



Presents the

DirecTV SWM LNB

Premier Review



SWM History:

DirecTV has been working since Single-Wire multiswitch technology for well over a year. They began field-testing the SWM multiswitch back in mid-2007. The SWM technology premiered in a switch form targeted at replacing the frequently used WB-68 switch. The SWM-8 offered users the ability to run 8 tuners, just like the WB-68, without the need to run a separate wire to each tuner. Installation still required 4 wires from the dish to the switch. There was also a short-lived SWM-5, which only ran 5 tuners. DirecTV decided not to move forward with producing the SWM-5.



With SWM technology, one could feed 8 basic receivers from one switch and one splitter, or could feed 4 DVR receivers with one switch and one splitter. The great thing about SWM technology, is that the signal can be split multiple times as well. This means homes pre-wired or switching from cable could use existing wiring by simply replacing the splitters with higher-bandwidth ones if necessary. Additionally, SWM technology feeds two signals to a DVR receiver without the need for a second wire, and eliminate the need for BBC converters on HD receivers. The SWM-8 switch includes an OTA port for diplexing antenna signals and two flex-ports for adding signals from the 72.5 and 95 orbital locations (used for internationals & some locals).

Power Inserter:

The SWM switch requires more power than the receivers provide for traditional LNBs or switches. DirecTV includes a power inserter with each SWM unit. This simply plugs in to a standard electrical outlet IN-DOORS and feeds power to the switch or LNB. It has simply two coax ports, one to the receivers and one to the switch/LNB. The powered-output is colored red and is labeled SWM, to feed the switch/LNB. The other port is labeled IRD to feed receivers. Reversing the connections will damage the receivers.



The power inserter generally would be installed near the point where wires enter the home from the dish. Some users may need to place the power inserter in a different location, due to outlet limitations or the desire to use a UPS battery-backup. The power inserter can be placed after the splitter as long as the splitter is designed to pass power to only one port, and the receiver with the power inserter is connected to this port.

Splitters:

Users then ran one or two wires from the switch to anywhere in the home using traditional coax splitters. Splitters are highly-recommended be rated up to 2300mhz, which are available at many home-improvement stores such as Lowe's & Home Depot for around \$10. If the power inserter is placed after the splitter then the splitter must be power-passing to just one port.



Now the Future: SWM LNB

In early-2008 DirecTV started field testing two brands of a new 5 port LNB with built-in SWM technology, dubbed the SWMline. This LNB is targetted at becoming a standard installation device in 2009, and makes installs and upgrades much faster. Users can run just one wire to any given receiver, and can often use pre-wired homes. The SWM LNB has only one coax port on it, there are no flex-ports or OTA input. OTA can be diplexed in seperately if desired. This LNB is not compatible with any external switches or secondary dishes. Users that need international or locals off 72 or 95 will not be able to use this LNB. There is thought that DirecTV will eventually eliminate the use of these locations, but that is up the road.

The LNB is manufactured by two brands, Eagle Aspen and WNC. The only visible difference is caps on the LNB, Eagle Aspen having clear covers, and WNC having white covers. The LNBs work the exact same. The SWM LNB connects to the same exact Slimline dishes in use today, and users can replace existing LNBs with no change to the dish or mount.

Receiver Compatibility

The SWM technology will only work with newer receivers from the past couple of years. No legacy receivers will work with the SWM technology. Here is a list of current receivers that work with SWM:

HD-DVRs	HD Receivers	SD-DVRs	Standard Receivers
HR-20	H20	R16	D12
HR-21	H21	R22	D13

SWM LNB Wiring Methodology:

Slimline Dish → Ground/House Entry → Power Inserter → Splitter(s) → Receivers

or

Slimline Dish → Ground/House Entry → Splitter (With One Power Passing Outlet) → Power Inserter/Receiver
(Non-Power Passing Outlets) → Receivers

Understanding the Tuner Methodology:

The SWM-8 and SWM LNB use a tuner methodology instead of receiver. The device can support 8 tuners, from any combination of receivers. You can have 8 basic receivers, 4 DVR receivers, or any comination there of that totals 8 tuners.

SWM Communication:

With an SWM switch there is a SWM screen added to the signal strength. It shows 9 transponders, but really this is showing the communication of the 9 channels the SWM uses. 8 channels are for the 8 tuners, and 1 channel is for communication between the receivers and the switch. The signal on these channels will mirror the signal strength for the transponder a particular channel is tuned to. There is no reason to worry if some say zero, it just means that channel is not in use at that moment.

Manufacturer Differences:



WNC

White caps, coax port centered, metal & plastic case.



Eagle Aspen

Clear caps, coax port on right, metal casing

Closing:

The SWM LNB has been in use by two Satelliteguys members for almost three months and is flawless. The installation is easy, it is reliable, and eliminates many problems facing installations every day, such as limitations in pre-wired homes. The change reduces coax feeds, installation time, and makes it easier to expand post-install.

DirectTV started rolling SWM LNBs out to HSP installers in May 2008, and it is expected to be a mainstream installation method by 2009. The SWM-8 is not going away, as some installs will still require capabilities the SWM LNB can't handle. These include international or side-dish locals, legacy receivers, and MDU installs.

This technology is well worth the wait, and DirectTV has a real winner in the SWM LNB. No cost data is available yet, but the SWM-8 is selling for around \$300 through MDU distributors. It is reasonable to expect the price of the SWM LNB to be similar to the SWM-8 as it first becomes available, and to go down as they become mainstream equipment.

