

NOTICE

All instructions, warranties and other collateral documents are subject to change at the sole discretion of Horizon Hobby, Inc. 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 attempt disassembly, use with incompatible components or augment product in any way without the approval of Horizon Hobby, Inc. 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: Thank you for purchasing a genuine Spektrum product. Always purchase from a Horizon Hobby, Inc. authorized dealer to ensure authentic high-quality Spektrum product. Horizon Hobby, Inc. 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 and aircraft. Horizon Hobby disclaims all liability outside of the intended purpose and will not provide warranty service related thereto.

FRANCE RF SETTING:

The DX2L has a France RF setting that complies with French regulations. If this transmitter is purchased for use in France, always use the France power setting when operating the transmitter outdoors. See "Changing the RF Mode" for more information.

WARRANTY REGISTRATION

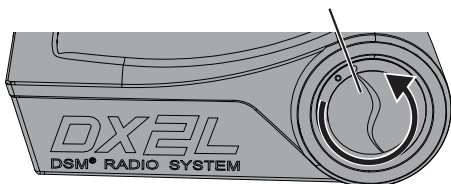
Visit www.spektrumrc.com/registration today to register your product.

SAFETY PRECAUTIONS

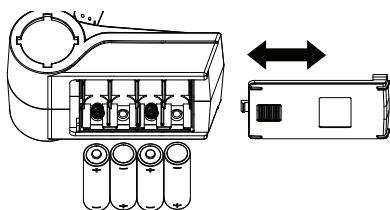
- Always ensure all batteries have been properly charged prior to using the model.
- Always check all servos and their connections prior to each run.
- Never operate your model near spectators, parking areas or any other area that could result in injury to people or damage of property.
- Never operate 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.

BIND PLUG COMPARTMENT

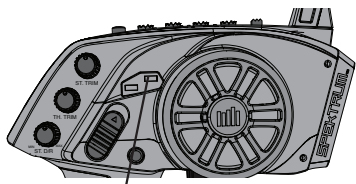
Bind Plug Compartment



INSTALLING THE TRANSMITTER BATTERIES



BATTERY LED MONITOR



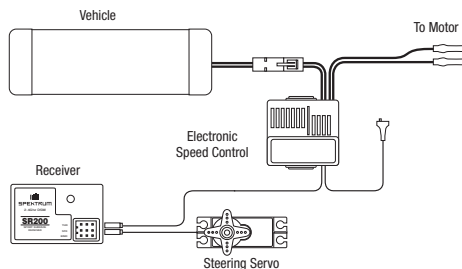
Solid Green Battery is good (Above 4V)
 Flashing Green Battery voltage is critically low. Replace batteries (below 4V)

TRANSMITTER COMPATIBILITY

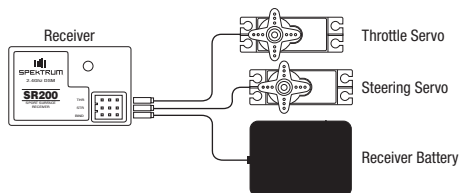
The Spektrum DX2L transmitter is compatible with all Spektrum™ DSM®¹, DSM2®² and Marine surface receivers.

INSTALLING THE RECEIVER IN YOUR VEHICLE

Electric Vehicle Installation



Typical Nitro Vehicle Installation



Install the receiver in your vehicle using double-sided foam servo tape. Foam servo tape holds the receiver in place and protects the receiver from vibration. Position the antenna vertically and away from the vehicle in an antenna tube.

CAUTION: Do not cut the antenna.

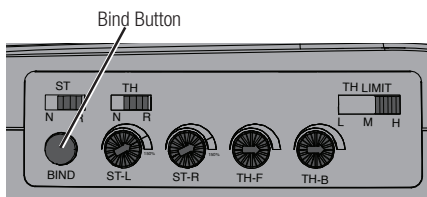
SETTING THE FAILSAFE POSITIONS

Failsafe positions are set during binding. In the unlikely event that the radio link is lost during use, the receiver moves the servos to their preprogrammed failsafe positions, normally full brakes and straight steering, to prevent a vehicle from running away. If you power the receiver on before powering on the vehicle, the receiver enters the failsafe mode. Normal control resumes when you power the transmitter on.

BINDING THE RECEIVER TO THE TRANSMITTER

Binding is the process of programming the receiver to recognize the GUID (Globally Unique Identifier) code of a single specific transmitter. The receiver only responds to the transmitter the receiver is bound to.

1. Power the receiver off and insert the bind plug into the BIND slot on the receiver.
2. Power the receiver through any open receiver slot. The receiver LED will flash rapidly, indicating the receiver is in bind mode.
3. Move the steering wheel and throttle trigger to the failsafe positions and continue to hold those positions until the binding process is complete.
4. Press the bind button on the DX2L while powering on the transmitter. The red LED on the DX2L will flash after 4 seconds when the transmitter is in bind mode.



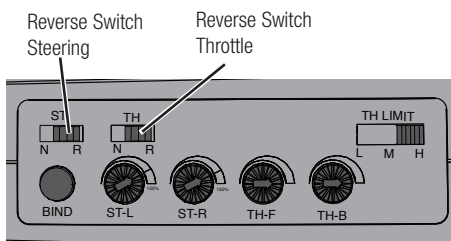
5. Release the bind button after the red LED on the DX2L flashes.
6. Continue holding the failsafe positions until the receiver LED is solid.
7. The LED on the receiver will glow solid when the transmitter and receiver are bound.
8. Remove the bind plug from the receiver and store it in a convenient place.

You must rebind the transmitter and receiver when:

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

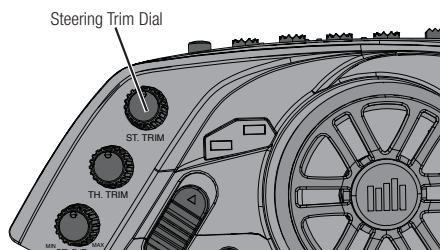
REVERSING THE SERVO DIRECTIONS

If the steering or throttle channel responds in the opposite direction, reverse the channel on the transmitter.

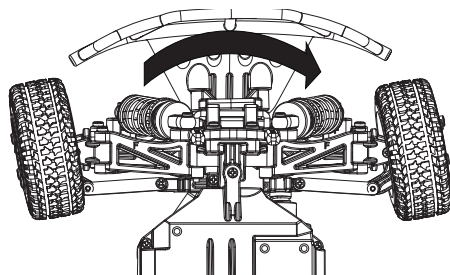


ADJUSTING THE STEERING TRIM

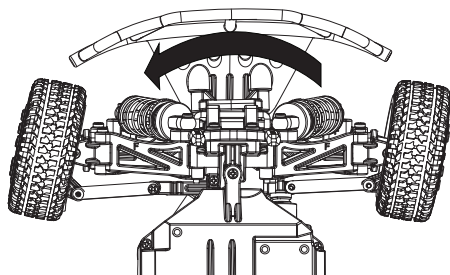
The steering trim dial is used to adjust the steering trim when the wheel is centered. Rotating the dial changes the steering trim (the steering at rest position). Normally, the steering trim is adjusted until the vehicle tracks straight.



As you adjust steering trim to the right, the wheels move to the right.

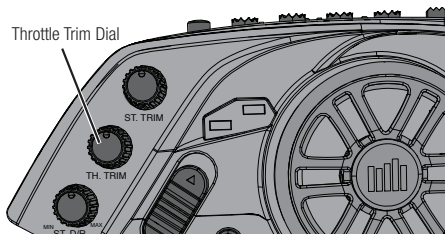


As you adjust steering trim to the left, the wheels move to the left.



ADJUSTING THE THROTTLE TRIM

The throttle trim dial adjusts the throttle trim when the throttle trigger is at neutral (center). If the wheels rotate forward or backward when the throttle trigger is at neutral, turn the throttle trim dial until the wheels stop rotating.

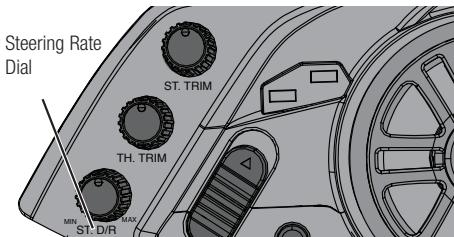


ADJUSTING THE STEERING RATE

Steering rate allows you to change how far the wheels turn when you move the steering wheel. The steering rate range is 20%–100%.

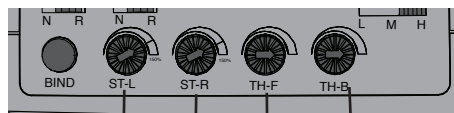
Turn the steering rate dial:

- Counterclockwise to reduce the amount of steering. Reduce the steering if the vehicle turns too fast.
- Clockwise to increase the amount of steering. Increase the steering if the vehicle turns too slow.



TRAVEL ADJUST

Travel adjust is used to limit the maximum travel that each channel will travel in each direction. Travel adjust is independently adjustable in each direction. To reduce the maximum travel in each direction, use your finger or a small screwdriver to rotate the corresponding travel adjust dial counterclockwise. To increase travel in each direction, rotate the corresponding dial clockwise. For steering, the travel knob goes up to 150%, but should be operated at 100% for most applications.



Travel Adjust
Steering Left

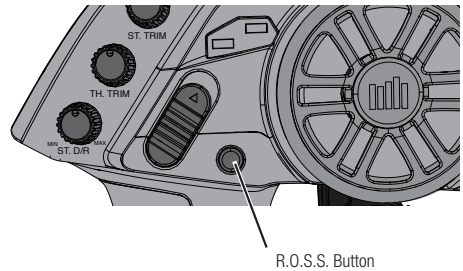
Travel Adjust
Throttle Forward

Travel Adjust
Steering Right

Travel Adjust
Throttle Reverse

R.O.S.S. START BUTTON

The R.O.S.S. start button is used with vehicles featuring the R.O.S.S. (Remote On-board Starting System). Push and hold the ROSS button to active ROSS.



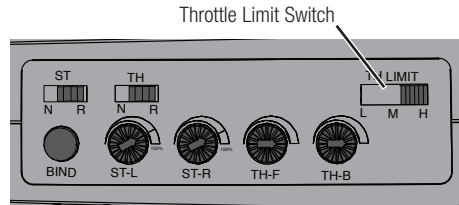
R.O.S.S. Button

CHANGING THE THROTTLE LIMIT

The throttle limit switch enables you to limit the full throttle position without adjusting the throttle travel adjustment.

Move the throttle limit switch to 50% or 75% for less experienced drivers or when you are driving the vehicle in a small area.

When you move the Throttle Limit switch to 100%, the full throttle position is equal to the high Throttle Travel position.



INACTIVITY MONITOR

After 10 minutes of inactivity, the transmitter powers off to extend the battery life.

To continue using the transmitter, move the transmitter power switch to the OFF position, then power on the transmitter.

CHANGING THE RF MODE

The DX2L has a France RF Mode that complies with French regulations. The DX2L must be in France mode when used outdoors in France. At all other times, the transmitter should be in Standard mode.

FRANCE MODE ON

Turn the wheel full left, pull the trigger full throttle and hold down the bind button while turning on the transmitter. The red LED will flash twice.

FRANCE MODE OFF (STANDARD MODE)

Turn the wheel full right, pull the trigger full throttle and hold down the bind button while turning on the transmitter. The red LED will flash once.

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.

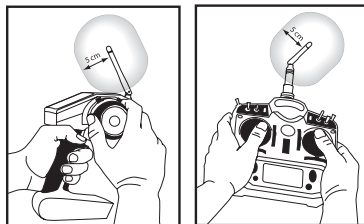
CAUTION: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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.



2.4GHZ TROUBLESHOOTING GUIDE

Problem	Possible Cause	Solution
The system will not connect	Your transmitter and receiver are too close together	Move transmitter 8 to 12 feet from receiver
	You are around metal objects	Move to an area with less metal
	The model selected is not the model bound to the transmitter.	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 year 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 SERVICES

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 877.504.0233 toll free to speak to 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 Li-Po batteries to Horizon. If you have any issue with a Li-Po 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.

NOTICE: Horizon service is limited to Product compliant in the country of use and ownership. If non-compliant product is received by Horizon for service, it will be returned unserviced at the sole expense of the purchaser.

WARRANTY AND SERVICE CONTACT INFORMATION

Country of Purchase	Horizon Hobby	Address	Phone Number/Email Address
United States of America	Horizon Service Center (Electronics and engines)	4105 Fieldstone Rd Champaign, Illinois, 61822 USA	877-504-0233 Online Repair Request: visit www.horizonhobby.com/service
	Horizon Product Support (All other products)	4105 Fieldstone Rd Champaign, Illinois, 61822 USA	877-504-0233 productsupport@horizonhobby.com
United Kingdom	Horizon Hobby Limited	Units 1-4 Ployters Rd Staple Tye, Harlow, Essex CM18 7NS, United Kingdom	+44 (0) 1279 641 097 sales@horizonhobby.co.uk
Germany	Horizon Technischer Service	Christian-Junge-Straße 1 25337 Elmshorn, Germany	+49 (0) 4121 2655 100 service@horizonhobby.de
France	Horizon Hobby SAS	14 Rue Gustave Eiffel Zone d'Activité du Réveil Matin 91230 Montgeron	+33 (0) 1 60 47 44 70 infofrance@horizonhobby.com
China	Horizon Hobby China	Room 506, No. 97 Changshou Rd. Shanghai, China 200060	+86 (021) 5180 9868 info@horizonhobby.com.cn

PARTS CONTACT INFORMATION

Country of Purchase	Horizon Hobby	Address	Phone Number/Email Address
United States	Sales	4105 Fieldstone Rd Champaign, Illinois, 61822 USA	800-338-4639 sales@horizonhobby.com
United Kingdom	Horizon Hobby Limited	Units 1-4 Ployters Rd Staple Tye Harlow, Essex CM18 7NS, United Kingdom	+44 (0) 1279 641 097 sales@horizonhobby.co.uk
Germany	Horizon Hobby GmbH	Christian-Junge-Straße 1 25337 Elmshorn, Germany	+49 (0) 4121 2655 100 service@horizonhobby.de
France	Horizon Hobby SAS	14 Rue Gustave Eiffel Zone d'Activité du Réveil Matin 91230 Montgeron	+33 (0) 1 60 47 44 70 infofrance@horizonhobby.com
China	Horizon Hobby China	Room 506, No. 97 Changshou Rd. Shanghai, China 200060	+86 (021) 5180 9868 info@horizonhobby.com.cn

COMPLIANCE INFORMATION FOR THE EUROPEAN UNION

AT	BE	BG	CZ	CY	DE	DK
ES	FI	FR	GR	HU	IE	IT
LT	LU	LV	MT	NL	PL	PT
RO	SE	SI	SK	UK		

Declaration of Conformity (in accordance with ISO/IEC 17050-1)

No. HH2012071201

Product(s): SPM DX2L Transmitter

Item Number(s): SPMR2400

Equipment class: 2

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 V1.7.1

EN 301 489-1 V1.7.1: 2006

EN 301 489-17 V1.3.2: 2008

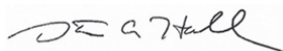
EN 60950-1:2006+A12: 2011

Signed for and on behalf of:

Horizon Hobby, Inc.

Champaign, IL USA

July 7, 2012



Executive Vice President and Chief Operating Officer
International Operations and Risk Management
Horizon Hobby, Inc.



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.