



Service Bulletin #112
SJTB: 61/66T
SJAJ: 46A/46AJ/51AJ
Lowering Function Wire Retrofit



*******SAFETY RELATED*******

September 29, 2010

Models Affected: SJ 61T, SJ 66T, SJ 46A, SJ 46AJ, SJ51AJ

SJ 61T

97000155 & Below

SJ 66T

97000210 & Below

SJ 46A

95000006

SJ 46AJ

95000065 & Below

SJ 51AJ

95000080 & Below

Introduction:

In our continuing effort to provide the best possible product to our customers and yours, we request that the following functional tests and control wire installation (if required) be completed for all machines listed above. Failure to implement this bulletin can potentially result in the inability to lower the platform with emergency power under certain conditions. The units listed above must be immediately removed from service pending completion of this service bulletin.

Procedure:

All units within the above serial number ranges should be inspected and repaired as specified in the attached procedure.





Parts and Warranty Policy:

Skyjack will allow up to **1** hour of labor per machine to complete this bulletin, and up to **4** hours of travel.

Skyjack requires that this bulletin be performed immediately.

Request the necessary parts to complete this bulletin by using attached part request form or contact Skyjack parts department at **800-275-9522, 630-262-0005 or 44-1691-676-235 (Europe)**.

Upon completion of this service bulletin, please submit a warranty claim form for each machine stating that Service Bulletin #112 has been completed.

Ownership of Machines:

If you have sold or transferred a machine(s) with the serial numbers listed above, it is your responsibility to forward this service bulletin to the current owner and to notify Skyjack Inc.

Contact Information:

We regret the inconvenience and appreciate your cooperation. If you have any questions please call Skyjack at **1-800-275-9522**. You may e-mail any questions to service@skyjack.com





Service Bulletin #112 Parts Kit Shipment Request Form



Customer Name: _____ PO#: _____

Customer Location: _____

Address: _____ Phone: _____

City: _____ Fax: _____

State: _____ Zip: _____ Contact Name: _____

We are requesting parts kit shipment for the following machines to comply with Service Bulletin #112.

Please fill in the serial numbers of units in your possession that require a parts kit shipment for this bulletin to be completed.

Machine Serial Number	Machine Serial Number	Machine Serial Number

Please Fax This Form To: Skyjack Service

Fax: (630) 262-0006 or 44-1691-676-238 (Europe)

If you have any questions please call Skyjack Service at **800-275-9522, 630-262-0005 or 44-1691-676-235 (Europe)**. You can e-mail any questions to service@skyjack.com

If you have sold or transferred a machine(s) with the serial numbers listed above, it is your responsibility to forward this service bulletin to the current owner and to notify Skyjack Inc.





Lowering Function Jumper Retrofit Procedure

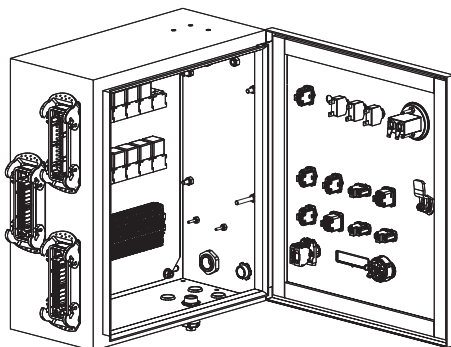
— Models —

ANSI/CSA & CE

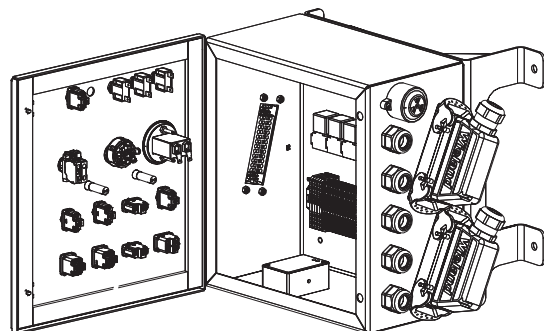
SJTB: 61/66T

SJAJ: 46A/46AJ/51AJ

**SJ 61T/66T
Base Control
Console**



**SJ 46AJ/51AJ
Base Control
Console**



**WARNING**

Only trained and authorized personnel shall be permitted to service the aerial platform. Read all instructions carefully before attempting each step of the procedure.

**WARNING**

Read all instructions carefully before attempting each step of the procedure.

NOTE

This retrofit kit applies to aerial platforms with serial numbers listed in the table below:

MODEL (ANSI/CSA & CE)	SERIAL NUMBER
SJ 61T	97000155 & Below
SJ 66T	97000210 & Below
SJ 46A	95000006
SJ 46AJ	95000065 & Below
SJ 51AJ	95000080 & Below

NOTE

If you have not received the complete part inventory, contact the SKYJACK Service Department at:

North America & Asia:

☎ : 800 275-9522

📠 : 630 262-0006

Europe:

☎ : 44-1691-676-235

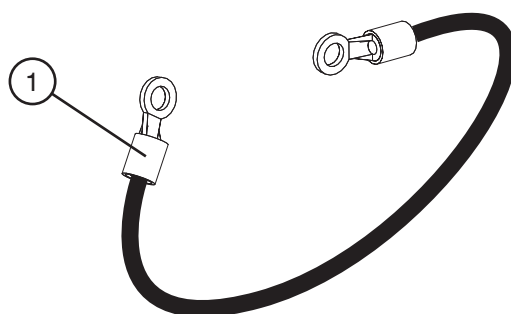
📠 : 44-1691-676-238

Do not attempt installation without the complete package.

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1.1 Parts List



Index No.	Skyjack Part No.	Qty.	Description
1	156772	1	JUMPER, Boom down

2.0 Installation Procedure (SJ 61T/66T)



WARNING

Read all instructions carefully before attempting each step of the procedure.

NOTE

Battery must be at full state of charge prior to performing procedure.

Perform the following procedure to improve emergency lowering time for main boom from the base controls.

1. Ensure aerial platform is parked on a firm level surface.
2. Push in emergency stop button on base control console and on platform control console.
3. Turn main power disconnect switch to off position.

2.1 Jumper Installation Procedure (SJ 61T & SJ 66T)

1. Open control compartment cowling.
2. Open control console door to gain access to inside switches.
3. On the back side of control console door, locate wire 20C. First remove the one end from switch (S12-BOOM) then cut the other end at switch (S13-TUR) Discard wire. See Figure 2-1.

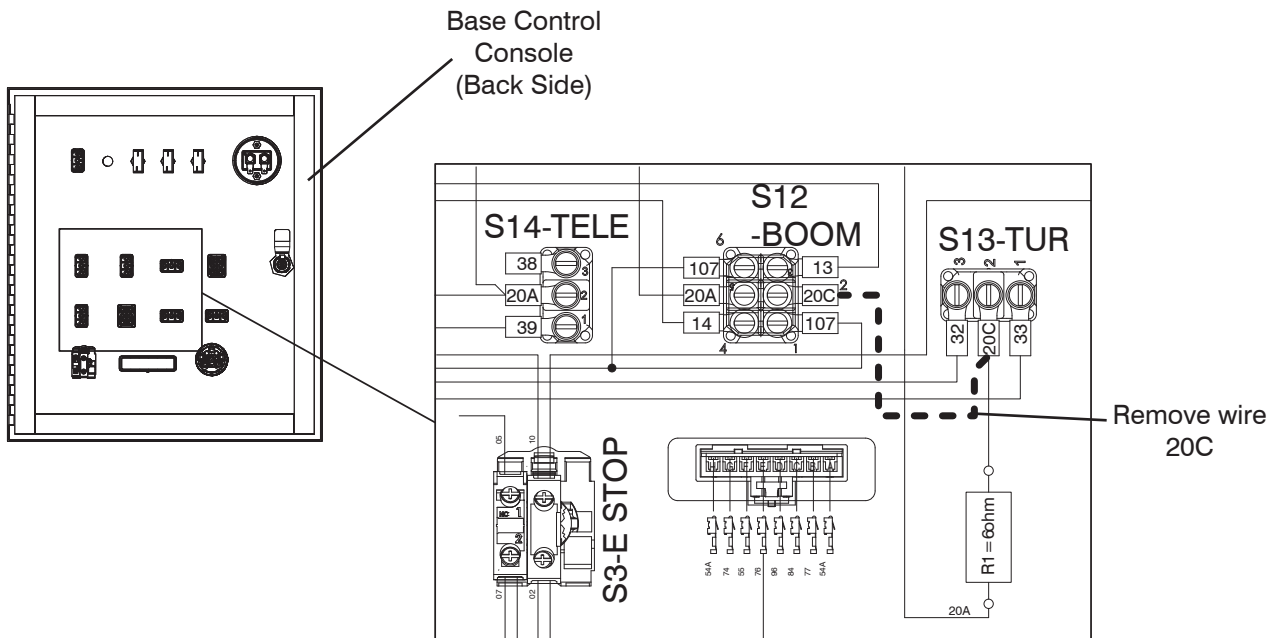


Figure 2-1. Base Control Console

4. Install one end of supplied jumper wire (156772) in terminal 2 of switch "S12-BOOM". See Figure 2-2.
5. Install other end of jumper wire in terminal 5 of switch "S12-BOOM". See Figure 2-2.

2.2 Function Test (SJ 61T & SJ 66T)

1. Pull out "O" emergency stop button on base control console and on platform control console.
2. Turn main power disconnect switch to "I" on position.



CAUTION

When operating on auxiliary power, do not operate more than one function at a time to avoid overloading 12-Volt auxiliary pump motor. Do not use emergency power unit continuously for more than two minutes.

NOTE

To conserve battery power, test each function through a partial cycle.



WARNING

Ensure that there are no personnel or obstructions in test area and there is sufficient room for boom to swing.

3. Turn base/off/platform key switch to "base" position.
4. Start engine.
5. Select "↑" to raise main boom about 6 feet above the ground.
6. Select "→" to extend fly boom to 4 feet extension.
7. On base control console, push in "O" emergency stop button to turn off engine then pull out "O" emergency stop button.
8. Select "⚡" emergency power position from start/emergency power switch then select "←" to retract fly boom and "↓" to lower main boom. **Result:** Boom should fully retract and fully lower with adequate speed.

NOTE

The emergency power unit has two-minute duty cycle.

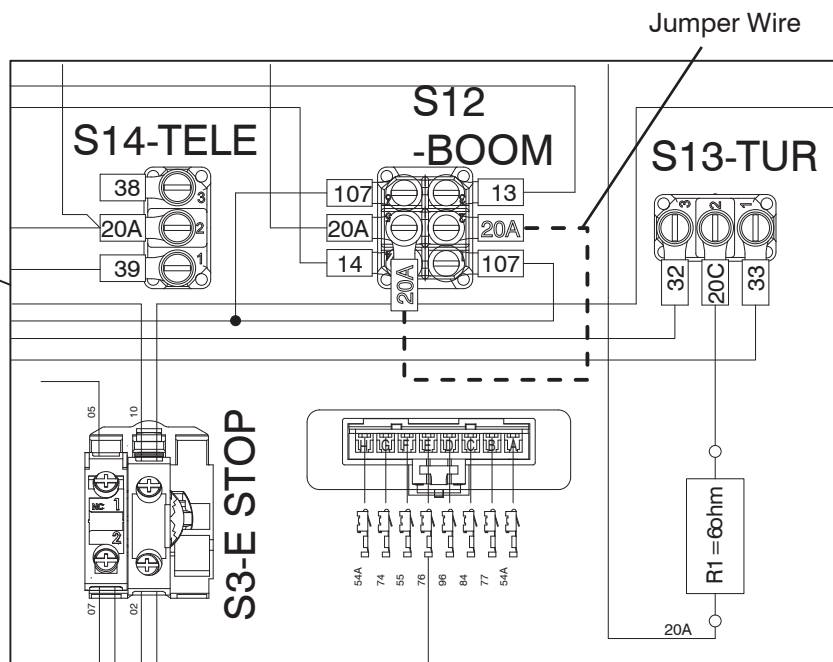


Figure 2-2. Jumper Wire Installation

3.0 Installation Procedure (SJ 46A/46AJ/51AJ)



WARNING

Read all instructions carefully before attempting each step of the procedure.

NOTE

Battery must be at full state of charge prior to performing procedure.

Perform the following procedure to improve emergency lowering time for the riser from the base and platform controls.

3.1 Pre-Installation Check

On control compartment, open cowl and open control console door to gain access to inside switches.

Check for the presence of either one or two resistors R1 & R2 (6 ohms) on the door of base control console. See Figure 3-2.

If only one resistor R1 is present, no changes are to be made to the base control console, proceed to step 3.3-7.

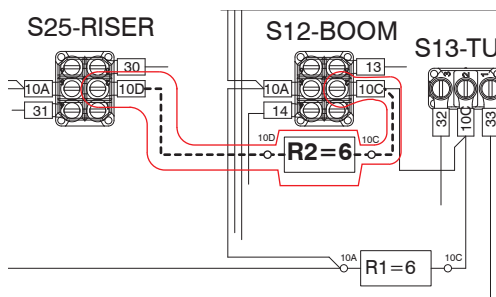


Figure 3-1. R1 & R2 Resistors

If base control box is equipped with two resistors R1 & R2, test riser boom lowering time as follows:

1. Ensure aerial platform is parked on a firm level surface.
2. On base control console, turn base/off/platform key switch to "base" position.
3. Start the engine then select "riser" switch and fully raise the riser.
4. Push in "emergency stop" button to stop the engine..
5. Select "emergency power" position from start/emergency power switch then select "riser" switch to lower the riser.
Result: Riser should fully lower in less than 70 seconds.

If lowering time is **less than** 70 seconds, **no changes** are to be made to the base control console, proceed to step 3.3-7.

If riser boom lowering time **exceeds** 70 seconds, perform jumper installation procedure as outlined in section 3.2 below.

3.2 Jumper Installation Procedure (SJ 46A, 46AJ & 51AJ)

1. Ensure aerial platform is parked on a firm level surface and boom is in the stowed position.
2. Push in "emergency stop" button on base control console.
3. Turn main power disconnect switch to "off" position.

4. Open base control console door to gain access to inside switches.
5. On back side of control console door, locate wire 10D. First remove the one end from switch (S25-RISER) then cut the other end wire 10C from switch (S12-BOOM). Discard wire with resistor R2. See Figure 3-2.

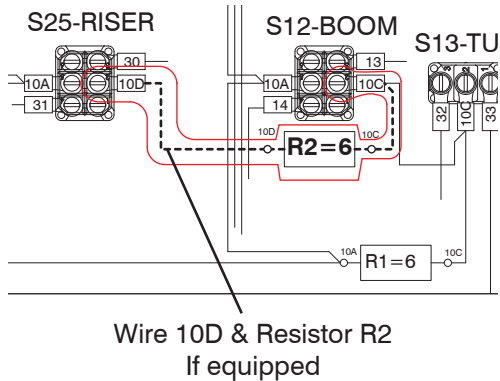


Figure 3-2. Resistor & Wires Removal

6. Install one end of supplied jumper wire (156772) in terminal 2 of switch "S12-BOOM". See Figure 3-3.
7. Install other end of jumper wire in terminal 2 of switch "S25-RISER". See Figure 3-3.

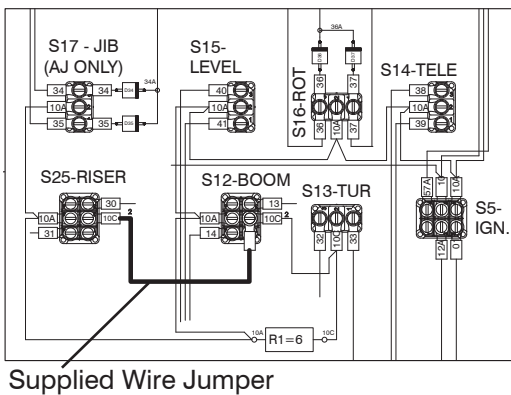


Figure 3-3. Jumper Wire Installation

3.3 Function Test (SJ 46A, 46AJ & 51AJ)



WARNING

Ensure that there are no personnel or obstructions in test area and there is sufficient room for boom to swing.

NOTE

Battery must be at full state of charge prior to performing procedure.

1. Turn main power disconnect switch to "I" on position.
2. Pull out "O" emergency stop button on base control console.

Base Control Console

3. On base control console, turn base/off/platform key switch to "base" position.
4. Start the engine then select "riser" switch and fully raise the riser.
5. Push in "O" emergency stop button to turn off engine then pull out "O" emergency stop button.



CAUTION

When operating on auxiliary power, do not operate more than one function at a time to avoid overloading 12-Volt auxiliary pump motor. Do not use emergency power unit continuously for more than two minutes.

NOTE

To conserve battery power, test each function through a partial cycle.

NOTE

The emergency power unit has two-minute duty cycle.

6. Select “” emergency power position from start/emergency power switch then select “” riser switch to lower the riser.
Result: Riser should fully lower in less than 70 seconds.

Platform Control Console



WARNING

Ensure that you maintain three points of contact to mount/dismount platform.

7. Turn base/off/platform key switch to “” platform position, then enter platform and close gate.



WARNING

DO NOT operate any control on platform control console without proper fall protection secured to designated location in platform. Failure to avoid this hazard could result in death or serious injury!

8. Start engine then select “” riser switch and fully raise the riser.
9. Push in “” emergency stop button to turn off engine then pull out “” emergency stop button.

10. Select “” emergency power switch then select “” riser joystick to lower the riser.
Result: Riser should fully lower in less than 70 seconds.

IMPORTANT

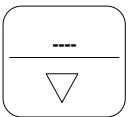
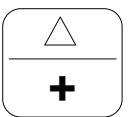
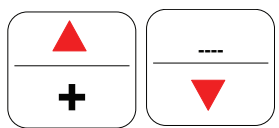
If riser lowering time exceeds 70 seconds, the OCM controller must be adjusted. Refer to next page for OCM controller adjustment procedure. Otherwise, no changes are required.

11. Set the RISER MAXOUT DOWN on the OCM controller between 45% and 55% if lowering time is greater than 70 seconds.
12. Start engine then select “” riser switch and fully raise the riser.
13. Select “” riser joystick to lower the riser.
Result: Riser should fully lower in 26 ± 3 seconds.

NOTE

After all adjustments have been completed, riser lowering time with engine power should be 26 ± 3 seconds. Riser lowering time with emergency power should not exceed 70 seconds. Use the parameter unlock/adjust instructions published in the service manual for step by step details.

4.1 User Interface Keys

1.0		1.0-1 <MENU> enters a new menu screen and/or 1.0-2 <SELECT> select the flashing item.
1.1		1.1-1 <MINUS> decreases an adjustable parameter such as ramp time. 1.1-2 <DOWN> selects the previous item in the current menu's list.
1.2		1.2-1 <PLUS> increases an adjustable parameter. 1.2-2 <UP> selects the next item in the current menu's list.
1.3		1.3-1 <SAVE> saves the new data to EEPROM (permanent memory storage).
1.4		Simultaneously press <UP> and <DOWN> will reset the HMI to menu screen 0.

4.2 OCM Character Functions Charts

OCM Keypad		Function Attribute	
Keys	Short Form	THRESH	Threshold
Menu/Select	(M/S)	RAMPDN	Ramp Down
▼/-	(-)	RAMPUP	Ramp Up
▲/+	(+)	LOWRNG	Low Range
Save/Exit	(S/E)	MAXOUT	Maximum Output

OCM Function (Channel) Names	
DRIVE REV Fn01A	Drive Reverse
DRIVE FWD Fn01B	Drive Forward
CHAN 2A Fn02A	Brakes
CHAN 2B Fn02B	Differential Lock Enable
BOOM DOWN Fn03A	Main Boom Down
BOOM UP Fn03B	Main Boom Up
ROTATE L Fn04A	Turret Rotate Left
ROTATE R Fn04B	Turret Rotate Right
RISER DN Fn05A	Riser Down
RISER UP Fn05B	Riser Up

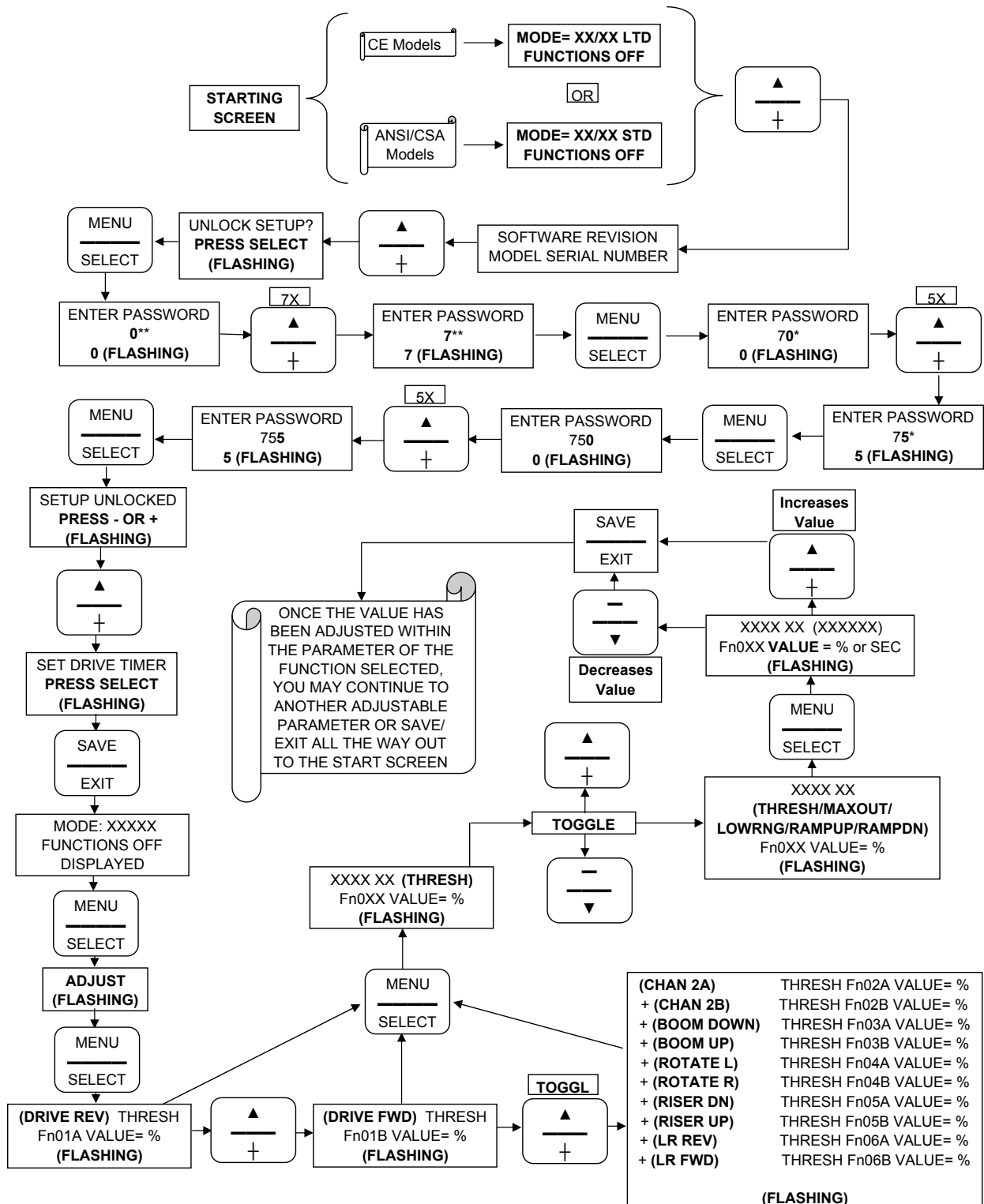
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4.3 OCM Operating Values Chart

Input (Analog)	Expected Value	Description
AI 1	0.5V to 8.5V	Drive Controller
AI 2	0.5V to 8.5V	Turret Rotate Controller
AI 3	0.5V to 8.5V	Boom Elevation Controller
AI 4	0.5V to 8.5V	Riser Controller
AI 7	1.0V to 5.0V	Torque Mode (Angle Sensor)
Input (Digital)	Expected Value	Description
DI 1	0 or 1	Drive Direction Reverse Limit Switch
DI 2	0 or 1	Footswitch Actuated
DI 3	0 or 1	Steer Left Rocker Switch
DI 4	0 or 1	Steer Right Rocker Switch
DI 5	0 or 1	Boom Function Toggle Switch Enabled
DI 6	0 or 1	5 Degree Tilt Switch
DI 11	0 or 1	High Speed Drive Enable Limit Switch
Output (PWM)	Expected Value	Description
PWM 1	13% - 80%	Drive Reverse
PWM 2	13% - 80%	Drive Forward
PWM 3	0% or 100%	Brake (Energized to Release)
PWM 4	0% or 100%	Differential Lock Enable
PWM 5	27% - 45%	Main Boom Down
PWM 6	27% - 55%	Main Boom Up
PWM 7	30% - 50%	Turret Rotate Left
PWM 8	30% - 50%	Turret Rotate Right
PWM 9	45% - 55%	Riser Down
PWM 10	28% - 70%	Riser Up
Output (Digital)	Expected Value	Description
DOUT 1	0 or 1	Steer Left
DOUT 2	0 or 1	Load Sense Enable
DOUT 3	0 or 1	Footswitch Actuated Indicator
DOUT 4	0 or 1	Axle Lock (0=enabled)
DOUT 7	0 or 1	Tilt Alarm Indicator
DOUT 8	0 or 1	Steer Right

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4.4 How to Unlock and Modify OCM Settings



Recycle power to the OCM with the E-Stop to re-enable password protection.
 If the OCM is inactive for more than 5 minutes, password must be re-entered.

