

Non-remote Accuset 2

Safety, Operation, Maintenance & Parts Manual

006012* Field Install 2006+	rev. C.01
006002 Factory Installed	rev. C.01

Safety is our #1 concern!

** Does not include control box*

Form #1516

006012 used with:	
LT40	Rev. J9.01+
LT40HD	Rev. K1.01+
006002 used with:	
LT40HD Super	Rev. J8.09+
LT40 Super	Rev. J4.08+
LT50HDs	Rev. A1.00+



WARNING! Read and understand this manual before using this machine.

California

Proposition 65 Warning



WARNING: Breathing gas/diesel engine exhaust exposes you to chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Always start and operate the engine in a well-ventilated area.
If in an enclosed area, vent the exhaust to the outside.
Do not modify or tamper with the exhaust system.
Do not idle the engine except as necessary.

For more information go to www.P65warnings.ca.gov.



WARNING: Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection.

For more information go to www.P65Warnings.ca.gov/wood.

Active Patents assigned to Wood-Mizer, LLC

Wood-Mizer, LLC has received patents that protect our inventions which are a result of a dedication to research, innovation, development, and design. Learn more at: woodmizer.com/patents

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SECTION 1 INSTALLATION PROCEDURE

For field installation only

1.1 Pre-Installation Procedure

1. Remove the drive pulley/belt cover from the sawmill.
2. If applicable, disconnect the encoder cable from the existing Setworks control and remove the encoder and mounting bracket from the sawmill.
3. **Pre-2006 sawmills only:**¹ Note the blade height indicator position on the inch scale and remove the scale pointer assembly from the mill. Set the mounting hardware aside.

Remove the existing blade height scale assembly from the mill. Remove the scales from the scale mounting bracket, then set the scales and mounting hardware aside.

NOTE: Sawmills manufactured after 11/00 have four threaded holes in the mast. If your sawmill has the threaded holes, skip to Sensor Installation ([See Section 1.2](#)). If your sawmill does not have the threaded holes, continue with this procedure.

4. Position the supplied template on the sawmill vertical mast tube $4\frac{5}{16}$ " from the top of the tube. **See FIG. 1-2**
5. Mark the locations indicated by the holes in the template on the mast tube.

NOTE: Accurate location is necessary for proper mechanical and sensor operation.

6. Relocate the template $44\frac{9}{16}$ " from the top of the mast tube and mark the two hole locations.
7. Use the #3 ($\frac{7}{32}$ ") drill bit provided to drill holes through one wall of the mast tube at all four locations.
8. Thread all four holes with the 1/4-20 tap provided.

1.2 Sensor Installation

NOTE: The sensor mounting brackets were redesigned in April 2001. [See Section 1.3](#) if your mounting brackets do not look like the ones shown below.

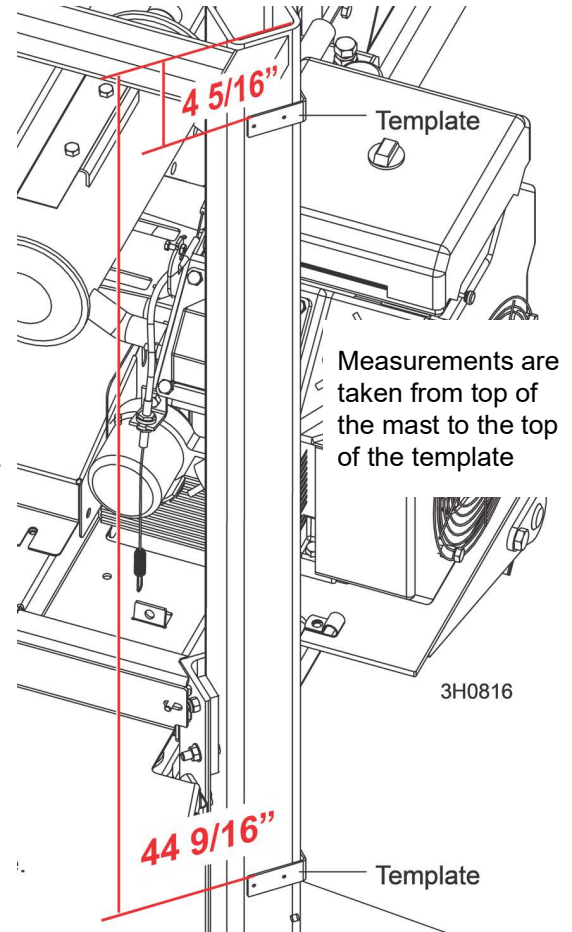


FIG. 1-1

¹ Sawmills prior to LT30 Rev. J8.01, LT40 Rev. J9.01, LT30 Super Rev. J3.07, LT40 Super Rev. J4.08, LT30HD Rev. J9.01, LT40HD Rev. K1.01, LT30HD Super Rev. J8.08 and LT40HD Super Rev. J8.09. The scale mount and pointer assembly will be replaced on these sawmills. Newer mills do not require replacement of the scale mount and pointer assembly.

1. Install the magnet to the bracket with the provided #8-32 x 7/8" hex head bolts, flat washers and nylon lock nuts.
2. Slide the magnet assembly onto the sensor (the assembly will be secured later). **See Figure 1-2**
3. Install the 3/8" ID grommet to the upper mount bracket and install to the top of the sensor. **See Figure 1-3**

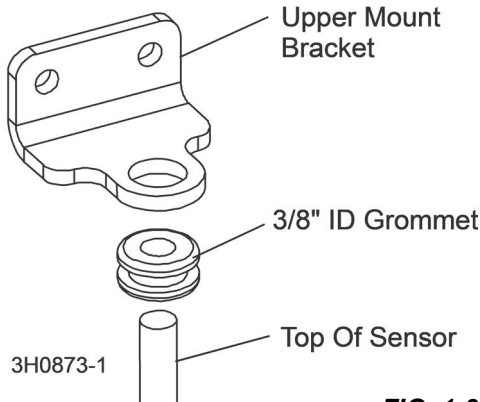


FIG. 1-3

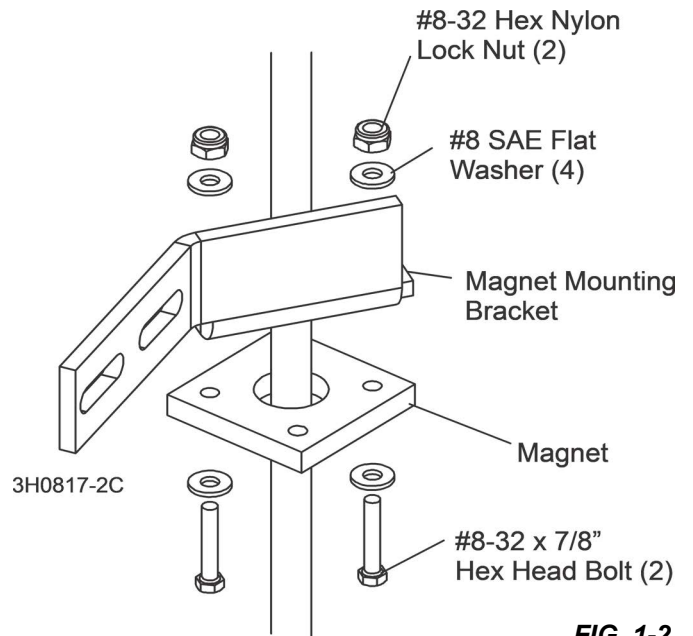


FIG. 1-2

4. Install two of the provided 1/4" lock washers and 1/4-20 x 5/8" hex head bolts to the bottom set of threaded holes in the mast. **See Figure 1-4**
5. Thread the bolts about halfway into the holes.
6. Slide the slotted lower mounting bracket of the sensor assembly around the two bolts, behind the lock washers.
7. Slide the upper mounting bracket up or down as necessary so the bracket holes align with the holes in the mast.
8. Secure with the remaining two lock washers and hex head bolts. Tighten all four mounting bolts.
9. Use large channel lock pliers on the transducer nut to turn the assembly so the label is viewable.

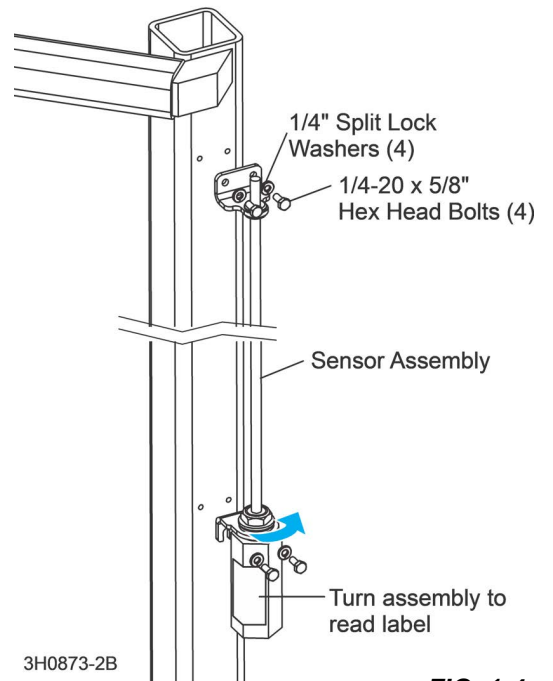


FIG. 1-4

10. **Pre-2006 sawmills only:** Remove the blade height and quarter scales from the removed scale mount bracket.
11. Use the existing hardware to secure the scales to the provided scale mount bracket. See **Figure 1-5**
12. Assemble the new scale mount bracket to the sawmill mast and secure the at the top with the existing hardware.
13. Leave the bottom loose until after the magnet assembly is installed.
14. Install the sensor magnet mount block to the scale mount bracket using the four provided #10-24 x 1/2" hex head bolts and flat washers.
15. Check the area between the bracket and block.

If there is a gap, use the provided extra #10 washers as necessary to fill the gap. This will prevent bending of the scale bracket when the mounting bolts are tightened.

16. Position the magnet assembly so the holes in the magnet mounting bracket align with the holes in the magnet mount block.

17. Secure the magnet assembly to the mount block with the provided 1/4-20 x 3/4" hex head bolts and flat washers.

18. Adjust the assembly in the slotted holes so the magnet is centered around the sensor rod. See **Figure 1-6**

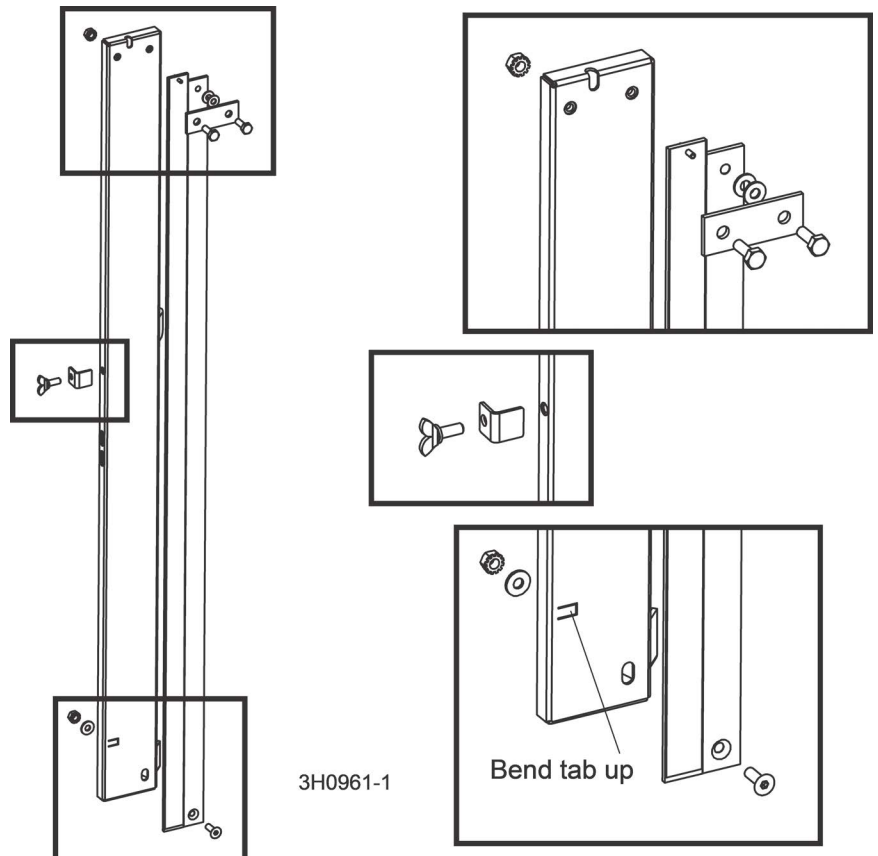


FIG. 1-5

17. Secure the magnet assembly to the mount block with the provided 1/4-20 x 3/4" hex head bolts and flat washers.

18. Adjust the assembly in the slotted holes so the magnet is centered around the sensor rod. See **Figure 1-6**

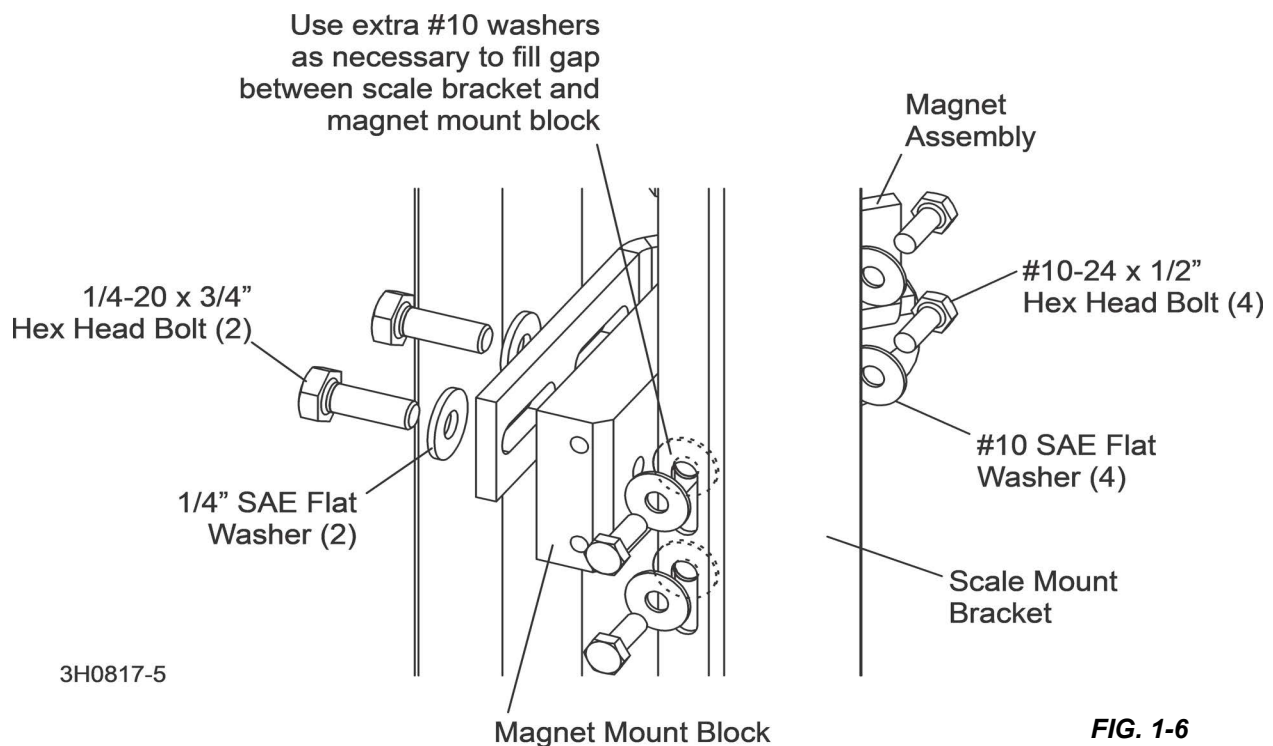


FIG. 1-6

19. **Pre-2006 sawmills only:** Use the two provided #10-24 x 3/8" pan head screws and self-locking hex nuts to secure the provided scale pointer to the new pointer mount plate.
20. Use existing hardware to secure the pointer mount plate to the sawmill. See Figure 1-7
21. Secure the bottom of the blade height scale assembly with the existing hardware.
22. Leave the nuts loose enough you can still move the scale assembly up or down.
23. Adjust the assembly until the blade height indicator shows the measurement noted before the old scale assembly was removed.
24. Tighten the mounting nuts.
25. Apply the appropriate decals supplied to the pointer mount plate.
26. Connect the transducer cable to the socket at the bottom of the sensor.
27. Install the lower sensor guard.
28. Place the cover in position behind the holes and secure with two bolts, lock washers and flat washers provided. See Figure 1-8.

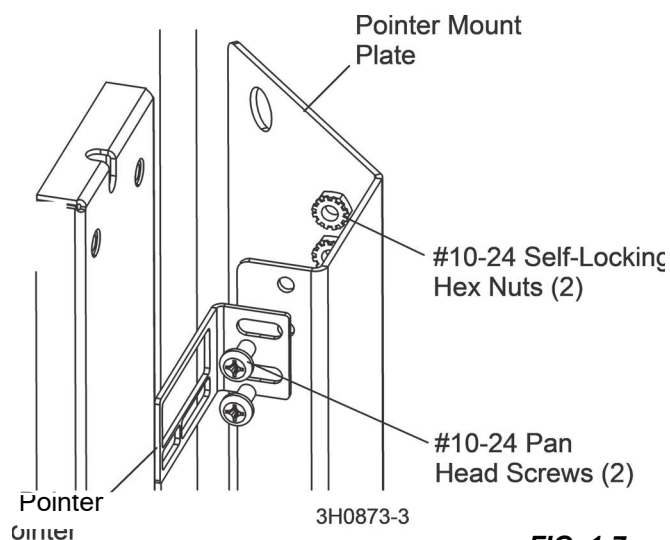


FIG. 1-7

1.3 Wiring Preparation (Super and Standard)

1. If your sawmill is equipped with a previous version Accuset option, skip to Final Installation.

NOTICE Make sure the mill is properly set up before performing Accuset installation and/or operation.



WARNING! Failure to put front outrigger down before moving cutting head from the rest position (rear of the mill) may result in serious injury.

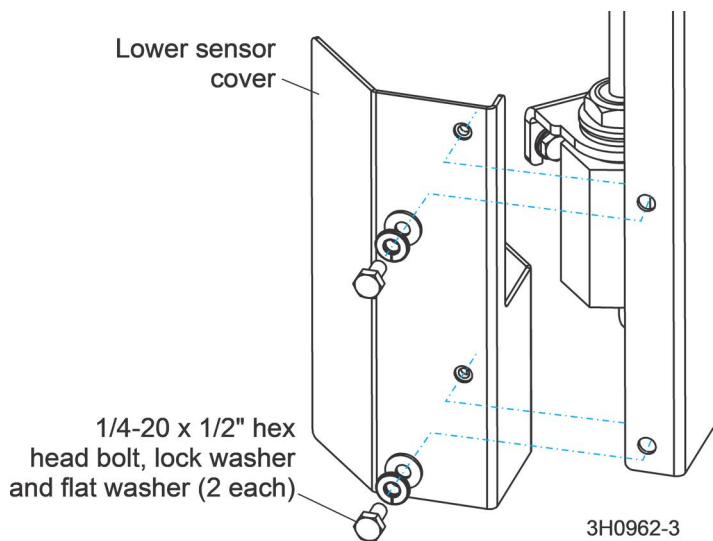
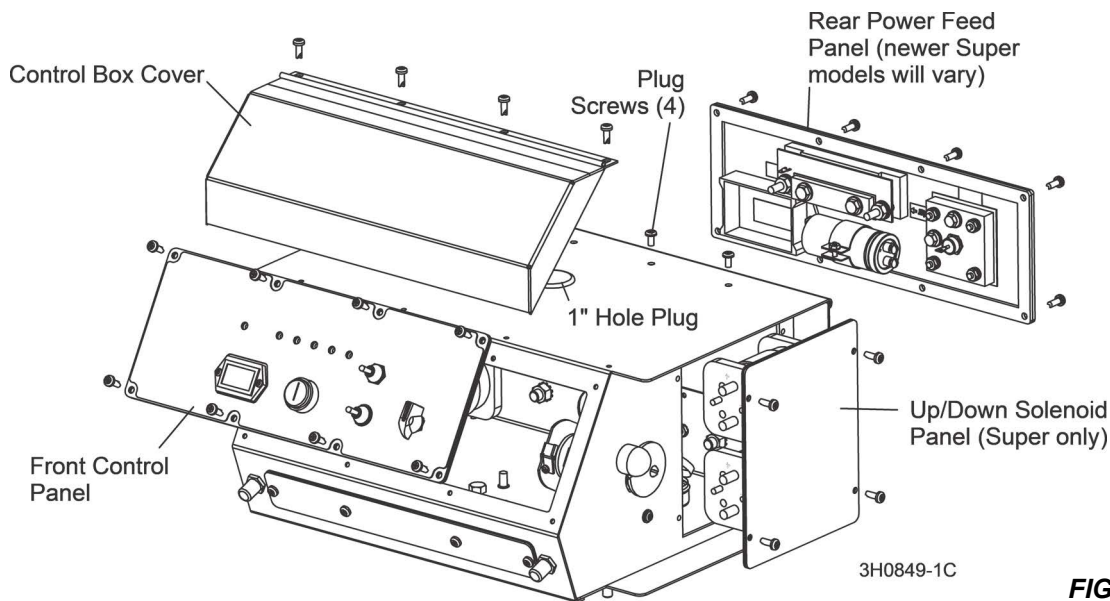


FIG. 1-8

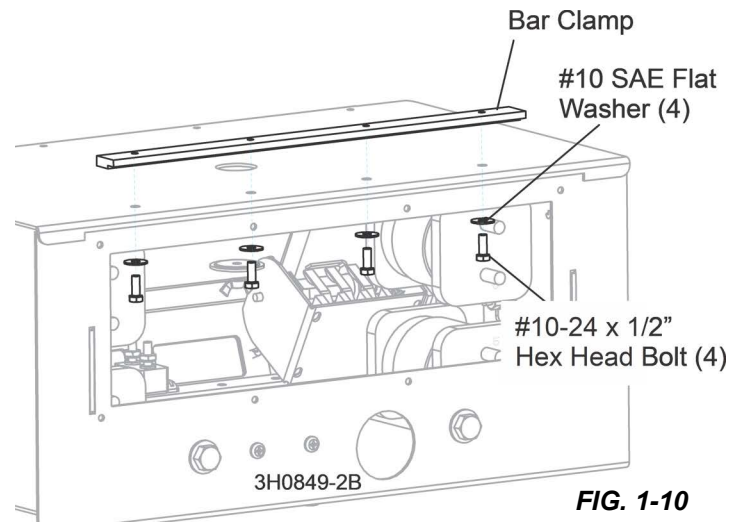
2. Return the saw carriage to the front of the mill.
3. Raise the cutting head to the 22 inch mark on the blade height scale.
4. Turn the sawmill control box key to the OFF (#0) position and remove the key.
5. Unbolt and remove the top cover from the battery box and set aside.
6. Remove the negative battery terminal from the battery post to disconnect power from the mill.
7. Wrap a cloth or temporary insulating material around the terminal to ensure it does not contact the post during Accuset installation.



WARNING! Before performing any service to the sawmill control box panel, turn the key to the OFF position, disconnect the negative battery lead, and remove all rings, watches, etc.... Failure to do so may cause serious injury and machine damage. **See Figure 1-9**

**FIG. 1-9**

8. Unbolt and remove the rear power feed panel from the sawmill control box.
9. Leave all wires connected.
10. Unbolt and remove the front panel from the control box.
11. Leave all wires connected.
12. Unbolt and remove the top hinged cover from the control box.
13. Set aside.
14. Remove the four plug screws and nuts from the top of the control box.
15. **Super models only:** Unbolt and remove the up/down solenoid panel from the control box. Leave all wires connected.

**FIG. 1-10**

16. Remove the plug from the 1" diameter hole in the top of the control box.
17. Install the provided L-shaped bar clamp to the top of the control box.
18. Position the bracket as shown.
19. Use the four provided #10 flat washers and 10-24 x 1/2" hex head bolts to loosely secure in place from the bottom (do not tighten). **See Figure 1-10**
20. Remove the anti-rotation screw from the right side of the control box. **See Fig. 1-11.**
21. Unbolt and remove the up/down drum switch handle from the right side of the control box.
22. Loosen the two drum switch mounting screws securing the up/down drum switch to the control box.
23. Proceed to Section 1.4 Wiring Installation for Super Sawmills or Section 1.5 Wiring Installation for Standard Sawmills.

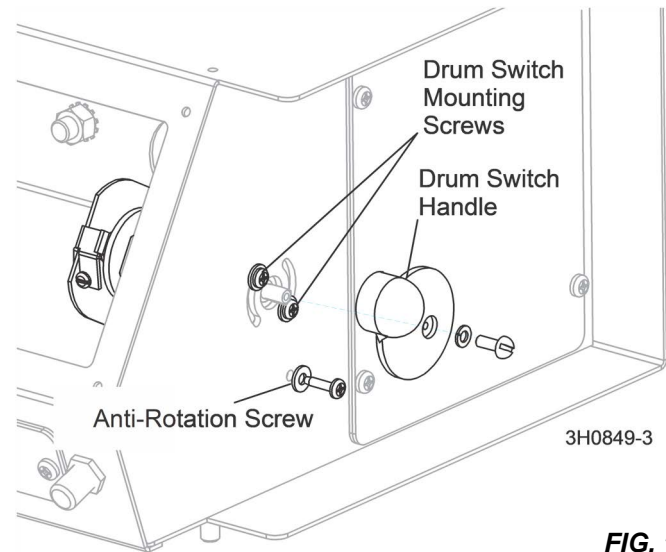


FIG. 1-11

1.4 Wiring Installation for Super Sawmills

1. If your sawmill is equipped with a previous version Accuset option, skip to Final Assembly.



IMPORTANT! If you have a Super model sawmill, follow the wiring installation instructions located in this section. If you have a standard model sawmill, follow the wiring installation instructions found in [Section 1.5 Wiring Installation for Standard Sawmills](#).



WARNING! Before performing any service to the sawmill control box panel, turn the key to the OFF position, disconnect the negative battery lead, and remove all rings, watches, etc.... Failure to do so may cause serious injury and machine damage.

1. Remove the nut and the existing red upper harness wire from the top post of the top solenoid.
2. Remove the nut and the existing black upper harness wire from the top post of the bottom solenoid.
3. Be sure to leave the existing jumper wires in place. Reinstall the nuts.

NOTE: If your up/down solenoid orientation is different than shown, the solenoid panel may be installed upside down. Rotate the panel 180°.

4. Connect the black wire removed from bottom solenoid to the provided yellow (or black) wire labeled MOTOR.
5. Secure with the provided 1/4-20 x 3/8" screw, flat washer and self-locking nut.
6. Connect the red wire removed from the top solenoid to the provided purple (or red) wire labeled MOTOR.
7. Secure with the provided 1/4-20 x 3/8" screw, washer and self-locking nut.

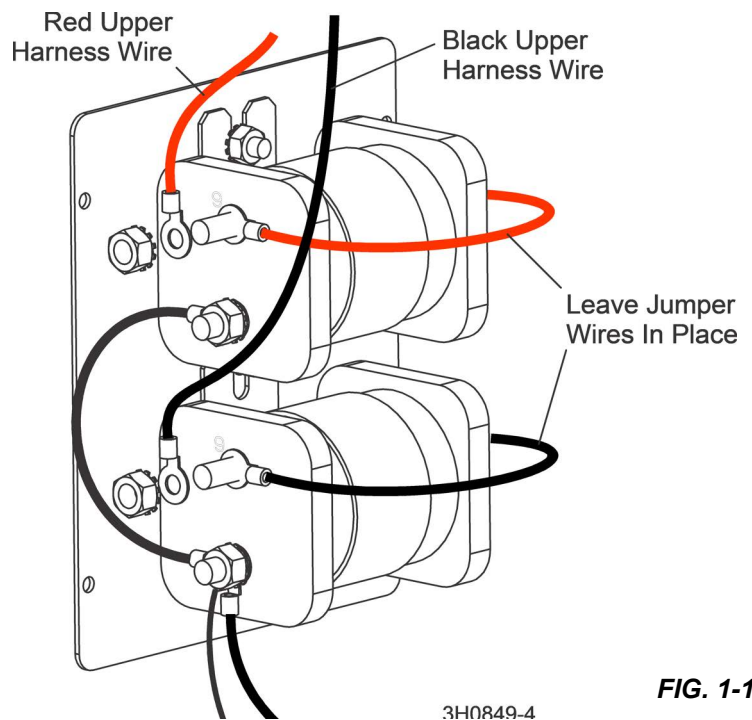


FIG. 1-1

8. Slide one end of the provided 6" piece of rubber tubing over each connection.
9. Bend the rubber tubing over to prevent connections from contacting each other and use a 6" wire tie to secure the rubber tubing in place.
10. Use a diagonal wire cutter to remove the excess ends of the wire tie.

There are two red 12VDC wires provided. Only one of these wires will be used, depending upon your mill model. Both wires have a terminal connected to one end. For **Super model sawmills**, use the wire with the 5/16" ring terminal on the other end of the wire.

5/16" Ring
(Super Models)

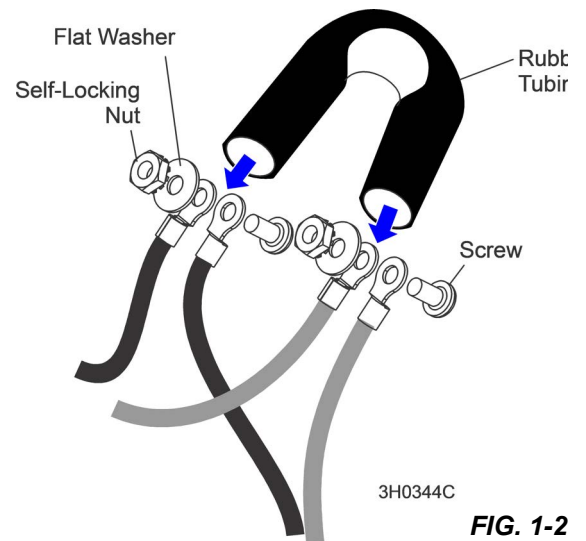
#10 Fork
(Standard Models)



3H0568-1



FIG. 1-3



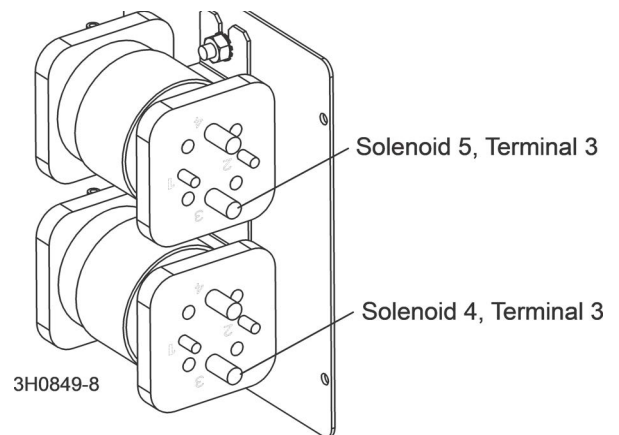
3H0344C

FIG. 1-2

11. Install the red 12VDC wire to terminal 3 of Solenoid 4 or 5.

NOTE: Install to solenoid terminal with only one pre-existing connection.

12. Leave the pre-existing connection in place.
13. To install, remove the 5/16" hex nut and lock washer from solenoid terminal, install ring terminal to solenoid terminal, and replace lock washer and hex nut.
14. Tighten to secure. Reinstall the side panel to the sawmill control box. **See Figure 1-11**
15. Locate the two wires connecting the up/down solenoids to the up/down drum switch.
16. Disconnect the wires from drum switch terminals #1 and #4.
17. Wrap the loose end of each wire with electrical tape and place the wires out of the way.



3H0849-8

FIG. 1-12

1.5 Wiring Installation for Standard Sawmills

1. If your sawmill is equipped with a previous version Accuset option, skip to Final Assembly ([See Section 1.6](#)).

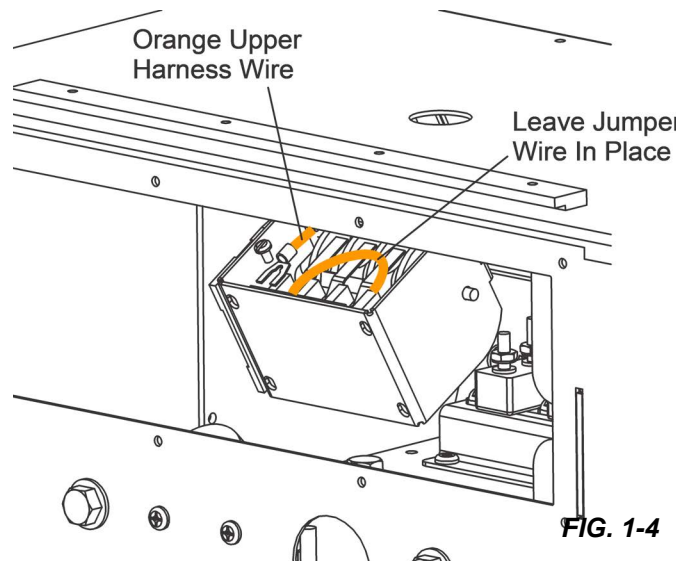


IMPORTANT! If you have a standard model sawmill, follow the wiring installation instructions found in this section. If you have a Super model sawmill, follow the wiring installation instructions found in [Section 1.4 Wiring Installation for Super Sawmills](#).

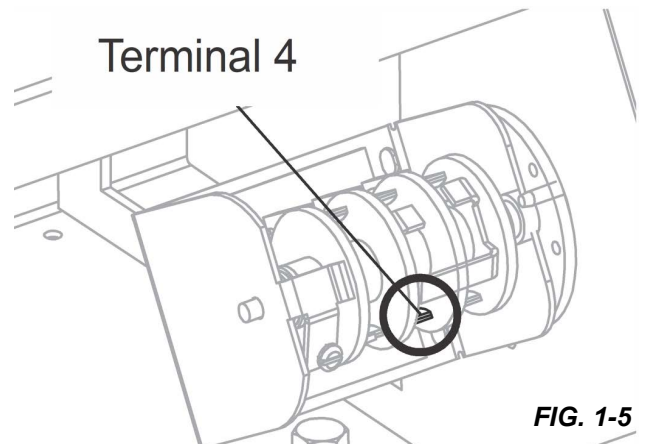


WARNING! Before performing any service to the sawmill control box panel, turn the key to the OFF position, disconnect the negative battery lead, and remove all rings, watches, etc.... Failure to do so may cause serious injury and machine damage.

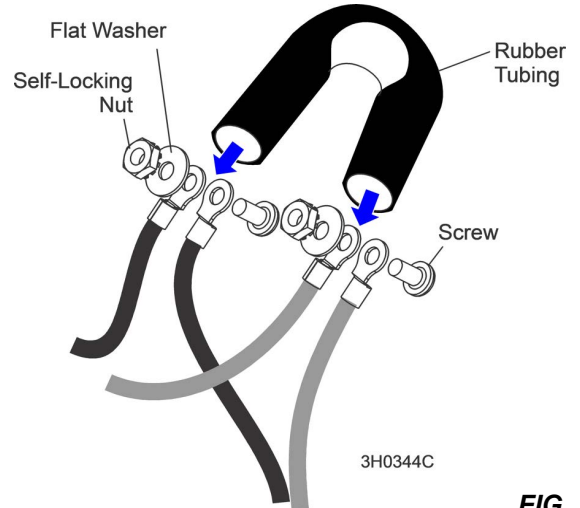
2. Locate the terminal with two orange wires connected (TRM1 or TRM5) at the back of the up/down switch.
3. Leave the orange jumper wire connected and disconnect the orange upper harness wire.
4. On the front of the up/down drum switch, disconnect the existing black upper harness wire from TRM4.



5. Leave the black jumper wire connected to TRM4. **See Fig. 1-5.**
6. Connect the end of the orange wire removed from TRM1 or TRM5 to the provided purple (or red) wire labeled MOTOR.
7. Use the provided #10-24 x 3/8" screw, flat washer and self-locking nut to secure together.
8. Connect the end of the black wire removed from TRM4 to the provided yellow (or black) wire labeled MOTOR.
9. Use the provided #10-24 x 3/8" screw, flat washer and self-locking nut to secure together.



10. Slide one end of the provided 6" piece of rubber tubing over each connection.
11. Bend the rubber tubing over to prevent connections from contacting each other and use a 6" wire tie to secure the rubber tubing in place.
12. Use a diagonal wire cutter to remove the excess ends of the wire tie.



There are two red 12VDC wires provided. Only one of these wires will be used, depending upon your mill model. Both wires have a terminal connected to one end. **For Standard model sawmills**, use the wire with the #10 fork terminal on the other end of the wire.

- | | |
|------------------------------|-------------------------------|
| 5/16" Ring
(Super Models) | #10 Fork
(Standard Models) |
|------------------------------|-------------------------------|



FIG. 1-7

13. Loosen the screw on terminal 2 of the up/down drum switch.
14. Leaving any pre-existing connections in place, install the #10 fork to TRM 2 of the up/down drum switch. **See Fig. 1-8.**
15. Retighten the screw to secure in place.

1.6 Accuset Final Installation

1. Remove the existing 1/4-20 self-locking nut and flat washer which secure the existing wires on the rear grounding stud at the rear of the control box. **See Fig. 1-9.**
2. Install the provided black wire labeled GND to the ground stud and replace the washer and self-locking nut.
3. Tighten the nut securely. **See Figure 1-1**
4. Route the free ends of the MOTOR wires, black GND wire and the red 12VDC wire through the hole in the top of the control box.
5. Temporarily place the Accuset control upright on top of the sawmill control box.
6. Leave all pre-installed Accuset wires connected.
7. Route the loose Accuset wires down through the hole in the top of the sawmill control box.
8. Connect the red Accuset harness wire to the front terminal of the Accessory circuit breaker (CB4).
9. Connect the black Accuset harness wire to the ground stud at the rear (on Standard models) or side (on Super models) of the control box and secure with the 1/4-20 self-locking hex nut supplied (leave existing nuts/wires on ground stud).
10. Connect the two yellow Accuset wires to terminal #4 of the drum switch (leave any existing wires connected).
11. Connect the two blue Accuset wires to terminal #1 (leave any existing wires connected).

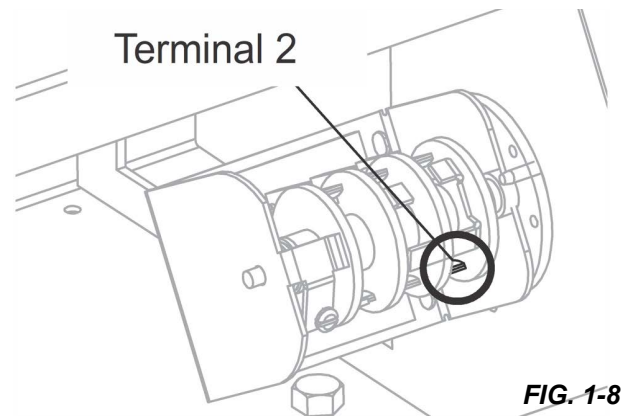


FIG. 1-8

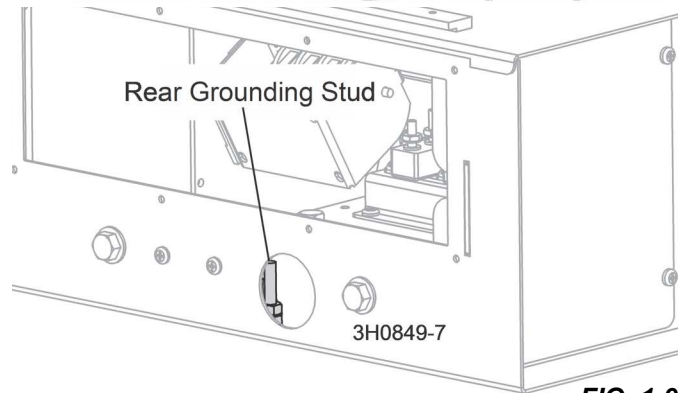


FIG. 1-9

12. Connect the four wires from the sawmill control to the Accuset control as shown. See Fig. 1-10.

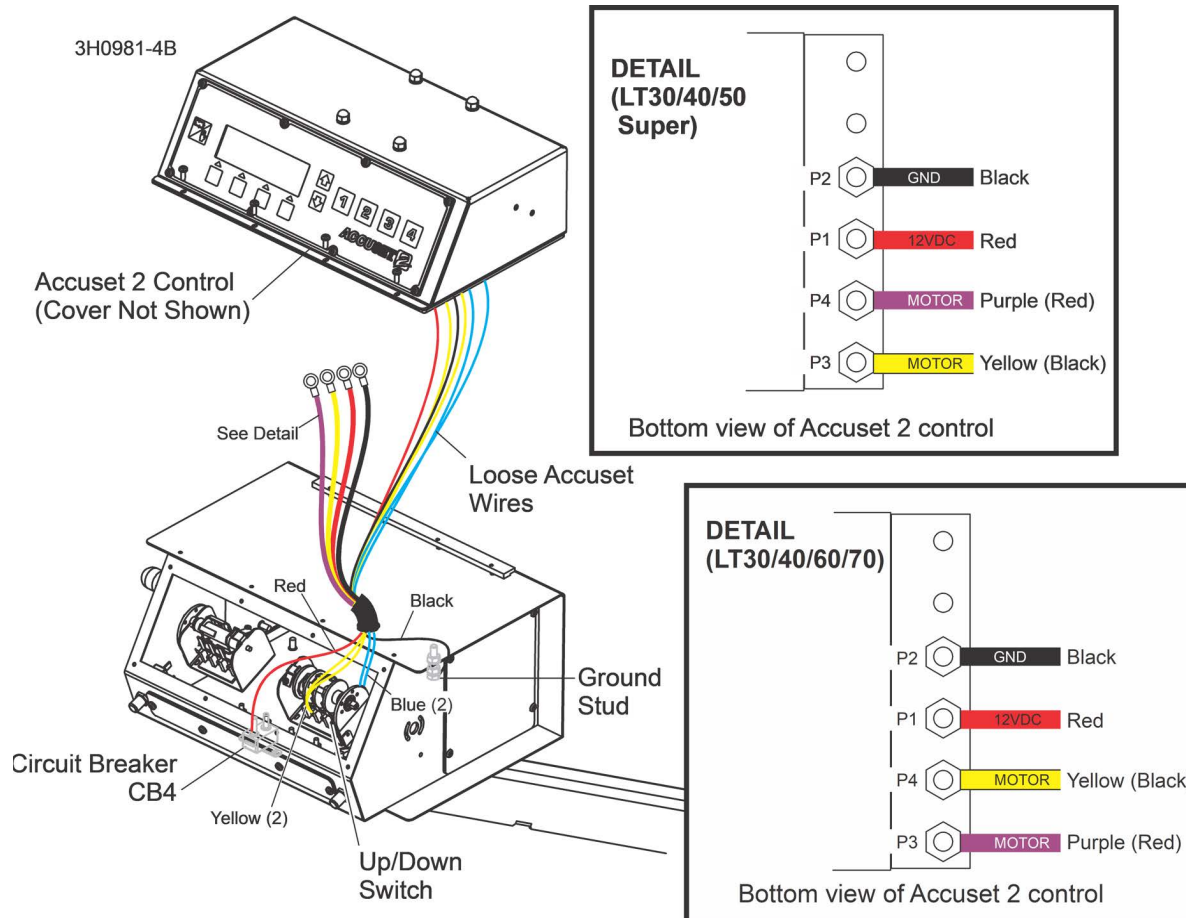


FIG. 1-10FOR ACCUSET 2 , REVISIONS B.00 - CURRENT

13. Wrap all wires between the Accuset and sawmill controls with the supplied split-loom tubing and secure with two of the supplied wire ties.
14. Secure the Accuset 2 control box to the top of the sawmill control, positioning the rear lip under the hold-down bar.
15. Tighten the four hold-down bolts and secure the front of the Accuset 2 control with the four #10 screws previously removed.
16. Reinstall the rear power feed panel and the front control panel to the sawmill control box.
17. Tighten the washers and screws securing the drum switch to the control box.
18. Reinstall the drum switch handle. Reinstall the anti-rotation screw.
19. Plug the cable from the transducer sensor into the connector in the back of the Accuset control box.
20. Route the cable along the back side of the control pedestal and secure with the three 10" tie wraps provided.
21. Reconnect the negative battery lead and replace the battery box cover.

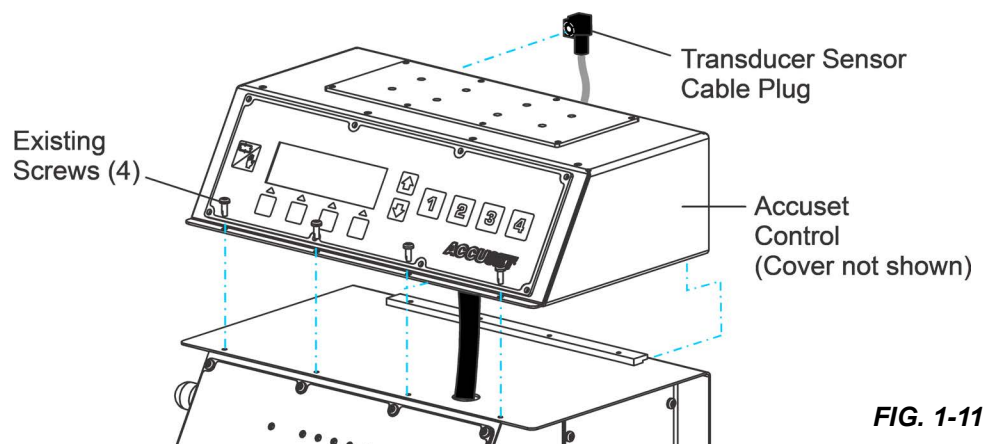


FIG. 1-11

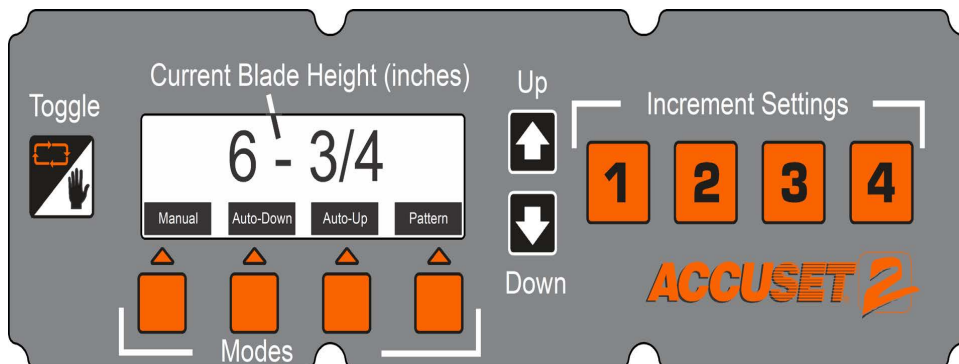
SECTION 2 ACCUSET SETUP AND OPERATION

2.1 Control Setup

The Accuset control starts in Manual Mode by default. See FIG. 2-1 for identification of the control buttons and display.

Power on the mill to the accessory mode (#3 position on the key-switch).

Up/Down Adjustment Buttons: Push the Up or Down arrow buttons to scroll to the desired setting. As you push **and hold** the up or down buttons, the setting scrolling speed will automatically increase.



3H0989
FIG. 2-1

In Manual Mode: The up and down arrow buttons have special functions. You can enter configuration menus by pushing the Up button. Pushing the Down button moves the saw head to the nearest nominal inch (or centimeter).

About the Toggle button: Use the Toggle button to exit configuration menus and return to the main menu. Pressing and holding the Toggle button **during startup** will reset the Accuset programming to factory default settings. Pressing the Toggle button **in Manual Mode** will place Accuset in Reference Mode.

Contrast Adjustment

When the Accuset is first powered on, the Accuset 2 splash screen is displayed for a few seconds. Push and hold the Up or Down button to adjust the display contrast as desired for your lighting conditions.

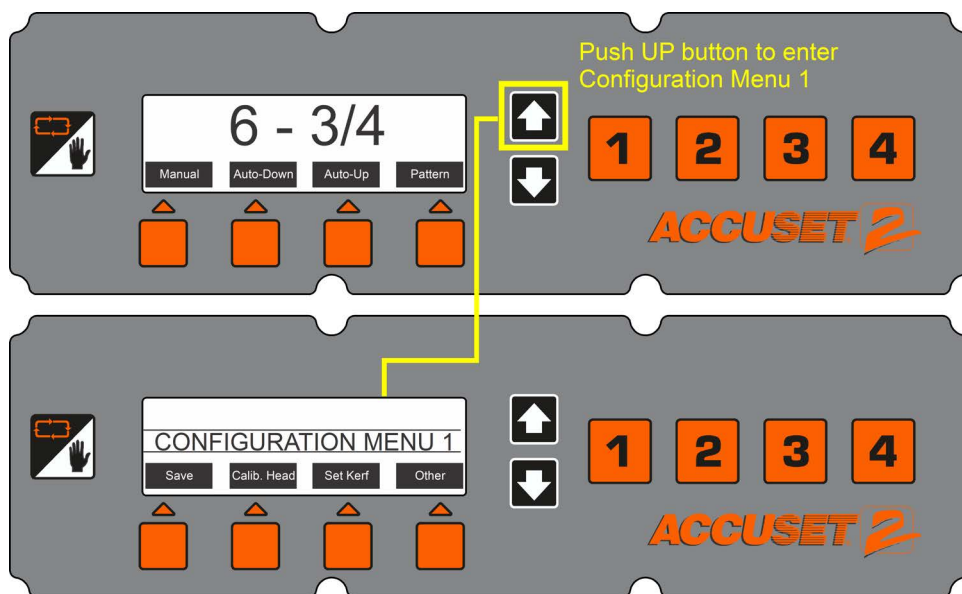
Startup Configuration

Accuset controls on new sawmills are configured at the factory. If you have installed or replaced the control, be sure to configure the control before operating the Accuset.

Follow the procedures below *in the order they are listed*.

To enter Configuration Menu 1, push the Up button while in Manual Mode.

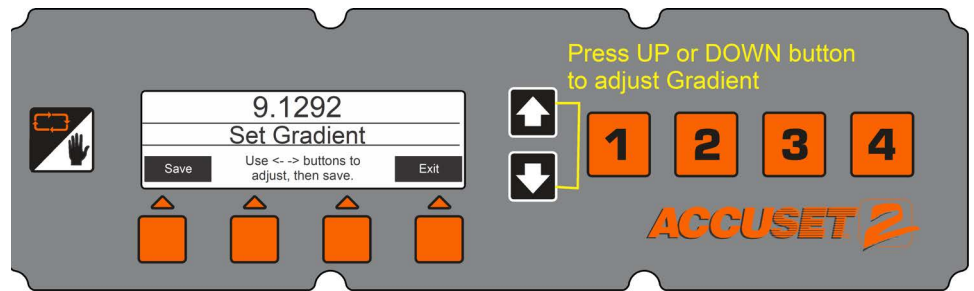
NOTE: If the Accuset is factory-installed, the Gradient Setting is already set to match the gradient of the transducer sensor (labeled "GRD" on the sensor). If the Accuset has been installed in the field, the transducer replaced or the Accuset control has been reset to Factory Settings, the Gradient Setting should be adjusted.



3H0989-2
FIG. 2-2

Gradient Adjustment

1. Enter the Configuration Menu 1.
2. Push the button labeled “Calibrate Head”, (FIG. 2-2) then the “Set Gradient” button to display the menu
3. Push the Up or Down buttons until the Gradient Setting is the same as the sensor gradient shown on the sensor label (use the number labeled “us/in”).
4. Push the Save button to store the new Gradient Setting.



3H0989-3
FIG. 2-3

To return to the previously stored Gradient Setting, push Exit and turn the key switch to the off (#0) position.

Calibrate Head

Press At 12 Inches (or 305mm in metric mode). The Accuset control should indicate the actual position of the blade above the bed rails.

1. Check this setting by moving the saw head so the blade is positioned above a bed rail.
2. Raise the saw head until the blade is positioned 12" (305mm) by actual measurement from the bed rail.
3. Measure from the top of the bed rail to the bottom of a down-set tooth of the blade.
4. While in Manual Mode, push the Up button to enter the Configuration Menu.
5. Choose Calibrate Head and press the button labeled "Press at 12 inches" (or "Press at 305mm").

The display will change to "Head Calibrated".

6. Push the Save Settings button to store the new 12-inches setting and exit the Configuration Menu.

After recalibrating the Accuset control,

1. Check and adjust the inch scale on the saw head to match the value displayed on the control.
2. Adjust the bottom saw head stop bolt all the way down.
3. Move the saw head down until Accuset displays 3/4" and adjust the bottom saw head stop bolt up until it just touches the saw head.

Setting the Kerf

The Kerf setting is **optional**. The default kerf setting is '0'.

You can use the kerf setting to automatically factor the blade thickness into the increment setting. Factoring the kerf into the program will allow you to saw boards that are the actual thickness of the programmed increment.

For example, if you are using an 1/16" blade with the kerf is set to '0' and you have programmed increments of 1 1/8", the resulting boards will be approximately 1-1/16". The blade thickness is not factored in the calculations.

If you enter an accurate kerf value of 1/16, the resulting boards will be 1 1/8". Whether or not to use the kerf setting is dependent on the sawing practices and application.

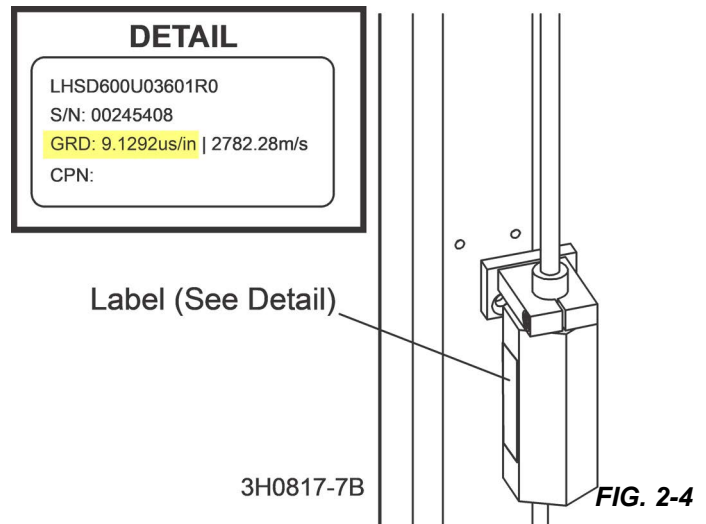
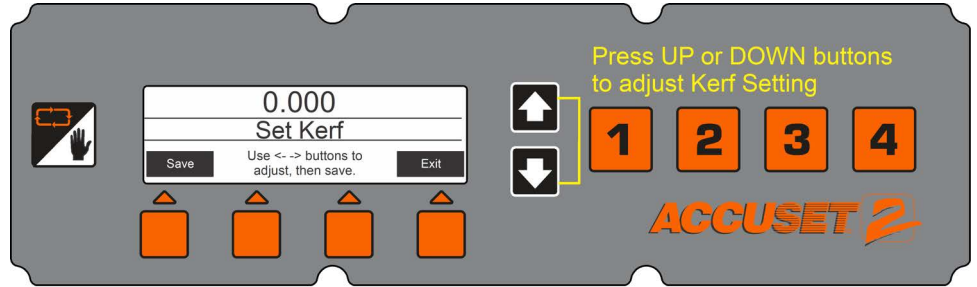


FIG. 2-4

1. While in Manual Mode, push the Up button to enter the Configuration Menu.
2. Press the "Set Kerf" button to display the menu in FIG. 2-5..

Recommended kerf settings for various blades are provided below. These kerf setting values **assume the teeth of the blade are set per factory specifications.**

A nominal kerf value of 0.125" (3 mm) can be entered and should be accurate enough for most applications.



3H0989-4
FIG. 2-5

3. Push the Set Kerf button and use the Up and Down buttons to adjust the kerf setting.
4. Push the Save button to store the new Kerf Setting.
5. If no Kerf Setting is used, be sure to include the thickness of the blade in your increment settings.

Blade Thickness	Blade Style	Kerf Setting
.042	10S	0.084 (2.2 mm)
.045	9S	0.090 (2.3 mm)
	10S	0.095 (2.5 mm)
.055	10S	0.111 (2.9 mm)

TABLE 2-1

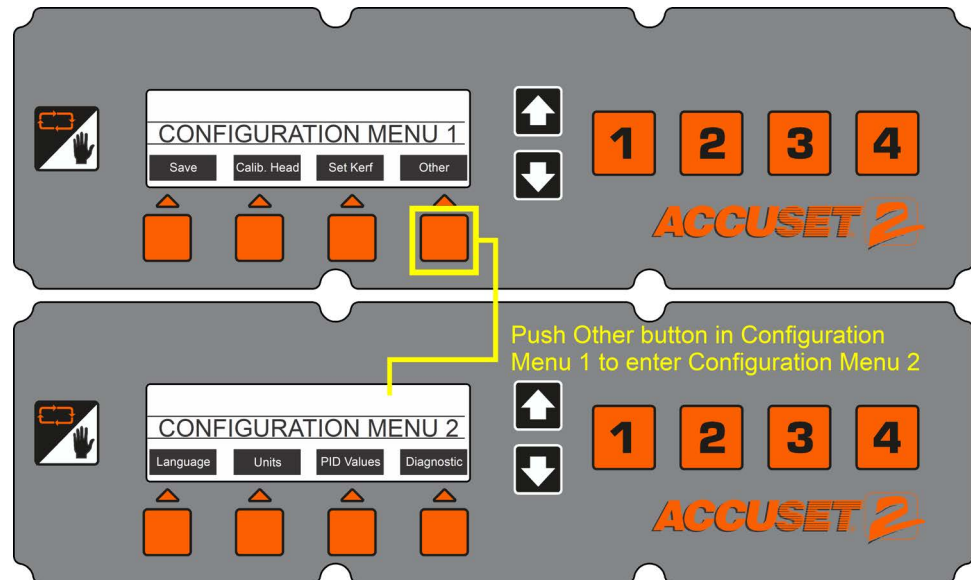
Language, Units, PID Values, and Diagnostic

Other settings can be changed for the Accuset including the language used on the display, the unit of measure, and PID values. These settings are found in Configuration Menu 2.

To display Configuration Menu 2, push the Up button while in Manual Mode to display Configuration Menu 1. Select Other to display Configuration Menu 2.

LANGUAGE

1. Push the Language button and choose the desired language.
2. Push the Save (or language equivalent) button to permanently store the new Language setting.



3H0989-5
FIG. 2-6

- To return to the previously stored Language setting, push Exit and turn the key switch to the off (#0) position.

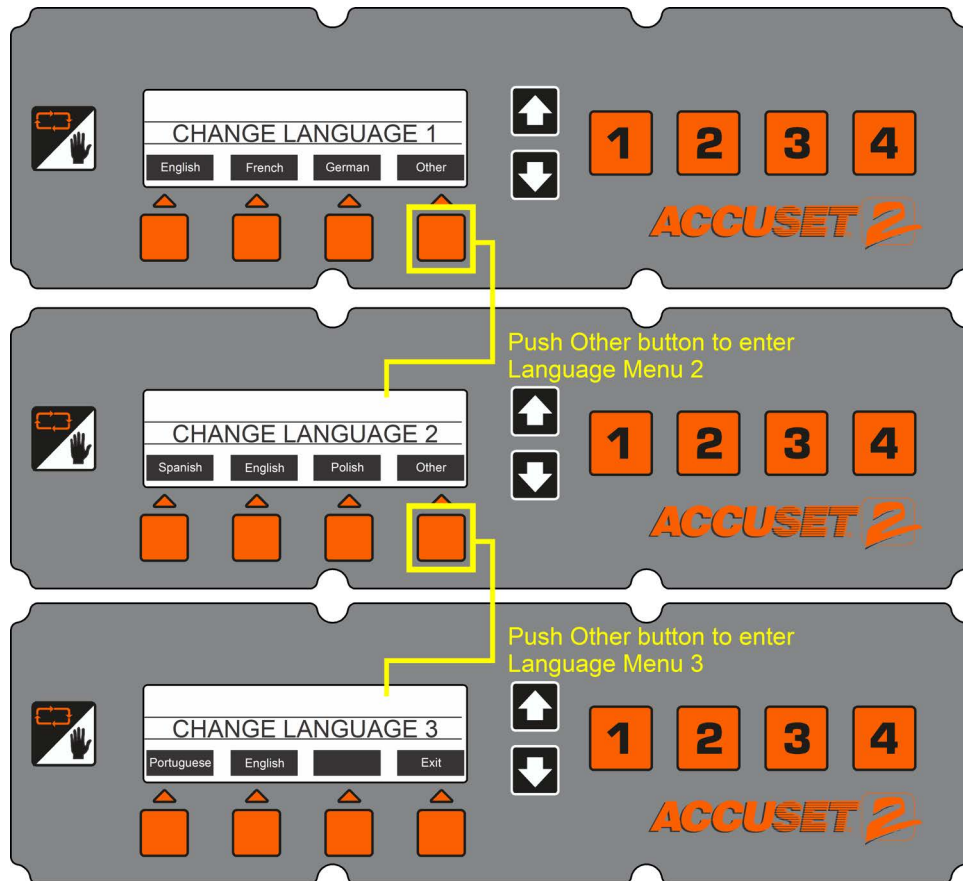
UNITS

This setting determines unit of measure to use for your Blade Height and Increment Settings.

The default value is Fractional Inches (1/32"). You can change the Unit Of Measure to Decimal Inches (.0313") or Millimeters (1 mm).

Push the Save button to store the new Unit Of Measure setting.

To return to the previously stored Unit Of Measure, push Exit and turn the key switch to the off (#0) position.

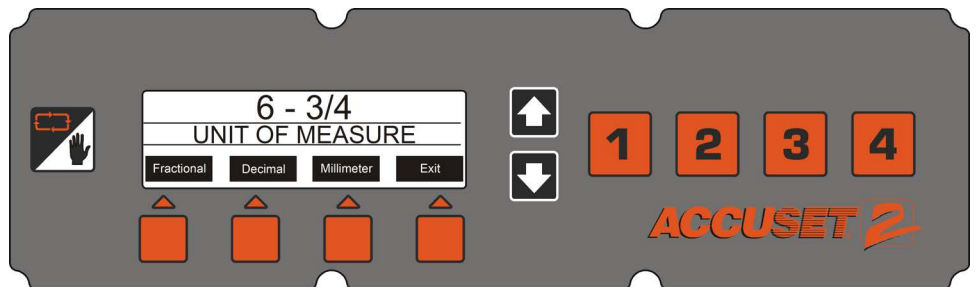


3H0989-7

FIG. 2-7

PID: (PROPORTIONAL - INTEGRAL - DIFFERENTIAL) VALUES

These settings are used by a technician to diagnose and fine-tune the Accuset control for various environmental factors. **These settings are made at the factory and should not normally need adjusting by the operator.**



3H0989-6

FIG. 2-8

The factory default PID value settings are shown below.

Value	Factory Default LT40 Super	Alternate for Standard Mills	Alternate for LT50
Up Ticks	1	1	3
Up Distance	7500	1500	14000
Up Minimum	50	80	46
Down Ticks	1	1	2
Down Distance	5000	2600	0
Down Minimum	50	60	40

TABLE 2-2

After making the desired PID Value adjustments, push the Save button and go to the desired Accuset mode. Test how the changes affect Accuset performance. If the new settings cause undesirable results, reset Accuset to the factory defaults.

DIAGNOSTIC

This menu provides diagnostic information regarding voltage, current and software revisions. This information is used for troubleshooting by a qualified Wood-Mizer service representative.

Restore Factory Defaults

To return all Accuset settings to their factory default values, press and hold the Toggle button and turn the key switch on.

The Accuset settings are now returned to their factory default values, including:

- Calibration settings. [See Section](#) to recalibrate the Accuset control.
- PID values. See above for setting values.

2.2 Mode Selection

Accuset modes are selected by pressing the proper Mode Select button (Auto-Down, Auto-Up or Pattern) located under the display window.

Manual Mode - This mode uses the up/down function of the sawmill as you normally would without the Accuset option. The Current Blade Height will continue to be displayed by the Accuset control.

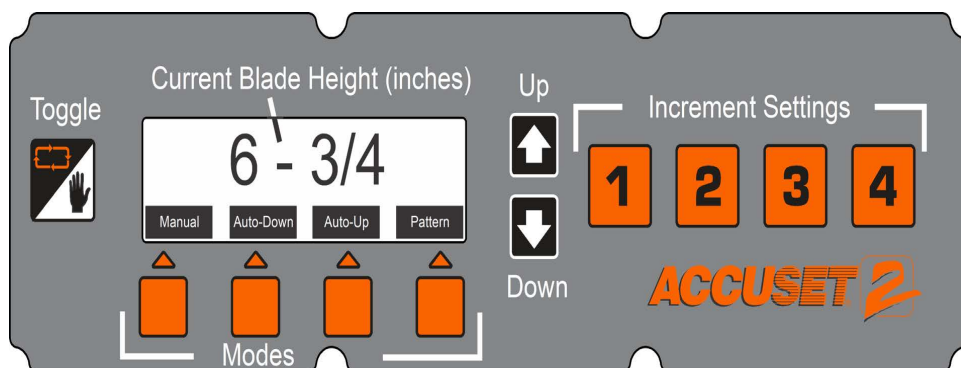
Auto-Down Mode - This mode *references the current blade height* and increments the blade **down**. The Accuset will automatically move the saw head down and stop at the next increment when you push the drum switch down. Each of the four Increment Setting buttons stores four adjustable increment settings for a total of 16 settings. Push button #1 once for setting #1. Push button #1 a second time for setting #5, etc...

Auto-Up Mode - This mode *references the current blade height* and increments the blade **up**. The Accuset will automatically move the saw head up and stop at the next increment when you push the drum switch up. Auto-Up mode is often used to raise the saw head in large increments when preparing to cut a new log or log that has been turned. This raises the saw head without having to hold the drum switch up, freeing the operator to perform other functions while the saw head is being raised. The Increment Settings buttons work in the same manner as described in Auto-Down Mode.

NOTE: The sixteen increment settings apply to both Auto-Down AND Auto-Up modes. If you change a setting in Auto-Down mode, it will also change when you are in Auto-Up mode.

Pattern Mode - This mode *references the bed surface* and allows you to program up to six different increments calculated up from the bed. The sixth (top) increment repeats itself up to the upper limit of the saw head travel. The bottom increment indicates the size of the remaining cant when the pattern is complete.

Reference Mode - This mode allows the operator to program up to four pre-set locations along the saw head travel. The factory default settings are at the bottom (1"), the location where the saw head is calibrated (12"), a location midway between the calibration and the top (24"), and the top (31").



3H0989
FIG. 2-9

2.3 Using Auto-Down Mode

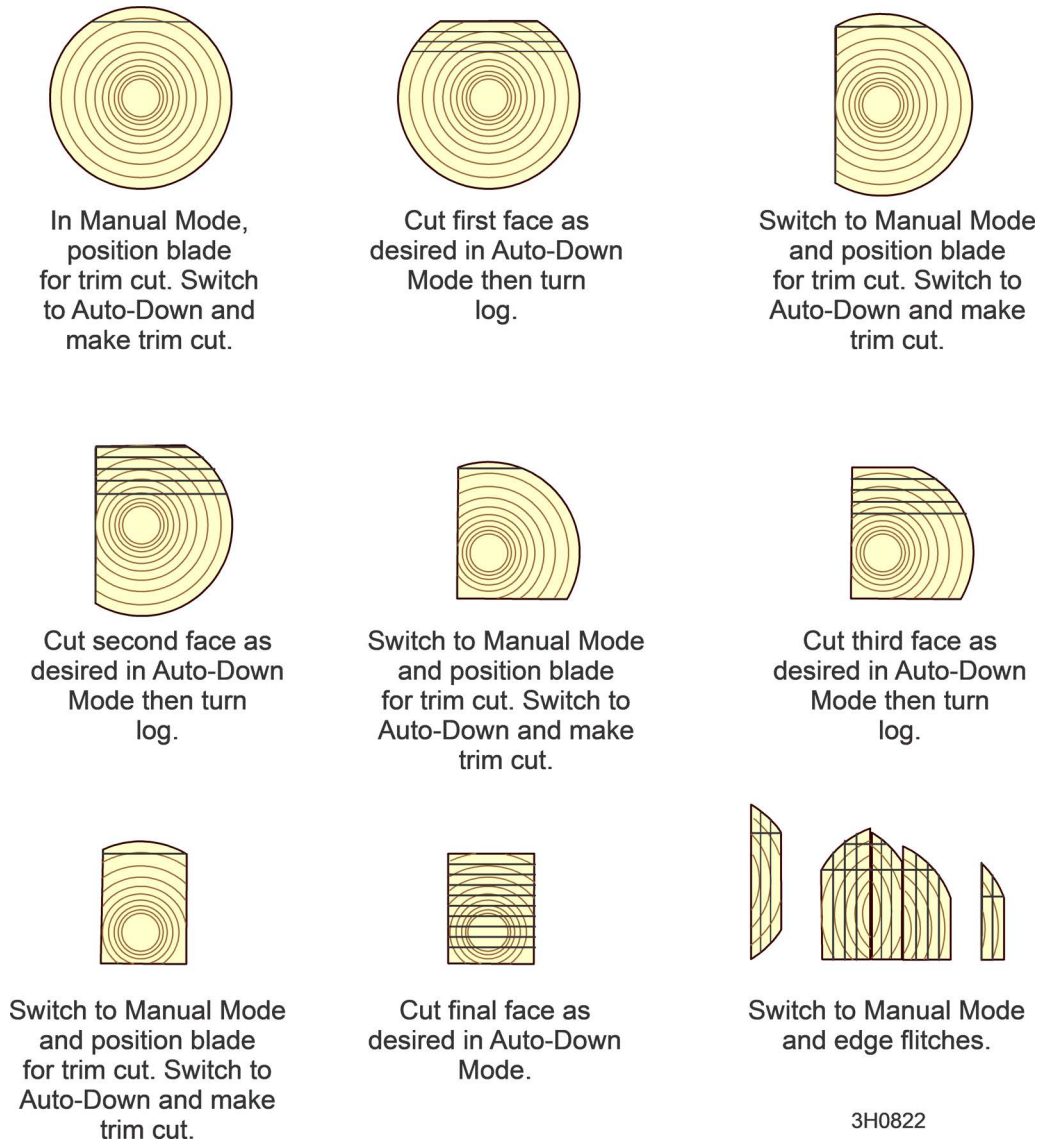


FIG. 2-10

1. Starting with a new log, position the saw head to make the first trim cut.
2. Push the Auto-Down button under the display.
The first Increment Setting is displayed by default.
3. Choose the desired increment setting by pushing the appropriate Increment Setting button.
 - a. Select the desired setting number and push the Up or Down buttons until the desired Increment Setting is obtained.
 - b. Include blade kerf in your setting.

The amount of kerf will depend on the thickness and tooth set of the blade you are using. The Accuset can be programmed with an automatic kerf setting if desired ([See Setting the Kerf](#)).

When increment value is changed, it is only temporarily stored. If the control is turned off, the settings will return to the factory defaults unless the new values are saved.

Save the increment settings.

- a. Push the Manual Mode then push the Up button.
The Configuration Menu will be displayed.
- b. Choose Save to enter the Save Settings menu.
- c. Push Save.

Example: Push Auto-down button. To store 1 1/2" increment to the #1 increment setting, push button #1. Push the Up or Down arrow button to raise or lower the increment on the screen to the desired setting (1 1/2). Push the Manual button, then the Up arrow to display the Configuration menu. Now push the Save button to enter the Save Settings menu. Push the Save Settings button. Multiple buttons can be programmed and saved all at one time.

4. Push the Auto-Down button to return to Auto-Down Mode if necessary.
5. Make the trim cut, raise the saw head and return the carriage to the front of the log.
6. Push the up/down drum switch down and release.

The saw head will automatically bypass the setting where the first cut was made and stop at the next setting determined by the increment you have chosen.

7. Make a cut, raise the saw head and return the carriage for the next cut.
8. Push the up/down drum switch down and release.

The saw head will stop at the setting for the next cut.

9. Repeat this procedure down this face of the log as desired.
10. Turn the log as you normally would and push the Manual Mode button to place the Accuset in Manual Mode.
11. Position the saw head for the trim cut and push the Auto-Down button to return to Auto-Down Mode. Make the trim cut, raise the saw head and return for the next cut.
12. Use the same procedure as described above to cut each side of the log until done.

NOTE: Anytime a trim cut is necessary, the Manual button can be pressed to enter Manual Mode. Position the saw head for the trim cut and push the Auto-Down button to return to Auto-Down Mode. Accuset will reference the new blade position and stop at the next setting determined by the increment you have chosen.

2.4 Using Auto-Up Mode

Auto-Up Mode works exactly the same as Auto-Down explained above except it controls the saw head movement in the up direction.

2.5 Using Pattern Mode

1. Starting with a new log, position the saw head at the front end of the log.
2. Push the Pattern button under the display.
Pattern Setting #1 is the factory default.
3. Choose the desired pattern setting (1 - 16) by pushing the appropriate Increment Setting button.

In Pattern mode, a list of six increments referenced from the bed rail is shown on the display. The bottom increment represents the distance from the bed rail for the last cut. Each increment in the list can be adjusted as desired. The top increment repeats as necessary depending on how high you raise the saw head.

As the saw head is raised or lowered, symbols in the pattern increment list indicate where the blade is located in reference to the pattern. When the blade is above the top setting a ^ symbol appears next to the top increment to indicate you are in the repeating top increment. After the blade is lowered and the last top increment is reached, a + symbol will appear to indicate the next setting is close. When the blade reaches the increment setting, a - symbol will appear next to that setting.

4. Change any of the six pattern increments by pushing the +/- Drop button (below the pattern increment list) to scroll to the desired increment.
The increment that is active is highlighted.

5. The previous increment setting will automatically be copied to the remaining increments as you scroll down.
6. Push the Up or Down buttons until the desired increment is obtained.
7. Include blade kerf in your setting (i.e. If you want the finished boards to be 1" thick, set the increment to 1 1/8" to allow for typical blade kerf).
The amount of kerf will depend on the thickness and tooth set of the blade being used. The Accuset can be programmed with an automatic kerf setting if desired [See Section: Setting the Kerf](#).
8. Push the +/- Drop button to move to the next pattern increment and adjust as desired.
9. After the bottom increment setting is adjusted as desired, push the Manual Mode button then push the Up button. The Configuration Menu will be displayed.
10. Choose Save to enter the Save Settings menu, then select Save.

Example: To edit the pattern increment settings for the #4 pattern setting, push Increment Selection button #4 once to display pattern setting #4 (the factory default value for pattern setting #4 is 1 3/4").

- Push the +/- Drop button to enter pattern edit mode. The top pattern increment is now highlighted.
 - Push the Down button to adjust the setting to 1 1/8". While pushing the Down button, push the Up button to scroll faster. When you get close to 1 1/8", release both buttons.
 - Push the Down button to fine tune the setting to exactly 1 1/8".
 - Push the +/- Drop button again to move the next pattern increment. The setting will automatically be copied from the previous setting to 1 1/8" for all the remaining increments below.
 - Exit pattern edit mode by pushing the Manual button. Save the new pattern setting by pushing the Up arrow button to enter Configuration Menu #1.
 - Press the Save button to enter the Save Settings menu, then push the Save button.
 - Push the Pattern button to return to Pattern Mode and push Increment Selection button #4. All of the pattern settings should now be 1 1/8".
11. Push the Manual Mode button and raise the saw head so the blade is positioned near the top of the log.
 12. Push the Pattern button to return to Pattern Mode.
 13. Push the up/down drum switch down and release.
The saw head will automatically stop at the first setting determined by the top pattern increment.
 14. Make a cut, raise the saw head and return the carriage for the next cut.
 15. Push the up/down drum switch down and release.
The saw head will stop at the setting for the next cut. Repeat this procedure down this face of the log as desired.
 16. Turn the log as you normally would and push the Manual Mode button to place the Accuset in Manual Mode.
 17. Raise the saw head so the blade is positioned near the top of the log and push the Pattern button to return to Pattern Mode.
 18. Make the cut, raise the saw head and return for the next cut.
 19. Use the same procedure as described above to cut each side of the log until done.

2.6 Using Reference Mode

1. While in Manual Mode, push the Toggle button to enter Reference Mode.
2. Push one of the four Increment Setting buttons to select a reference.
Factory defaults for buttons 1 through 4 are 1", 12", 24" and 31".
3. Push the up/down drum switch in the appropriate direction to start the saw head toward the reference position.

NOTE: If the saw head is already above the position and the drum switch is pushed up, Accuset will return to Manual Mode. If the saw head is below the reference position and the drum switch is pushed down, Accuset returns to Manual Mode.

When the saw head reaches the target reference position, Accuset will return to Manual Mode.

4. To change the stored setting for any of the four buttons, move the saw head to the desired position.
5. Press the Toggle button to enter Reference Mode.

6. Push preferred button to store the setting and push “Store Here”.
7. Push the Toggle button to return to Manual Mode.

Setting can be changed by selecting one of the four Increment Setting buttons and changing the setting by using the Up and Down arrow buttons.

8. Push the “Store Here” button to store the new setting.

NOTE: The new reference setting is only stored in temporary memory and will return to the default value when the Accuset is powered off and back on. To permanently store the new setting, enter Configuration Menu #1 and push the “Save”, then the “Save” button from the Save Settings menu. Accuset will now keep the new setting until it is readjusted or the Accuset is reset to factory defaults.

SECTION 3 ACCUSET 2 TROUBLESHOOTING

3.1 Control Lights

Lights are provided on the control front panel and the motor control assembly to help diagnose up/down problems should they occur.

Two indicator lights are provided on the back of the front control panel. If power is supplied to the control panel, the red power indicator light will be illuminated.

The drum switch indicator illuminates when the up/down drum switch is engaged.

The light will illuminate **green** with the drum switch in the **up position** and **red** with the drum switch in the **down position**.

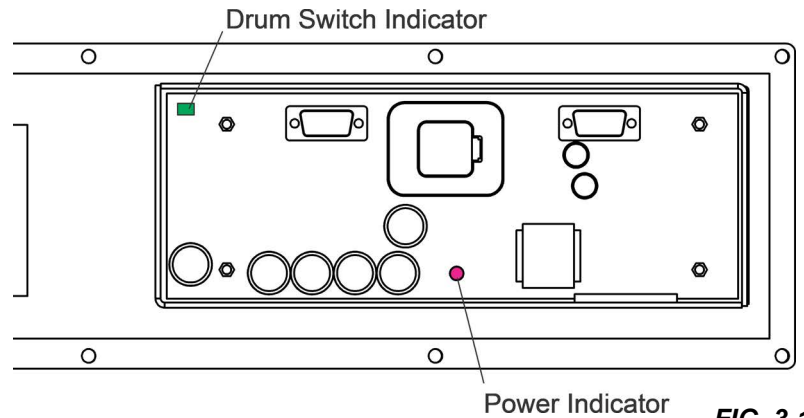


FIG. 3-1

Diagnostic lights are provided on the motor control module.

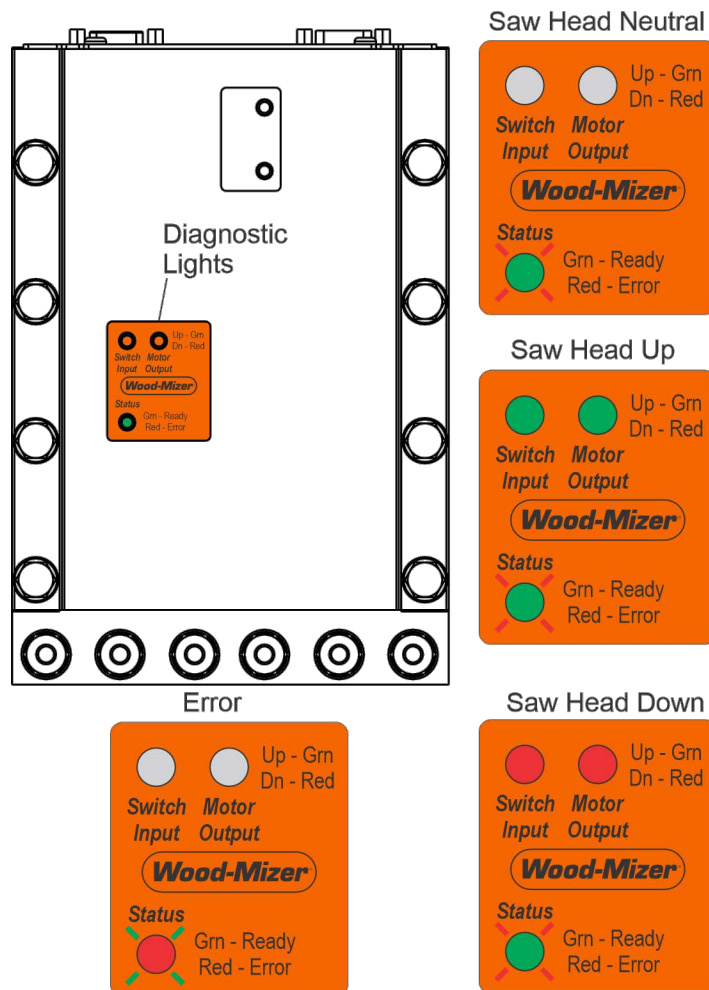
When the saw head is in neutral (not moving up or down), the Status light is green, with a flash of red.

When the up/down drum switch is moved to the up position, the switch and motor lights are green.

With the up/down drum switch in the down position, the switch and motor lights are red.

If an error occurs, the status light will turn red, with a flash of green.

A corresponding error message will be displayed to provide more detail about the problem.



SM0342-1

3.2 Error Messages

Possible causes for display error messages are provided below.

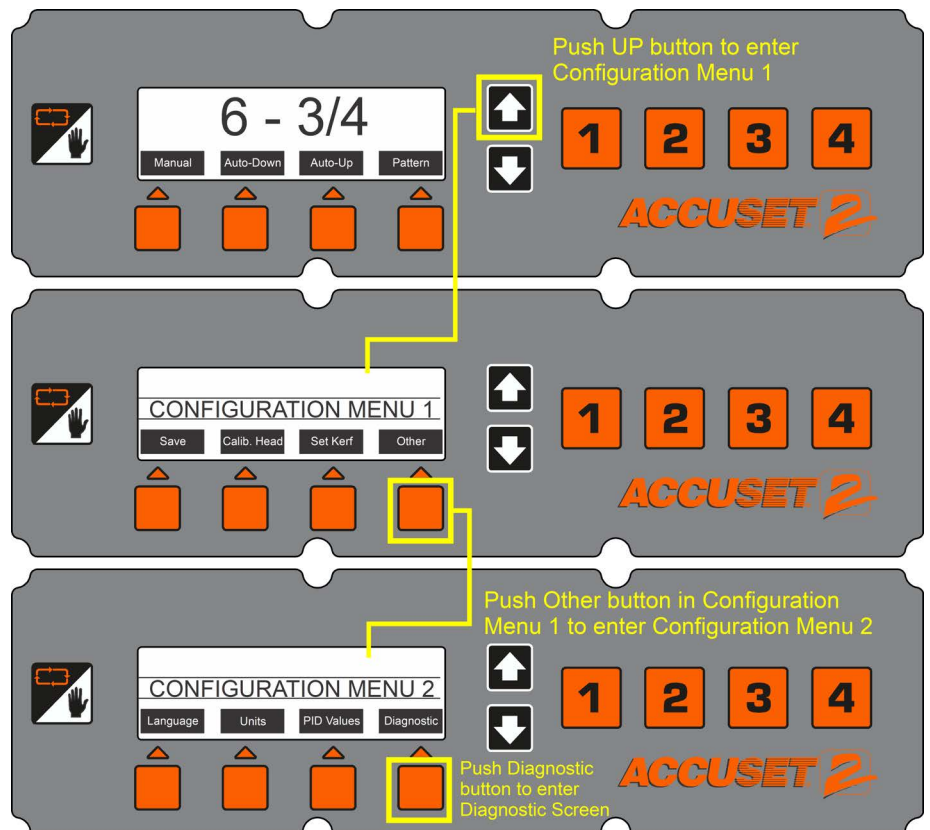
Error	Possible Cause(s)
CHECK TRANSUCER	Defective or loose transducer cable
	Defective transducer
MOTOR CURRENT	Excessive current draw on Up/Down motor caused by mechanical bind in saw head movement
	Short in up/down motor wires
VOLTAGE ERROR	Low voltage at the H-bridge or HMI (front panel)
	Weak battery
	Over-charging alternator
	Loose connections
CHECK BREAKER OR CABLE	Tripped Up/Down circuit breaker
	Defective or loose H-bridge communication (splitter) cable

TABLE 3-0

3.3 Diagnostic Screen

The diagnostic screen can be used to help diagnose battery, up/down and power feed potentiometer problems should they occur.

1. Push the Up button while in Manual Mode to display Configuration Menu 1.
2. Select Other to display Configuration Menu 2.
3. Push the Diagnostic button to display the Diagnostic Screen.



3H0989-8

FIG. 3-2

The Diagnostic Screen is shown in FIG. 3-3.

Battery Voltage. This shows battery voltage as read by the H-Bridge.

Controller Voltage. This shows battery voltage as read by the front panel.

Motor Current. Amperage of the up/down motor.

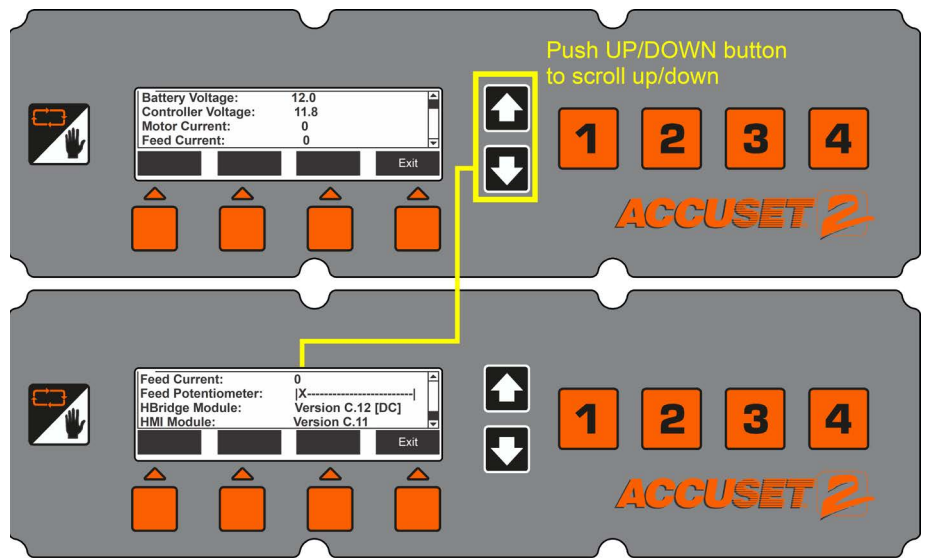
Feed Current. Amperage of power feed motor.

Feed Potentiometer. This tests input signal of the power feed potentiometer. Turn the power feed potentiometer to check if it moves smoothly.

HBridge Module. This is the H-Bridge software revision.

HMI Module. This is the HMI module software revision.

3.4



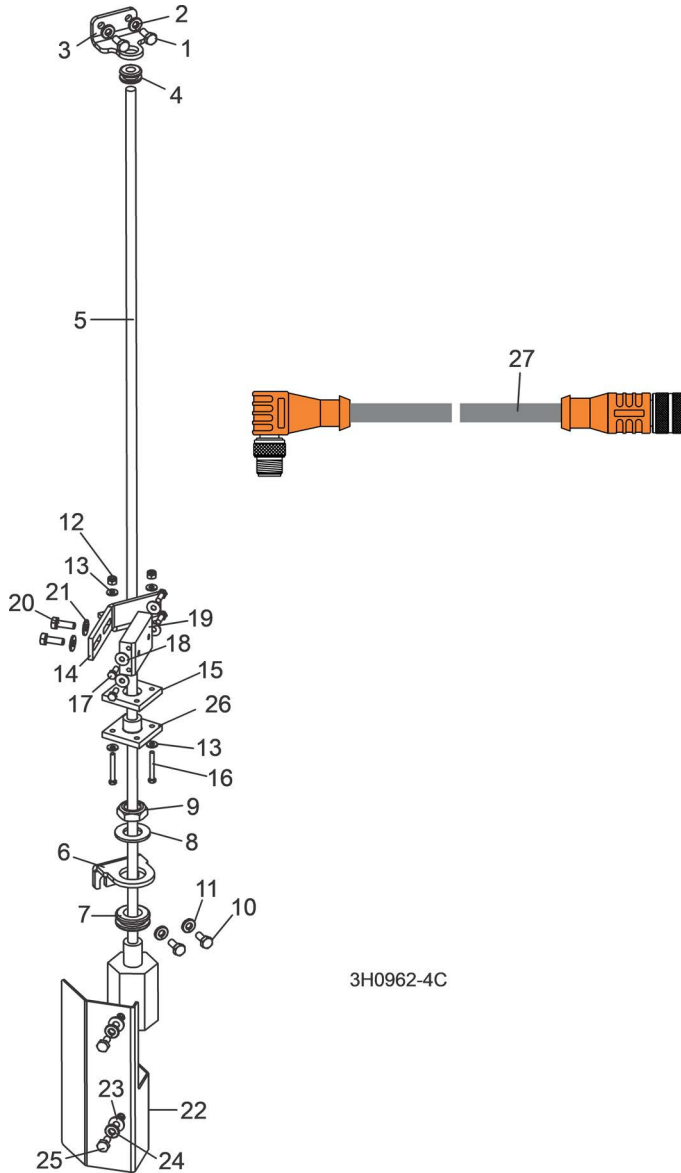
3H0989-9
FIG. 3-3

SECTION 4 REPLACEMENT PARTS

4.1 Accuset 2 Kit, Complete

REF	PART #	DESCRIPTION	COMMENTS	QTY.
Order a Sensor and Control Kit below to install Accuset to LT30/40/50HD non-remote sawmills:				
	006012	SENSOR KIT, ACCUSET TRANSDUCER FIELD-INSTALLED		1
		Sensor Parts	(See Section 4.1)	
	035448	Template, Accuset Sensor Mount		1
	069654	CONTROL KIT, ACCUSET 2 FIELD-INSTALLED		1
	053051	Control Parts	(See Section 4.7)	
	053082	Bag Assembly, Accuset 2 Installation Kit		1
	M1516	Manual, Accuset 2 Option		1

4.2 Sensor Assembly



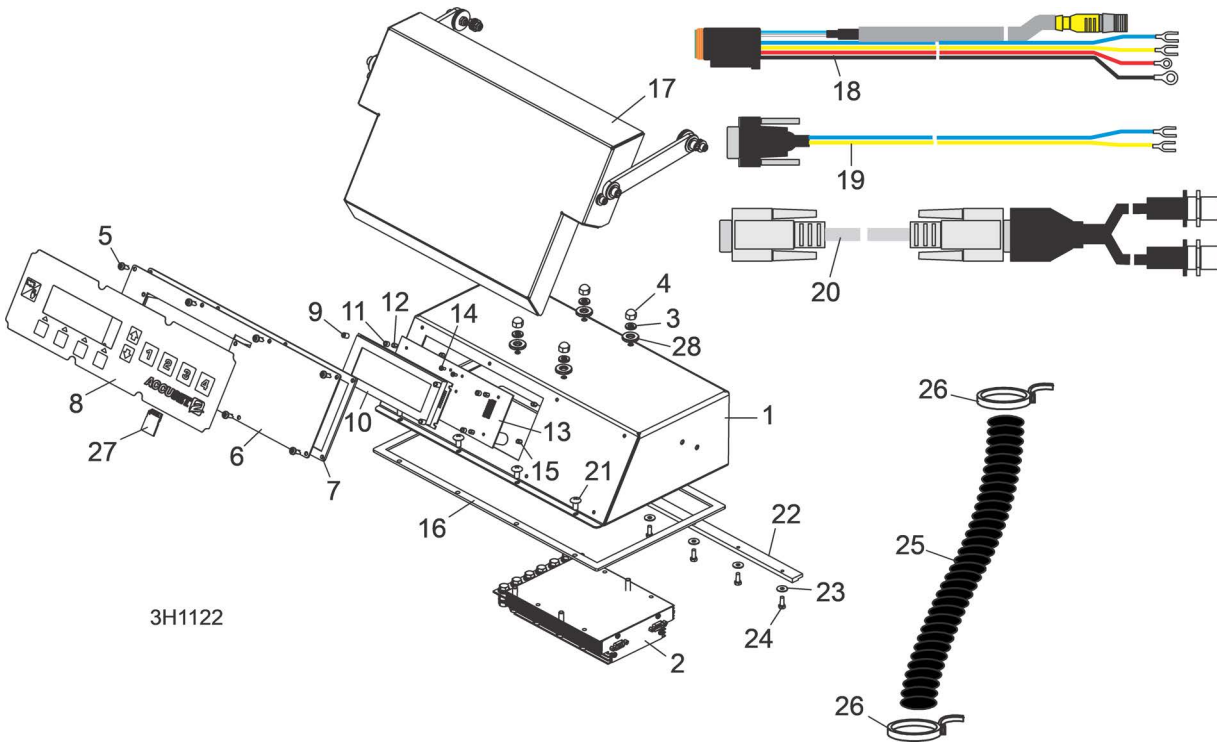
REF	PART #	DESCRIPTION	COMMENTS	QTY.
	025019	TRANSDUCER ASSEMBLY, ACCUSET	Available in assemblies only.	1
1	F05005-86	Screw, 1/4-20 x 5/8" Hex Head Bolt		2
2	F05011-14	Washer, 1/4" Split Lock		2
3	035560	Bracket, Upper Sensor Mount		1
4	025248	Grommet, 3/8" ID Rubber		1
	025246	Sensor Assembly, Accuset Transducer	Available in assemblies only.	1
5	038659	Sensor, Balluff Transducer Style Z		1
6	035544	Bracket, Lower Sensor Mount		1
7	025247	Grommet, 3/4" ID Rubber		1
8	025250	Washer, 3/4" ID Nylon		1
9	F05010-171	Nut, 3/4-16 Nylon Lock		1
10	F05005-86	Screw, 1/4-20 x 5/8" Hex Head Bolt		2
11	F05011-14	Washer, 1/4" Split Lock		2

4 Replacement Parts

Sensor Assembly

REF	PART #	DESCRIPTION	COMMENTS	QTY.
12	F05010-169	Nut, #8-32 Hex Nylon Lock		2
13	F05011-41	Washer, #8 SAE Flat		4
14	035444	Bracket, Sensor Magnet Mounting		1
15	038658	Magnet, Balluff Transducer		1
16	F05004-291	Screw, #8-32 x 1 1/4" Hex Head Stainless Steel		2
17	F05004-27	Screw, #10-24 x 1/2" Hex Head		4
18	F05011-18	Washer, #10 SAE Flat		4
19	035440	Block, Sensor Magnet Mounting		1
20	F05005-1	Bolt, 1/4-20 x 3/4" Full Thread Hex Head		2
21	F05011-11	Washer, 1/4" SAE Flat		2
	F05089-8	Wire Tie, 3/16" x 10" Black UV		3
	003184	Cover Kit, Lower Accuset Sensor		1
22	038987	Cover Weldment, Lower Accuset Sensor		1
23	F05011-11	Washer, 1/4" SAE Flat		2
24	F05011-14	Washer, 1/4" Split Lock		2
25	F05005-15	Bolt, 1/4-20 x 1/2" Hex Head		2
	003184-1291	Instruction Sheet, Lower Accuset Sensor Cover Retrofit		1
26	071357	Bushing, Transducer Vibration Dampener		1
	006029	CABLE KIT, ACCUSET 2 TRANSDUCER REPLACEMENT		1
27	052920	Cable Assembly, Accuset 2 Transducer	Available in assemblies only.	1
	F05089-5	Wire Tie, 5/16" x 15" UV Black		3

4.3 Control Assembly



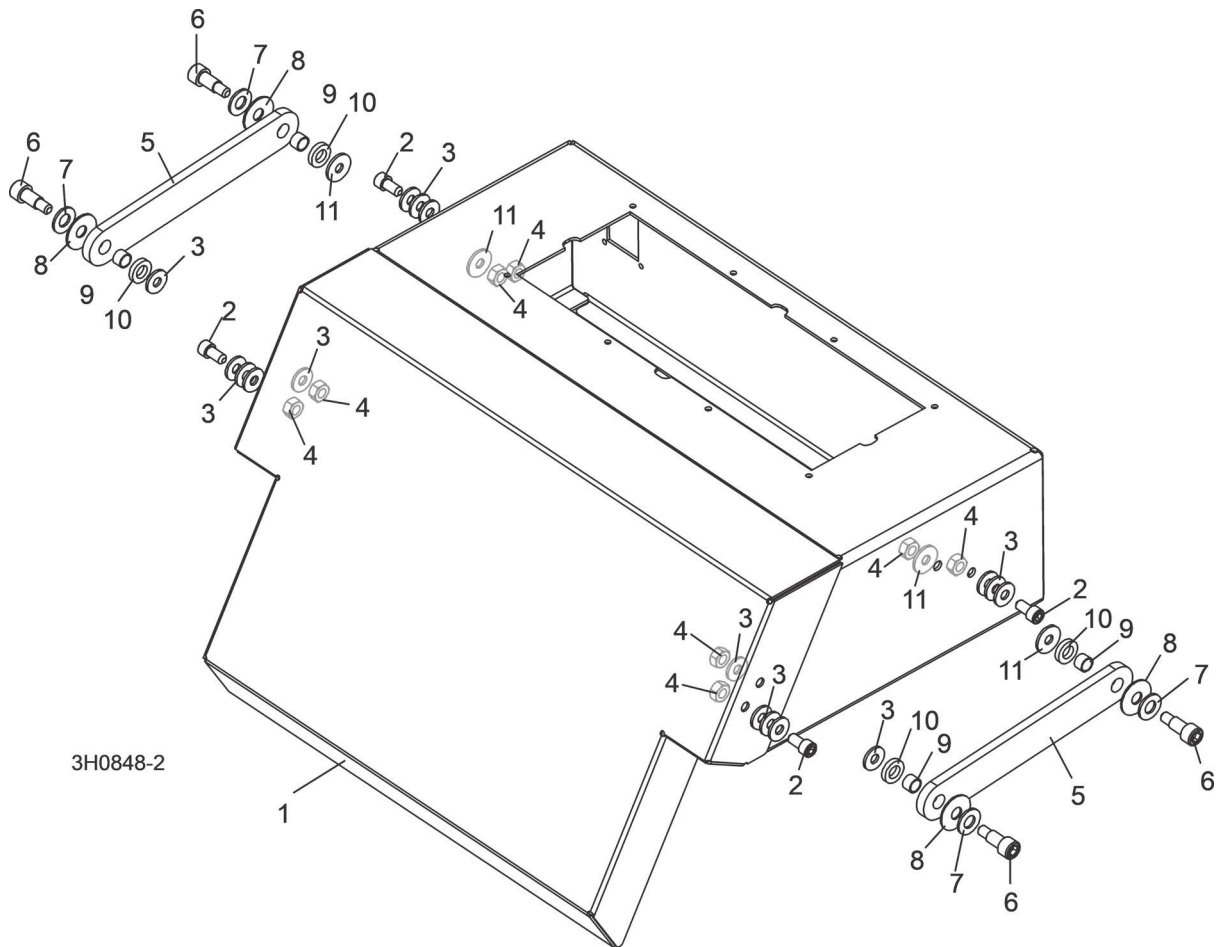
REF	PART #	DESCRIPTION	COMMENTS	QTY.
	053051	CONTROL ASSEMBLY, ACCUSET 2		1
1	003800	Box Weldment, Accuset 2 Control	Available in assemblies only.	1
2	057821LS-FR	Control Assembly, Accuset 2 Motor		1
	069556	PCB Assembly, Transient Voltage Sup- pression		1
3	F05011-14	Washer, 1/4" Split Lock		4
4	F05010-204	Nut, 1/4-20 Stainless Acorn		4
5	F05015-17	Screw, #10-24 x 1/2" Phillips Head		8
	069649	Panel Assembly, Accuset 2 Modular Front		1
6	055929	Panel Weldment, AccuSet 2 Front Mod- ule		1
7	024870	Gasket, Accuset Front Panel		1
8	052874	Switch, Accuset 2 Membrane		1
9	069650	Spacer, 1/4" OD x 5/16" Long Nylon		4
10	052900-1	Display, Accuset 2 Front Panel		1
11	024864	Spacer, 1/8" ID x 1/4" OD x 3/16" Long		4
12	024863	Spacer, 1/4" Hex Tapped		4
13	069662	PCB Assembly, Accuset 2 Replacement Control		1
14	F05005-183	Screw, #4-20 x 1/4" T10 Self-Tapping		4
15	024863	Spacer, 1/4" Hex Tapped		4
16	015980	Gasket, Accuset Control Box		1
17		Cover Parts	(See Section 4.4)	
18	053036	Harness Assembly, Accuset 2 LT40/70 HMI		1
19	053037	Cable Assembly, LT40/70 Bridge Bypass		1
20	053696	Cable Assembly, Dual M12 to D-Sub		1

4 Replacement Parts

Control Assembly

REF	PART #	DESCRIPTION	COMMENTS	QTY.
21	F05015-17	SCREW, #10-24 X 1/2" PHILLIPS HEAD		4
22	015296	BRACKET, ACCUSET HOLDOWN CLAMP		1
23	F05011-18	WASHER, #10 SAE FLAT		4
24	F05004-27	BOLT, #10-24 X 1/2" HEX HEAD		4
25	024323-62	CONDUIT, 5/8" SPLIT LOOM HIGH TEMP		8 in.
26	F05089-3	TIE WRAP, 3/16" X 6" BLACK UV		2
27	053225	CARD KIT, ACCUSET 2 SOFTWARE UPDATE		1
28	F05011-95	WASHER, 1/4 18-8SS NEOPRENE BOND		4

4.4 Cover Assembly



3H0848-2

REF	PART #	DESCRIPTION	COMMENTS	QTY.
1	016703	COVER, ACCUSET CONTROL		1
2	F05005-148	SCREW, 1/4-20 X 1/2" STAINLESS SOCKET HEAD		4
3	F05011-11	WASHER, 1/4" SAE FLAT		16
4	F05010-156	NUT, 1/4-20 HEX HALF NYLON LOCK		8
5	016704	ARM, ACCUSET COVER LINK		2
6	F05006-69	BOLT, 5/16" X 1/2" SHOULDER 1/4-20 THREAD		4
7	F05011-17	WASHER, 5/16" SAE FLAT		4
8	F05011-93	WASHER, 5/16" BELLEVILLE		4
9	016655	BUSHING, 5/16" ID X 3/8" OD X 1/4" LONG BRONZE		4
10	F05011-92	WASHER, 5/16" FLAT NYLON		4
11	F05011-12	WASHER, 1/4" FENDER		4

SECTION 5 ELECTRICAL INFORMATION

5.1 Super Model Sawmill:

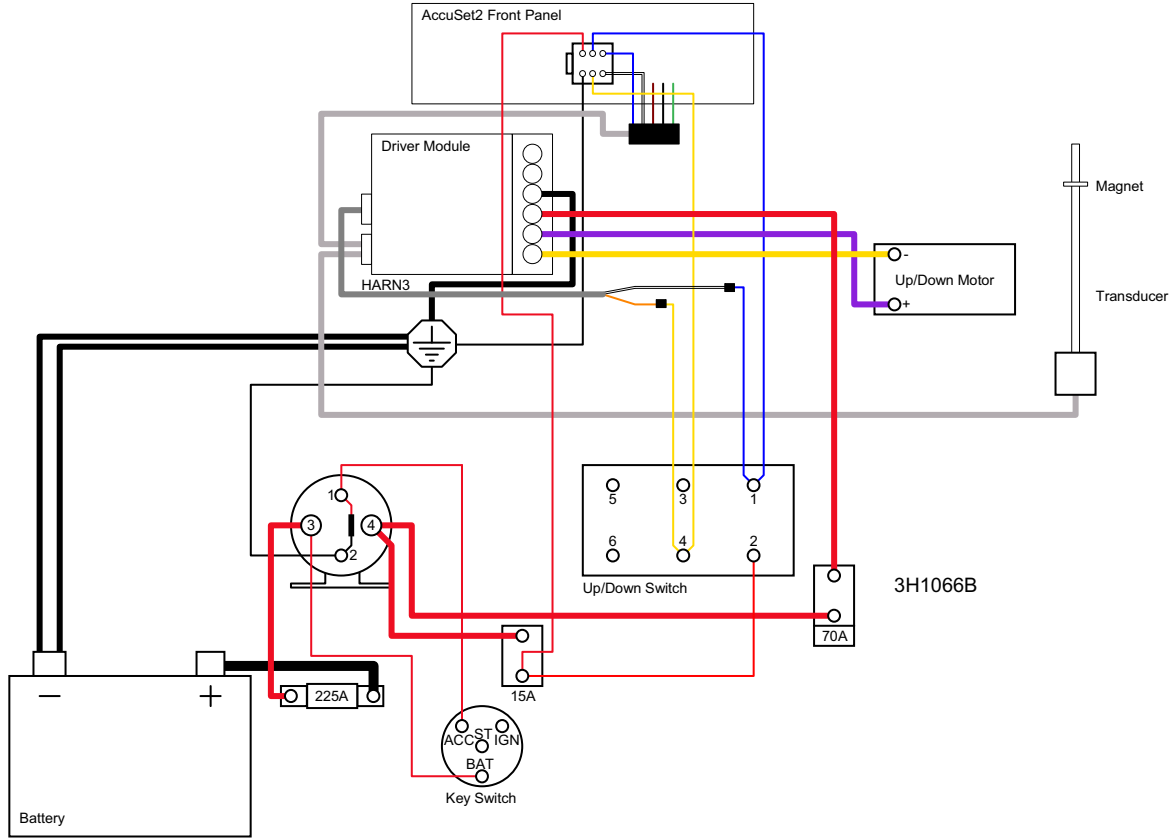


FIG. 5-1

5.2 Standard Model Sawmill

*Red wire moved to front terminal of breaker 11/03/08

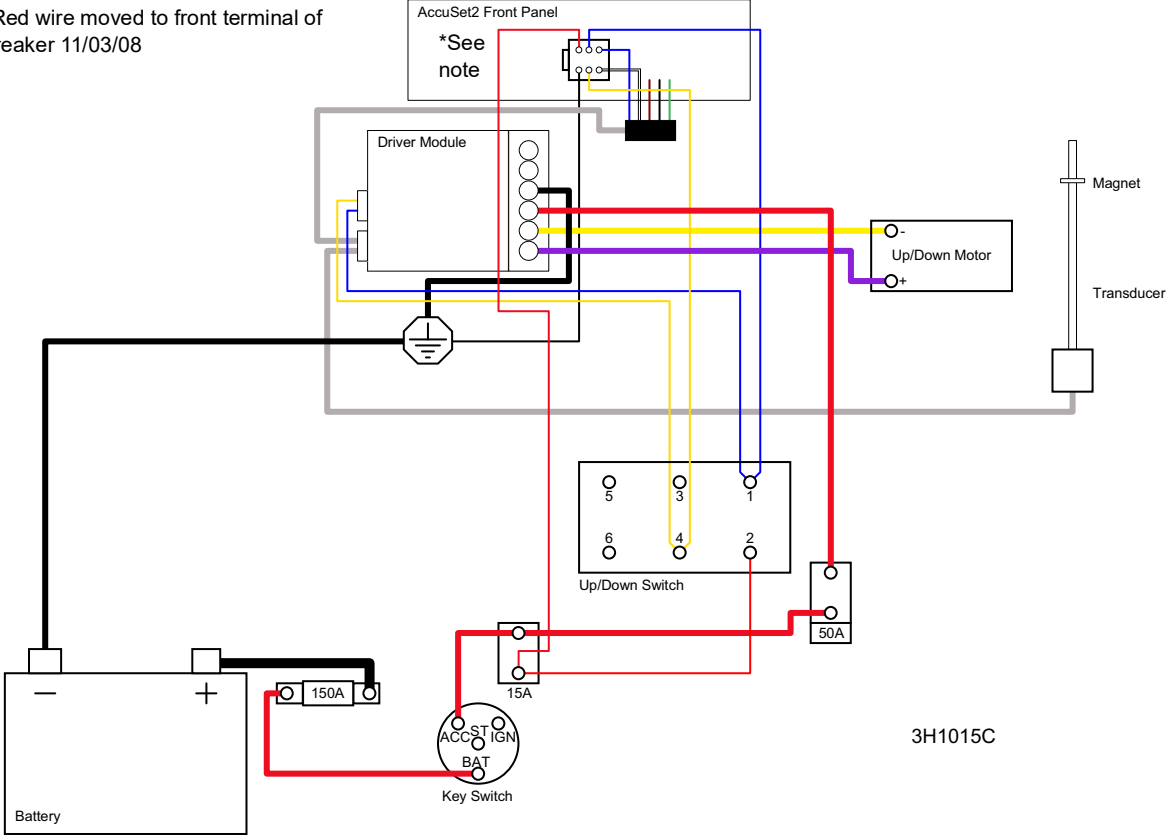


FIG. 5-2

5.3 Super Wireless Model Sawmill :

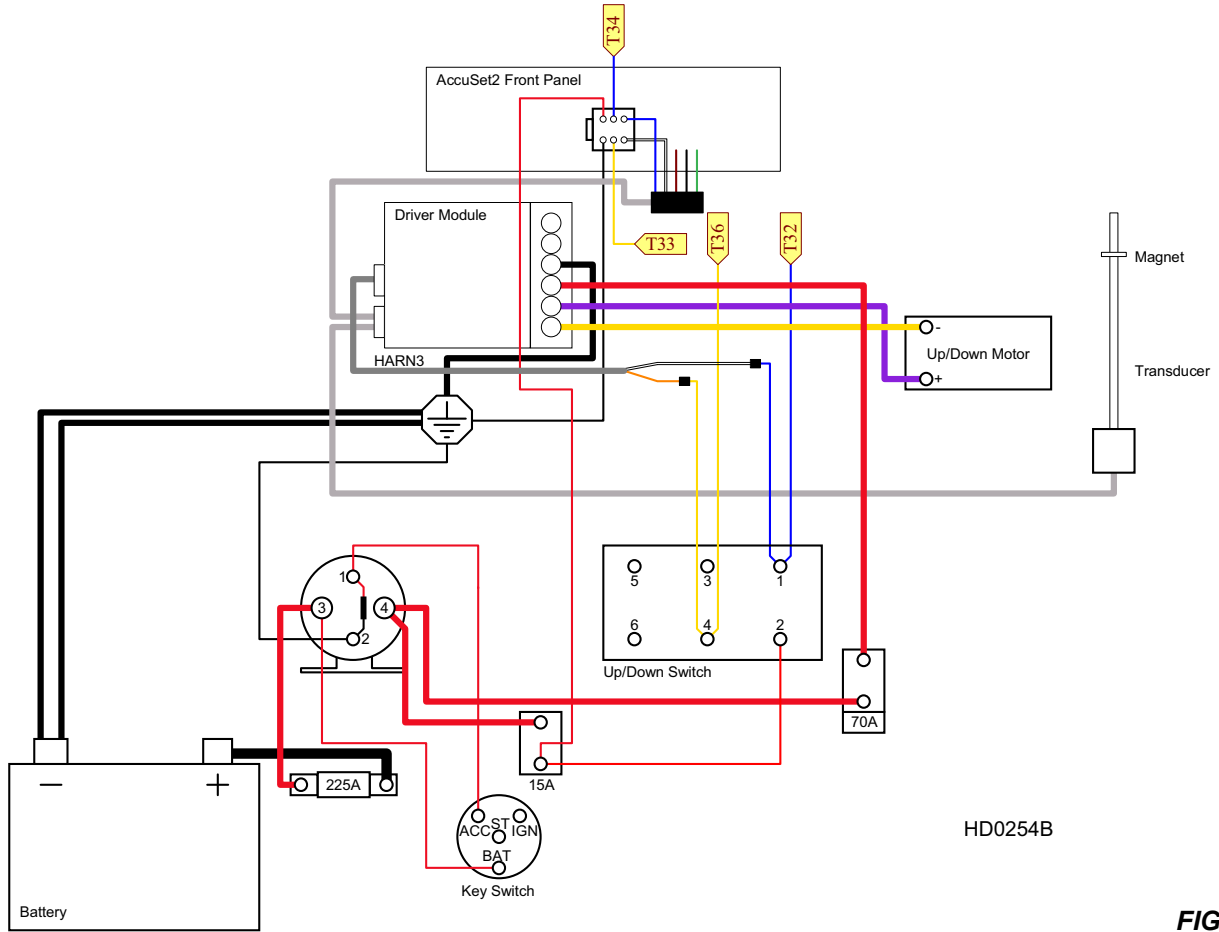


FIG. 5-3