

Tips and Tricks for optimizing the Manhattan rs-1933
Updated **SEPTEMBER 15, 2012** by **MIKE KOHL**

**(Things they did not include in the Manual, and other helpful
information submitted by "power users" of this satellite receiver)**

Future updates and other news can be found at the Manhattan-Digital website.

www.manhattan-digital.net

DISCLAIMER

Users accept all responsibility for the results of any do-it-yourself downloading procedures.
If you do not feel comfortable using computers, USB memory sticks and other devices used for file transfers,
please contact a professional that has experience in such matters and can guarantee their work.

Manhattan-Digital warranties will be voided through the use of unauthorized third party files.
Know what you are doing and only use files authorized or otherwise released by Manhattan-Digital.
Any problems caused by attempted loading of other files creates a situation outside of warranty coverage.
Repairs for out-of-warranty situations will involve a service fee and shipping charges to remedy.

Any questions? Direct E-Mail can be sent to JEFF SCHUMANN or MIKE KOHL.

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IDENTIFYING THE FIRMWARE VERSION IN YOUR RECEIVER

1. Press **MENU** button on your remote control.
2. On TV screen, look for **TOOLS** heading, dropping with down arrow if necessary, to select.
3. Enter **TOOLS** section and select **INFORMATION**.
4. Study the entry to the right of **MAIN CODE**, which will give you the receiver's firmware version.
(Example: LRJM 3.8 would translate to version 3.8, followed by a release date).

DETERMINING IF YOU SHOULD UPDATE THE FIRMWARE IN YOUR RECEIVER

All Manhattan RS-1933 satellite receivers leave the factory with some satellite and transponder info already loaded and ready to use. Factory information is not complete, but receiver can be updated either manually by the installer or end user, or with a more detailed PRELOAD File to instantly transfer technical information into the receiver memory.

Retailers of Manhattan-Digital RS-1933 satellite receivers such as GLOBAL COMMUNICATIONS may independently maintain data files with current satellites, transponders and preset channels. If you have ordered a receiver from a vendor, and it was sold with a PRELOADED memory option, do NOT attempt to update your receiver. It has already been loaded with satellite, transponder and channel information, and is ready for further installation without any scanning processes.

If you have recently purchased a Manhattan RS-1933 receiver, and it did not include a preloaded memory, you have several things to consider:

1. Confirm what Firmware version that you have in the receiver.
Make sure that it has Version 3.2 or a later number.
Version 3.2 and all later firmware releases include the all-important option of Uploading ability.
This makes it possible to create and save existing satellite settings onto a USB memory stick, as

well as being able to download future updates in the same manner.

2. If you have a firmware version with a number lower than V 3.2, updating to version 3.2 or any later versions will erase any Satellite, Transponder, or Channel information that you have in the receiver, but once the update is installed, this will be a problem of the past. Future upload or download updates will then literally take only seconds to process.
3. The Manhattan-Digital website will have the ability to provide a factory firmware version, with satellite and transponder information free of charge in a downloadable file. Follow instructions provided with such files, and update to the latest Firmware version. Click on SUPPORT to find.
4. Those of you that would like to have the latest Firmware version, but may be intimidated by complicated computer procedures, have another option, and can save many countless hours of scanning the skies by yourself to gather all of the necessary information directly via satellite. Global Communications has done all of the heavy lifting, and your solution can be provided by Email, after payment of a nominal service charge.

Mike Kohl operates Global Communications, and for many years has devoted a lot of time keeping track of satellite signals around the world. He provides a free resource on the Internet at his Global Communications website with MPEG-2 and MPEG-4 Free-To-Air channel charts. These show the many hundreds of FTA video and audio channels available to those in North and South America. You may visit it at www.global-cm.net Click on the Free To Air section and get informed. All of this activity has built a database that is continually updated, and one of the side projects has been the creation of the PRELOAD service described above. Please contact him by Email, or telephone Global Communications during weekday business hours to order at (608) 546-2523. Receivers are available with or without Preload option, along with entire satellite systems. Preload files can be purchased for existing receivers, and include all active satellites from 139 West to 50 West, with additional transponders and satellites listed over to 140 East for the benefit of those in Alaska and Hawaii, and eastward down to 1 West for those on North America's East Coast. Existing receivers can be loaded after receiving a 4 Mb file via Email, transferring it to a USB stick, and then taking a few seconds to load the information into the satellite receiver.

DETAILS OF FIRMWARE UPDATES

Manhattan-Digital's first production units of the model RS-1933 receiver went on sale in July 2011. The factory shipped these with Firmware version 2.7.

A much larger production run entered the retail market starting in January 2012, and shipped with version 3.4 firmware. Significant changes between the original version 2.7 and 3.4 included:

- ***Uploading function, allowing export and import from satellite receiver through USB stick.
- *** Audio screen saver.
- ***Unicable functionality.
- ***USALS control added.
- ***Replacement of Zoom Key with Res (Resolution) key function.
- ***Prevention of wrong file downloading.
- ***Detailed signal information when pressing I (Information) button.
- ***Manual PID insertion.
- ***Use of DiSEqC motor and switches.
- ***Prevent unwanted motor movement .
- ***Remove Games option.

Later firmware updates offer the following updates:

- Version 3.7 Up to 20 audio channels per channel now accessible.
22 KHz update, giving more control of LO settings for Universal LNBFs.
- Version 3.8 Offers simpler access to a Single Satellite Delete option.
- Version 4.0 Increases the number of Audio PIDs that can be scanned per channel.
Zoom button on remote control now activated by RES button on remote.
- Version 4.1 Moving Dish message time on screen cut in half.
Front panel left and right buttons now have more accessible functions.
Updated factory default channel list.

In the fall of 2010, a small group of Beta-test Advanced prototype (non-production) receivers were sent to satellite and others, for the purpose of getting input on operational performance and suggestions for additional features. These differ significantly in one critical area; the processor. This group of receivers used a 2 Mb rather than the 4 Mb processor that all production receivers have. We are mentioning this fact because there may be a few people that eventually purchase one of these models on the used market, and it should be understood that none of the software or firmware used on production units is compatible with them.

UPDATING YOUR RECEIVER

SAVE A COPY OF PRESENT RECEIVER MEMORY SETTINGS

Assuming that you have version 3.2 firmware or later in your receiver, it is a good idea to save a copy of satellites, transponders and channels for future reference and backup purposes. Before updating with new firmware, or even with a new satellite/transponder/channel file, make a copy of what's presently in the receiver.

- A) Press MENU.
- B) Select TOOLS submenu and drop down to DUMP TO USB.
- C) After entering this DUMP menu, scroll through the options until you see USER DB listed in the Dump Mode line.
- D) Select START and press OK with the remote control, and wait for the receiver to save.

This will create a file of all satellites, transponders and scanned channels, and should be saved with the name `s3602_userdb_dump.bin`

You can use this or any other similar backup file to merge with future firmware updates. If you have done some customizing and would like to merge this information found in your receiver with a new firmware update, first confirm that you have the **Product Glass.abs** file for that update <which you might want to rename with your computer as a title such as **pglassV4.1 DATE.abs** (use the current date) Load the renamed copy onto your USB stick, as well as that newly created DUMP file.bin that should be on same USB stick.

TIP: If you run into problems in the next yellow section below, trying to merge satellite and transponder files with firmware revisions (the latest one does not register), erase any previous **dump.abs** files that may be on the USB stick. It is very likely that the presence of a previous file will prevent your receiver from overwriting a new dump.abs file onto the USB memory stick. When you get a **dump.abs** file that works, load it onto your computer and make a copy, re-naming the file as suggested above. While the USB memory stick is in your computer, copy the renamed file onto the USB memory stick and delete the dump.abs file. This will allow a new dump to be done, and minimize problems of this nature.

LOADING A PRELOADED .abs FILE FROM A USB MEMORY STICK

(such as those Emailed from GLOBAL COMMUNICATIONS as a PRELOAD update)

1. Press MENU, then go to TOOLS submenu, followed by UPGRADE BY USB option.
2. Scroll over until you see ALLCODE in the Upgrade Mode line near top of screen.
3. Move highlighter bar to Upgrade File and toggle left or right to select the 4 Mb .abs file that has been obtained from a Manhattan-Digital authorized vendor.
4. Drop down to START and press ON with the remote control.
5. Let the receiver do its updating and wait for it to power off, and then back on.
6. Press MENU and select TOOLS. Check INFORMATION to confirm update version # in MAIN CODE.
7. Exit.
8. Select a satellite and channel, and press OK to select.
Press volume button on remote control so that it is near maximum level (or wherever you wish).

MERGING SATELLITE & TRANSPONDER FILES with FIRMWARE REVISIONS

1. Insert the USB memory stick into the USB port on back of the Manhattan RS-1933 receiver.
2. Power ON the receiver if it is not already turned on.
3. Once receiver has booted up, press MENU and go to TOOLS submenu.
4. Drop down and select the UPGRADE BY USB option. Upgrade Mode should be in ALLCODE.
5. Move highlighter bar to Upgrade File and then toggle left or right to select the above product-glass.abs file.
6. Drop down to START and press OK on the remote control.
7. Let the receiver update. It should power off afterwards and then turn itself back on.
8. Go to TOOLS section of menu and select INFORMATION to check that the new update version number is to the right of MAIN CODE.
9. Exit out and set up your receiver's satellite configurations.

RELOADING TO MERGE SATELLITE AND FIRMWARE INFO

(Normally done if you get new Firmware and want to use existing Satellite info)

1. Press MENU, then go to TOOLS submenu, followed by UPGRADE BY USB option.
2. Scroll over until you see ALLCODE in the Upgrade Mode line near top of the screen.
3. Move highlighter bar to Upgrade File & toggle left or right to select above product-glass.abs file
4. Drop down to START and press OK on the remote control.
5. Let the receiver do its updating and wait for it to power Off, and then back On.
6. Go back to the UPGRADE BY USB option.
7. Scroll over until you see USER DB in the Upgrade Mode line near the top of TV screen.
8. Toggle until you find the user file (s3602_userdb_dump.bin)
9. Select START, press OK on remote control and confirm to burn flash.
Flash should burn and receiver will Re-boot. Satellite/Transponder/Channel data should now be merged with current firmware file.
10. Press MENU and select TOOLS. Check INFORMATION to confirm update version # in MAIN CODE.
11. Exit.

SAVING A COPY OF FINAL MERGED FILE TO USB MEMORY STICK:

1. Press MENU.
2. Select TOOLS submenu and drop down to DUMP TO USB.

3. Toggle so that ALL CODE is listed in Dump Mode Line.
4. Select START and press OK on remote control.
This should create a .abs file with the name s3602_all_dump.abs
5. Make a copy from USB memory stick on computer, and rename with data and description with .abs suffix. Example: 09102012 CK 128e-001w v4.1.abs

LOADING A PRELOADED .abs FILE FROM A USB MEMORY STICK

See procedure above.

Manual PID Insertion

1. Press MENU.
2. Select INSTALLATION submenu and drop down to TP LIST.
Toggle left or right to select the proper satellite.
Study Transponder list and locate the transponder that contains the service that you need to manually enter PID information for.
3. If desired Transponder is not listed, first create a new transponder as follows:
 - A) Press GREEN button on remote control to ADD transponder.
 - B) Enter information in FREQUENCY and SYMBOL RATE, and select V or H polarity.
 - C) Select SAVE and press OK button.
4. Select an existing Transponder, or the one that you just created, and press OK.
5. TP SEARCH header should be visible. Go down to SCAN MODE.
6. Toggle right.....NORMAL should change to PID.
7. Confirm proper settings:
FTA ONLY (No or Yes)
SCAN CHANNEL (TV+Radio, TV Channel, or Radio)
NETWORK SEARCH (No or Yes)
8. After selecting the above choices, press OK to enter.
9. PID Screen should now show 3 selections
 - 1 = Video PID
 - 2 = Audio PID
 - 3 = PCR PID
10. Input the proper PID settings.
11. Press OK to enter, and let it do a scan.
Any saved channels will end up at bottom of TV List or Radio List.
(Typically as "CH-A")
You will have to exit out to confirm that this has happened, and go to proper satellite.
See receiver manual for procedures on customizing or renaming channels if desired.

NOTES: When manually scanning Audio only services, Video PID is normally 8191.

PCR PID is usually the same number as that entered for Video PID.

Some exceptions, such as on some feeds, might include the following:

Video PID = 33 Audio PID = 36 PCR PID = 8190

Recording and DVR Operation

Study the brief descriptions of functions in the Manhattan RS-1933 user manual, and confirm that your settings and accessories are appropriate for the purpose that you intend to accomplish.

USB Memory Sticks are often limited in storage capacity and in many cases will not function for High Definition mode recording. You may see a prompt on the screen telling you that the USB speed is too low. For normal standard definition recording, we recommend a minimum of a 4 Gb memory stick for recording a few episodes of a show. If you intend to do HD recording, or any archiving that requires substantial memory capacity, it is suggested that a large external drive of at least 500 Gb be considered. Results will vary by brand, but in all cases you should first format the external hard drive before starting any recording. There is a link on the Manhattan-Digital website on how-to-format Hard Drives. It should also be noted that the maximum capacity that the RS-1933 receiver will properly function with is 2 Terrabytes, with files separated after 1 Terrabyte.

In addition to recording programming received via satellite, the receiver also has the ability to play music and JPEG files such as photographs, if connected via the USB port to an external hard drive or memory stick.

Operation can be described as intuitive, with simple pressing of the record button on the remote control starting a recording event. Study the remote control diagram in the receiver manual if unfamiliar with button placement or function, and become comfortable with menu operation. There are readouts of available free space, record time and file size in the DVR section. Playback and previewing can be assisted by customizing Fast-Forward (FF) and Rewind (RW) times, which can be set for intervals of 30 seconds, 1, 5 and 10 minutes.

Once you have mastered such basic recording operation, you can then consider timed recording. If you depend upon the receiver clock to set a timed recording, be aware that the clock's accuracy depends upon the receiver being tuned to a live signal with a time reference, or you can also manually set the time. Please note that some channels from outside of North America use their original local time reference, so check the time display on the menu screen.

Setting the Clock manually

1. Press **MENU** and go to **SYSTEM SETUP**.
2. Press **RIGHT** arrow to highlight in **Gold**, and the **DOWN** arrow to reach **Local Time Setting**.
3. Press **OK**. Cursor down so that **GMT USAGE** is highlighted.
4. Move left or right until this is changed to **USER DEFINE**.
5. Cursor down to **GMT OFFSET** and then Left to reach your **Time Zone**.
6. Turn **Summer Time ON** if observed.
7. Exit out of all menus and **SAVE**.
8. Turn power **OFF** to test the clock setting.

Recording 2 programs while watching a third

TIP: A previously undocumented feature has been discovered with the DVR/Recording section of the RS-1933 receiver. Suppose that you have a transponder tuned in that has multiple channels. You can set up the receiver for a timed recording of one channel, manually go to a second channel and press the Record button to immediately start recording, and then go to a 3rd channel and watch it live. While the DVR will not initially acknowledge the process of setting up the 2nd recording, you should be able to find it afterwards and access both recordings one by one. It is suggested that users experiment with different configurations and find the most useful arrangement to take full advantage of these capabilities. Please send any correspondence about your experiences to one of the contact Emails above (Jeff Schumann or Mike Kohl).

Viewing 4:2:2 formatted Video

A small number of satellite TV channels transmit using a complex transmission method known as 4:2:2. Previously, this required expensive commercial receivers to decode. The Manhattan RS-1933 is not in that price range, but there IS a way to use our receiver as part of the process of viewing 4:2:2 formatted video. While the receiver's video playback system will not show 4:2:2 video, the DVR function in the receiver can record it onto a USB memory stick or external hard drive. These files can then be played on one of several multimedia viewing systems. We suggest the free download for open-source media player known as VLC.

Go to www.wikipedia.org/wiki/VLC_media_player for more information.

Scanning and Managing Channels

Visit the Manhattan-Digital website for detailed information on RS-1933 receiver operation.
www.manhattan-digital.net/RS_1933%20User%20Manual.pdf

Otherwise, here is some further background information that may be useful in the care and feeding of your channel list.

If you have a preloaded memory, or have otherwise entered a majority of transponders (TPs) on a given satellite, it is first suggested that you do a Prestored Scan. This will rapidly scan for channels with well-known transponder parameters, and provide the quickest results. This is very true on busy satellites such as the Ku-band side of Galaxy 19 at 97 West. This satellite has a constantly changing lineup of channels within a fairly stable group of transponders whose information does not change all that often. A Prestored Scan will quickly add any channels without the need for an extended search. Auto Scan can then be deployed to find the remaining channels, if any. It is much quicker to do a Prestored Scan followed by an Auto Scan, versus an Auto Scan only. Auto Scan (also known as Blind Scan) has to take the time to search through all frequencies and is therefore slower to produce a channel list. When doing any scan, you will also have the choice of Yes or No to "FTA Only". One would normally choose YES when on a busy satellite such as Galaxy 19 / Ku-band, simply to avoid listing the many subscription channels whose names will appear when scanning all possibilities. This eliminates a lot of unnecessary channel editing. On most other satellites, it is relatively safe to choose NO to this question, which will find all possible channels. There are situations where a channel may be listed under Conditional Access mode, but not actually scrambled. This will appear as a \$ in front of the channel name, but the video and audio may still pass through if the scrambling itself is turned off at the uplink facility. Enter YES to FTA Only and such channels will be missed in a scan. Regarding the need to edit out unwanted channels: it is a good practice for those that pursue the hobby of chasing wild feeds to also frequently do some maintenance on their channel lists. The receiver may have up to a 7000 channel capacity, but that capacity will clog up with repeated scans of channels that are temporary and not removed. One feature of the receiver is that if you delete the Transponder (TP) from the satellite listing, it will also remove any attached channels that were previously scanned. This author finds it useful to go through a satellite via the TP Scan menu, and go down the list to check for the absence of any Quality readings, which would indicate that nothing is there on a fulltime basis, and that transponder should be removed. Unnecessary transponder listings in these menus also rapidly consume memory space, and should be removed at least occasionally.

There are three types of Polarity Settings in this receiver. V/H V only H only
Receiver is normally left in V/H mode so that it first scans Horizontal, followed by Vertical TPs.

Ku-band transponders scan from lowest frequency to highest, while C-band scanning starts from high and downward to low. When creating a preloaded memory, Global Communications has listed Horizontal transponders first, lowest frequency to highest, followed by Vertical transponders in the same manner. This provides a framework for a logical scan that results in channels being listed in numerical frequency order. Those using LNBFs should have no issues, but systems that rely upon an IRD receiver such as a 4DTV to control polarity using a servo motor must either synchronize their switching of polarity with that receiver to the Auto Scan in the RS-1933 receiver, or scan each polarity separately. We suggest the following: Confirm that you are on Horizontal polarity with the IRD receiver. Look at various TPs while in the Manhattan's TP Scan mode that are listed as H polarity, and verify that you have a good Quality meter reading. Use the IRD to switch to Vertical polarity (switching from Even to Odd numbered channel, or the reverse) and confirm with the Manhattan TP Scan meter that you are getting good Quality readings on one or more Vertical transponders. Now switch back to Horizontal on the IRD. Exit out and go to Single Satellite Search menu in the Manhattan receiver. Select Auto Scan and proceed to Scan. Observe the progress meter at the bottom of the TV screen, and once it gets past 45%, use your IRD receiver to switch to a vertical channel. At 50% the Manhattan should start scanning the V side. Let the scan complete and check your results. The other way, which is more complicated, is to go in and select H or V individually, and scan them. It is much quicker to do a polarity switch with the IRD at 45% and let things work automatically in the V/H.

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