

DX2E

DSMR™ RADIO SYSTEM



SPEKTRUM®

NOTICE

All instructions, warranties and other collateral documents are subject to change at the sole discretion of Horizon Hobby, LLC. For up-to-date product literature, visit horizonhobby.com and click on the support tab for this product.

Meaning of Special Language

The following terms are used throughout the product literature to indicate various levels of potential harm when operating this product:

NOTICE: Procedures, which if not properly followed, create a possibility of physical property damage AND a little or no possibility of injury.

CAUTION: Procedures, which if not properly followed, create the probability of physical property damage AND a possibility of serious injury.

WARNING: Procedures, which if not properly followed, create the probability of property damage, collateral damage, and serious injury OR create a high probability of superficial injury.

WARNING: Read the ENTIRE instruction manual to become familiar with the features of the product before operating. Failure to operate the product correctly can result in damage to the product, personal property and cause serious injury.

This is a sophisticated hobby product and NOT a toy. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this Product in a safe and responsible manner could result in injury or damage to the product or other property. This product is not intended for use by children without direct adult supervision. Do not use with incompatible components or alter this product in any way outside of the instructions provided by Horizon Hobby, LLC. This manual contains instructions for safety, operation and maintenance. It is essential to read and follow all the instructions and warnings in the manual, prior to assembly, setup or use, in order to operate correctly and avoid damage or serious injury.

WARNING AGAINST COUNTERFEIT PRODUCTS: Always purchase from a Horizon Hobby, LLC authorized dealer to ensure authentic high-quality Spektrum product. Horizon Hobby, LLC disclaims all support and warranty with regards, but not limited to, compatibility and performance of counterfeit products or products claiming compatibility with DSM or Spektrum.

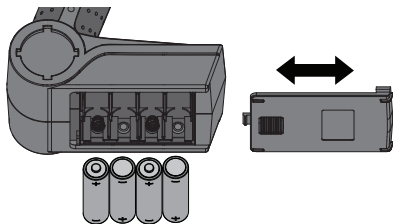
Age Recommendation: Not for Children under 14 years. This is not a toy.

NOTICE: This product is only intended for use with unmanned, hobby-grade, remote-controlled vehicles. Horizon Hobby disclaims all liability outside of the intended purpose and will not provide warranty service related thereto.

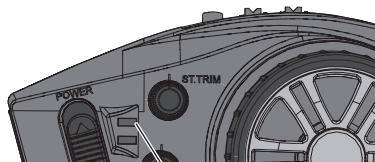
WARRANTY REGISTRATION

Visit www.spektrumrc.com/registration today to register your product.

INSTALLING THE TRANSMITTER BATTERIES



BATTERY LED MONITOR

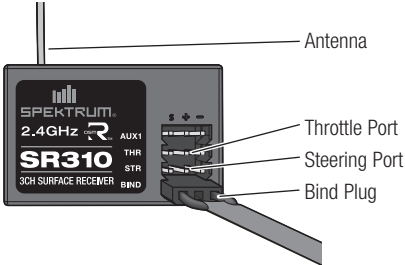


Solid Green	Battery is good (Above 4V)
Flashing Green	Battery voltage is critically low. Replace batteries (below 4V)

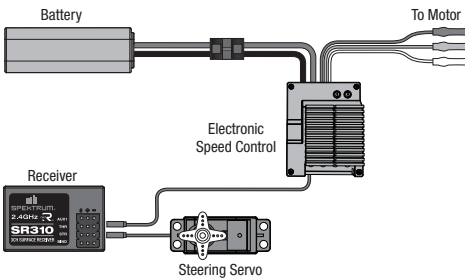
RECEIVER COMPATIBILITY

The DX2E is compatible with all Spektrum™ DSMR™ and DSM2® receivers.

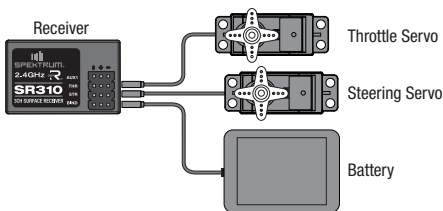
RECEIVER CONNECTION AND INSTALLATION



TYPICAL ELECTRIC INSTALLATION



TYPICAL GAS INSTALLATION



Install the Receiver in your vehicle using double-sided foam servo tape. Foam servo tape will hold the receiver in place and help isolate it from vibrations. Mount the antenna up and away from the vehicle in an antenna tube. The higher up the antenna is, the better signal it will receive.

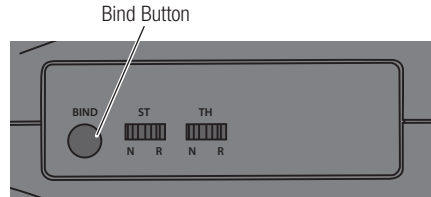


CAUTION: Do not cut the antenna.

BINDING A RECEIVER

Binding is the process of programming the receiver to recognize the GUID (Globally Unique Identifier) code of a single specific transmitter. When a receiver is bound to a transmitter, the receiver will only respond to that specific transmitter. The DX2E and SR310 are bound at the factory, but if you need to rebind for any reason, please follow these steps:

1. With the receiver off, insert the bind plug into the BIND port on the receiver.
2. Power the receiver through any other port. The green LED will flash continuously, indicating the receiver is in bind mode.
3. With the steering wheel and throttle trigger in the desired preset failsafe positions (see the Failsafe section on this page for more information), press and hold the bind button and turn on the transmitter. The green LED on the front of the transmitter will flash within three seconds, indicating the transmitter is in bind mode. Release the bind button when the green LED flashes. Continue to hold the failsafe positions until the binding process is complete.



4. The LED on the receiver will glow solid when the transmitter and receiver are bound.
5. Remove the bind plug and store it in a convenient place.

You must rebind when:

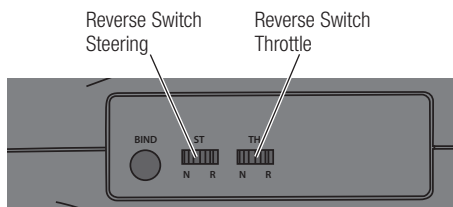
- Different failsafe positions are desired e.g., when throttle or steering reversing has been changed.
- Changing receiver types e.g., changing from a DSM2 receiver to DSMR receiver.
- Binding the receiver to a different transmitter.

FAILSAFE

Failsafe positions are also set during binding. In the unlikely event that the radio link is lost during use, the receiver will drive the servos to their preprogrammed failsafe positions (normally full brakes and straight steering). If the receiver is turned on prior to turning on the transmitter, the receiver will enter failsafe mode. When the transmitter is turned on, normal control is resumed. For more information on setting the failsafe, refer to the Binding a Receiver section above.

SERVO REVERSING

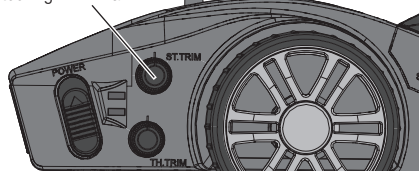
If a right steering command does not result in the wheels turning right (and vice versa), the channel may need to be reversed. To reverse a channel, switch the position of the correlating switch—"N" is for normal, "R" is for reverse. You can use a small screwdriver to move the switch if necessary.



STEERING TRIM

The steering trim dial is used to adjust the steering trim when the wheel is centered. Rotating the dial changes the steering trim (the steering at rest position). Normally, the steering trim is adjusted until the vehicle tracks straight.

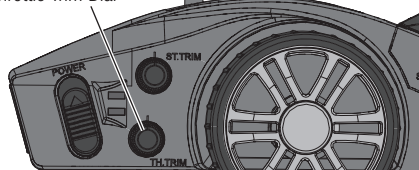
Steering Trim Dial



THROTTLE TRIM

The throttle trim dial is used to adjust the throttle trim when the throttle stick is released (neutral position). This is typically used to adjust the brakes. Rotating the dial causes the throttle trim (the throttle position at rest) to be changed.

Throttle Trim Dial



CHANGING THE TRAVEL ADJUST SETTINGS

The travel function supports precise endpoint adjustments in each direction for the steering and throttle channels.

1. Hold the trigger in the full brake position while powering on the transmitter. The LED flashes rapidly, indicating the programming mode is active.
2. Throttle End Point: Hold the trigger in the full throttle position. Turn the TH TRIM knob to adjust the full throttle end point.
3. Brake End Point: Hold the trigger in the full brake position. Turn the TH TRIM knob to adjust the full brake end point. Return the trigger to the center position.

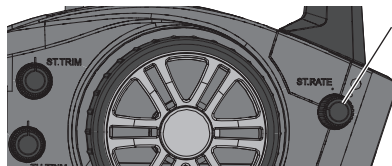
4. Left Steering End Point: Hold the steering wheel in the full left position. Turn the ST TRIM knob to adjust the left end point.
5. Right Steering End Point: Hold the steering wheel in the full right position. Turn the ST TRIM knob to adjust the right end point. Return the steering wheel to the center position.
6. Power off the transmitter to save the travel adjust settings. The minimum Travel is 75%, and the Maximum travel is 150%. The default travel settings are 125% steering and 100% throttle.

IMPORTANT: If the travel is changed on the DX2E, you must rebind and calibrate AVC™ Receivers.

STEERING RATE AND GAIN CONTROL

Steering rate (also known as dual rate) allows on-the-fly steering travel adjustments to be made using the ST Rate dial. Steering rate limits the amount of travel of the steering servo. The steering rate cannot be greater than 100%. When the DX2E is bound to a DSMR AVC receiver, the ST RATE knob controls the sensor gain value. Turn the knob counterclockwise to reduce the gain or clockwise to increase the gain.

Steering Rate Dial



R.O.S.S. START BUTTON

The transmitter BIND button also functions as a Remote On-Board Starting System (R.O.S.S.) button. To use the R.O.S.S. button:

1. Connect the R.O.S.S. system to the AUX 1 port on the receiver.
2. Press and hold the R.O.S.S. button to activate the system.

SAFETY PRECAUTIONS

- Always ensure all batteries have been properly charged prior to using the model.
- Always check all servos and their connections prior to each run.
- Never operate your model near spectators, parking areas or any other area that could result in injury to people or damage of property.
- Never operate your model during adverse weather conditions. Poor visibility can cause disorientation and loss of control of your model.
- Never point the transmitter antenna directly toward the model. The radiation pattern from the tip of the antenna is inherently low.
- If at any time during the operation of your model you observe any erratic or abnormal operation, immediately stop operation of your model until the cause of the problem has been ascertained and corrected.

2.4GHz TROUBLESHOOTING GUIDE

Problem	Possible Cause	Solution
The system will not connect	Your transmitter and receiver are too close together	Move transmitter 1 to 3 meters from receiver
	You are around metal objects	Move to an area with less metal
	The model selected is not the model bound to	Check model selected and ensure you are bound to that model
	Your transmitter was accidentally put into bind mode and is no longer bound to your receiver	Rebind your transmitter and receiver
The receiver goes into failsafe mode a short distance away from the transmitter	Check the receiver antenna to be sure it is not cut or damaged	Replace the receiver or contact Horizon Product Support
		Make sure your receiver antenna is in an antenna tube and is above the vehicle
The receiver quits responding during operation	Inadequate battery voltage	Charge batteries. Spektrum receivers require at least 3.5V to operate. An inadequate power supply can allow voltage to momentarily drop below 3.5V and cause the receiver to brown out and reconnect
	Loose or damaged wires or connectors between battery and receiver	Check the wires and connection between the battery and receiver. Repair or replace wires and/or connectors

1-YEAR LIMITED WARRANTY

What this Warranty Covers

Horizon Hobby, Inc., (Horizon) warrants to the original purchaser that the product purchased (the "Product") will be free from defects in materials and workmanship for a period of 1 years from the date of purchase.

What is Not Covered

This warranty is not transferable and does not cover (i) cosmetic damage, (ii) damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or due to improper use, installation, operation or maintenance, (iii) modification of or to any part of the Product, (iv) attempted service by anyone other than a Horizon Hobby authorized service center, (v) Product not purchased from an authorized Horizon dealer, or (vi) Product not compliant with applicable technical regulations.

OTHER THAN THE EXPRESS WARRANTY ABOVE, HORIZON MAKES NO OTHER WARRANTY OR REPRESENTATION, AND HEREBY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE PURCHASER ACKNOWLEDGES THAT THEY ALONE HAVE DETERMINED THAT THE PRODUCT WILL SUITABLY MEET THE REQUIREMENTS OF THE PURCHASER'S INTENDED USE.

Purchaser's Remedy

Horizon's sole obligation and purchaser's sole and exclusive remedy shall be that Horizon will, at its option, either (i) service, or (ii) replace, any Product determined by Horizon to be defective. Horizon reserves the right to inspect any and all Product(s) involved in a warranty claim. Service or replacement decisions are at the sole discretion of Horizon. Proof of purchase is required for all warranty claims. SERVICE OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY.

Limitation of Liability

HORIZON SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY, REGARDLESS OF WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR ANY OTHER THEORY OF LIABILITY, EVEN IF HORIZON HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Further, in no event shall the liability of Horizon exceed the individual price of the Product on which liability is asserted. As Horizon has no control over use, setup, final assembly, modification or misuse, no liability shall be assumed nor accepted for any resulting damage or injury. By the act of use, setup or assembly, the user accepts all resulting liability. If you as the purchaser or user are not prepared to accept the liability associated with the use of the Product, purchaser is advised to return the Product immediately in new and unused condition to the place of purchase.

Law

These terms are governed by Illinois law (without regard to conflict of law principals). This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Horizon reserves the right to change or modify this warranty at any time without notice.

WARRANTY SERVICES

Questions, Assistance, and Service

Your local hobby store and/or place of purchase cannot provide warranty support or service. Once assembly, setup or use of the Product has been started, you must contact your local distributor or Horizon directly. This will enable Horizon to better answer your questions and service you in the event that you may need any assistance. For questions or assistance, please visit our website at www.horizonhobby.com, submit a Product Support Inquiry, or call the toll free telephone number referenced in the Warranty and Service Contact Information section to speak with a Product Support representative.

Inspection or Services

If this Product needs to be inspected or serviced and is compliant in the country you live and use the Product in, please use the Horizon Online Service Request submission process found on our website or call Horizon to obtain a Return Merchandise Authorization (RMA) number. Pack the Product securely using a shipping carton. Please note that original boxes may be included, but are not designed to withstand the rigors of shipping without additional protection. Ship via a carrier that provides tracking and insurance for lost or damaged parcels, as Horizon is not responsible for merchandise until it arrives and is accepted at our facility. An Online Service Request is available at http://www.horizonhobby.com/content/_service-center_render-service-center. If you do not have internet access, please contact Horizon Product Support to obtain a RMA number along with instructions for submitting your product for service. When calling Horizon, you will be asked to provide your complete name, street address, email address and phone number where you can be reached during business hours. When sending product into Horizon, please include your RMA number, a list of the included items, and a brief summary of the problem. A copy of your original sales receipt must be included for warranty consideration. Be sure your name, address, and RMA number are clearly written on the outside of the shipping carton.

NOTICE: Do not ship LiPo batteries to Horizon. If you have any issue with a LiPo battery, please contact the appropriate Horizon Product Support office.

Warranty Requirements

For Warranty consideration, you must include your original sales receipt verifying the proof-of-purchase date. Provided

warranty conditions have been met, your Product will be serviced or replaced free of charge. Service or replacement decisions are at the sole discretion of Horizon.

Non-Warranty Service

Should your service not be covered by warranty, service will be completed and payment will be required without notification or estimate of the expense unless the expense exceeds 50% of the retail purchase cost By submitting the item for service you are agreeing to payment of the service without notification. Service estimates are available upon request. You must include this request with your item submitted for service. Non-warranty service estimates will be billed a minimum of ½ hour of labor. In addition you will be billed for return freight. Horizon accepts money orders and cashier's checks, as well as Visa, MasterCard, American Express, and Discover cards. By submitting any item to Horizon for service, you are agreeing to Horizon's Terms and Conditions found on our website http://www.horizonhobby.com/content/_service-center_render-service-center.

ATTENTION: Horizon service is limited to Product compliant in the country of use and ownership. If received, a non-compliant Product will not be serviced. Further, the sender will be responsible for arranging return shipment of the un-serviced Product, through a carrier of the sender's choice and at the sender's expense. Horizon will hold non-compliant Product for a period of 60 days from notification, after which it will be discarded.

Warranty and Service Contact Information

Country of Purchase	Horizon Hobby	Contact Information	Address
United States of America	Horizon Service Center (Repairs and Repair Requests)	servicecenter.horizonhobby.com/RequestForm/	4105 Fieldstone Rd Champaign, Illinois, 61822 USA
	Horizon Product Support (Product Technical Assistance)	www.quickbase.com/db/bghj7ey8c?a=GenNewRecord 888-959-2306	
	Sales	sales@horizonhobby.com 888-959-2306	
United Kingdom	Service/Parts/Sales: Horizon Hobby Limited	sales@horizonhobby.co.uk +44 (0) 1279 641 097	Units 1-4 , Ployters Rd, Staple Tye Harlow, Essex, CM18 7NS, United Kingdom
Germany	Horizon Technischer Service	service@horizonhobby.de	Christian-Junge-Straße 1 25337 Elmshorn, Germany
	Sales: Horizon Hobby GmbH	+49 (0) 4121 2655 100	
France	Service/Parts/Sales: Horizon Hobby SAS	infofrance@horizonhobby.com +33 (0) 1 60 18 34 90	11 Rue Georges Charpak 77127 Lieusaint, France
China	Service/Parts/Sales: Horizon Hobby – China	info@horizonhobby.com.cn +86 (021) 5180 9868	Room 506, No. 97 Changshou Rd. Shanghai, China 200060

FCC INFORMATION

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.



CAUTION: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

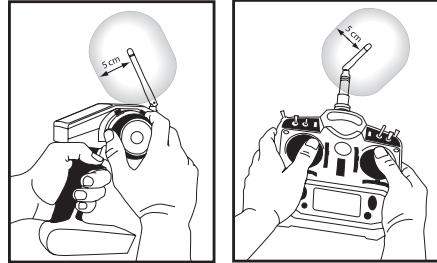
This product contains a radio transmitter with wireless technology which has been tested and found to be compliant with the applicable regulations governing a radio transmitter in the 2.400GHz to 2.4835GHz frequency range.

ANTENNA SEPARATION DISTANCE

When operating your Spektrum transmitter, please be sure to maintain a separation distance of at least 5 cm between your body (excluding fingers, hands, wrists, ankles and feet)

and the antenna to meet RF exposure safety requirements as determined by FCC regulations.

The following illustrations show the approximate 5 cm RF exposure area and typical hand placement when operating your Spektrum transmitter.



IC INFORMATION

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

(1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

COMPLIANCE INFORMATION FOR THE EUROPEAN UNION

Declaration of Conformity

(in accordance with ISO/IEC 17050-1)

No. HH2014120202

Product(s): DX2E 2-Channel DSMR Surface Radio with SR310 Receiver

Item Number(s): SPM2325

Equipment Class: 1

The object of declaration described above is in conformity with the requirements of the specifications listed below, following the provisions of the European R&TTE directive 1999/5/EC:

EN 300-328 V1.8.1

EN 301 489-1 V1.9.2: 2012

EN 301 489-17 V2.1.1: 2009

EN 60950-1:2006+A11:2009+A1:2010+A12: 2011

EN 62311: 2008



Signed for and on behalf of:

Horizon Hobby, LLC

Champaign, IL USA

December 2, 2014

Mike Dunne

Executive Vice President Product Divisions
Horizon Hobby, LLC



Instructions for disposal of WEEE by users in the European Union

This product must not be disposed of with other waste. Instead, it is the user's responsibility to dispose of their waste equipment by handing it over to a designated collections point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or where you purchased the product.