



Lucas Wiring Guide

Major colour groups are as follows:

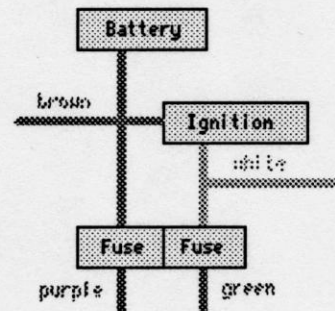
<i>MAIN</i>	<i>PURPOSE</i>
Brown	Hot all the time, unfused
Purple	Hot all the time, fused
White	Hot with ignition on, unfused
Green	Hot with ignition on, fused

Any manual should have a wiring diagram (Haynes is fine). You may find it helpful to enlarge the page to 11x17 with a photocopier and trace circuits with coloured pencils. Most electrical problems are caused by:

1. bad ground connections
2. corroded bullet connectors
3. bodes by the DPO

I recommend replacing the fuse box outright if it looks old and corroded. It is an inexpensive part and will save you a lot of headaches down the road.

A pink eraser or 600 grit sandpaper can be used to clean contacts, and a smear of dielectric grease will help prevent future corrosion.



Wiring Colour Code Table

Many British designed vehicles use colour coded cables to assist in identifying the various circuits in use. This is an extract from BS-AU7a 1983 Colour Code for Vehicle Wiring, from the British Standards Institution, 2 Park St., London W1A 2BS.

(Note that these colour codes may not apply directly to older cars. For example, the wipers on cars up to 1980 (at least) are not on a separate fuse circuit, so they are not orange, but green. Check the schematic for your car to be certain.)

MAIN TRACER PURPOSE

Black	All earth connections
Black Brown	Tachometer generator to tachometer
Black Blue	Tachometer generator to tachometer
Black Red	Electric or electronic speedometer to sensor
Black Purple	Temperature switch to warning light
Black Green	Relay to radiator fan motor
Black Light green	Vacuum brake switch or brake differential pressure valve to warning light and/or buzzer
Black White	Brake fluid level warning light to switch and handbrake switch, or radio to speakers
Black yellow	Electric speedometer
Black Orange	Radiator fan motor to thermal switch

MAIN TRACER PURPOSE

Blue	Lighting switch (head) to dip switch
Blue Brown	Headlamp relay to headlamp fuse
Blue Red	Dip switch to headlamp dip beam fuse Fuse to right-hand dip headlamp
Blue Light green	Headlamp wiper motor to headlamp wash pump motor
Blue White	a) Dip switch to headlamp main beam fuse b) Headlamp flasher to main beam fuse c) Dip switch main beam warning light d) Dip switch to long-range driving light switch
Blue Yellow	Long-range driving light switch to lamp
Blue Black	Fuse to right-hand main headlamp
Blue Pink	Fuse to left-hand dip headlamp
Blue Slate	Headlamp main beam fuse to left-hand headlamp or inboard headlamps when independently fused
Blue Orange	Fuse to right-hand dip headlamp

MAIN TRACER PURPOSE

Brown	Main battery lead
Brown Blue	Control box (compensated voltage control only) to ignition switch and lighting switch (feed)
Brown Red	Compression ignition starting aid to switch Main battery feed to double pole ignition switch
Brown Purple	Alternator regulator feed

Brown Green	Dynamo 'F' to controlboxl 'F' Alternator field 'F' to control box 'F'
Brown White	Ammeter to control box Ammeter to main alternator terminal
Brown Yellow	Alternator to 'no charge' warning light
Brown Black	Alternator battery sensing lead
Brown Slate	Starter relay contact to starter solenoid
Brown Orange	Fuel shut-off (diesel stop)

MAIN TRACER PURPOSE

Green	Accessories fused via ignition switch
Green Brown	Switch to reverse lamp
Green Blue	Water temperature gauge to temperature unit
Green Red	Direction indicator switch to left-hand flasher lamps
Green Purple	Stop lamp switch to stop lamps, or stop lamp switch to lamp failure unit
Green Light green	Hazard flasher unit to hazard pilot lamp or lamp failure unit to stop lamp bulbs
Green White	Direction indicator switch to right hand flasher lamps
Green Yellow	Heater motor to switch single speed (or to 'slow' on tow- or three-speed motor)
Green Black	Fuel gauge to fuel tank unit or changeover switch or voltage stabilizer to tank units
Green Pink	Fuse to flasher unit
Green Slate	a)Heater motor to switch ('fast' on two- or three-speed motor) b)Coolant level unit to warning light
Green Orange	Low fuel level switch to warning light

MAIN TRACER PURPOSE

Light green	Instrument voltage stabilizer to instruments
Light green	Brown Flasher switch to flasher unit
Light green	Blue a)Flasher switch to left-hand flasher warning light b)Coolant level sensor to control unit c)Test switch to coolan level control unit
Light green	Red Fuel tank changeover switch to right-hand tank unit or entry and exit door closed switch to door actuator
Light green	Purple Flasher unit to flasher warning light
Light green	Green Start inhibitor relay to change speed switch; or switch to heater blower motor second speed on three-speed unit
Light green	White Low air pressure switch to buzzer and warning light
Light green	Yellow Flasher switch to right-hand warning light; or differential lock switch to differential lock warning light
Light green	Black Front screen jet switch to screen jet motor
Light	Slate Fuel tank changeover switch to left-hand tank unit; or entry and exit door open switch to

green door actuator
 Light green Orange Rear window wash switch to wash pump; or cab lock-down switch to warning light

MAIN TRACER PURPOSE

Orange Wiper circuits fused via ignition switch
 Orange Blue Switch to front screen wiper motor first speed timer or intermittend unit
 Orange Green Switch to front screen wiper motor second speed
 Orange Black Switch to front screen wiper motor parking cicuit, timer or intermittent unit
 Orange Purple Timer or intermittent unit to motor parking circuit
 Orange White Timer or intermittent unit to motor parking circuit
 Orange Yellow Switch to headlamp or rear window wiper motor feed, timer or relay coil
 Orange Light green Switch to headlamp or rear window wiper motor parking circuit timer or relay coil
 Orange Pink Timer or relay to headlamp or rear window wiper motor feed
 Orange Slate Timer or relay to headlamp or rear window wiper motor parking circuit
Pink white Ballast terminal to ignition distributor

MAIN TRACER PURPOSE

Purple Accessories fed direct from battery via fuse
 Purple Brown Horn fuse to horn relay when horn is fused separately
 Purple Blue Fuse to heated rear window relay or switch and warning light
 Purple Red Switches to map light, under bonnet light, glove box light and boot lamp when fed direct from battery fuse
 Purple Green Fuse to hazard flasher
 Purple Light green Fuse to relay for screen demist
 Purple White Interior lights to switch (subsidiary circuit door safety lights to switch)
 Purple Yellow Horn to horn relay
 Purple Black Horn to horn relay to horn push
 Purple Pink Rear heated window to switch or relay
 Purple Slate Aerial lift motor to switch up
 Purple Orange Aerial lift motor to switch down

MAIN TRACER PURPOSE

Red Main feed to all circuits mastered by sidelamp switch
 Red Brown Rear fog guard switch to lamps
 Red Blue Front fog lamp fuse to fog lamp switch
 Red Purple Switches to map light, under bonnet light, glove box light and boot lamp when sidelamp circuit fed
 Red Green Bulb failure unit to right-hand-side and rear lamps
 Red White a)Sidelamp fuse to right-hand side and rear lamps
 b)Sidelamp fuse to panel light rheostat
 c)Fuse to panel light switch or rheostat
 d)Fuse to fibre optic source
 Red Yellow Fog lamp switch to fog lamp or front fog fuse to fog lamps

Red	Blakc	Left-hand, sidelamp fuse to side and tail lamps and number plate illumination
Red	Pink	Sidelamp fuse to lighting relay
Red	Slate	Lamp failure unit to left-hand side and tail lamps
Red	Orange	Fusebox to rear fog guard switch
Slate		Window lift main lead

MAIN TRACER PURPOSE

White		Ignition switch or starter solenoid to ballast resistor
White	Brown	Oil pressure switch to warning light or gauge, or starter relay to oil pressure switch
White	Blue	Choke switch to choke solenoid (unfused) and/or choke to switch to warning light, or electronic ignition distributor to drive resistor
White	Red	Starter switch to starter solenoid or inhibitor switch or starter relay or ignition (start position) to bulb failure unit
White	Purple	Fuel pump no 1 or right-hand to changeover switch
White	Green	Fuel pump no 2 or left-hand to changeover switch
White	Light green	Start switch to starter interlock or oil pressure switch to fuel pump or start inhibitor switch to starter relay or solenoid
White	Yellow	Ballast resistor to coil or starter solenoid to coil
White	Black	Ignition coil contact breaker to distributor contact breaker, or distributor side of coil to voltage impulse tachometer
White	Pink	Ignition switch to radio fuse
White	Slate	Current tachometer to ignition coil
White	Orange	Hazard warning lead to switch
Yellow		a) Overdrive b) Petrol injection c) Door locks d) Gear selector switch to start

Many of the usual suspects carry Lucas bullet connectors. A few carry reproduction wiring harnesses. But very few carry the properly color-coded wire, and most of those only carry a small selection of colors and sizes.

However, there is one place that I've found that carries the whole gamut:

[British Wiring Inc](#)

20449 Ithaca

Olympia Fields, IL 60461

(708) 481-9050 voice & fax

They have every color combination listed above, in lots of sizes, as well as connectors, clamps, lamp fixtures and other random bits and pieces that you'll need. I've been very happy with the products I receive from them. Be warned that wire is often backordered and may take a couple of weeks to arrive. They have a nice catalog that's free.

Another place that carries a wide variety of hardware and harnesses is

[Rhode Island Wiring Service, Inc.](#)

567 Liberty Lane, PO Box 434

West Kingston, RI 02892
401-789-1955

They have all the color combinations and wire types, and will consider re-loomng your existing harness or make you a copy. They are focused on American cars more than British, but seem to have the appropriate bits and bobs for our LBCs.

This place specializes in reproducing classic wiring harnesses, and sells the parts individually. They seem to be focused on American iron, but their catalog shows a selection of Lucas parts, too.

[YnZ's Yesterday's Parts](#)

333 E. Stuart Ave. Unit A
Redlands, CA 92374
(909) 798-1498 voice & fax

Here are some other sources that have a more limited, but sometimes better stocked, supply:

British Pacific Ltd
3317 Burton Avenue
Burbank, CA
(800) 554-4133
Narragansett Reproductions
Box 51
Wood River Junction, RI 02894
(401) 364 3839

You may also want to check out the [Monster Vendors list](#).