



An Oshkosh Corporation Company

Setup and Operation Manual

Wireless Analyzer Module (WAM)



ANSI



***Preliminary Review Copy Only
4-08-2015***

P/N - 3121600

April X, 2015

FOREWORD

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Any changes / modifications not approved by the JLG Industries Inc., could void the user's authority to operate this equipment.

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REVISION LOG

REVISION LOG

Original Issue of Manual..... April 24, 2013

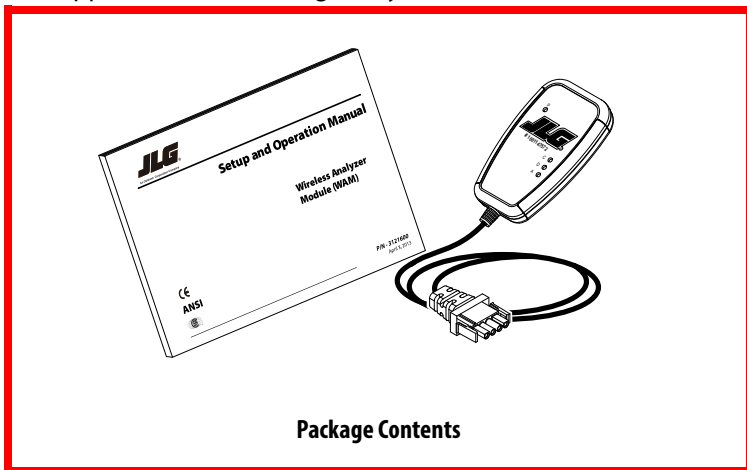
Manual Revised..... April X, 2015

SECTION 1. WIRELESS ANALYZER APPLICATION (APP) INSTRUCTIONS

1.1 PACKAGE CONTENTS

- JLG Wireless Analyzer Module interface - (JLG Part Number: 1001147542, or 1001156446 - SUNBELT® Labeled)
- Users Manual (JLG Part Number: 3121600)
Read thoroughly, before attempting to connect.

The JLG wireless analyzer application (app) can be downloaded and installed onto a phone or tablet using iTunes® (Apple® Devices) or Google Play® (Android Devices) websites.



Package Contents

1.2 WIRELESS SETUP (PHONE, TABLET)

(See Figure 1-1. on page 1-2)

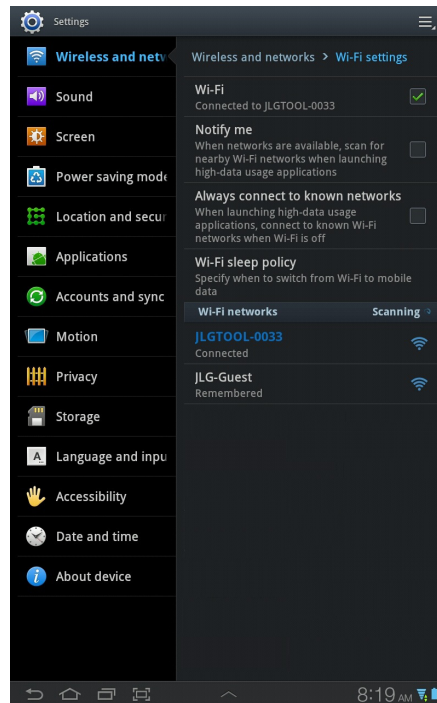
After installing the application (app) and prior to connecting the application to the Wireless Analyzer Module, (WAM), your phone or tablet must have its WiFi settings configured so that it is connected to the WAM. For example the following Figure 1-1. shows the devices Wi-Fi connected to a WAM named JLG-TOOL-0033.

NOTE: *Out of the box, the default Wi-Fi WAM device name is JLG-WAM-0001, if you would like to rename your device, See page 2-2, JLG Wireless Analyzer Application - Wireless Settings, for instructions on naming your WAM device.*

SECTION 1 - WIRELESS ANALYZER APPLICATION (APP) INSTRUCTIONS



Apple® Wireless Settings



Android Wireless Settings

Figure 1-1. Wi-Fi Networks Configuration Screen Example

1.3 APPLICATION - STARTUP

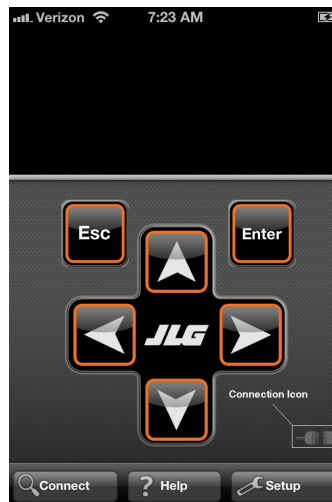


Pressing the application button will start the JLG Wireless Analyzer application.

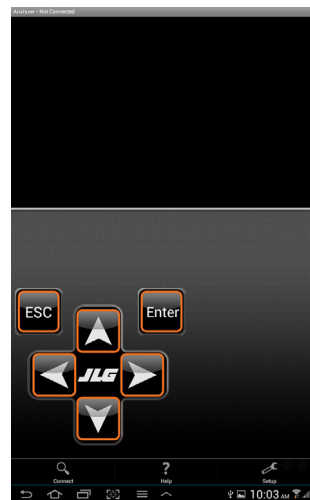
A splash screen will show briefly, followed by the wireless analyzer home screen.



Analyzer Splash Screen



Analyzer Home Screen - Apple®



Analyzer Home Screen - Android


Figure 1-2. Analyzer Home Screen

SECTION 1 - WIRELESS ANALYZER APPLICATION (APP) INSTRUCTIONS


1.4 CONNECTING THE APPLICATION TO THE WAM

(See Figure 1-2. on page 1-3)

- **Android devices** - to bring up the Connect/Help/Setup buttons, at the bottom of the home screen;

press this icon on a (Tablet) 

or;

this icon on a (Phone). 

You will then see the Connection, Help, and Setup buttons appear at the bottom.

- **Apple devices** - the home screen will display the buttons when the application is started. Pressing the connect button will connect the application to the machine.

The initial analyzer screen should appear after a short time.

(See Figure 1-3.)



Once connected, the icon in the lower right corner of the screen will change to the application connected status.



After connection, the displayed text can be made larger by touching the AA icon in the upper right corner of the text display area. There are two sizes of text, small and large.

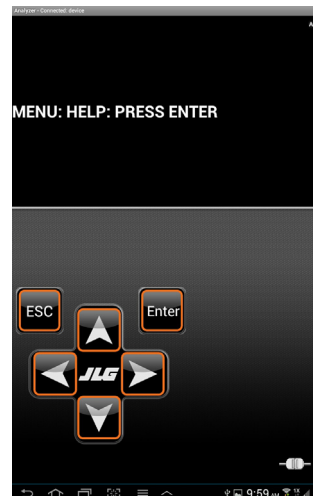


This icon will appear in the lower right corner of the text display area if the application cannot find the translated text in the database. In that case the English text coming directly from the analyzer port will be displayed.

At this point the user buttons function in the same manner as the wired JLG analyzer to navigate the menus.



Analyzer Home Screen - Apple®



Analyzer Home Screen - Android

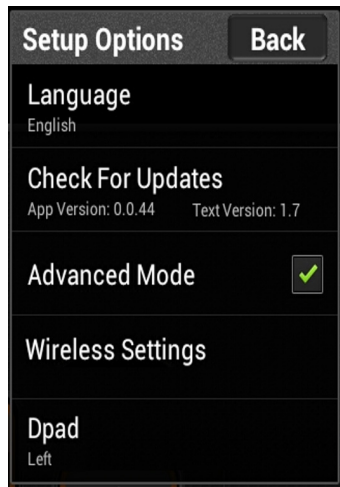
Figure 1-3. Analyzer Home Screen - Connected

1.5 APPLICATION - SETUP SCREEN

Touching the setup button will bring up a dialog box with the following selections.



Analyzer Setup Screen - Apple®



Analyzer Setup Screen - Android

Language Select

Touching the Language selection will bring up a dialog that will allow a user to choose the desired language that analyzer screens will be translated into.

NOTE: *You must be disconnected from the machine and either have a Wi-Fi internet connection available or a cellular signal to successfully change the language selection.*

- **Apple devices**, once a language is chosen touch the apply button to begin the language change. (See Figure 1-4.)
- **Android devices**, a dialog box will appear with the choice to proceed or cancel. (See Figure 1-4.)

Choosing apply will begin the language update process. You will see the status of the update via a progress indicator. (See Figure 1-5. and Figure 1-6.)

Once finished, touching the back button will exit out of the setup menu. You may need to go back to the wireless settings to reconnect the phone or tablet to the JLG WAM.

SECTION 1 - WIRELESS ANALYZER APPLICATION (APP) INSTRUCTIONS



Apple®

Android

Figure 1-4. Change Language Screen

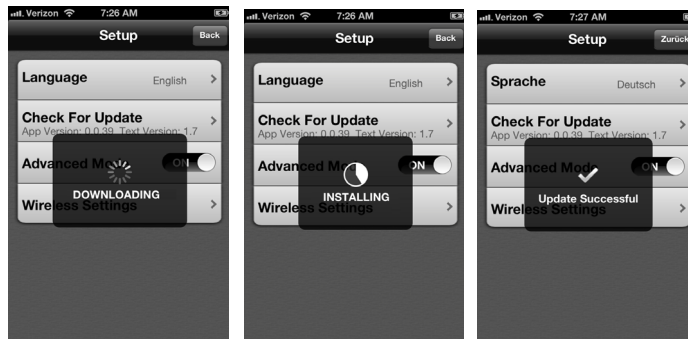


Figure 1-5. Language Update Sequence - Apple®

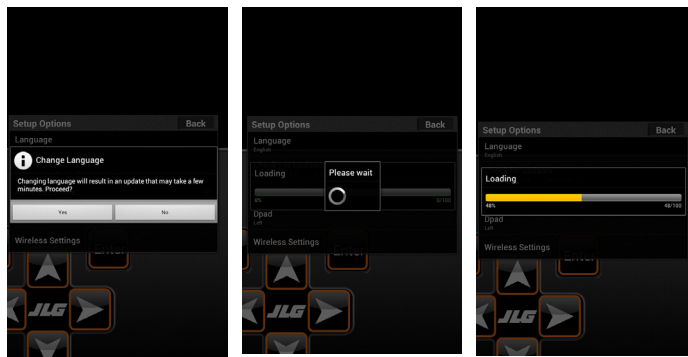


Figure 1-6. Language Update Sequence - Android

Check for Update

Touching the Check for Update selection will cause the phone or tablet to search the Apple® iTunes® or Google Play® for the JLG Wireless Analyzer application software, and/or a text database update. You must be disconnected from the WAM and either have a Wi-Fi connection or a cellular signal to successfully complete an application software/text database update.

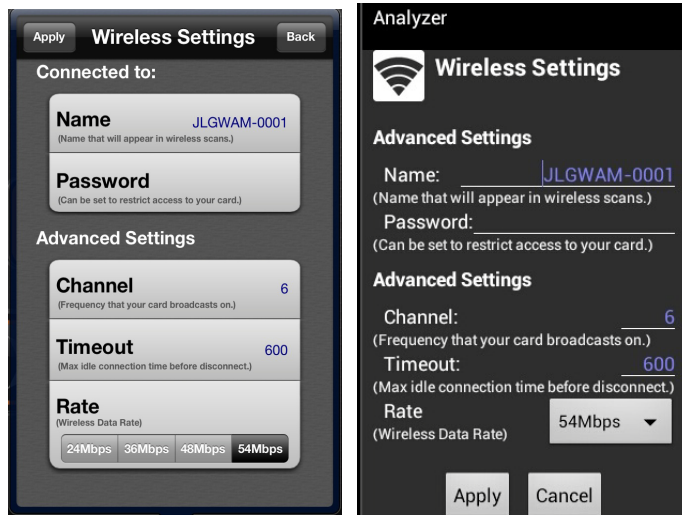
Advanced Mode

Selecting this option will cause the application to display the analyzer text in the current language selected. De-selecting this option will cause the application to display analyzer screens in the original analyzer screen format in English only.

Wireless Settings

This screen allows the user to modify the WAMs' internal settings. You must be connected to the WAM through the wifi connection, but not have the Wireless Analyzer application connected, i.e. not displaying analyzer screens. Touching on the particular setting to be changed will bring up a numeric or alphanumeric keypad to allow that setting to be changed. If no changes need to be made, press the back button to exit to the previous screen. When finished press the apply button to store the changes in the module. Once finished cycle

power to the JLG WAM by using the E-stop on the machine, or unplugging and plugging the JLG WAM back into the analyzer connector.



Apple®

Android

Figure 1-7. Wireless Settings Screen

SECTION 1 - WIRELESS ANALYZER APPLICATION (APP) INSTRUCTIONS

Name - Set/Change

This menu item is the name given to the WAM that will display when scanning for wireless connections. All JLG WAMs come defaulted to the same wireless settings therefore you MUST set the WAMs name first to avoid conflicts with other WAMs. The name can be up to 32 characters long, but must not contain spaces and typically consists of letters and numbers.

Password - Set/Change

The WAM is capable of being password protected so only you may connect to it. The name can be up to 32 characters long, but must not contain spaces and should be something easily remembered. Once the password is set on your phone or tablet the application will store and remember it so future connections will connect with no prompting for a password. However if another phone or tablet attempts to connect a dialogue screen will appear prompting the user to enter the password for the WAM. Failure to remember the password will render the WAM locked and a default reset will need to be performed. See WAM hardware section for instructions.

Advanced Settings

These settings should only be accessed if you are experiencing communication problems.

- **Wireless Channel Number** - (must be a number from 1-14**) this will set the wireless channel the device communicates on. Typical choices are channels 1, 6, and 11

because there is no communication overlap between these but any channel can be selected.

NOTE: ** North America allows use of channels 1-11 only. If you are operating in North America and you set the channel to 12, 13, or 14 you may no longer be able to see the WAM when trying to connect. In this case you will have to reset the WAM to the default settings as described in the WAM hardware section.

- **Timeout** - (30 - 9999 seconds) this will set the communication idle timer. When expired the WAM will disconnect from the phone or tablet automatically.
- **Wireless Rate** - (24, 36, 48, 54 Mbps) this sets the wireless over the air communication rate.

Application Setup Screen - Dpad (Tablets Only)

This setting allows a user to set the size/position of the keypad on the screen.

NOTE: This option is only available when running the application on a tablet and gives the ability for one handed operation of the application.

The choices are center, left, and right. Choosing the center will expand and center the keypad. Choosing left or right will condense the keypad and left or right justify it on the screen.

SECTION 2. WIRELESS ANALYZER MODULE - SETUP AND TROUBLESHOOTING

2.1 FIRST TIME -SET-UP

When you first power up the JLG Wireless Analyzer Module it will be set to the following factory defaults:

Table 2-1. Default Wireless Analyzer Module Settings

Wireless Name	JLGWAM-0001	Name of the JLG WAM device as it appears on the Wi-Fi network (SSID)
Password	None	WAM Password is not set
Wireless Channel	6	Channel the WAM device communicates with the Wi-Fi network
Timeout	600 Seconds	Inactivity timer - If communications has not occurred for xxx seconds between the WAM and your phone or tablet, the WAM will disconnect the wireless connection
Wireless Comm Rate	54Mbps	Communication rate of the wireless connection

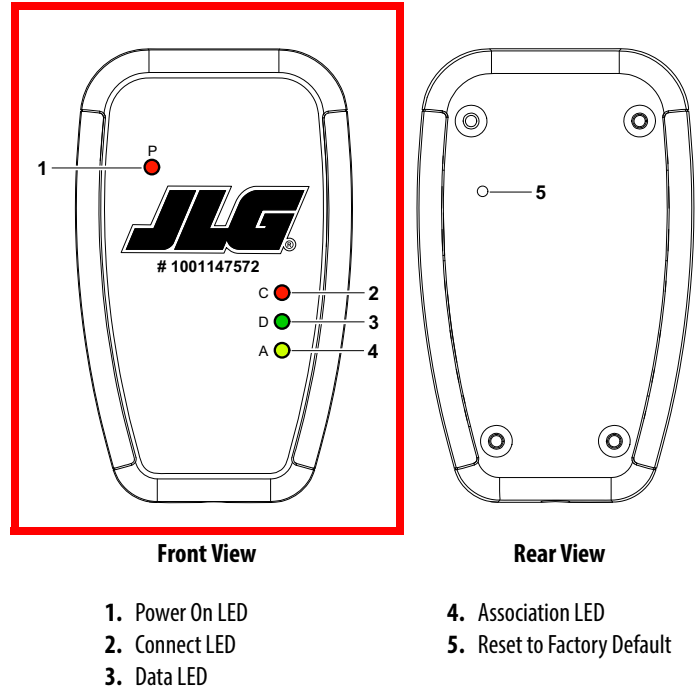


Figure 2-1. Wireless Analyzer Module (WAM)

Setting Wi-Fi Name (SSID)

In order to keep the WAM from conflicting with other WAM devices, you **MUST** first set the Name (SSID) of the WAM by doing the following:

1. Plug the JLG Wireless Analyzer Module into the analyzer port of any JLG machine equipped for the wired analyzer interface.
2. Using your phone or tablet connect to the JLG WAM, and start the JLG Analyzer application, **but do not touch the connect button in the app.**
3. Go into the Wireless Analyzer Module setup by touching the Setup button and then the "Wireless Settings" button.
4. In the Wireless Settings menu touch the area beside Name (*Should bring up a keyboard*).
5. Type in any name you want to associate with the WAM. The name must not contain spaces and must be 32 characters or less.

Setting Password

If you would like to add a password to the device you can do so by touching the area beside the password text. (*Should bring up a keyboard*).

The password must not contain spaces and must be 32 characters or less. If you set a password record it and remember it! If you choose not to set a password touch the "Apply" button on the screen and wait, the module should update. Once finished, cycle power to the WAM by either cycling the E Stop on the machine you are plugged into, or unplugging and re-plugging the module into the analyzer connection.

2.2 Troubleshooting the JLG Wireless Analyzer Module

If you have trouble connecting the application to the JLG Wireless Analyzer Module, check the following:

Table 2-2. WAM LED Status Table

WAM Status LED	Device Not Connected to JLG Wireless Analyzer Module	Device Connected to JLG Wireless Analyzer Module - Application not running	Device Connected to JLG Wireless Analyzer Module - Application Running
Red Power LED (P)	On	On	On
Red Connection LED (C)	Blinking Slow	Blinking Slow	On
Green Data LED (D)	Off	Off	Blinking
Yellow Association LED (A)	Blinking Fast	Off	Off

Notes:

1. Try re-orienting the module. The module can be underneath open hood to protect it from environmental elements, but may not communicate, or communication distance may be severely affected if the module is underneath a closed metal hood.
2. Only one device can be connected to the JLG WAM at a time. If another device is connected you may receive a device cannot connect. If the device has been password protected and you do not know the password, you will not be able to connect to it.
3. Make sure you have given the JLG Wireless Analyzer Module a unique name (SSID), as this will cause a conflict if there are two or more modules with the same name.
4. If there are many devices in range on the same channel this may cause intermittent communications between the device and the JLG Wireless Analyzer Module. See the Wireless settings section on how to change the communication channel on the JLG WAM.

2.3 FACTORY DEFAULT - RESET

The following is required to reset the JLG WAM to factory default settings. Read thoroughly before attempting a factory reset!

1. Initially, the module should be plugged into the machine with power off.
2. Flip module over and remove decal to access the factory reset switch. (See figure 2.)
3. Insert a paper clip in the hole, and depress gently, you should feel the switch click. (You will be pressing and releasing the button several times in the following steps.)
4. With the switch depressed power on the machine.
5. Perform the following sequence at one second intervals:
 - a. Release switch
 - b. Depress switch
 - c. Release switch
 - d. Depress switch
 - e. Release switch


6. Power off the module. Replace the decal or cover the hole with tape.


NOTE: *This will reset the module to defaults and require a reset of the Name (SSID) of the device. (Refer to Table 2-1, Default Wireless Analyzer Module Settings.)*



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