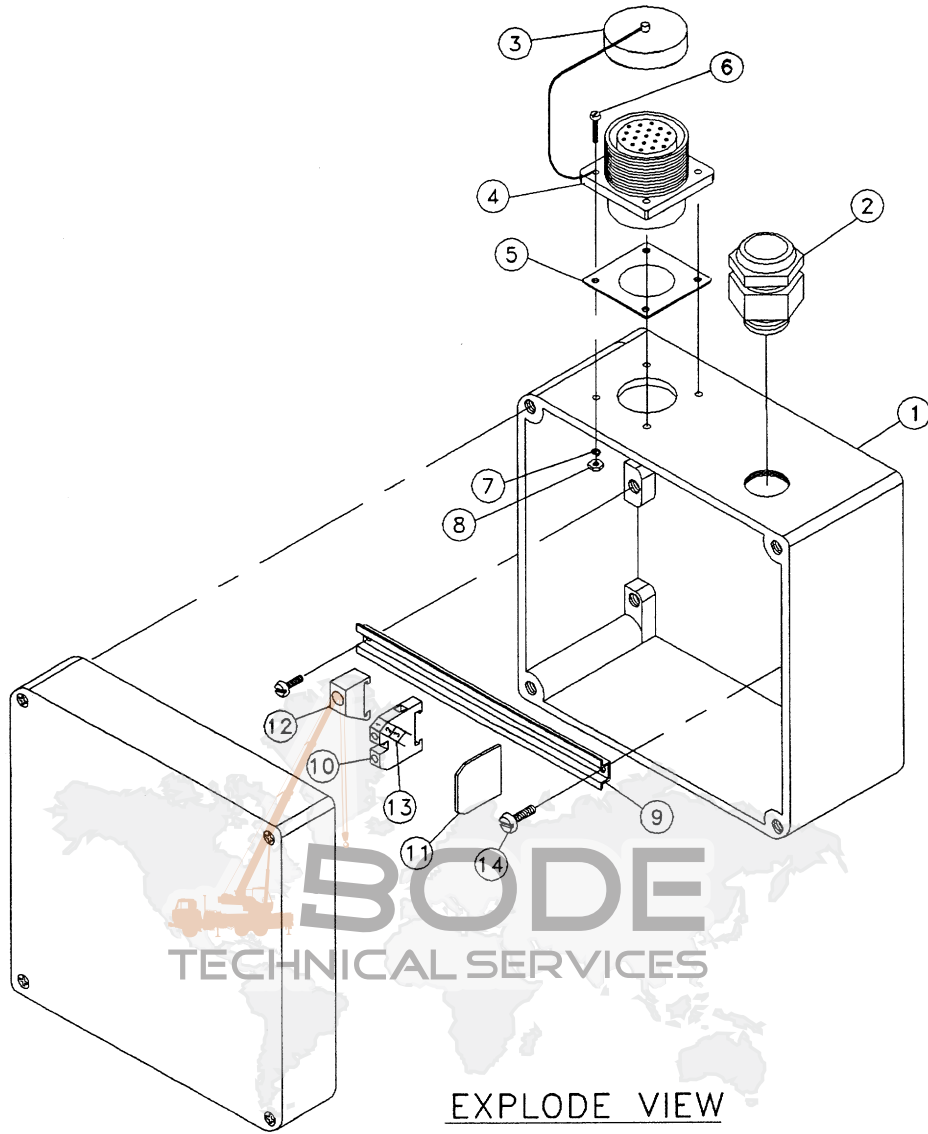
- ② OUTER SHIELD CONNECTED TO STRAIN RELIEF INSERT.
- ③ INNER SHIELD INSULATED AND CONNECTED AS SHOWN.

JUNCTION BOX ASSEMBLY (3 X 6)

GROVE

NO.	PART NO.	QTY DESCRIPTION	NO.	PART NO.	QTY DESCRIPTION
	9-333-102583	COMPLETE ASSY			
1	9-333-102592	1 BOX, HAMMOND			
2	9-333-101599	2 STRAIN RELIEF GREEN INSERT - PG11			
3	9-333-101579	1 STRAIN RELIEF PG13.5			
4	9-333-102667	1 MOUNTING RAIL, TERMINAL STRIP			
5	9-333-102663	8 BLOCK, TERMINAL STRIP			
6	9-333-102664	1 END PLATE, TERMINAL STRIP			
7	9-333-102665	1 END BRACKET, TERMINAL STRIP			
8	9-333-102666	1 TAGS, TERMINAL STRIP			

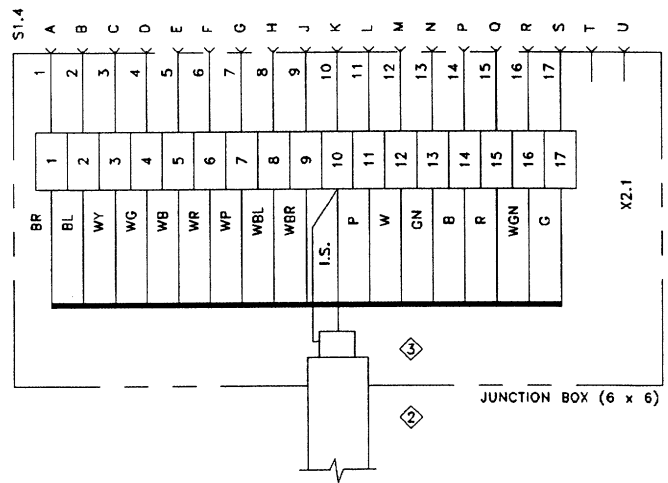




EXPLODE VIEW

NOTES:

- ② OUTER SHIELD CONNECTED TO STRAIN RELIEF
- ③ INNER SHIELD INSULATED AND CONNECTED AS SHOWN

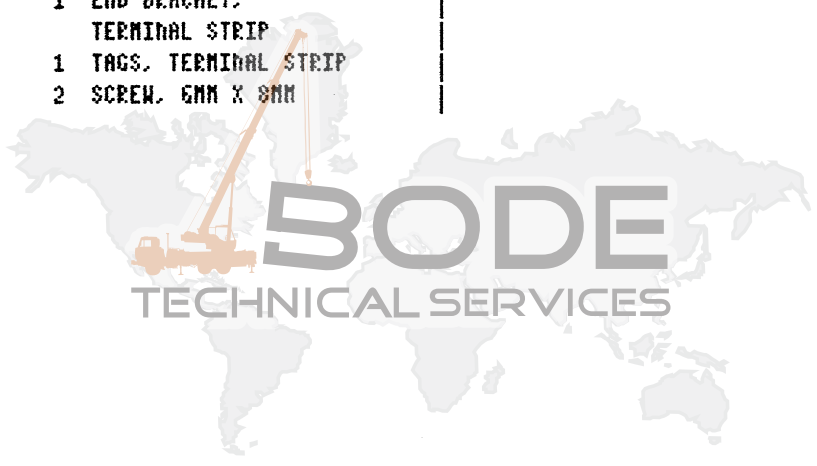


WIRING DETAIL

JUNCTION BOX ASSEMBLY (6 X 6)

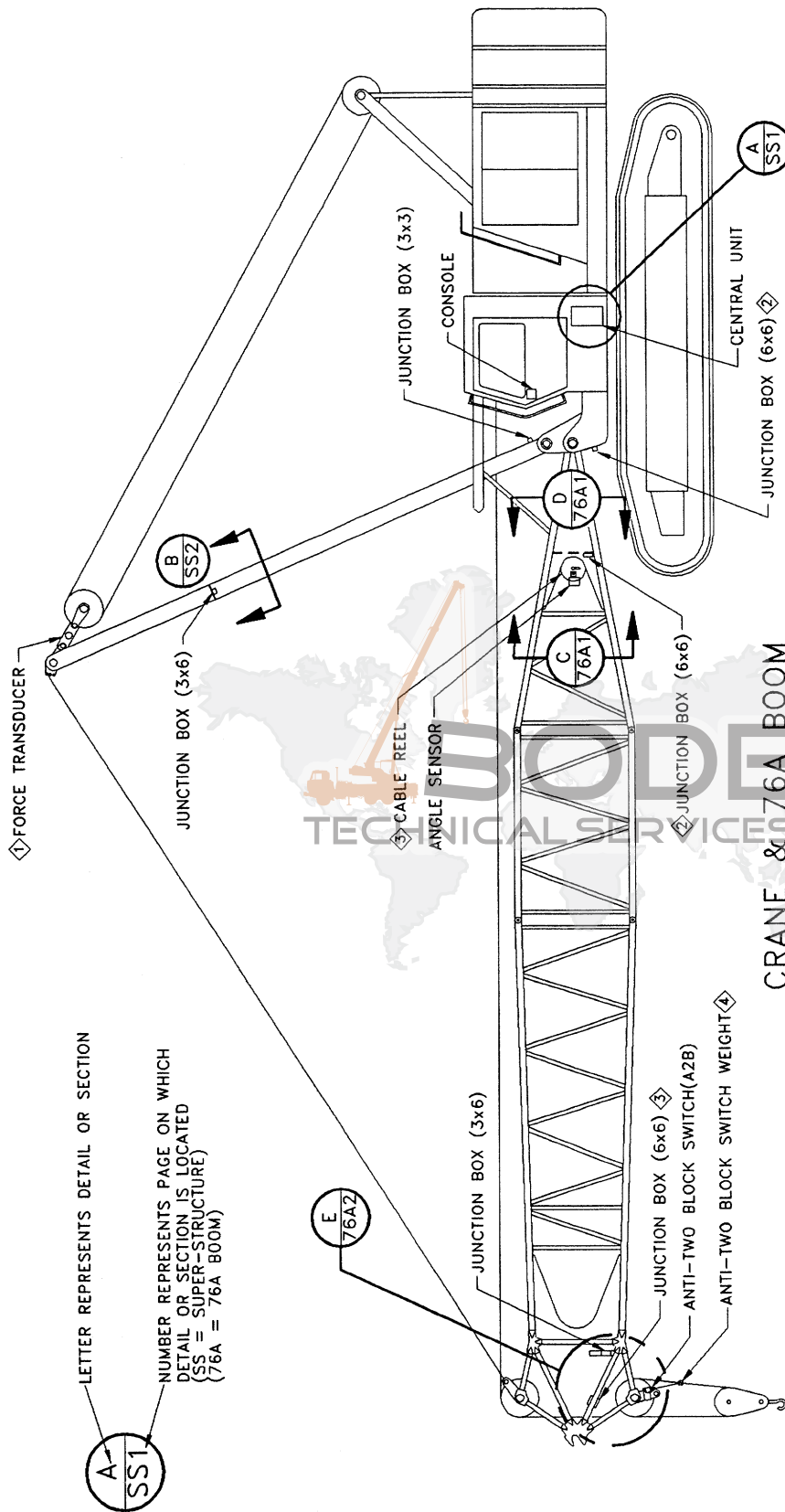
GROVE

NO.	PART NO.	QTY DESCRIPTION	NO.	PART NO.	QTY DESCRIPTION
	9-333-102580	COMPLETE ASSY			
1	9-333-102345	1 HOUSING			
2	9-333-101735	1 STRAIN RELIEF GREY - WHITE INSERT PG13.5			
3	9-333-102268	1 CAP, DUST			
4	9-333-102645	1 CONNECTOR, CARBON, 19-PIN MALE RECEPTACLE			
5	9-333-102668	1 GASKET			
6	9-333-102669	4 SCREW M4			
7	9-333-102266	4 LOCKWASHER M4			
8	9-333-102480	4 NUT M4			
9	9-333-102670	1 MOUNTING RAIL, TERMINAL STRIP			
10	9-333-102663	17 BLOCK, TERMINAL STRIP			
11	9-333-102664	1 END PLATE, TERMINAL STRIP			
12	9-333-102665	1 END BRACKET, TERMINAL STRIP			
13	9-333-102666	1 TAGS, TERMINAL STRIP			
14	9-333-102671	2 SCREW, 6MM X 8MM			



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CRANE & 76A BOOM

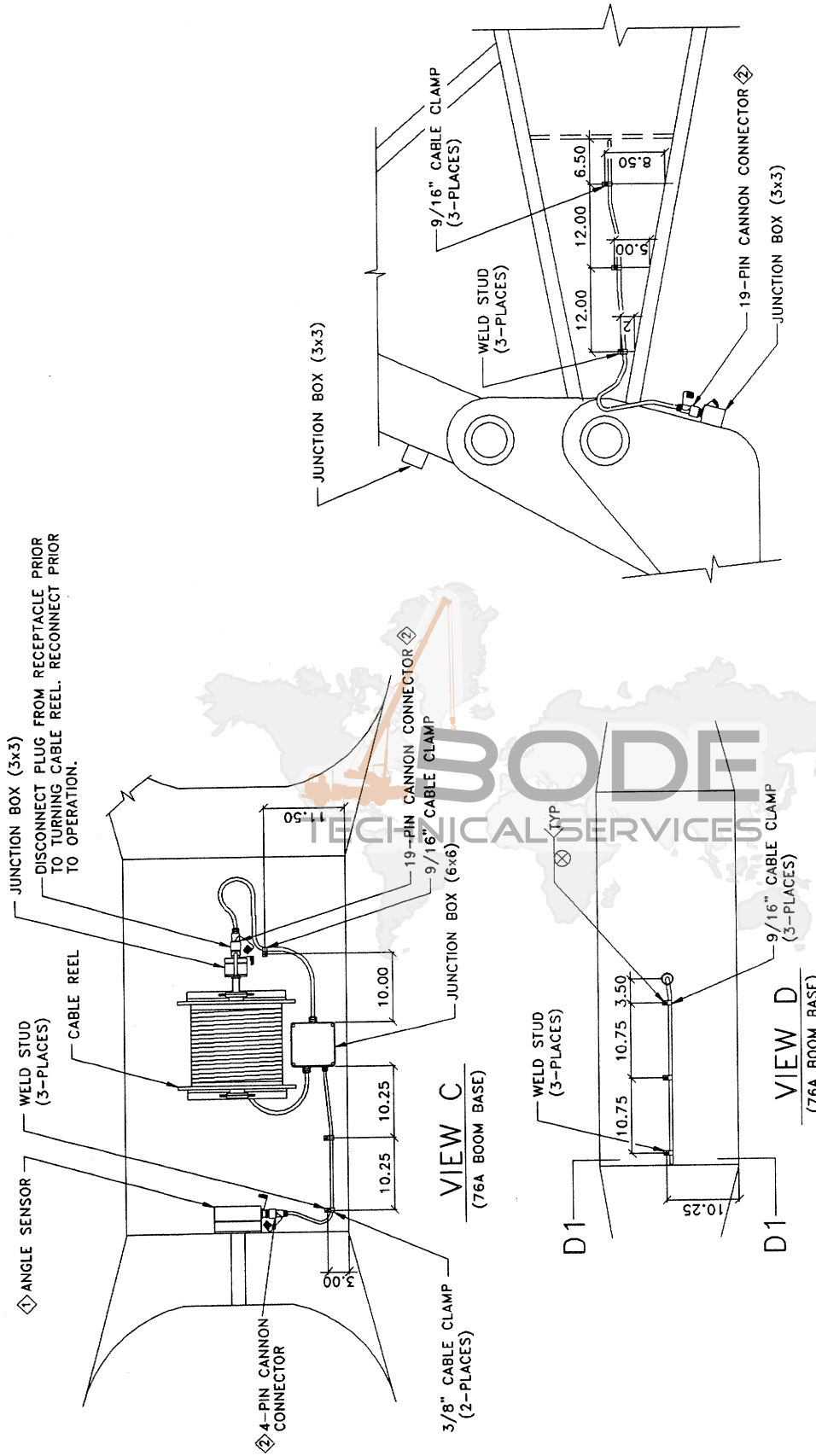
INSTALLATION OF LMI COMPONENTS

NOTES:

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- B. APPLY A GENEROUS AMOUNT OF LUBRICANT ON THE ELECTRICAL CONTACTS AND CONNECTORS BEFORE MOUNTING.
- C. AFTER MATING CONTACTS AND CONNECTORS, CLEAN OFF THE EXCESS SQUEEZED OUT.

FOR ELECTRICAL CONNECTIONS REFER TO THE WIRING SCHEMATIC IN THIS PARTS AND INSTALLATION MANUAL.

- 1. ALLOW AMPLE CABLE LOOP TO COVER ALL MAST ANGLES.
- 2. TO CONNECT MAIN BOOM TO SUPER-STRUCTURE: SCREW CABLE WITH PLUG ORIGINATING FROM (6 x 6) JUNCTION BOX BENEATH CABLE REEL TO RECEPTACLE ON (6 x 6) JUNCTION BOX.
- 3. TO CONNECT CABLE REEL TO MAIN BOOM NOSE: UNROLL CABLE FROM CABLE REEL AND SCREW PLUG INTO RECEPTACLE ON (6 x 6) JUNCTION BOX ON MAIN BOOM NOSE.
- 4. REFER TO OPERATOR'S HANDBOOK FOR PROPER USE OF A2B SWITCH WEIGHT AND RETAINER FLAG.

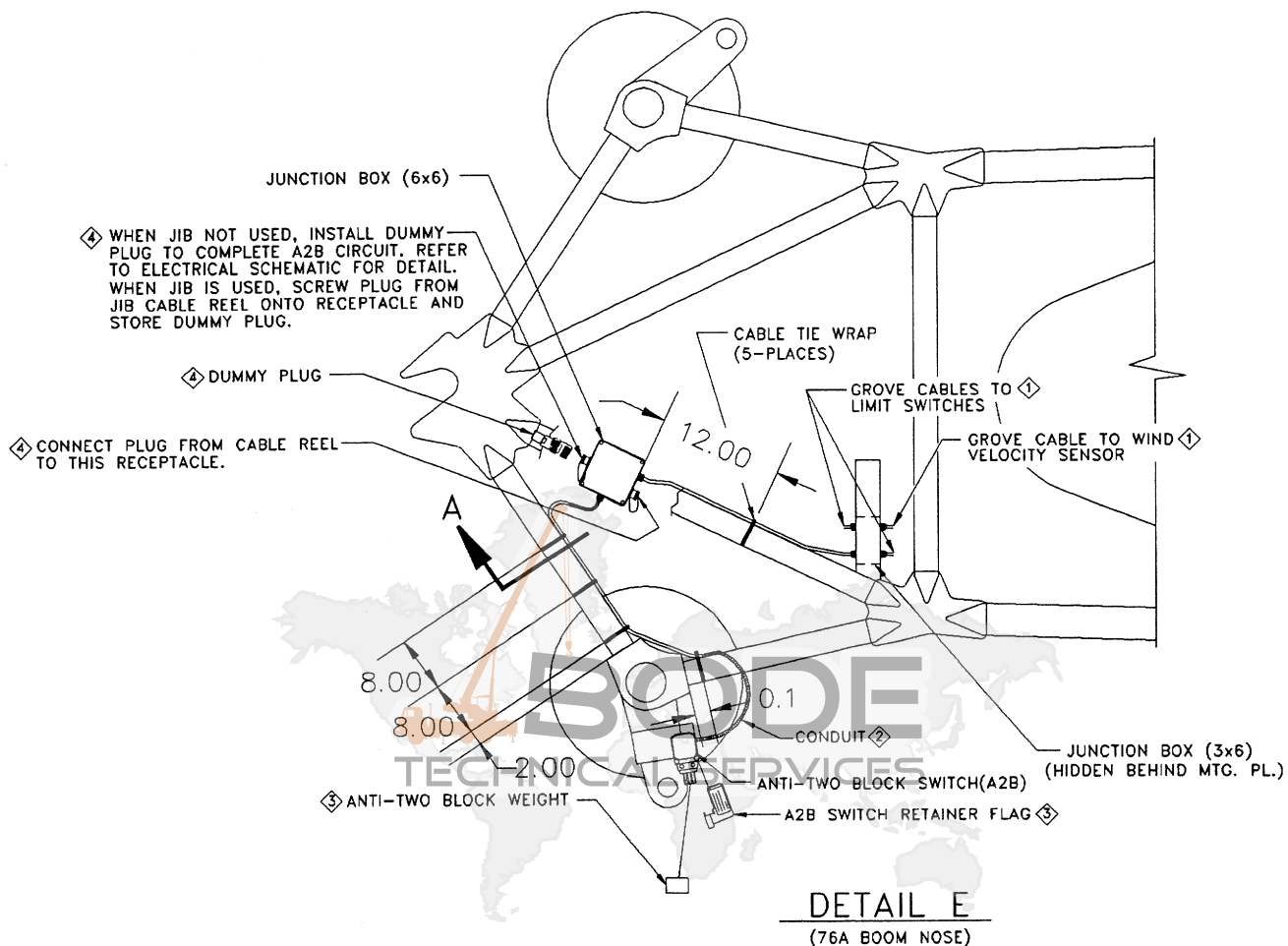


SECTION D1-D1

NOTES:

- ADD DIELECTRIC LUBRICANT (e.g. NYGCEL 759G) TO INSIDE OF RECEPTACLES, PLUGS, AND ELECTRICAL CONNECTORS, TO IMPROVE PROTECTION AGAINST CORROSION AND MALFUNCTION DUE TO CONDENSATION.
- A. CLEAN ELECTRICAL CONTACTS AND CONNECTORS OF ALL FOREIGN MATERIAL SUCH AS GREASE, OIL, AND DIRT BEFORE APPLYING LUBRICANT.
- B. APPLY A GENEROUS AMOUNT OF LUBRICANT ON THE ELECTRICAL CONTACTS AND CONNECTORS BEFORE MOUNTING.
- C. AFTER MATING CONTACTS AND CONNECTORS, CLEAN OFF THE EXCESS SQUEEZED OUT.

- ALL DIMENSIONS IN INCHES TO CENTER LINE OF WELD STUDS.
- FOR ELECTRICAL CONNECTIONS REFER TO THE WIRING SCHEMATIC IN THIS PARTS AND INSTALLATION MANUAL.
- REFER TO 76A BOOM COMPONENT KIT FOR INSTALLATION HARDWARE.
- ◇ INITIAL MECHANICAL ADJUSTMENT OF ANGLE SENSOR SHOULD BE ALIGNED TO CENTER LINE OF BOOM SECTION.
- ◇ INSTALL DUST COVERS WHEN PLUG AND RECEPTACLE ARE DISCONNECTED.



NOTES:

ADD DIELECTRIC LUBRICANT (e.g. NYOGEL 759G) TO INSIDE OF RECEPTACLES, PLUGS, AND ELECTRICAL CONNECTORS, TO IMPROVE PROTECTION AGAINST CORROSION AND MAL-FUNCTION DUE TO CONDENSATION.

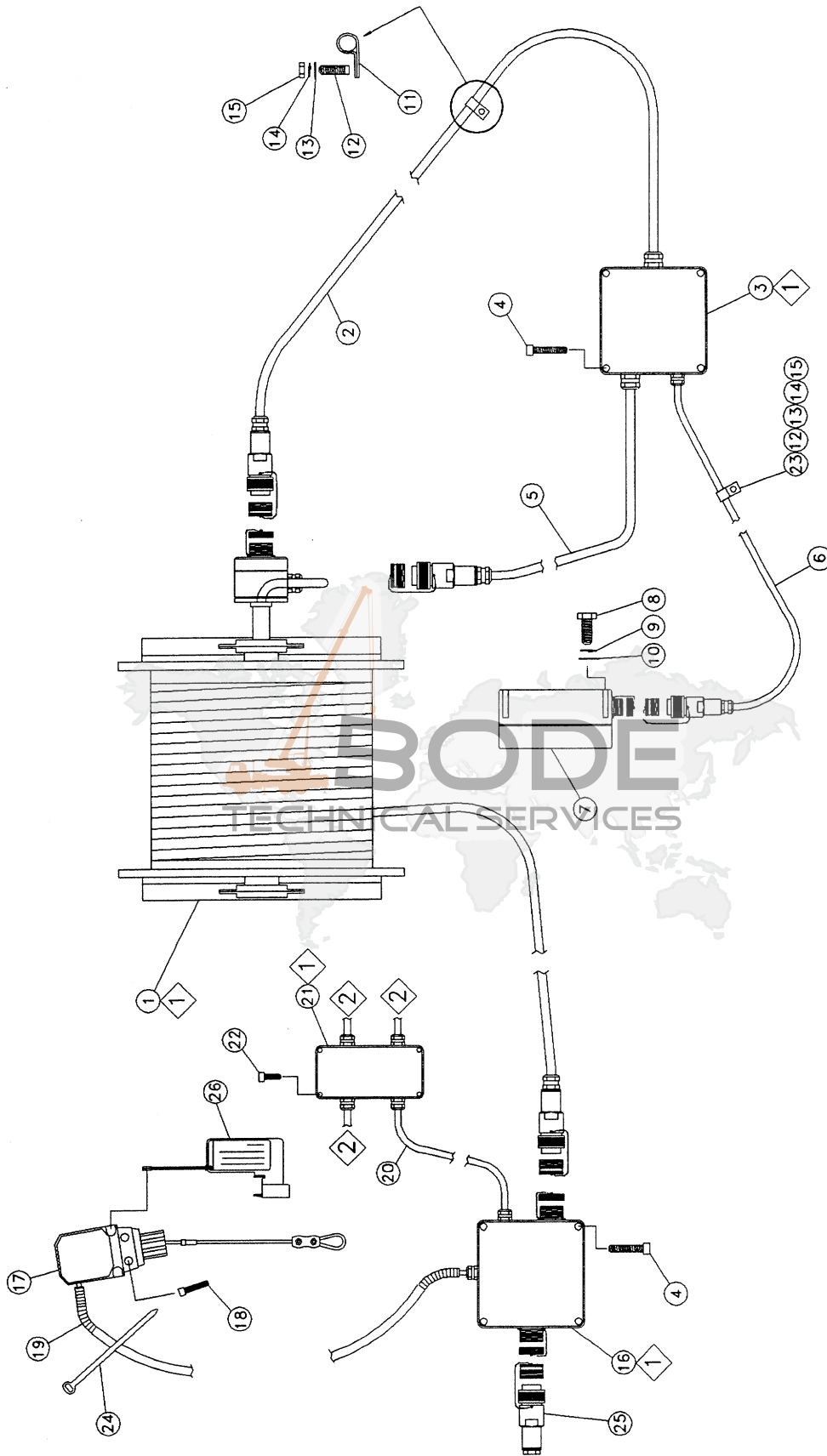
- A. CLEAN ELECTRICAL CONTACTS AND CONNECTORS OF ALL FOREIGN MATERIAL SUCH AS GREASE, OIL, AND DIRT BEFORE APPLYING LUBRICANT.
- B. APPLY A GENEROUS AMOUNT OF LUBRICANT ON THE ELECTRICAL CONTACTS AND CONNECTORS BEFORE MOUNTING.
- C. AFTER MATING CONTACTS AND CONNECTORS, CLEAN OFF THE EXCESS SQUEEZED OUT.

ALL DIMENSIONS IN INCHES TO APPROX. LOCATION OF CABLE TIE WRAPS.

FOR ELECTRICAL CONNECTIONS REFER TO THE WIRING SCHEMATIC IN THIS PARTS AND INSTALLATION MANUAL.

REFER TO 76A BOOM COMPONENT KIT FOR INSTALLATION HARDWARE.

- ◇ 1 REFER TO GROVE ELECTRICAL SCHEMATIC FOR WIRING DETAIL.
- ◇ 2 ALLOW AMPLE CABLE AND CONDUIT LOOP TO COMPENSATE FOR ROTATION OF A2B SWITCH.
- ◇ 3 REFER TO OPERATOR'S HANDBOOK FOR PROPER USE OF A2B SWITCH WEIGHT AND RETAINER FLAG.
- ◇ 4 INSTALL DUST COVERS WHEN PLUG AND RECEPTACLE ARE DISCONNECTED.



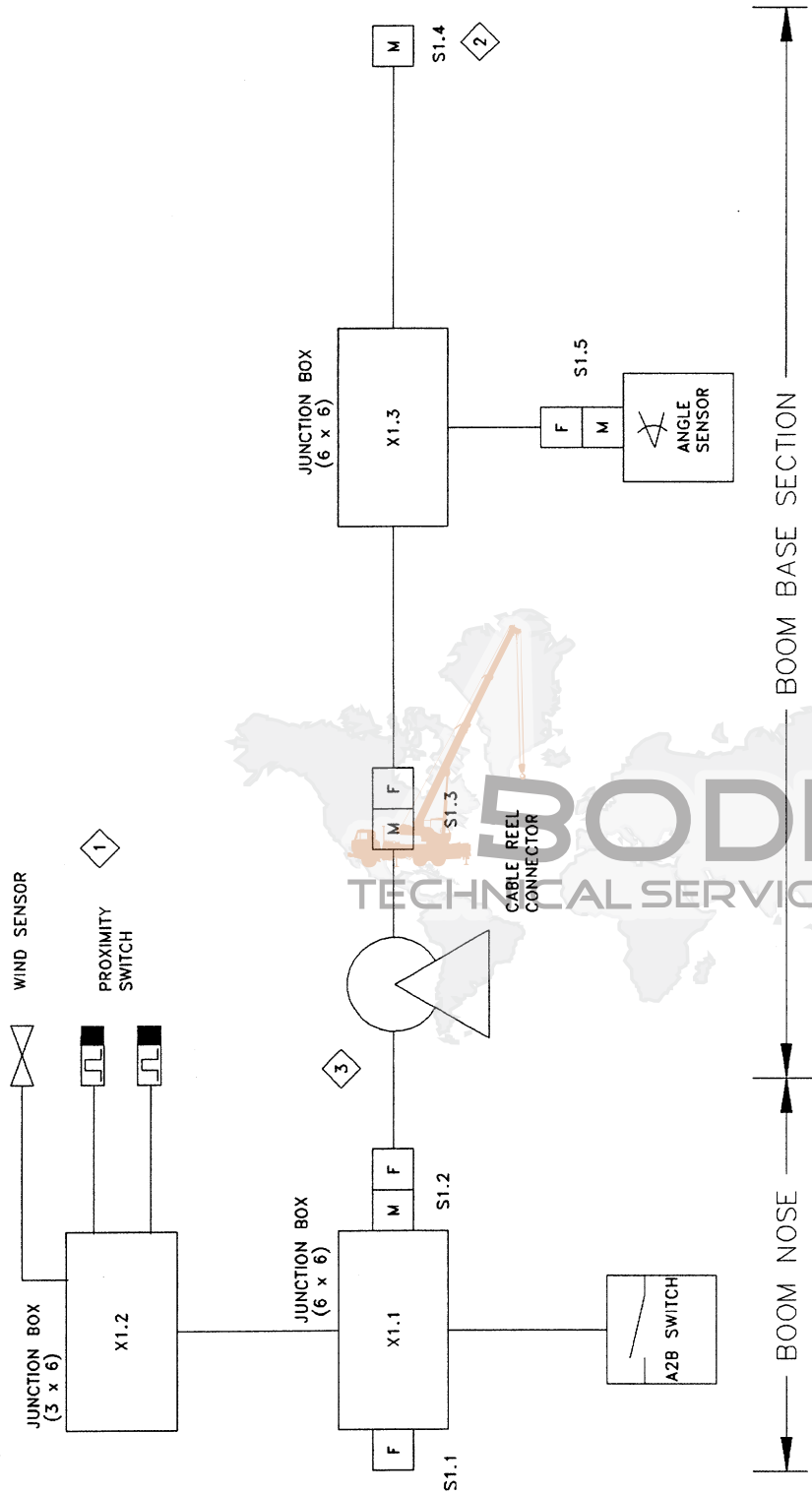
NOTES:

1 SEE PART BREAKDOWN DWG.
FOR PARTS DETAIL

2 REFER TO GROVE ELECTRICAL SCHEMATIC FOR
WIRING DETAIL.

NO.	PART NO.	QTY DESCRIPTION	NO.	PART NO.	QTY DESCRIPTION
1 +	9-333-102594	1 CABLE REEL ASSEMBLY			
2	9-333-102595	1 CABLE ASS'Y. 14 COND. D. S.			
3 +	9-333-102596	1 JUNCTION BOX ASSEMBLY (6 X 6)			
4	9-333-102586	8 SCREW			
5	9-333-102597	1 CABLE ASS'Y. 16 COND			
6	9-333-102598	1 CABLE ASS'Y. 4 COND. D. S.			
7	9-333-101784	1 SENSOR, ANGLE			
8	9-333-102599	4 SCREW, 8MM X 20MM			
9	9-333-101960	4 LOCKWASHER 8MM			
10	9-333-101581	4 FLATWASHER 8MM			
11	9-333-101839	7 CLAMP 3/16"			
12	7-866-142140	9 STUD 1/4"-20 X 7/8"			
13	7-950-140141	9 WASHER 1/4" NARROW			
14	7-950-140050	9 LOCKWASHER 1/4" REG			
15	7-660-140000	9 NUT, HEX 1/4"-20 NC - GRD A			
16 +	9-333-102600	1 JUNCTION BOX ASSEMBLY			
17	9-333-102230	1 SWITCH, A-2B WITH RETAINER CRIMP			
18	7-110-151205	2 CAPSCREW 5/16" - 18 NC X 1 1/2"			
19	9-333-102235	1 CONDUIT 10 FEET (MUST CUT TO LENGTH)			
20	9-333-101747	1 CABLE, ELEC. 7 X 0.5 D. S.			
21 +	9-333-102601	1 JUNCTION BOX ASSEMBLY (3 X 6)			
22	9-333-102581	4 SCREW			
23	9-333-102584	2 CLAMP, CABLE 3/8"			
24	7-850-000102	5 STRAP 1/4" X 12"			
25	9-333-102602	1 CONNECTOR ASSEMBLY			
26 +	9-333-102633	1 A2B RETAINER FLAG ASSEMBLY			

+ SEE FURTHER BREAKDOWN THIS GROUP



NOTES

F = FEMALE CONNECTOR

M = MALE CONNECTOR

REFER TO GROVE SCHEMATICS AND DOCUMENTATION

CONNECTS TO JUNCTION BOX ON SUPERSTRUCTURE

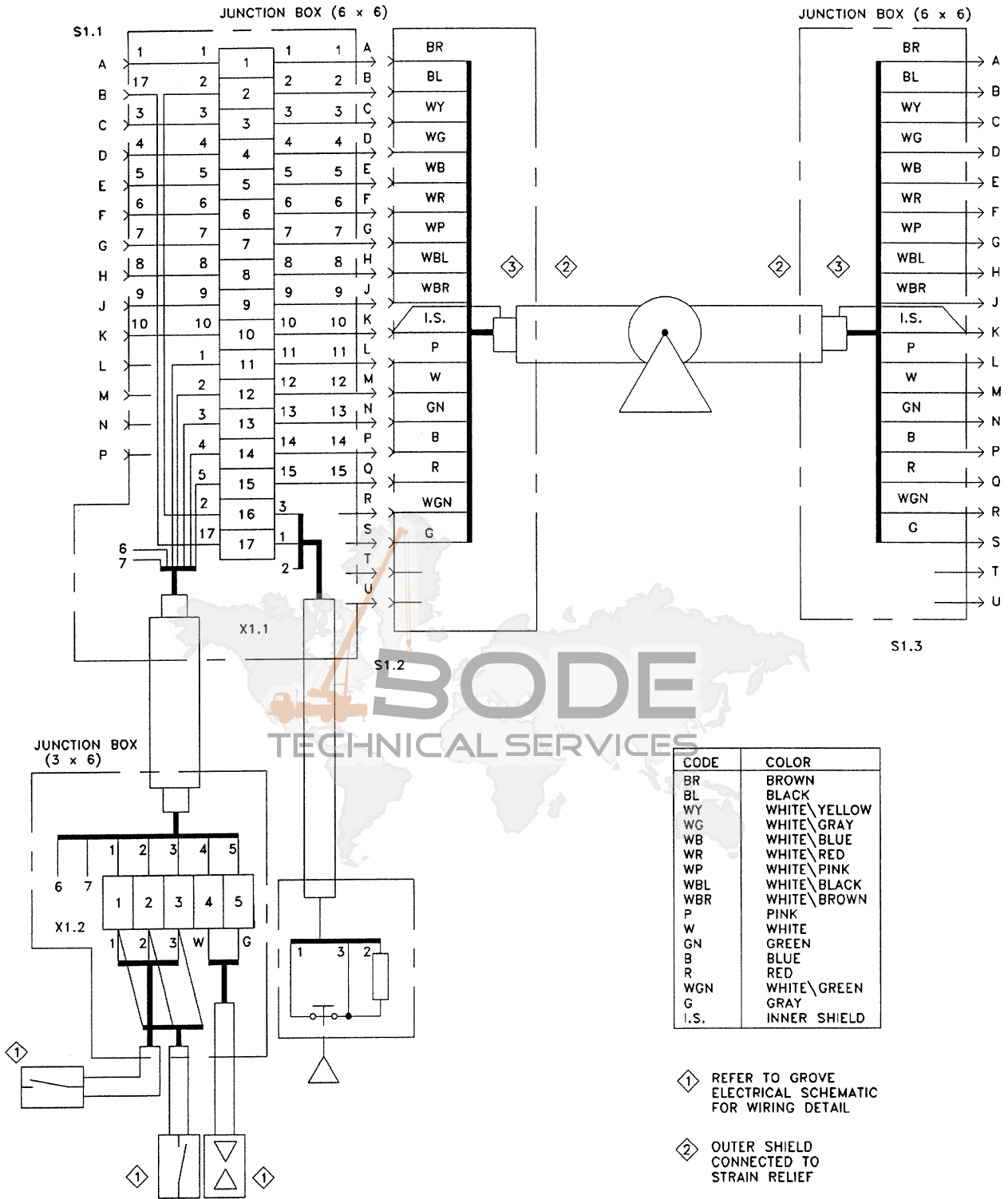
EXTEND CABLE TO DESIRED LENGTH

1

2

3

CONNECTOR LOCATION

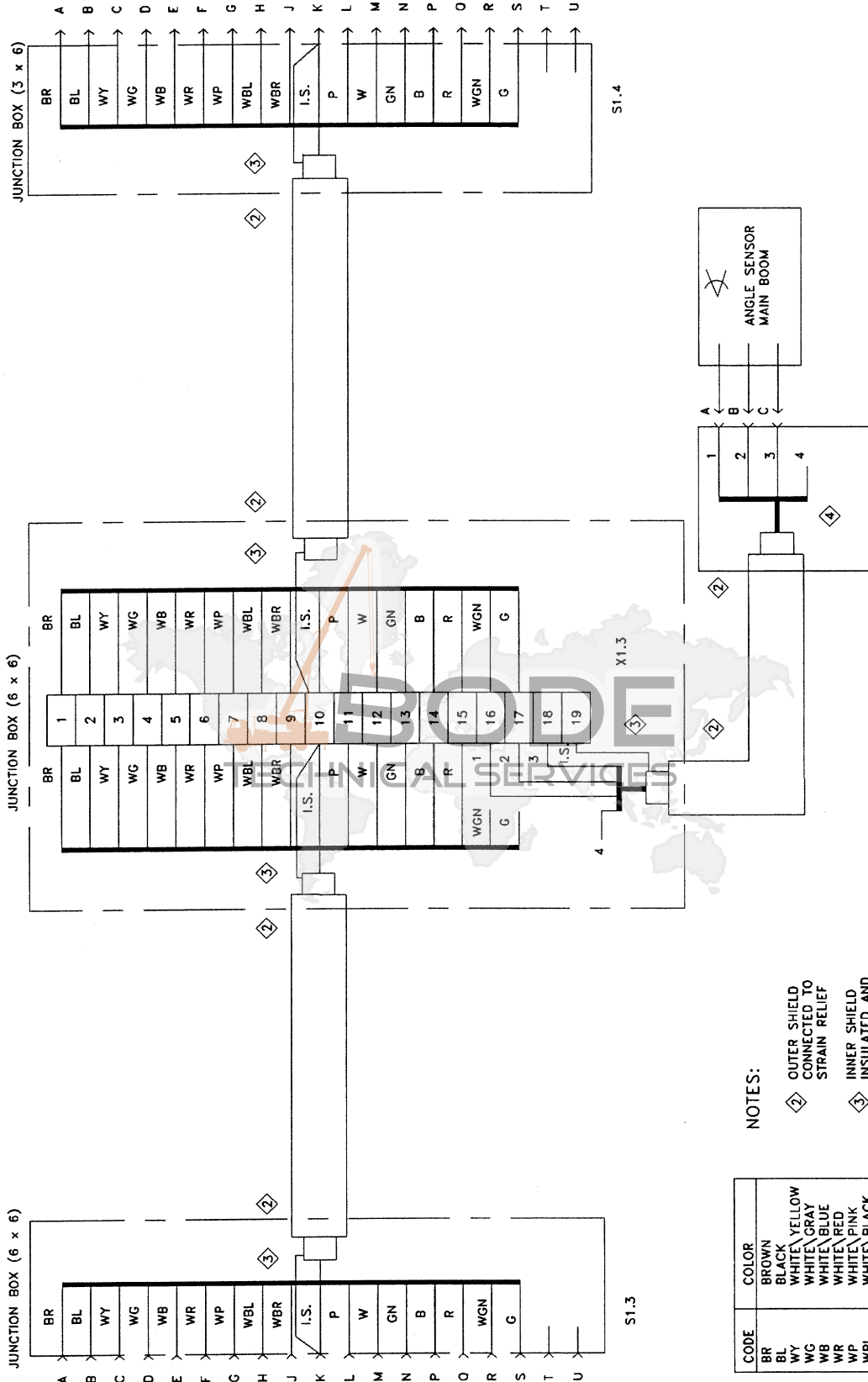


SODE
TECHNICAL SERVICES

CODE	COLOR
BR	BROWN
BL	BLACK
WY	WHITE \ YELLOW
WG	WHITE \ GRAY
WB	WHITE \ BLUE
WR	WHITE \ RED
WP	WHITE \ PINK
WBL	WHITE \ BLACK
WBR	WHITE \ BROWN
P	PINK
W	WHITE
GN	GREEN
B	BLUE
R	RED
WGN	WHITE \ GREEN
G	GRAY
I.S.	INNER SHIELD

- ① REFER TO GROVE ELECTRICAL SCHEMATIC FOR WIRING DETAIL
- ② OUTER SHIELD CONNECTED TO STRAIN RELIEF
- ③ INNER SHIELD INSULATED AND CONNECTED AS SHOWN

WIRING SCHEMATIC



- NOTES:
- ② OUTER SHIELD CONNECTED TO STRAIN RELIEF
 - ③ INNER SHIELD INSULATED AND CONNECTED AS SHOWN
 - ④ INNER SHIELD CUT AND INSULATED

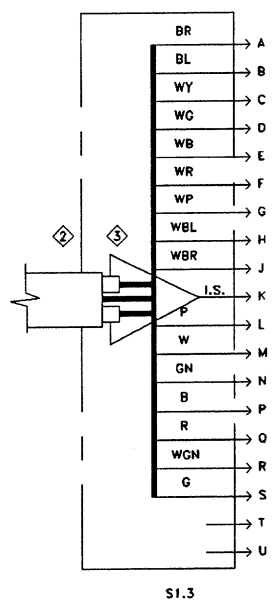
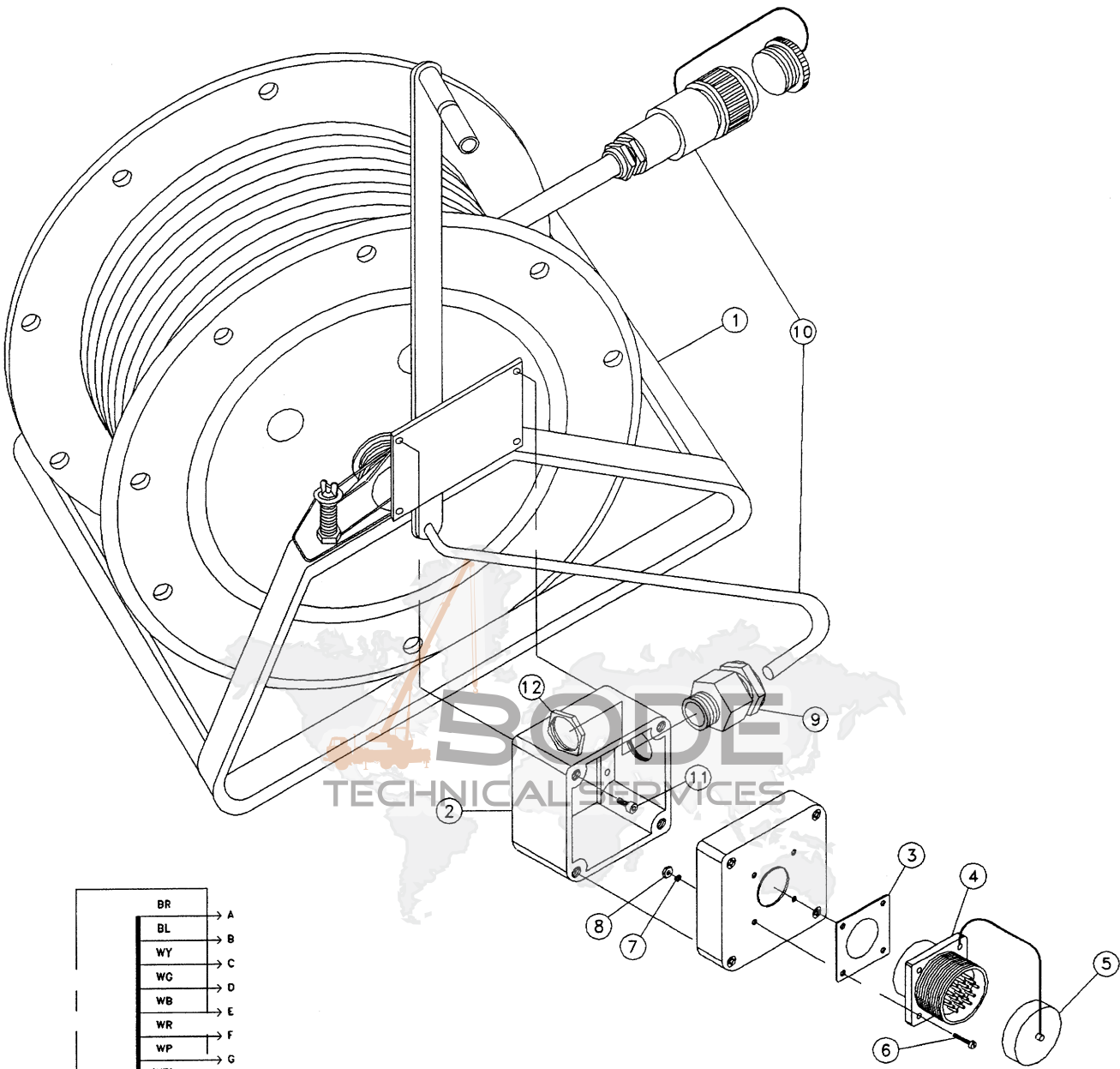
CODE	COLOR
BR	BROWN
BL	BLACK
WY	YELLOW
WG	WHITE\GRAY
WB	WHITE\BLUE
WR	WHITE\RED
WP	WHITE\PINK
WBL	WHITE\BLACK
WBR	WHITE\BROWN
P	PINK
W	WHITE
GN	GREEN
B	BLUE
R	RED
WGN	WHITE\GREEN
G	GRAY
I.S.	INNER SHIELD

WIRING SCHEMATIC

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BODE
TECHNICAL SERVICES

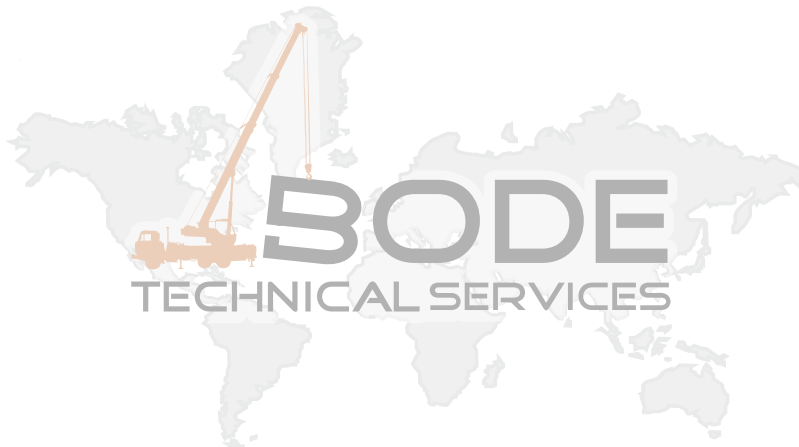


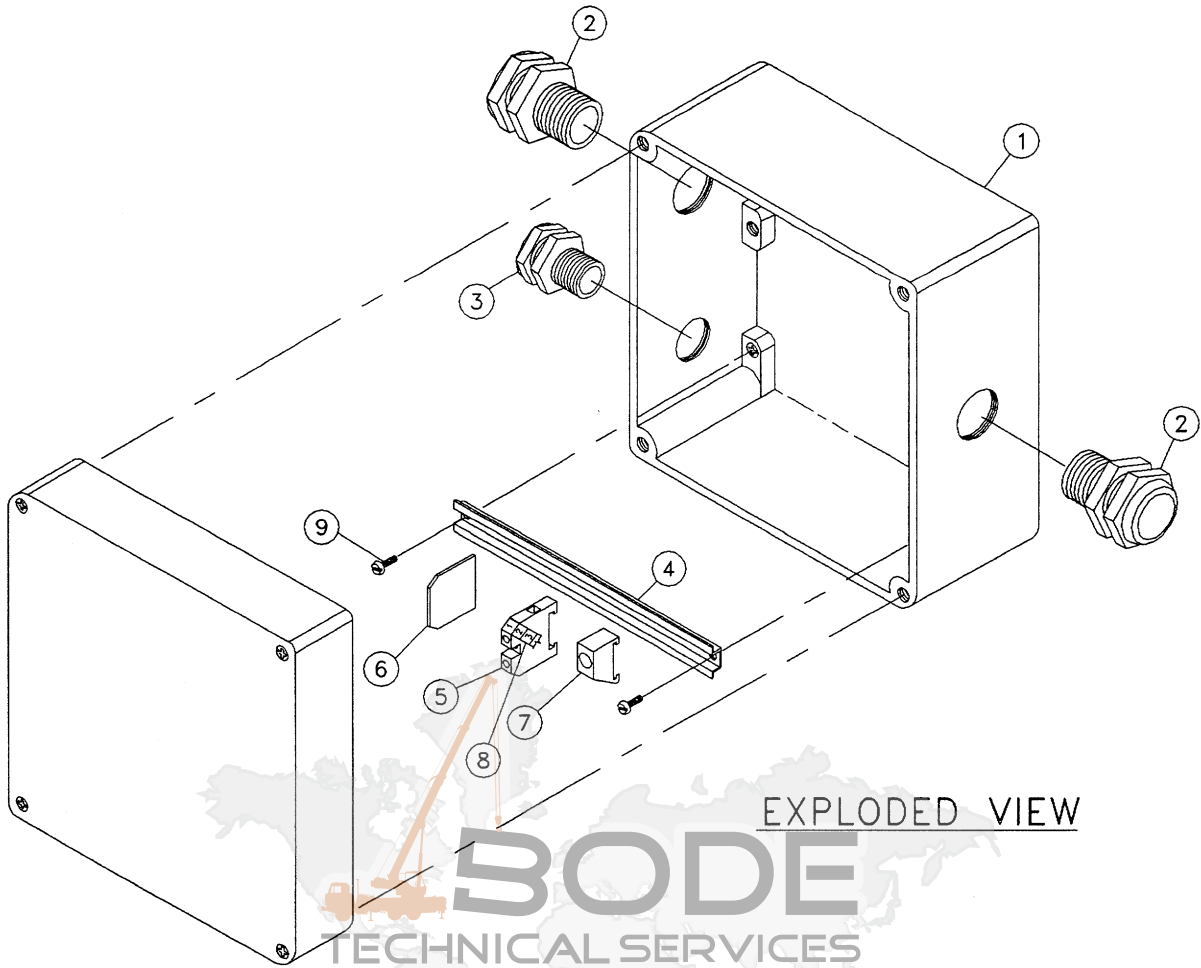
WIRING DETAIL

NOTES:

- ② OUTER SHIELD CONNECTED TO STRAIN RELIEF INSERT.
- ③ INNER SHIELD INSULATED AND CONNECTED AS SHOWN.

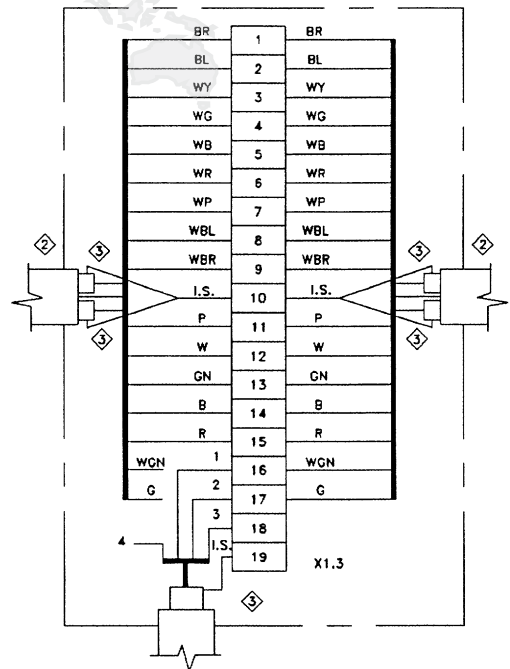
NO.	PART NO.	QTY DESCRIPTION	NO.	PART NO.	QTY DESCRIPTION
	9-333-102594	COMPLETE ASSY			
1	9-333-102108	1 CABLE REEL ASSEMBLY			
2	9-333-102591	1 BOX, HAMMOND			
3	9-333-102668	1 GASKET			
4	9-333-102645	1 CONNECTOR, CANNON, 19-PIN MALE RECEPTACLE			
5	9-333-102268	1 CAP, DUST			
6	9-333-102669	4 SCREW M4			
7	9-333-102266	4 LOCKWASHER M4			
8	9-333-102480	4 NUT M4			
9	9-333-101735	1 STRAIN RELIEF GREY - WHITE INSERT PG13.5			
10	9-333-102603	1 CABLE ASSEMBLY			
11	9-333-102604	4 SCREW			
12	9-333-102605	1 NUT			





EXPLODED VIEW

BODE
TECHNICAL SERVICES



WIRING DETAIL

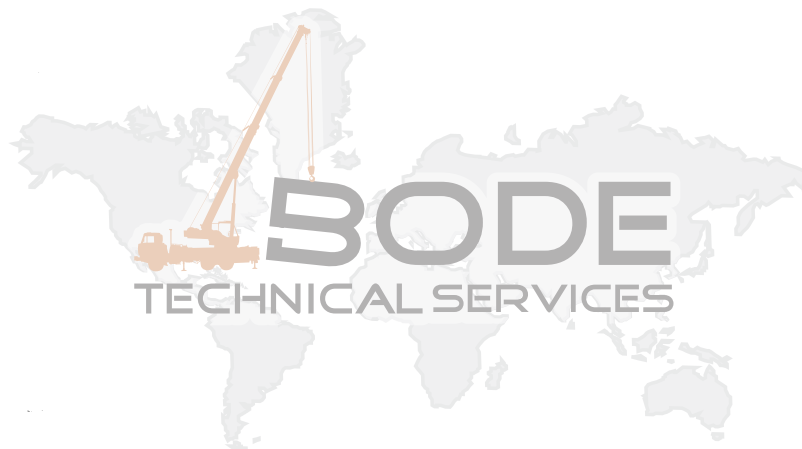
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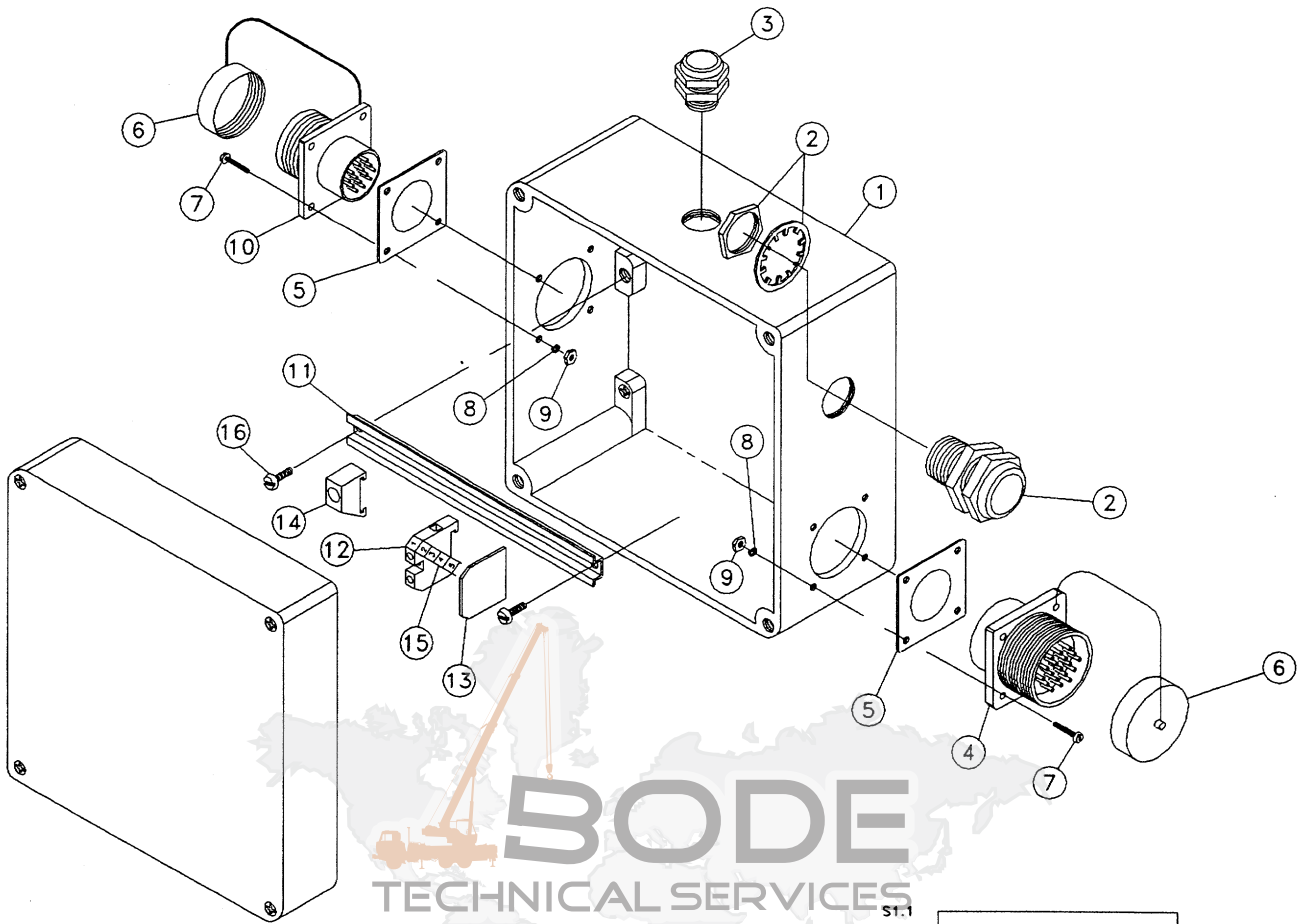
- ② OUTER SHIELD CONNECTED TO STRAIN RELIEF
- ③ INNER SHIELD INSULATED AND CONNECTED AS SHOWN

JUNCTION BOX ASSEMBLY (6 X 6)

GROVE

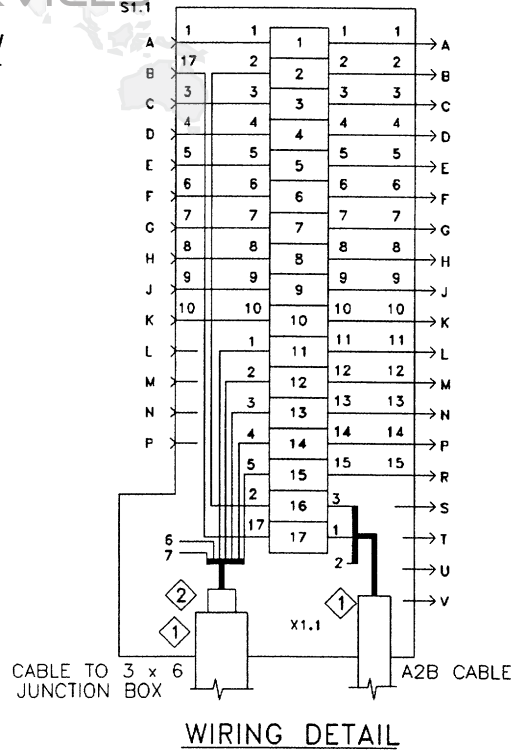
NO.	PART NO.	QTY	DESCRIPTION	NO.	PART NO.	QTY	DESCRIPTION
	9-333-102596		COMPLETE ASSY				
1	9-333-102345	1	HOUSING				
2	9-333-101735	2	STRAIN RELIEF GREY - WHITE INSERT PG13.5				
3	9-333-102672	1	STRAIN RELIEF				
4	9-333-102673	1	MOUNTING RAIL, TERMINAL STRIP				
5	9-333-102663	19	BLOCK, TERMINAL STRIP				
6	9-333-102664	1	END PLATE, TERMINAL STRIP				
7	9-333-102665	1	END BRACKET, TERMINAL STRIP				
8	9-333-102666	1	TAGS, TERMINAL STRIP				
9	9-333-002671	2	SCREW, 6MM X 8MM				





BODE
TECHNICAL SERVICES
ST.1

EXPLODED VIEW



NOTES:

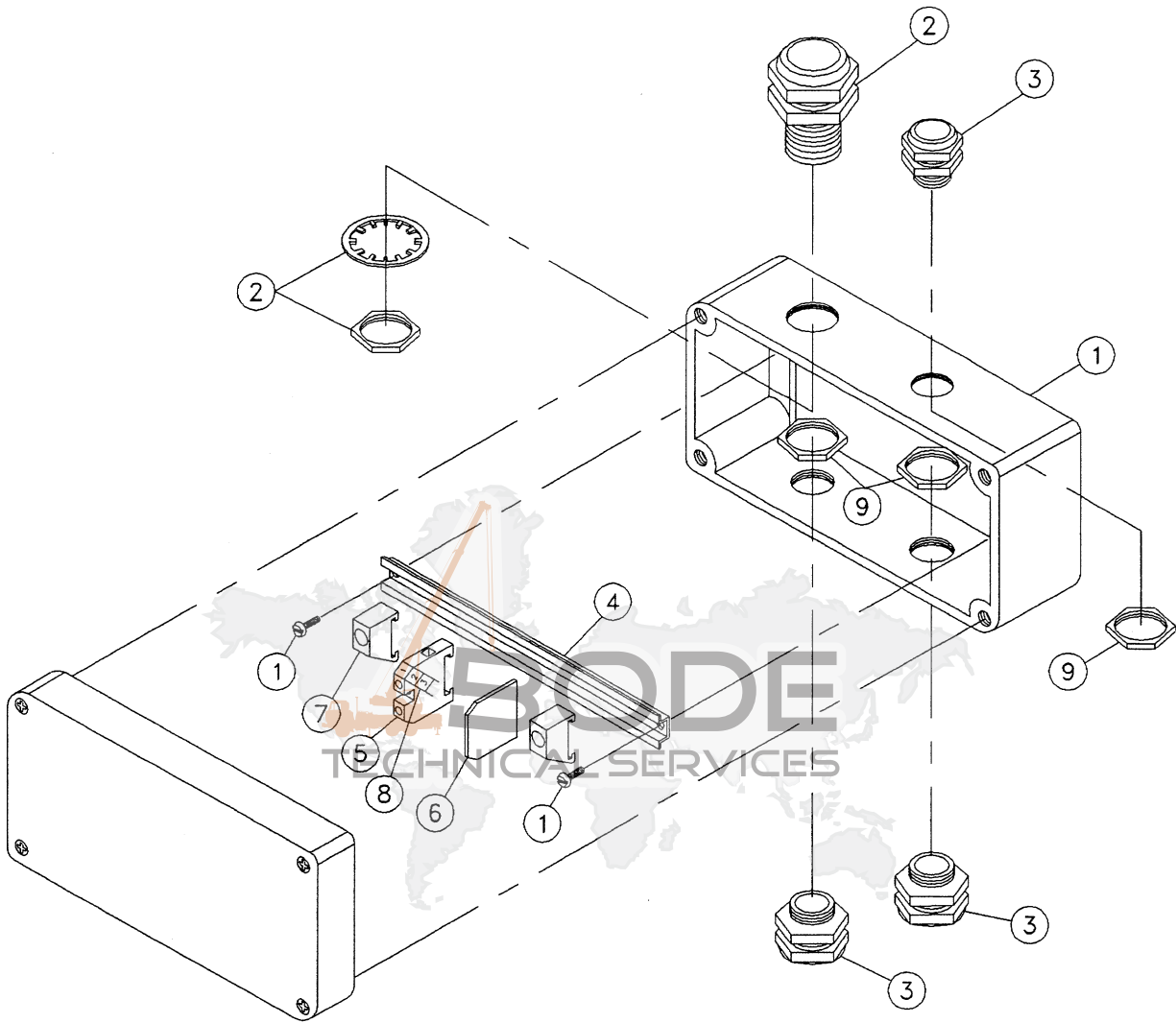
- ① OUTER SHIELD CONNECTED TO STRAIN RELIEF
- ② INNER SHIELD TO BE CUT AND INSULATED

JUNCTION BOX ASSEMBLY (6 X 6)

GROVE

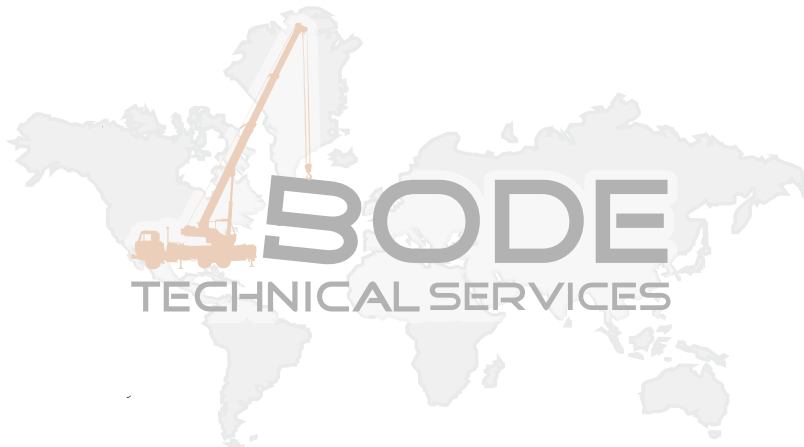
NO.	PART NO.	QTY DESCRIPTION	NO.	PART NO.	QTY DESCRIPTION
	9-333-102600	COMPLETE ASSY			
1	9-333-102345	1 HOUSING			
2	9-333-101579	1 STRAIN RELIEF PG13.5			
3	9-333-102674	1 STRAIN RELIEF, PG9			
4	9-333-102645	1 CONNECTOR, CANNON, 19-PIN MALE RECEPTACLE			
5	9-333-102668	2 GASKET			
6	9-333-102268	2 CAP, DUST			
7	9-333-102669	8 SCREW M4			
8	9-333-102266	8 LOCKWASHER M4			
9	9-333-102480	8 NUT M4			
10	9-333-102675	1 CANNON CONNECTOR			
11	9-333-102670	1 MOUNTING RAIL, TERMINAL STRIP			
12	9-333-102663	17 BLOCK, TERMINAL STRIP			
13	9-333-102664	1 END PLATE, TERMINAL STRIP			
14	9-333-102665	1 END BRACKET, TERMINAL STRIP			
15	9-333-102666	1 TAGS, TERMINAL STRIP			
16	9-333-102671	2 SCREW, 6MM X 8MM			

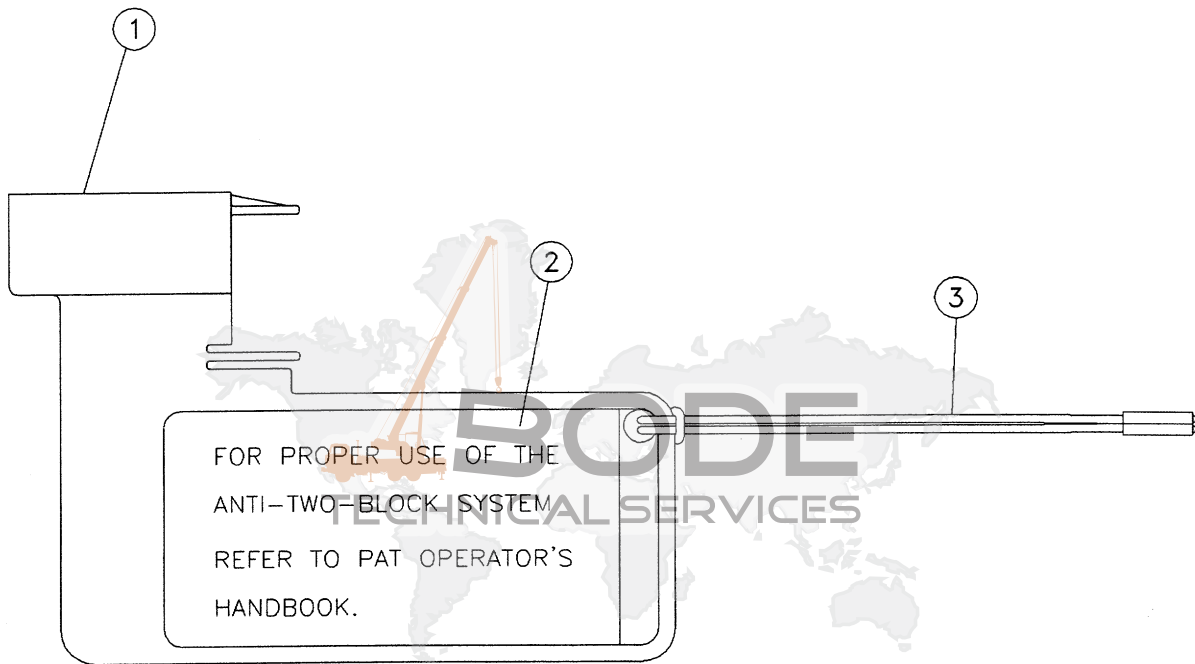




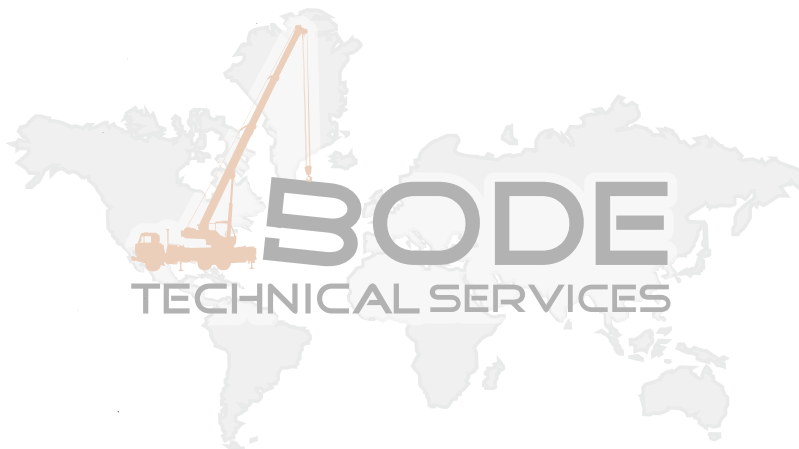
EXPLODED VIEW

NO.	PART NO.	QTY	DESCRIPTION	NO.	PART NO.	QTY	DESCRIPTION
	9-333-102601		COMPLETE ASSY				
1	9-333-102592	1	BOX, HAMMOND				
2	9-333-101579	1	STRAIN RELIEF PG13.5				
3	9-333-102674	3	STRAIN RELIEF, PG9				
4	9-333-102667	1	MOUNTING RAIL, TERMINAL STRIP				
5	9-333-102663	5	BLOCK, TERMINAL STRIP				
6	9-333-102664	1	END PLATE, TERMINAL STRIP				
7	9-333-102665	2	END BRACKET, TERMINAL STRIP				
8	9-333-102666	1	TAGS, TERMINAL STRIP				
9	9-333-101984	3	LOCKOUT PG9				



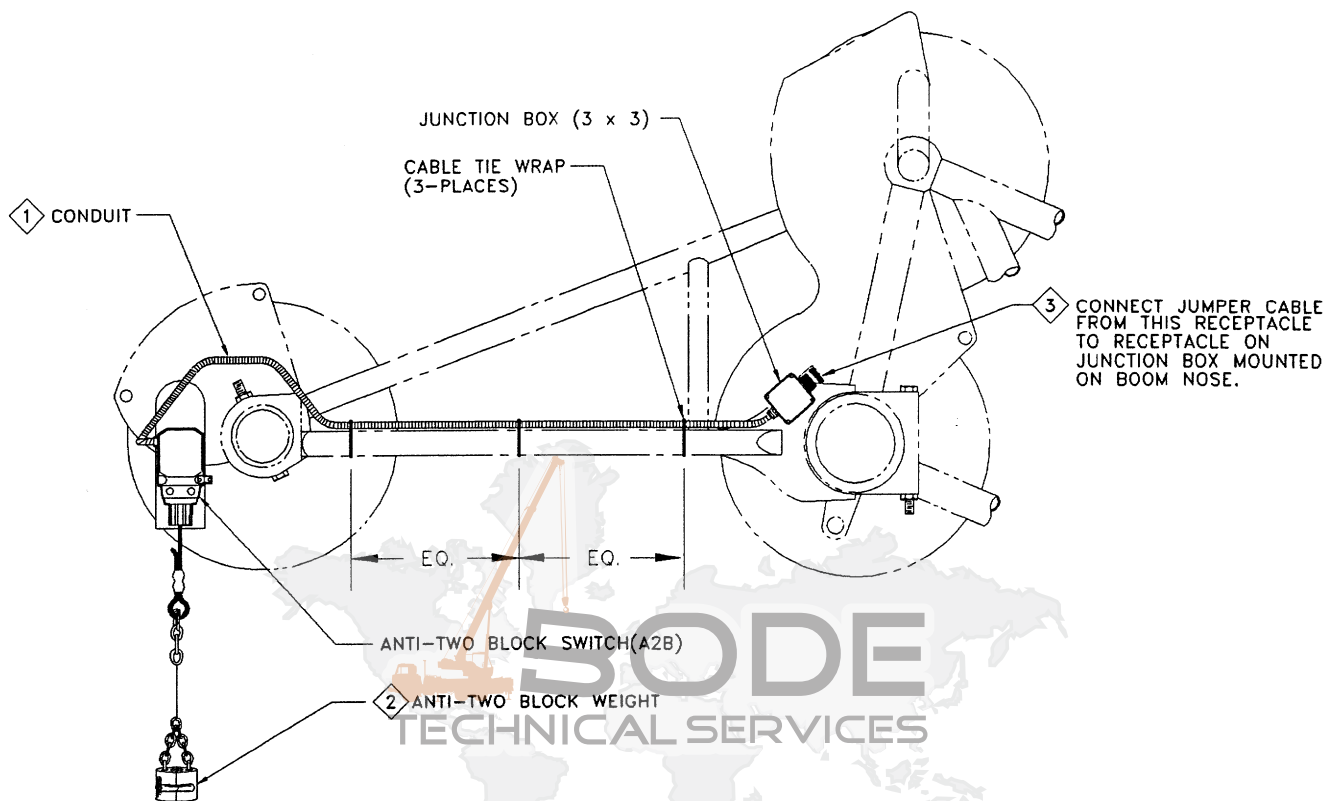


NO.	PART NO.	QTY	DESCRIPTION	NO.	PART NO.	QTY	DESCRIPTION
	9-333-102633		COMPLETE ASSY				
1	9-333-102373	1	FLAG, RETAINER				
2	9-333-102618	1	DECAL, A2B				
3	9-333-102232	1	LANYARD				



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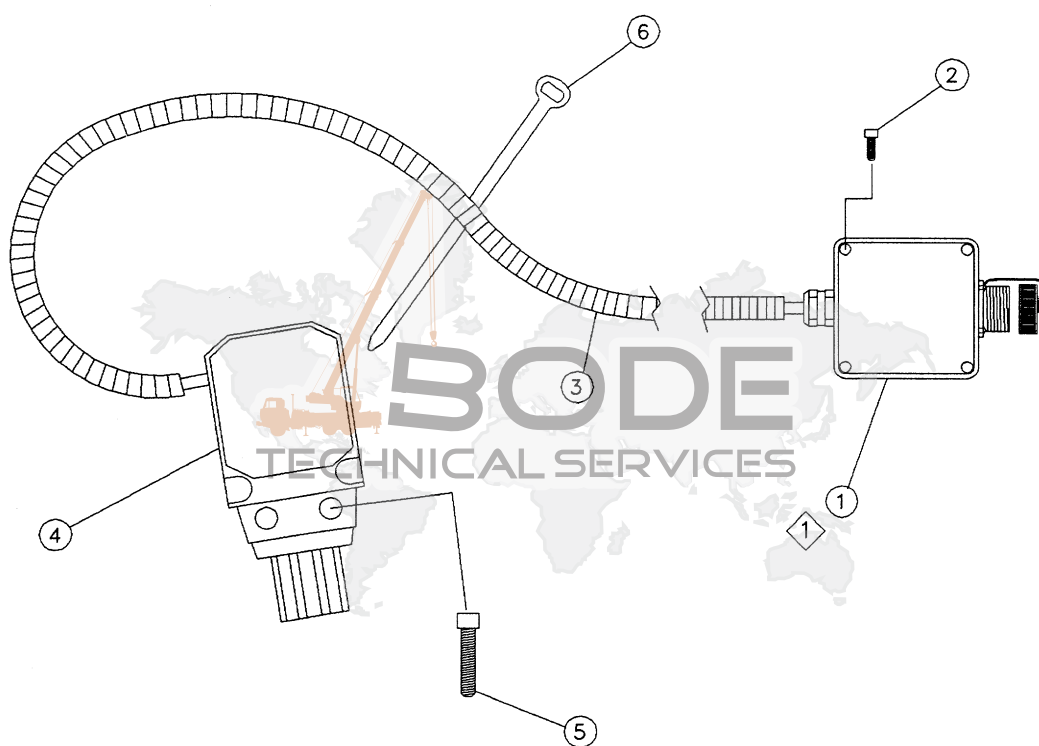
NOTES:

ADD DIELECTRIC LUBRICANT (e.g. NYOGEL 759G) TO INSIDE OF RECEPTACLES, PLUGS, AND ELECTRICAL CONNECTORS, TO IMPROVE PROTECTION AGAINST CORROSION AND MALFUNCTION DUE TO CONDENSATION.

- A. CLEAN ELECTRICAL CONTACTS AND CONNECTORS OF ALL FOREIGN MATERIAL SUCH AS GREASE, OIL, AND DIRT BEFORE APPLYING LUBRICANT.
- B. APPLY A GENEROUS AMOUNT OF LUBRICANT ON THE ELECTRICAL CONTACTS AND CONNECTORS BEFORE MOUNTING.
- C. AFTER MATING CONTACTS AND CONNECTORS, CLEAN OFF THE EXCESS SQUEEZED OUT.

- 1 CUT A2B SWITCH CABLE AND CONDUIT TO DESIRED LENGTH.
- 2 REFER TO OPERATOR'S HANDBOOK FOR PROPER USE OF THE A2B SWITCH WEIGHT.
- 3 INSTALL DUST COVERS WHEN PLUG AND RECEPTACLE ARE DISCONNECTED.

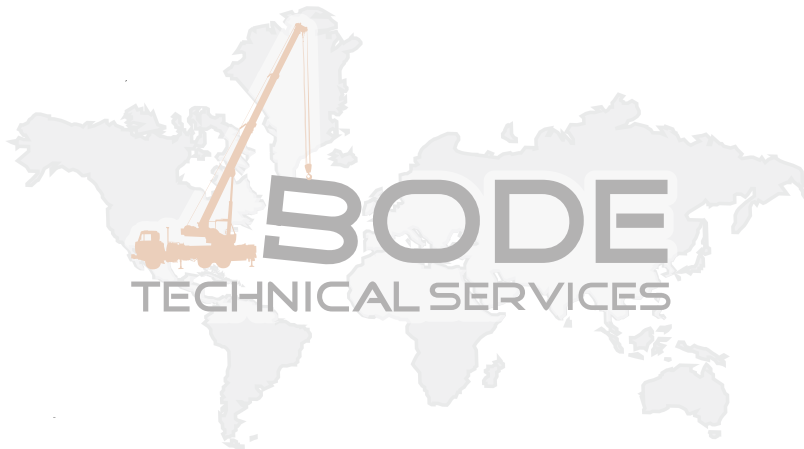
AUXILIARY BOOM NOSE INSTALLATION



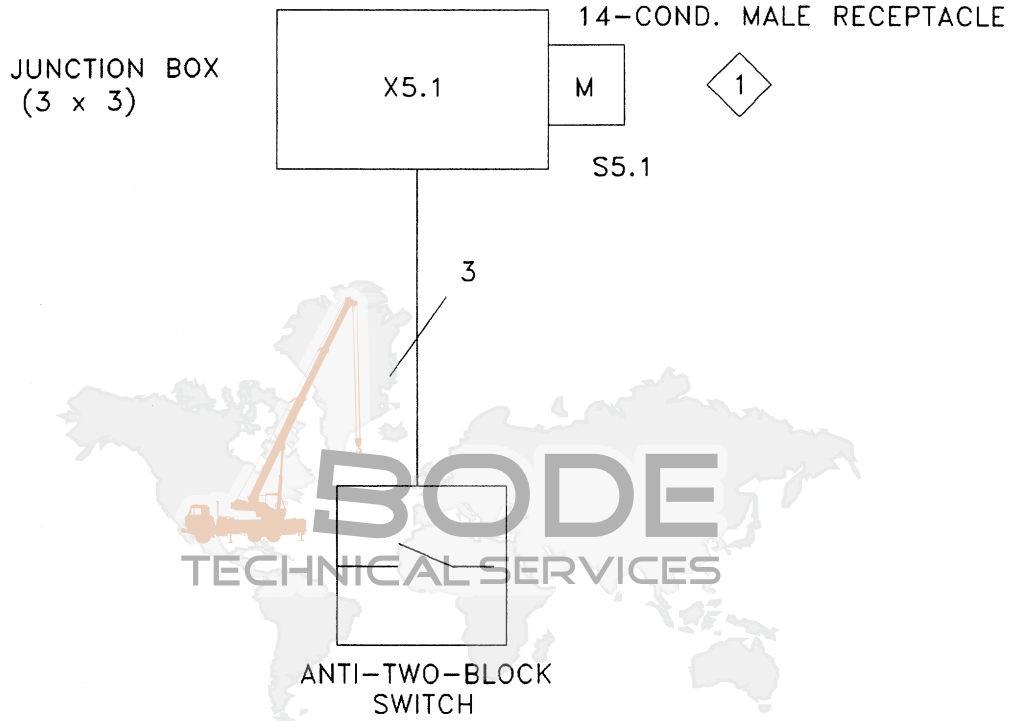
NOTES:

◇ SEE PART BREAKDOWN DWG.
FOR PARTS DETAIL

NO.	PART NO.	QTY DESCRIPTION	NO.	PART NO.	QTY DESCRIPTION
1 +	9-333-102606	1 JUNCTION BOX ASSEMBLY (3 X 3)			
2	9-333-102581	4 SCREW			
3	9-333-102235	1 CONDUIT 10 FEET (MUST CUT TO LENGTH)			
4	9-333-102238	1 SWITCH, A2B W/O CRIMP			
5	7-110-151205	2 CAPSCREW 5/16" - 18 NC X 1 1/2"			
6	7-850-000102	3 STRAP 1/4" X 12"			



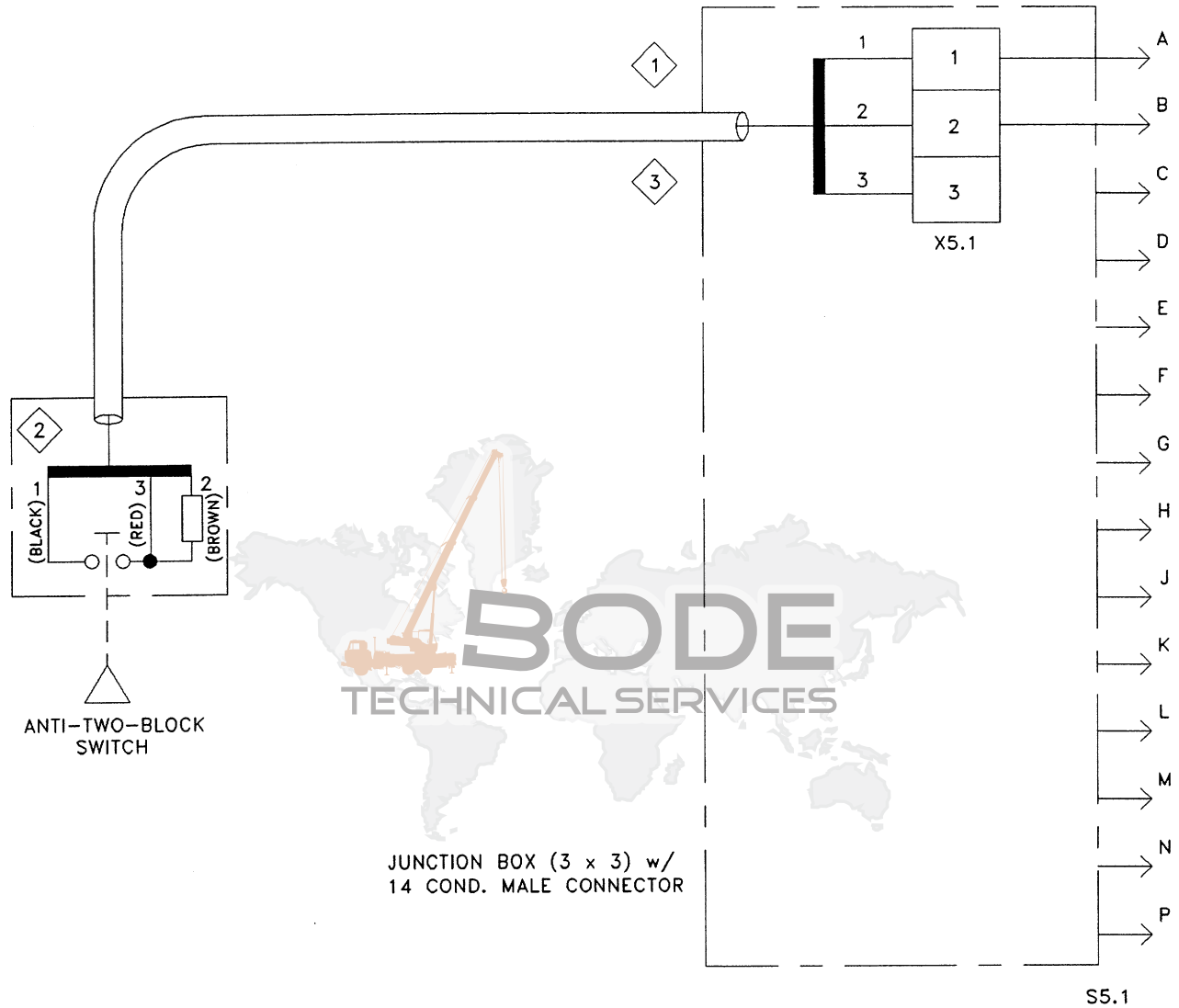
+ SEE FURTHER BREAKDOWN THIS GROUP



NOTES

- F = FEMALE CONNECTOR
- M = MALE CONNECTOR
- 1 USE JUMPER CABLE TO CONNECT CIRCUIT TO THE MAIN BOOM NOSE JUNCTION BOX
- SS = SINGLE SHIELDED CABLE
- DS = DOUBLE SHIELDED CABLE

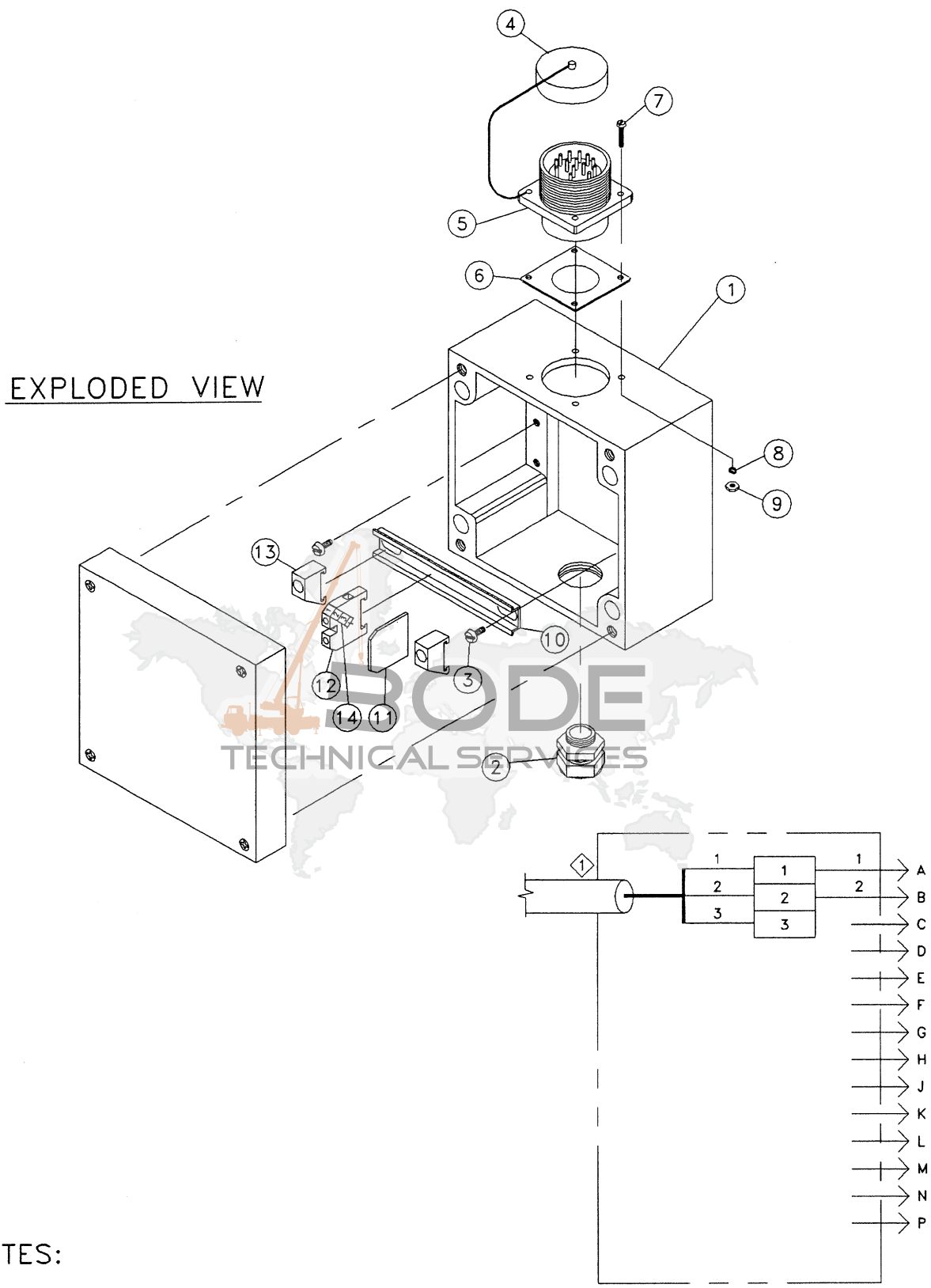
CONNECTOR LOCATION



NOTES

- 1 OUTER SHIELD CONNECTED TO STRAIN RELIEF.
- 2 POTTED - NO ACCESS TO SWITCH ELEMENT - PREWIRED
- 3 USE JUMPER CABLE TO CONNECT CIRCUIT TO THE MAIN BOOM NOSE JUNCTION BOX

WIRING SCHEMATIC



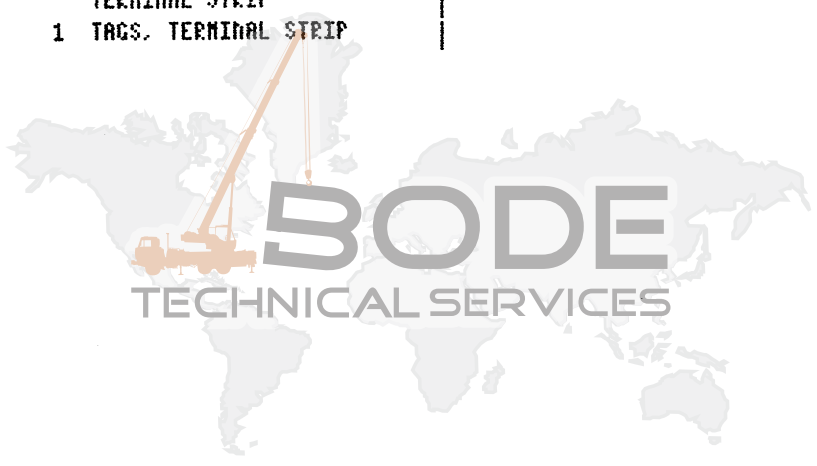
EXPLODED VIEW

WIRING DETAIL

NOTES:

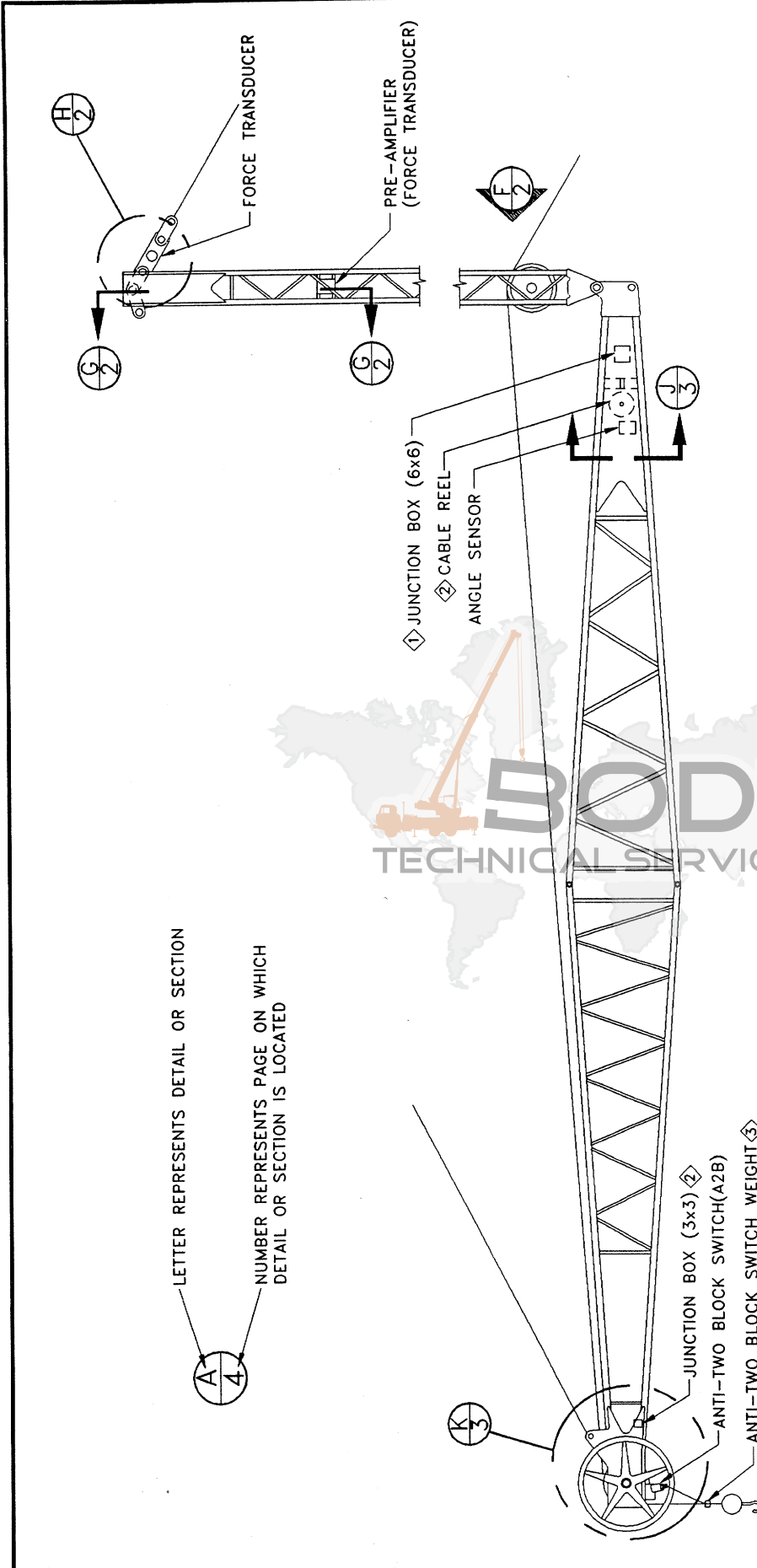
① OUTER SHIELD CONNECTED TO STRAIN RELIEF CONNECTOR

NO.	PART NO.	QTY	DESCRIPTION	NO.	PART NO.	QTY	DESCRIPTION
	9-333-102606		COMPLETE ASSY				
1	9-333-102591	1	BOX, HAMMOND				
2	9-333-102674	1	STRAIN RELIEF, P69				
3	9-333-102671	1	SCREW, 6MM X 8MM				
4	9-333-102268	1	CAP, DUST				
5	9-333-102676	1	CANNON CONNECTOR				
6	9-333-102668	1	CASNET				
7	9-333-102669	4	SCREW #4				
8	9-333-102266	4	LOCKWASHER #4				
9	9-333-102480	4	NUT #4				
10	9-333-102677	1	MOUNTING RAIL, TERMINAL STRIP				
11	9-333-102663	1	BLOCK, TERMINAL STRIP				
12	9-333-102664	3	END PLATE, TERMINAL STRIP				
13	9-333-102665	2	END BRACKET, TERMINAL STRIP				
14	9-333-102666	1	TAGS, TERMINAL STRIP				



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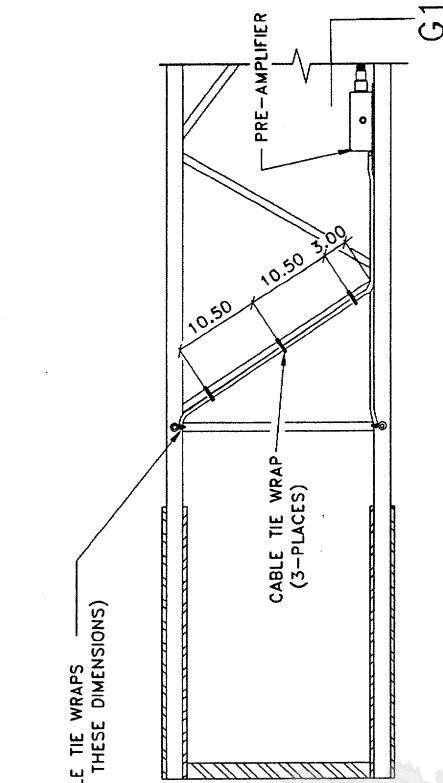


LETTER REPRESENTS DETAIL OR SECTION
 NUMBER REPRESENTS PAGE ON WHICH
 DETAIL OR SECTION IS LOCATED

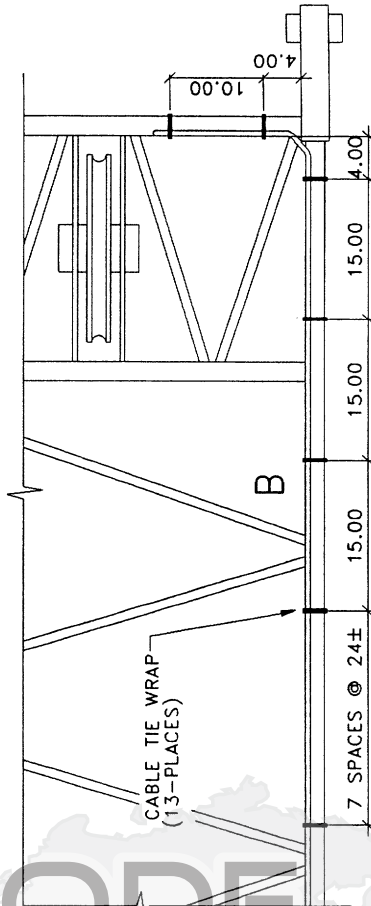
46A LUFFING JIB & MAST

NOTES:

- ADD DIELECTRIC LUBRICANT (e.g. NYOGEL 759G) TO INSIDE OF RECEPTACLES, PLUGS AND ELECTRICAL CONNECTORS, TO IMPROVE PROTECTION AGAINST CORROSION AND MAL-FUNCTION DUE TO CONDENSATION.
- A. CLEAN ELECTRICAL CONTACTS AND CONNECTORS OF ALL FOREIGN MATERIAL SUCH AS GREASE, OIL, AND DIRT BEFORE APPLYING LUBRICANT.
 - B. APPLY A GENEROUS AMOUNT OF LUBRICANT ON THE ELECTRICAL CONTACTS AND CONNECTORS BEFORE MOUNTING.
 - C. AFTER MATING CONTACTS AND CONNECTORS, CLEAN OFF THE EXCESS SQUEEZED OUT.
- FOR ELECTRICAL CONNECTIONS REFER TO THE WIRING SCHEMATIC IN THIS PARTS AND INSTALLATION MANUAL.
- ① TO CONNECT 46A JIB BASE TO 76A BOOM NOSE; INSTALL JUMPER CABLE FROM RECEPTACLE ON (6 x 6) JUNCTION BOX ON 46A JIB BASE, TO RECEPTACLE ON (6 x 6) JUNCTION BOX ON 76A BOOM NOSE.
 - ② TO CONNECT CABLE REEL TO JIB BOOM NOSE; UNROLL CABLE FROM CABLE REEL AND SCREW PLUG INTO RECEPTACLE ON (3 x 3) JUNCTION BOX ON JIB NOSE.
 - ③ REFER TO OPERATOR'S HANDBOOK FOR PROPER USE OF A2B SWITCH WEIGHT.

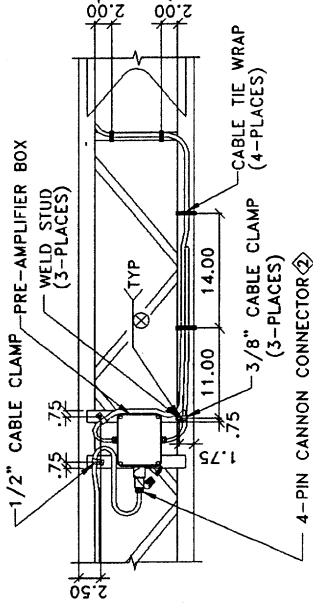


SECTION G-G
(46A LUFFING JIB MAST)

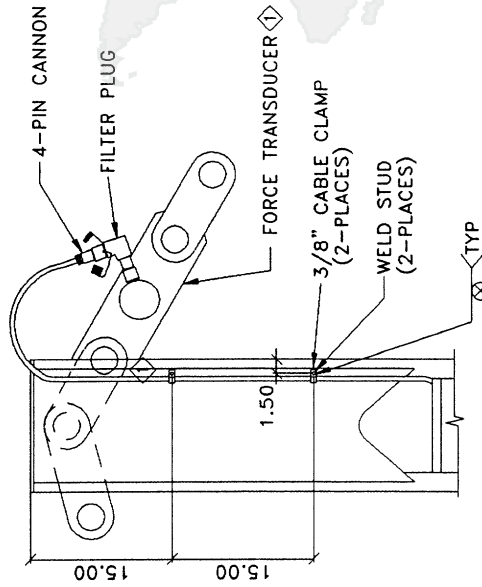


DETAIL F
(46A LUFFING JIB MAST)

LMI COMPONENT INSTALLATION



SECTION G1

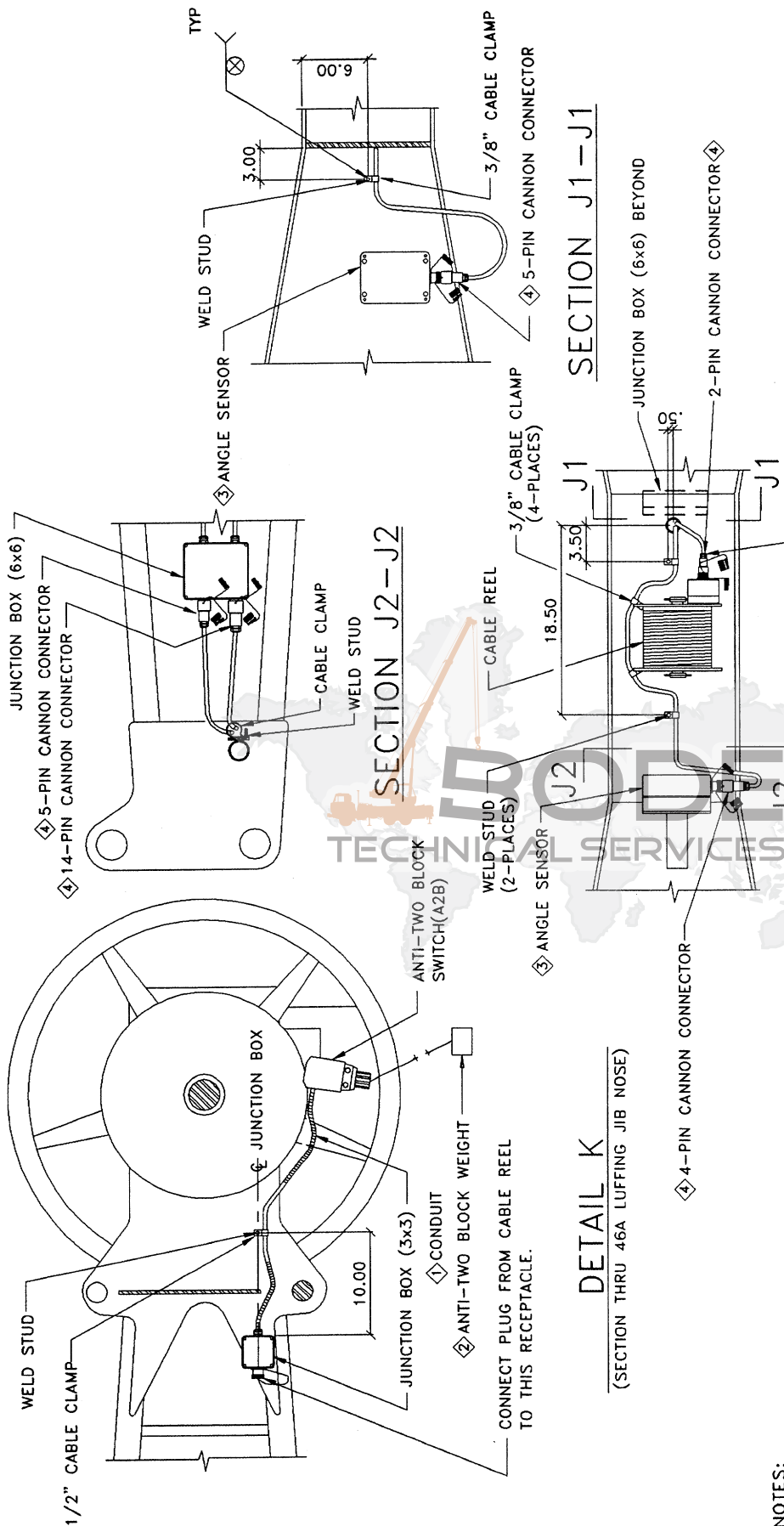


DETAIL H

(TYP. THIS SIDE & OPPOSITE SIDE)
(46A LUFFING JIB MAST)

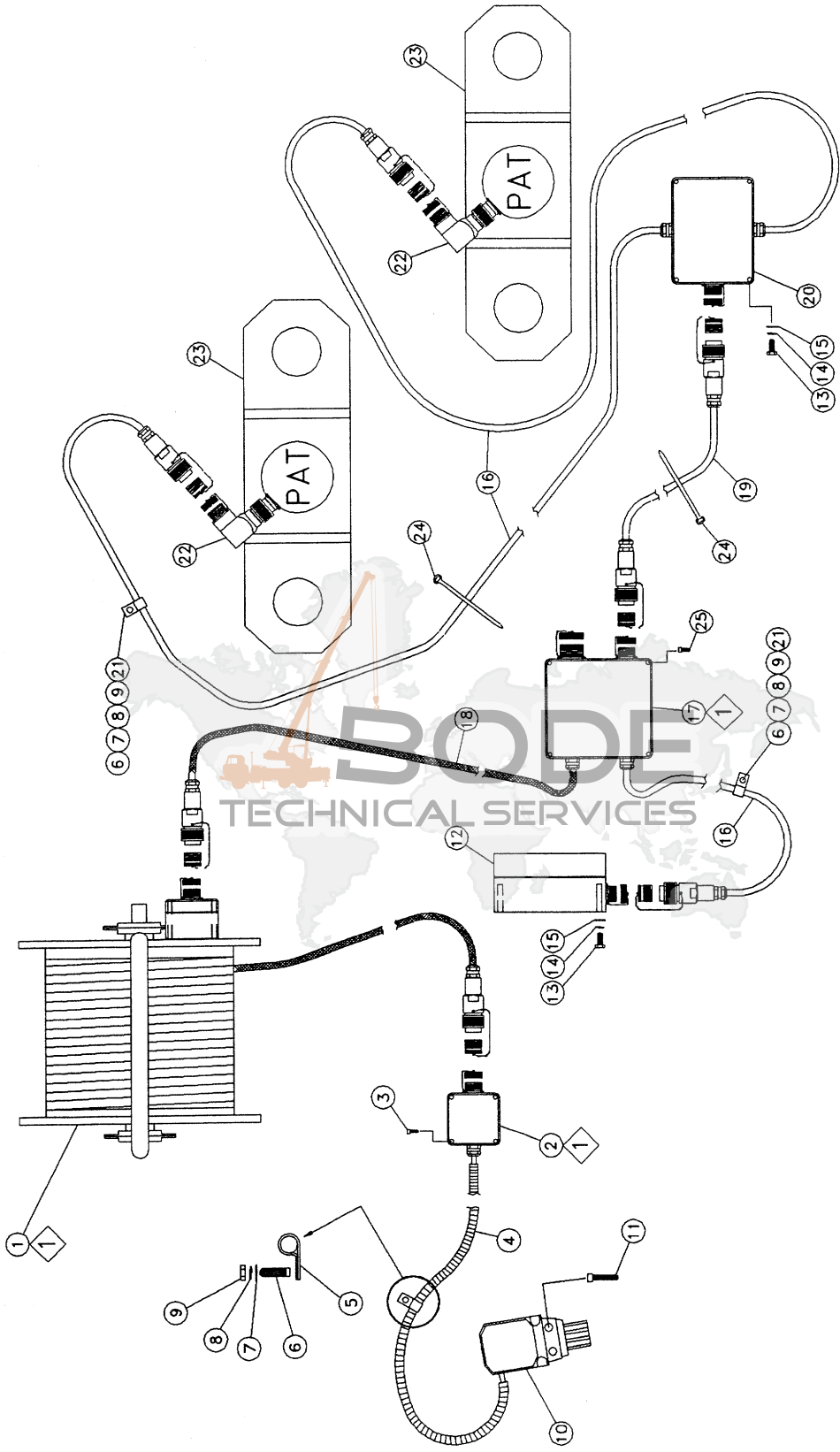
NOTES:

- A. ADD DIELECTRIC LUBRICANT (e.g. NYOGEL 759G) TO INSIDE OF RECEPTACLES, PLUGS, AND ELECTRICAL CONNECTORS. TO IMPROVE PROTECTION AGAINST CORROSION AND MAL-FUNCTION DUE TO CONDENSATION.
- B. CLEAN ELECTRICAL CONTACTS AND CONNECTORS OF ALL FOREIGN MATERIAL SUCH AS GREASE, OIL, AND DIRT BEFORE APPLYING LUBRICANT.
- C. APPLY A GENEROUS AMOUNT OF LUBRICANT ON THE ELECTRICAL CONTACTS AND CONNECTORS BEFORE MOUNTING.
- D. AFTER MATING CONTACTS AND CONNECTORS, CLEAN OFF THE EXCESS SQUEEZED OUT.
- E. ALL DIMENSIONS IN INCHES TO CENTER LINE OF WELD STUDS, OR APPROX. LOCATION OF CABLE TIE WRAPS.
- F. FOR ELECTRICAL CONNECTIONS REFER TO THE WIRING SCHEMATIC IN THIS PARTS AND INSTALLATION MANUAL.
- G. REFER TO 46A BOOM COMPONENT KIT FOR INSTALLATION HARDWARE.
- H. ALLOW AMPLE CABLE LOOP TO COVER ALL ALL MAST ANGLES.
- I. INSTALL DUST COVERS WHEN PLUG AND RECEPTACLE ARE DISCONNECTED.



NOTES:

- A. ADD DIELECTRIC LUBRICANT (e.g. NYOGEL 759G) TO INSIDE OF RECEPTABLES, PLUGS, AND ELECTRICAL CONNECTORS. TO IMPROVE PROTECTION AGAINST CORROSION AND MAL-FUNCTION DUE TO CONDENSATION.
- B. CLEAN ELECTRICAL CONTACTS AND CONNECTORS OF ALL FOREIGN MATERIAL SUCH AS GREASE, OIL, AND DIRT BEFORE APPLYING LUBRICANT.
- C. APPLY A GENEROUS AMOUNT OF LUBRICANT ON THE ELECTRICAL CONTACTS AND CONNECTORS BEFORE MOUNTING.
- D. AFTER MATING CONTACTS AND CONNECTORS, CLEAN OFF THE EXCESS SQUEEZED OUT.
- 1. ALL DIMENSIONS IN INCHES TO CENTER LINE OF WELD STUDS.
- 2. REFER TO ELECTRICAL CONNECTIONS REFER TO THE WIRING SCHEMATIC IN THIS PARTS AND INSTALLATION MANUAL.
- 3. REFER TO 46A BOOM COMPONENT KIT FOR INSTALLATION HARDWARE.
- 4. ALLOW AMPLE CABLE AND CONDUIT LOOP TO COMPENSATE FOR ROTATION OF A2B SWITCH.
- 5. REFER TO OPERATOR'S HANDBOOK FOR PROPER USE OF A2B SWITCH WEIGHT.
- 6. INITIAL MECHANICAL ADJUSTMENT OF ANGLE SENSOR SHOULD BE ALIGNED TO CENTER LINE OF BOOM SECTION.
- 7. INSTALL DUST COVERS WHEN PLUG AND RECEPTACLE ARE DISCONNECTED.

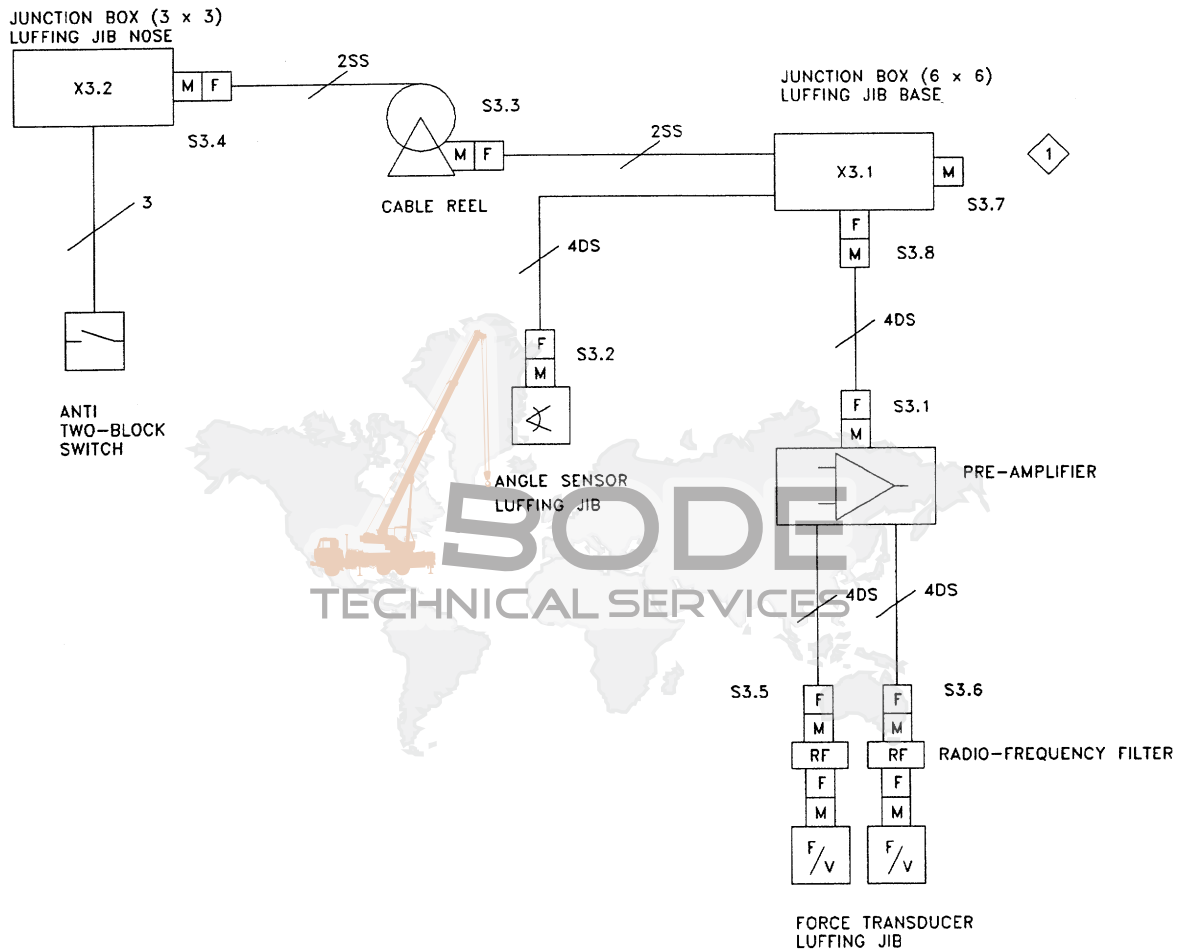


NOTES:

1 SEE PART BREAKDOWN DWG.
FOR PARTS DETAIL

NO.	PART NO.	QTY DESCRIPTION	NO.	PART NO.	QTY DESCRIPTION
1 +	9-333-102593	1 CABLE REEL ASSEMBLY			
2 +	9-333-102607	1 JUNCTION BOX ASSEMBLY (3 X 3)			
3	9-333-101581	4 FLATWASHER 8MM			
4	9-333-102235	1 CONDUIT 10 FEET (MUST CUT TO LENGTH)			
5	7-300-000101	2 CLAMP 1/2"			
6	7-866-142140	11 STUD 1/4"-20 X 7/8"			
7	7-950-140141	11 WASHER 1/4" NARROW			
8	7-950-140050	11 LOCKWASHER 1/4" REG			
9	7-860-140000	11 NUT, HEX 1/4"-20 NC - GRD A			
10	9-333-102238	1 SWITCH, A2B W/O CRIMP			
11	7-110-151205	2 CAPSCREW 5/16" - 18 NC X 1 1/2"			
12	9-333-101784	1 SENSOR, ANGLE			
13	9-333-102599	8 SCREW, 8MM X 20MM			
14	9-333-101960	8 LOCKWASHER 8MM			
15	9-333-101581	8 FLATWASHER 8MM			
16	9-333-102608	3 CABLE ASS'Y, 4 COND. D. S.			
17 +	9-333-102609	1 JUNCTION BOX ASSEMBLY (6 X 6)			
18	9-333-102610	1 CABLE ASS'Y, 2 COND. S. S.			
19	9-333-102611	1 CABLE ASS'Y, 7 COND. D. S.			
20	9-333-102219	1 PREAMPLIFIER			
21	9-333-102584	12 CLAMP, CABLE 3/8"			
22	9-333-101837	2 PLUG, FILTER			
23	9-333-102044	2 FORCE TRANSDUCER			
24	7-850-000102	22 STRAP 1/4" X 12"			
25	9-333-102586	4 SCREW			

+ SEE FURTHER BREAKDOWN THIS GROUP



NOTES

M = MALE CONNECTOR

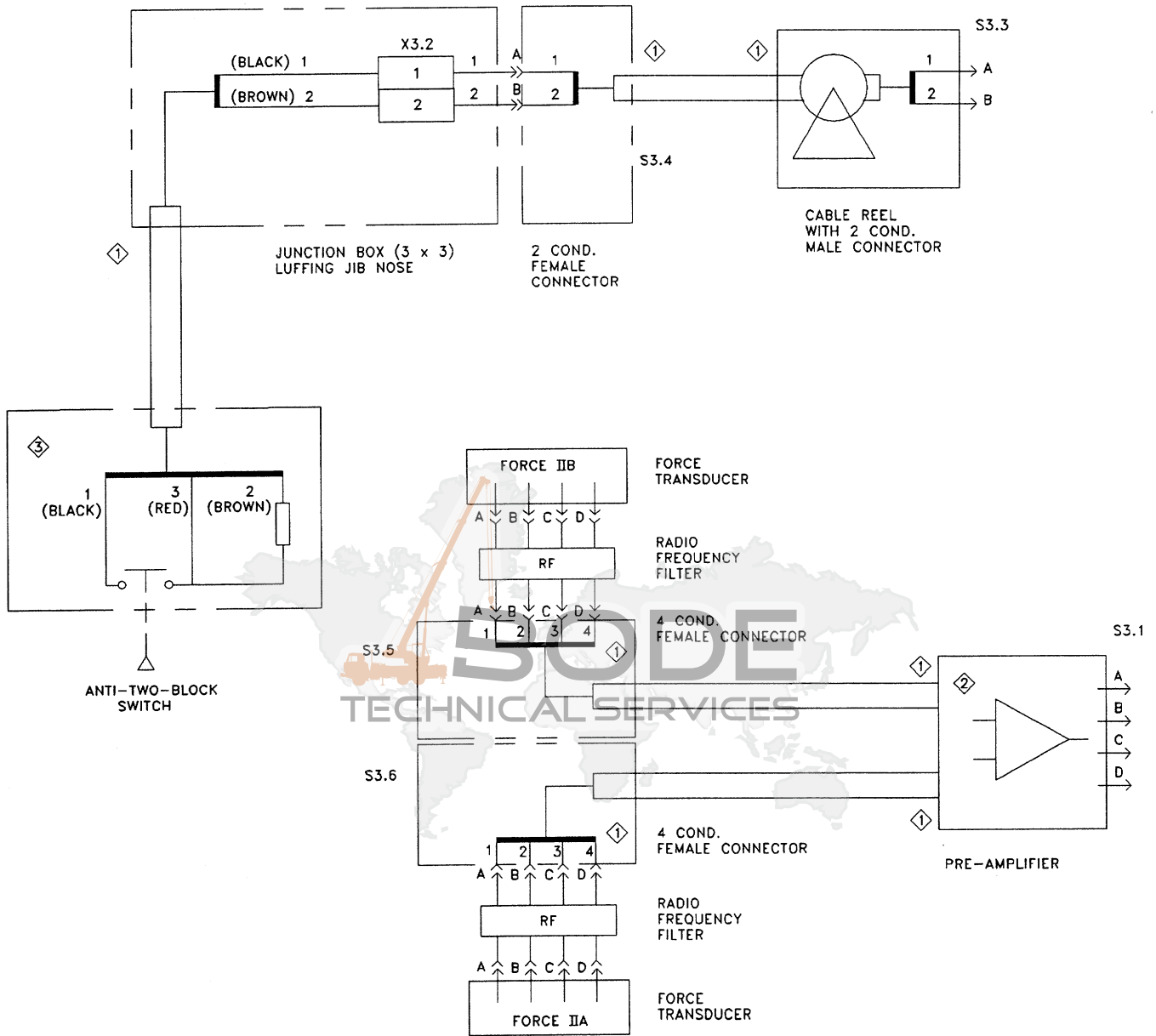
F = FEMALE CONNECTOR

1 USE JUMPER CABLE TO CONNECT CIRCUIT TO THE MAIN BOOM NOSE JUNCTION BOX.

SS = SINGLE SHIELDED CABLE

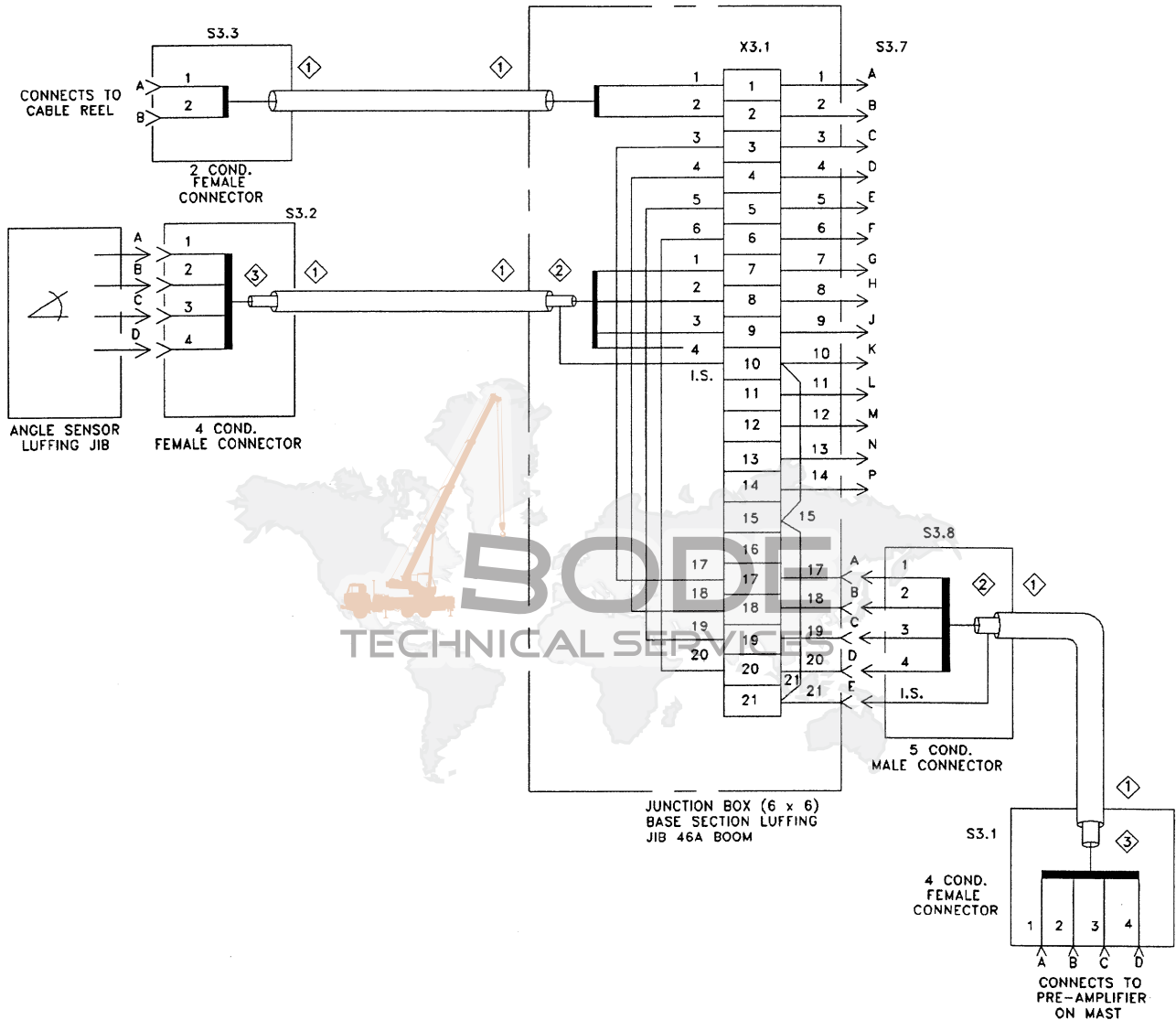
DS = DOUBLE SHIELDED CABLE

CONNECTOR LOCATION



NOTES

- ① OUTER SHIELD CONNECTED TO STRAIN RELIEF INSERT
- ② PREWIRED BY PAT -NON SERVICEABLE ITEM-
- ③ POTTED- NO ACCESS TO SWITCH ELEMENT- PREWIRED



JUNCTION BOX (6 x 6)
BASE SECTION LUFFING
JIB 46A BOOM

NOTES:

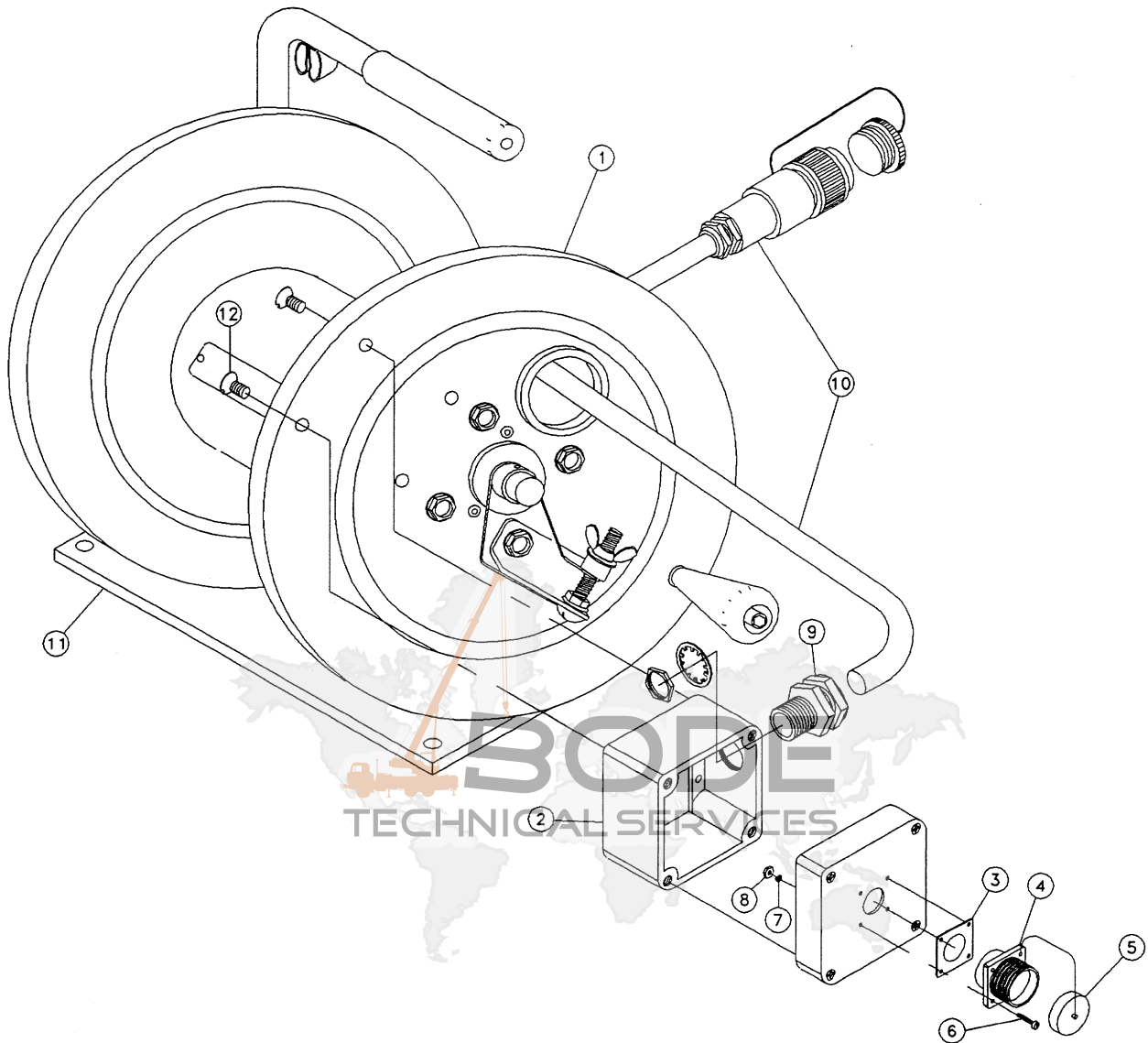
- ① OUTER SHIELD CONNECTED TO STRAIN RELIEF CONNECTOR
- ② INNER SHIELD INSULATED AND CONNECTED AS SHOWN
- ③ INNER SHIELD CUT AND INSULATED

CODE	COLOR
BR	BROWN
BL	BLACK
WY	WHITE\YELLOW
WG	WHITE\GRAY
WB	WHITE\BLUE
WR	WHITE\RED
WP	WHITE\PINK
WBL	WHITE\BLACK
WBR	WHITE\BROWN
P	PINK
W	WHITE
GN	GREEN
B	BLUE
R	RED
WGN	WHITE\GREEN
G	GRAY
I.S.	INNER SHIELD

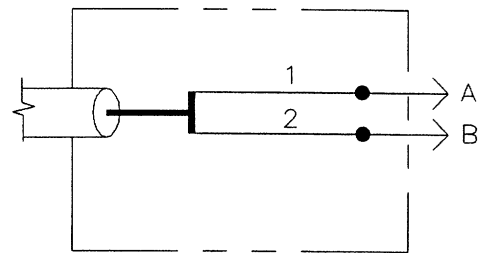
WIRING SCHEMATIC

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BODE
TECHNICAL SERVICES

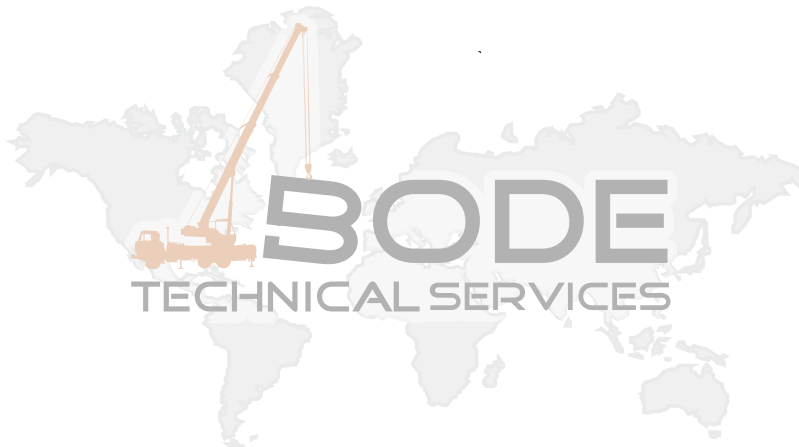


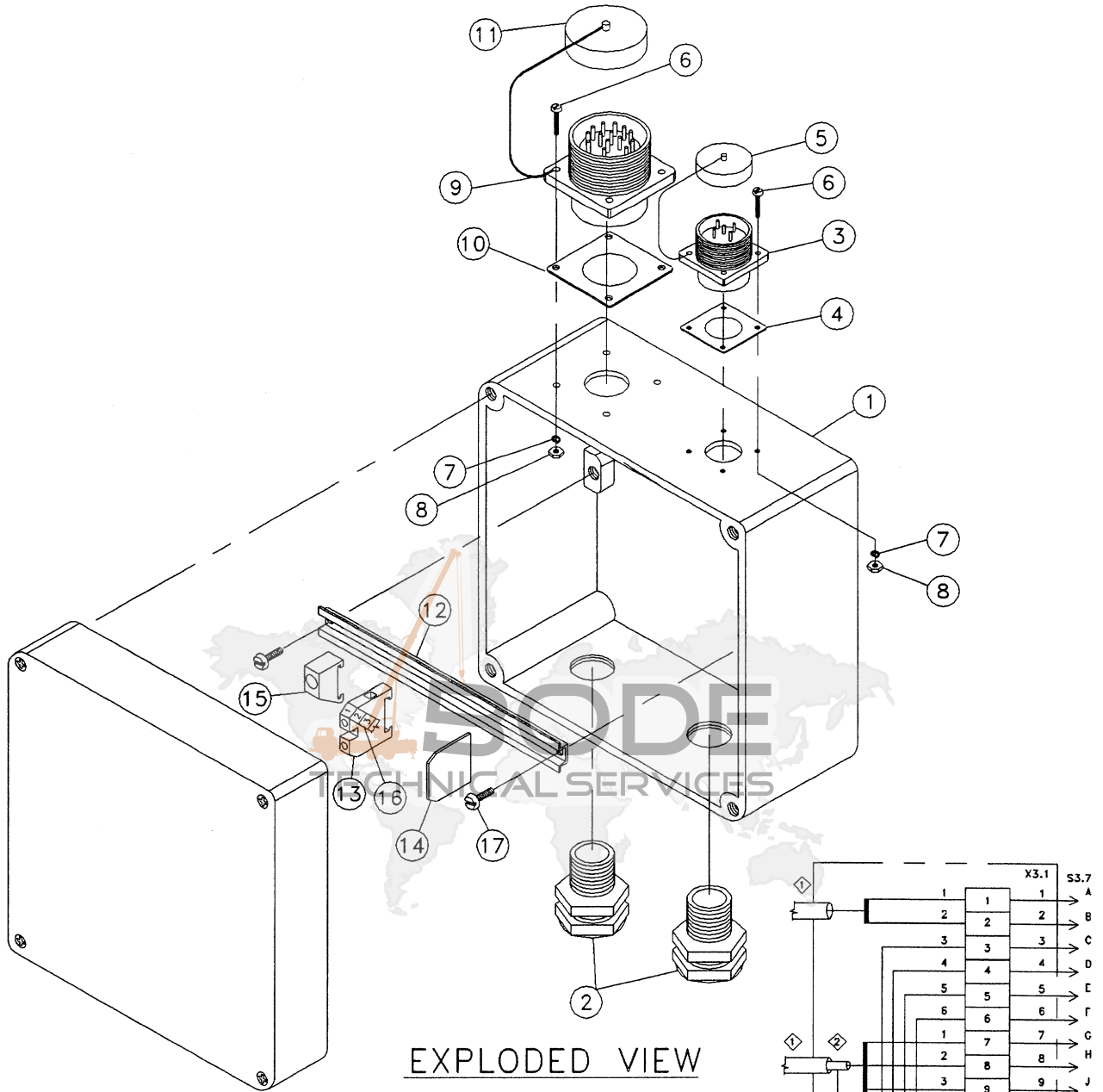
WIRING DETAIL

NOTES:

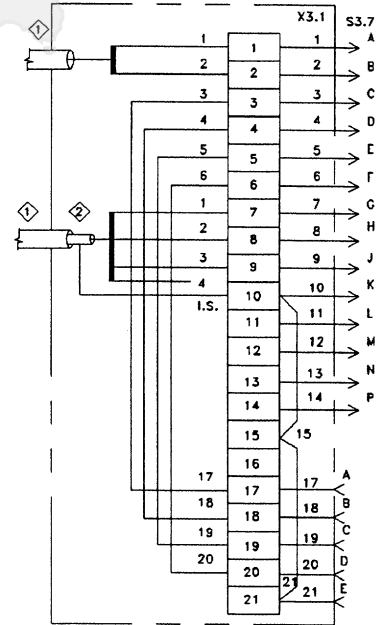
- ① OUTER SHIELD CONNECTED TO STRAIN RELIEF INSERT.

NO.	PART NO.	QTY DESCRIPTION	NO.	PART NO.	QTY DESCRIPTION
	9-333-102593	COMPLETE ASSY			
1	9-333-102029	1 REEL, CABLE			
2	9-333-102591	1 BOX, HAMMOND			
3	9-333-102482	1 GASKET			
4	9-333-102678	1 CANNON CONNECTOR			
5	9-333-102612	1 DUST COVER			
6	9-333-102669	4 SCREW #4			
7	9-333-102286	4 LOCKWASHER #4			
8	9-333-102480	4 NUT #4			
9	9-333-101599	1 STRAIN RELIEF GREEN INSERT - PG11			
10	9-333-102613	1 CABLE ASSEMBLY			
11	9-333-102679	1 BRACKET, MOUNTING			
12	9-333-102614	4 SCREW			





EXPLODED VIEW

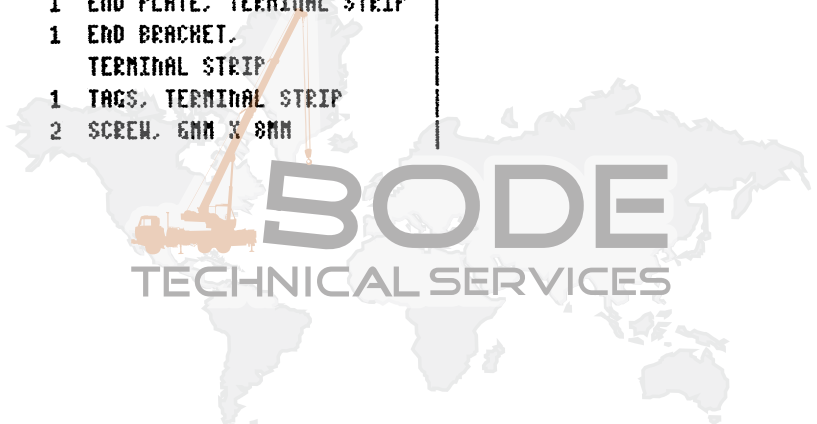


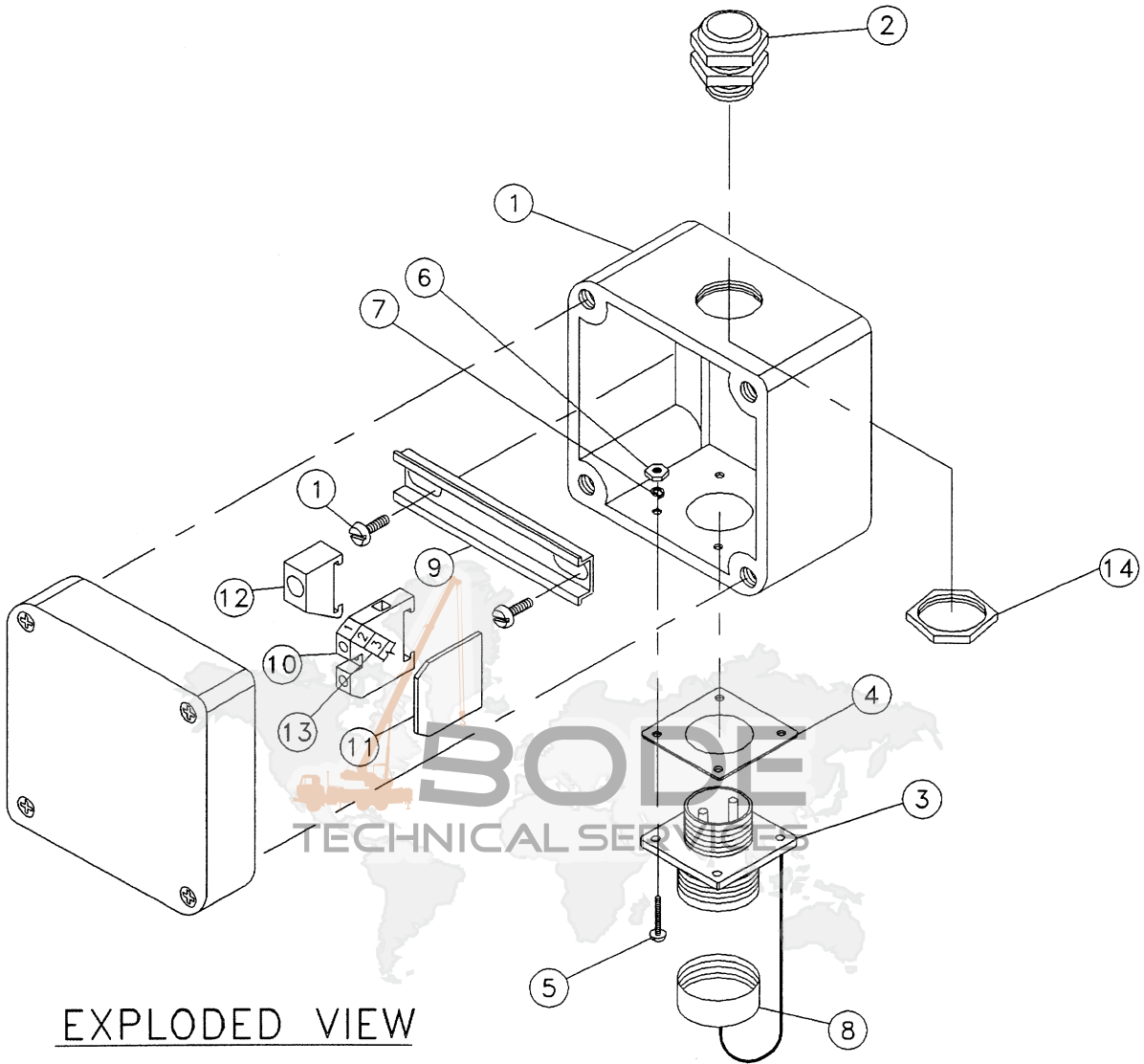
WIRING DETAIL

NOTES:

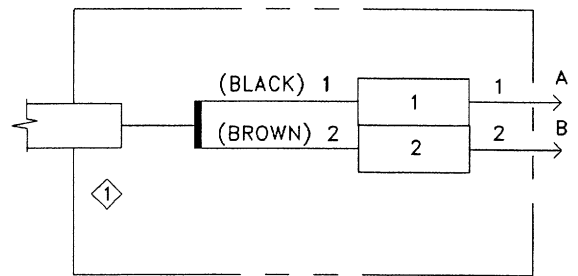
- ① OUTER SHIELD CONNECTED TO STRAIN RELIEF CONNECTOR
- ② INNER SHIELD INSULATED AND CONNECTED AS SHOWN

NO.	PART NO.	QTY	DESCRIPTION	NO.	PART NO.	QTY	DESCRIPTION
	9-333-102609		COMPLETE ASSY				
1	9-333-102345	1	HOUSING				
2	9-333-101599	2	STRAIN RELIEF GREEN INSERT - PG11				
3	9-333-102680	1	CANNON CONNECTOR				
4	9-333-102482	1	GASKET				
5	9-333-102612	1	DUST COVER				
6	9-333-102669	8	SCREW M4				
7	9-333-102266	8	LOCKWASHER M4				
8	9-333-102480	8	NUT M4				
9	9-333-102676	1	CANNON CONNECTOR				
10	9-333-102668	1	GASKET				
11	9-333-102268	1	CAP. DUST				
12	9-333-102670	1	MOUNTING RAIL, TERMINAL STRIP				
13	9-333-102663	21	BLOCK, TERMINAL STRIP				
14	9-333-102664	1	END PLATE, TERMINAL STRIP				
15	9-333-102665	1	END BRACKET, TERMINAL STRIP				
16	9-333-102666	1	TAGS, TERMINAL STRIP				
17	9-333-102671	2	SCREW, 6MM X 8MM				





EXPLODED VIEW

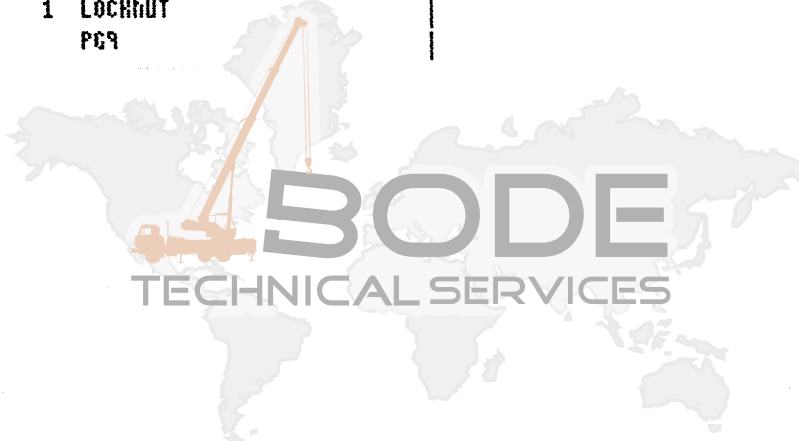


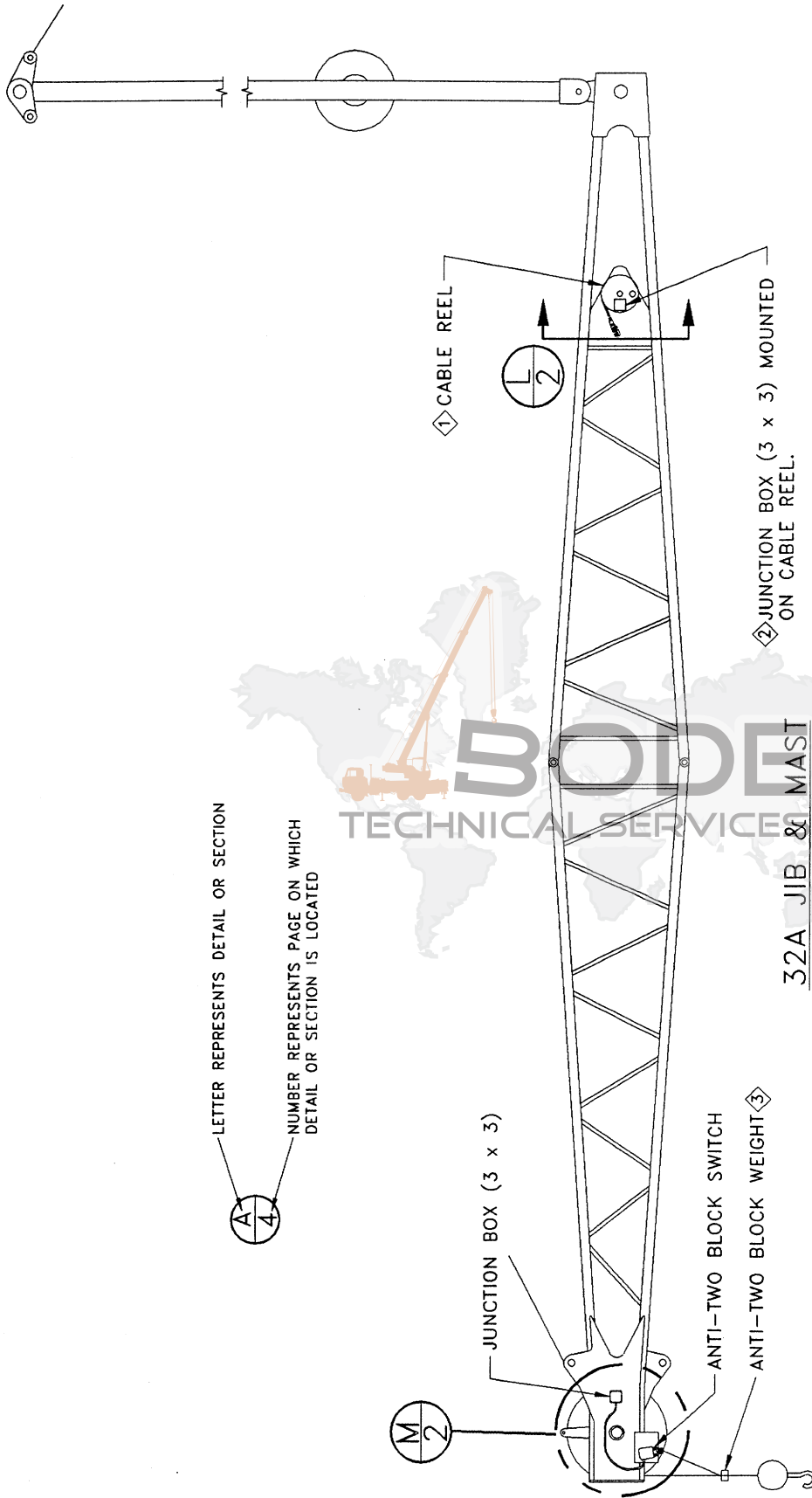
WIRING DETAIL

NOTES:

- ① OUTER SHIELD CONNECTED TO STRAIN RELIEF INSERT.

NO.	PART NO.	QTY	DESCRIPTION	NO.	PART NO.	QTY	DESCRIPTION
	9-333-102607		COMPLETE ASSY				
1	9-333-102591	1	BOX, HAMMOND				
2	9-333-102674	1	STRAIN RELIEF, PG9				
3	9-333-102678	1	CANNON CONNECTOR				
4	9-333-102482	1	GASKET				
5	9-333-102669	4	SCREW #4				
6	9-333-102266	4	LOCKWASHER #4				
7	9-333-102480	4	NUT #4				
8	9-333-102612	1	DUST COVER				
9	9-333-102662	1	MOUNTING RAIL, TERMINAL STRIP				
10	9-333-102663	2	BLOCK, TERMINAL STRIP				
11	9-333-102664	1	END PLATE, TERMINAL STRIP				
12	9-333-102665	1	END BRACKET, TERMINAL STRIP				
13	9-333-102666	1	TAGS, TERMINAL STRIP				
14	9-333-101984	1	LOCKNUT PG9				





LETTER REPRESENTS DETAIL OR SECTION
 NUMBER REPRESENTS PAGE ON WHICH
 DETAIL OR SECTION IS LOCATED

NOTES:

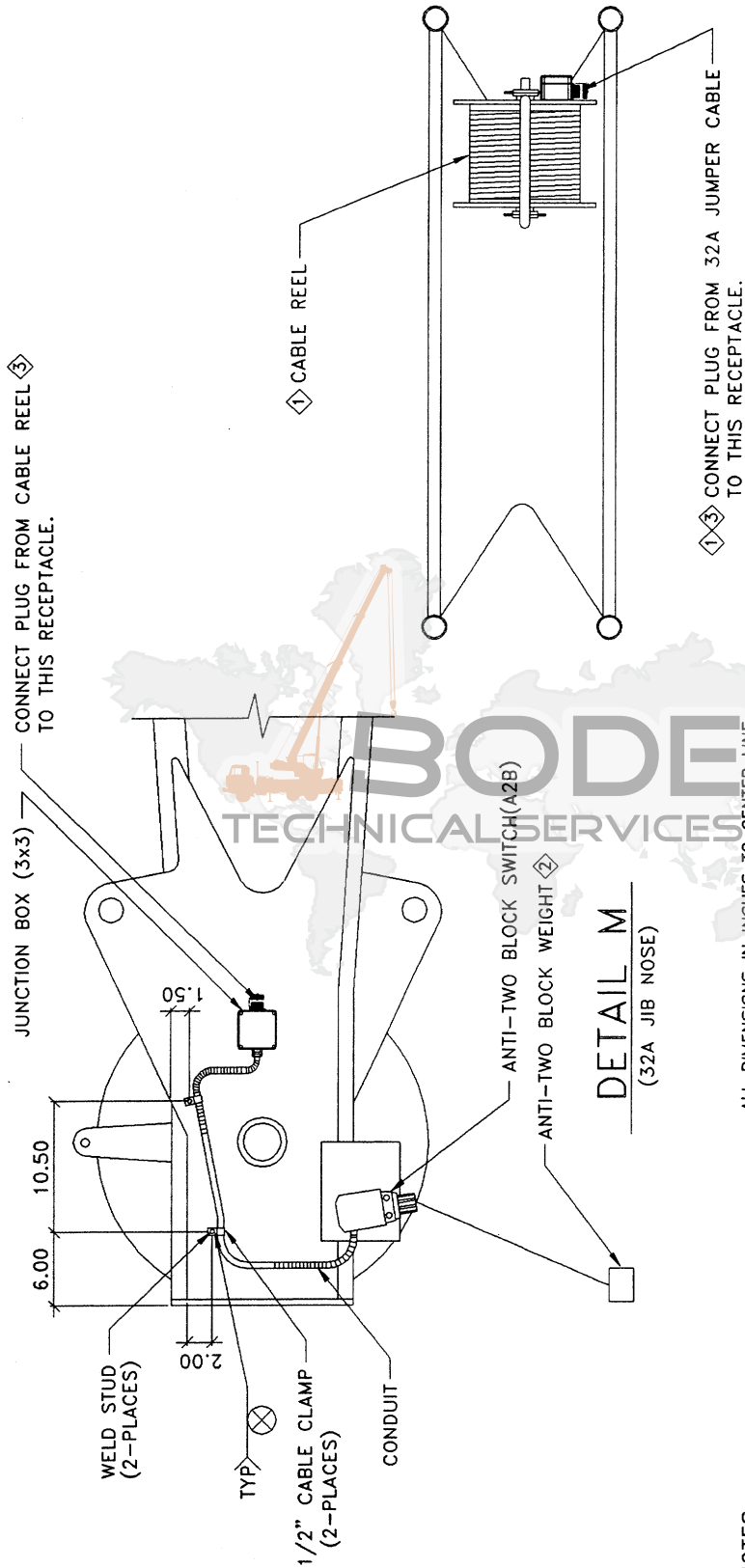
ADD DIELECTRIC LUBRICANT (e.g., NYOGEL 759G) TO INSIDE OF RECEPTACLES, PLUGS, AND ELECTRICAL CONNECTORS, TO IMPROVE PROTECTION AGAINST CORROSION AND MALFUNCTION DUE TO CONDENSATION.

- A. CLEAN ELECTRICAL CONTACTS AND CONNECTORS OF ALL FOREIGN MATERIAL SUCH AS GREASE, OIL, AND DIRT BEFORE APPLYING LUBRICANT.
- B. APPLY A GENEROUS AMOUNT OF LUBRICANT ON THE ELECTRICAL CONTACTS AND CONNECTORS BEFORE MOUNTING.
- C. AFTER MATING CONTACTS AND CONNECTORS, CLEAN OFF THE EXCESS SOQUEEZED OUT.

FOR ELECTRICAL CONNECTIONS REFER TO THE WIRING SCHEMATIC IN THIS PARTS AND INSTALLATION MANUAL.

- 1 TO CONNECT CABLE REEL TO JIB NOSE; UNROLL CABLE FROM CABLE REEL AND SCREW PLUG INTO RECEPTACLE ON (3 x 3) JUNCTION BOX ON JIB NOSE.
- 2 TO CONNECT 32A JIB TO 76A BOOM NOSE; INSTALL 32A JIB JUMPER CABLE FROM RECEPTACLE ON (3 x 3) JUNCTION BOX ON 32A JIB CABLE REEL TO RECEPTACLE ON (6 x 6) JUNCTION BOX ON 76A BOOM NOSE.
- 3 REFER TO OPERATOR'S HANDBOOK FOR PROPER USE OF A2B SWITCH WEIGHT.

32A JIB & MAST



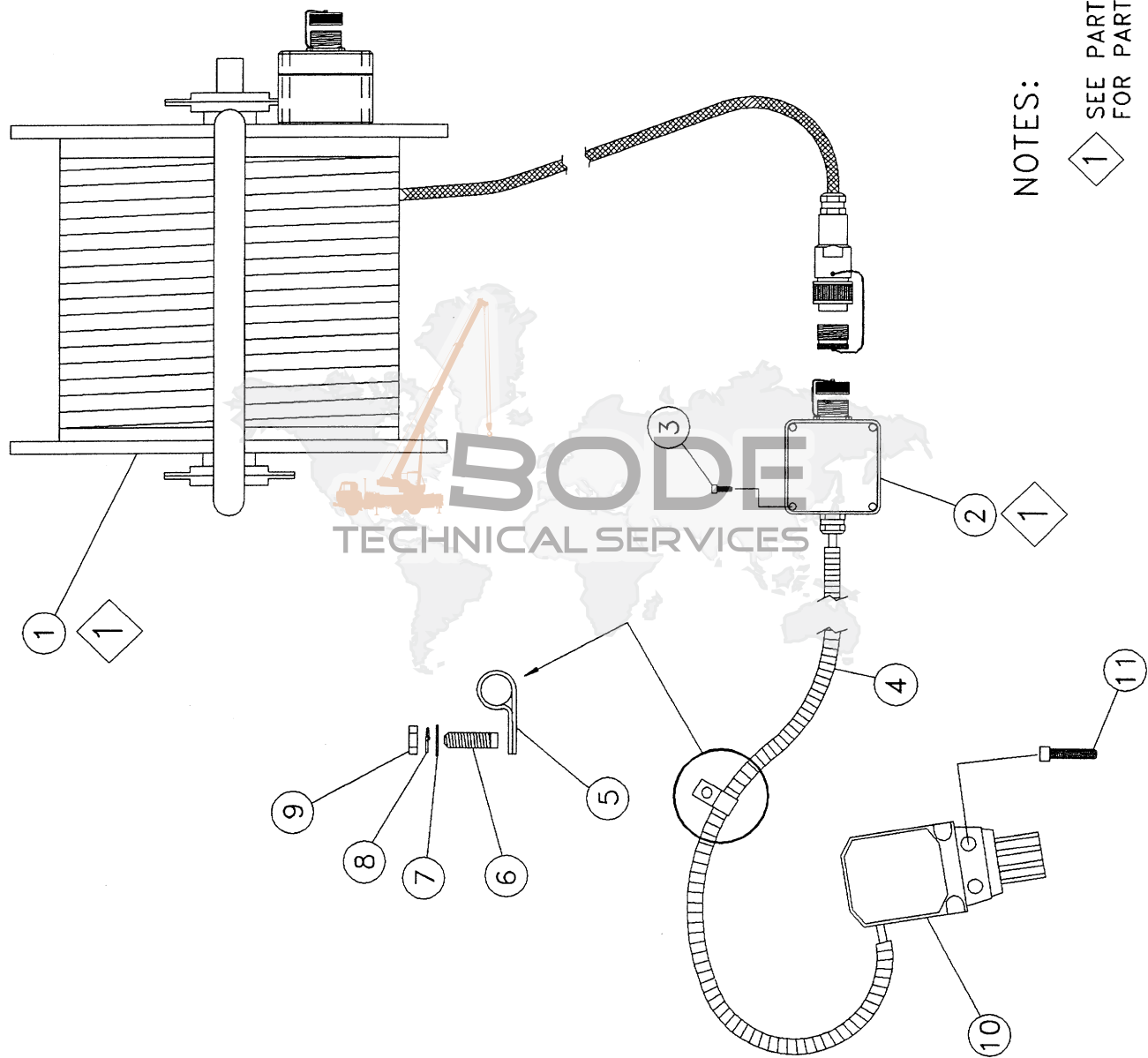
SECTION L
(32A JIB BASE)

- ALL DIMENSIONS IN INCHES TO CENTER LINE OF WELD STUDS.
- FOR ELECTRICAL CONNECTIONS REFER TO THE WIRING SCHEMATIC IN THIS PARTS AND INSTALLATION MANUAL.
- REFER TO 32A BOOM COMPONENT KIT FOR INSTALLATION HARDWARE.
- ① TO CONNECT 32A JIB BASE TO 76A BOOM NOSE; INSTALL 32A JUMPER CABLE FROM (3 x 3) JUNCTION BOX ON CABLE REEL, TO RECEPTACLE ON (6 x 6) JUNCTION BOX ON 76A BOOM NOSE.
 - ② REFER TO OPERATOR'S HANDBOOK FOR PROPER USE OF A2B SWITCH WEIGHT.
 - ③ INSTALL DUST COVERS WHEN PLUG AND RECEPTACLE ARE DISCONNECTED.

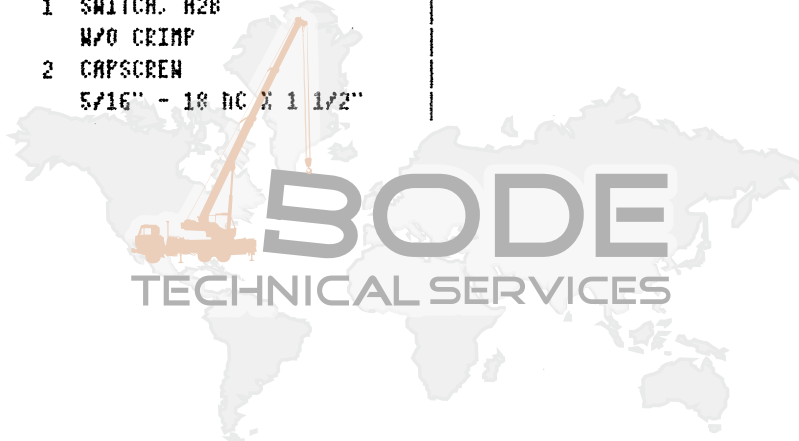
NOTES:

ADD DIELECTRIC LUBRICANT (e.g. NYOGEL 759G) TO INSIDE OF RECEPTACLES, PLUGS, AND ELECTRICAL CONNECTORS, TO IMPROVE PROTECTION AGAINST CORROSION AND MALFUNCTION DUE TO CONDENSATION.

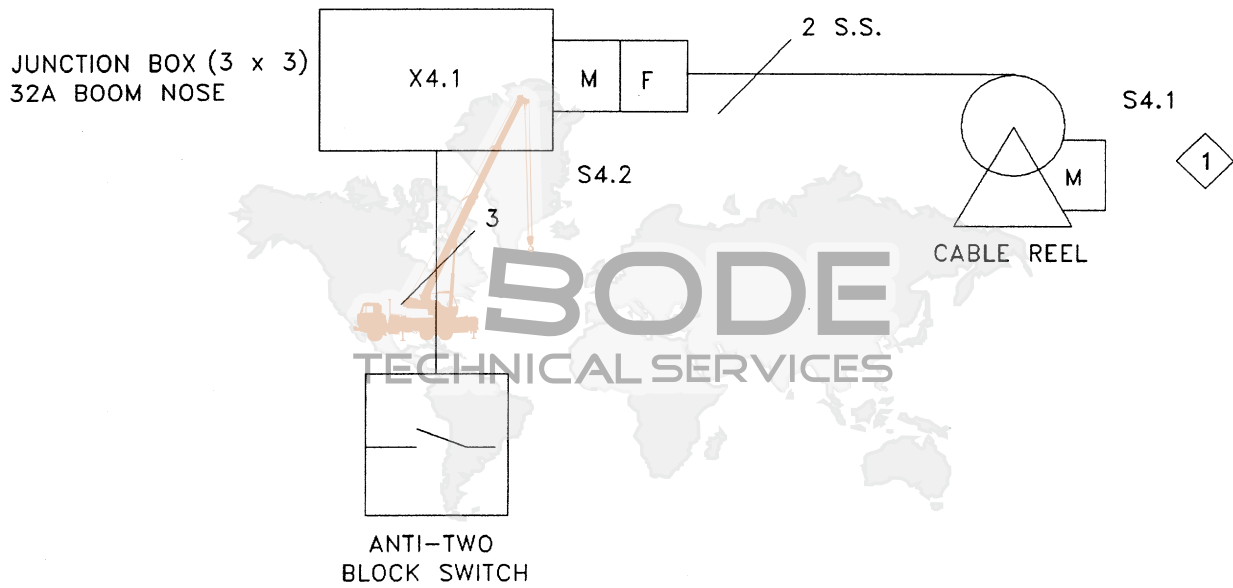
- A. CLEAN ELECTRICAL CONTACTS AND CONNECTORS OF ALL FOREIGN MATERIAL SUCH AS GREASE, OIL, AND DIRT BEFORE APPLYING LUBRICANT.
- B. APPLY A GENEROUS AMOUNT OF LUBRICANT ON THE ELECTRICAL CONTACTS AND CONNECTORS BEFORE MOUNTING.
- C. AFTER MATING CONTACTS AND CONNECTORS, CLEAN OFF THE EXCESS SQUEEZED OUT.



NO.	PART NO.	QTY	DESCRIPTION	NO.	PART NO.	QTY	DESCRIPTION
1	9-333-102703	1	CABLE REEL ASSEMBLY				
2	9-333-102607	1	JUNCTION BOX ASSEMBLY (3 X 3)				
3	9-333-102581	4	SCREW				
4	9-333-102235	1	CONDUIT 10 FEET (MUST CUT TO LENGTH)				
5	7-300-000101	2	CLAMP 1/2"				
6	7-866-142140	2	STUD 1/4"-20 X 7/8"				
7	7-450-140141	2	WASHER 1/4" NARROW				
8	7-450-140050	2	LOCKWASHER 1/4" REG				
9	7-660-140000	2	NUT, HEX 1/4"-20 NC - GRD A				
10	9-333-102238	1	SWITCH, A2B W/O CRIMP				
11	7-110-151205	2	CAPSCREW 5/16" - 18 NC X 1 1/2"				



+ SEE FURTHER BREAKDOWN THIS GROUP



NOTES



= FEMALE CONNECTOR



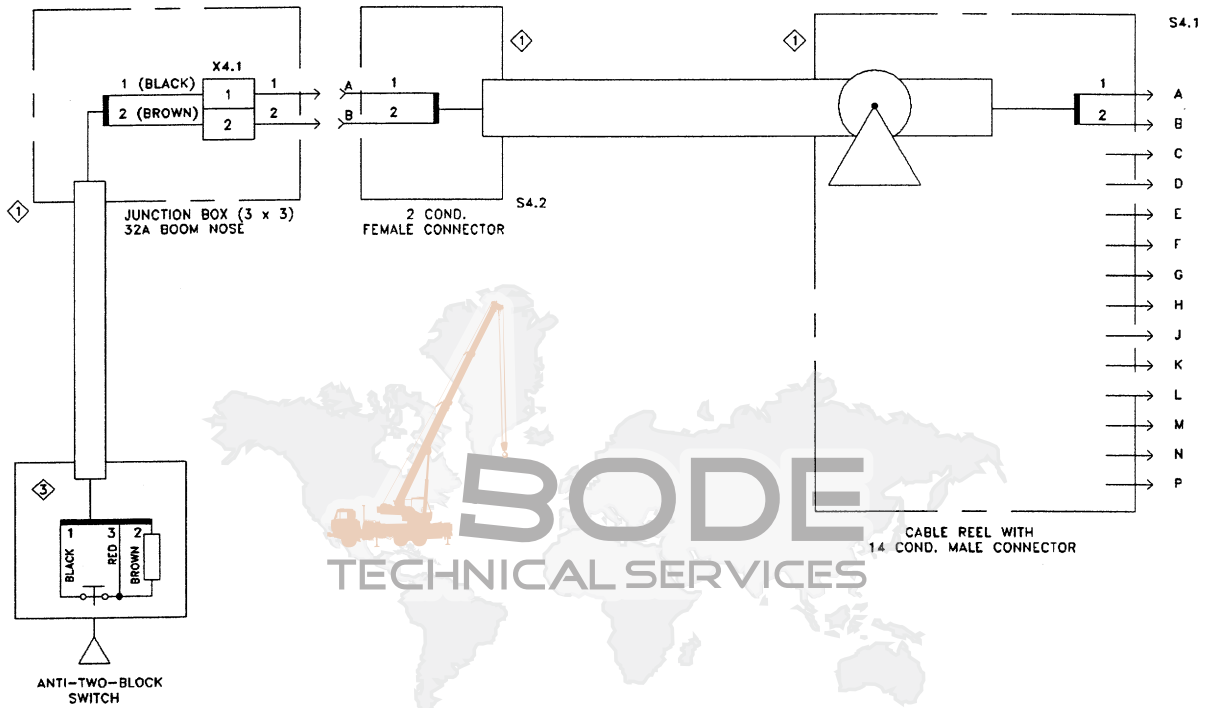
= MALE CONNECTOR



USE JUMPER CABLE TO CONNECT
CONNECT CIRCUIT TO THE MAIN
BOOM NOSE JUNCTION BOX

SS = SINGLE SHIELDED CABLE
DS = DOUBLE SHIELDED CABLE
TS = TRIPLE SHIELDED CABLE

CONNECTOR LOCATION

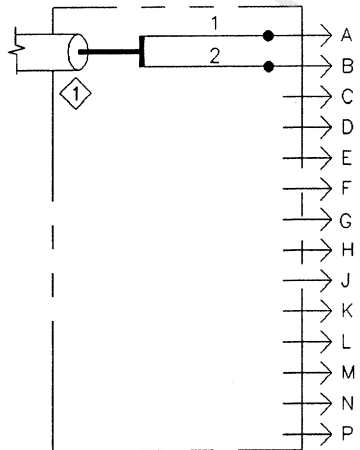
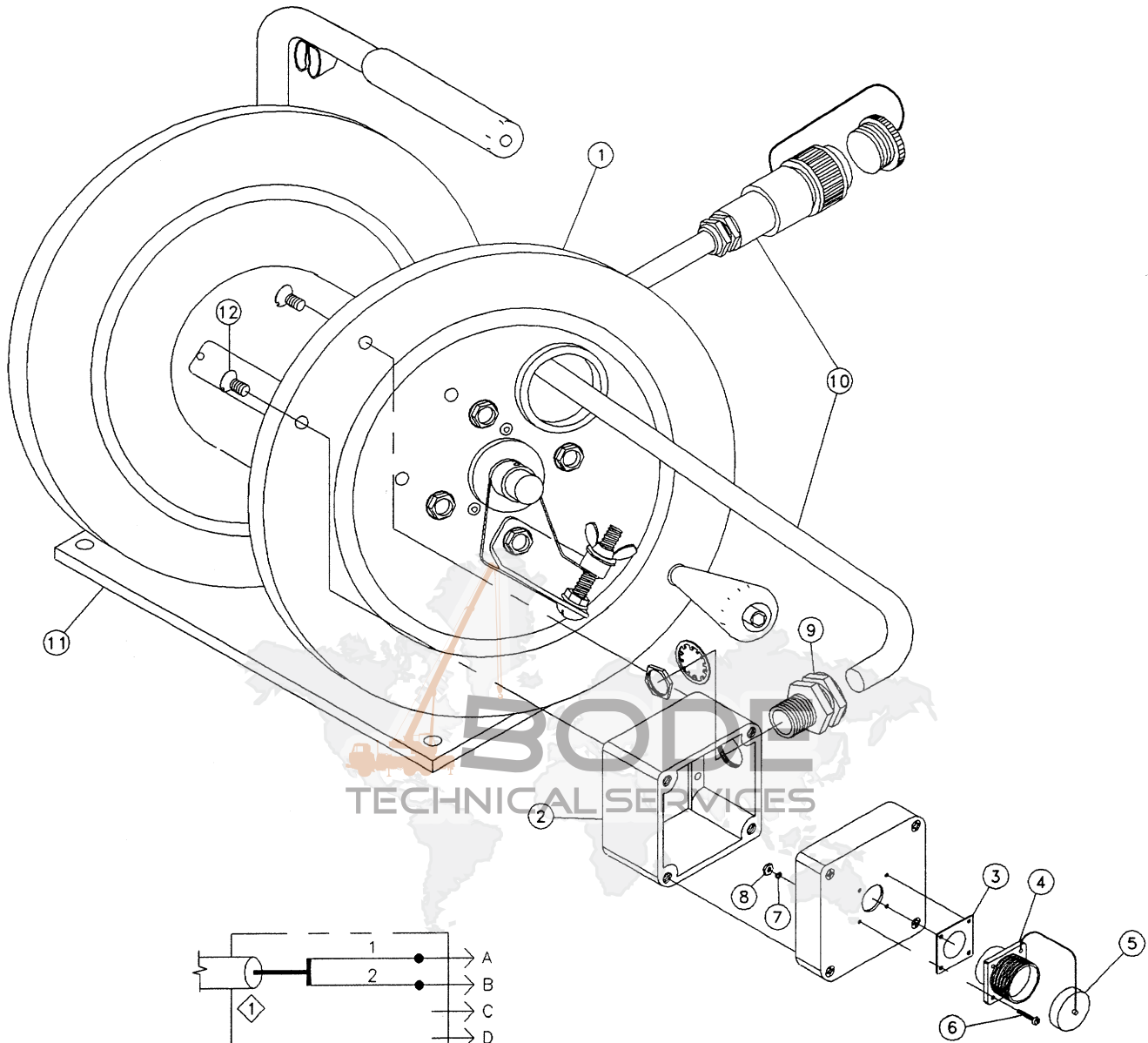


NOTES:

- ① OUTER SHIELD CONNECTED TO STRAIN RELIEF INSERT
- ③ POTTED - NO ACCESS TO SWITCH ELEMENT - PREWIRED

CODE	COLOR
BR	BROWN
BL	BLACK
WY	WHITE\YELLOW
WG	WHITE\GRAY
WB	WHITE\BLUE
WR	WHITE\RED
WP	WHITE\PINK
WBL	WHITE\BLACK
WBR	WHITE\BROWN
P	PINK
W	WHITE
GN	GREEN
B	BLUE
R	RED
WGN	WHITE\GREEN
G	GRAY
I.S.	INNER SHIELD

WIRING SCHEMATIC

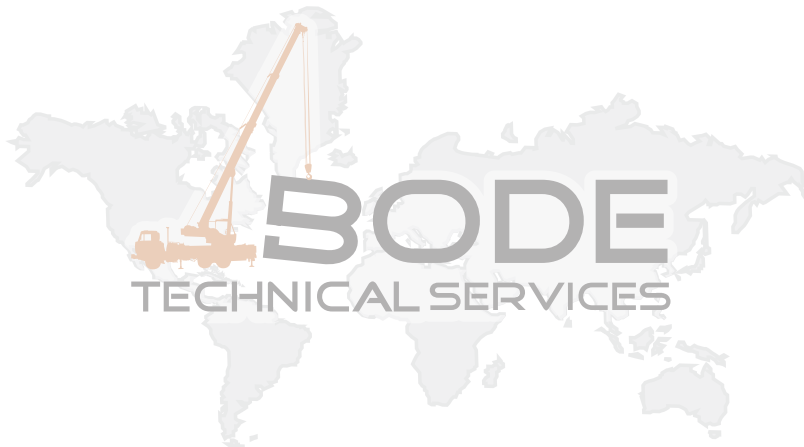


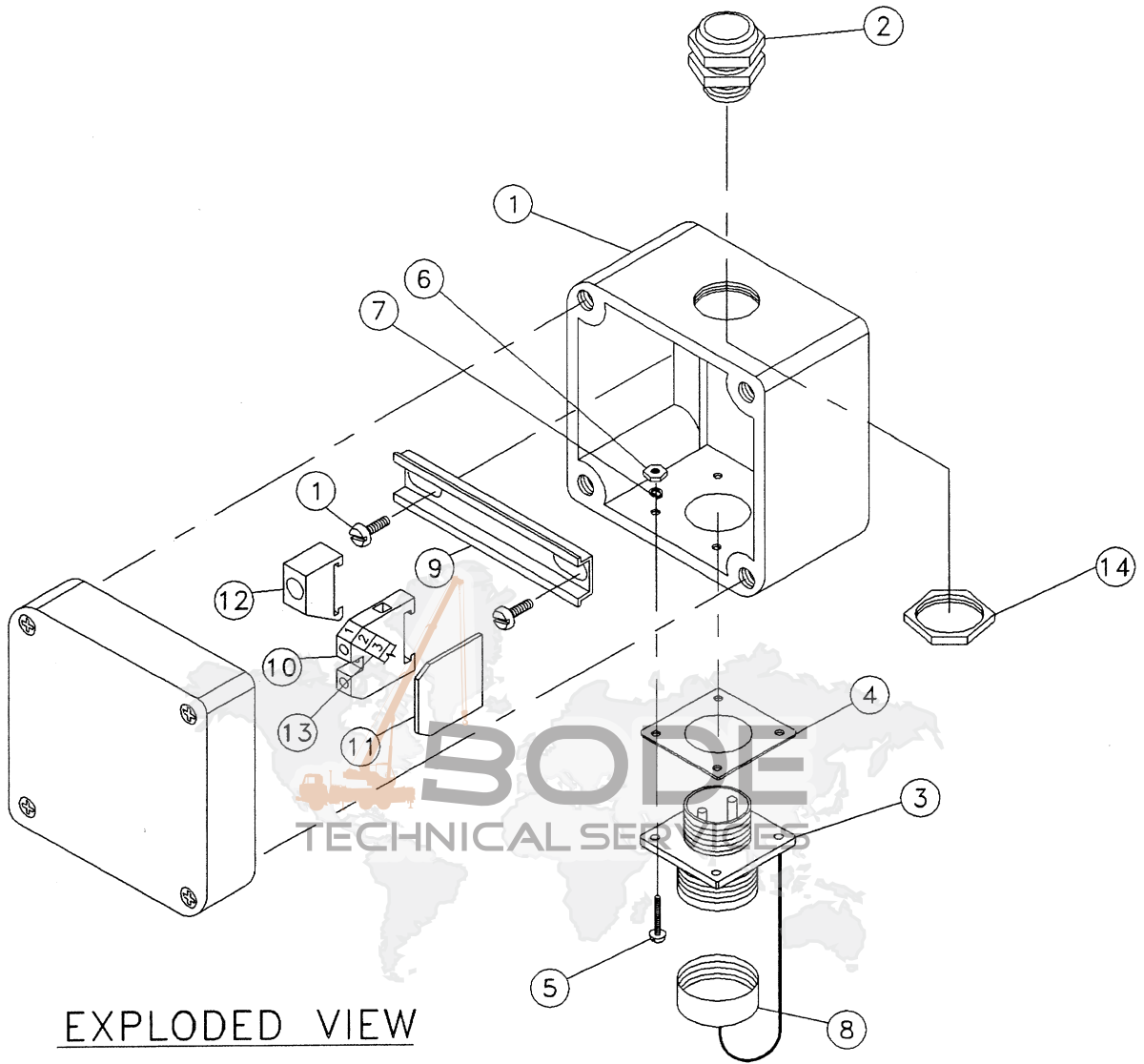
WIRING DETAIL

NOTES:

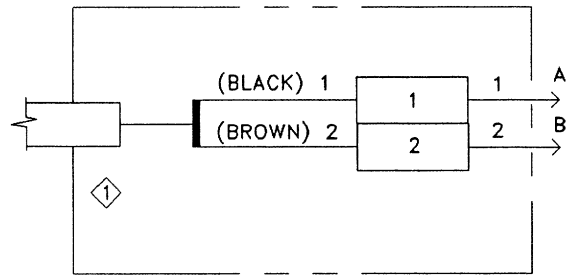
1 OUTER SHIELD CONNECTED TO STRAIN RELIEF INSERT.

NO.	PART NO.	QTY DESCRIPTION	NO.	PART NO.	QTY DESCRIPTION
	9-333-102703	COMPLETE ASSY			
1	9-333-102029	1 REEL, CABLE			
2	9-333-102591	1 BOX, HAMMOND			
3	9-333-102482	1 GASKET			
4	9-333-102678	1 CANNON CONNECTOR			
5	9-333-102612	1 DUST COVER			
6	9-333-102669	4 SCREW #4			
7	9-333-102266	4 LOCKWASHER #4			
8	9-333-102480	4 NUT #4			
9	9-333-101599	1 STRAIN RELIEF GREEN INSERT - PG11			
10	9-333-102613	1 CABLE ASSEMBLY			
11	9-333-102679	1 BRACKET, MOUNTING			
12	9-333-102614	4 SCREW			





EXPLODED VIEW



WIRING DETAIL

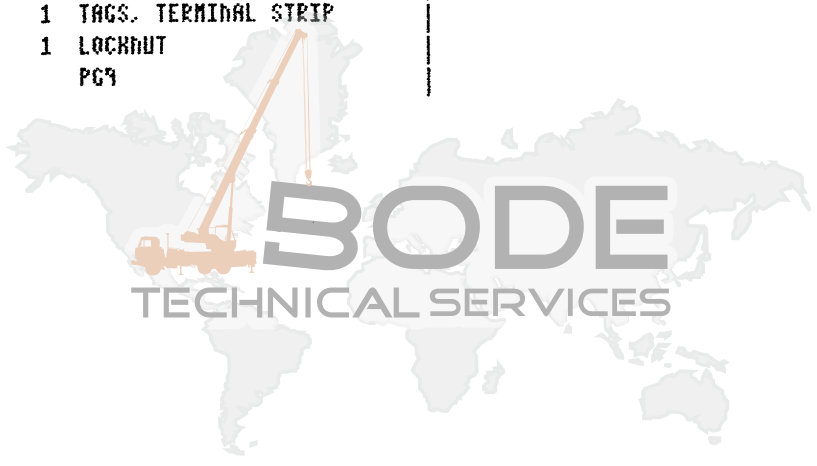
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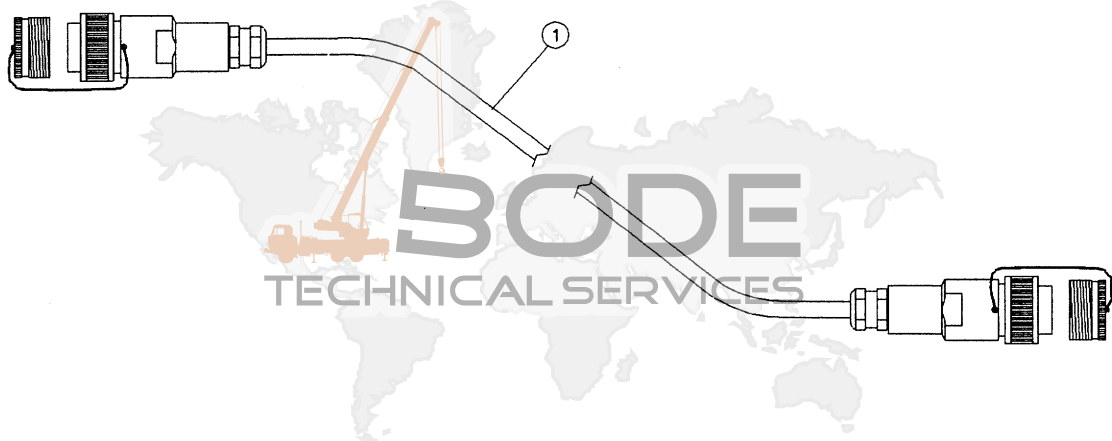
- ① OUTER SHIELD CONNECTED TO STRAIN RELIEF INSERT.

JUNCTION BOX ASSEMBLY (3 X 3)

GROUE

NO.	PART NO.	QTY DESCRIPTION	NO.	PART NO.	QTY DESCRIPTION
	9-333-102607	COMPLETE ASSY			
1	9-333-102591	1 BOX, HAMMOND			
2	9-333-102674	1 STRAIN RELIEF, PG9			
3	9-333-102678	1 CANNON CONNECTOR			
4	9-333-102482	1 GASKET			
5	9-333-102669	4 SCREW #4			
6	9-333-102266	4 LOCKWASHER #4			
7	9-333-102480	4 NUT #4			
8	9-333-102612	1 DUST COVER			
9	9-333-102662	1 MOUNTING RAIL, TERMINAL STRIP			
10	9-333-102663	2 BLOCK, TERMINAL STRIP			
11	9-333-102664	1 END PLATE, TERMINAL STRIP			
12	9-333-102665	1 END BRACKET, TERMINAL STRIP			
13	9-333-102666	1 TAGS, TERMINAL STRIP			
14	9-333-101984	1 LOCKNUT PG9			





NOTES:

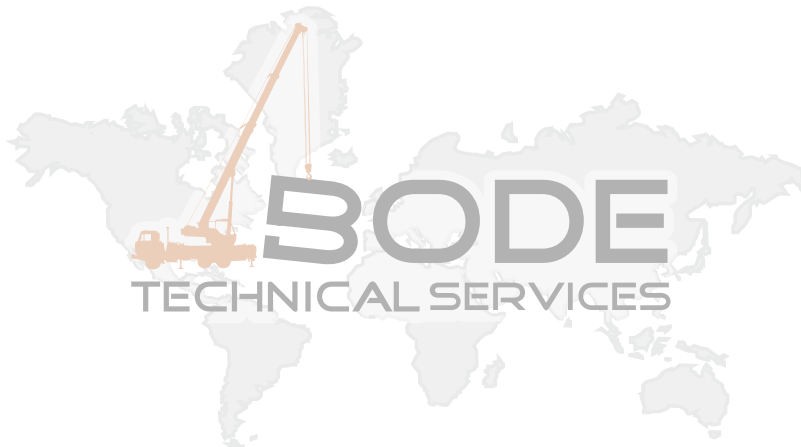
ADD DIELECTRIC LUBRICANT (e.g. NYOGEL 759G) TO INSIDE OF RECEPTACLES, PLUGS, AND ELECTRICAL CONNECTORS, TO IMPROVE PROTECTION AGAINST CORROSION AND MALFUNCTION DUE TO CONDENSATION.

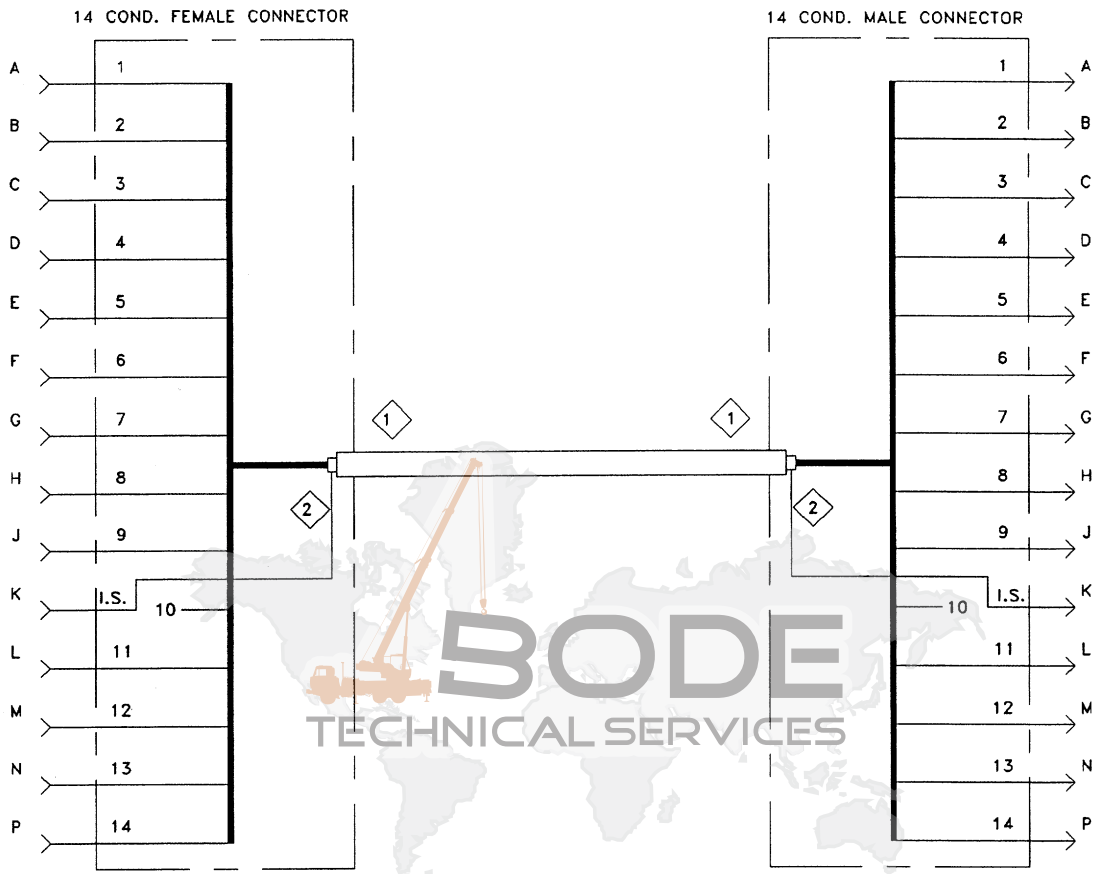
- A. CLEAN ELECTRICAL CONTACTS AND CONNECTORS OF ALL FOREIGN MATERIAL SUCH AS GREASE, OIL, AND DIRT BEFORE APPLYING LUBRICANT.
- B. APPLY A GENEROUS AMOUNT OF LUBRICANT ON THE ELECTRICAL CONTACTS AND CONNECTORS BEFORE MOUNTING.
- C. AFTER MATING CONTACTS AND CONNECTORS, CLEAN OFF THE EXCESS SQUEEZED OUT.

CABLE ASSEMBLY - JUMPER 14 COND. MALE & FEMALE

GROVE

NO.	PART NO.	QTY	DESCRIPTION	NO.	PART NO.	QTY	DESCRIPTION
	9-333-102616		COMPLETE ASSY				
1	9-333-102616	1	CABLE ASSEMBLY - JUMPER 14 COND. MALE + FEMALE				





NOTES



OUTER SHIELD CONNECTED TO STRAIN RELIEF.

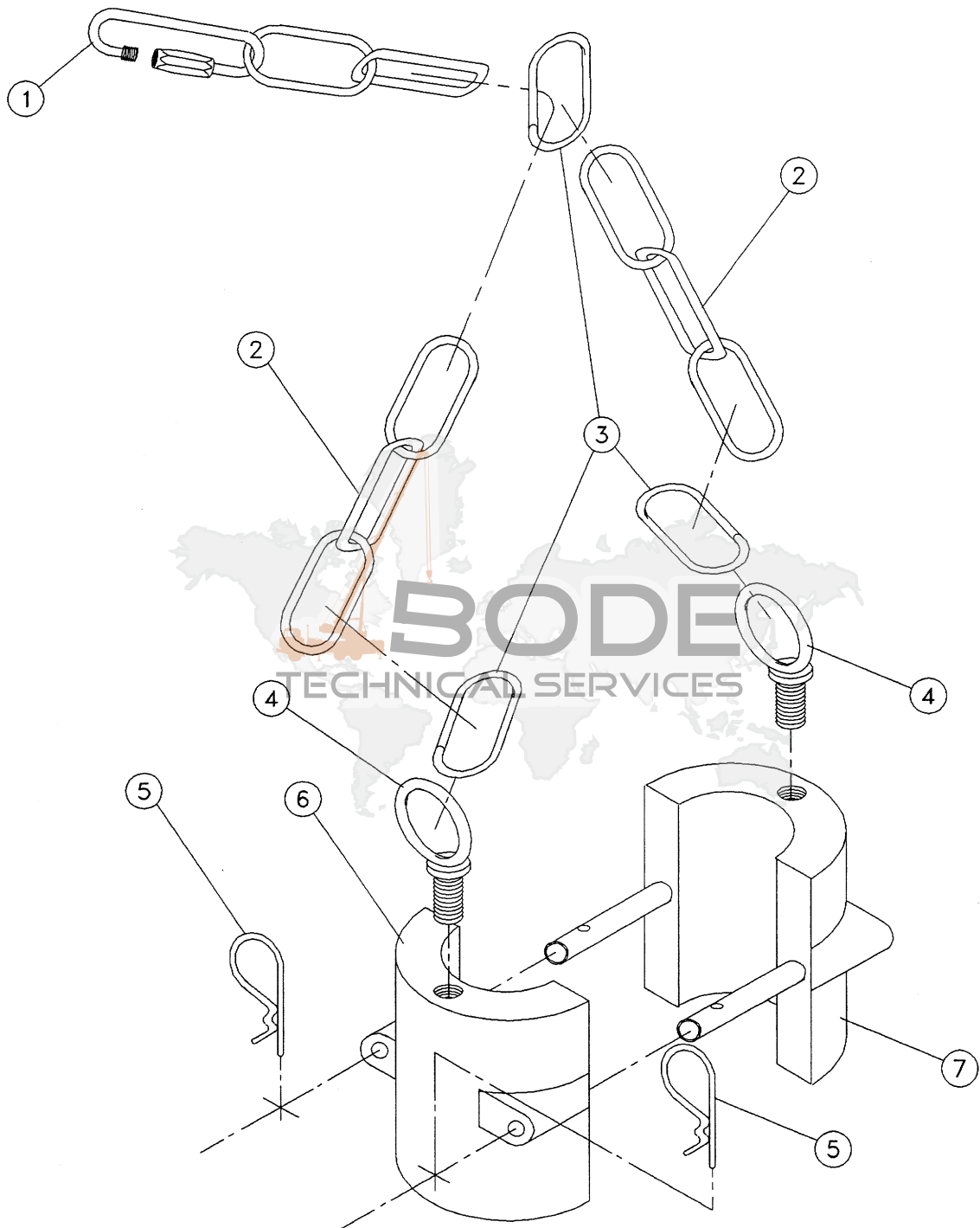


INNER SHIELD INSULATED AND CONNECTED AS SHOWN.

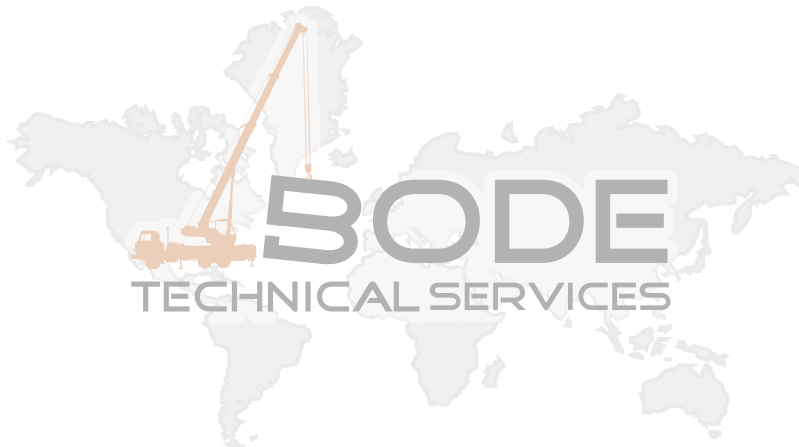
WIRING SCHEMATIC

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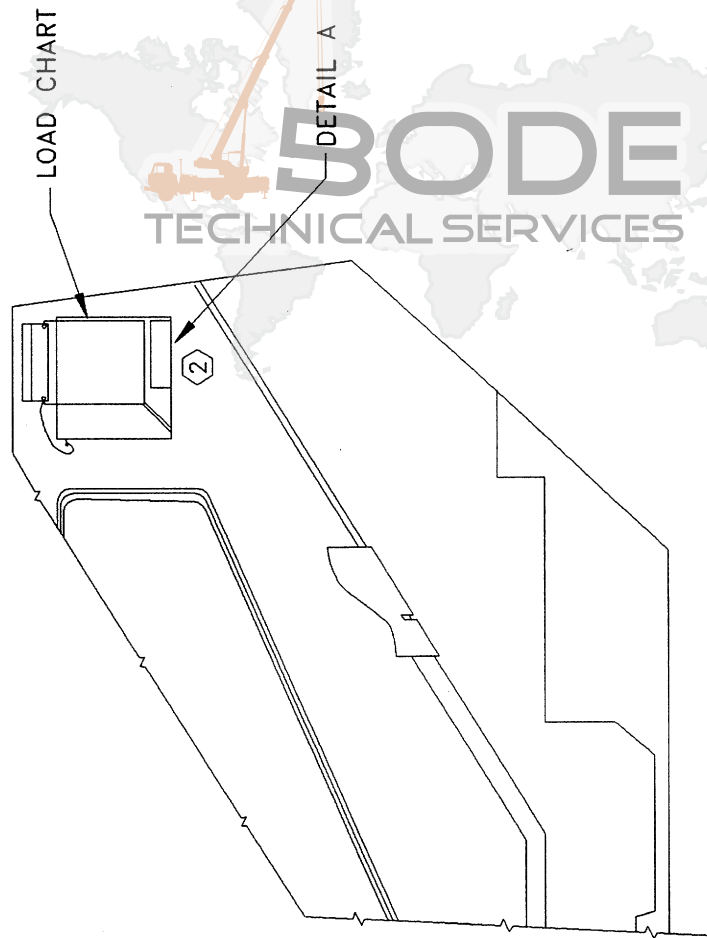


NO.	PART NO.	QTY	DESCRIPTION	NO.	PART NO.	QTY	DESCRIPTION
	3-486-0-00212		COMPLETE ASSY				
1	9-333-101840	1	CLEVIS				
2	9-333-101921	1	CHAIN ASSY				
3	9-333-101922	3	CLAMP, CHAIN				
4	9-333-101923	2	EYEBOLT				
5	9-333-101916	2	PIN, COTTER				
6	9-333-101924	1	WEIGHT, FEMALE				
7	9-333-101925	1	WEIGHT, MALE				

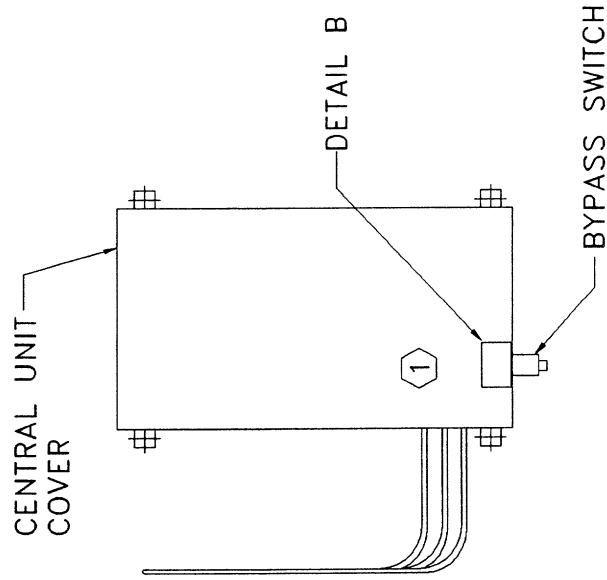


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PARTIAL VIEW R.H. SIDE CAB-INSIDE



LMI-CENTRAL UNIT

NOTES:

- ① TO BE INSTALLED CLOSEST TO BYPASS SWITCH.
- ② TO BE INSTALLED ON THE BOTTOM RIGHT HAND CORNER OF THE LOAD CHART HOLDER.

DECAL INSTALLATION LOCATION

DETAIL B

1

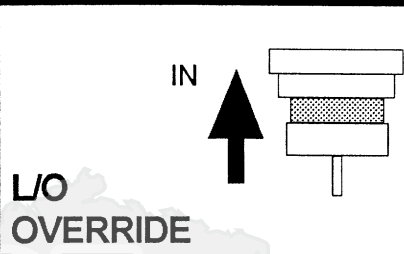
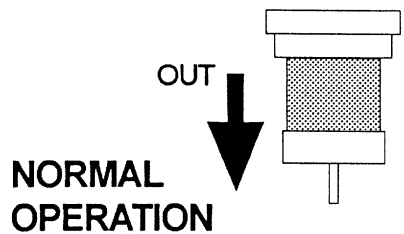


WARNING

LMI LOCKOUT/OVERRIDE

This switch overrides the LMI lockout feature and must be used with utmost caution.

REFERENCE: PAT Operator's Manual
024-000-120-017



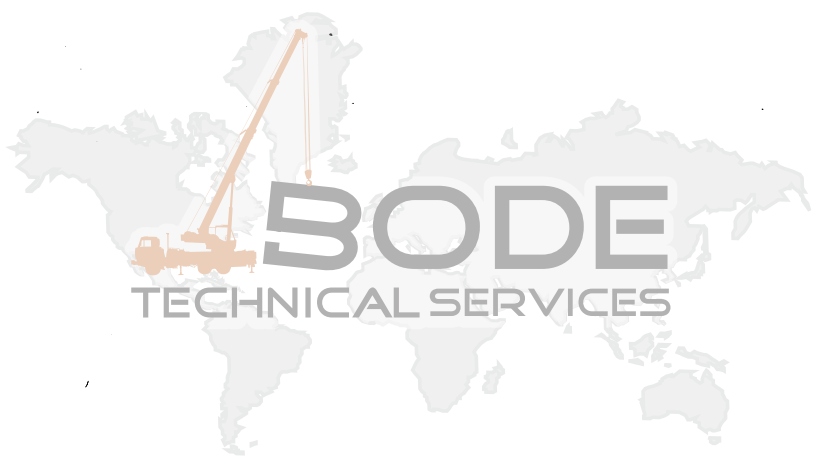
THIS MACHINE IS EQUIPPED WITH A DS 350 SERIES LOAD MOMENT INDICATING SYSTEM MANUFACTURED BY PIETZSCH AUTOMATISIERUNGSTECHNIK GMBH, GERMANY. THE LOAD MOMENT SYSTEM COMPLIES WITH SAE J159, APR 85. STUDY PAT OPERATOR'S MANUAL CAREFULLY BEFORE OPERATING THIS CRANE.

024-000-120-017

2

DETAIL A

NO.	PART NO.	QTY	DESCRIPTION	NO.	PART NO.	QTY	DESCRIPTION
1	9-333-102121	1	DECAL - BYPASS SWITCH ENGLISH				
2	9-333-102120	1	DECAL - SAE INFO DS350G ENGLISH				



DETAIL B

1

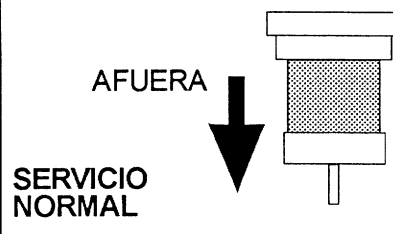


ADVERTENCIA

PUENTEADO DE BLOQUEO IMC

Este interruptor puentea la función de bloqueo del IMC y deberá utilizarse sólo con la máxima prudencia.

Referencia: Manual de Servicio PAT



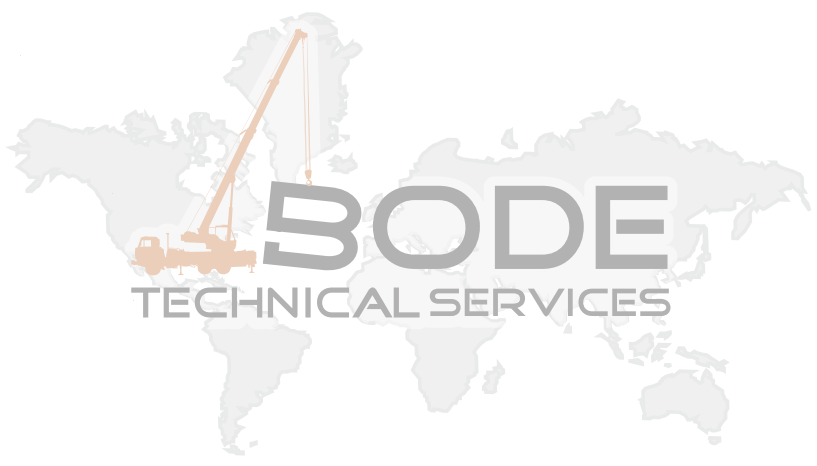
SODE
TECHNICAL SERVICES

Esta grúa está equipada con un sistema indicador del momento de carga de la serie DS 350 fabricada por la casa PIETZSCH Automatisierungstechnik GmbH, RFA. El sistema indicador del momento de carga cumple con las exigencias de SAE J159 de abril de 1985. Se le ruega leer cuidadosamente el manual de servicio PAT antes de manejar la grúa.

2

DETAIL A

NO.	PART NO.	QTY	DESCRIPTION	NO.	PART NO.	QTY	DESCRIPTION
1	9-333-102276	1	DECAL - BYPASS SWITCH SPANISH				
2	9-333-102487	1	DECAL - SAE INFO DS350C SPANISH				



DETAIL B

1



AVERTISSEMENT

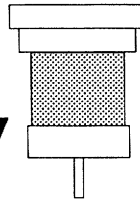
SHUNTAGE DE COUPURE CEC

Cet interrupteur shunte la fonction de coupure du CEC et ne doit être utilisé qu'avec une extrême prudence.

Référence: Mode d'Emploi PAT

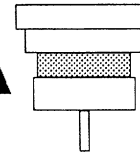
024-000-120-024

EN SAILLIE



SERVICE NORMAL

ENFONCÉ



SHUNTAGE DE COUPURE

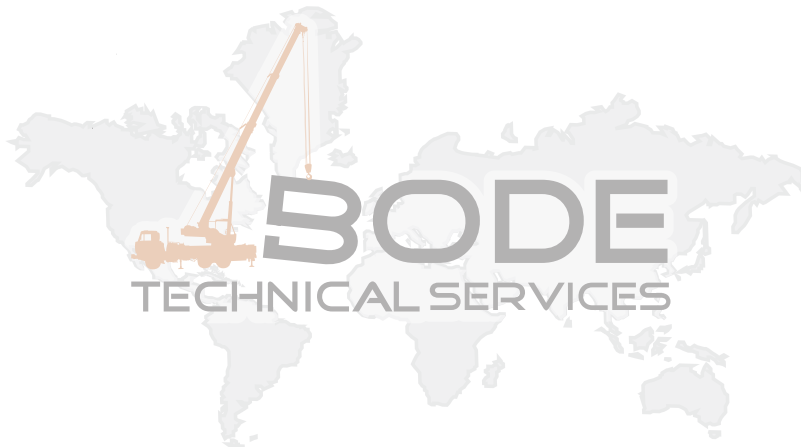


Votre grue est équipée d'un système contrôleur d'état de charge de la série DS 350 fabriquée par l'Ets. PIETZSCH Automatisierungstechnik GmbH, RFA. Le système contrôleur d'état de charge répond aux exigences de SAE J159, avril 1985. Veuillez lire soigneusement le mode d'emploi PAT avant d'exploiter votre grue.

2

DETAIL A

NO.	PART NO.	QTY	DESCRIPTION	NO.	PART NO.	QTY	DESCRIPTION
1	9-333-102277	1	DECAL - BY PASS SWITCH FRENCH				
2	9-333-102488	1	DECAL - SAE INFO DS350G FRENCH				



DETAIL B

1



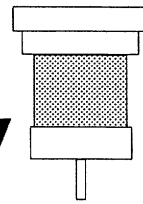
WARNUNG

ÜBERBRÜCKUNG DER LMB-ABSCHALTUNG

Dieser Schalter überbrückt die Abschaltfunktion der LMB und darf nur mit äußerster Vorsicht benutzt werden.

Siehe PAT-Bedienungshandbuch

NICHT-
GEDRÜCKT



NORMAL-
BETRIEB

GEDRÜCKT



LMB-ABSCHALTUNG
GEBRÜCKT

SODE
TECHNICAL SERVICES

Dieser Kran ist mit einem Lastmomentbegrenzungssystem der Serie DS 350 der Fa. PIETZSCH Automatisierungstechnik GmbH, BRD, ausgerüstet. Das Lastmomentbegrenzungssystem entspricht SAEJ159 vom April 1985. Bitte lesen Sie das Bedienungshandbuch der Fa. PAT sorgfältig durch, bevor Sie den Kran in Betrieb setzen.

024-000-120-026

2

DETAIL A

NO.	PART NO.	QTY	DESCRIPTION	NO.	PART NO.	QTY	DESCRIPTION
1	9-333-102278	1	DECAL - BY PASS SWITCH GERMAN				
2	9-333-102489	1	DECAL - SAE INFO DS350G GERMAN				

