

LT70 Remote Accuset 2

Safety, Operation, Maintenance & Parts Manual

ASET2 for LT70 Remote rev. A.00 - C.01



Safety is our #1 concern! Read and understand all safety information and instructions before operating, setting up or maintaining this machine.

October 2007

Form #1523



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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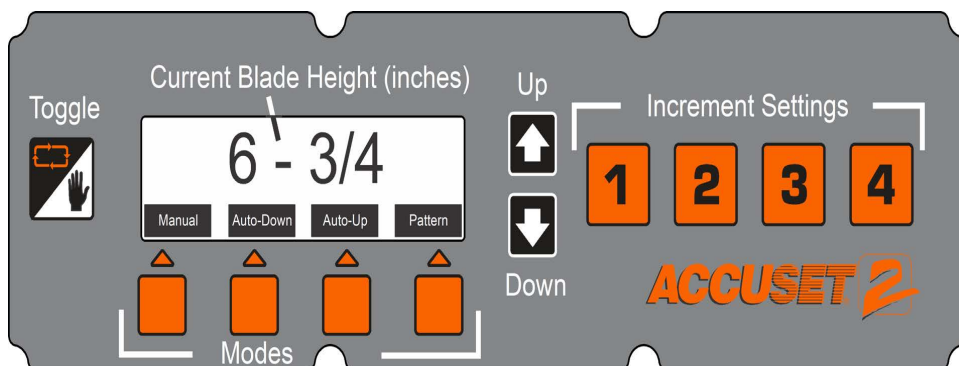
SECTION 1 ACCUSET SETUP AND OPERATION

1.1 Control Setup

The Accuset control starts in Manual Mode by default. See FIG. 1-1 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.



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FIG. 1-1

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. Save the new contrast setting by pushing the Up arrow button and push Save Settings, then Save

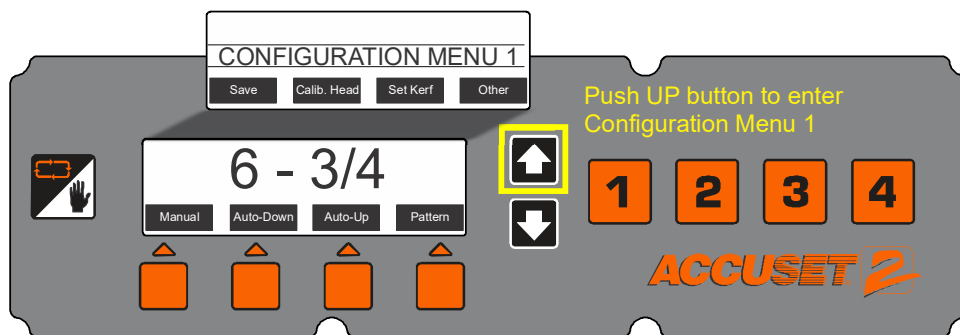
Startup Configuration

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.

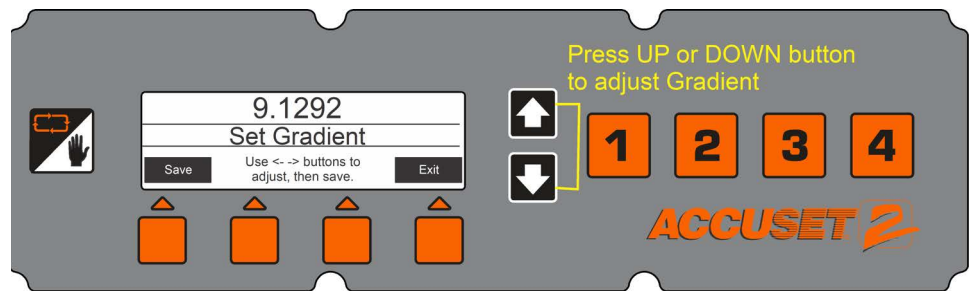
NOTE: If the Accuset has been installed in the field, the transducer replaced or the Accuset control has been reset to Factory Settings, the Gradient Setting should be adjusted.



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FIG. 1-2

Gradient Adjustment

1. Enter the Configuration Menu 1.
2. Push the button labeled "Calibrate Head", (FIG. 1-2) 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 label shown on the sensor label (use the number labeled "us/in").
4. Push the Save button to store the new Gradient Setting.



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FIG. 1-3

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.

NOTE: Although you can use the Offset value to adjust the Accuset control, it is recommended that you use the Press At 12 Inches setting to make this adjustment. The Offset value is provided for diagnostic reasons and should not need to be adjusted.

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.

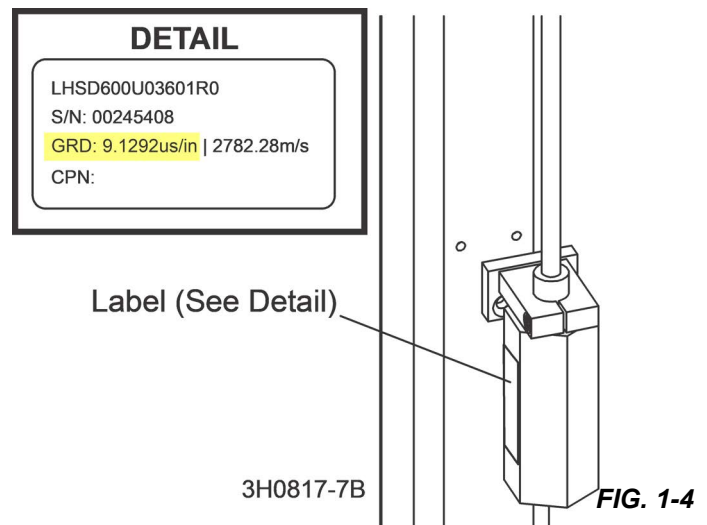
Setting the Kerf

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.



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FIG. 1-4

1

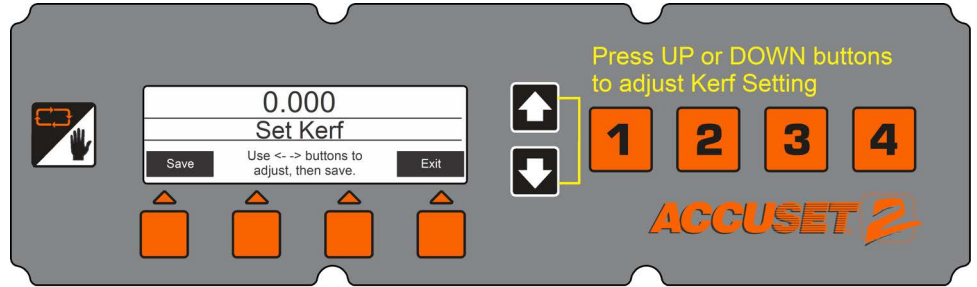
Setup & Operation

Language, Units, PID Values, and Diagnostic

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. 1-5..

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.



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FIG. 1-5

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.

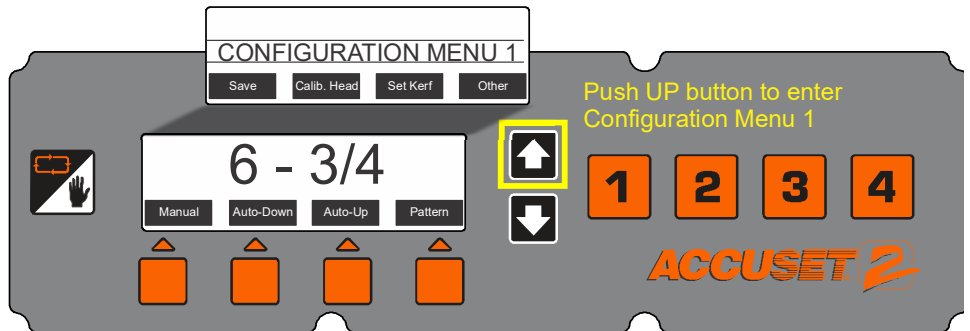
| Blade Thickness | Blade Style | Kerf Setting |
|-----------------|-------------|----------------|
| .042 | 10S | 0.084 (2.2 mm) |
| .045 | 9S | 0.090 (2.3 mm) |
| | 10S | 0.095 (2.5 mm) |
| .055 | 10S | 0.111 (2.9 mm) |

TABLE 1-1

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.



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FIG. 1-6

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.
3. 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.

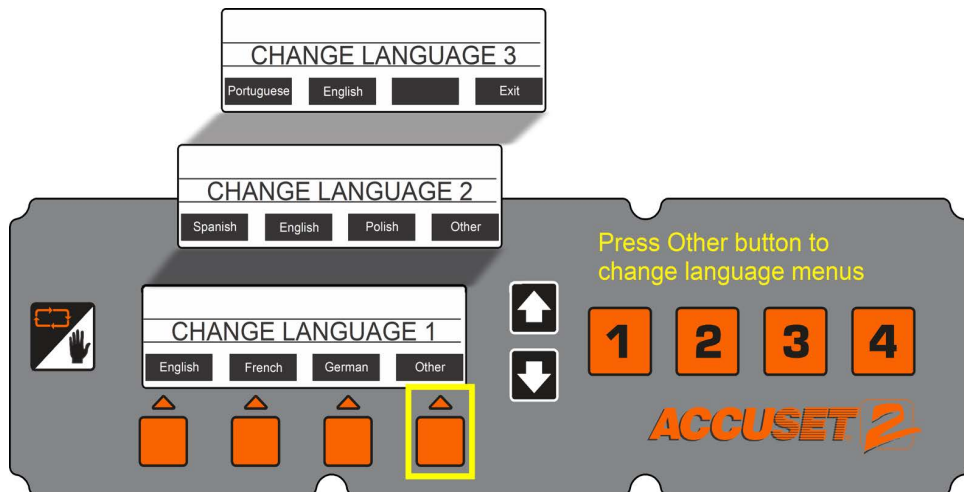
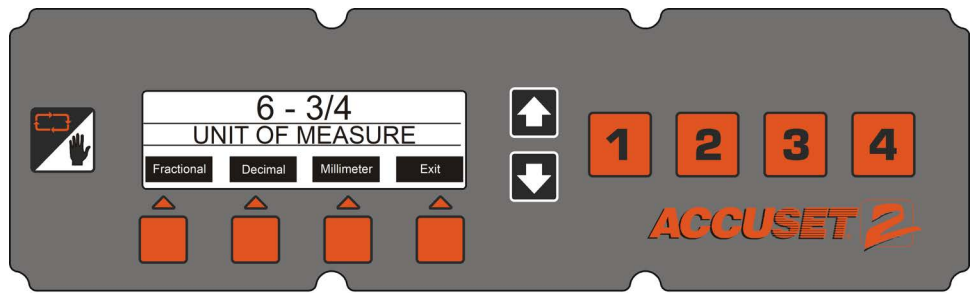


FIG. 1-7

PID (Proportional - Integral - Differential) Values. These settings are used 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.



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FIG. 1-8

1. Press the Units button from Configuration Menu 2.

The factory default PID value settings are shown below. Alternate settings are provided for LT70HD electric model sawmills. See Table 1-2.

2. Press the Save button after making the desired PID Value adjustments.
3. Go to the desired Accuset mode.
4. Test the performance of th new settings.

If the new settings cause undesirable results, reset Accuset to the factory defaults.

The factory default PID value settings are shown below. Alternate settings are provided for use with LT70E25 electric sawmills.

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

1. If On, turn the key switch to OFF.
2. Press and hold the Toggle button.
3. 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.

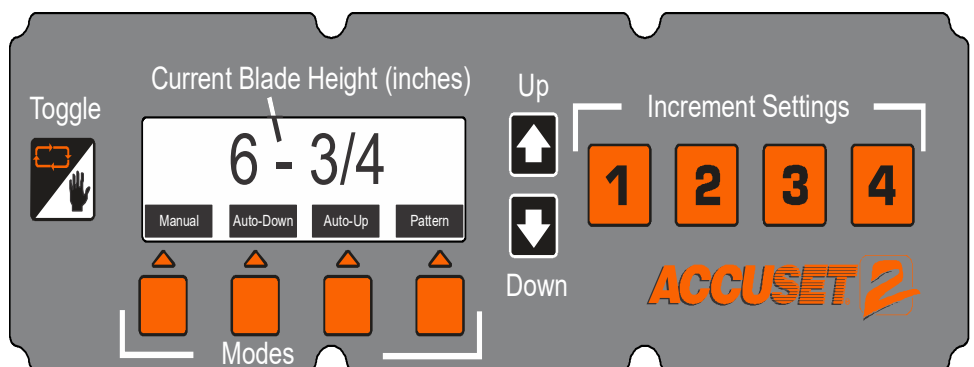
After making the desired PID Value adjustments, push the Save button and go to the desired Accuset mode. Test how the changes affect Accuset performance. If the new settings cause undesirable results, reset Accuset to the factory defaults.

1.2 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



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FIG. 1-9

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...

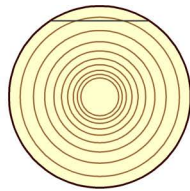
Auto-Up Mode - This mode *references the current blade height* and increments the blade **up**. The Accuset will automatically move the saw head up and stop at the next increment when you push the drum switch up. Auto-Up mode is often used to raise the saw head in large increments when preparing to cut 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.

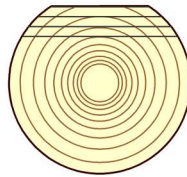
Pattern Mode - This mode *references the bed surface* and allows you to program up to six different increments calculated up from the bed. The sixth (top) increment repeats itself up to the upper limit of the saw head travel. The bottom increment indicates the size of the remaining cant when the pattern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

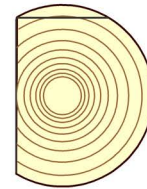
1.3 Using Auto-Down Mode



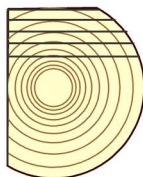
In Manual Mode, position blade for trim cut. Switch to Auto-Down and make trim cut.



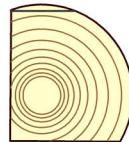
Cut first face as desired in Auto-Down Mode then turn log.



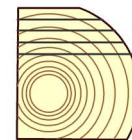
Switch to Manual Mode and position blade for trim cut. Switch to Auto-Down and make trim cut.



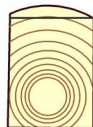
Cut second face as desired in Auto-Down Mode then turn log.



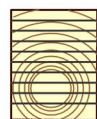
Switch to Manual Mode and position blade for trim cut. Switch to Auto-Down and make trim cut.



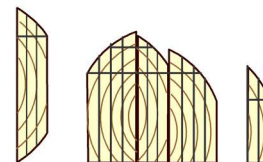
Cut third face as desired in Auto-Down Mode then turn log.



Switch to Manual Mode and position blade for trim cut. Switch to Auto-Down and make trim cut.



Cut final face as desired in Auto-Down Mode.



Switch to Manual Mode and edge flitches.

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FIG. 1-10

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.

1.4 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.

1.5 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.

BLADE LOCATION SYMBOLS

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.

| Blade Positions | Symbols |
|----------------------------|---------|
| Top 4 + increment settings | > |
| 5th increment setting | + |
| Last increment setting | - |

- 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").

- a. Push the +/- Drop button to enter pattern edit mode. The top pattern increment is now highlighted.
- b. 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.
- c. Push the Down button to fine tune the setting to exactly 1 1/8".
- d. 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.
- e. 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.
- f. Press the Save button to enter the Save Settings menu, then push the Save button.
- g. 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.

1.6 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 2 ACCUSET 2 TROUBLESHOOTING

2.1 Control Lights

Gas/Diesel (DC) Only: Lights are provided on the control front panel and the motor control assembly (located in the remote power box) to help diagnose power feed or 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 direction.

Diagnostic lights are provided on the motor control module. When the saw head is in neutral (not moving up, down, forward or in reverse), the Status light is green.

Up/Down lights: 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.

Feed lights: When the feed drum switch is moved to the forward position, the switch and motor lights are red. With the feed drum switch in the reverse position, the switch and motor lights are green.

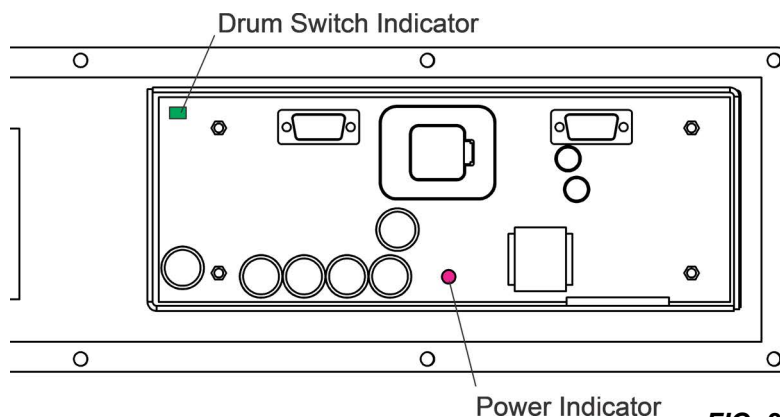


FIG. 2-1

If an error occurs, the status light will turn red. A corresponding error message will be displayed to provide more detail about the problem.

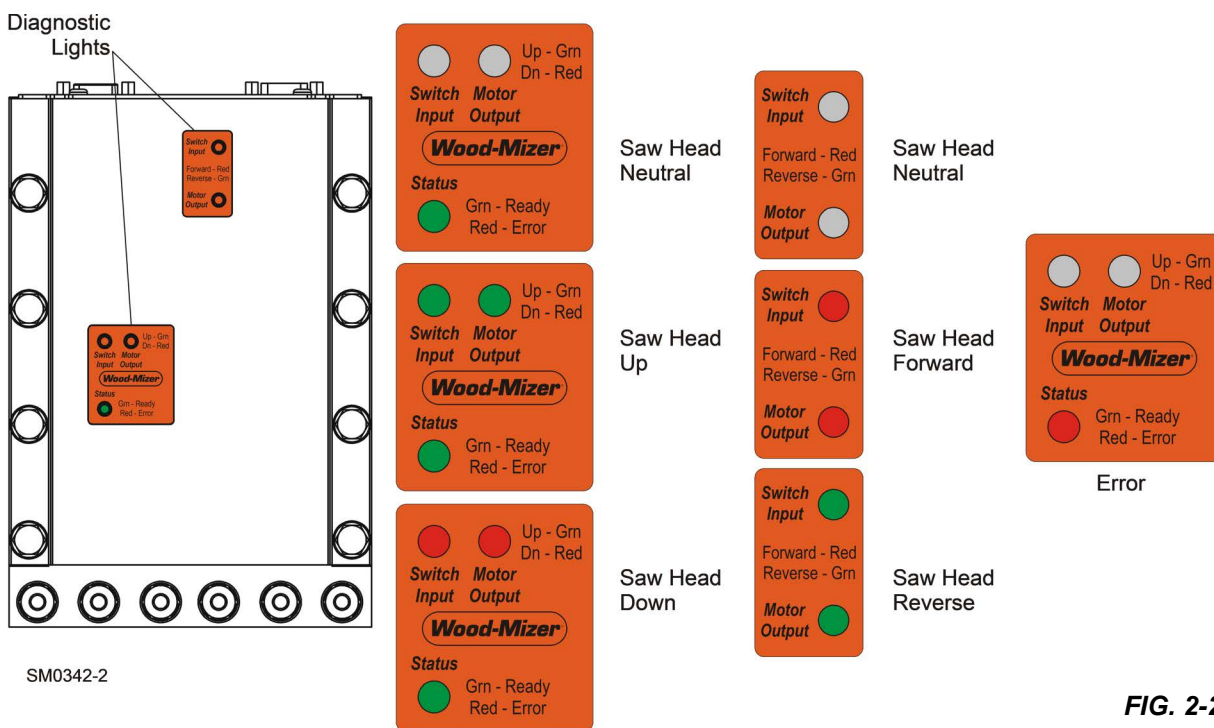


FIG. 2-2

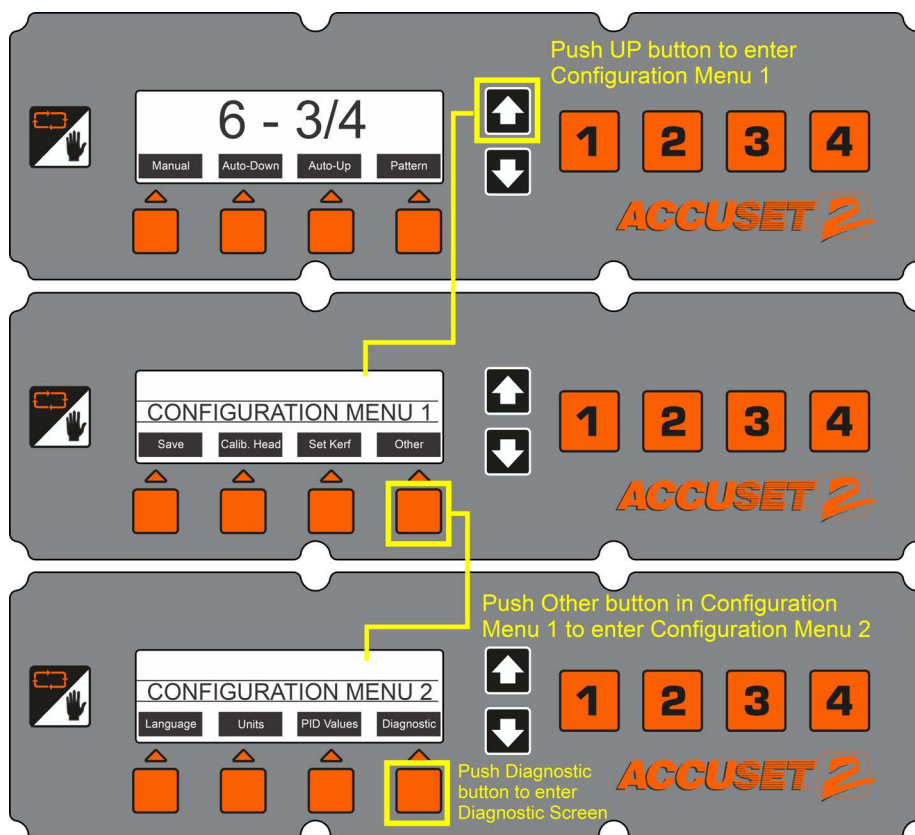
2.2 Error Messages (Gas/Diesel (DC) Only).

| 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 or defective up/down assist cylinder |
| | 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 |

2.3 Diagnostic Screen

The diagnostic screen can be used to help diagnose battery, up/down and power feed 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.



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FIG. 2-3

2 Accuset 2 Troubleshooting

Diagnostic Screen

The Diagnostic Screen is shown in FIG. 2-4.

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

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

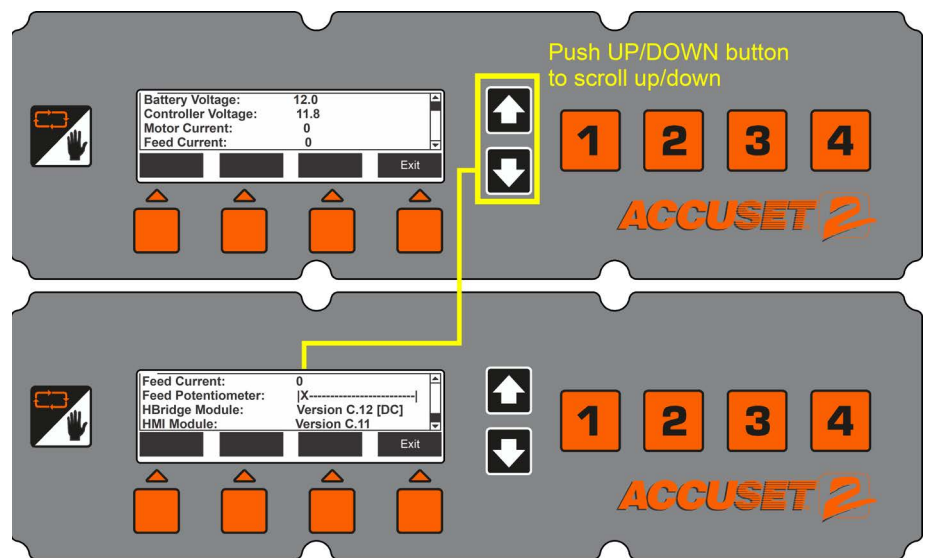
Motor Current. Amperage of the up/down motor.

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.

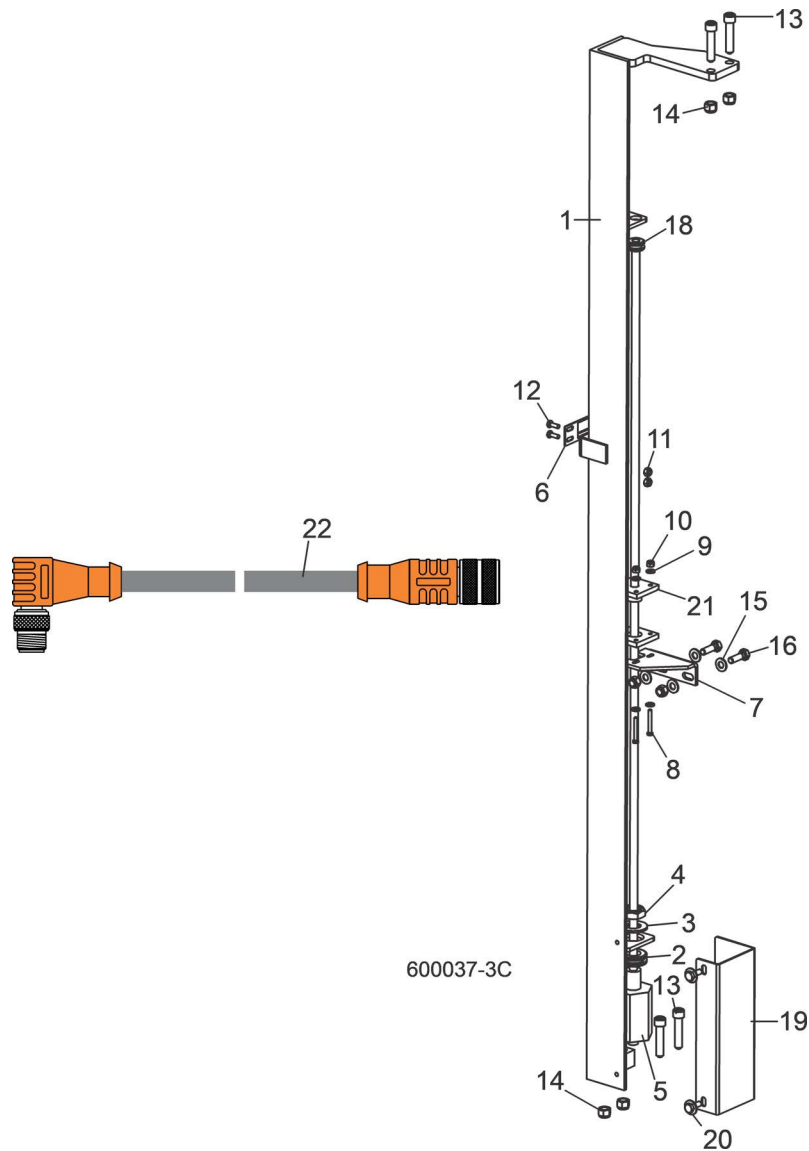
HMI Module. This is the HMI module software revision.



3H0989-9
FIG. 2-4

SECTION 3 REPLACEMENT PARTS

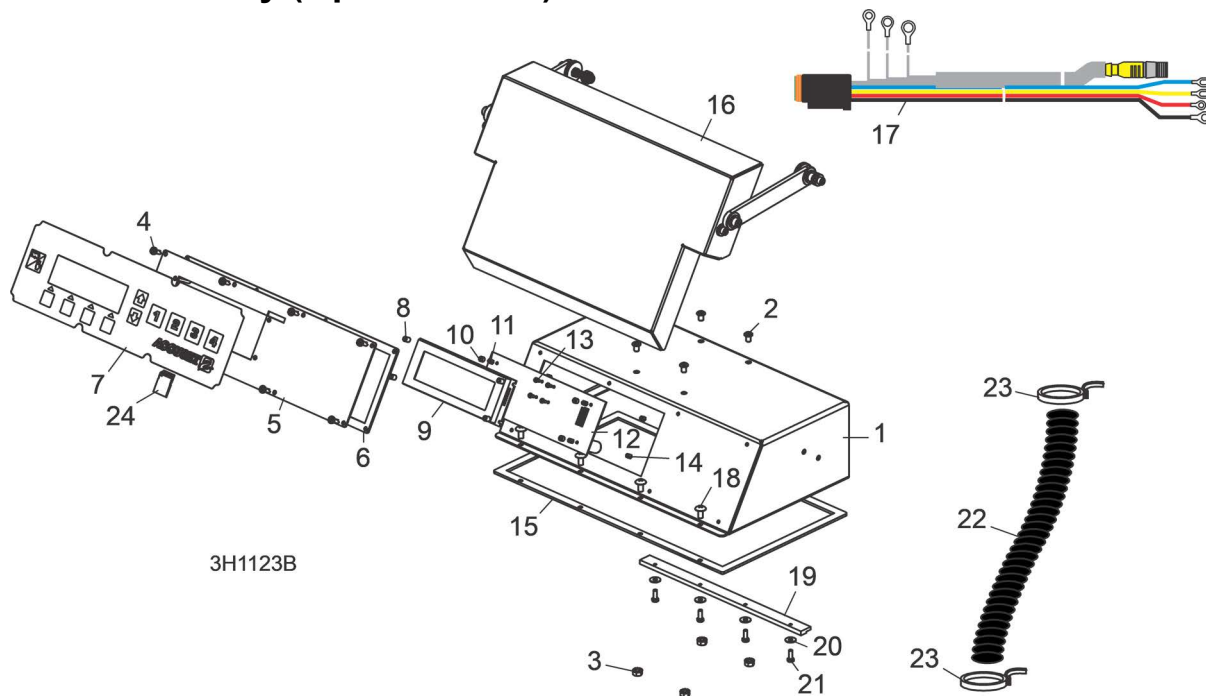
3.1 Accuset2 Sensor Assembly



| REF | PART # | DESCRIPTION | COMMENTS | QTY. |
|-----|------------|--|-------------------------------|------|
| | 034242 | TRANSDUCER ASSEMBLY, LT60/70 ACCUSET | Available in assemblies only. | 1 |
| 1 | 034239 | Mount Weldment, Transducer | | 1 |
| 2 | 025247 | Grommet, 3/4" ID Rubber | | 1 |
| 3 | 025250 | Washer, 3/4" ID Nylon | | 1 |
| 4 | F05010-171 | Nut, 3/4-16 Hex Nylon Lock Jam | | 1 |
| 5 | 038659 | Sensor, Balluff Transducer Style Z | | 1 |
| | 038658 | Magnet, Balluff Transducer | | 1 |
| 6 | 017778 | Pointer, Scale Height | | 1 |
| 7 | 033940 | Plate, Transducer Ring Mount | | 1 |
| 8 | F05004-291 | Screw, #8-32 x 1 1/4" Hex Head Stainless Steel | | 2 |
| 9 | F05011-41 | Washer, #8 SAE Flat | | 4 |

| REF | PART # | DESCRIPTION | COMMENTS | QTY. |
|-----|-------------|--|-------------------------------|----------|
| 10 | F05010-169 | Nut, #8-32 Hex Nylon Lock | | 2 |
| 11 | F05010-160 | Nut, #10-24 Hex Nylon Lock | | 2 |
| 12 | F05004-27 | Screw, #10-24 x 1/2" Hex Head Stainless Steel | | 2 |
| 13 | F05007-191 | Bolt, 3/8-16 x 1 3/4" Socket Head Stainless Steel | | 4 |
| 14 | F05010-10 | Nut, 3/8-16 Hex Nylon Lock | | 4 |
| 15 | F05011-17 | Washer, 5/16" SAE Flat | | 2 |
| 16 | F05006-1 | Bolt, 5/16-18 x 1" Hex Head | | 2 |
| 17 | F05010-58 | Nut, 5/16-18 Hex Nylon Lock | | 2 |
| 18 | 025248 | Grommet, 3/8" ID Rubber | | 1 |
| | 003185 | Cover Kit, Lower Accuset Sensor | | 1 |
| 19 | 038985 | Cover, LT70 Lower Accuset Sensor | | 1 |
| 20 | F05005-134 | Bolt, 1/4-20 x 3/4" Hex w/Conical Washer Head | | 2 |
| | 014548 | Edging, 3/8" x 1/2" Black Rubber | | .354 ft. |
| | 003184-1291 | Instruction Sheet, Lower Accuset Sensor Cover Retrofit | | 1 |
| 21 | 071357 | Bushing, Transducer Vibration Dampener | | 1 |
| | 006029 | CABLE KIT, ACCUSET 2 TRANSDUCER REPLACEMENT | | 1 |
| 22 | 052920 | Cable Assembly, Accuset 2 Transducer | Available in assemblies only. | 1 |
| | F05089-5 | Wire Tie, 5/16" x 15" UV Black | | 3 |

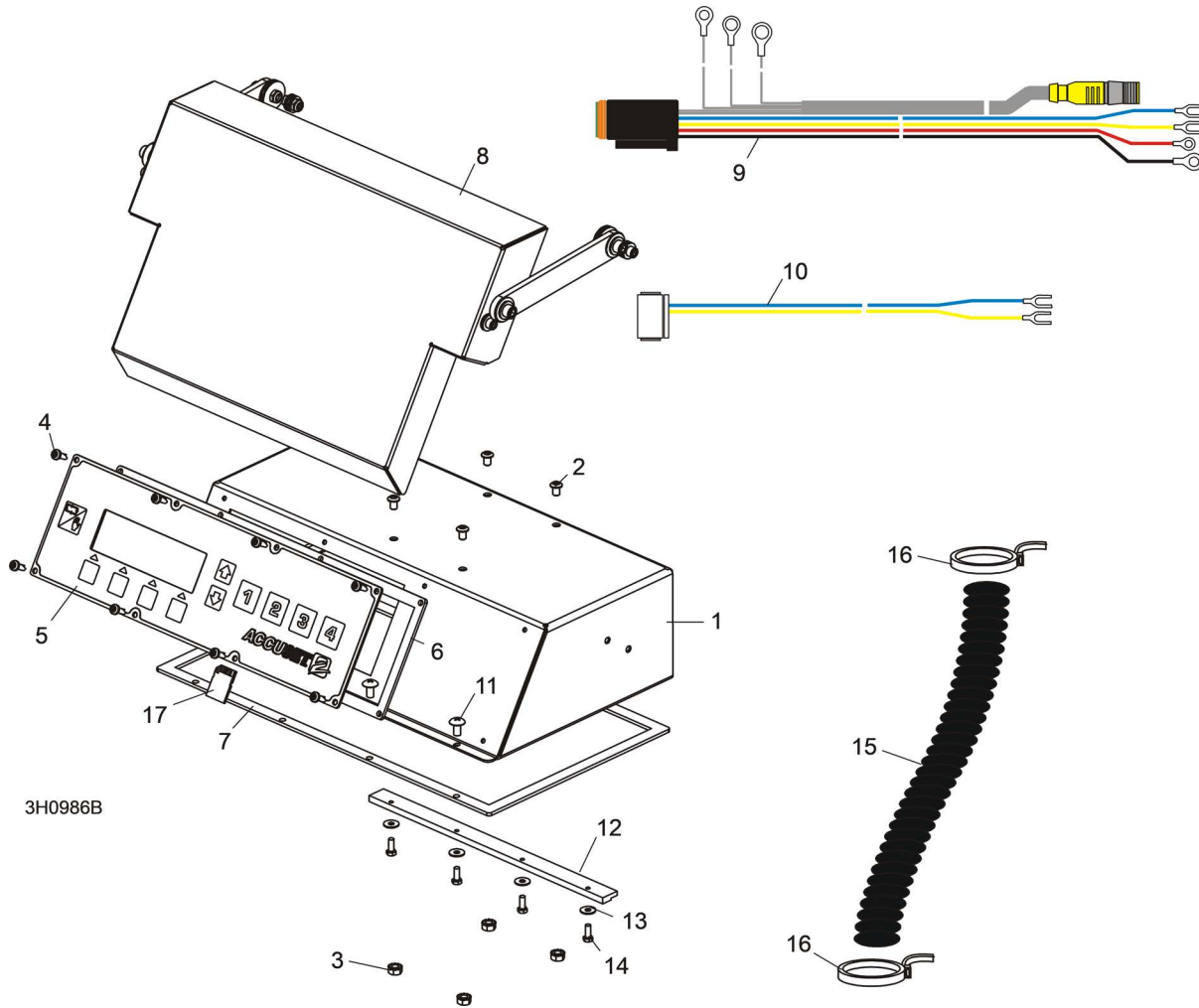
3.2 Control Assembly (Operator Box)



| REF | PART # | DESCRIPTION | COMMENTS | QTY. |
|-----|------------|---|-----------------------------------|-------|
| | 053052 | CONTROL ASSEMBLY, ACCUSET 2 REMOTE | | 1 |
| 1 | 003800 | Box Weldment, Accuset 2 Control | Available in assemblies only. | 1 |
| 2 | F05005-62 | Screw, 1/4-20 x 3/8" Socket Button Head | | 4 |
| 3 | F05010-9 | Nut, 1/4-20 Self-Locking Hex | | 4 |
| 4 | F05015-17 | Screw, #10-24 x 1/2" Phillips Head | | 8 |
| | 069649 | Panel Assembly, Accuset 2 Modular Front | | 1 |
| 5 | 055929 | Panel Weldment, AccuSet 2 Front Module | | 1 |
| 6 | 024870 | Gasket, Accuset Front Panel | | 1 |
| 7 | 052874 | Switch, Accuset 2 Membrane | | 1 |
| 8 | 069650 | Spacer, 1/4" OD x 5/16" Long Nylon | | 4 |
| 9 | 052900 | Display, Accuset 2 Front Panel | | 1 |
| 10 | 024864 | Spacer, 1/8" ID x 1/4" OD x 3/16" Long | | 4 |
| 11 | 024863 | Spacer, 1/4" Hex Tapped | | 4 |
| 12 | 069662 | PCB Assembly, Accuset 2 Replacement Control | | 1 |
| 13 | F05005-183 | Screw, #4-20 x 1/4" T10 Self-Tapping | | 4 |
| 14 | 024863 | Spacer, 1/4" Hex Tapped | | 4 |
| 15 | 015980 | Gasket, Accuset Control Box | | 1 |
| 16 | | Cover Parts | (See Section 3.6) | |
| 17 | 052950 | Harness Assembly, Accuset 2 LT40/70-R HMI | | 1 |
| 18 | F05015-17 | SCREW, #10-24 X 1/2" PHILLIPS HEAD | | 4 |
| 19 | 015296 | BRACKET, ACCUSET HOLDOWN CLAMP | | 1 |
| 20 | F05011-18 | WASHER, #10 SAE FLAT | | 4 |
| 21 | F05004-27 | BOLT, #10-24 X 1/2" HEX HEAD | | 4 |
| 22 | 024323-62 | CONDUIT, 5/8" SPLIT LOOM HIGH TEMP | | 8 in. |
| 23 | F05089-3 | TIE WRAP, 3/16" X 6" BLACK UV | | 2 |
| 24 | 053225 | CARD KIT, ACCUSET 2 SOFTWARE UPDATE | | 1 |

3.3 Control Assembly (Operator Box)

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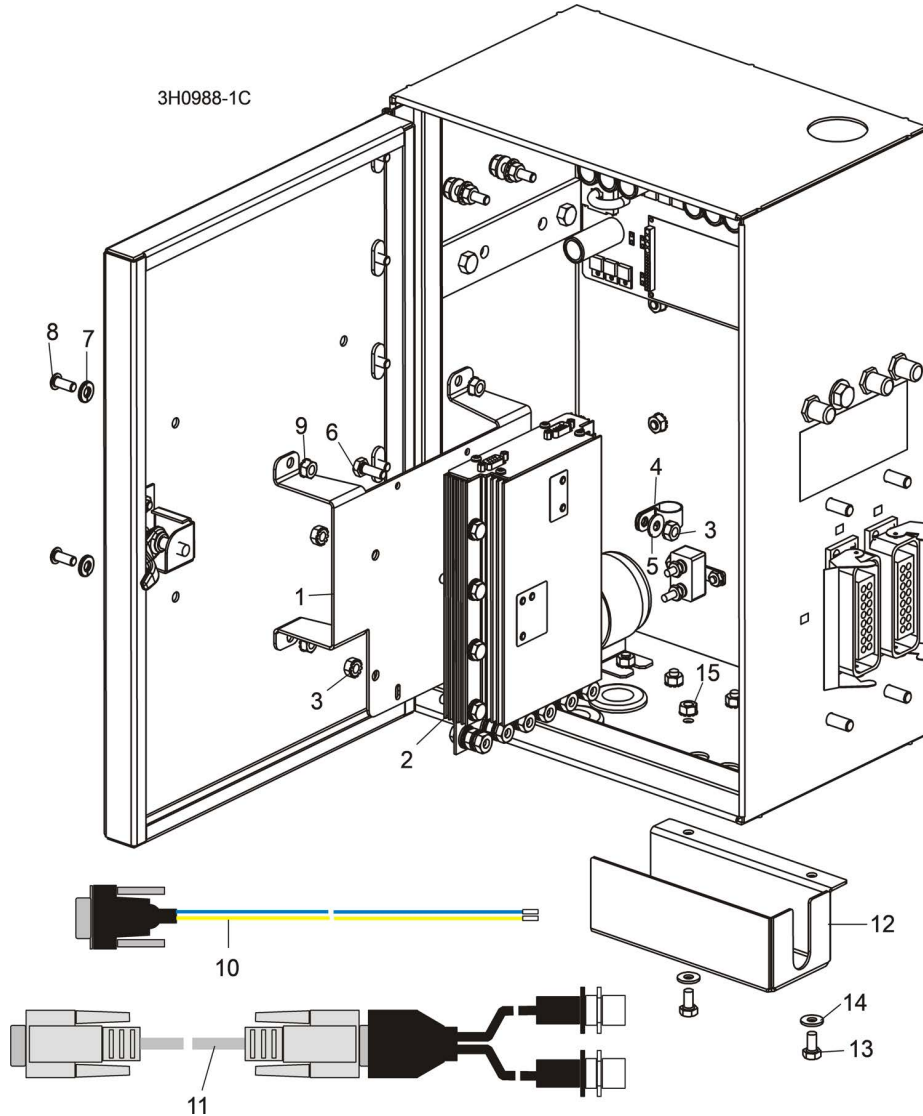


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| REF | PART # | DESCRIPTION | COMMENTS | QTY. |
|-----|-----------|---|-------------------------------|------|
| | 053052 | CONTROL ASSEMBLY, ACCUSET 2 REMOTE | | 1 |
| 1 | 003800 | Box Weldment, Accuset 2 Control | Available in assemblies only. | 1 |
| 2 | F05005-62 | Screw, 1/4-20 x 3/8" Socket Button Head | | 4 |
| 3 | F05010-9 | Nut, 1/4-20 Self-Locking Hex | | 4 |
| 4 | F05015-17 | Screw, #10-24 x 1/2" Phillips Head | | 8 |
| 5 | 053018 | Panel Assembly, Accuset 2 Front | | 1 |
| 6 | 024870 | Gasket, Accuset Front Panel | | 1 |
| 7 | 015980 | Gasket, Accuset Control Box | | 1 |
| 8 | | Cover Parts (<i>See Section 3.6</i>) | | |
| 9 | 052950 | Harness Assembly, Accuset 2 LT40/70-R HMI | | 1 |
| 10 | 053039 | CABLE ASSEMBLY, LT40/70-R HMI BYPASS (DC ONLY) | | 1 |
| 11 | F05015-17 | SCREW, #10-24 X 1/2" PHILLIPS HEAD | | 4 |
| 12 | 015296 | BRACKET, ACCUSET HOLDOWN CLAMP | | 1 |
| 13 | F05011-18 | WASHER, #10 SAE FLAT | | 4 |
| 14 | F05004-27 | BOLT, #10-24 X 1/2" HEX HEAD | | 4 |

| REF | PART # | DESCRIPTION | COMMENTS | QTY. |
|-----|-----------|-------------------------------------|----------|-------|
| 15 | 024323-62 | CONDUIT, 5/8" SPLIT LOOM HIGH TEMP | | 8 in. |
| 16 | F05089-3 | TIE WRAP, 3/16" X 6" BLACK UV | | 2 |
| 17 | 053225 | CARD KIT, ACCUSET 2 SOFTWARE UPDATE | | 1 |

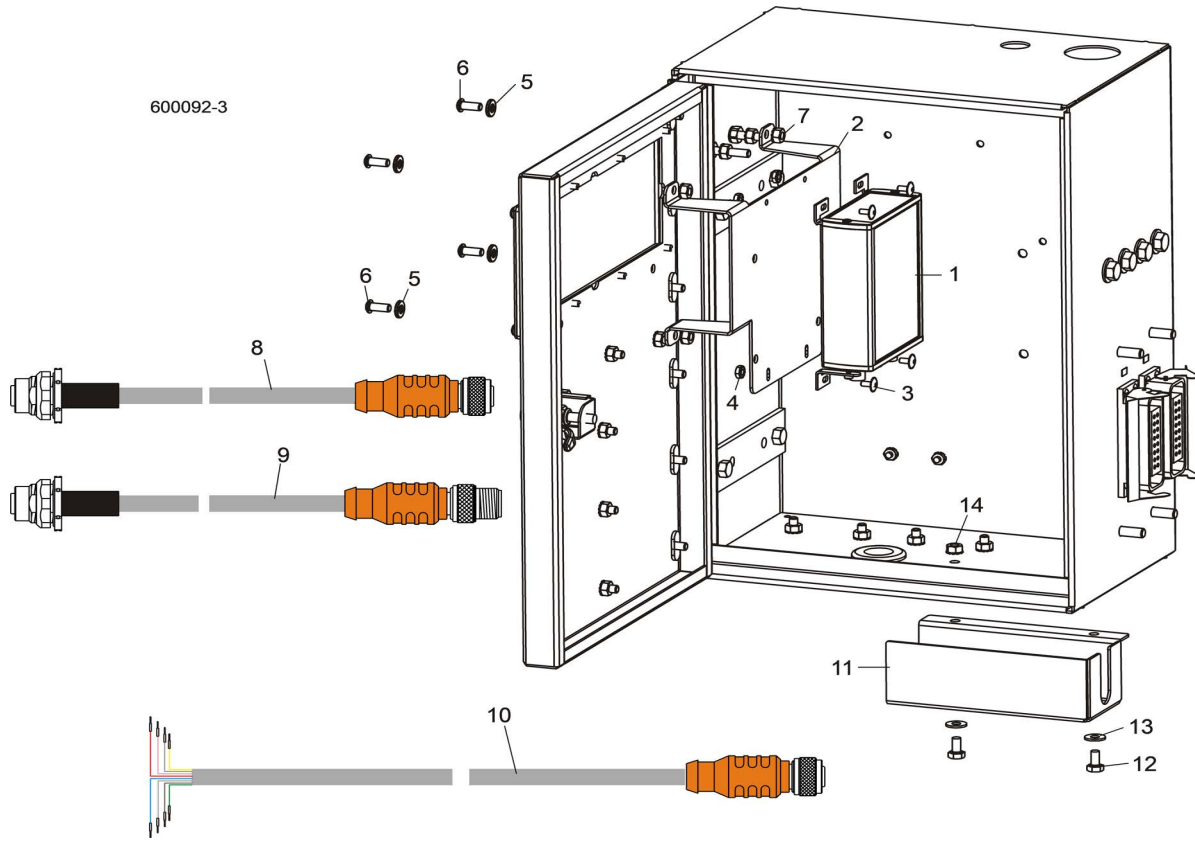
3.4 Control Assembly (DC Remote Box)



| REF | PART # | DESCRIPTION | COMMENTS | QTY. |
|-----------|-------------|---|-------------------------------|------|
| | 053050 | DRIVE ASSEMBLY, ACCUSET 2 W/BRACKET | | 1 |
| 1 | 056763 | Plate, Control Board Mounting | | 1 |
| 2 | 057821LS-FR | Control Assembly, Accuset 2 Motor | | 1 |
| | 069556 | PCB Assembly, Transient Voltage Suppression | | 1 |
| | 053204 | Suppressor Assembly, Dual 5KW Transient Voltage | Available in assemblies only. | 1 |
| 3 | F05010-9 | Nut, 1/4-20 Self-Locking Hex | | 5 |
| 4 | 010748 | Clamp, 5/8" Coated EMT | | 1 |
| 5 | F05011-11 | Washer, 1/4" SAE Flat | | 1 |
| 6 | F05005-1 | Bolt, 1/4-20 x 3/4" Hex Head Full Thread | | 1 |
| 7 | F05011-14 | WASHER, 1/4" SPLIT LOCK | | 4 |
| 8 | F05005-128 | BOLT, 1/4-20 X 5/8" STAINLESS BUTTON SOCKET HEAD | | 4 |
| 9 | F05010-9 | NUT, 1/4-20 SELF-LOCKING HEX | | 4 |
| 10 | 053214 | WIRE ASSEMBLY, REMOTE BRIDGE BYPASS | | 1 |
| 11 | 053696 | CABLE ASSEMBLY, DUAL M12 TO D-SUB | | 1 |
| | 006041 | CABLE KIT, ACCUSET 2 COMMUNICATION, 53' | | 1 |

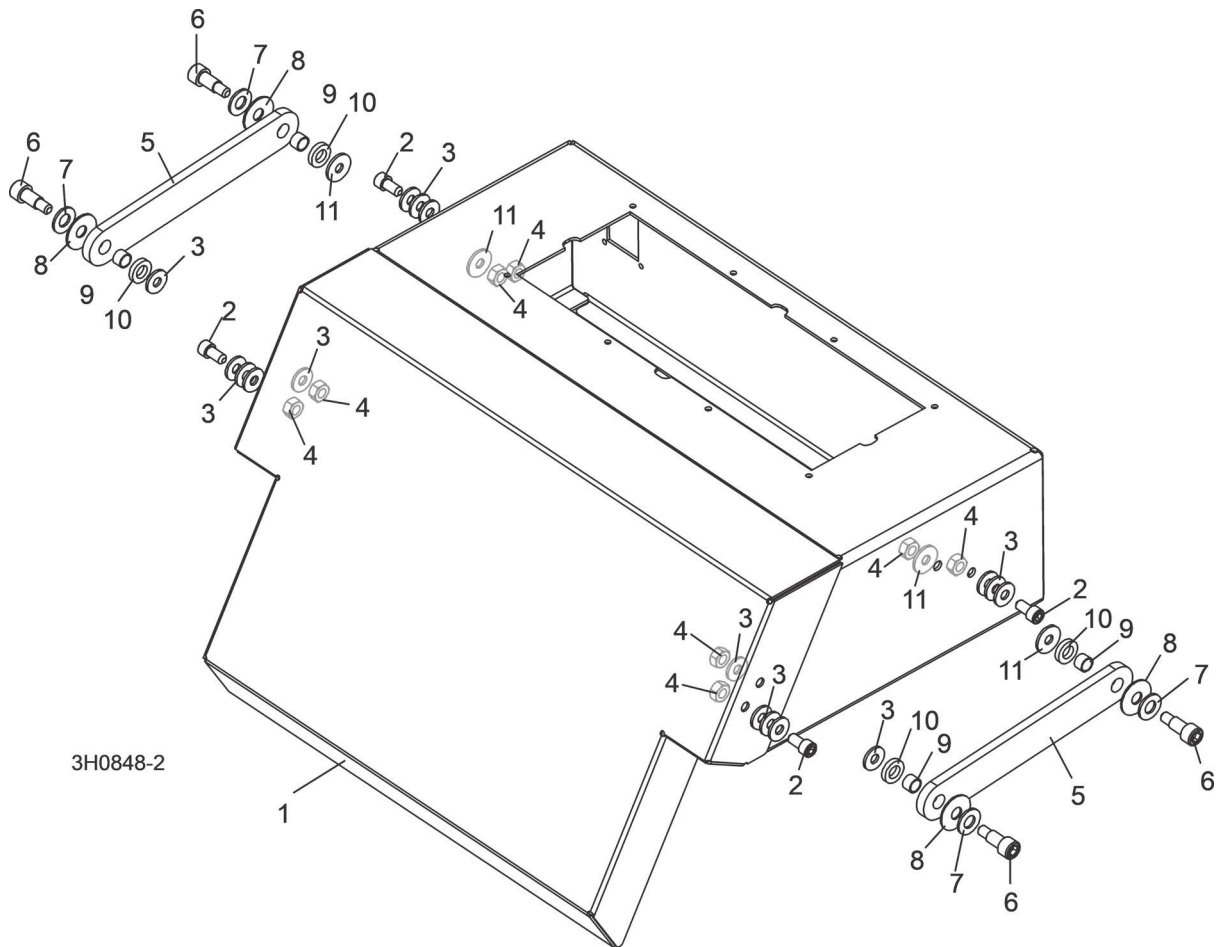
| REF | PART # | DESCRIPTION | COMMENTS | QTY. |
|-----------|-----------|---|----------|------|
| | 006021 | GUARD ASSEMBLY, LOWER POWER BOX WIRE | | 1 |
| 12 | 006014 | Guard, Lower Power Box Wire | | 1 |
| 13 | F05005-15 | Bolt, 1/4-20 x 1/2" Hex Head | | 2 |
| 14 | F05011-11 | Washer, 1/4" SAE Flat | | 2 |
| 15 | F05010-9 | Nut, 1/4-20 Self-Locking Hex | | 2 |

3.5 Control Assembly (AC Remote Box)



| REF | PART # | DESCRIPTION | COMMENTS | QTY. |
|-----------|------------|---|----------|------|
| | 053194 | MODULE ASSEMBLY, ACCUSET 2 AC INTER-FACE W/BRACKET | | 1 |
| 1 | 052892 | Module, Accuset 2 AC Drive Interface | | 1 |
| 2 | 056763 | Plate, Accuset 2 Drive Mounting | | 1 |
| 3 | F05005-186 | Screw, #8-32 x 3/8" Flanged Button Socket Head | | 4 |
| 4 | F05010-41 | Nut, #8-32 Self-Locking Hex | | 4 |
| 5 | F05011-14 | WASHER, 1/4" SPLIT LOCK | | 4 |
| 6 | F05005-128 | BOLT, 1/4-20 X 5/8" STAINLESS BUTTON SOCKET HEAD | | 4 |
| 7 | F05010-9 | NUT, 1/4-20 SELF-LOCKING HEX | | 4 |
| 8 | 053086 | CABLE ASSEMBLY, INTERMEDIATE CANBUS | | 1 |
| 9 | 053085 | CABLE ASSEMBLY, INTERMEDIATE TRANS-DUCER | | 1 |
| 10 | 053195 | CABLE ASSEMBLY, AC DRIVE INTERFACE | | 1 |
| | 006021 | GUARD ASSEMBLY, LOWER POWER BOX WIRE | | 1 |
| 11 | 006014 | Guard, Lower Power Box Wire | | 1 |
| 12 | F05005-15 | Bolt, 1/4-20 x 1/2" Hex Head | | 2 |
| 13 | F05011-11 | Washer, 1/4" SAE Flat | | 2 |
| 14 | F05010-9 | Nut, 1/4-20 Self-Locking Hex | | 2 |
| | 006041 | CABLE KIT, ACCUSET 2 COMMUNICATION, 53' | | 1 |

3.6 Accuset2 Cover Assembly



| 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 |