LEMON RX LM0080 DSMP Receiver Instructions

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LEMON RX LM0080 DSMP Receiver

Product Information

The Lemon LM0080 and LM0081 receivers are part of the Gen2 series and are designed as simple and reliable full range DSMX/DSM2TM-compatible receivers for modelers using Spektrum or compatible transmitters. These receivers do not have complicated stabilization or telemetry features. The LM0080 has 6 channels, while the LM0081 has 7 channels and a dual diversity antenna system. Despite their affordability, both receivers offer excellent performance and long-range capabilities. The LM0081 also allows for the addition of a satellite receiver to further enhance signal reliability. These receivers are compatible with a wide range of Spektrum or compatible transmitters, including first- and second-generation DX series, NX and iX transmitters, as well as open-source transmitters like Taranis and Turnigy 9XR with a DSM2 or DSMX compatible module. They also work with Multiprotocol transmitters such as Jumper and RadioMaster. Both receivers have seven sets of pins on one end of the case, arranged in the usual Spektrum order. The LM0081 has buttons for bind and failsafe, as well as a connector for a satellite receiver. The LM0080 does not have buttons or a satellite connector. The seventh set of pins on the LM0081 is used only for binding. The receivers require a power supply of 3.5V to 8.5V, which can be provided by an ESC or any of the channel pins. The minimum recommended supply voltage is 3.5V.

Product Usage Instructions

1. **Step 1: Powering the Receiver**

   Connect the receiver to a power supply of 3.5V to 8.5V. The most common power source is an ESC, which can supply 5 or 6V to the receiver and servos. Alternatively, any of the channel pins can be used to supply power to the receiver.
2. **Step 2: Binding the Receiver**

   To bind the receiver to a specific model memory in the transmitter, follow one of these methods:

   a) **Binding Using the Bind Button (LM0081 only)**

   1. Power ON the receiver (with satellite receiver connected, if used).
   2. Hold down the Bind button (B) for about 3 seconds.
   3. Release the Bind button (B) when the red Receiver Status light starts to flash.
   4. If a satellite receiver is used, power cycle the receiver by removing and reapplying power.

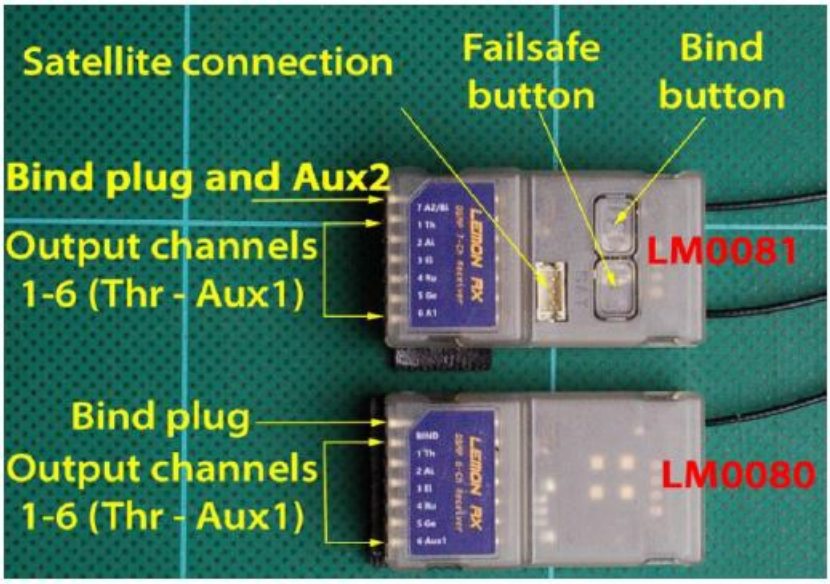
Instructions

- Lemon LM0080/LM0081 receivers (also applies to LM0034Z1)

Description

- The Lemon 6-channel LM0080 and 7-channel LM0081 are intended within the Gen2 series as “simple and straightforward” full-range DSMX/DSM2™-compatible receivers for modelers using Spektrum or compatible transmitters. They have no complicated stabilization or telemetry functionality.
- Both receivers are small and light and have excellent performance. Despite their low cost, they both offer long range and reliability, with the LM0081 having a “dual diversity” antenna system and the option of adding a satellite receiver to further enhance signal reliability.
- The receivers work with virtually any Spektrum or compatible transmitter, including the first- and second-generation DX series, as well as the newer NX and iX transmitters. The receiver automatically switches mode between DSMX™ and DSM2™ as required.
- The Lemon receivers also work with open-source transmitters such as Taranis and Turnigy 9XR using an add-on DSM2 or DSMX compatible module, as well as with Multiprotocol transmitters such as Jumper and RadioMaster.

Connections



- Both receivers have seven sets of pins on one end of the case: channels 1-6 are arranged in the usual Spektrum order of T, A, E, R, G, Aux1.
- The LM0081 has buttons for Bind and Failsafe and a connector for a satellite receiver. The satellite can be a Lemon or a Spektrum™ but it must be a DSMX compatible version. The Lemon LM0037A is recommended. Channel 7 (Aux2) is available and can also function as a normal bind plug connector.
- The LM0080 does not have buttons or a satellite connector. The 7th set of pins is used only for binding as this receiver has no Aux 2 output.

Step 1: Powering the Receiver

- Both receivers require a power supply of 3.5V to 8.5V (they can be operated directly from a 2S LiPo).
- The most common source is likely to be an ESC (Electronic Speed Controller), which will supply 5 or 6V to the receiver and servos.
- Most electric-powered planes will use this arrangement and power will be provided through the Throttle connection to channel 1; any of the sets of channel pins can, however, be used to supply power to the receiver.

1. The LM0034Z receiver was an interim release while the LM0080 and LM0081 were being prepared. It is essentially an LM0080 but with diverse twin antennas and no case. LM0080 Instructions apply.

The minimum recommended supply voltage is 3.5V. For 1S LiPo application the battery must be capable of maintaining a 3.5V voltage while delivering the required maximum load current to the receiver and servos. In some cases, you MAY be able to operate at a lower voltage (for example a well-discharged 1S LiPo cell) but you must test the arrangement in practice to be sure.

Step 2: Binding the Receiver
To bind the receiver to a specific model memory in the transmitter, use either one of these two methods: Binding Using the Bind Button (LM0081 only)

1. Power ON the receiver (with satellite receiver connected, if used).
2. Hold down the Bind button B for about 3 seconds.
3. Release button B when the red Receiver Status light starts to flash.
4. If a satellite receiver is used, power cycle the receiver at this point by removing power and applying it again. Both the receiver status light and the satellite light will then flash.
5. Proceed to bind to the transmitter in the normal way (see transmitter instructions).
6. Bind is complete when the red Receiver Status light (and satellite light, if connected) are solid.

Binding Using a Bind Plug (traditional Spektrum™ method) (LM0080 and LM0081)

1. With receiver power OFF, place a bind plug on the channel 7 pins.
2. Power ON the receiver (with satellite receiver connected, if used with the LM0081).
3. The red Receiver Status light (and satellite, if connected) will start to flash.
4. Proceed to bind the transmitter in the normal way (see transmitter instructions).
5. Bind is complete when the red Receiver Status light (and satellite light, if applicable) are solid.
6. Don’t forget to remove the bind plug after powering off the receiver.

The receiver is now ready for use; however, for the LM0081 it is recommended to add User-set Failsafe.

Step 3: Setting Failsafe

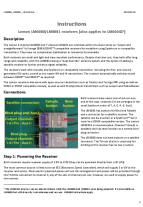
Default Failsafe

When you bind the receiver, it saves the channel values currently being sent by your transmitter. Failsafe is activated when no signal is received by the receiver for 2 seconds. All channels are then moved to the values saved during binding. For this reason, during binding the throttle should be at minus 100% while all other sticks are centred. This is the default behavior for both receivers. User-set Failsafe Only the LM0081 provides the option of User-set Failsafe. This causes the receiver on loss of signal to send a pre-set value to each of the servos and the ESC.

To activate User-set Failsafe, proceed as follows

1. Bind the receiver and transmitter as described above. Power down.
2. Power on the transmitter, followed by the receiver.
3. Check that the green LED is OFF, indicating Failsafe is disabled. (If ON, press and hold F button for 3 seconds until it's OFF.)
4. Set the transmitter controls as appropriate. Ensure that the throttle is at low (minus 100%).
5. Press and hold the F button for 3 seconds until the green LED is on.

Documents / Resources

	**LEMON RX LM0080 DSMP Receiver** [pdf] Instructions LM0080, LM0081, LM0080 DSMP Receiver, LM0080, DSMP Receiver, Receiver