

LoadLifter 5000™

Kit 57140

Ford F-53 Class "A"



INSTALLATION GUIDE

For maximum effectiveness and safety, please read these instructions completely before proceeding with installation.

Failure to read these instructions can result in an incorrect installation.



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Introduction

The purpose of this publication is to assist with the installation and maintenance of the LoadLifter 5000 air spring kits. All LoadLifter 5000 kits utilize sturdy, reinforced, commercial-grade single or double, depending on the kit, convolute bellows.

The air springs are manufactured like a tire with layers of rubber and cords that control growth. LoadLifter 5000 kits provide up to 5,000 pounds (2,268kg) of load-leveling support with air adjustability from 5-100 PSI (.34-7BAR).

It is important to read and understand the entire installation guide before beginning installation or performing any maintenance, service or repair.

NOTATION EXPLANATION

Hazard notations appear in various locations in this publication. Information which is highlighted by one of these notations must be observed to help minimize risk of personal injury or possible improper installation which may render the vehicle unsafe. Notes are used to help emphasize areas of procedural importance and provide helpful suggestions. The following definitions explain the use of these notations as they appear throughout this guide.



DANGER

INDICATES IMMEDIATE HAZARDS WHICH WILL RESULT IN SEVERE PERSONAL INJURY OR DEATH.



WARNING

INDICATES HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN SEVERE PERSONAL INJURY OR DEATH.



CAUTION

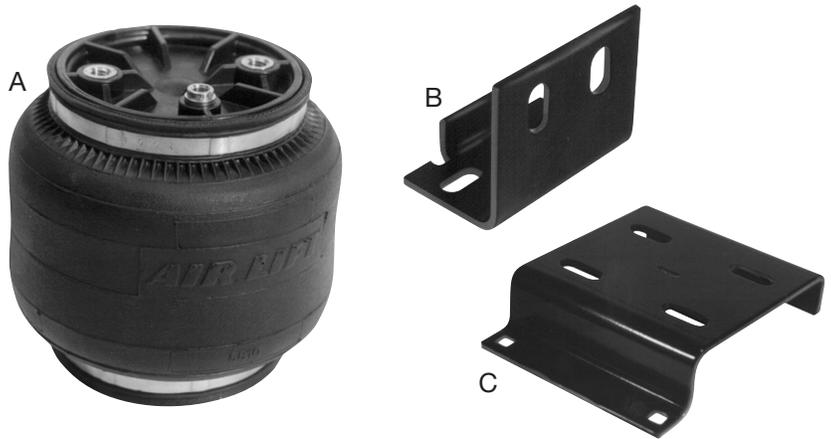
INDICATES HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN DAMAGE TO THE MACHINE OR MINOR PERSONAL INJURY.

Hardware List

Please read these instructions completely before proceeding with the installation.

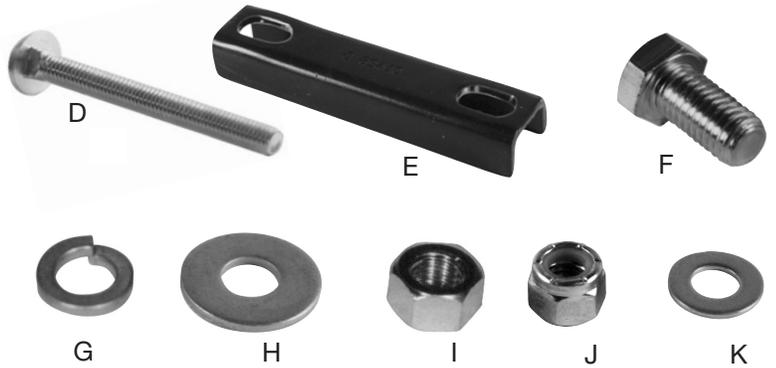
Air Spring Kit Parts List

Item	Description	Quantity
A	Air Spring	2
B	Upper Bracket	2
C	Lower Bracket	2



Bracket Attaching Hardware

Item	Description	Quantity
D	3/8-16 x 3 1/2" Carriage Bolt	4
E	Clamp Bar	2
F	1/2-13 x 1 1/2" Hex Head Bolt	2
G	1/2" Lock Washer	2
H	1/2" Flat Washer	2
I	1/2" Hex Nut	2
J	3/8" Lock Nut	4
K	3/8" Flat Washer	4



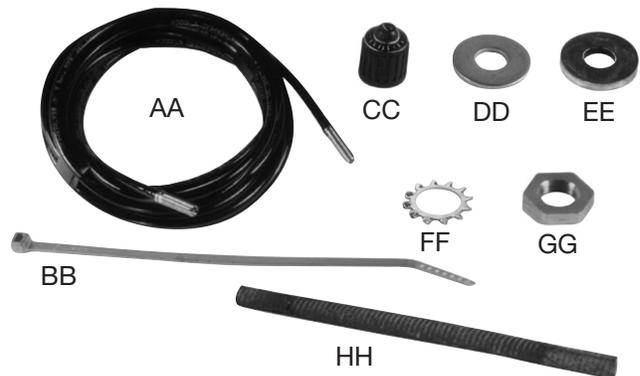
Air Spring Attaching Hardware

Item	Description	Quantity
L	3/8-16 x 7/8" Hex Head Bolt	8
M	3/8" Flat Washer	8
N	Lock Washer	8
O	1/8" x 1/4" Tube Elbow	2



Air Line Assembly Parts List

Item	Description	Quantity
AA	Air Line Assembly	1
BB	Zip Tie	6
CC	Valve Cap	2
DD	5/16" Flat Washer	2
EE	Rubber Washer	2
FF	Star Washer	2
GG	5/16" Hex Nut	4
HH	Thermal Sleeve	2



Missing or damaged parts? Call Air Lift customer service at (800) 248-0892 for a replacement part.

Tools List

7/16", 9/16" open-end or box wrenches
Adjustable Wrench
Ratchet with 3/8", 9/16" and 1/2" deep well sockets
3/8" and 5/16" Drill Bits (very sharp)
3/8" Nut Driver
Heavy Duty Drill
Torque Wrench

Hose Cutter, Razor Blade, or Sharp Knife
Hoist or Floor Jacks
Safety Stands
Safety Glasses
Air Compressor, or Compressed Air Source
Spray Bottle with Dish Soap/Water Solution

Installing the LoadLifter 5000 System

BEFORE YOU START

1. You need to determine Normal Ride Height. Normal Ride Height is the distance between the bottom edge of the wheel well and the center of the hub with the vehicle in the "as delivered" condition. In some cases, Normal Ride Height is not perfectly level.
2. Remove unusual loads and examine your vehicle from the side to ensure it is on a level surface. If necessary (in cases where your leaf springs are sagging badly), use a jack to raise the rear end so that the vehicle achieves the original "as delivered" ride height.



fig. 1

3. Measure the distance between the center of the hub and the bottom edge of the wheel well. This is the Normal Ride Height. Enter the measurement below:



fig. 2

NORMAL RIDE HEIGHT: _____ inches/centimeters



IMPORTANT: Your vehicle may be equipped with a rear brake proportioning valve. Any type of load assist product could affect brake performance. We recommend that you check with your dealer before installing this type of product. If your vehicle DOES NOT have a rear brake proportioning valve or is equipped with an anti-lock type brake system, installation of a load assist product will have NO EFFECT ON BRAKE SYSTEM PERFORMANCE.

CAUTION

COMPRESSED AIR CAN CAUSE INJURY AND DAMAGE TO THE VEHICLE AND COMPONENTS IF IT IS NOT HANDLED PROPERLY. FOR YOUR SAFETY, DO NOT TRY TO INFLATE THE AIR SPRINGS UNTIL THEY HAVE BEEN PROPERLY SECURED TO THE VEHICLE.

ASSEMBLING THE AIR SPRING UNIT

1. LOOSELY attach the 1/8" x 1/4" tube elbow fitting (O) to the air spring. Tighten fitting finger-tight plus 1 1/2 turns, being careful to tighten the metal hex nut only. DO NOT OVERTIGHTEN.
2. LOOSELY attach the upper bracket (B) to the air springs with two 3/8-16 x 7/8" hex head bolts (L), lock washers (N) and flat washers (M).



fig. 3

3. Attach the air spring to the lower bracket. Secure the lower bracket (C) to the air spring with two 3/8-16 x 7/8" hex head bolts (L), lock washers (N) and flat washers (M). Torque to 20 lb.-ft. (27.1Nm).



fig. 4

4. There is a Driver (left) and Passenger (right) side unit. Attach the air spring to the inboard slotted holes of the lower bracket with the vertical flange of the upper bracket outboard.

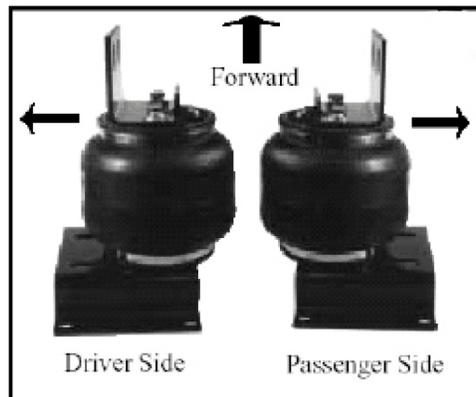


fig. 5

ATTACHING THE LOWER BRACKET

1. Set the assembly on the leaf spring with the lower bracket flange over the rearward U-bolt and the vertical flange of the upper bracket on the outboard side of the frame rail.

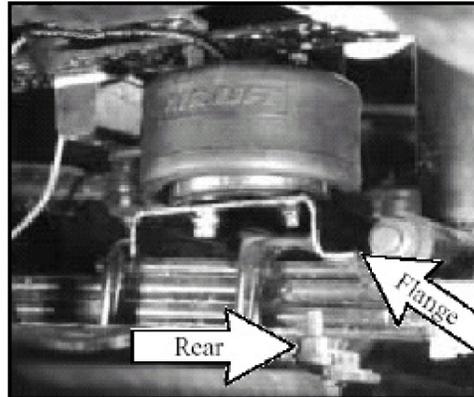


fig. 6

NOTE

On some late models, the chassis has a round jounce bumper under the frame that will interfere with the installation of the assembly. If your model is equipped with this style jounce bumper, remove and discard it.

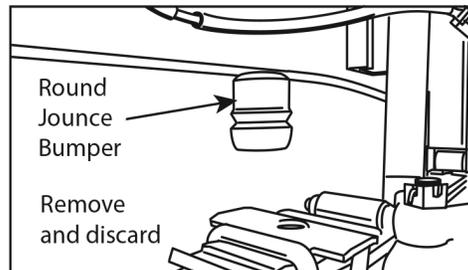


fig. 7

2. PASSENGER'S (RIGHT) SIDE - It will be necessary to install the inboard carriage bolt (D) and clamp bar (E) first before placing the unit on the leaf spring. Install the inboard carriage bolt through the clamp bar and up through the lower bracket (the nut will be on the top of the bracket). The outboard carriage bolt will go down.

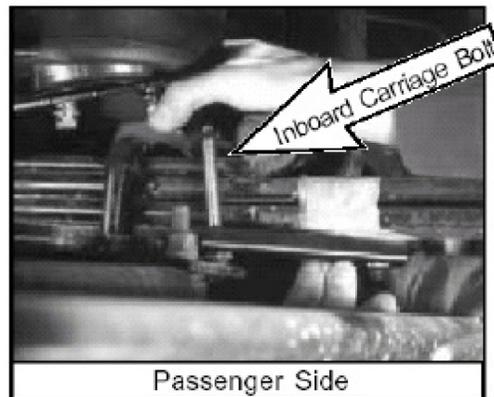


fig. 8

3. DRIVER'S (LEFT) SIDE - Both carriage bolts are installed down with the nut on the bottom of the clamp bar (opposite of passenger's [right] side).
4. PASSENGER'S (RIGHT) SIDE - Some models have a plastic spacer between the leaf springs that will need to be filed or ground away to allow the carriage bolt to be installed into the clamp bar.

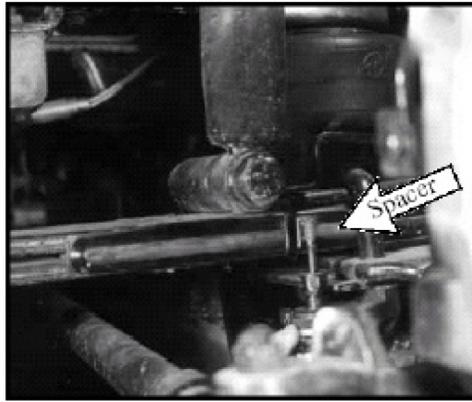


fig. 9

5. Secure the carriage bolt (D) with a flat washer (K) and 3/8" lock nut (J). Tighten all fasteners to 20 lb.-ft. (27.1Nm).

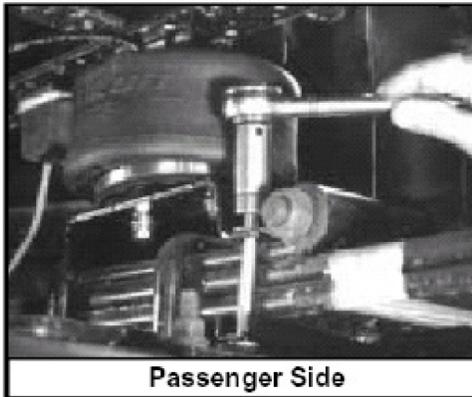


fig. 10

ATTACHING THE UPPER BRACKET

1. Position the upper bracket (B) on the frame rail so that it is aligned front to rear and inboard/outboard. Upper and lower brackets are slotted for adjustment.

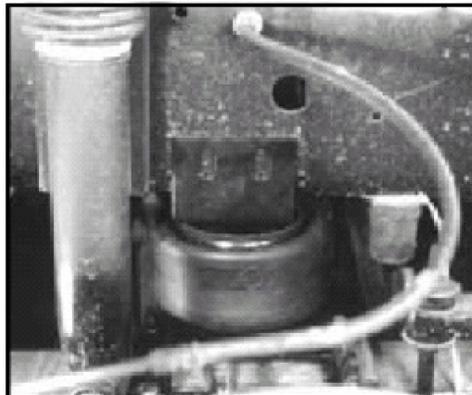


fig. 11

2. Put the upper bracket back into position on the frame rail and center punch ONE hole in the side of the frame rail (see fig. 12 on next page).
3. Tighten the rearward bolt in the upper bracket to the air spring first. Now move the upper bracket away from the frame and tighten the front bolt (see fig. 13 on next page).

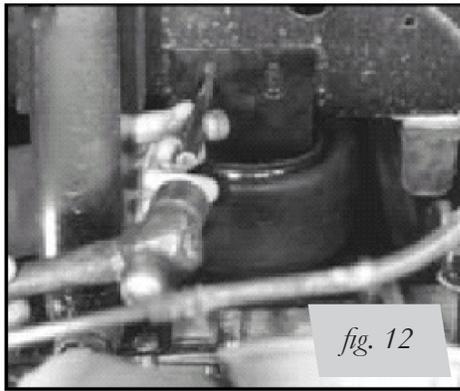


fig. 12

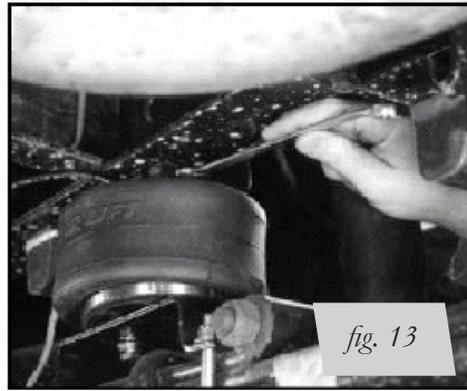


fig. 13

4. Drill ONE 1/2" hole in the side of the frame rail.

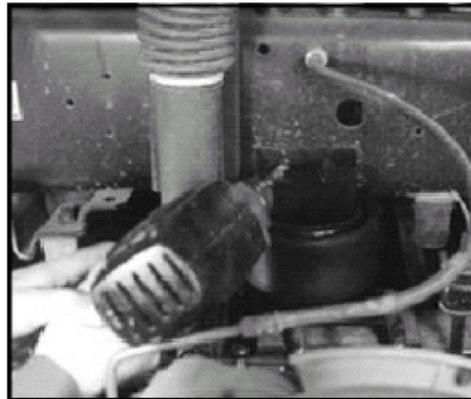


fig. 14

CAUTION

CAUTION - DO NOT DRILL HOLES INTO FRAME BEFORE CHECKING FOR HYDRAULIC LINES, GAS LINES AND/OR ELECTRICAL WIRES THAT MAY HAVE TO BE MOVED ASIDE ON EITHER SIDE OF THE FRAME.

5. Check the alignment once again. Using the slots in the lower bracket, align the air spring so that it is square, vertically and horizontally to the upper bracket.
6. Tighten the air spring mounting bolts to 20 lb.-ft. (27.1Nm). Attach the upper bracket using one 1/2-13 x 1 1/2" bolt (F), 1/2" flat washer (H), 1/2" lock washer (G) and 1/2" hex nut (I). Only one bolt is required to secure the bracket to the frame.



fig. 15

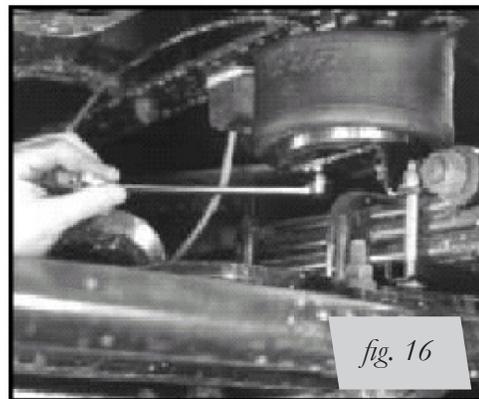


fig. 16

INSTALL OTHER AIR SPRING

1. You have now completed the installation for one air spring. Repeat these same steps for the other side of the vehicle, and then continue to the *Installing the Air Lines* section.

INSTALLING THE AIR LINES

1. Choose a convenient location for mounting the inflation valves. Make sure there is enough clearance around the inflation valves for an air chuck. Drill a 5/16" (8mm) hole to install the inflation valves.
2. The recommended location is in the wheel well or lower body ahead of rear wheel. One on each side provides ease of filling, checking and measuring body height to compensate for side-to-side lean and sag.

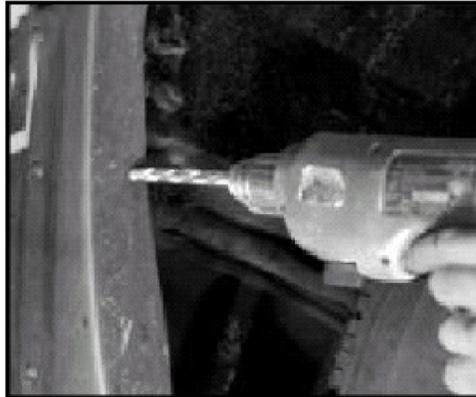
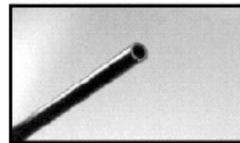


fig. 17

3. Cut the air line assembly (AA) in two equal lengths.



Bad cut - flattened



Good cut - clean and square

fig. 18

CAUTION

WHEN CUTTING OR TRIMMING THE AIR LINE, USE A HOSE CUTTER (AIR LIFT P/N 10530), A RAZOR BLADE OR A SHARP KNIFE. A CLEAN, SQUARE CUT WILL ENSURE AGAINST LEAKS.

4. Place a 5/16" nut (GG) and a star washer (FF) on the air valve. Leave enough of the inflation valve in front of the nut to extend through the hole and allow room for the rubber washer (EE), flat washer (DD), and 5/16" nut (GG) and cap (CC). There should be enough valve exposed after installation - approximately 1/2" (12.7mm) - to easily apply a pressure gauge or an air chuck. Do not use wire cutters or scissors to cut the air line. These tools may flatten or crimp the air line, causing it to leak around the O-ring seal inside the elbow fitting.



fig. 19

5. Push the inflation valve through the hole and use the rubber washer (EE), flat washer (DD) and another 5/16" (GG) nut to secure it in place. Tighten the nuts to secure the assembly in place.



fig. 20

6. Route the air line along the frame to the air spring location on the leaf spring, behind the axle. Keep at least 6" (152.4mm) of clearance between the air line and heat sources, such as the exhaust pipes, muffler, or catalytic converter. Avoid sharp bends and edges. Use the plastic zip ties (BB) to secure the air line to fixed, non-moving points along the chassis. Be sure that the zip ties are tight, but do not pinch the air line. Leave at least 2" (50.8mm) of slack to allow for any movement that might pull on the air line.

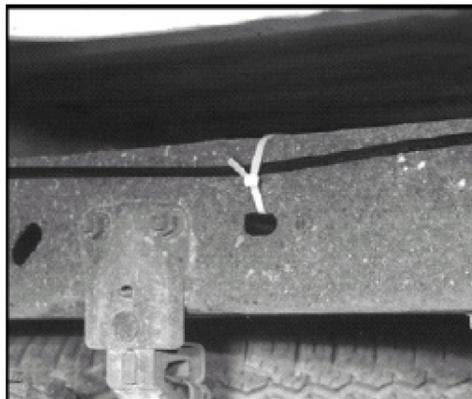


fig. 21

7. Trim the excess air line before inserting it into the air fitting. Using a standard tube cutter, a razor blade, or very sharp knife to cut the air line. Cut off air line leaving approximately 12" (304.8mm) of extra air line. A clean square cut will ensure against leaks. Insert the air line into the air fitting. This is a push-to-connect fitting. Simply push the air line into the fitting until it bottoms out (**5/8" [15.9mm] of air line should be in the fitting**). Maintain a smooth bend from the air spring. **Do not kink the air line.**
8. PASSENGER (RIGHT) SIDE ONLY - Before installing the air line, place a thermal sleeve (HH) on the air line near the exhaust.



fig. 22

Before Operating

INSTALLATION CHECKLIST

- Clearance test** — Inflate the air springs to 40-60 PSI (2.8-4.1BAR) and make sure there is at least 1/2" (13mm) clearance from anything that might rub against each sleeve. Be sure to check the tire, brakes, frame, shock absorbers and brake cables.
- Leak test before road test** — Inflate the air springs to 40-60 PSI (2.8-4.1BAR) and check all connections for leaks. All leaks must be eliminated before the vehicle is road tested.
- Heat test** — Be sure there is sufficient clearance from heat sources, at least 6" (152mm) for air springs and air lines. If a heat shield was included in the kit, install it. If there is no heat shield, but one is required, call Air Lift customer service at **(800) 248-0892**.
- Fastener test** — Recheck all bolts for proper torque.
- Road test** — The vehicle should be road tested after the preceding tests. Inflate the air springs to recommended driving pressures. Drive the vehicle 10 miles (16km) and recheck for clearance, loose fasteners and air leaks.
- Operating instructions** — If professionally installed, the installer should review the operating instructions with the owner. Be sure to provide the owner with all of the paperwork that came with the kit.

Maintenance and Use Guidelines

1. Check air pressure weekly.
2. Always maintain normal ride height. Never inflate beyond 100 PSI (7BAR).
3. If the system develops an air leak, use a soapy water solution to check all air line connections and the inflation valve core before deflating and removing the air spring.

Minimum Recommended Pressure	Maximum Air Pressure
5 PSI (.34BAR)	100 PSI (7BAR)

CAUTION

FOR SAFETY AND TO PREVENT POSSIBLE DAMAGE TO THE VEHICLE, DO NOT EXCEED MAXIMUM GROSS VEHICLE WEIGHT RATING (GVWR) OR PAYLOAD RATING, AS INDICATED BY THE VEHICLE MANUFACTURER.

CAUTION

ALTHOUGH THE AIR SPRINGS ARE RATED AT A MAXIMUM INFLATION PRESSURE OF 100 PSI (7BAR), THE AIR PRESSURE ACTUALLY NEEDED IS DEPENDENT ON LOAD AND GROSS VEHICLE WEIGHT RATING.

Limited Warranty and Return Policy

Air Lift Company provides a limited lifetime warranty to the original purchaser of its load support products, that the products will be free from defects in workmanship and materials when used on cars and trucks as specified by Air Lift Company and under normal operating conditions, subject to the requirements and exclusions set forth in the full Limited Warranty and Return Policy that is available at www.airliftcompany.com/warranty.

For additional warranty information contact Air Lift Company customer service.

Notes

Need Help?

Contact Air Lift Company customer service department by calling (800) 248-0892. For calls from outside the USA or Canada, dial (517) 322-2144.



Thank you for purchasing Air Lift products — the professional installer's choice!

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