Fixture Files

Installation and Usage Guide

Introduction

The second generation of Resodyn Acoustic Mixer (RAM), which includes the LabRAM II, LabRAM II H, and PharmaRAM II, can be fitted with a number of different mixing containers and fixtures to secure the aforementioned containers to the mixer mounting plate. In order for optimal operation, the RAM mixer needs to "know" what container and fixture will be used for a mixing operation before the mix starts.

The information about the container and fixture are stored in what is referred to as a fixture file. These fixture files define the starting frequency, minimum/maximum frequency, maximum acceleration, maximum vacuum, and minimum/maximum temperatures. The fixture file information is used to provide quick response to the desired operation set points, as well as provide supervisory operation with standard and custom fixtures. Fixture files are selected for a mixing operation by "linking" with what is referred to as a *Configuration* in the HMI software.

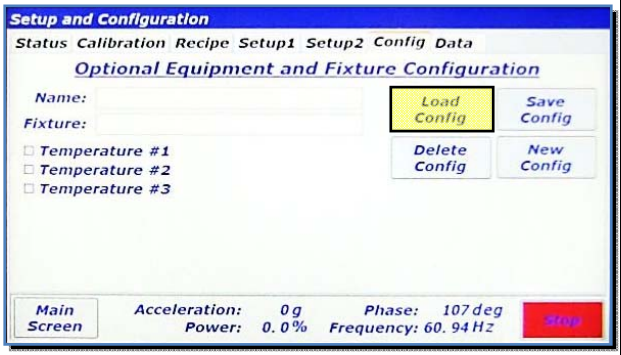
The fixture file needs to be selected from the RAM's HMI screen before operation when a different fixture has been installed on the machine. The fixture file is the user's method of "informing" the RAM system with what fixture and vessel is attached to the payload plate.

Configurations

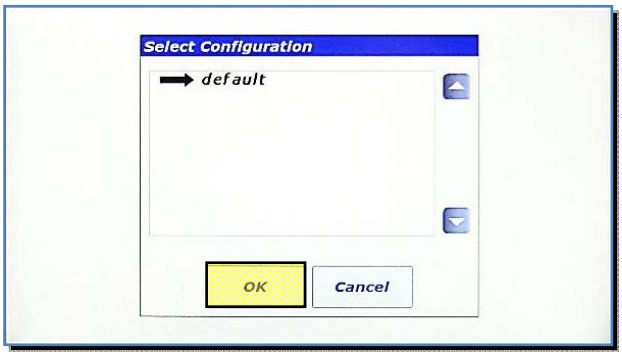
Configurations serve two purposes for the second-generation series of Resodyn Acoustic Mixers. The first purpose is to set operation limits and the second is to switch on and off optional features. The fixture file is used to set the operational limits. For example, optional features that can be turned on and off are the temperature sensors. By disabling the temperature measurements, RTDs can be unplugged from the system and not cause erroneous alarms or clutter the time history trends in the Viewer screen.

Editing a Configuration

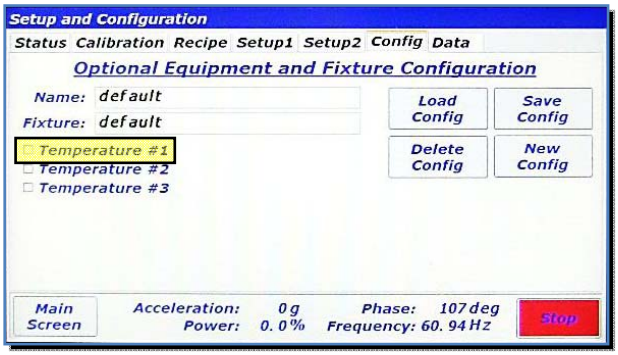
The following walk-through modifies the configuration provided with the second generation RAM systems called “default.” This sequence assumes that temperature measurement option is equipped, and that temperature #1 was not used initially.



1. In the Config tab, touch the <Load Config> button.

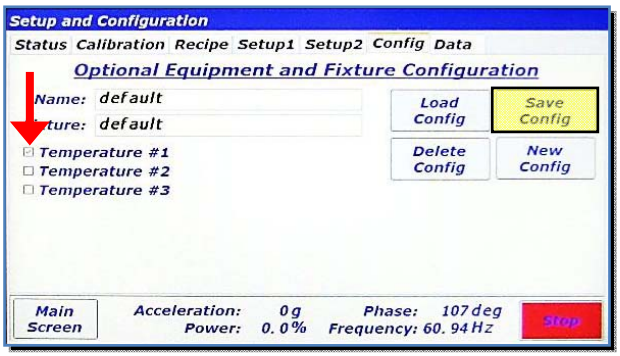


2. In the “Select Configuration” dialog, select “*default*” by touching its line. Then touch <OK>.

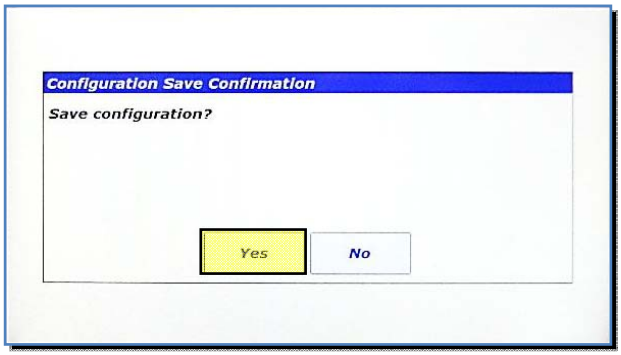


3. The “*default*” configuration is now loaded. Notice that none of the temperature checkboxes are checked. This means that in its current state, no temperature alarming would be active and all temperatures would read “0.” Turn on temperature #1 by touching it.

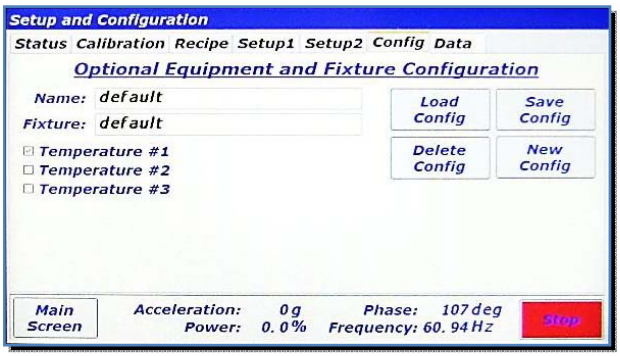
NOTE: The default configuration cannot be deleted, but it can be modified



4. Temperature #1 is now checked. Touch the <Save Config> button to commit changes.



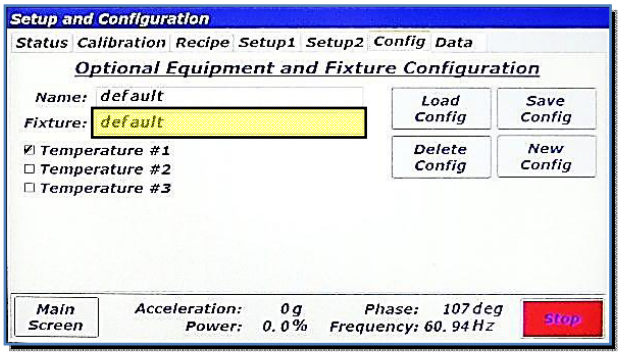
5. Touch <Yes> on the “Configuration Save Confirmation” dialog box.



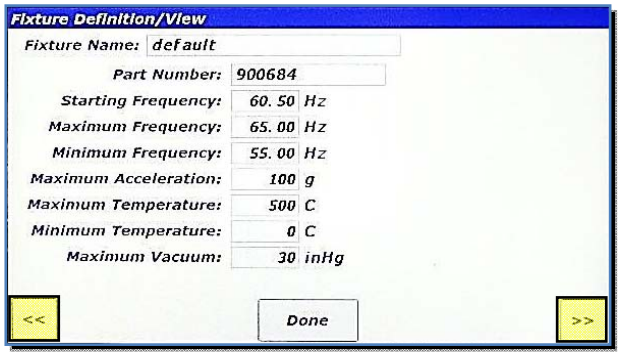
6. Now that temperature #1 is checked and the default configuration saved, Temperature Channel #1 will be monitored and displayed. Additionally, all fixture and user temperature alarm limits will be activated.

Linking a Fixture File to a Configuration

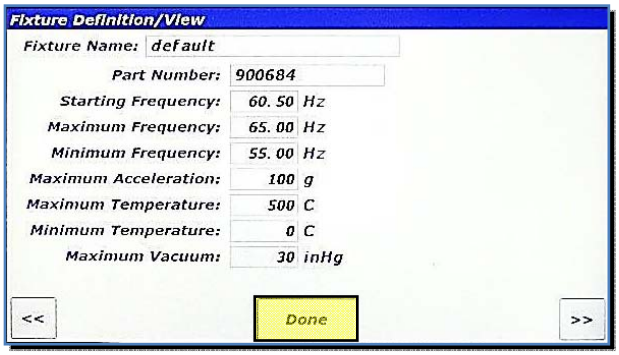
The following walk-through describes how to assign a fixture file to a configuration.



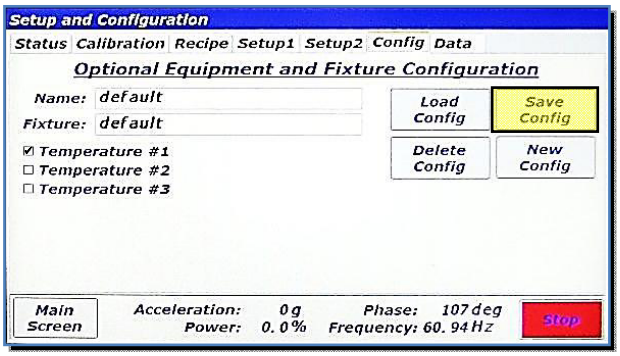
1. From the Config tab with a configuration loaded ('default' configuration shown), touch the white text box next to "Fixture:" (highlighted in yellow above).



2. The "Fixture Definition/View" screen will appear. The parameters for the selected fixture are displayed. When new fixtures are ordered from Resodyn Acoustic Mixers, fixture files will need to be installed on the mixer using the procedure described later in this document. If the system has more than one fixture defined, the "<<" and ">>" buttons scroll through all of the fixture files.



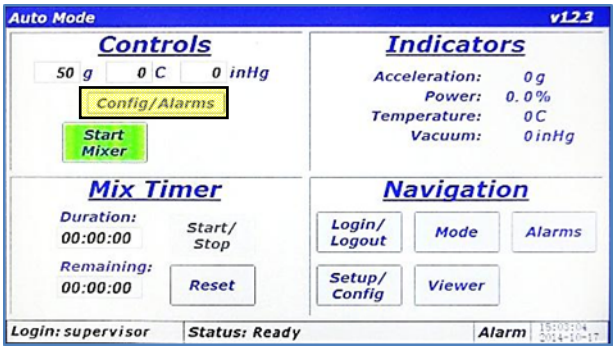
3. Touch <Done> when the correct fixture is visible.



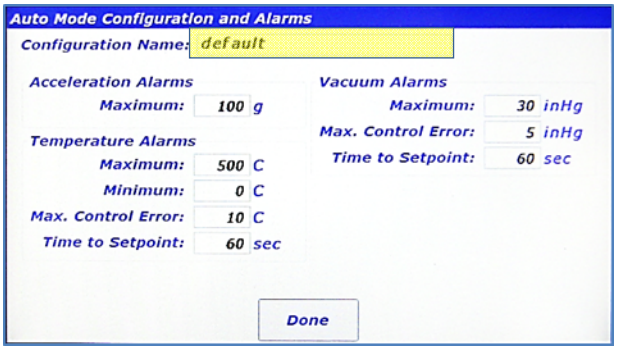
4. Touch the <Save Config> button to commit changes.

Setting Active Configuration in Auto Mode

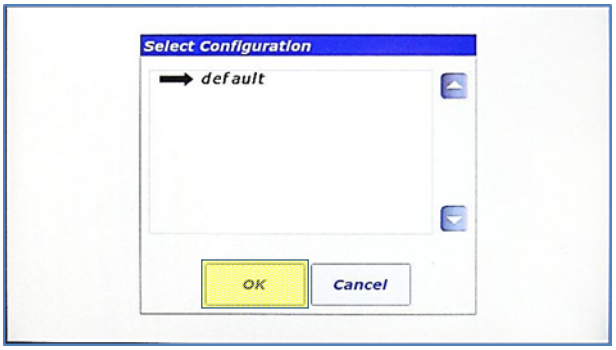
In order for a Configuration (and fixture) to be used by the second generation RAM systems, it has to be selected. The following illustrates selecting a Configuration when using Auto Mode.



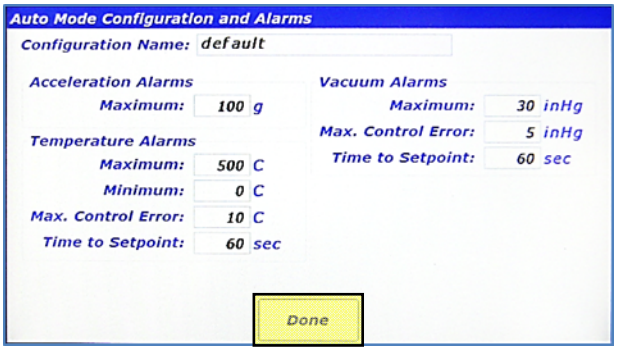
1. To select a Configuration, touch the <Config/Alarms> button above the Start Mixer green button.



2. The “Auto Mode Configuration and Alarms” screen is displayed. The Configuration for Auto Mode is selected by touching the textbox next to “Configuration Name:”.



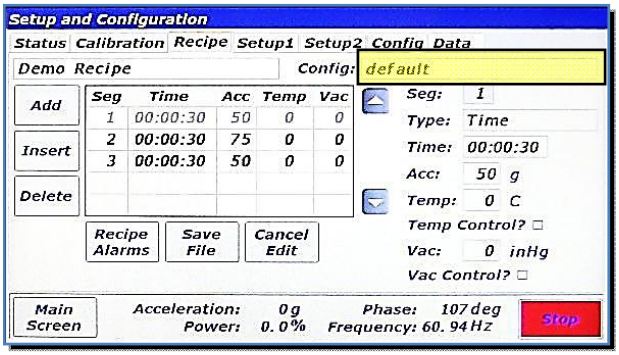
3. The “Select Configuration” dialog will appear and the Configuration can be selected from the list (only one configuration is defined in the image). Touch <OK> after the configuration has been selected.



4. The “Auto Mode Configuration and Alarms” screen will be displayed again. To close the dialog touch <Done>.

Setting Active Configuration in Recipe Mode

When using the second generation RAM systems in recipe mode the configuration (and fixture file) is assigned while defining the recipe. The following illustrates where to select a Configuration while defining a recipe.



1. The recipe-mode Configuration is selected from the recipe editing screen shown above (refer to RAM system manual for instructions on how to navigate to this screen).

Fixture Files

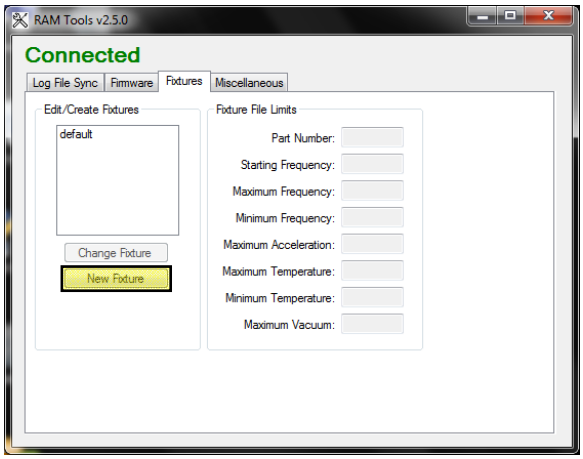
For optimum performance, the correct fixture files need to be used that correspond to the factory fixture. Fixture files are preinstalled on the second generation mixers at the factory for each fixture purchased. However, customers will need to download fixture files to the RAM systems for fixtures purchased after initial RAM system purchase. Resodyn Acoustic Mixers will provide the fixture files via email or DropBox, and the file is uploaded to the RAM system using RAM Tools (version 2.5.0 or later).

Downloading Fixture Files

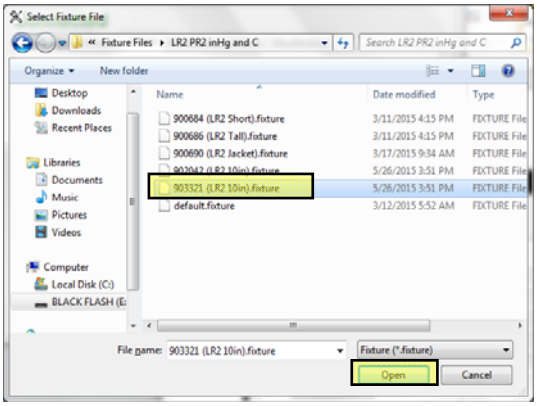
RAM Tools (version 2.5.0 or later) is required to upload fixture files to the RAM systems. Perform the following procedure to download the new fixture file to the RAM system:

1. Copy the fixture file provided by Resodyn to the computer that will be used to connect to the RAM system.
2. Connect the USB cable in to the RAM system and the computer with RAM Tools installed on it.
3. Turn the RAM system power on.
4. Start the RAM Tools application by clicking on the Window start button and selecting it from the Programs list.
5. Ensure the green Connected text is visible at the top of the application. Go to the Fixtures tab.

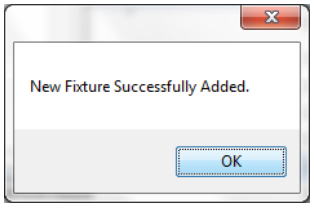
6. Click on the “New Fixture” button



7. Navigate to the folder location where the fixture file was saved. Select the fixture file and click Open.



8. The “New Fixture Successfully Added” message box will appear if the operation was successful.



9. The newly created fixture file will now appear in the listbox.