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Main Line: 706-718-0856

Fax: 706-569-7004

E-Mail: jeff@psrinc.biz

**P.O. Box 6506
Columbus, GA
31917-6506**

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GENERAL STANDARDS OF SERVICE PROCEDURE

Service shall be performed by FACTORY AUTHORIZED SERVICE PERSONNEL ONLY.

Use caution while performing tests, measurements, any troubleshooting, maintenance, or service work with the system components or the aerial work platform.

Secure the area around the component or machinery you service to avoid damage, injury, or death. Use caution when operating the aerial work platform under service and maintenance.

Never leave tools on the top of the boom or other moving parts of the aerial work platform.

ALWAYS SWITCH OFF electrical power prior to removing or opening hardware.

ALWAYS SWITCH OFF electrical power prior to connection or disconnection of voltmeter probes or test leads.

Avoid water or moisture or any other fluid contaminating electronic components, PC boards, wiring, and connections.

Protect components, wiring, and connections against shortages.

ALWAYS remove battery power while welding on the aerial work platform.

Use ONLY test equipment and tools in good - not dangerous - condition.

A digital voltmeter is required for certain tests and measurements.

DO NOT use a test light as this may destroy the electronic hardware.

When the service work is completed, check the function of the complete system and not just the function or part you have repaired.

Make sure you have returned, closed, rewired, and secured all system components prior to leaving.

Inform the supervisor responsible for the machinery of:

1. If job is completed.
2. If component is repaired and the system is functioning satisfactorily.
3. Advise if job is not complete to your satisfaction.

Leave the machinery you worked on clean, tidy, and in safe condition.

WARNINGS

The Operation Zone System DS 105 is an operational aid which warns the aerial work platform operator of approaching non-allowable operation zones.

The device is not and shall not be a substitute for good operator judgment, experience, or use of acceptable safe operating procedures.

The operator is responsible for operating the aerial work platform within the manufacturer's specified parameters.

The aerial work platform operator shall ensure that all warnings and instructions provided by the manufacturer are fully understood, observed, and remain with the aerial work platform operator.

Prior to operating the aerial work platform, the operator must carefully read and understand the information in this Operator's Handbook so that he knows the operation and limitations of the Operation Zone System DS 105 and the aerial work platform.

To guard against unnecessary system failure, perform the proper daily inspection and observation of the operating instructions set forth in this Operator's Handbook. (031-300-190-004).

WARNING

Tampering with the electronics, hardware, cables, mechanical parts or by-passing the system cut off electrically or mechanically is strictly prohibited. Failure to follow this instruction may result in damage and/or personal injury or death!

WARNING

Always refer to operational instructions and the range diagram provided by the aerial work platform manufacturer.

OPERATING DISPLAYS

A. Data Display is located in the LCB.

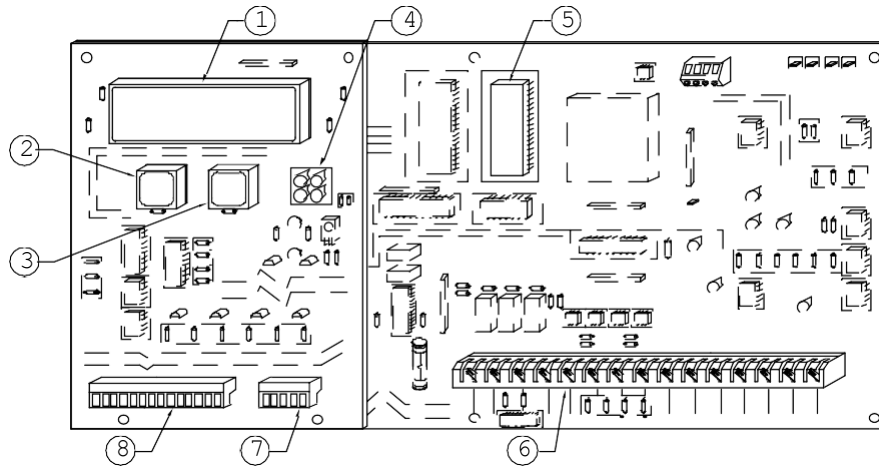


Figure 1. Data Display

1. Digital Display
2. Up button
3. Down button
4. System Error LED
5. EPROM - stores system data.
6. Main terminal(X1) electrical inputs and outputs.
7. UCB display connection(X3).
8. Calibration connection(X2).

B. Operating Condition Display is located in the upper control box(UCB).

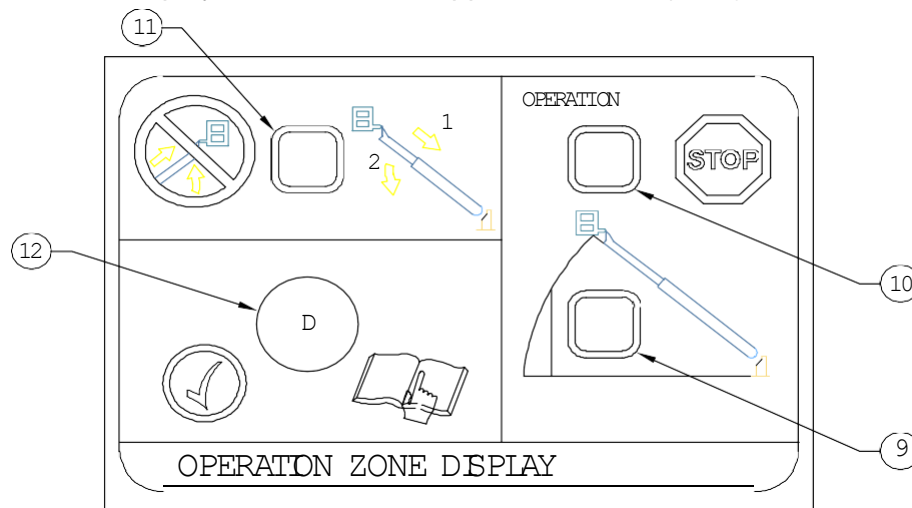


Figure 2. Operating Display

9. In Operation Zone LED
10. No Operating Zone LED
11. System Error LED
12. System Test Button

SECTION 1 - GENERAL TROUBLESHOOTING GUIDE

The general chart below identifies common problems and indicates the appropriate section that explains how to correct the problem with the DS 105 PAT Operation Zone System.

To identify the problem with the DS105 system use the data display shown in Figure 1. Always check the data display for length, angle, or sensor millivolt readings before beginning the troubleshooting section. It is the simplest way to identify the problem and solution.

If power is off on the display or system, before proceeding check the main board fuse (see Appendix E) and lower control box fuses (see machine documentation)

PROBLEM	SECTION
TELE-OUT AND LIFTING-DOWN FUNCTION DISABLED	Go to SECTION 2
SYSTEM ERROR WARNING LIGHT FLASHES	Go to SECTION 3
SYSTEM TEST IS NOT FUNCTIONING	Go to SECTION 4
LENGTH CABLE ON CABLE REEL IS DAMAGED	Go to SECTION 5
DISPLAY OF BOOM LENGTH IS INCORRECT	Go to SECTION 6
DISPLAY OF BOOM ANGLE IS INCORRECT	Go to SECTION 7
SYSTEM CUT-OFF IS INCORRECT	Go to SECTION 8

SECTION 2 - TELE-OUT AND LIFTING-DOWN FUNCTIONS DISABLED

Refer to Figures 1 and 2 on page 3 and DS 105 Operator Handbook (031-300-190-004) for display information

STEP 1. Is the platform in the Operating Zone?

NO, Refer to Figure 2, #9 and #10. Retract or raise the platform into the operating zone.

YES, Go to Step 2.

STEP 2. Is system Error warning light flashing(Figure 1 #4 and Figure 2 #10) and an error code displayed at on LCD Figure 1 #1? Scroll to '0:' to identify error code.

YES, Go to SECTION 3

NO, Go to Step 3

STEP 3. After depressing the SYSTEM TEST button, are all lights lit on the operating display and does the system cycle through self test?

NO, Go to SECTION 4

YES, Go to Step 4

STEP 4. Check power supply at the PAT System. Open Lower Control Box(LCB). Ensure power is turned off and connect a voltmeter(selecting VDC) to Figure 1, #6 with (+) probe to X1/1 and (-) probe to X1/5 on the PAT mainboard. Power the system and the measured voltage should be 9 to 18VDC. Refer to Drawing in Appendix A. Is the voltage correct?

YES, Go to Step 6.

NO, Go to Step 5

STEP 5. Check power supply to PAT System. Ensure power is turned off and connect a voltmeter(selecting VDC) to the terminal strip below the PAT mainboard with (+) probe to thermal 1 and (-) probe to terminal 12. Power the system and the measured voltage should be 9 to 18VDC. Refer to Drawing in Appendix A. Is the voltage correct?

NO, Power failure in work platform control electric. Poor connections at end of wires, defective cable, or mis-wiring. Check wiring between power supply and PAT mainboard. Refer to aerial work platform service documentation.

YES, Poor connections at end of wires, defective cable, or mis-wiring. Check wiring between terminal power strip and PAT mainboard.

STEP 6. Check power supply from cut-out terminal of the PAT mainboard. Ensure power is turned off and connect a voltmeter(selecting VDC) to #6 Figure 1 with (+) probe to X1/12 and (-) probe to X1/5 on the PAT mainboard. Power the system and the measured voltage should be 9 to 18VDC. Refer to Drawing in Appendix A. Is the voltage correct?

NO, Consult factory before replacing Mainboard.

YES, Malfunction or defect in work platform control electric. Refer to aerial work platform service documentation.

SECTION 3. SYSTEM ERROR

System error warning light flashing Figure 1 and 2, #4 and #11 and NO Operating Zone #10 lit.

Refer to Figures 1 and 2 and DS 105 Operator Handbook (031-300-190-004) for display information.

STEP 1. Does Data Display Figure 1, #1 at '0:' indicate a error code?

NO, Go to step 2

YES, Go to SECTION 9 (Error Code Table)

STEP 2. Disconnect the main board connection X8, Figure 1. #7. Does Data Display Figure 1, #1 at '0:' indicate an error code?

NO, See Manlift documentation for upper control box.

YES, Go to SECTION 9 (Error Code Table)

SECTION 4. SYSTEM TEST DOES NOT FUNCTION

When SYSTEM TEST button is pressed the system does not cycle.

WARNING: DO NOT OPERATE AERIAL WORK PLATFORM UNTIL SYSTEM IS CORRECTED.

Refer to Figures 1 and 2 and DS 105 Operator Handbook (031-300-190-004) for display information

STEP 1. Check terminal connections X3 Figure 1, #7 on PAT mainboard. Open LCB. Ensure power is turned off. Visually inspect wiring and connections at X3/1 through X3/8, ensure wires are not loose and are making good contact. Refer to Appendix B. Do wires make good visual contact?

NO, Correct and repeat system test.

YES, Go to Step 2.

STEP 2. Check power supply at the PAT System. Open LCB. Ensure power is turned off and connect a voltmeter(selecting VDC) to Figure 1 #6 with (+) probe to X1/1 and (-) probe to X1/5 on the PAT mainboard. Power the system and the measured voltage should be 9 to 18VDC. Refer to Drawing in Appendix A. Is the voltage correct?

YES, Go to Step 4.

NO, Go to Step 3.

STEP 3. Check power supply to PAT System. Ensure power is turned off and connect a voltmeter(selecting VDC) to the terminal strip below the PAT mainboard with (+) probe to terminal 1 and (-) probe to terminal 12. Power the system and the measured voltage should be 9 to 18VDC. Refer to Drawing in Appendix A. Is the voltage correct?

NO, Power failure in work platform control electric. Poor connections at end of wires, defective cable, or mis-wiring. Check wiring between power supply and PAT mainboard. Refer to aerial work platform service documentation.

YES, Poor connections at end of wires, defective cable, or mis-wiring. Check wiring between terminal power strip and PAT mainboard.

STEP 4. Check power supply at X3 Figure 1, #7 on PAT mainboard. Open LCB. Ensure power is turned off. Remove the X3 plug from its socket and connect a voltmeter with (+) probe to X3/1 and (-) probe to X3/8 on the PAT mainboard. Power the system and the measured voltage should be 7.0VDC. Refer to Appendix B. Is the voltage correct?

NO,. Consult factory before replacing Mainboard.

YES, Malfunction or defect in work platform control electric. Poor connections at end of wires, defective cable, or mis-wiring between display and UCB. Refer to aerial work platform service documentation.

SECTION 5. DAMAGED OR BROKEN LENGTH CABLE.

WARNING: DO NOT OPERATE AERIAL WORK PLATFORM UNTIL SYSTEM IS CORRECTED.

Refer to Drawing in Appendix C and DS 105 Operator Handbook (031-300-190-004).

1. Remove cable reel and guide from mounting brackets.
2. Remove old length cable from cable drum and machine.
3. Remove cover from cable reel.
4. Disconnect the 4 conductor cable from terminal strip
5. Remove strain relief outer nut and slide cable out of strain relief.
6. Install new cable reel preset from factory or go to Step 7.
7. Replace length cable and potentiometer.
 - Loosen 7mm standoff nut holding pot bracket
 - Slide bracket and pot away from worm gear.

NOTE: The cable should roll over the 7/8 inch guide when the cable is extended.

- Replace and feed the cable through the cable guides.
 - Install the cable thimble and clamp at the end of the cable.
 - Remove the slack in the cable, so the clamp is 1 to 2 inches from the roller guides.
 - Pretension the cable reel with 4 full turns on the drum.
 - Check the spooling. If spooling is not layered properly, carefully pull the cable out and respool cable.
 - Replace potentiometer.
 - Zero pot by turning it counterclockwise until it stops.
 - Slide pot and bracket so gears mesh
 - Tighten 7mm nut
 - Pull cable and inspect gears for binding or slippage.
 - Replace 4 conductor cable and connect to terminal strip. Refer to Drawing 1 in Appendix.
 - Replace cover.
8. Install cable reel into mounting brackets.
 9. Run cable through U-shaped guide in boom, if applicable.
 10. Connect thimble to stud in boom.
 11. Check length measured and displayed.

SECTION 6. BOOM LENGTH IS DISPLAYED INCORRECT

The display #1 does not indicate the actual measured boom length.

WARNING: DO NOT OPERATE AERIAL WORK PLATFORM UNTIL SYSTEM IS CORRECTED.

FOR THIS PROCEDURE FULLY RETRACT THE BOOM.

Refer to Figures 1 and 2 and DS 105 Operator Handbook (031-300-190-004).

STEP 1. Check Data Display Figure 1, #1 '1:' Measure boom length. Is boom length correct?

YES, Complete.

NO, Go to Step 2.

STEP 2. Check terminal connections on PAT mainboard. Open LCB. Ensure power is turned off.

Visually inspect wiring and connections at main board X1/19,20,21, and 22 to ensure wires are not loose and are making good contact. Do wires make good visual contact?

NO, Correct and Go to Step 1.

YES, Go to Step 3.

STEP 3. Check power to length sensors from PAT mainboard. Ensure power is turned off and connect a voltmeter(selecting VDC) to Figure 1 #6 with (+) probe to X1/19 and (-) probe to X1/22 on the PAT mainboard. Power the system and the measured voltage should be 5.0VDC. Refer to Drawing in Appendix A. Is the voltage correct?

NO, Consult factory before replacing Mainboard.

YES, Go to Step 4

STEP 4. Check signals from length sensors on the PAT mainboard. Ensure power is turned off and connect a voltmeter(selecting VDC) to #6 Figure 1 with (+) probe to X1/20 LGA and then X1/21 LGB and (-) probe to X1/22 on the PAT mainboard. Power the system and the measured voltage should be 0.5VDC. Refer to Drawing in Appendix A. Is the voltage correct?

YES, Go to Step 8

NO, Go to Step 5

STEP 5. Check power at length sensors. Ensure power is turned off and carefully remove cable reel cover and connect a voltmeter(selecting VDC) to the terminal strip with (+) probe to terminal 3 and (-) probe to terminal 1 in the cable reel. Power the system and the measured voltage should be 5.0VDC. Refer to Drawing in Appendix A. Is the voltage correct?

NO, Check wiring from terminal strip to cable reel.

YES, Go to Step 6

SECTION 6 - BOOM LENGTH IS DISPLAYED INCORRECT (continued)

STEP 6. Check signals at length sensors. Ensure power is turned off and connect a voltmeter(selecting VDC) to the cable reel terminal strip with (+) probe to terminal 2 and (-) probe to terminal 1 in the cable reel. Power the system and the measured voltage should be 0.5VDC. Refer to Drawing in Appendix A. Is the voltage correct?

YES, Check wiring from cable reel terminal strip to mainboard X1.

NO, Go to Step 7.

STEP 7. Reset potentiometer.

- Loosen 7mm standoff nut holding pot bracket
- Slide bracket and pot away from worm gear.
- Zero pot by turning it counterclockwise until it stops.
- Slide pot and bracket so gears mesh
- Tighten 7mm nut
- Pull cable and inspect gears for binding or slippage.
- Go to Step 8.

STEP 8. Check signals at length sensor sensors. Ensure power is turned off and carefully remove cable reel cover and connect a voltmeter(selecting VDC) to the terminal strip with (+) probe to terminal 2 and (-) probe to terminal 1 in the cable reel. Power the system and the measured voltage should be 0.5VDC. Refer to Drawing in Appendix A. Is the voltage correct?

YES, Complete

NO, Go to Step 9 or 10

STEP 9. Replace potentiometer and reset using Step 7. Is boom length correct?

YES, Complete

NO, Go to Step 10.

STEP 10. Consult factory before replacing cable reel, preset from factory.

SECTION 7 - BOOM ANGLE IS DISPLAYED INCORRECT. The display #1 of Figure 1 does not indicate the measured boom angle.

WARNING: DO NOT OPERATE AERIAL WORK PLATFORM UNTIL SYSTEM IS CORRECTED.

Set the boom at 0 degrees, for this procedure.

Refer to Figures 1 and 2 and DS 105 Operator Handbook (031-300-190-004).

STEP 1. Check Data Display item #1 '1:'. Is boom angle correct?

YES, Complete.

NO, Go to Step 2

STEP 2. Check signals from sensors on the PAT mainboard. Ensure power is turned off and connect a voltmeter(selecting VDC) to #6 Figure 1.

- WGA with (+) probe to X1/24 and (-) probe to X1/25 on the PAT mainboard. Power the system and the measured voltage should be 2.98VDC.

- WGB with (+) probe to X1/27 and (-) probe to X1/28 on the PAT mainboard. Power the system and the measured voltage should be 2.98VDC.

Refer to Drawing in Appendix A. Are both voltages correct?

YES, Consult factory before replacing Mainboard.

NO, Go to Step 3

STEP 3. Check terminal connections on PAT mainboard. Open LCB. Ensure power is turned off.

Visually inspect wiring and connections at X1/23, 24, 25, 26, 27, and 28 to ensure wires are not loose and are making good contact.

NO, Correct and Go to Step 1.

YES, Go to Step 4.

STEP 4. Check power to sensors from PAT mainboard. Ensure power is turned off and connect a voltmeter(selecting VDC) to #6 Figure 1.

- WGA with (+) probe to X1/23 and (-) probe to X1/25 on the PAT mainboard. Power the system and the measured voltage should be 5.0VDC.

- WGB with (+) probe to X1/26 and (-) probe to X1/28 on the PAT mainboard. Power the system and the measured voltage should be 5.0VDC.

Refer to Drawing in Appendix A. Are both voltages correct?

NO, Consult factory before replacing Mainboard.

YES, Go to Step 5

SECTION 7 - BOOM ANGLE DISPLAYED INCORRECT (continued)

STEP 5. Check power at sensors. Ensure power is turned off and disconnect the angle sensor connectors. Connect a voltmeter(selecting VDC) with (+) probe to terminal A and (-) probe to terminal C. Power the system and the measured voltage in each sensor. The voltage should be 5.0VDC. Refer to Drawing in Appendix A. Is the voltage correct?

NO, Check wiring from terminal strip to cable reel.

YES, Go to Step 6

STEP 6. Check power at sensors. Ensure power is turned off and disconnect the angle sensor connectors. Connect a voltmeter(selecting VDC) with (+) probe to terminal B and (-) probe to terminal A. Power the system and the measured voltage in each sensor. The voltage should be 2.98VDC. Refer to Drawing in Appendix A. Is the voltage correct?

NO, Check wiring from terminal strip to angle sensor.

YES, Go to Step 8

STEP 7. Consult factory before replacing angle sensor.

SECTION 8 - SYSTEM CUT-OFF INCORRECT

The system cut-out tele-out and lifting-down functions incorrectly.

WARNING: DO NOT OPERATE AERIAL WORK PLATFORM UNTIL SYSTEM IS CORRECTED.

STEP 1. Is SYSTEM ERROR WARNING light flashing?

YES, Go to SECTION 3

NO, Go to Step 2

STEP 2. Is length displayed correctly?

NO, Go to SECTION 6

YES, Go to Step 3

STEP 3. Is angle displayed correctly?

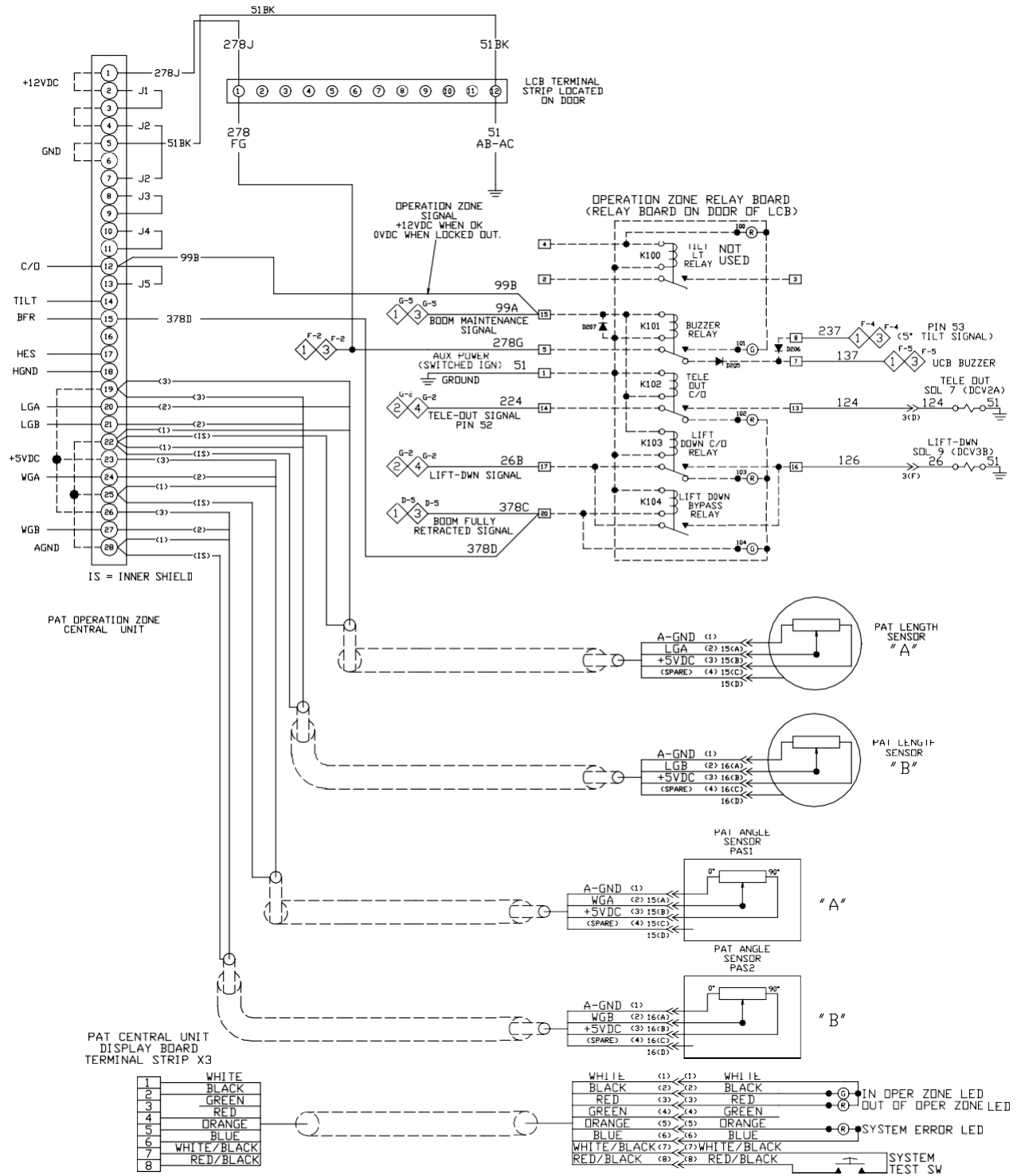
NO, Go to SECTION 7

YES, Consult factory before replacing Mainboard.

SECTION 9. ERROR CODE TABLE

CODE	ERROR	ACTION
E11 E12	Length signal exceeded the minimum voltage limit.	Perform troubleshooting described in SECTION 6.
E15 E16	Angle signal exceeded the minimum voltage limit.	Perform troubleshooting described in SECTION 7.
E21 E22	Length signal exceeded the maximum voltage limit.	Perform troubleshooting described in SECTION 6.
E25 E26	Angle signal exceeded the maximum voltage limit.	Perform troubleshooting described in SECTION 7.
E31	CRC error in System Eprom.	Consult factory before replacing mainboard.
E36	Error in redundant radius calculation. Result 1 does not agree with result 2.	Perform troubleshooting described in SECTION 6 and 7 or replace mainboard.
E37	Error in the logical procedure of the program.	Consult factory before replacing mainboard.
E41	Error in terminal RAM during power switch on.	Consult factory before replacing mainboard.
E45 E48	Error in A/D converter.	<ul style="list-style-type: none"> • Replace Eprom (Ensure the correct version is used) • Consult factory before replacing mainboard.
E51	Error in Data from Eprom	Replace Eprom (Ensure the correct version is used)
E57	CRC error of data in Eprom.	<ul style="list-style-type: none"> • Replace Eprom (Ensure the correct version is used) • Consult factory before replacing mainboard.
E61	Error in redundant length signal. Both length signals do not agree.	Perform troubleshooting described in SECTION 6.
E65	Error in redundant angle signal. Both angle signals do not agree.	Perform troubleshooting described in SECTION 7.
E71	Error in Relay 1.	Consult factory before replacing mainboard.
E72	Error in Relay 2.	Consult factory before replacing mainboard.
E78	Error in summation of relay output.	<ul style="list-style-type: none"> • Inspect wiring and measure voltage at X1/1,2,4,7,12 (12VDC) and X1/5 (GND) • Consult factory before replacing mainboard.
E79	Error in energizing relays.	Consult factory before replacing mainboard.
E81	Resistance sensor incorrect.	Inspect jumper X1/17+18 on mainboard.
E82	Boom retract switch inoperative.	Check boom retract switch function - refer to aerial work platform manufacturers service documentation.
E83	Error in summation of relay outputs.	<ul style="list-style-type: none"> • Check jumper connections on mainboard. Refer to Appendix A, Wiring Drawing . • Consult factory before replacing mainboard.
E94	No data transmission in mainboard.	<ul style="list-style-type: none"> • Check jumper connection in upper control box. Refer to Appendix A, Wiring Drawing. • Consult factory before replacing mainboard.

SYSTEM WIRING DIAGRAM



NOTES:
 ENSURE SUFFICIENT CRIMPING FORCE ON THE CONNECTORS.
 ALWAYS KEEP WIRES LONG ENOUGH FOR SERVICE PURPOSE.
 ALWAYS REFER TO AERIAL WORK PLATFORM MANUFACTURER'S SERVICE AND MAINTENANCE DOCUMENTATION.

LCB: LOWER CONTROL BOX
 LGA: LENGTH SENSOR A
 LGB: LENGTH SENSOR B
 AGND: ANALOG GROUND
 BFR: BOOM FULLY RETRACTED
 HES: LENGTH CABLE MONITORING SIGNAL
 MGND: GROUND SUPPLY FOR HES
 C/O: CUT-OFF SIGNAL

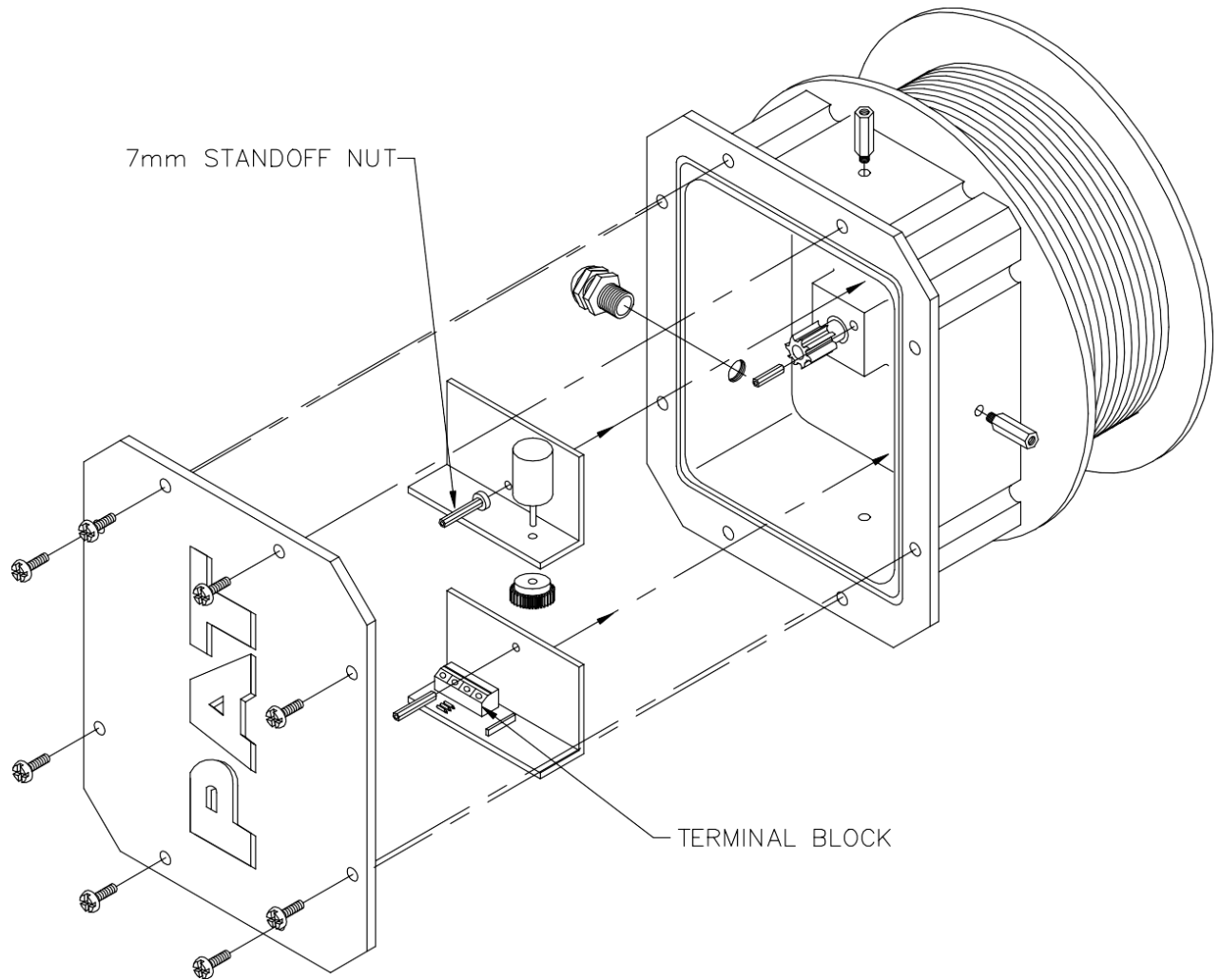
DATA DISPLAY TERMINAL CONNECTIONS

TERMINAL X1	DESCRIPTION
1	+Ub Incoming Power Supply (9 to 18VDC)
2	+Ub Power Supply Bridge 1 to 2
3	+Ub Power Supply Bridge 1 to 2
4	+Ub Power Supply Bridge 4 to 7
5	Chassis Ground [Battery (-)]
6	Chassis Ground [Battery (-)]
7	Relay K1, IN
8	Relay K1, OUT
9	Relay K2, IN
10	Relay K2, OUT
11	Relay K3, IN
12	Relay K3, OUT
13	Digital Input Summation Relay Signal, ON
14	Digital Input 5 degree Tilt, ON
15	Digital Input Boom Fully Retracted, ON
16	Digital Input Not used currently
17	Length Cable Monitor Input
18	Length Cable GND supply
19	Length Sensor +5VDC
20	Length Sensor Signal 'A'
21	Length Sensor Signal 'B'
22	Length Sensor AGND
23	Angle Sensor +5VDC
24	Angle Sensor Signal 'A'
25	Angle Sensor AGND
26	Angle Sensor +5VDC
27	Angle Sensor Signal 'B'
28	Angle Sensor AGND

TERMINAL X2	DESCRIPTION
1	+7VDC Incoming Power Supply
2	UP, LED
3	DOWN, LED
4	OK, LED
5	UP Signal
6	DOWN Signal
7	OK (ENTER)
8	KEY LEFT
9	KEY RIGHT
10	GND

TERMINAL X3	DESCRIPTION
1	+7VDC Incoming Power Supply
2	IN OPERATING ZONE, LED
3	SYSTEM TEST, LED
4	OUT OPERATING ZONE, LED
5	ERROR +
6	ERROR -
7	SYSTEM TEST SIGNAL
8	GND

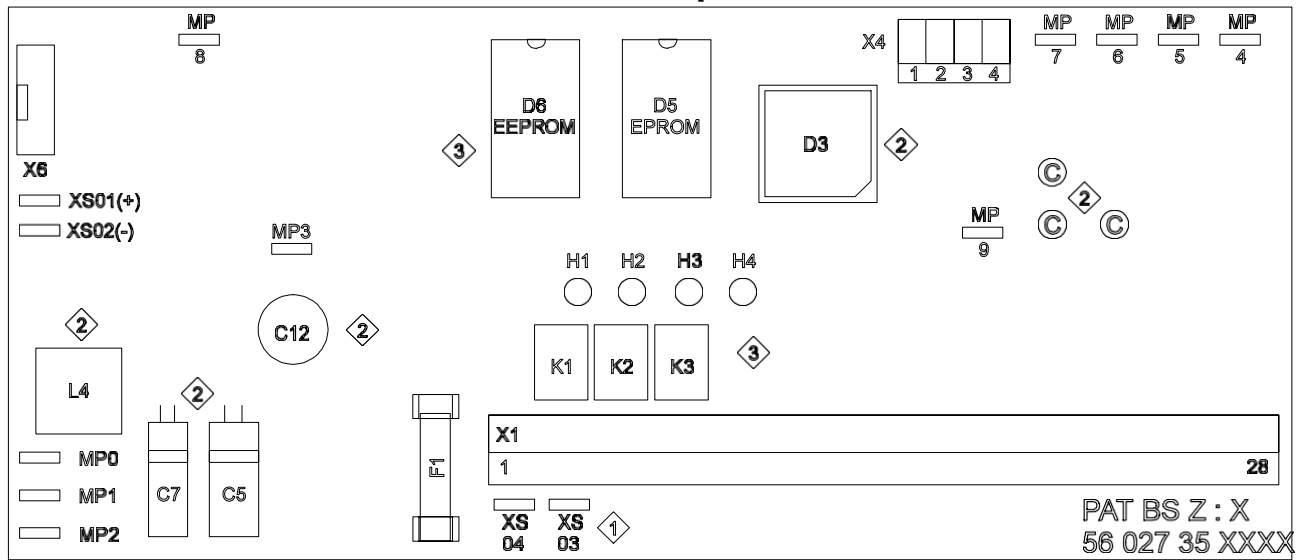
LENGTH SENSOR LG105/002



VOLTAGES FOR SENSOR SIGNALS

TERMINALS ON X1	SENSOR CONDITION	VOLTAGE (VDC)
X1/24 & X1/27	Angle @ minimum	+3.125
X1/24 & X1/27	Angle @ maximum	+1.875
X1/20 & X1/21	Length @ minimum	+0.5
X1/20 & X1/21	Length @ maximum	+5.0
X1/13, 14, 15, 16	Digital input, Signal On	+12.0

DS105 Mainboard Test Points and Component Orientation



1 Soldered on Back of PCB 2 For Orientation Only 3 Not Removable

Connector	Description
X1	Connection of external periphery (sensors, crane interface)
X4	Not used (RS 232 Interface)
X6	Not used (for test purpose only)
XS01	Optional buzzer connection (+)
XS02	Optional buzzer connection (-)
XS03	LCD Illumination
XS04	LCD Illumination

Test points	Description
MP0	KGND
MP1	+UB (Equipment Power supply 9...18V DC - filtered)
MP2	+7 Volt DC
MP3	+5.1 Volt
MP4	+U _{Ref.} (Reference voltage approx. 4.8Volt to 5Volt)
MP5	AGND
MP6	+U _{Ref.} Microprocessor (+5 V)
MP7	AGND Microprocessor
MP8	Not used
MP9	For PAT service use only

DS105 Mainboard Test Points and Component Orientation (continued)

Fuse	Description
F1	Main PC-board Fuse (315mA/M)

Other	
K1	Error 1
K2	Error 2
K3	Not Used
H1	No Error 1 (ON)
H2	No Error 2 (ON)
H3	Not Used
H4	Not Used
D3	Microprocessor
D5	Eprom (Insert Correct Eprom)
D6	EEprom (Not Removable)

