

# Band Select Jumper Operation In EchoStream Transmitters

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Inovonics' EchoStream transmitter products, Certified under 15.247, are used to monitor various conditions ranging from the status of a switch to temperature measurements. This status information or data payload is combined in the transmitter with unique point ID and battery status and is transmitted to a compatible EchoStream receiver. The systems are always professionally installed and each transmitter must be "registered" to the receiver at the time of system set-up otherwise the system will not function.

Careful consideration was given to a product line configuration that would prevent intentional or inadvertent operation of the system outside of the 902 - 928 MHz band in the United States. Receivers operating in the 868 - 870 MHz European band are sold only in the European Union market.

The EchoStream receivers sold in the United States are capable of operation only in the 902 - 928 MHz band. They can register and receive transmitters operating only on the 25 designated hopping frequencies within the 902 - 928 MHz band (see channel plan below). The transmitters are shipped without a band-select jumper installed and they default to the U.S. 902 - 928 MHz band. If a dealer installing the system were to place a jumper in the transmitter's EU position mistakenly, the receiver could not be made to register the transmitter or to function at all.

## EchoStream Channel Plan

Step #	Frequency		Step #	Frequency
1	909.6		14	926.4
2	914.8		15	925.6
3	912.8		16	917.2
4	910.8		17	927.6
5	912.0		18	923.2
6	903.6		19	924.4
7	921.2		20	904.4
8	902.4		21	919.2
9	914.0		22	918.0
10	908.8		23	905.6
11	907.6		24	916.0
12	920.4		25	922.4
13	906.4			