

# **Wood-Mizer®**

**Wireless Option**

**rev. B1.00**

## **Operator's Manual**



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

*Form #120*


# Table of Contents


# Section-Page


<b>SECTION 1</b>	<b>OPERATION</b>	<b>1-1</b>
1.1	Safety.....	1-1
1.2	Wireless control panel.....	1-2
1.3	Operation.....	1-4
<b>SECTION 2</b>	<b>DIAGNOSTICS AND MAINTENANCE</b>	<b>2-1</b>
2.1	Diagnostics - Receiver.....	2-2
2.2	Maintenance .....	2-3
	Daily Maintenance Procedures	
	Three-Month Maintenance Procedures	
<b>SECTION 3</b>	<b>SPECIFICATIONS</b>	<b>3-1</b>
<b>SECTION 4</b>	<b>PARTS LIST</b>	<b>4-1</b>
4.1	How To Use The Parts List .....	4-1
4.2	Sample Assembly .....	4-1
4.3	Wireless Control Kit, DC Sawmills .....	4-2
4.4	Wireless Control Kit, AC Sawmills .....	4-2
4.5	Wireless Receiver Housing, LT70 DC Sawmills.....	4-3
4.6	Wireless Receiver Housing, LT40/LT70 AC Sawmills.....	4-4
4.7	Wireless Receiver Housing, LT20 AC Sawmills.....	4-5
4.8	LT70 WIDE Head Support - M Frames.....	4-6

## SECTION 1 OPERATION


### 1.1 Safety

 **CAUTION!** This manual is provided as a supplement to the equipment manufacturer's manual. Refer to the manufacturer's manual before attempting to operate this equipment.

 **WARNING!** Failure to follow the safety precautions may result in radio equipment failure or serious personal injury.


 **CAUTION!** Wood-Mizer will not bear responsibility for any unapproved changes or modifications made to the equipment.


#### Installation


 **CAUTION!** If maintenance is required, the radio must be disconnected from power. USE PROPER WIRING. Loose or frayed wires can cause system failure, intermittent operation, machine damage, etc.

 **CAUTION!** DO NOT INSTALL IN HOT AREAS. This apparatus can be damaged by heat at a temperature of above 70°C.


#### Personal Safety


 **CAUTION!** MAKE SURE THE EQUIPMENT AND SURROUNDING AREA IS CLEAR BEFORE OPERATING. Do not activate the remote system unless it is safe to do so.

 **CAUTION!** TURN OFF THE RECEIVER POWER BEFORE WORKING ON THE SAWMILL. Always disconnect the remote system before doing any maintenance to prevent accidental operation of the machine.

 **CAUTION!** IN CASE OF EMERGENCY, immediately press the red emergency stop switch.

#### Care

 **CAUTION!** KEEP DRY. Do not clean the transmitter/receiver under high pressure. If water or other liquids get inside the transmitter or receiver compartment, immediately dry the unit. Remove the case and let the unit air dry.

 **CAUTION!** CLEAN THE UNIT AFTER OPERATION. Remove any mud, dirt, concrete, etc. from the unit to prevent clogging of buttons, switches, etc. by using a damp cloth.

# 1 Operation

## Wireless control panel

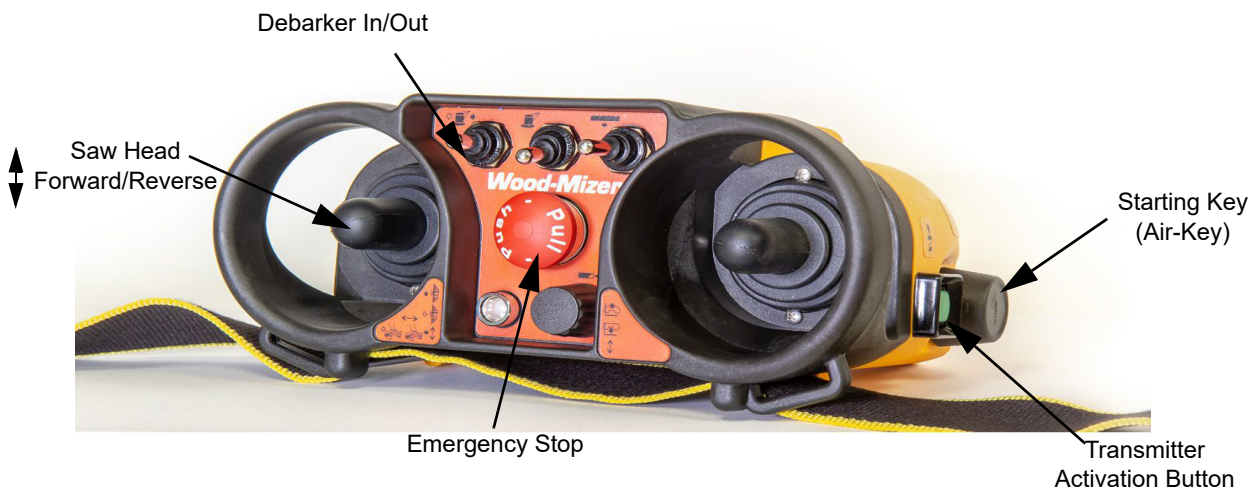
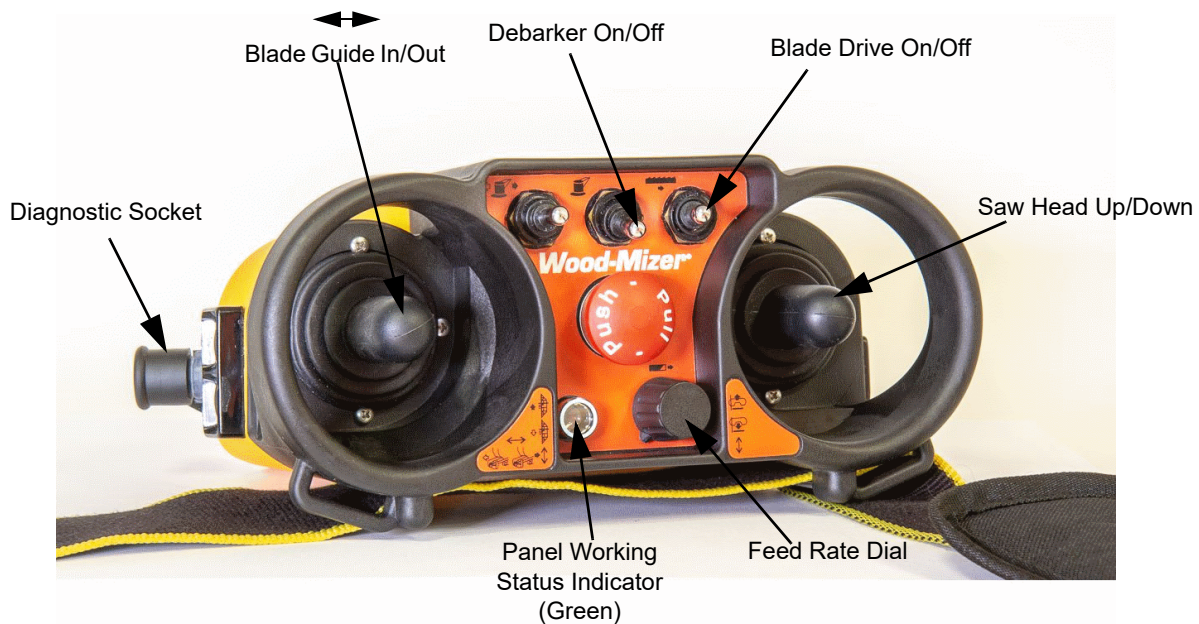
### Maintenance / Welding

**CAUTION!** DISCONNECT THE RADIO RECEIVER BEFORE WELDING on the machine the receiver is connected to. Failure to disconnect will result in destruction of the radio receiver.

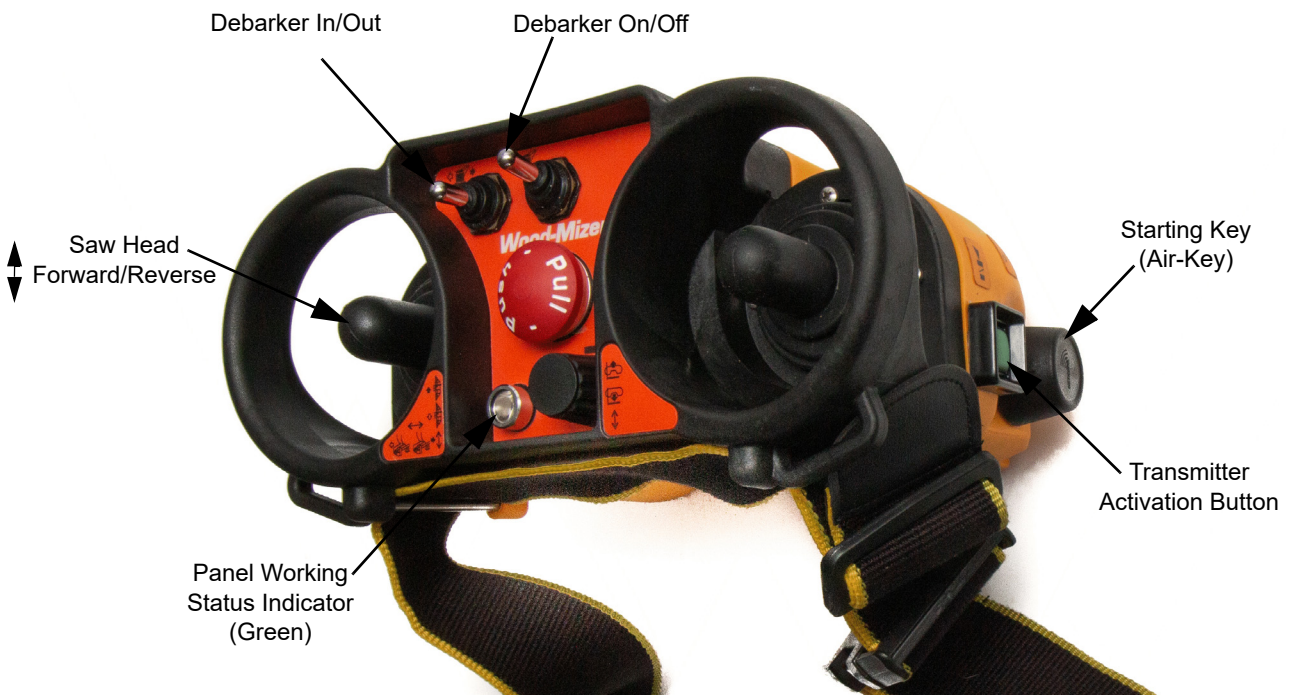
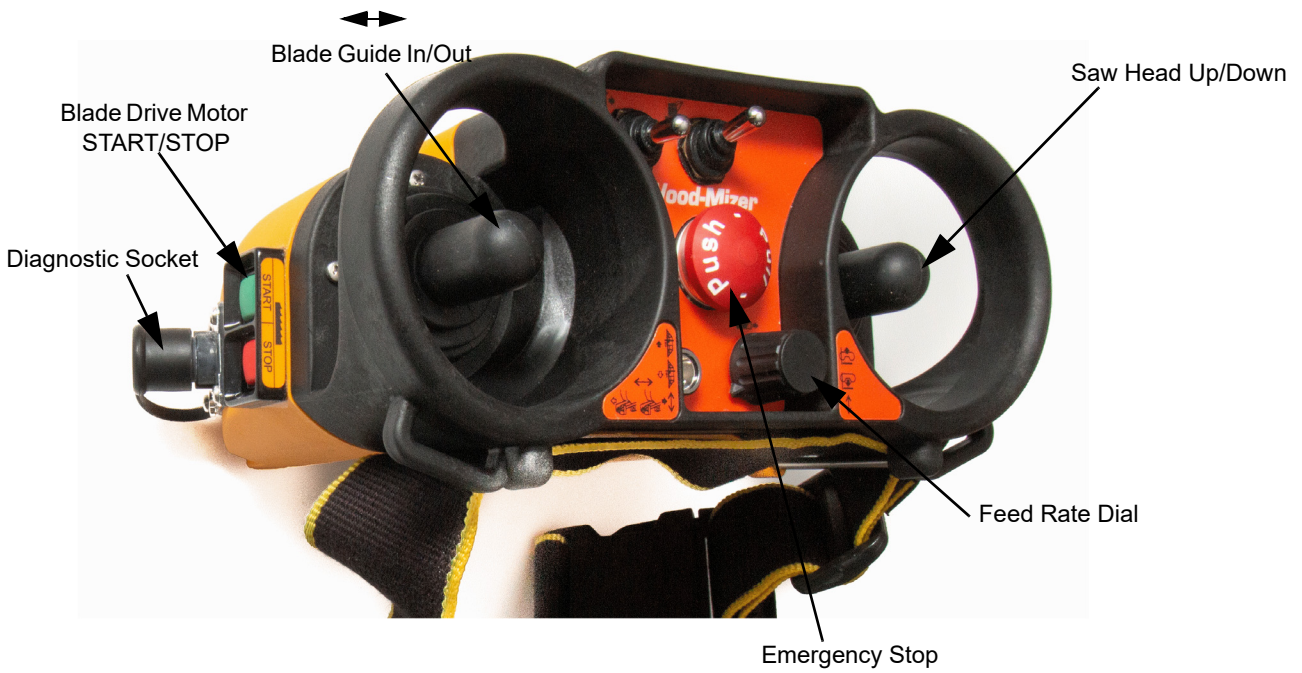
## 1.2 Wireless control panel

The LT70 sawmills can be equipped with the saw head remote control system (with a wireless control panel). This system allows you to fully control the saw head, i.e. engage and disengage the blade, the power feed and up/down operation, the blade guide arm and the debarker as well as to adjust the feed rate.

See Figure 1-1. Wireless control panel functions LT70DC



See Figure 1-2. Wireless control panel functions (LT20/40/70AC)



## 1.3 Operation

Set up the sawmill as instructed in your sawmill operator's manual.

### Install the charged battery.

Transmitter electronic system constantly controls battery voltage. When it falls below the appropriate value, the LED indicator light will turn red or an acoustic signal will be heard after which the system will automatically turn off. In this case, perform the following steps:

- Set the saw head in safe position.
- Turn the key to the "0" position. The transmitter will be turned off. Remove the key.

**NOTE:** When the battery is fully charged, the panel should work for approximately 20 hours at 20°C.

Charging the battery.

- To remove the battery, move it forward and lift.
- Place the battery in the charger provided by the manufacturer. Use original charger only.
- Be sure the charger is connected to the appropriate power supply (220-230V socket or car plug etc.)
- The battery requires about 3-6 hours to be fully charged. Control light CHARGE is on during charging. When battery is fully charged control light READY illuminates. To charge the battery fast, push the FAST CHARGE button.



**CAUTION!** Charger automatically stops charging when the battery is fully charged. One of the batteries should always be in the charger, as a spare fully charged battery.



**CAUTION!** If batteries are not in use for a long time, they should be charged every 6 months.

To turn on the wireless control panel on any DC (with diesel engine) sawmill:

- Make sure that all switches and joysticks are in the neutral or OFF position. The feed rate dial should be set to the minimum value.
- Check that the switch located on the electric box is in the ON position;



**NOTE:** When the green switch on the electric box is in the OFF position, the wireless control system is completely turned off and all sawmill functions can be activated from the standard control box on the saw head.

- Make sure the emergency stop buttons are released and the feed rate dial is set to minimum value.;
- Insert the starting key (Air-KEY) into the corresponding socket located on the right side of the control panel. Turn the key right to the "I" position.
- Wait about 3-4 seconds and then push the transmitter activation button.



**IMPORTANT!** If the emergency stop was pushed at the moment when the transmitter was activated, or the feed dial was not set to minimum value, it is necessary to release the emergency stop or set the feed dial to the minimum value and press the transmitter activation button. After 3-4 seconds press the transmitter activation button again.

- Start the engine using the key switch located on the sawmill control box (on the saw head);
- Load and clamp the log;
- Program the Accuset controller (or PLC-Setworks/SW-10) ([See Accuset, PLC-Setworks or](#)

[SW-10 Operator's Manual](#));

- Position the saw head at a height of the first cut;
- If necessary, turn the debarker on;
- Set the Blade Drive On/Off Switch in the upper position;
- Push the left joystick forward and hold it in this position. The blade drive will be turned on within 3 seconds.
- Set the feed rate dial to the desired value.
- After making the cut, release the left joystick. The blade drive will be turned off and the main engine will still be running idle.
- After position the saw head for the next cut, push the left joystick forward and hold it in this position. The blade drive will be turned on within 3 seconds.

**NOTE:** As soon as the joystick is released, the blade drive is disengaged.

**NOTE:** If none of the pushbuttons, switches or joysticks is used within 5 minutes after switching on the transmitter, the transmitter will turn off automatically.

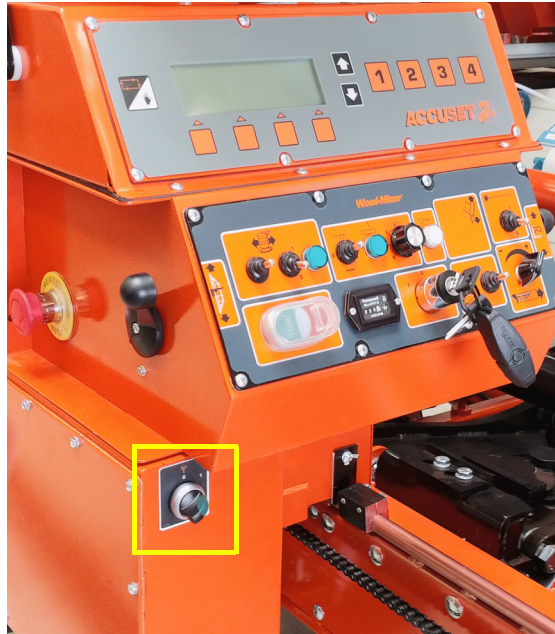
When sawing is finished, switch the transmitter off by turning the starting key to the "0" position. Remove the key and always store it in a safe place.

**NOTE:** The starting key (Air-KEY) stores the receiver identification data. The transmitter cannot communicate with the receiver without this key. Do not lose the Air-KEY.



To turn on the wireless control panel on any AC (with electric blade motor) sawmill:

- Make sure that all switches and joysticks are in the neutral or OFF position. The feed rate dial should be set to the minimum value.
- Check that the switch located on the electric box is in the ON position;



**NOTE:** When the green switch on the electric box is in the OFF position, the wireless control system is completely turned off and all sawmill functions can be activated from the standard control box on the saw head.

- Make sure the emergency stop buttons are released and the feed rate dial is set to minimum value.
- Insert the starting key (Air-KEY) into the corresponding socket located on the right side of the control panel. Turn the key right to the "I" position.
- Wait about 3-4 seconds and then push the transmitter activation button.



**IMPORTANT!** If the emergency stop was pushed at the moment when the transmitter was activated, or the feed dial was not set to minimum value, it is necessary to release the emergency stop or set the feed dial to the minimum value and press the transmitter activation button. After 3-4 seconds press the transmitter activation button again.

- Load and clamp the log;
- Program the Accuset controller (or PLC-Setworks/SW-10) ([See Accuset, PLC-Setworks or SW-10 Operator's Manual](#));

- Position the saw head at a height of the first cut;
- If necessary, turn the debarker on;
- Start the blade motor by pressing the START button on the left side of the control panel;
- Push the left joystick forward and hold it in this position.
- Set the feed rate dial to the desired value.
- After making the cut, release the left joystick. Press the STOP button. The blade will be stopped.
- After position the saw head for the next cut, start the blade motor by pressing the START button.

**NOTE:** If none of the pushbuttons, switches or joysticks is used within 5 minutes after switching on the transmitter, the transmitter will turn off automatically.

When sawing is finished, switch the transmitter off by turning the starting key to the "0" position. Remove the key and always store it in a safe place.

**NOTE:** The starting key (Air-KEY) stores the receiver identification data. The transmitter cannot communicate with the receiver without this key. Do not lose the Air-KEY.

## SECTION 2 DIAGNOSTICS AND MAINTENANCE



**CAUTION!** DISCONNECT POWER SUPPLY FROM THE SAWMILL BEFORE SERVICING! Always disconnect the remote system before doing any maintenance to prevent accidental start-up of the machine.

Before starting to perform any diagnostic operation, do as follows:

- Bring the transmitting unit close to the receiving unit to avoid any radio interference and disturbances.
- Determine if the existing problem lies with the wireless control system or with the sawmill. To do that, disconnect the wireless control system using the switch on the electric box ([See Section 1.3](#)) and try to activate the desired functions from the control box on the sawmill. If the problem persists, it is related to the sawmill control system (not to the wireless control system). If it does not exist, please refer to the diagnostic procedures described below.

## 2.1 Diagnostics - Receiver

Signal lights are located on the side wall of the receiver.

Operation	Control light Yellow Operation	Control light Green Signal	Control light Red Error	Control light Orange Normal
Receiver is turning on	On Blinks every 0.5 sec.	Off	Off	Off
Receiver is turned off	Off	Off	Off	Off
The transmitter is turned off Receiver is on	On Blinks every 0.5 sec.	Off	Off	Off
The transmitter and receiver communicate.	On Blinks every 0.5 sec.	On Blinks fast	Off	On
START button is not pressed	On Blinks every 0.5 sec.	On Blinks fast	Off	Off (The light is on when joysticks on the transmitter are not in the neutral position)
E-stop button is pressed when receiver is on.	On Blinks every 0.5 sec.	On Blinks fast	Off	Off
The transmitter and receiver do not communicate.	On Blinks every 0.5 sec.	Off	Off	Off

## 2.2 Maintenance

### 2.2.1 Daily Maintenance Procedures

Before starting to work:

- Make sure that the symbols of all control elements on the transmitter panel are readable. Replace the transmitter panel if necessary.
- Check that the plates on the transmitting unit are intact and readable
- Make sure that the mechanical operation of the STOP pushbutton is correct.

During normal operation:

- Check that there are not any visible damages to the transmitter.
- Make sure that materials that could endanger the transmitter usage and safety (such as: sawdust, slabs, concrete, sand, dust, lime) are not accumulated on its surface.

After using the Wireless Option:

- Clean the transmitting unit: never use solvents or flammable/corrosive materials and do not use high-pressure water cleaners or steam cleaners;
- Store the transmitting unit in a clean and dry place.
- Check if the commands sent by the transmitter are correctly performed by the sawmill.

### 2.2.2 Three-Month Maintenance Procedures

Every three months of operation:

- Remove any dust or debris from the transmitter. Never use solvents or flammable/corrosive materials and do not use high-pressure water cleaners or steam cleaners;
- Check that there are not any visible damages to the transmitter.
- Make sure that the electrical connections between the receiver and the electric box are not loose or damaged.
- Make sure that the symbols of all control elements on the transmitter panel are readable. Replace the transmitter panel if necessary.
- Check that the plates on the receiver are intact and readable.

If any transmitter/receiver fault occurs, contact your Wood-Mizer Representative. All repairs of the equipment should be done by authorized persons only.

**SECTION 3 SPECIFICATIONS****Transmitter**

<b>Frequency</b>	868MHz
<b>Weight</b>	< 2kg
<b>Power of transmitted signal</b>	<10mW
<b>Range</b>	about 100m
<b>Operating temperature range</b>	-25°C - +70°C (-18°F - +160°F)
<b>Operating humidity range</b>	0-97% IP65
<b>Approvals</b>	CE, TUV, ISO 9001
<b>Antenna</b>	Internal
<b>Operating time on fully charged battery</b>	14-20 hours
<b>Time to fully charge the battery</b>	3-6 hours

**Receiver**

<b>Frequency</b>	868MHz
<b>Weight</b>	about 7 kg
<b>Operating temperature range</b>	-25°C - +70°C (-18°F - +160°F)
<b>Operating humidity range</b>	0-97% IP65
<b>Antenna</b>	External
<b>Power Supply Voltage</b>	12-24V DC
<b>Power consumption</b>	<0,8 A

## SECTION 4 PARTS LIST

### 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.

<b>4.2 Sample Assembly</b>				
REF.	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY	
	Sample Assembly, Complete (Includes All Indented Parts Below)	A01111	1	
1	Sample Part	F02222-22	1	
	Sample Subassembly (Includes All Indented Parts Below)	A03333	1	
2	Sample Part (◆ Indicates Part Is Only Available With A03333)	S04444-4	1	◆
	Sample Subassembly (Includes All Indented Parts Below)	K05555	1	
3	Sample Part (◆ Indicates Part Is Only Available With K05555)	M06666	2	◆
4	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 Wireless Control Kit, DC Sawmills

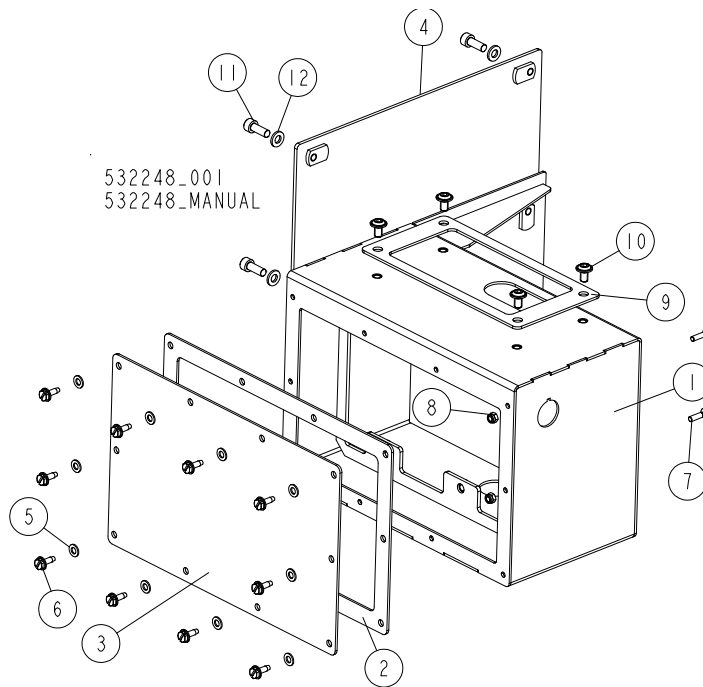
REF.	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY	
	<b>WIRELESS CONTROL SYSTEM, HETRONIC LT70 DC SAWMILLS</b>	<b>533785</b>	<b>1</b>	
	TRANSMITTER, DC HETRONIC NOVE-L/K RX18	533771	1	
	RECEIVER, HETRONIC RX18 PROP-HL	533772	1	
	BATTERY, HETRONIC	533773	1	
	CHARGER DC, HETRONIC 10-30VDC	527435	1	
	MOUNT, WEDGE HANDLE	582413	1	
	<b>CHARGER AC, HETRONIC</b>	<b>533774</b>	<b>1</b>	
	<b>BELT, CARRING</b>	<b>533775</b>	<b>1</b>	
	<b>DECAL, WIRELESS INTERFACE</b>	<b>533789</b>	<b>1</b>	

## 4.4 Wireless Control Kit, AC Sawmills

REF.	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY	
	<b>WIRELESS CONTROL SYSTEM, HETRONIC LT70AC</b>	<b>533791</b>	<b>1</b>	
	<b>WIRELESS CONTROL SYSTEM, HETRONIC LT40</b>	<b>535508</b>	<b>1</b>	
	<b>WIRELESS CONTROL SYSTEM, HETRONIC LT20</b>	<b>535510</b>	<b>1</b>	
	TRANSMITTER, DC HETRONIC NOVE-L/K RX18	533771	1	
	RECEIVER, HETRONIC RX18 PROP-HL	533772	1	
	BATTERY, HETRONIC	533773	1	
	CHARGER, AC HETRONIC	533774	1	
	MOUNT, WEDGE HANDLE	582413	1	
	<b>CHARGER, 10-30VDC HETRONIC</b>	<b>527435</b>	<b>1</b>	
	<b>BELT, CARRING</b>	<b>533775</b>	<b>1</b>	
	<b>DECAL, WIRELESS INTERFACE</b>	<b>533789</b>	<b>1</b>	

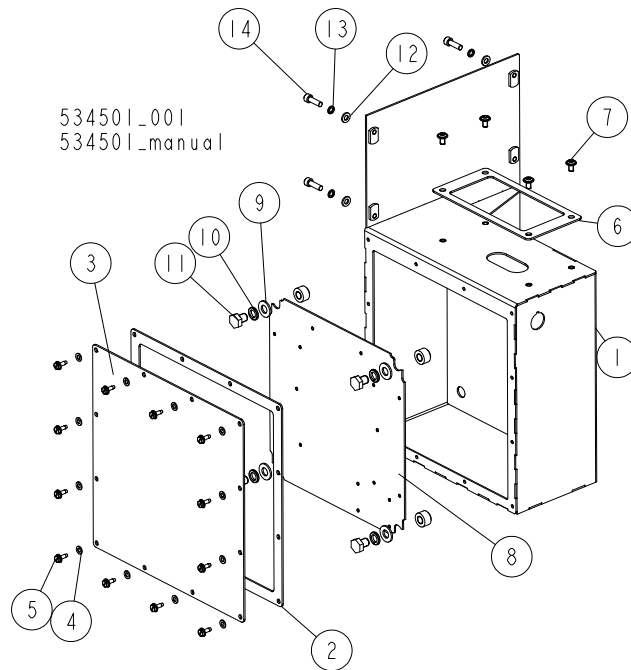


## 4.5 Wireless Receiver Housing, LT70 DC Sawmills



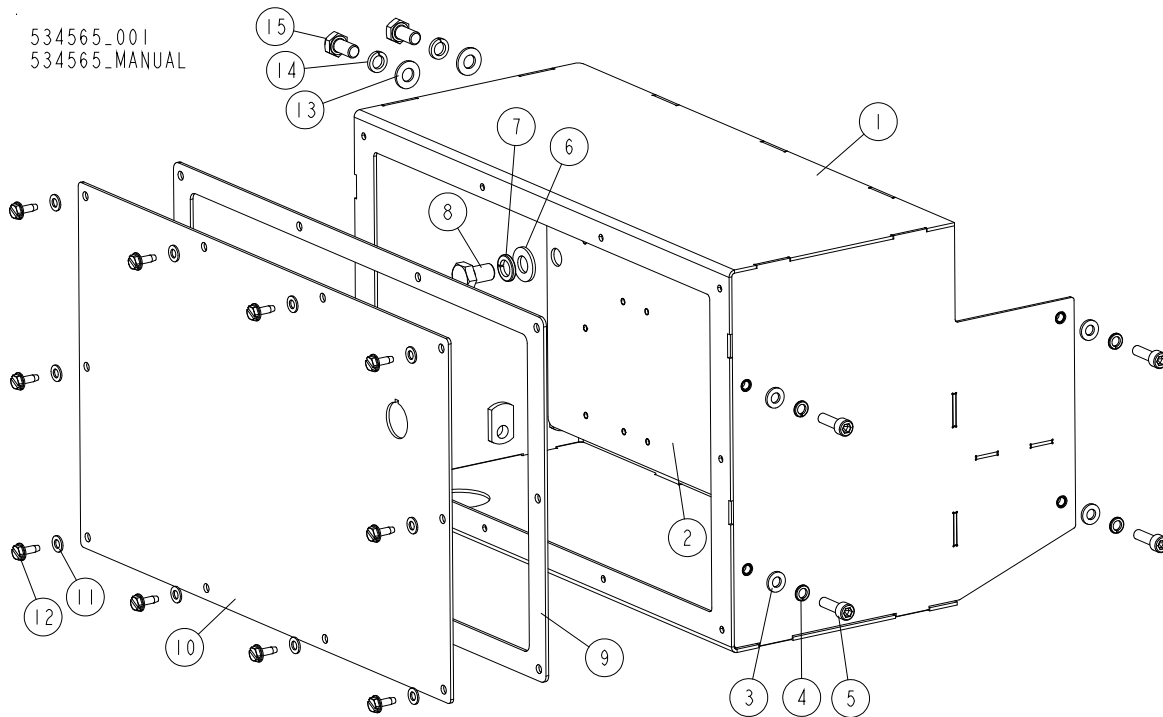
REF.	DESCRIPTION (◆ Indicates Parts Available in Assemblies Only)	PART #	QTY
-	<b>HOUSING, DC WIRELESS RECEIVER</b>	532248	1
1	BOX WELDMENT	530943-1	1
2	GASKET, CORK	532355	1
3	PLATE, FRONT	530945	1
4	PLATE, MOUNTING	532351-1	1
5	WASHER, 5.3 FLAT ZINC	F81052-1	10
6	BOLT, #10-24X1/2 SELF-TAPPING	F05015-7	10
7	SCREW, M4X16-5.8-B SLOTTED COUNTERSUNK HEAD ZINC	F81011-4	2
8	NUT, M4-8 HEX NYLON ZINC LOCK	F81029-1	2
9	GASKET, CORK	532366	1
10	SCREW, M6X10 BN 11252 "BOSSARD".	F81001-57	4
11	SCREW, M6X16 8.8 HEX SOCKET HEAD CAP ZINC	F81001-21	4
12	WASHER, 6.4 FLAT ZINC	F81053-1	4

## 4.6 Wireless Receiver Housing, LT40/LT70 AC Sawmills



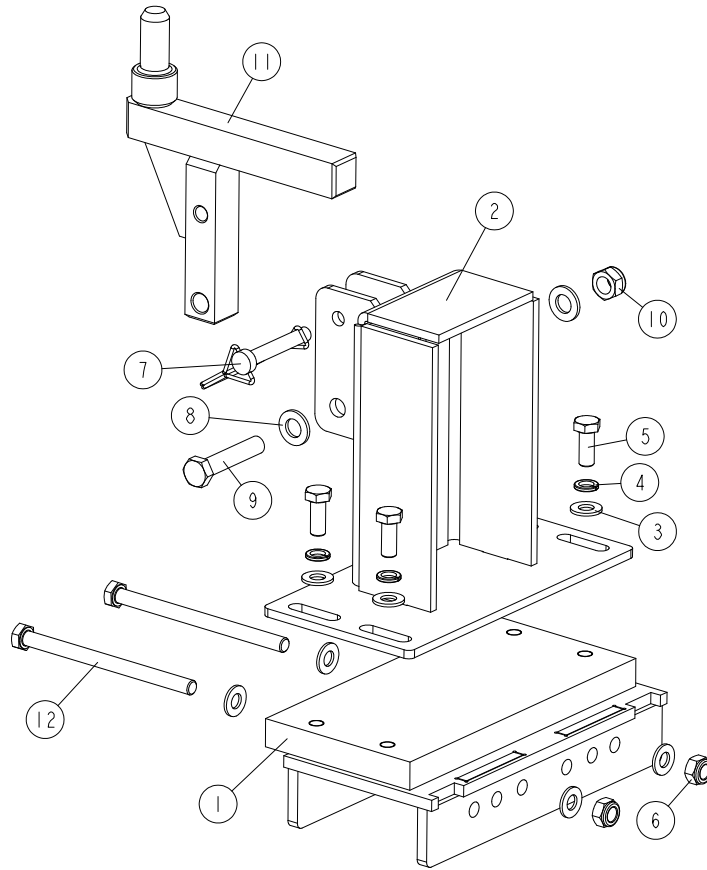
REF.	DESCRIPTION (◆ Indicates Parts Available In Assemblies Only)	PART #	QTY
-	<b>HOUSING, AC WIRELESS RECEIVER</b>	534501	1
1	BOX WELDMENT	534496-1	1
2	GASKET, CORK	534502	1
3	PLATE, FRONT	534500-1	1
4	WASHER, 5.3 FLAT ZINC	F81052-1	12
5	BOLT, #10-24X1/2 SELF-TAPPING	F05015-7	12
6	GASKET, CORK	532366	1
7	SCREW, M6X10 BN 11252 "BOSSARD".	F81001-57	4
8	PLATE, ELECTRIC BOX MOUNT	088266-8	1
9	WASHER, 10.5 FLAT ZINC	F81055-1	4
10	WASHER, Z 10.2 SPLIT LOCK ZINC	F81055-2	4
11	BOLT, M10X12 HEX HEAD FULL THREAD ZINC	F81003-30	4
12	WASHER, 6.4 FLAT ZINC	F81053-1	4
13	WASHER, Z 6.1 SPLIT LOCK	F81053-3	4
14	SCREW, M6X20 8.8 HEX SOCKET HEAD CAP ZINC	F81001-22	4

## 4.7 Wireless Receiver Housing, LT20 AC Sawmills



REF.	DESCRIPTION (◆ Indicates Parts Available in Assemblies Only)	PART #	QTY
-	<b>HOUSING, LT20 AC WIRELESS RECEIVER</b>	534565	1
1	BOX WELDMENT, LT20 WIRELESS	534570-1	1
2	PLATE, ELECTRICAL ELEMENT MOUNT	534566-1	1
3	WASHER, 6.4 FLAT ZINC	F81053-1	4
4	WASHER, Z 6.1 SPLIT LOCK ZINC	F81053-3	4
5	SCREW, M6X20 8.8 HEX SOCKET HEAD CAP ZINC	F81001-22	4
6	WASHER, 10.5 FLAT ZINC	F81055-1	3
7	WASHER, Z 10.2 SPLIT LOCK ZINC	F81055-2	3
8	BOLT, M10X16-8.8 HEX HEAD FULL THREAD ZINC	F81003-13	3
9	GASKET, CORK	534571	1
10	COVER	534572-1	1
11	WASHER, 5.3 FLAT ZINC	F81052-1	10
12	SCREW, #10-24X1/2 SLF TP SC	F05015-7	10
13	WASHER, 8.4 FLAT ZINC	F81054-1	4
14	WASHER, 8.2 SPLIT LOCK ZINC	F81054-4	4
15	BOLT, M8X16-8.8-B HEX HEAD FULL THREAD ZINC	F81002-20	4

## 4.8 LT70 WIDE Head Support - M Frames

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555350

REF	DESCRIPTION (u indicates parts available in assemblies only)	PART #	QTY	
-	<b>SUPPORT, LT70 WIDE HEAD- M FRAMES</b>	555350	1	
1	BASE, LT70 WIDE HEAD WLDMT. SUPPORT	555351-1	1	
2	BASE, LT70 WIDE HEAD WLDMT.	555354-1	1	
3	WASHER 10,5 ZC DIN 126 ISO 7091	F81055-1	8	
4	WASHER, 10.2 SPLIT LOCK ZINC	F81055-2	4	
5	BOLT, M10X25 8.8 HEX HEAD FULL THREAD	F81003-31	4	
6	NUT, M10-8-B HEX NYLON ZINC LOCK	F81033-1	2	
7	PIN, 3/8 X 2 1/4 SQ WIRE LOCK	014151	1	
8	WASHER, 13 FLAT ZINC	F81056-1	2	
9	BOLT, M12X60-8.8 HEX HEAD ZINC	F81004-5	1	
10	NUT, M12 8 HEX NYLON ZINC LOCK	F81034-2	1	
11	PIN WELDMENT, LT40 WIDE SAW HEAD REST	545664-1	1	
12	BOLT, M10X140-10.9 HEX HEAD ZINC	F81003-180	2	