

SW-07 NETWORKS

Installation & Operation Manual

SW-07 Networks

rev. A.00



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

July 2006

Form #640

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SECTION 1 INSTALLATION

1.1 SW-07 Controller Installation Procedure on the LT15 sawmills

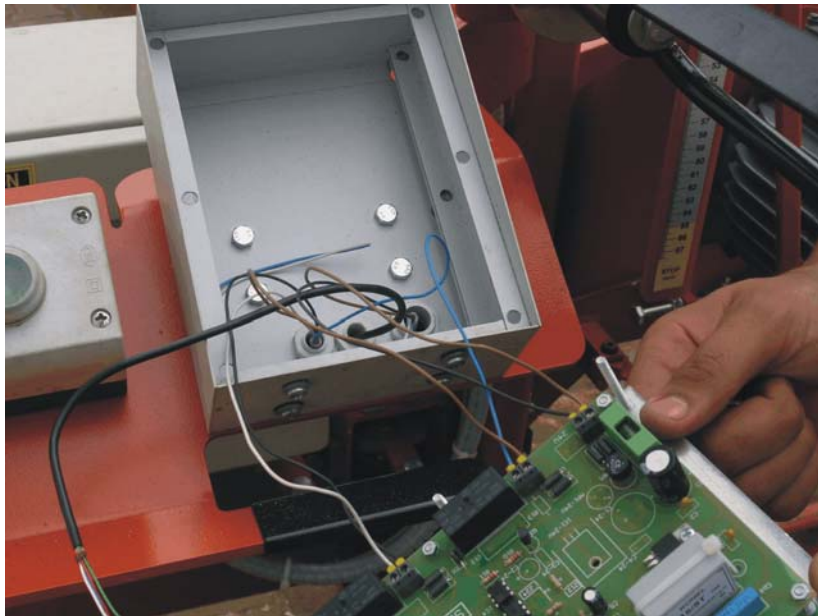
IMPORTANT! Make sure the sawmill is properly set up before performing networks installation and/or operation.



WARNING! Before performing any service to the sawmill control box panel, turn the key to the OFF position, remove the key. Set the main switch, located on the main electrical box, in "0" position. Disconnect the power supply cable. In DC sawmill unplug the battery cables. Failure to do so may cause serious injury and machine damage.

1. Replace the control panel bracket.
2. Install the controller box to the bracket.

See Pic. 1-1.



PIC. 1-1

1 INSTALLATION

SW-07 Controller Installation Procedure on the LT15 sawmills

3. Install the encoder.

See Pic. 1-2.



PIC. 1-2

4. Route the encoder wire inside the mast to the controller and connect to the terminals according to table below:

Vcc	Red
GND	Green
W1	White
W2	Blue

TABLE 1-1



WARNING! If the encoder impulses counting direction is not consistent with real one, the controller will not work correctly - then the connection of wires to W1 W2 inputs should be inverted.

See Table 1-2.

OUT1	Contactor control - down feed of the machine
OUT2	Contactor control - up feed of the machine

TABLE 1-2

See Pic. 1-3.



PIC. 1-3

See Pic. 1-4.



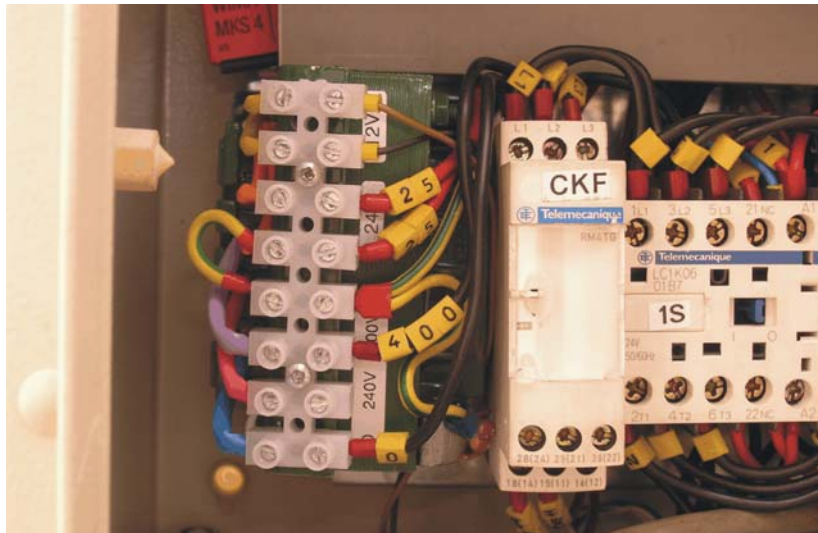
PIC. 1-4

1 INSTALLATION

SW-07 Controller Installation Procedure on the LT15 sawmills

5. Replace the transformer and install the RC filters (they should be connected parallel to the 1S, 2S coils) inside the electric box.

See Pic. 1-5.



PIC. 1-5

6. Install the Pg9 wire seals to the bottom of the sawmill control box and insert the two wire cable through the choke and connect to the transformer, to terminal 12V. The wire should be routed and clipped together with existing harness, to the controller (to 12V terminals).

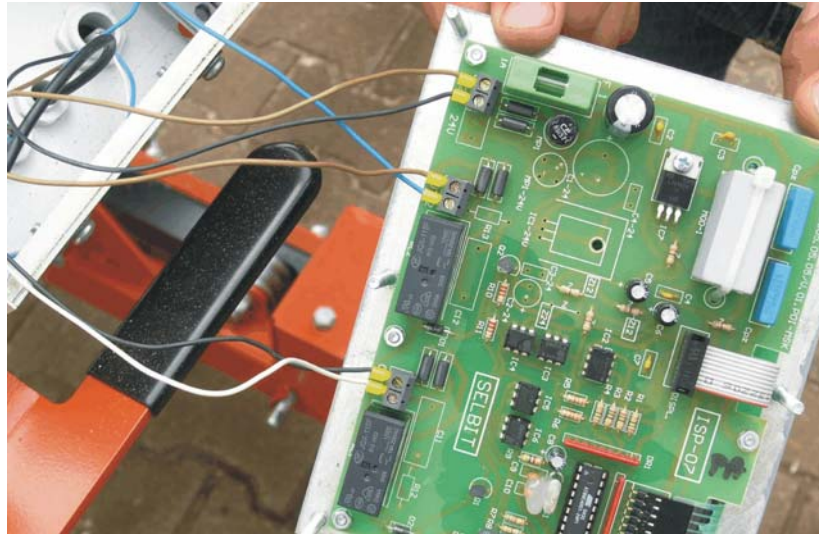
See Pic. 1-6.



PIC. 1-6

7. Position the four wire cable between control panel and the controller (See Pic. 1-4). The blue and brown wires should be connected to the OUT1 terminal, the black and white wires should be connected to the OUT2 controller terminal. Wires inside the control panel should be connected as shown on the Pic. 1-8.

See Pic. 1-7.



PIC. 1-7

See Pic. 1-8.

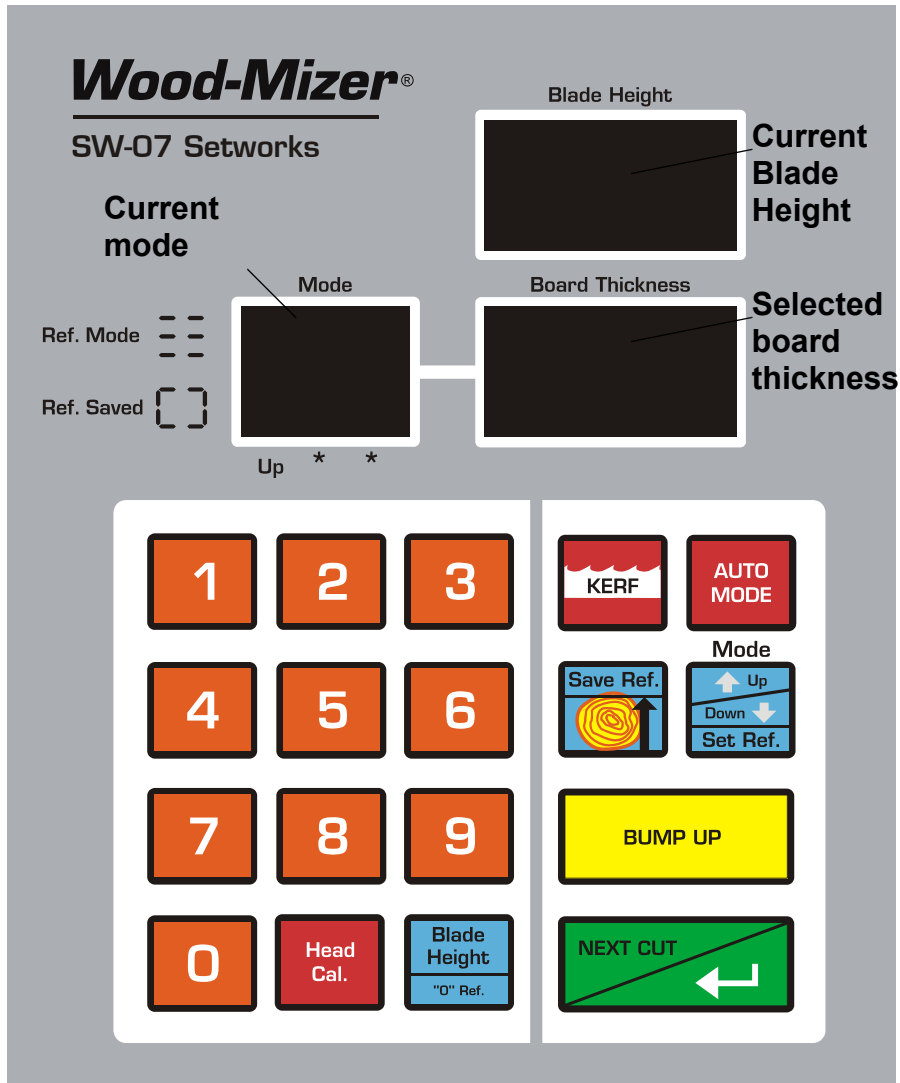


PIC. 1-8

SECTION 2 OPERATION

2.1 SW-07 Controller Panel

See Pic. 2-1.



PIC. 2-1

Descriptions of the control panel buttons:



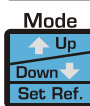
KERF – Setting the kerf.



Auto Mode – Adjustment of the SW-07 automatic calibration parameters. Used for initial calibration and re-calibration if dimensional error occur.



Save Ref. - Saves operator determined Reference Height.



Mode - Mode selection.



BUMP UP - Bump Up.



NEXT CUT/← – The saw head automatically moves up or down to the next cut or the button acts as a “Save” or “Enter” button.





Head Cal. - Saw head height calibration.



Blade Height /“O” Ref. - changes the display from actual Blade Height to “0” Reference Height.

2.2 Start-up settings of the controller


1. Setting the input divider (entered only once, at the first start-up)

- Switch on the controller.
- When the text “ISP-07” appears on the display, press and hold  , until 3 horizontal bars will appear on the upper display.
- Enter the correct value of the divider (depending on the screw pitch of the machine) using keypad (for LT15 sawmill, the divider value should be **20**).
- Press  to save the entered divider value - the text “**SAV**” will be appear.

2. Entering the blade kerf thickness

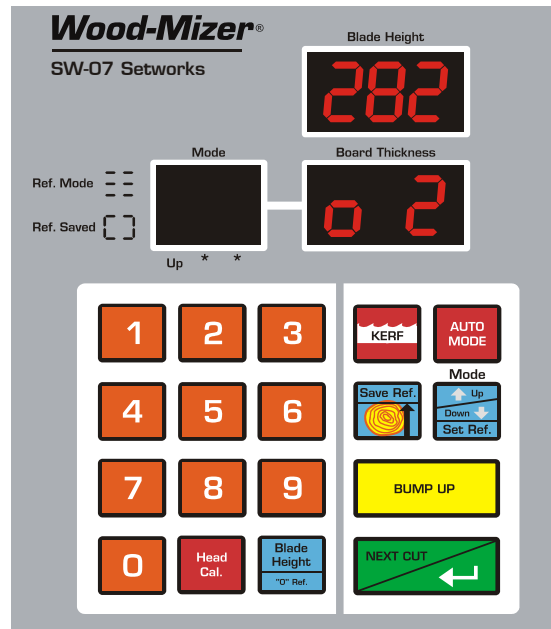
On initial start-up or after replacement of the blade by another one with a different blade thickness or different tooth set the kerf value should be entered.

NOTE: The SW-07 Networks can accept the kerf value to 1mm increments only. If the entered kerf value will be for ex. 2,5mm, then small board thickness variance will be observed.


- Press and hold  , until the small zero and current kerf settings appears on the lower right display.
- Enter the kerf value, preceding it with zero.

NOTE: We recommend using the Wood-Mizer blades only. When using the recommended blades, the kerf value should be 2mm, so you should press “0” and “2” buttons.

See Pic. 2-2.




PIC. 2-2

- Press , to save the setting. The controller displays the text “SAV” and exits the function.

NOTE: From this moment the Networks controller will calculate the cutting position using the kerf value. So, it is not necessary to correct head height manually during cutting.

3. Auto-correction

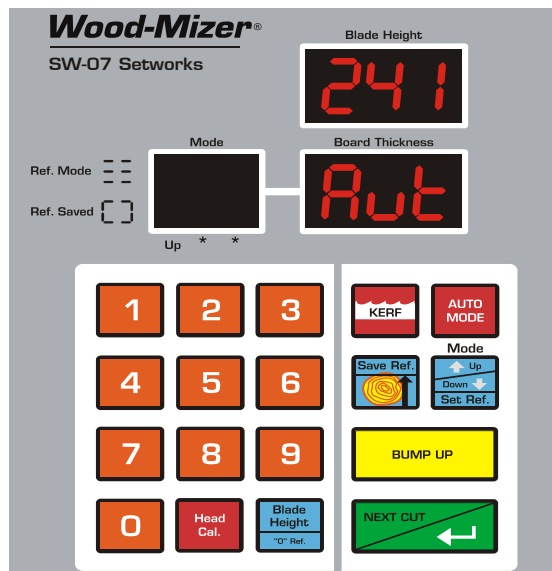
This function should also be used in case of replacement of the screw of the up-down system, motor or after lubrication of the screws and other moving elements of the head or when significant cutting variances are observed.

- Switch on the controller and wait until the text “ISP-07” disappears.
- Set the head with the blade at a height of 100-150 mm.
- Press and hold down . Letter A will appear on the display and, after a while - the text “Aut”. The controller is ready for auto-correction.


2 OPERATION

Start-up settings of the controller

See Pic. 2-3.



PIC. 2-3

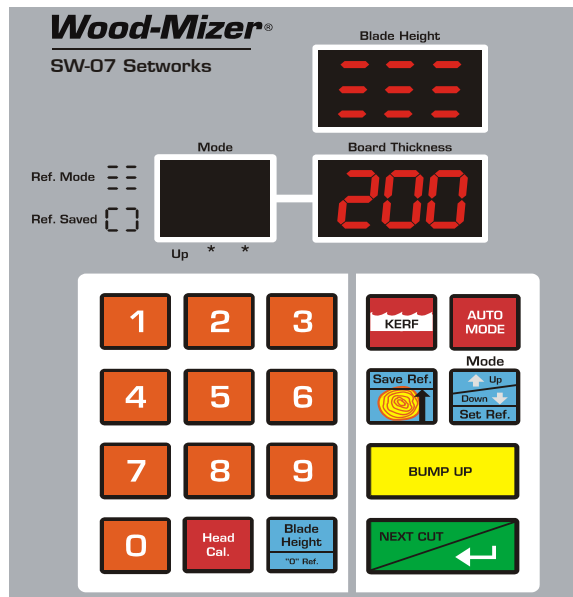
- Press , the controller successively performs 2 downward movements of the head and then, 8 upward movements. After performing the last upward movement, the end of the function is signalled and the normal mode of operation is restored.

NOTE: If, during the downward movement, the lower limit switch is activated, set the head a little higher than previously and repeat the auto-correction function.

4. Calibrating the blade height measurement

- In order to make the upper display show the real dimension from the level of the bed rail, set the head with blade at any height so that it is at a full millimeter (e.g. 235 mm); for this purpose you can use the sawmill scale, or you can measure blade height from the bed rail with the use of a ruler or tape measure.
- Press and hold Head Cal., and after a while, 3 horizontal bars will appear on the upper display, while on the lower one - the previous measurement.

See Pic. 2-4.



PIC. 2-4

- Enter the measured height using the keypad and confirm it by pressing NEXT CUT. The controller displays the text “**SAV**” and, after a while, it exits the function. The dimension of the real blade height, entered by you, appears in the upper display.

If the machine is not adjusted mechanically, while the power supply to the controller is off, then there is no need, as a rule, to calibrate the height after switching on (the head height is stored in the controller memory). Re-calibration should be performed, if any divergences in readings are found, or if during operation, for example, a break in the power supply occurred and the controller did not store the head height.




WARNING! Entering the real value of the height is



2 OPERATION

Operation in normal mode

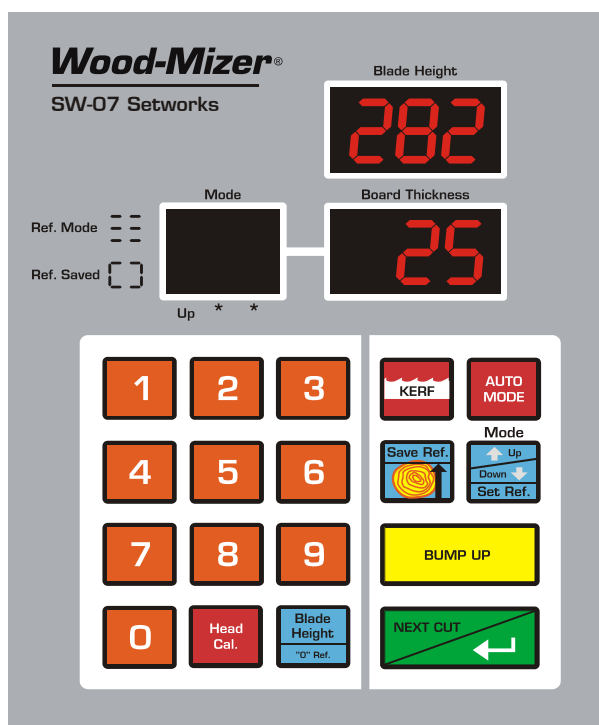
necessary for correct operation of the controller.

2.3 Operation in normal mode


After switching-on, the ISP-07 inscription appears in the display, and the setworks is ready for operation within a few seconds or after  is pressed. The last board thickness used is displayed.



- To change the board thickness, enter the new thickness required using the keypad and press . Even if you don't press , after a while the new value will be stored to the controller memory automatically.

See Pic. 2-5.



PIC. 2-5

- Start to cut material on required dimension.
- Having completed a cut, press , the head will automatically go up by the pre-set bump up dimension, allowing the head to return with the blade clear of the log or cant.

- Press , the saw head will return to **the previous cut position**, press  again and the saw head will drop by the preset board thickness to **the next cut position**.


The first cut position has to be set manually.

NOTE: After you set the first cut position you do not need to manually set the head height.

2.4 Controller operation in pre-determined head return height mode

It is possible to set a pre-determined head return height. This is particularly useful if you are “through and through” cutting and do not want to remove each board as you cut it.

Pre-setting a fixed head return height:

- Position the head above the cant or log so that it will clear the cant.
- Press and hold , until 3 horizontal bars appear in the left hand display.




2 OPERATION

Controller operation in pre-determined head return height mode

See Pic. 2-6.




PIC. 2-6

- Press  (this will save the reference height). A “bracket” symbol will briefly appear in the left hand display to show that the dimension has been saved.
- Now, when you press  at the end of each cut, the head will go up to the saved height and clear the cant or log.
- Press and hold  to return to normal Bump Up operation.

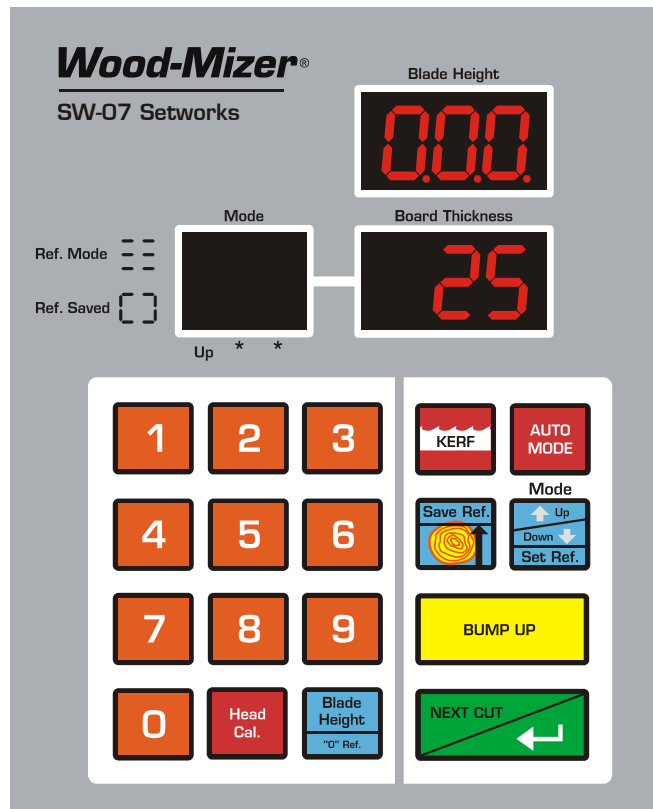
2.5 Floating zero / "0" Reference Mode

It is possible to store a "floating zero" or "0" reference (without losing the real head height). In this mode the upper display will show the distance that the head is from the preset "0" reference. It is useful when, for example you want to measure a required board thickness manually. Please, remember to add the blade kerf when using this mode, if it is necessary.

To activate this function press . The upper display will change to 0.0.0. Now when you move the head up or down, the upper display will show the distance that the head is from the "0" reference.

To return to normal use, press  again.

See Pic. 2-7.



PIC. 2-7



2 OPERATION

Next Cut button – switching between Next Cut Down (default setting) and Next Cut Up

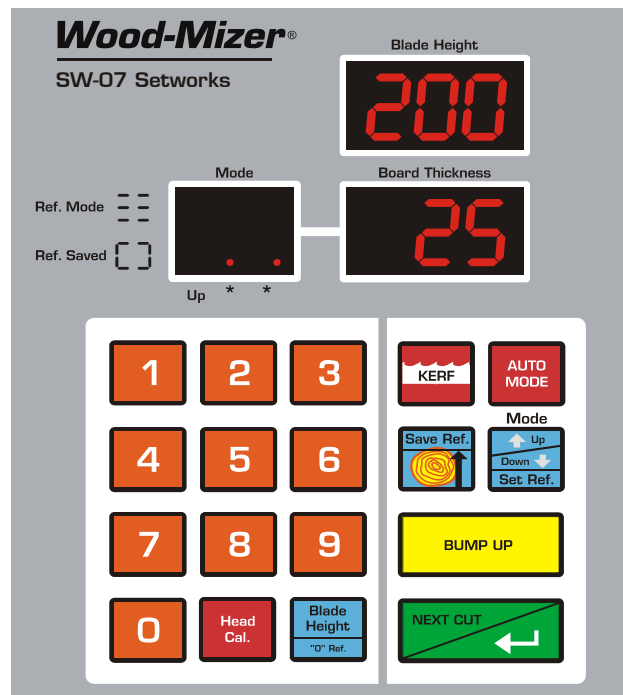
2.6 Next Cut button – switching between Next Cut Down (default setting) and Next Cut Up

Use this function when you want to leave a particular size of cant or when it is useful to be able to establish the correct height for the first cut.

Position the head at the required final cant dimension.

Press  once – two red dots will appear in the left hand display indicating that you are now in “Next Cut Up” mode. Now when you press , the head will go up one preset board dimension.








See Pic. 2-8.

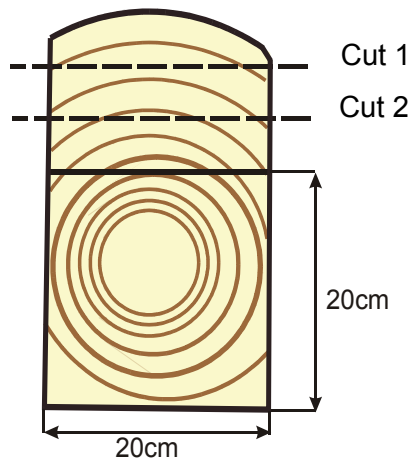


PIC. 2-8

Example:

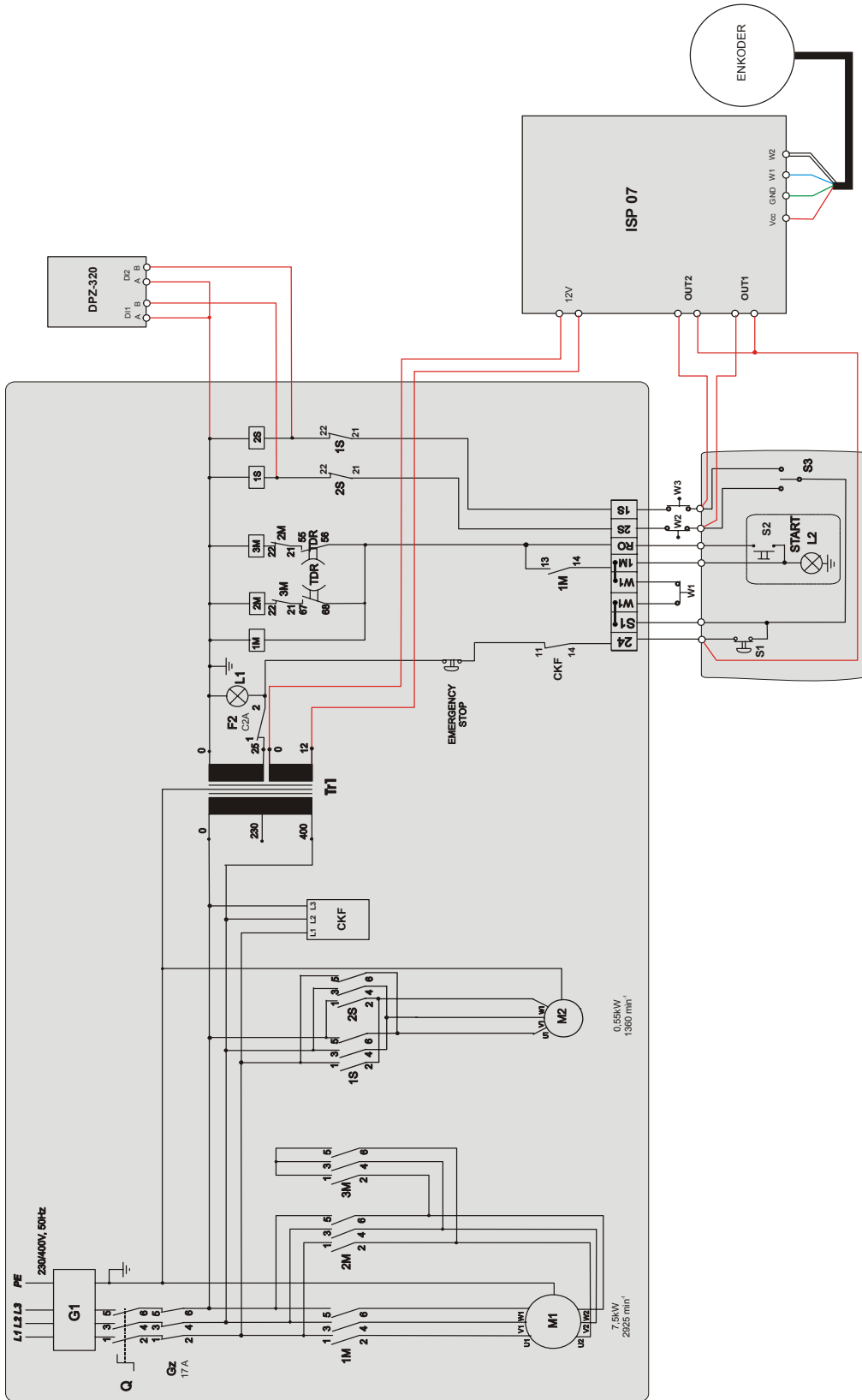
In this example we have a three sided cant and we want to finish with a 20cm x 20cm cant.

- Set the head to 20cm, carry out the procedure to change to Next Cut Up mode, and press . The head will move to position “Cut 2” on the diagram ([See Pic. 2-9.](#)).
- Press  again and the head will move up to the “Cut 1” position.
- Cut the slab off the top of the cant.
- Return to the Next Cut Down mode by pressing . Next press .
- Return the head to the beginning of the cant.
- Press  and the head will drop down to the previous cut height (“Cut 1”), press again and the head will drop by the preset board thickness to the “Cut 2” position.
- Having completed the cut, press  and the head will automatically go up by the preset Bump Up dimension. Return the head to the beginning of the cant.
- Press  and the head will drop down to the previous cut height, press again and the head will drop by the preset board thickness to the required 20cm cant dimension.



PIC. 2-9

SECTION 3 ELECTRICAL INFORMATION**3.1 SW-07 Electrical Diagram connections on the LT15 sawmills**



RYS. 3-1

SECTION 4 REPLACEMENT PARTS

4.1 How To Use The Parts List

- Use the index above to locate the assembly that contains the part you need.
- Go to the appropriate section and locate the part in the illustration.
- Use the number pointing to the part to locate the correct part number and description in the table.
- Parts shown indented under another part are included with that part.
- Parts marked with a diamond (◆) are only available in the assembly listed above the part.

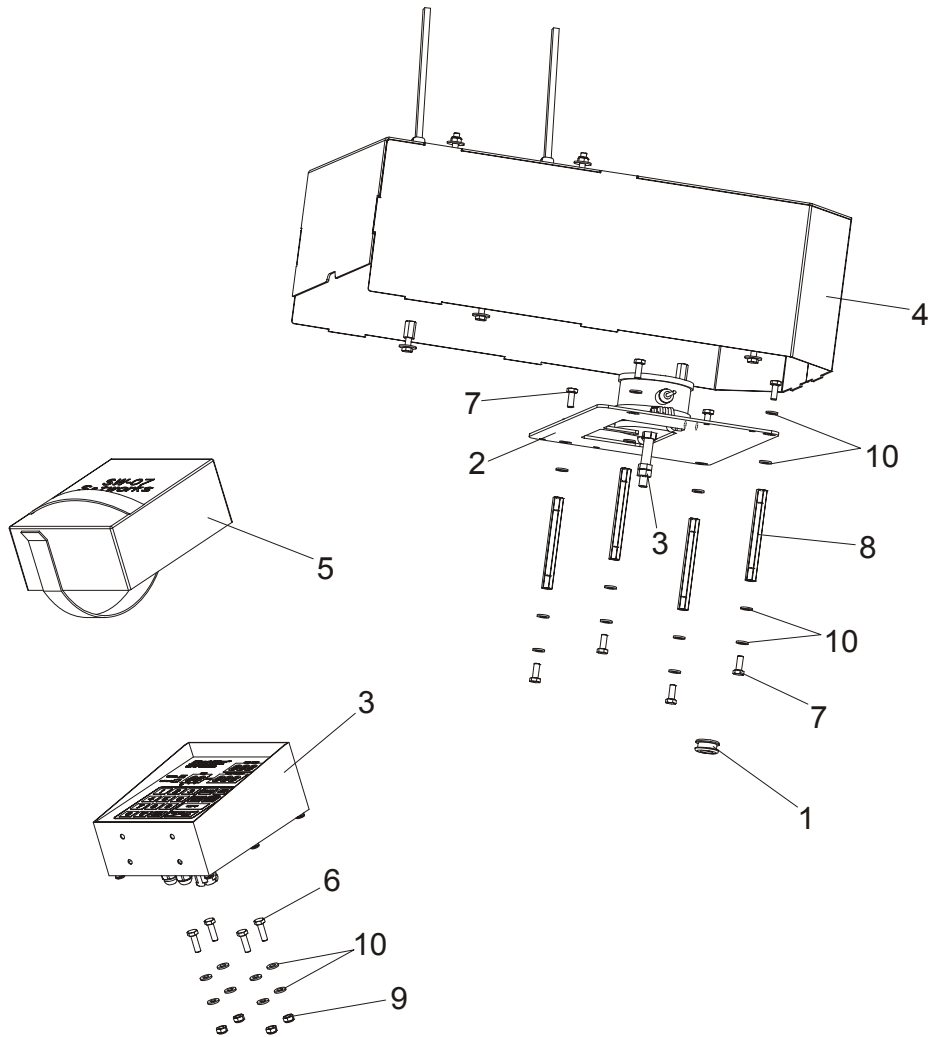
See the sample table below. Sample Part #A01111 includes part F02222-2 and subassembly A03333. Subassembly A03333 includes part S04444-4 and subassembly K05555. The diamond (◆) indicates that S04444-4 is not available except in subassembly A03333. Subassembly K05555 includes parts M06666 and F07777-77. The diamond (◆) indicates M06666 is not available except in subassembly K05555.

4.2 Sample Assembly				
REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.	
	Sample Assembly, Complete (Includes All Indented Parts Below)	A01111	1	
5	Sample Part	F02222-22	1	
	Sample Subassembly (Includes All Indented Parts Below)	A03333	1	
6	Sample Part (◆ Indicates Part Is Only Available With A03333)	S04444-4	1	◆
	Sample Subassembly (Includes All Indented Parts Below)	K05555	1	
7	Sample Part (◆ Indicates Part Is Only Available With K05555)	M06666	2	◆
8	Sample Part	F07777-77	1	

To Order Parts:

- From Europe call our European Headquarters and Manufacturing Facility in Kolo, Poland at **+48-63-2626000**. From the continental U.S., call our toll-free Parts hotline at **1-800-448-7881**. Have your customer number, vehicle identification number, and part numbers ready when you call.
- From other international locations, contact the Wood-Mizer distributor in your area for parts.

4.3 SW-07 Networks Retrofit Kit



REF	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY.
	RETROFIT KIT, SW-07 NETWORKS - LT15 E11, D10, G13	097118	1
1	Grommet, 20/13 Rubber	086188	1
2	Bracket, Encoder - LT15	095310-1	1
3	SW-07 Networks w/Encoder	095316	1
4	Cover, Up/Down System LT15 Complete High	096948	1
5	Cover, SW-07 Networks - LT15	096949	1
6	Bolt, M6x20mm, HH, Full Thread, Zinc	F81001-2	4
7	Bolt, M6x16mm, HH, Full Thread, Zinc	F81001-32	8
8	Nut, M6-100-BN3319 (Bossard)	F81031-10	4
9	Nut, M6, Hex, Nylon Lock Zinc	F81031-2	8
10	Washer, M6, Flat, Zinc	F81053-1	32