

## Review of the 10x1 Multiprotocol Programmable DiSEqC Switch

I was asked to review a 10 input 1 output DiSEqC switch submitted by Sadoun Satellite. This switch arrived enclosed in a very nice yellow plastic weather enclosure with foam covers visible across the 11 coax entrance holes on the bottom.



On the back it has molded fittings ready for a U bolt to clamp onto a standard 1 5/8" TV type mast pole. The fit and finish of the case is very sleek.



Opening the cover reveals the switch along with the rubber gasket that seals the top and sides from moisture as well as from insects seeking a new home. The switch housing is quite substantial in itself, and is mounted in a way that allows tilting the switch connectors forward. If this tilting wasn't possible it would be difficult to thread an F connector to the inputs in the back as well as the receiver output.



The switch is labeled as “programmable”. Since I had no prior background on this type of DiSEqC switch I had to do a bit of searching on the internet to discover some of the details. The switch can be programmed by the user to conform to whatever mode is needed for the situation, and has 8 different modes available...

1. DiSEqC 1.0 or 2.0 (DiSEqC A, B, C, D, max 4 LNB)
2. DiSEqC 1.1 or 2.1 (uncommitted or cascaded switch commands, max 10 LNB)
3. DiSEqC 1.0 or 2.0 and mini A, B (DiSEqC A, B, C, D, mini A,B, max 6 LNB)
4. User defined DiSEqC protocol (max 10 LNB)
5. DiSEqC 1.1 or 2.1 (uncommitted switch commands, max 10 LNB)
6. DiSEqC 1.2 or 2.2 (Programmable from receiver, max 10 LNB)
7. DiSEqC 1.1 or 2.1 or 1.2 or 2.2 (auto 2 & 6 mode, max 10 LNB)
8. DiSEqC 1.0 or 2.0 or 1.1 or 2.1 or 1.2 or 2.2 (Auto 1 & 5 & 6 mode, max 10 LNB)

I tested this switch using a Coolsat 5000 since I had previously used this receiver with switches that conformed to either the 1.1 or 1.2 DiSEqC protocol. I started testing by using the uncommitted DiSEqC 1.1 mode and the switch changed to all 10 ports flawlessly. I then ran a cascade test using the switch in combination with a regular committed DiSEqC switch and again it switched with no problems.

Observing signal and quality I compared the switch in line and out of line and observed that the signal would drop about 3 points with insertion into the line. The specifications I could find online showed the switch was rated at 3db insertion loss. The observed 3 point drop in signal was comparable with other switches I have on hand that are also rated at 3db insertion loss. The good news is that even with the IF insertion loss there was no discernable loss on the quality meter. This shows the switch has very little added noise into the system. Even when cascaded with a good quality DiSEqC 1.0 switch there was only a 1 point drop in quality.

I tested the switch in DiSEqC 1.0 and 1.2 modes and could not get a response from the switch at all. This tells me that most likely the switch comes programmed out of the box in mode 2 above. For most people in North America this would limit the use of the switch to a small handful of receivers that have DiSEqC 1.1 capability. This would necessitate the use of a programmer to change the mode to a more useful state utilizing either the 1.0 or 1.2 DiSEqC modes which more closely matches the available receivers in North America.

Without the programmer I cannot test the switch any further. It is a very interesting piece of equipment which I could use in my system if it was programmed differently from the factory. I have located some fairly inexpensive 6 mode programmers which I'm sure would work with this switch but I have yet to locate an 8 mode programmer.

Things I like about the switch:

- Weather case
- Construction
- Tilt mechanism
- Loss characteristics
- Switching function and speed in DiSEqC 1.1 mode

Things that need to be changed:

- Programmer needs to be made available
- Switch needs to be programmed to a more user friendly mode out of the box

I would definitely consider purchasing the switch, but the mode it comes in from the factory is a deal breaker in North America. A simple mode change is all that would be required. My suggestion would be that if Sadoun Satellite is considering this item for retail it would be imperative to either make the programmer available, or better yet just purchase a programmer for company use and reprogram each switch to mode 8 above for DiSEqC 1.0, 1.1, or 1.2 use. This would make available any DiSEqC protocol used in North America, and takes mere seconds to accomplish.