**OVERLAND**™

# Service Aides for the TapePro series

## What do they do?
The following set of Service Aids are used to re-initialize and calibrate the tape units.

## Models Supported
3201   5212   5622
3210   5214   5624
3601   5612
3610   5614

## The front panel buttons on the drive are used to run tests:
The buttons are Numbered from Top to Bottom, 1 to 4.
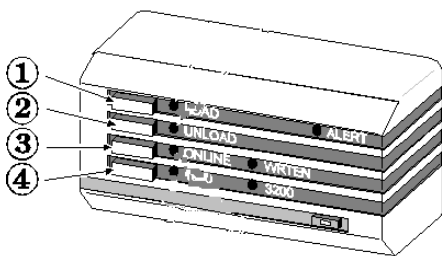Load = 1, Unload = 2, Online = 3,  1600 = 4.
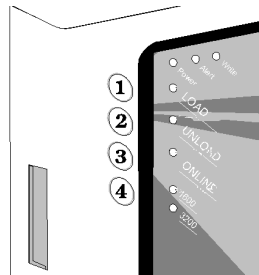


Figure 1   5xxx drive       Figure 2   3xxx drive

# Service Aid: Zeroing the NOVRAM

## Purpose
· To set calibration values to factory defaults.
· To re-calibrate the supply and take-up motors

### When to perform this test?
· After replacing either the Main PWB or the Deck Plate.
· If  motor errors, such as error 50 or 51, won't clear by cleaning the tape path.
· As a last effort to clear an error (Alert condition) at power up.

### Minimum conditions for success
· Power must be supplied to the Main PWB and the front panel.
· The front panel buttons and lights must operate.

## How to Zero the Novram

1. Unload any reel from the tape drive
2. Power-off the tape drive.
3. Press and hold Buttons 2 and 3.
4. While holding Buttons 2 and 3, power-on the drive. Do not release the buttons.
5. After all the front panel lights flash, release the buttons.
6. Press Buttons 2 and 4. Release them. The door solenoid will lock. The lights should flash in a random pattern. The motor will spin as they calibrate. This activity lasts one minute. Afterward the Unload light and a density light will light solid indicating an unloaded state.
7. Turn the unit off for 20 seconds. Power on. After finishing (POST) Power-On-Self-Test the lights should indicate an unload state.
8. Proceed with the other service aids.

## Service Aids suggested after Zeroing the Novram
· Read Zero(for 36XX, 56XX models only)
· Door Alignment
· Read Threshold (optional)
· Drive Type Utility (3201, 3601-Tower model)

## Read Zero Service Aid
For 36XX, 56XX drives only (GCR-6250bpi).
1. Place the drive in the Unload state.
2. Press buttons 3-2-3-4 in sequence. The WRTEN light should blink continually.
3. Press button 2. The UNLOAD light should light solid.
4. Press and hold button 4. Then press button 1. Release both. All Lights will turn off, then a random pattern of lights will display.
5. If this service aid fails, the *ALERT* flashes. This may indicate a dirty, worn, or defective read/write head. The ribbon connectors at the rear of the head may need to be re-seated.
6. If successful, the front panel will return to the UNLOAD state.
If failures persist, contact Overland Technical Support.

## Door/Cover Sensor Service Aid
Use this service aid to calibrate the door and cover sensors. (door only for Tower model)
1. Press and release buttons 3-2-3-4 in sequence.. The WRTEN light will flash.
2. Press buttons 1, 2 and 3. The LOAD, UNLOAD & ONLINE lights will light solid.
3. Press and hold button 4. Then press button 1. Release both to start the test. The UNLOAD and ALERT lights flash. The DENSITY lights will light solid.
4. To check the sensors, open the tape door. The 1600 light should turn off. Open the top cover, the other density should turn off.
5. Press button 4 to exit.

## Read Threshold Service Aid
This service aid adjusts the Read Thresholds levels for each track at both densities. **A write-enabled, high quality tape must be used to calibrate the read thresholds. <u>Note</u>: Any data on the tape <u>will</u> be written over.** *Tower model-run <u>Drive Tape Utility</u>.

1. Verify the write enable ring is in place on the reel. Load the tape. Check to make sure the drive is online.
2. Press buttons 1-2-1-4 in sequence. The WRTEN light should flash.
3. Press and hold button 4 , then button 1. Release both. A pattern of lights will blink.
4. After a minute, the drive will rewind to the original Load/Online state.
5. Run the Write/Read Verity test or unload the tape
6. If and Alert Light flashes, clean the head, change tapes, and run again.
7. If failures persist, Call Overland Technical Support.

## Testing the Drive

**Short Write/Read Verify Test**
Duration: 15 minutes                **Note: Any data on the tape <u>will</u> be written over.**
1. Verify the write enable ring is in place on the reel. Load the tape. Select the density. Place the drive online.
2. Press buttons 4-2-1-3 in sequence. The WRTEN light should flash.
3. Press and release buttons 1, 2, 3, and 4. The lights next to each should light.
4. Press and hold button 4 , then button 1. Release both. The test will start.

The LOAD light will blink while performing a write operation. The UNLOAD will blink for a read. When finished, the drive will rewind the tape to load point.

If an error occurs, the red ALERT light will flash and the green lights will indicate the error. Record the lights and call Tech Support.

**Long Write/Read Verify Test**
Duration: Until stopped          **Note: Any data on the tape <u>will</u> be written over.**
1. Verify the write enable ring is in place on the reel. Load the tape. Select the density. Place the drive online.
2. Press buttons 4-2-1-3 in sequense.. The WRTEN light should flash.
3. Press and release button 1. The LOAD light should light.
4. Press and hold button 4 , then button 1. Release both. The test will start (early model). If the ALERT light flashes, press button 1 again to start the test (later model).

The LOAD light will blink while performing a write operation. The UNLOAD will blink for a read. To stop, press the ONLINE button. Then press UNLOAD to rewind and unload the tape.

If an error occurs, the red ALERT light will flash and the green lights will indicate the error. Record the lights and call Tech Support.

## <u>Drive Type Utility</u>
This utility is used to select the type of tape drive, choosing between desktop Tape-Pro models and the tower Tape-Pre models. The ALERT light will flash during the test.

1. Press and release buttons 3-2-3-4 in sequence.. The WRTEN light will flash.

2. Press buttons 1 and 4. The LOAD & DENSITY lights will light solid.
3. Press and hold button 4. Then press button 1. Release both to start the test.

Button 1 is used to toggle the selection.

The LOAD will light as follows:

| | | |
|---|---|---|
| LOAD | OFF | TOWER |
| LOAD | ON | DESKTOP |

Press Button 4 and Button 1 simultaneously to save and exit.