



**ULTRA-FAB PRODUCTS, INC.**  
57985 St. Rd. 19 South, Elkhart, Indiana 46517

**ULTRA WEIGHT  
DISTRIBUTING HITCH  
SYSTEM**

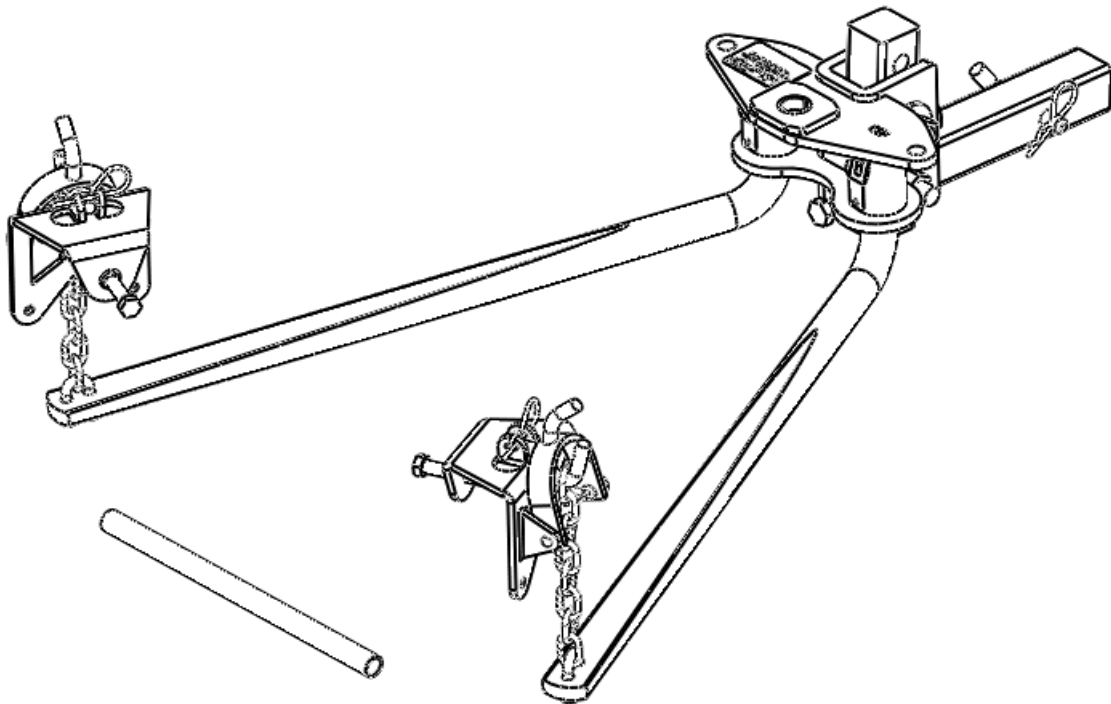
P/N 35-946225

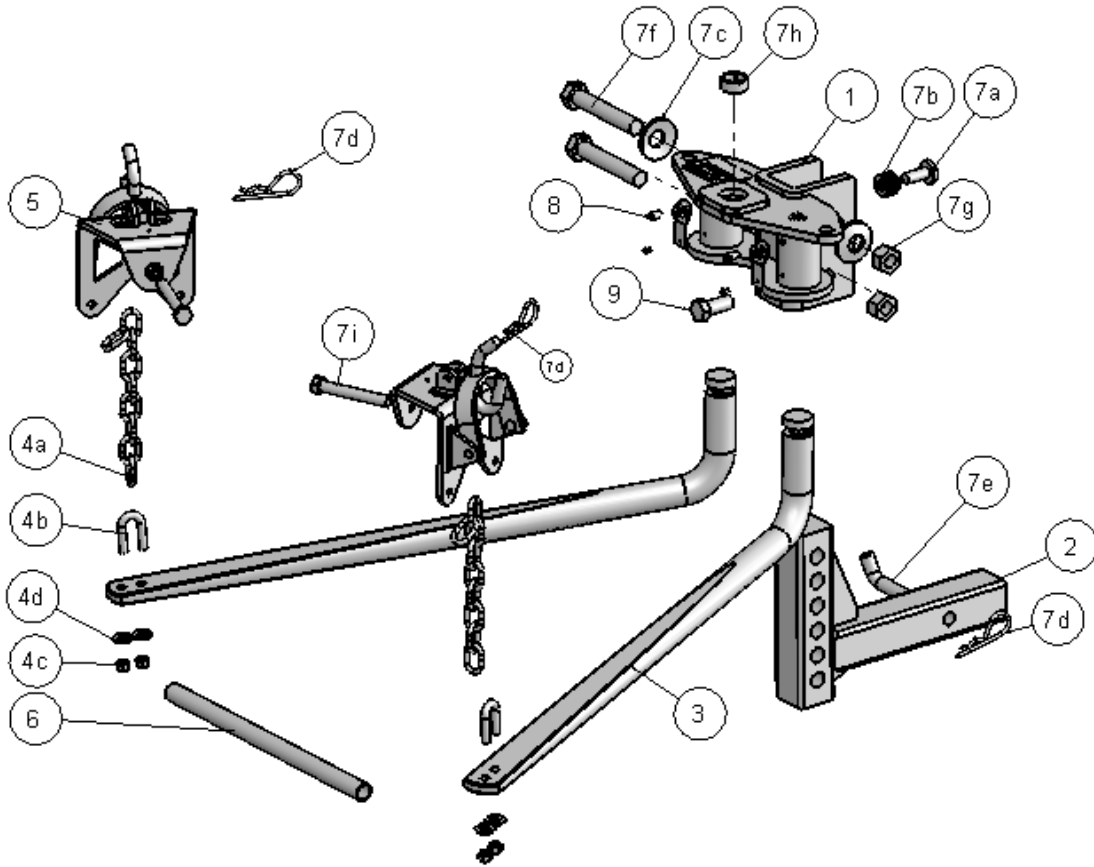
P/N 35-946226

P/N 35-946227

# ULTRA WEIGHT DISTRIBUTING HITCH SYSTEM

## INSTALLATION/OPERATION INSTRUCTIONS





## EXPLODED VIEW

## PARTS LIST

~~ READ ALL INSTRUCTIONS AND CHECK PACKAGE CONTENTS ~~

ILLUS #	PART NUMBER	PART NAME	QTY REQ	ILLUS #	PART NUMBER	PART NAME	QTY REQ		
1	35-020100	Ball Mount for 2" square shank	1	7	a	35-020122	1" Rivet	1	
2	35-020101	Adjustable 2" Square Shank	1		b	35-020132	Spacer Washer	8	
3	35-020105	750# Spring Bar	2		c	35-020142	2 - <sup>3</sup> / <sub>4</sub> " Serrated Washer	2	
	35-020106	1000# Spring Bar			d	35-020103	Spring Clip	3	
	35-020107	1400# Spring Bar			e	35-020102	Hitch Pin	1	
4	a	35-020118	Chain (9 links)		2	f	35-020152	Bolt <sup>3</sup> / <sub>4</sub> "x 10 x 4 <sup>1</sup> / <sub>2</sub> "	2
	b	35-020128	U-Bolt ( <sup>3</sup> / <sub>8</sub> "		2	g	35-020162	Nut <sup>3</sup> / <sub>4</sub> "x 10	2
	c	35-020138	Lock Nut ( <sup>3</sup> / <sub>8</sub> "		4	h	35-020104	Hitch Ball Bushing	1
	d	35-020148	Flat Washer ( <sup>3</sup> / <sub>8</sub> "		4	i	35-020110	Set Screw (Rapid Hook-Up)	2
5	35-020109	Rapid Hook-Up Bracket	2	8	35-020114	Spring Bar Snap-In Clip	2		
6	35-020111	Rapid Hook-Up Handle	1	9	35-020113	Set Screw (for ball mount)	1		

35-020108 Chain Package complete

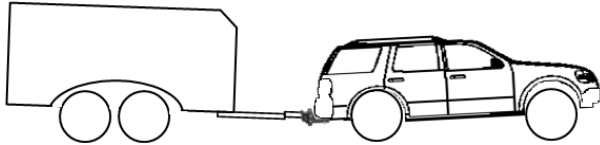
35-020112 Bolt Package complete

**DO NOT EXCEED MANUFACTURER'S TOW VEHICLE LOAD RATINGS**

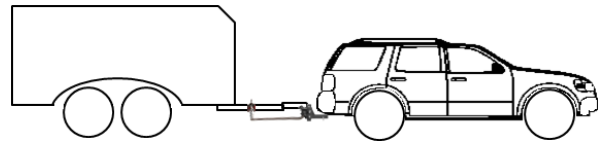
<b>HITCH SELECTION:</b>	<b>PN</b>	<b>SPRING BAR</b>	<b>MAX. TONGUE WEIGHT (LB)</b>	<b>MAX. GROSS TRAILER WEIGHT (LB)</b>
RATING WHEN USED AS A WEIGHT DISTRIBUTING HITCH WITH SPRING BARS SHOWN:	35-946225	750	750	10,000
	35-946226	1000	1000	10,000
	35-946227	1400	1400	14,000
RATING WHEN USED AS A WEIGHT CARRYING BALL MOUNT WITHOUT SPRING BARS:	35-946225		600	6,000
	35-946226	NA	600	6,000
	35-946227		600	6,000

**WEIGHT DISTRIBUTING HITCH FUNCTION:** A weight distribution hitch distributes excessive tongue weight from the rear axle of the tow vehicle to the front axle. See Figure 1 and 2.

**Figure 1 (Before weight distribution hitch)**



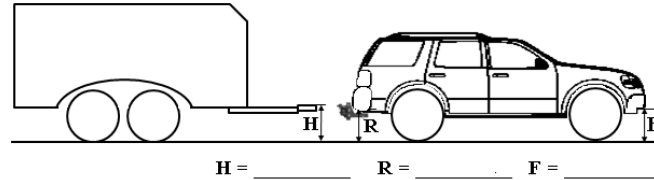
**Figure 2 (After weight distribution hitch)**



**SET UP LEVEL DIMENSIONS**

1. On flat surface, align the tow vehicle directly in front of the uncoupled trailer (Figure 3).

**Figure 3**



2. Before taking measurements in Figure 3 make sure the tow vehicle and trailer are level. (Consult the owner's manual for vehicles with power leveling systems, air springs, and air shocks. If not specified in the owner's manual, level the tow vehicle loaded as it will be when towing. After taking measurements in Figure 3, release the load leveling system before coupling tow vehicle to trailer and adjusting spring bars.)
3. With level tow vehicle and trailer, measure and write down in the space provide in Figure 3, the uncoupled height of FRONT and REAR bumpers of tow vehicle to ground surface and to the top of the coupler HEIGHT of the trailer. See Figure 3.

## ASSEMBLY - WEIGHT DISTRIBUTING HITCH

1. Insert Shank (2) into tow vehicle 2" receiver and install Hitch Pin (7e) with Spring Clip (7d).
2. Hitch ball diameter **must** match trailer coupler socket dimension.
  - a. The hitch ball can have a 1" or 1¼" threaded shank. Insert the Hitch Ball Bushing (7h) in the hitch ball hole when installing a 1" shank.
  - b. The hitch ball GTWR must be equal to or exceed the gross trailer weight.
  - c. Attach the hitch ball to the Ball Mount (1) using a hitch ball lock washer and hitch ball nut. (Hitch Ball, hitch ball lock washer and hitch ball nut not supplied).
3. Assemble Ball Mount (1) to Shank (2).
  - a. Place 6 hardened Spacer Washers (7b) over Rivet (7a) and insert Rivet into shank rivet hole from the shank side.
  - b. Align Ball Mount bolt holes with holes on Shank (2) that most closely corresponds to a ball height approximately 1.5-2" higher than trailer coupler HEIGHT measurement (See Figure 3).
  - c. Insert top Bolt (7f) with a Serrated Washer (7c) on both sides of the Ball Mount and Nut (7g). Insert bottom Bolt (7f) and Nut (FIG 4, ITEM 7g). Leave them loose until hitch assembly has been adjusted to level tow vehicle and trailer.
  - d. Tighten hitch ball nut according to manufacturer's specs. **ALWAYS** use a ball lock washer. (Hitch Ball and Hitch Ball Nut not supplied.)
4. Attach Chains (4a) to Spring Bars (3) using U-Bolt (4b) allowing 2-3 threads to protrude below Flat Washers (4d) and Locknut (4c). Chain should hang free without any of the links binding.
5. Attach trailer coupler to tow vehicle hitch ball and engage coupler latch.
6. Lubricate round ends of the Spring Bars with heavy oil or wheel bearing grease.

7. Snap Spring Bars into the Spring Bar sockets from underneath Ball Mount (1). (See Figure 5). Place spring bar through socket and push up. The Spring Bar will lock in place. To make sure bar is locked into place, pull up on the other end of the bar and bar should remain in place. (Spring Bars can be removed by pulling out on the Spring Bar Snap-In Clip (8) or by rotating the under the bumper to drop out freely.

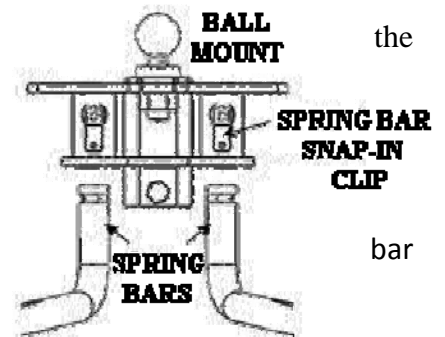


Figure 5

8. Mount Rapid Hook-Up bracket (5) on frame. Locate correct position by holding chain straight up to the chain hook on the bracket. Make sure the chain does not bind or twist and tighten Set Screw (9) ¼ turn only.

## **SPRING BAR CHAIN CONNECTION TO RAPID HOOK-UP BRACKET:**

1. With the chain hook of the Rapid Hook-Up bracket (5) in the up position, pull Spring Bar Chain straight up to the chain hook. Mark the link that is closest to the chain hook. The link that is two links below the marked link will be the chosen link for the spring bar chain connection to the Rapid Hook-Up Bracket.
2. Make sure there are 5 links between the chosen link and the spring bar. This distance will allow for the proper turning radius of the tow vehicle.

**BEFORE ATTACHING SPRING BAR CHAIN TO CHAIN HOOK AND TO REDUCE SPRING BAR TENSION, CRANK TONGUE JACK TO RAISE BUMPER OF TOW VEHICLE ABOUT 3 INCHES . THIS STEP WILL MAKE IT EASIER TO ATTACH THE SPRING BAR CHAINS.**

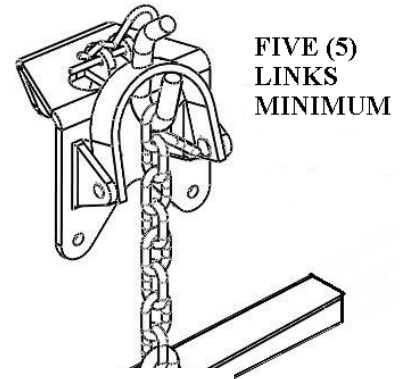


Figure 6

3. Using Rapid Hook-Up Handle (6), lower the chain hook to the down position. Place the chosen chain link over the chain hook making sure the other links do not bind and raise the chain hook to the up position with the assistance of the Handle. Repeat with other spring bar.

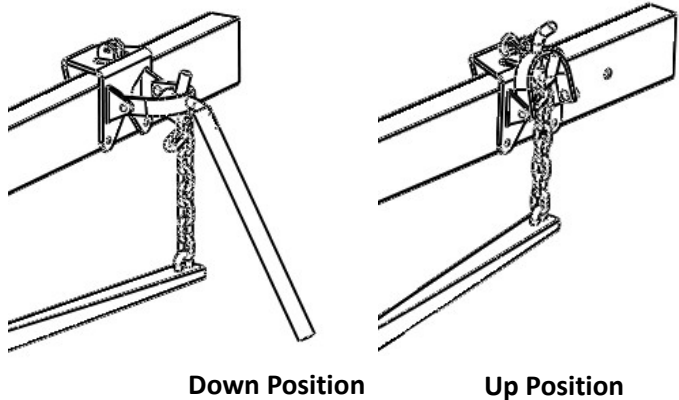
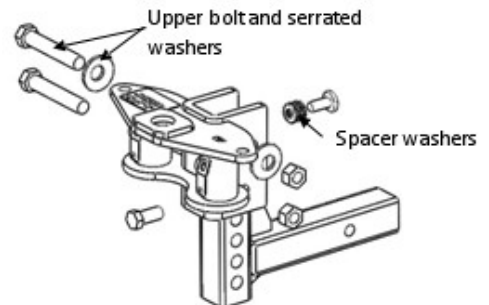
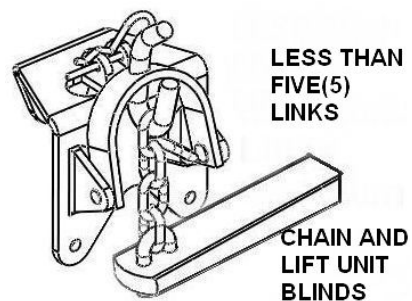


Figure 7

4. **Readjust the angle of the ball mount downward if there are less than 5 links** (See Figure 8) between the chain hook and Spring Bar (3).
  - a. Uncouple the tow vehicle from the trailer.
  - b. Remove the upper Bolt with serrated washers from the Ball Mount assembly.
  - c. Pivot Ball Mount assembly downward toward the trailer and add an additional Spacer Washer to the Rivet.
  - d. Reassemble.
  - e. Repeat if necessary



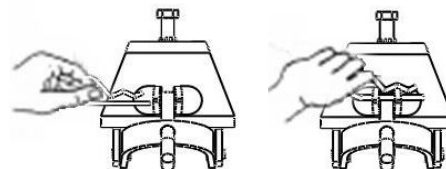
**CAUTION: IF THERE ARE LESS THAN 5 LINKS BETWEEN RAPID HOOK-UP AND SPRING BAR, THE RAPID HOOK-UP BRACKET CAN BE DAMAGED.**



**INCORRECT**

**Figure 8**

5. After the chains have been connected to the Rapid Hook-Up, the spring bar should be parallel to the trailer frame +/- a slight angle up or down. This is the correct position.
6. Secure spring bar chain connection by inserting Rapid Hook-Up Spring Pin (7d) on Rapid Hook-Up (5). See Figure 9.
7. Retract trailer tongue jack so hitch is now carrying the full trailer weight.

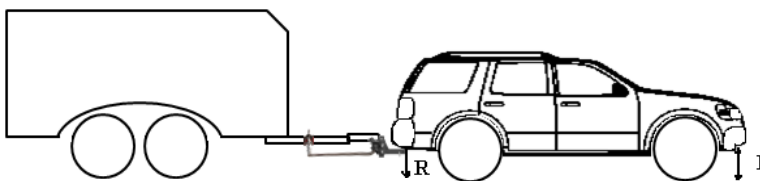


**Figure 9**

**ADJUST HOOKUP (IF NECESSARY)**

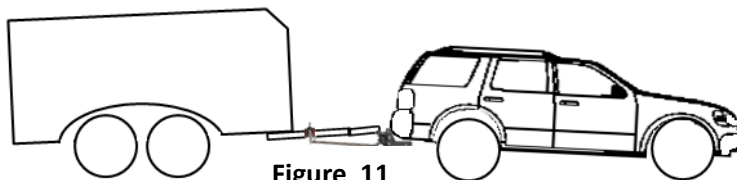
A weight distribution hitch is attached correctly when the FRONT bumper dimension is the same as the beginning uncoupled dimension on page 1 and lightly less in the REAR (see figure 10).

- a. The front wheel load is the same resulting in stable handling with the correct load on the rear axle of the tow vehicle and trailer axle.



**Figure 10**

- b. The FRONT bumper measurement should never reduce more than the REAR measurement (see Figure 11). If necessary, increase the number of chain links between Rapid Hook Up and spring bar. If there are no more links, the angle of the Ball Mount assembly (1) must be decreased. Uncouple the tow vehicle. With the upper Bolt (7f) removed from the Ball Mount (1) assembly, pivot the Ball Mount assembly up and remove a Spacer Washer (7b) from the Rivet (7a).



**Figure 11**

- c. Reassemble.
- d. Repeat if necessary and until the hitch is installed properly.
- e. If more leveling is necessary, decrease one or more of the chain links between Rapid Hook-Up (5) and Spring Bar (3).

- f. **Remember that there must be at least 5 links between the spring bars and the Rapid Hook Up for proper turning.**
- g. When the hitch has been installed correctly, permanently mark the hooked chain link for future reference.

**NOTE: SURGE BRAKES** require some amount of front to back movement for the actuator to work properly. If movement is restricted, It may be necessary to add to the number of chain links between the Rapid Hook-Up (5) and the Spring Bar (3).

**Refer to TRAILER AND/OR SURGE BRAKES OPERATING INSTRUCTIONS REGARDING WEIGHT DISTRIBUTION HITCHES.**

**When the weight distribution hitch is adjusted properly, tighten the hitch bolts and nuts.**

- a. Tighten Bolts/Nuts (7f & 7g) to 250 lb - ft.
- b. Tighten Set Screw (9) to 50 lb ft.

**CHECK THE FOLLOWING CONNECTIONS BEFORE TOWING:**

- a. **Hitch Pin (7e) and Spring Clip (7d)**
- b. **Ball Mount (1) to shank fastener Bolts (7f) and Nuts (7g)**
- c. **Ball nut**
- d. **Coupler Latch**
- e. **Rapid Hook-Up Set Screws (7i)**
- f. **Safety Chains**
- g. **Lights and turn signals**
- h. **Braking system**

**LUBRICATION**

- 1. **Lubricate Hitch Ball and SPRING BARS daily when in use to prevent excessive wear with a heavy oil or grease.**
- 2. Clean hitch ball and coupler socket and wipe out pockets whenever trailer is uncoupled and lightly grease hitch ball.

## **WARNINGS**

**FAILURE TO HEED PROPER INSTALLATION INSTRUCTIONS MAY RESULT IN SERIOUS PERSONAL INJURY OR DEATH, VEHICLE CRASH, AND / OR PROPERTY DAMAGE**

**TOP OF COUPLED BALL HEIGHT SHOULD NEVER EXCEED UNCOUPLED BALL HEIGHT.**

Overloaded front wheels and rear wheel traction loss can occur. This situation can contribute to unsafe handling, decreased braking ability, and possibly jackknife when turning.

**EXTREME CAUTION SHOULD BE USED WHEN BACKING UP AND TURNING AND TO PREVENT JACKKNIFING.**

If jackknifing happens, inspect all hitch system components for damage and replace damaged parts.

**DO NOT TOW MULTIPLE TRAILERS.**





**Ultra-Fab Products, Inc.**

## **THREE YEAR LIMITED WARRANTY**

### **THE MANUFACTURER NAMED BELOW MAKES THE FOLLOWING WARRANTY WITH RESPECT TO THE ULTRA WEIGHT DISTRIBUTING HITCH SYSTEM**

1. This Warranty is made only to the first Purchaser (hereinafter called the "Original Purchaser") who acquires this product for their own use.
2. This Warranty will be in effect for three years from the date of purchase by the Original Purchaser. It is suggested that the Original Purchaser retain a copy of the dated bill of sale as proof of purchase.
3. This Warranty covers only specified parts which shall be free from defects in material and workmanship under normal use. This Warranty does not cover conditions unrelated to the material and workmanship of the product. Such unrelated conditions include, but are not limited to (a) faulty installation and any damage resulting from such; (b) failure to follow Manufacturer's instructions for use of this product, and (c) any accident to, or misuse of, any part of this product and any alteration by anyone other than the Manufacturer or its authorized representative.
4. In order to obtain the benefits of this Warranty, you should return the product which you find defective to the Manufacturer named below, along with the proof of purchase, during the period that this Warranty is in effect. All charges incurred in delivery of the product to the Manufacturer, and in picking it up after the Warranty service has been completed, must be paid by the Original Purchaser.
5. Any item returned in the manner described in paragraph 4 will be examined by the Manufacturer. If it is found that the returned item was defective in material or workmanship, the Manufacturer will repair or replace the product, at their option, without charge for material or labor.
6. Ultra-Fab will pay freight on replacement parts during the first 90 days of ownership by the Original Purchaser.
7. The Manufacturer does not authorize any person or company to create any Warranty obligation or liability on their behalf.
8. NEITHER PARTY SHALL BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES. THE REMEDIES OF THE PURCHASER, AS SET FORTH HEREIN, ARE EXCLUSIVE, AND THE LIABILITY OF ULTRA-FAB PRODUCTS, INC. SHALL NOT EXCEED THE PRICE OF THE EQUIPMENT OR PART ON WHICH SUCH LIABILITY IS BASED.
9. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.
10. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

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