

40953 London Bus

Adapted by John Le and tested by Peter Durieux.

Delight vehicle lovers with this LEGO® London Bus (40953) building set for boys and girls ages 8 and up. Kids will have lots of fun building the iconic double-decker bus before discovering all the cool details, including turning wheels and transparent windows, plus a license plate, route number, destination and banner stickers. An awesome birthday gift for fans of all ages, this vintage-style bus toy makes a unique UK or London souvenir. Set contains 245 pieces.

BUS TOY FOR KIDS – Build an iconic British vehicle with this LEGO® London Bus (40953) building set for boys and girls ages 8 and up.

PACKED WITH DETAILS – The toy double-decker bus features turning wheels and transparent windows, plus license plate, route number, destination and advertising banner stickers.

PLAY-AND-DISPLAY TOY – Once vehicle lovers have enjoyed building the LEGO® bus model and marveling at its details, they can display it proudly as home or bedroom decor.

DIMENSIONS – The 244-piece bus toy measures over 3.5 in. (8 cm) high, 5.5 in. (15 cm) long and 2 in. (5 cm) wide.

The front of the box shows the London bus! It is a tall red bus with a UK flag on the side! It is driving down the street!

The back of the box shows the London bus! The top of the bus is removable to look inside!

The top of the box shows a real size image of a black tire.

The build is 245 pieces in total and is for ages 8+.

Welcome to Text-Based Building Instructions from Bricks for the Blind. Here is some helpful information on how to best use screen readers and browsers: bricksfortheblind.org/help-with-screen-readers. Before you start building, here are some terms we will be using:

- In Front of/Front: towards you.
- Behind/Back: away from you.
- Up: towards the ceiling.
- Down: towards the floor.
- Stud: the bump on a LEGO brick. Example: A 2x1 brick has two studs on it.
- Vertically: with the longest side going from front to back
- Horizontally: with the longest side going from left to right.
- Upright: pointing up towards the ceiling.
- Standing upright: The piece is perpendicular to the ground, like a wall.
- Lying flat: The piece is parallel to the ground, like a piece of toast which fell off the table.
- That one/ppp: previously placed piece.
- Plate: piece with studs.
- Tile: smooth piece without studs (unless otherwise specified)
- A jumper plate is a 1x2 plate with a single stud on top, or a 1x3 plate with only two

studs on top.

- "Anti-stud" is a term for the portion of a LEGO piece which accepts studs, like the bottom of a plate or brick.
- Symmetrically: a mirror image. Example: If you place a 2x1 brick with technic connector on the front wall at the right, connector to the front, and then place another such piece symmetrically on the back wall, at the right, the technic connector of the second piece should point to the back, since it will be placed symmetrically.
- Centered-vertically: even amount of space in front of and behind piece
- Centered-horizontally: even amount of space left and right of piece.
- Row: studs lined up horizontally (left to right/side to side).
- Column: studs lined up upright or vertically (top to bottom/back to front).

A note on LEGO Technic™ part names. These parts are somewhat different from regular LEGO bricks. Here are some definitions in case the builder or helper is not familiar with LEGO Technic™.

Axles - An axle is a connector which has an X shaped cross-section. Because their cross section is not round, anything connected to an axle using an axle-hole will rotate with that axle. Axles are longer than they are wide, and the length of an axle corresponds with how many bricks long it is. Aka a 3L axle is three bricks long. Axles come in a variety of lengths, with a 2L axle being the shortest available. They may be combined with pins, or have circular stops on them. A stop prevents the axle from sliding through an axle-hole at a specific point on the axle.

Pins - A pin is a connector which has a circular cross section and a flanged notch out of one or both ends. This flanged notch allows them to click into bricks with a pin-hole. Pins come with and without friction ridges, which are small bumps on the pin which prevent them from rotating freely. For standard pins, black is a high friction pin, and gray is a low friction pin. A standard length pin is two brick lengths long, with a stop in the middle. This prevents a brick from being pushed from one side of the pin to the other. A 1L pin is one brick long and still retains the stop, however it also includes a hollow stud at the other end. A 3L pin is three bricks long, and only contains a stop at one side, allowing two bricks to be pushed onto the other side of the pin. Pins may also have one side which is an axle.

Technic brick - a brick which contains one or more holes which accept technic pins.

Lift-arms - A lift-arm is a basic structural element, similar to a brick or a plate, but usually without any studs. It is a beam with rounded ends and with holes in it, with the same spacing as the studs on a LEGO brick. lift-arms come in a variety of lengths, including a 1x1 lift-arm which looks like a cylinder. Thick lift-arms are as wide as a LEGO brick, and thin lift-arms are half as wide as a LEGO brick, but not the same thickness as a LEGO plate! The holes in a lift-arm may accept axles or pins. They also come in a variety of shapes, including tees, ells and triangles.

Gears - A gear is a functional element. They are typically discs with teeth on the outside, there are also worm gears which look like a spiraling cylinder! Gears connected by axles transmit or even transform rotational motion!

Axle and Pin Connectors - These elements are typically smaller than lift-arms and are used to connect some combination of pins or axles. They might have pins or axles, as well as axle or pin-holes. They have a lot of different angle combinations! The simplest just connects two axles or pins together in a straight line.

Bushes/Bushings - LEGO Technic™ uses bushes largely as spacers, but they also can reduce friction between rotating parts, or can form useful elements such as handles. Bushes are typically light gray, generally cylindrical, and have an axle-hole running through the middle. They have a flange at the front and back to make them easier to pull on and off.

For builders with low vision, or a sighted building partner may want to follow along with the printed visual instructions that come with each kit, or PDF versions are always online at LEGO.com for each set: (<https://www.lego.com/en-us/service/buildinginstructions/40953>) As low vision users may benefit from viewing the instructions on a personal device where they can zoom in on content and use assistive technologies to enhance the visuals.

Sorting the pieces:

To begin a successful build, it helps to sort the pieces into groups, bags, or small containers. Have a friend or family member do this in advance following the instructions below. You will see that the pieces should be sorted according to the building steps in the kit. Doing this in advance makes locating the pieces for each step easier. See below on how to sort the pieces to correspond to the steps in this set. Number the containers using letters A-Z, numbers, or meaningful names. The parts will be sorted into one or a small number of steps in the instructions. Example: Steps 1-3 means collect all the parts used in steps 1,2 and 3, and put them in one container.

This LEGO set comes with 3 bags labeled 1 to 3, 1 set of instructions, and some loose pieces. Sort the pieces into groups or piles as described below. Note that where there are multiple colors of the same brick in a step, the colors will be split into 2 groups to make telling the difference easier for the builder! LEGO includes a few spare parts in case you lose something. Set these into their own group away from the rest, in case you need them later.

Bag 1 - London Bus

Group 1 - Steps 1-5.

Group 2 - Steps 6-8.

Group 3 - Steps 9-11.

Group 4 - Steps 12-15.

Group 5 - Steps 16-19.

Group 6 - Steps 20-23.

Bag 2 - London Bus

Group 7 - Steps 24-33.

Group 8 - Step 34.

Group 9 - Steps 35-37 and 1 transparent 1x1 brick from Step 38.

Group 10 - Rest of Step 38 and Steps 39-44.

Group 11 - Steps 45-51.

Bag 3 - London Bus

Group 12 - Steps 52-61 and 2 tan 1x4 plates from Step 62.

Group 13 - Rest of Steps 62 and Steps 63-67.

Let's get to building!

Building Instructions (Bag 1, Book 1):

Group 1 - London Bus

Step 1

Horizontally place a black 8x6 car base in front of you. Then horizontally place a yellow 2x4 plate on top so it is centered horizontally and vertically.

Step 2

Horizontally place a red 1x6 plate on the front row so it is centered horizontally. Then repeat symmetrically to the back.

Step 3

Place a light grey 4x4 plate with bricks with axle holes on the sides underneath the 2 leftmost columns so it is centered vertically and the axle holes face the front and back. Now insert a tan 2L pin axle into the front-facing and back-facing axle holes of the ppp. Now repeat everything symmetrically to the right.

Step 4

Vertically place a light blue 1x2 plate on the 2nd column from the left so it is centered vertically.

Step 5.1

Let's make a part! Vertically place a red 2x6 plate in front of you. Then place a black 3x3 plate underneath the front 3 rows so 1 column is exposed to the left. Then repeat symmetrically to the back. Now place a red 3x3 L-shaped plate on the front left corner so the right angle faces the back right and it overhangs 2 columns to the left. Then repeat symmetrically to the back.

Step 5.2

Vertically place the 2 leftmost columns of your part on the 2 rightmost columns of the main build so it is centered vertically.

Group 2 - London Bus

Step 6

Vertically place a yellow 1x2x2 brick with 2x2 side studs on the leftmost column so it is centered vertically and the side studs face the left. Then horizontally place a tan 2x6 plate to the right of the ppp.

Step 7

Vertically place a silver 1x2 grill tile to the right of the ppp so it is centered vertically. Then horizontally place a light grey 2x8 plate to the right of the ppp.

Step 8

Vertically place a black 1x2 brick on the 2nd column from the left so it is centered vertically. Then vertically place a black 1x2 steering wheel to the right of the ppp so it is centered vertically and the wheel faces the right.

Group 3 - London Bus

Step 9

Horizontally place a light grey 1x3 tile on the 2nd row from the front of the 3 rightmost columns. Then horizontally place a red 1x2 brick on the back row of the 2nd and 3rd columns from the right. Then horizontally place a light grey 1x2 grill tile in front of the ppp.

Step 10

Horizontally place a light grey 1x2 jumper plate on the front right corner. Then place a red 1x1 brick to the left of the ppp.

Step 11

Place a red 1x1 brick with a side stud and bottom lip on the back right corner so the side stud faces the right. Then place another 1 on the 4th row from the back of the rightmost column so the side stud faces the right. Now place a transparent red 1x1 round tile upright on each of the right-facing side studs of the 2 ppp.

Group 4 - London Bus

Step 12.1

Vertically place a black 1x2 brick with a sticker on the 2nd and 3rd rows from the back of the rightmost column so the sticker faces the right.

Step 12.2

Skip this step if you have already placed your sticker! Ask a helper to place sticker 3 on the black 1x2 brick. This sticker says 409 and 53LB on it! Make sure the sticker is placed on correctly and is oriented on the build correctly, ask a sighted person to check.

Step 13

Vertically stack 2 black 1x3 jumper plates, on the 2nd to 4th rows from the back of the 2nd column from the right.

Step 14

Horizontally place a red 2x4 brick with a mudguard on the front row of the 4th to 7th columns from the right so the mudguard and 1 row overhang to the front. Then horizontally place a red 1x6 brick to the left of the front row of the ppp. Now repeat both parts symmetrically to the back.

Step 15

Horizontally place a red 2x4 brick with a mudguard on the front left corner so the mudguard and 1 row overhang to the front. Then place a red 2x2 corner plate on the 2 leftmost columns of the ppp so it looks like the braille letter f. Then repeat both parts symmetrically to the back.

Group 5 - London Bus

Step 16

Place a red 2x2 corner brick on the back right corner so it looks like the braille letter d. Then vertically place a red 1x2 brick in front of the rightmost column of the ppp. Now horizontally place another 1 to the left of the back row of the 2x2 corner brick.

Step 17

Vertically place a black 1x2 plate on top of the 1x3 jumper plate that is on the 2nd column from the right. Then vertically place a black 1x2 jumper plate on top of the ppp.

Step 18

Vertically place a black 1x2 plate on top of the ppp so it overhangs 1 row to the back. Then vertically place a black 1x2 jumper plate on top of the ppp.

Step 19

Horizontally place a red 1x2 brick on the front row of the 3rd and 4th columns from the right.

Group 6 - London Bus

Step 20

Horizontally stack 2 red 1x2 plates on the front row of the 5th and 6th columns from the right. Then repeat symmetrically to the back.

Step 21

Horizontally place a red 1x8 brick on the back row to the left of the 2 ppp. Then repeat symmetrically to the front.

Step 22

Vertically place a red 1x6 plate on the 2nd column from the left. Then place a red 1x1 plate on the back row to the right of the ppp. Then repeat symmetrically to the front.

Step 23

Place a red 2x2 corner plate on the front 2 rows of the 2nd and 3rd columns from the left so it looks like the braille letter h.

Building Instructions (Bag 2, Book 1):

Group 7 - London Bus

Step 24

Horizontally place a red 1x3 brick on the back right corner. Then vertically place a transparent 1x2 brick in front of the rightmost column of the ppp. Now place a red 1x1 brick in front of the ppp. Then place another 1 on the front row of the 3rd column from the right.

Step 25

Place a black 1x1 plate on the 1x2 jumper plate that is on the 2nd column from the right. Then place a black 1x1 tile on top of the ppp.

Step 26

Horizontally place a transparent 1x2 brick on the back row of the 4th and 5th column from the left. Now place a red 1x1 brick to the right of the ppp. Then horizontally place a transparent 1x2 brick to the right of the ppp. Now place another red 1x1 brick to the right of the ppp. Then horizontally place a transparent 1x2 brick to the right of the ppp. Then place a red 1x1 brick to the right of the ppp. Now finally horizontally place a transparent 1x2 brick to the right of the ppp. You should have placed 4 1x2 bricks and 3 1x1 bricks in total. Now repeat everything symmetrically to the front.

Step 27

Let's make a part! Place a red 2x2 plate with 2 side studs in front of you so the side studs face the front. Then horizontally place a light grey 1x2 rounded plate on the back row.

Step 28

Horizontally place a black 1x6 tile upright on the front-facing side studs so 4 columns overhang to the right.

Step 29

Attach the side studs of a red 2x2 plate with 2 side studs to the 2 rightmost back-facing anti-studs. Then horizontally place a light grey 1x2 rounded plate on the back row of the ppp.

Step 30

Horizontally place a red 2x4 plate on top of your part so it is centered horizontally. Then place a transparent 1x1 round tile on the back left corner. Then repeat symmetrically to the right.

Step 31

Place a red 1x1 quarter circle tile on the front left corner so the curve faces the front left. Then repeat symmetrically to the right.

Step 32

Vertically place 2 silver 1x2 grill tiles, 1 to the right of the other, on top so together they are centered horizontally.

Group 8 - London Bus

Step 33

Rotate your build 180 degrees. Now let's make a part! Place a light grey 2x2 plate with 2 side studs in front of you so the side studs face the front. Then horizontally place a tan 1x2 plate on the back row of the ppp. Now place your part underneath your previous part so it is centered horizontally and the side studs face the front.

Step 34

Horizontally place your part upright on the 2x2 left-facing side studs so it is centered horizontally and the 2 studs face up.

Group 9 - London Bus

Step 35

Vertically place a red 2x3 plate on the back left corner so it sits on 4 studs. Then vertically place a light blue 1x2 plate in front of the rightmost column of the ppp. Now horizontally place a red 1x2 tile with a cutoff corner in front of the ppp so 1 column overhangs to the left and the cutoff corner faces the front left.

Step 36

Horizontally place a red 1x3 plate on the back row of the 2nd to 4th columns from the left. Then vertically place the back row of a red 1x3 plate to the left of the ppp. Now place the back row of a red 2x2 corner plate to the right of the front row of the ppp so it looks like the braille letter d.

Step 37

Place a red 2x2 sloped curved tile on the 2 leftmost columns of the 4th and 5th rows from the back so it slopes to the left.

Step 38.1

Place a transparent 1x1 brick on the back row of the 3rd column from the left.

Group 10 - London Bus

Step 38.2

Place a red 1x1 brick to the right of the ppp. Then horizontally place a transparent 1x2 brick on the back left corner. Now vertically place a transparent 1x2 brick on the leftmost column, in front of the ppp. Then horizontally place another 1 to the right of the front row of the ppp. Now place a red 1x1 brick in front of the right column of the ppp. Then vertically place a transparent 1x2 brick in front of the ppp. Then lastly place a red 1x1 brick on the front row, to the right of the ppp.

Step 39

Vertically place a red 1x3 plate on the 3rd and 4th rows from the back of the rightmost column so 1 row overhangs to the front. Then place a light grey 1x1 plate underneath the front row of the ppp.

Step 40

Place a red 2x2 corner plate on the back right corner so it looks like the braille letter d. Then horizontally place a red 1x10 plate on the back row, to the left of the ppp. Now horizontally place a red 1x3 plate to the left of the ppp.

Step 41

Horizontally place a transparent 1x2 plate on the back row of the 2nd and 3rd columns from the right. Then vertically place another 1 on the back left corner. Now horizontally place another 1 in front of the ppp so there is no overhang.

Step 42

Place a light grey 1x1 round plate to the right of the ppp. Then place a red 3x3 corner plate in front of the ppp so there is no overhang and the corner faces the front left. Now horizontally place a red 1x3 plate on the front row, to the right of the ppp.

Step 43.1

Let's make a part! Horizontally place a red 1x10 plate in front of you. Then horizontally place a light grey 1x2 jumper plate underneath the 2 rightmost columns of the ppp. Now place a light grey 1x1 round plate underneath the ppp so it is centered horizontally to it. Then insert a light grey 4L bar underneath the ppp.

Step 43.2

Horizontally place your part on the front right corner so the 4L bar is on the right and sits on the 1x2 jumper plate.

Step 44.1

Vertically place a red 1x6 plate on the rightmost column. Now horizontally place a red 1x6 plate on the back row, to the left of the ppp. Then horizontally place a red 1x10 plate to the left of the ppp. Now repeat both parts symmetrically to the front.

Step 44.2

Vertically place a red 1x6 plate on the leftmost column so it overhangs 3 rows to the front. Now vertically place a black 2x4 plate to the right of the ppp so it is centered vertically.

Group 11 - London Bus

Step 45.1

Vertically place a tan 2x4 plate on the 2 leftmost columns so it is centered vertically.

Step 45.2

Horizontally place a tan 1x8 plate on the back left corner. Then horizontally place a tan 1x2 plate to the right of the ppp. Now horizontally place a tan 1x8 plate to the right of the ppp. Now repeat everything

symmetrically to the front. Now vertically place a tan 1x4 plate on the rightmost column so it is centered vertically.

Step 46.1

Vertically place a red 1x6 plate on the leftmost column. Then repeat symmetrically to the right.

Step 46.2

Horizontally place a red 1x6 plate on the back row, to the left of the ppp. Then horizontally place a red 1x10 plate to the left of the ppp. Now repeat both parts symmetrically to the front.

Step 47.1

Vertically place a black 1x2 brick with a sticker on the leftmost column so it is centered vertically and the sticker faces the left. Then repeat symmetrically to the right.

Step 47.2

Skip this step if you have already placed your stickers! Ask a helper to place sticker 4 on each of the 2 black 1x2 bricks. These stickers say 24 Leicester Sq. This is the address of the Leicester Square LEGO Store! Make sure the sticker is placed on correctly and is oriented on the build correctly, ask a sighted person to check.

Step 48

Place a red 2x2 corner brick on the front left corner so it looks like the braille letter h. Then horizontally place a red 1x3 brick on the front row, to the right of the ppp. Now repeat both parts symmetrically to the right. Then repeat everything symmetrically to the back.

Step 49.1

Horizontally place a white 1x8 brick with a sticker on the front row so it is centered horizontally and the sticker faces the front.

Step 49.2

Skip this step if you have already placed your sticker! Ask a helper to place sticker 2 on the white 1x8 brick. It has a British flag on it and has pictures of a hat, umbrella, bear, building, and a plane! Make sure the sticker is placed on correctly and is oriented on the build correctly, ask a sighted person to check.

Step 50.1

Horizontally place a white 1x8 brick with a sticker on the back row so it is centered horizontally and the sticker faces the back.

Step 50.2

Skip this step if you have already placed your sticker! Ask a helper to place sticker 2 on the white 1x8 brick. It has a yellow and blue background and says London in red on it! Make sure the sticker is placed on correctly and is oriented on the build correctly, ask a sighted person to check.

Step 51.1

Vertically place a red 1x6 tile on the leftmost column. Then repeat symmetrically to the right.

Step 51.2

Horizontally place a red 1x2 tile on the front row of the 2nd to 3rd columns from the left. Then horizontally place a red 1x4 tile with 2 studs to the right of the ppp. Now horizontally place a red 1x2 tile to the right of the ppp. Then repeat all 3 parts symmetrically to the right. Now repeat everything symmetrically to the back.

Building Instructions (Bag 3, Book 1):

Group 12 - London Bus

Step 52

Let's make a part! Horizontally place a red 2x6 plate in front of you. Then horizontally place a transparent 2x4 brick on top so it is centered horizontally.

Step 53

Vertically place a red 1x3 brick on the leftmost column so 1 row overhangs to the front. Then repeat symmetrically to the right.

Step 54

Rotate your part 90 degrees clockwise so the 2 ppp overhang to the left. Now horizontally place a red 1x8 plate underneath the front left corner so 7 columns are exposed to the left. Then repeat symmetrically to the back.

Step 55

Horizontally place a transparent 1x2 brick on the front row of the 4th and 5th columns from the right. Then repeat symmetrically to the back.

Step 56

Vertically place a red 1x6 brick on the 5th column from the left so it is centered vertically. Then vertically place a tan 1x4 plate underneath the ppp so it is centered vertically.

Step 57

Horizontally place a transparent 1x2 brick on the front row of the 3rd and 4th columns from the left. Then place a red 1x1 brick to the left of the ppp. Now horizontally place another transparent 1x2 brick to the left of the ppp so it overhangs 1 column to the left. Now repeat everything symmetrically to the back.

Step 58

Horizontally place a red 1x6 plate underneath the front left corner so 5 columns are exposed to the left. Then repeat symmetrically to the back.

Step 59

Horizontally place a transparent 1x2 brick on the front row of the 3rd and 4th columns from the left. Then place a red 1x1 brick to the right of the ppp. Now horizontally place a transparent 1x2 brick to the right of the ppp. Now repeat everything symmetrically to the back.

Step 60

Vertically place a red 1x6 brick on the 2nd column from the left so it is centered vertically. Now vertically place a tan 1x4 plate underneath the ppp so it is centered vertically.

Step 61.1

Horizontally place a transparent 1x2 brick on the front left corner so it overhangs 1 column to the left. Then repeat symmetrically to the back. Now vertically place a red 2x6 plate underneath the leftmost column so it is centered vertically and 1 column is exposed to the left.

Step 61.2

Place a red 1x1 brick on the front left corner. Then repeat symmetrically to the back. Now vertically place a transparent 2x4 brick on the 2 leftmost columns so it is centered vertically.

Step 62.1

Vertically place a tan 1x4 plate on the 2nd column from the left so it is centered vertically. Then vertically place another 1 on the 4th column from the left so it is centered vertically.

Group 13 - London Bus

Step 62.2

Vertically place a dark grey 1x4 plate on the 2nd column from the right so it is centered vertically. Then vertically place another 1 on the 6th column from the right so it is centered vertically.

Step 62.3

Horizontally place 2 red 1x8 plates, 1 to the right of the other, on the front row so together they are centered horizontally. Then repeat symmetrically to the back.

Step 63

Horizontally place 6 red 1x1 plates with a short 1x1 sloped curved brick, 1 in front of the other, on the 2 leftmost columns so they slope to the left. Then repeat symmetrically to the right.

Step 64.1

Horizontally place a red 1x3 plate on the front row of the 3rd to 5th columns from the right. Then place a red 3x3 L-shaped plate to the left of the ppp so there is no overhang and the corner faces the front right. Now horizontally place a red 1x8 plate on the front row to the left of the ppp. Now repeat all 3 parts symmetrically to the back.

Step 64.2

Vertically place a dark grey 1x4 plate on the 4th column from the left so it is centered vertically.

Step 65

Vertically place 8 red 2x6 tiles, 1 to the right of the other, on top so together they are centered vertically and horizontally.

Step 66

Horizontally place your part on top of your main build so it is centered horizontally and vertically.

Step 67

Let's make 4 identical parts! Insert a dark grey wheel into a black tire. Now you should have 4 identical parts! Attach 1 to the leftmost front-facing pin so the stud faces the front. Then repeat symmetrically to the right. Now repeat both parts symmetrically to the back.

Congratulations on finishing your build! Would you like to inspire other blind people to build LEGO sets? Let's feature your build on our [Builders page](#). It's easy and we will do all the work! Just contact us at info@bricksfortheblind.org and together we will make it happen!

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