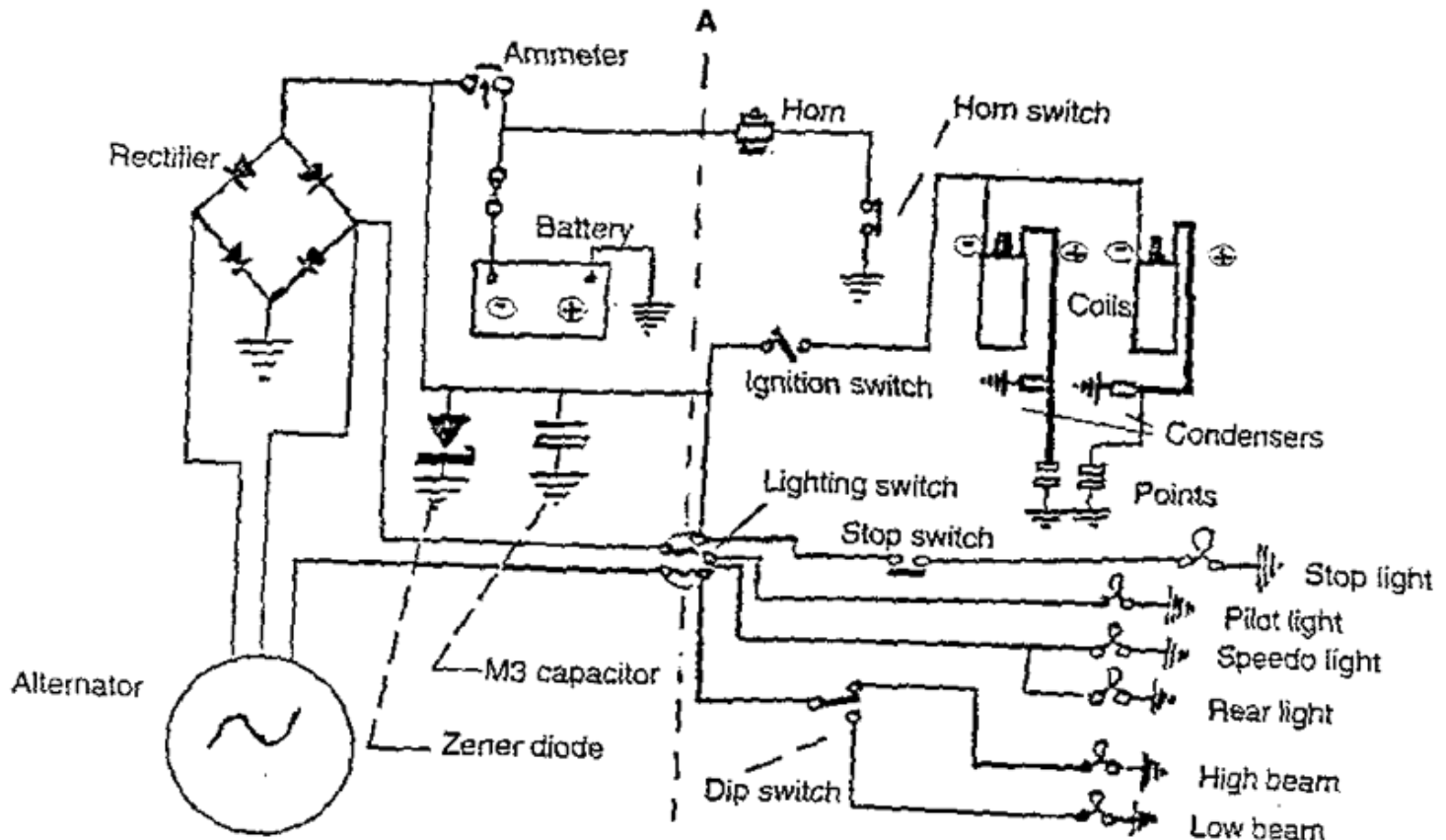


Chapter 20: Electrics

Electrical Section

The diagram below shows the basic layout of the LUCAS 12 volt electrical system found on most British bikes from 1966 to 1975. Everything to the left of the vertical line A - B deals with the making and storing of electricity and everything to the right shows how it is used.



Alternator

A magnetic rotor spins inside a stator containing 6 wound coils. The rotor gradually loses its magnetism over the years and because of this the output is reduced. The stator doesn't usually give any problems unless it has been physically damaged. Later examples had the coils encapsulated to protect them - the earlier ones were exposed. The early ones had three wires coming from them - two were connected to each other only when the lights were switched on (to increase the output), later examples only had two wires, although the basic operation is the same. This is not to be confused with the later three wire three phase systems. These stators can easily be identified - look inside and you will see 9 instead of 6 coils. If you measure the resistance across the two wires from the stator you should get 0.6ohms. There should also be no leakage to ground. If reduced output is due to a lack of rotor magnetism, we recommend you replace the rotor with one of the newer welded types. We find a new rotor with a new stator (LUCAS No. 47205) produces 20 volts AC at 1750rpm.

Rectifier

Changes AC to DC - Usually quite reliable but should be handled with care. On the regular bridge type instruments, the alternator connects to the two outside plates and the DC (negative) connection is on the central plate. The ground (positive) connection is either by the nut on the end (do not over tighten and twist the plates) or some rectifiers have a ground terminal on the end. At 1750rpm we get a 20 volts DC reading at the negative terminal. When rubber mounted - e.g. on Triumph battery box - be sure there is a ground connection back to the main frame. If the performance is suspect, we recommend it be replaced by one of the inexpensive solid state types.

Zener Diode

Controls the voltage - the faster the alternator spins the greater the voltage - the Zener Diode turns excess voltage into heat. Lucas instruments are very reliable but remember they do a very important job. Don't run without one - you could damage everything in the system.

Battery

Firstly, a lot of people fill them up with acid and overcharge them when new. They then only last a year or so. When you get a new battery, fill it with acid and charge it according to the manufacturer's instructions. Don't ever let it stand on a cement floor. Don't let it freeze in the winter. Keep it topped up with distilled water. Take it off the machine when not in service and trickle charge it occasionally. Use a hydrometer to check it.

M3 Capacitor

The blue thing on a spring. It enables the machine to run without a battery. Must hang with the terminals pointing downwards. To check, take it off and hook it up to a 12 volt battery. Put a volt meter across the terminals and you should see the voltage very slowly falling from 12 volts.

Power Boxes

Function as rectifier, zener diode and capacitor. They can be used with or without battery. If it is used it must be hooked up the right way around or the rectifier inside the unit will be destroyed. Very reliable.

Wiring Harnesses

Excellent Quality. All our reproduction harnesses are made in England and are colour coded as original. We stock both plastic and cloth covered harnesses. The cloth wrapped are listed with "C" at the end of their Part Number. Please provide make model & year for harnesses not listed. Please see spread sheet on web page for more options.



For Cloth Covered Harness Add "C" To The End Of The Part Number

Make/Model	Year	Part No.
BSA- Main Harness		
A7/A10	1954-62	MC2PB
B25/44SS	1968-69	WH1218
B25/44SS	1970	WH1500
B25/50	1971-72	WH1017
A50/65	1966	WH1285
A50/65	1967*	WH1291
A50/65	1968	WH1292
A50/65	1969-70	WH1172
A50/65	1971-72**	WH1015
A75	1969-70	WH1284
A75	1970-72	WH1012

* Some 1967 A65 models were changed in that the zener diode was moved forward under the headlight. Bikes so modified have "Y" stamped after their engine numbers.

** 1971-72 A65 Models also use a separate Headlight Harness
Part no. **WH1014A**

Make/Model	Year	Part No.
BSA - Contact Breaker Sub Harness		
B25/44/50	All	WH1543
A50/65	All	WH1250
A75	All	WH1192
BSA - Rear Sub Harnesses		
B25/50	1971-72	WH1384
A50/65	1963-69	WH1233
A65	1971-72	WH1384
Matchless		
Note - G15 models use same harness as Norton Atlas models except the lead for the horn needs to be extended. All AMC twins with coil ignition, 1959 onwards, use same Contact Breaker Harness as Atlas.		
Norton - Main Harnesses		
650SS/Atlas (Magento Models)	1964-66	WH159
650SS/Atlas (Coil Ignition Models)	1967-68	WH1160A
Commando	1968-69	WH1158B
Commando	1970	WH1157
Commando (These models used a seperate headlight harness)	1971-74	WH1009
MK3 (These models used a seperate headlight harness)	1975	WH1195
Headlight harness	1971-74	WH1010A
Headlight harness	1975 on	WH1196
Norton - Contact Breaker Harnesses		
650SS/Atlas	1963 on	WH1250
Commando	1968 on	WH1250
Norton- Sundry Harnesses		
Commando Horn Sub	1968-70	WH1598
Ignition Switch	1975	WH1197
Triumph - Main Harnesses		
TR25W	1968-70	WH1457
TR25W	1971-72	WH1017
T120/TR6	1960-62	MC18PB
500 & 650 Twins	1966	WH1149A
500 & 650 (Not "C" Models)	1967	WH1147A
500 & 650 (Not "C" Models)	1968	WH1055
500 & 650 (Not "C" Models)	1969-70	WH1061
T120/TR6R (Use seperate headlight harness WH1014A, WH1014AC)	1971-73	WH1015
T100C/TR6R	1968	WH1336

Make/Model	Year	Part No.
Triumph - Main Harnesses Continued		
T100C/TR6C	1969-70	WH1145
T100R & T	1971-72	WH1007
T100R & T	1972	WH1143
750 Twins	1973-74	WH1142
750 Twins	1976-78	WH1066
750 Twins	1979-80	WH1186
T150	1969	WH1146
T150	1970-72	WH1013
T150	1973-75	WH1144
Triumph - Contact Breaker Harnesses		
TR25W	1968-72	WH1543
All Twins	1963 on	WH1250
Triples	1969-76	WH1192
Triumph - Rear Sub Harnesses		
Twins	1963-70	WH1366
Twins	1971-72	WH1384
Twins	1973-78	WH1283
Triumph - Sundry Harness		
Dip Switch Lead	To 1961	WH1443
Horn/Dip Lead	1962-70	WH1444
Speedo/Tach Lead		97-951
Later plastic type for capless bulb		WH3474

Spark Plug Wire Sets

Please also see Magneto sections, where individual components are listed for you to make up your own plug wire sets, should you so wish.

BSA Twins 1963-72 & Triumph 650 & 750 Twins 1971 on

Regular Wire Set
Part no. **WH1140**

Genuine Champion Sets
Part no. **WH1140C**

Norton Commando, Triumph 500 Twins 1963-64 & 650 Twins 1963-70

Regular Wire Set
Part no. **WH1202**

Genuine Champion Sets
Part no. **WH1202C**

BSA/ Triumph Triples

Regular Wire Set
Part no. **TEL19**

Horn/Dip Leads

Original Style grey, 4 wire, made in England for most bikes up to 1970

22" Long for Low European Style Bars
Part no. **MC921**

27 1/2" Long for Higher USA Export Bars
Part no. **MC927**

Universal Kit To Make Up Your Own Spark Plug Wire

Part no. **WE16000**



Electronic Ignition Kits

We are pleased to offer kits made by four manufacturers. BOYER-BRANDSDEN (UK), PAZON (New Zealand), TRI-SPARK (Australia) and WE WASSELL (Taiwan). The Boyer kits have proved to be the most popular and over the last 30 years we have sold approximately 20,000 units.

Boyer-Brandsen Electronic Kits

The reputation speaks for itself. Kits contain all necessary parts for installation and come with full instructions. They provide accurate spark timing with automatic electronic advance/retard control. Electronic parts carry a five year warranty.

We have testing facilities and on the rare occasions when units are found to be faulty, we are authorized by BOYERS to honour warranties and get you up and running right away. Most problems thought to be caused by faulty Boyers turn out to be caused by other problems with the motorcycle and we are pleased to provide advice and assistance in this regard.



Mike's Quick Tips

- Engine must have good ground to frame on Commando (Rubber Mounted Engine)
- If Boyer is not sparking – snip the white wire to the Boyer box and connect it straight to the negative terminal of the battery – see if bike runs (don't leave it connected). 4 position ignition switches can fail.
- Misfires on one cylinder on twin- very unlikely a Boyer problem – swap the plug leads over. If the misfires stays on the same side you have a Carburation, spark plug or mechanical problem that side. If the problem goes to the other side there's something wrong with the HT winding in the coil. Plug lead or cap.
- No spark on intermittent spark. Disconnect the black/white & black/yellow wires close to box. Hook ohmmeter across them should read 135 ohms approx.. Get someone to "wiggle" the wires right down to the pick up – watch ohmmeter reading for any break inside the wires – not uncommon on Commando's.

Coil Requirements with Boyer Kits

We get numerous calls on this subject and we read all sorts of conflicting information. COIL RESISTANCE is an important matter. The kits for Twin cylinder machines work best with a total coil resistance of between 3 & 7 ohms. If under 3 ohms too much current will be drawn through the box and it will be damaged. The higher the resistance, the weaker the spark. 6 volt coils have resistance between 1.6 and 2 ohms. Therefore total resistance will be ideal for good performance. 12 volt coils usually measure 3.5 to 4 ohms. This exceeds the 7 ohms guide for two coils. We find that for stock machines in regular street use this does not cause a problem. Machines with high compression ratios and /or those used for racing need 6 volt coils.

We have found the best and most reliable performance using two 6 volt coils on twins or one 12 volt coil on singles. Triples need 3 6 volt coils (standard on T160) However performance can be improved by using 3 4 volt coils.

Coil 4 Volt Sparx Type
Part no. **45274**

FAQ

- Q. Can Boyer MK4 and Digital kits be grounded with a kill switch?
A. Only if wired negative ground (attach the ground wire to the negative terminal of the first coil (the one the black wire from the Boyer box goes to.) For positive ground systems you have to fit an on/off toggle switch.

Regular MK4 Analogue

Road & Race Kits Analogue, Digital & Micro power also available for many other applications not listed here.

The NEW MK4 analogue kits are designed to function at lower voltages than the MK3 type. This is especially important with electric start bikes on which operating the starter creates a substantial voltage drop.

Norton

Atlas, G/N15 (Coil ignition models), P11 & Commando
Part no. **96-700**

BSA & Triumph

All Twins
Part no. **96-701**

All Twins

Part no. **96-702**

BSA & Triumph Singles

B25/B44/B50 1967 on
Part no. **KIT00051**

Kawasaki 3 Cylinder Models

KH250/350 & SI (MK30)
Part no. **KIT00062**

Suzuki 3 Cylinder 2 Stroke

380, 550, 750
Part no. **KIT00083**

Digital Kits

Others available to special order.

Norton

Atlas, G/N15 (Coil ignition models) & Commando
Part no. **96-105**

BSA & Triumph

All Twins
Part no. **96-106**

BMW

12 Volt Models to 1978
Part no. **96-107**

12 Volt Models 1979-80
Part no. **KIT00097**

Yamaha

XS650
Part no. **KIT00103**

Alternator Powered Ignition Kits for Competition Use Only

A wide range of kits available.

For B25/44/50
Part no. **96-601**

Boyer Programmable Revlimiter

*Saves expensive damage from over revving.
Part no. 96-602*

Individual Components for Boyer

See notes above regarding our test facilities. These are the parts we carry as regular stock - all other parts are available within a few days from BOYERS who give us excellent service.

Norton

*Transistor (Black) Box MK4
Part no. 96-200*

*Magnetic Rotor
Part no. 96-204*

*Pick-up Unit
Part no. 96-207*

*Transistor (Red) Box (Can be used to upgrade existing analogue kits.)
Part no. 96-209*

BSA & Triumph Twins

*Transistor (Black) Box MK4
Part no. 96-201*

*Magnetic Rotor
Part no. 96-204*

*Pick-up Unit
Part no. 96-207*

*Transistor (Red) Box (Can be used to upgrade existing analogue kits.)
Part no. 96-210*

Triples

*Transistor (Black) Box MK4
Part no. 96-202*

*Magnetic Rotor
Part no. 96-205*

*Pick-up Unit
Part no. 96-208*

Pazon Sure Fire Kits

*Made in New Zealand by ex Boyer
Employees 7 year Warranty.
For BSA/Norton/Triumph twins
Part no. 99-PA2
(For best performance use two 6 volt coils.)
For BSA/TRIUMPH singles
Part no. 99-PA1*



Tri-Spark Ignition Kits

*The twin kits are very compact and have the all the electronics under the points cover plate. Use 2 6 volt coils.
The triple kit TRI-0001 has a separate transistor box and uses 3 12 volt coils.*

*Kit for Twins with clockwise rotating pickups (Triumph/ BSA/ Norton's with distributor in magneto position behind motor
Part no. TRI-0005A*

*For counter-clockwise rotating pick up use
Part no. No TRI-0005B*

*Triple kit (uses separate transistor box)
Part no. TRI-0001*

*NEW – Triple kit with transistor box under points cover plate
Part no. TRI-0002*



Wassell Kit

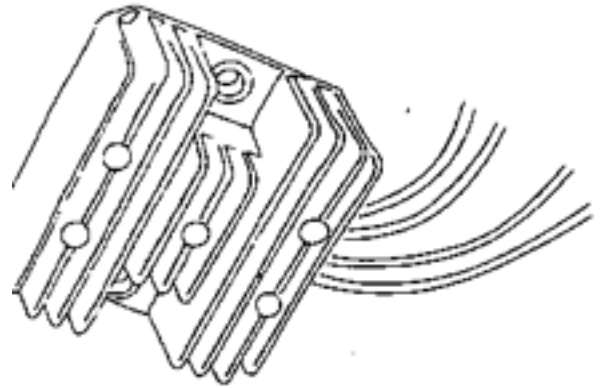
*Uses premium quality components. Billet encapsulated stator plate Works on all side point twins and singles. Can use 12 volts coils on twins for regular Road use, 6 volt for high performance and racing
Part no. 61495*



Solid State Rectifier/ Regulator Units

PODtronics - Power Module

- Solid state replacement for rectifier & zener diode
- Will work either positive or negative ground
- Can be used to convert 6 volt alternators to 12 volts
- Will work with high output single phase alternators
- Suitable for 2 or 3 wire alternators
- Attractive die cast finned aluminum heat sink
- 2 year warranty



For Regular Single Phase (66mm x 68mm x 29mm) up to 150 watts
Part no. **86-301**

For Hi Output Single Phase (e.g. 1975 MK3 Commando)
Part no. **86-303**

For Three Phase (64mm x 77 mm x 29mm)
Part no. **86-302**

Hi Output single phase unit with capacitor
Part no. **CS-4030**

Boyer- Brandsen Power Box

One unit replaces the battery, zener diode and rectifier. Designed for machines with alternators and 12 volt systems. Available with a lighting delay circuit to ensure all available power goes to the ignition system until the motor is running. Supplied with full instructions. Carries full BOYER 5 year warranty. Can be used with a battery if you wish and can be wired up for positive or negative ground systems

Warning - When using with a battery, great care must be exercised to ensure it is not wired the wrong way around as this will damage the unit immediately.

Single Phase - without lighting delay circuit
Part no. **96-301**

Single Phase - with lighting delay circuit
Part no. **96-300**

*Three Phase - with charging light circuit**
Part no. **96-302**

* Please note - the Three Phase unit, together with the Three Phase Stator, offers an affordable conversion to a Three Phase system with solid state technology. The charging light will only work if the machine is wired for negative ground. If it is desired to have the warning light work with a positive ground system, it will be necessary to also install a Warning Light Assimilator. This would only really be necessary if a battery was also being used. If running without a battery the warning light would not be necessary because the motor would stop if the alternator stopped charging! The Three Phase alternator has far greater output than the Single Phase and will balance the draw placed on the system by lights and ignition at a much lower rpm. However, surprisingly, we find that at very low rpm (kick over speed) the output of the Single Phase unit is greater. Therefore, when running without a battery, Single Phase is preferred.

Condensers

There are several different condensers used on coil ignition British bikes. Those listed below are the most common ones we are asked for. The models specified are given as a guide only, the LUCAS numbers have to be confirmed from the parts book for the specific model in question. "E" after part no indicates "good quality, oriental replacement." Supply of genuine LUCAS parts are sporadic and when we get them they are normally made in Japan.

Note - for most bikes you need one set of points and one condenser for each cylinder

Most Post 1967 Machines:

Often located in black rectangular rubber cover under gas tank.

Oriental Replacement
Part no. **54420128E**



Rubber Cover
Part no. **54418528**

Most Pre 1968 Machines use LUCAS Numbers 54441582 or 425377

Oriental Replacement
Part no. **54441582E**

Oriental Replacement
Part no. **425377E**

Condenser Pack Cover

For 2 & 3 cylinder bikes
Part no. **54418528**

Eccentric Point Adjusting Screws

Part no. **54419220**

Contact Breaker Parts

Chrome Covers

Singles & Twins
Part no. **70-8737**

Triples
Part no. **70-6519**



Point Plate Screws

For LUCAS point plates (Hard to find item)
Part no. **82-1915**

Points Cover

Late model Atlas, G/N15 & Early Commando

Cover
Part no. **03-0082**



Clip
Part no. **03-0084**

"O" Ring
Part no. **03-3056**

Grommet
Part no. **06-7742**

Advance/Retard Springs

An indication of weak springs will be a motor which is slow to return to idle speed when the throttle is closed - a worn throttle slide or manifold air leak can also cause this, check also for smooth operation of A/R bob weights
Part no. **54417992**



Contact Breaker "Pillar" Bolts

B25/44/50 & Triumph Models to 1967
Part no. **70-4747**

BSA/Triumph Triples, Norton Commando & Triumph Twins 1968
Part no. **06-1281**

M3 Capacitor (Blue thing on spring)

The original LUCAS part 54170009 is no longer available. We stock a replacement part by PHILLIPS, it looks similar and does the same job.

Part no. **96-604**

Mounting Spring
Part no. **54483156**



Norton Commando Electric Start Kit for All Models 1968-74

By Alton France
Part no. **ESKN**

In around two hours you can say goodbye to kick-starting your Commando. The Alton eKit fits directly onto the engine via a specially designed inner chain case supplied with a starter motor, already mounted. Once fitted, replace your existing outer chain case. With each kit there is a starter motor, drive chain, sprag clutch, shock absorber, AC generator and a specially constructed inner primary chain case, all the necessary cables and fittings plus detailed instructions with colour illustrations to make fitting the kit as easy as possible. Battery (recommended YTX20L-BS) has to be purchased separately.



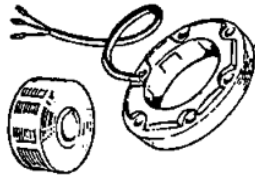
Peter Williams at Bala Spur, 1974 TT.
For signed copies Part no. **99-PW3**

Alternators

From our experience, one of the biggest problems with charging systems is a loss of magnetism with the rotor. Stators (especially the later encapsulated type) rarely give trouble unless they have been subjected to abuse. We can test your existing parts for a nominal charge if you send them to us (the charge is waived if you decide to buy new parts from us.)

Genuine LUCAS

Single Phase Stator (120W)
Part no. **47205**



Single Phase (180W) stator - eg Mk3 Commando
Part no. **47239**

Three Phase Stator
Part no. **47244**

Magnetic Rotor
Part no. **54202275**

Zener Diode (Part No 49345)

At the time of writing Genuine Lucas items are not available and we have found reproduction types to be very unreliable. It is recommended that PodTronics or Boyer Power boxes be used instead.

Rotolock Parts for Early Commando

Zener Diode Heat Sink Receptacles

Receptacle
Part no. **06-0849**

Rotolock
Part no. **06-0847**

Heat Sink For Zener Diode

BSA Models (67-70)
Part no. **68-9428**
Triumph Models
Part no. **97-2237**



At the time of writing, we have good used stocks of these parts under
Part Nos **68-9428U & 97-2237U**

Rectangular shape for 12 volt Atlas & G15 magneto models
Part no. **99-030042**
Circular shape for Atlas, G15 & P11 and early Commando models
Part no. **99-032018**

Warning Light Assimilator

Genuine Norton Sold State
Part no. **06-2054**



Norton Electric Starter

By Dave Comeau
Part no. **06-4791C**



Dynamo Armature

We can now supply to special order from England the following new replacement armatures and parts. To upgrade your Dynamo to 12 volt output, using a PODRONICS regulator, it is strongly recommended you fit a 12 volt armature and field coils.



AJS/Matchless Twins, Norton Twins
Panther MOD 65 & Triumph Twins
LUCAS No. 200712
6 Volt
Part no. **10210**

12 Volt
Part no. **10216**

For Ariel Huntmaster, BSA A7/A10 BSA
C10/11
LUCAS No. 200752
6 Volt
Part no. **10211**

12 Volt
Part no. **10216**

For MagDyno (179mm length) Models

LUCAS No. 200754

6 Volt

Part no. 10212

12 Volt

Part no. 10217

For AJS/Matchless Singles 1951-57

LUCAS No. 200802

6 Volt

Part no. 10213

For Field Coils

LUCAS No. 200731

6 Volt

Part no. 10214

12 Volt

Part no. 10219

Dynamo Control Units

Replacement 6 volt Control Units- Looks and operates like original LUCAS part
Part no. 37097

**Warning**

If your battery is flat (discharged) do not start motor if solid stage regulator is fitted - this will damage the unit and void any warranty. Some battery voltage is necessary to "excite" the circuits.

Podtronics Solid State Voltage Regulator

Made in USA

6 Volt

Part no. 86-006

12 Volt For machines using upgraded 12 volt armature and field coils

Part no. 86-012

WE Wassell 6 Volt Generator Regulator

Compact design positive ground only – will fit inside original MCR2/RB108 mechanical box
Comes with full instructions.

Part no. 10221P

V Reg Voltage Regulators

While we have been pleased with the success of the PODTRONICS DC Regulators delivery has been difficult at times and we're therefore stocking, from England, the VREG type supplied suitable for 6 Volt generators but easily converted to 12 volt output.

Positive Ground

Part no. VREG2A

Negative Ground

Part no. VREG2A/NEG

Alton Generators

To replace dynamos on British bikes.

We can get several different models to special order. Eg Vincent Twins & Singles, Velocette & pre-unit Triumph. More are under development
Regular stock items:

For BSA A7/A10 with V Belt, 2 pulleys & rectifier - regulator.

Part no. ACG06/RR01

For AJS & Matchless singles includes Chain sprocket & rectifier - regulator.

Part no. ACG07/RR01

Rectifiers

Warning - Connect the battery the wrong way around for an instant and the rectifier will be toast

Regular Positive Ground Bridge Rectifier - full wave as original LUCAS

Part no. 49072

Solid State Rectifier - Supplied by BOYERS
We have sold literally hundreds of these and rarely get one back as a warranty claim.

Part no. 96-400



Magneto & High Tension Parts

Black High Tension Wire - To make up Spark Plug Leads (Copper core)
Part no. **PV267**

HT Lead Copper Washer 3/8" Diameter
Part no. **185015**

HT Wire Plastic Nuts – Genuine LUCAS Short 3/8" Type
Part no. **410600**

HT Wire Coil Terminal
Part no. **421863**

Shrouds:

For Coils
Part no. **54949011**

90 degree for coils
Part no. **RS215**

Mag Points:

For K2F etc. Steel Black Plate
Part no. **54440888E**

Points Retaining Bolt
Part no. **492856**

Replacement Mag Pick Ups:

Clip on Type
Part no. **459190**

Screw on Type
Part no. **458876**

Brushes:

For Pick Ups
Part no. **451260**

For Earth (ground)
Part no. **455190**

(In earth brush holder at drive end and in end cap)



Magneto Armatures- K1/2

- Rewound in England
- New Condensers installed
- Complete with bearings
- Exchange only

Pre 1951 Models
Part no. **88-K1/2P**

1951 onwards models
Part no. **88-K1/2F**

More K2F Parts

Slip Ring
Part no. **455361**

Bearing - Drive End
Part no. **189244**

Bearing - Point End
Part no. **189291**

Pick-up Gasket
Part no. **458346**

Pick-up Retaining Clip
Part no. **458370**

Arcing Screws
Part no. **090458**

Contact Breaker Assembly
Part no. **459854**

Complete Steel Washer
Part no. **459005**

Point End Insulating Washer
Part no. **451379**

Drive End Oil Seals:
Pre 1956
Part no. **459031**

1956 on
Part no. **459002**

Labels:
Counter Clockwise
Part no. **201**

Clockwise
Part no. **202**

Label Screws
Part no. **204**

K2F End Cap
Part no. **459269**



Springs for Advance/Retard MechanismPart no. **06-8032****Ignition Coils**

Type	6 Volt	12 Volt
Genuine LUCAS	45275L	45276L
PVL (Top Quality Made in Germany)	45275	45276
Tri-Spark Brand (Recommended but not essential for use with Tri-Spark ignition kits)	45275T	45276T

Coil Clips Made in England

For regular 1 5/8" coils fitted to Norton and Triumph machines.

Part no. **70-6389****Coil Brackets for 1966-70 650Triumphs**

Left Hand

Right Hand

Part no. **82-6943**Part no. **82-6944****Large Diameter Lucas Coils**

6 Volt (1 7/8") Fits most coil ignition machines up to 1965. Also ideal for BSA A50/65 to 1969 using Boyer ignition.

Part no. **45124**

12 Volt (1 7/8") 1966-69 BSA A50'65

Part no. **45164****AC Ignition ET Coil**

Replaces original hard to find Lucas item.

Good quality.

Will work with 6 & 12 volt energy transfer systems

Part no. **45150R****Dyna 5 OHM Dual Lead Coil**

Best quality recommended for twins using Electronic ignitions.

Part no. **DC8-1**

Pair of spark plug leads for use with DC8-1

Part no. **DW-200****4 VOLT SPARX COIL**

Reduce voltage drop on Triples – especially T160 with electric start.

Part no. **45274****Boyer 2 Lead Micro Power Coil**Part no. **COIL00008**

Heat Sink

Part no. **COIL00006****Coil Bracket Assembly**

Complete assembly for both coils. G/N15

Norton/Matchless

Part no. **03-3008A**

Individual Coil Clips (P11, G/N15)

Part no. **03-3008****BSA A50/65 Coil Clips**

For 1962-69 Models with 1 7/8" Coils

Part no. **82-9123**

For 1970 Models with 1 5/8" Coils

Part no. **83-1603****Horns**

"If you purchase a horn and it doesn't work immediately, adjust the trim screw on the back to suit your particular machine.

6 Volt Replacement Horn

Part no. **04-686**

12 Volt Replacement Horn

Part no. **004-687**

Quality Replica of Original

6 Volt Altette Horn used

on many machines Bracket sold separately

For 6 Volt Horn 12 Volt Version

Part no. **11048** Part no. **11048B**

Chrome Bezel and dome nut set for Altette Horn

Part no. **11050**

For two hole brackets For single hole brackets

Part no. **11049**Part no. **11049S**

Horn Mounting Bracket For Norton, Matchless

G15/N15 & P11 Series

Part no. **03-0044****Quality Replicas of Lucas 6H & 8H Horns**

6H 6 volt type

Part no. **54068060**

8H 12 Volt type

Part no. **54068061****Contact Points**

Usually one per cylinder required. The supply of genuine LUCAS points is somewhat sporadic and they are no longer made in England.

Oriental Reproduction

Genuine LUCAS

1960 on Magneto

Part no. **54440888E**Part no. **54440888**

1968-72

Part no. **54419827E**Part no. **54419827**

Triples

Part no. **54419828E**Part no. **54419828**

1963-67

Part no. **54415803E**Part no. **54415803E**

1973 on

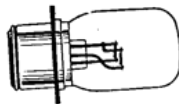
Part no. **60600271E**Part no. **60600271**

Bulbs Regular Type Headlight*British Pre-Focus -fits virtually all models*

6 Volt

Part no. **BULB312**

12 Volt LUCAS

Part no. **BULB414G****Pilot Light:**

6 Volt

Part no. **BULB951**

12 Volt LUCAS

Part no. **BULB989G****Stop/Tail Genuine LUCAS:**

6 Volt

Part no. **BULB384G***12 Volt (*Also fits most Japanese motorcycles and most vehicles on the road)*Part no. **BULB380G***Good Quality LED Positive Ground 12 Volt Bulb*Part no. **BULB380LED/DL****Turn Signal Bulbs:**

6 Volt

Part no. **04-113**

12 Volt

Part no. **BULB382****Instrument Bulbs:**

6 Volt

Part no. **BULB287**

12 Volt LUCAS

Part no. **BULB233G***12 Volt LUCAS Screw in Type*Part no. **04-105G***12 Volt LUCAS Capless for later models*Part no. **04-144G****Indicator for "Idiot" Lights:**

6 Volt

Part no. **BULB282G**

12 Volt

Part no. **BULB281G***12 Volt Capless Type*Part no. **04-144****Halogen & Quadoptic Bulbs:**

Headlight Halogen Bulbs for use in original British pre-focus light unit.

6 Volt 35/35W

Part no. **BULB312H**

12 Volt 45/40W

Part no. **BULB410H**

12 Volt 60/55W

Part no. **BULB414H****Special Pilot Bulbs**

Pilot Bulb for use as a daytime running light. Check Provincial/State laws before installing

12 Volt 23W

Part no. **BULB989H**

6 Volt 10W

Part no. **BULB951H****Other Halogen 12 Volt Bulbs***CIBIE type round base P45T 60/55 Watt bulb*Part no. **LLB012****HALOGEN "three prong" H4 Bulbs:**

35/35 Watt

Part no. **LLB1046**

60/55 Watt

Part no. **LLB472****Bulb Connector Block***For 3 Bulbs Listed Above*Part no. **C37****Flasher Unit***Genuine Lucas*Part no. **35048****Reproduction Headlight Units***LUCAS SSU700P Type(7")**Instrument Bulbs Complete**with switch & ammeter panel**for many 1945-62 machines*Part no. **10150***DU42(6") Used on many**1930's machines*Part no. **DU42***MU42 (6")**Featured on many bikes**from mid 1930's to late 1950*Part no. **MU42***SSU700/1(7") With underslung pilot light, used on several early 1950's bikes.*Part no. **SSU700/1**

Replica Underslung Pilot Light Unit
Part no. **52184E**

MCH55(8") Style used
on several 1950's bikes
Part no. **SPE026**



Switch Panel with Switch and Ammeter
Part no. **50063**



7" Head Lamp Shells (Includes Rim)

The following Genuine LUCAS shells are currently available. Dates are approximate because of make/model variations

Chromed Shell – Ammeter hole in the top, one wiring hole in the bottom
Part no. **99-9968**



Chromed Shell - Ammeter Hole in Top , Warning Lite Holes Either Side and Switch Hole Behind One Wiring Hole in Bottom - BSA/ Triumph Models 1967-70
Part no. **99-9969**

Chromed Shell - 3 Warning Lite Holes in Top, Switch Holes Behind, 3 Wiring Holes in Bottom Norton Models 1971-74, Triumph Most Models 1973-77
Part no. **99-7039**

Chromed Shell - No Holes in Top, 3 Wiring Holes in Bottom T160, MK3 Commadno & Triumph Twins 1978 on
Part no. **99-7098**

1971-2 BSA/TRIUMPH 650 models etc – Flat Back Shell. With switch and idiot light holes
Part no. **99-1221G**

Genuine LUCAS 5 3/4" Chrome Shell

No holes in top, one wiring hole in the bottom.
Part no. **50205**

Light Unit Chrome Side "Flashes" TRW Etc.

Part no. **97-0623/4**

Rubber Grommets

For bottom of headlight shell. Also fits in frame holes on many models including oil in frame BSA/Triumph
Part no. **862217**



Rear Fender etc Grommets:

NORTON etc 5/8" X 3/8"
Part no. **06-7655**
BSA/TRIUMPH etc 82-9028 3/4" X 1/2"
Part no. **82-9028**

For Commando Frame & Under Seat
Part no. **01-9490L**

To fit in R/H Headlight Bracket, 1968/70 500 & 650 Triumphs for Throttle Cables 5/8" X 7/16"
Part no. **82-6784**

Special Grommets

To suit 3/4" hole
Part no. **99-G20**

To suit 1 1/2" hole
Part no. **G38**

Rubber Wiring Grommet

For back of "flat back" shells, used on many 1971-73 Triumph & BSA Models.
Part no. **54524048**



For headlight bolts and spacers please see fork parts.

AJS/Matchless Side Light Grommets

1954-55 models
Part no. **516719**

BSA/Triumph Singles 1971-4

Electric Box Grommets (3 required)
Part no. **60-3627**

Halcyon Headlight Peaks

Made in England Chrome plated. Fits neatly inside flange ring.

For 5 1/4" Light
Part no. **652**

For 7" Light
Part no. **670**



Warning Lights

Use bulb holder and bulb as required.

Jewel Style Up to 1970:

Red
Part no. 38189

Green
Part no. 38191

Amber

Part no. 38188

Plain Type 1970 on Genuine Lucas:

Red
Part no. 54363454G

Green
Part no. 54363455G

Amber

Part no. 54363453G

After Market Red Type:

With Bulb

Part no. R67D

Warning Light Sealing Washer

Part no. 54140331

Warning Light Shields

Part no. 54525212

Dash Kit

Comes with warning lights for MK3 Commando.

Part no. 06-5719A



Light Unit

Replica 5 3/4" Light Unit

Part no. 54525272E

Regular Replacement 7" Unit (Uses British Pre-Focus Bulbs)

Part no. 516798

Genuine Lucas Light Unit

Part no. 516798G

Genuine LUCAS light unit - NO pilot bulb hole (AJS/Matchless 1954-56, TRW etc.)

Part no. 553925

Genuine Lucas Quadoptic 7" Light Unit

Complete with Cibie type 60/55 Watt P45T halogen round base bulb, pilot bulb and connector block

Part no. LUB362

Replacement bulb

Part no. LLB012



Genuine Lucas 7" Light Unit

For H4 Type bulb

Part no. 50209

H4 Type 12 volt Bulbs:

35/35 Watt

Part no. LLB1046

60/55 Watt

Part no. LLB472

Headlight Shell Chrome Rims

7" Genuine LUCAS

Part no. 553248

7" Reproduction

Part no. 553248P

Rim Fixing Clip & Screw

Part no. 534296

Light Unit Retaining "W" Clip

Part no. 504665



Main Bulb Holder

Part no. 97-958



Pilot Bulb Holder

Part no. 97-951



Warning Light Holder

For "idiot" lights in headlight shell. These fittings were originally included as part of the wiring harness.

Part no. 99-WARN

Speedo/Tach Bulb Holder

Chronometric Instruments

Part no. 09-00491

Magnetic Instruments

Part no. WH3474



Rear Light Units

LUCAS 525 Series Reproduction of LUCAS 525 series light unit. Used on most British bikes 1953-55

Part no. 53269

Replacement Lens

Part no. 573819

LUCAS 529 Series Reproduction of LUCAS 529 series light unit Used on Matchless G80CS & Triumph Tiger Cub

Part no. 53429A

LUCAS L917 Series

Replacement Light Unit

Part no. 56513



Replacement Lens

Part no. 54584930

Screws for Lens

Part no. 99-7013

LUCAS L564 Series Replacement Light Unit
Part no. **53454E**

Replacement Lens
Part no. **54576001E**

Cat's Face Rear Light Unit Complete
Part no. **53454CAT**

LUCAS L697 Series
Replacement Light Unit
Part no. **53973E**

Replacement Lens
Part no. **54572932E**

Genuine LUCAS Screws (This screw
fits the top of the headlight shell)
Part no. **144921**

Best Quality Light Unit With Original Markings
Part no. **53973JRC**

Quality Lens
Part no. **54572932DL**

LUCAS Type Tail Light Assembly
Die Cast and Chrome Plated with License Plate
Bracket
Part no. **11-2269**

Miller Type Used on Vincents
Part no. **WW19233**

MT211 TYPE Used on numerous
British bikes 1936-50. With stop light.
Part no. **53056**

MT110 TYPE
Also used on numerous British
bikes. With stop light..
Part no. **53009**

Reflector Assemblies:
With backing rubber for T150
Part no. **99-1119**

Triangular type for many 1968 - 70 BSA,
Triumph Norton P11A & Ranger models.
Part no. **57111**

Genuine LUCAS Reflector
Orange with threaded screw. BSA, P11,
Commando up to 1970
Part no. **57162**

Red - Early Commando Fastback
Part no. **02-1503**

Reflector Bracket:
Norton P11 front reflector bracket
Part no. **03-4010**



Turn Signals (Replica)

Long Stem
Part no. **54057567**
Short Stem
Part no. **54057553**
Lens
Part no. **60600621E**
Genuine LUCAS Lens
Part no. **60600621**
Screw
Part no. **54123401**
Rubber Gasket
Part no. **54580300**



Genuine LUCAS Turn Signals

Long Stem
Part no. **99-1190L**

Short Stem
Part no. **99-1190S**

Turn Signal Wiring Kits

Include relay, chrome handlebar switch, all wiring, connectors and instructions. Signals not included

6 Volt
Part no. **WP-6**

12 Volt
Part no. **WP-12**

Universal Turn Signal Switch

Chrome
Part no. **SW1169**

Universal Turn Signal Switch

Genuine LUCAS 1 3/4" Diameter 12-12
Part no. **36403**

British made replica 1 3/4" diameter, 8-0-8
Part no. **36403E**

Window Type
Part no. **36403W**



"O" Ring between ammeter and headlight shell
Part no. **GG63B**

This part is thicker than original (0.100" vs 0.065) "will do the job". We are working on getting the thinner one.

Cable/Wire Ties

Rubber Ties - replica of original John Bull ties

Regular Quality 4 1/4"

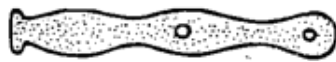
Part no. **81603**

Premium Quality 4 1/2"

Part no. **81603DL**

Short Handlebar Type 2"

Part no. **81603L**



Alloy Ties- as original equipment on many Triumph models

Part no. **82-9918**



Black Anodized Ties

Part no. **82-9918B**

Chrome Clips

For securing wires to bars as original equipment

Part no. **97-4112**



Norton Commando Plug & Socket

Part no. **06-2666**



Switches

Universal 3 Position Switch

Part no. **06-30107**



Good reproduction of switch fitted to many earlier coil ignition machines.

Part no. **34427**

Spare key for Switch 34427

Part no. **10056**

Genuine LUCAS switches as fitted to many BSA, Triumph & Norton Machines

Four Position Switch (Lock & Key tumbler not included, see below)

Part no. **39784**

Replacement Lock & Key for 39784

Part no. **54335169G**

Genuine LUCAS 2 position Switch fitted to many British Bikes 1963-78

Part no. **30608**



Replacement Lock & Keys for 39784 & 30608

Part no. **54335169G**

Replacement Key Blanks

For Original Lucas ignition switches.

We regret that these are not interchangeable with the keys supplied with the tumblers LUCAS presently supply.

Part no. **KEY3**

Horn/Dip Switches

Replica of original LUCAS switches, with harness

Screw to Bars

Part no. **31563A**

Clip Around Bars

Part no. **31563**

Rubber Pad for Switch

Part no. **380459**



Ducon Switch

Used on many BSA models & 1970 Commando

Part no. **16714**



Tricon Switch

As Ducon with extra button for mag ground

Part no. **S3858**



Replica of Miller Horn/Dip Switch

Part no. **157HV**



Generic Chrome Switch

With black horn button

Part no. **19039**



Horn/Cut Out Switch

Nice chrome replica of original LUCAS Magneto Cut out Switch as fitted to G/N15, Norton Atlas etc.

Part no. **76204**



Universal Switch

Part no. **004-658**

Head Lamp Lighting Switches

Replica of LUCAS rotary Switch, fitted to Ariel square 4, and early BSA & Matchless models

Part no. **31340**



Genuine LUCAS Ignition/ Lighting Switch TRW Etc

Part no. **31443**

Genuine LUCAS 2 position toggle switch as fitted to Norton Commando 1971-74

Part no. **34660**

Similar Genuine LUCAS 3 position Switch as fitted to many Triumph models

Part no. **35710**

Good Reproduction of switch fitted to many BSA, Norton & Triumph models.

Includes knob

Part no. **34289**



Replacement Parts for Switch 34289

Replacement Knob
Part no. **543309340**

Screw & Washer
Part no. **10418**

Stop Light Switches

Good replica of the original LUCAS switch which attaches to chainguard of most 1963-70 Triumph models. There are several similar versions of this switch used on other models, e.g. pull on push off and the bracket attached on either side. We can assemble most types.

Part no. **54033234**

Button Type Switch fitted to Norton Commando models as well as many BSA & Triumph models

Part no. **34815**

BSA A50/65 (1963-70)

Part no. **34448**

Norton Commando Switch for disc front brake

Part no. **34619**

Cover for above

Part no. **06-2524**

Universal Stop Light Switch
Replaces WIPAC S2370

Part no. **11043**



Special Hydraulic Stop Switch

For TRIUMPH disc front Master Cylinder. Supplied with Special mounting bolt.

Replaces the fiddly, unreliable original micro switch

Part no. **558-52/B**



Lucas Handlebar Switches 1971-74

Original switches have not been made for a long time and reproductions, if you can find them, have not proved to be very reliable. We can supply these lever, spring and ball bearing kits to assist in the rebuild of original switches.

1971-2 Type – one red one black lever

Part no. **99-KIT71B**

1971-2 Type – both levers black

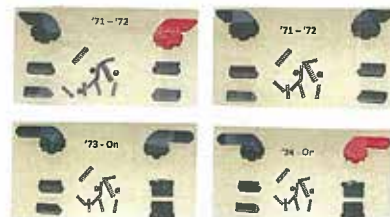
Part no. **99-KIT71A**

1973 Type

Part no. **99-KIT73A**

1974 Type

Part no. **99-KIT74A**



Oil Pressure Switches

Threads were BSP (British Standard Pipe) either tapered made by Smiths on the early bikes and straight on the later ones (made by Veglia). The early ones tighten up as you fit them to create a seal and the later ones tighten to a shoulder with a sealing washer. As the threads have the same pitch it is common to find late ones on early bikes and vice versa. Don't over tighten them, especially the tapered type, or you will do damage.

Early Type

Part no. **60-2133**

Late Type

Part no. **60-3719**

Fuses

WARNING - British fuses are rated at a blow rate, North American fuses at a continuous current rate. DO NOT replace an original 35 amp fuse with a North American 35amp rated fuse - you could fry your harness in the event of a short.

Replacement for original 35amp Lucas Fuse

Part no. **FUSE17.5/35**



Replacement Fuse Holder

Part no. **05-098**

Batteries

Sold by Mail Order dry charged - most garages sell battery acid. If charged and stored properly batteries should last a long time. Read instructions and charge at rate indicated. We will be pleased to fill and charge batteries for personal callers at the shop. Please call ahead and book an appointment so we can get them ready for you.

Black Fiberglass Shell

*Fits a modern battery inside
(hole in bottom, for vent tube)
Regular Size (L 4 7/16", W 3 1/4", H 5 1/4")*



*LUCAS Emblem
Part no. BAT05*

*King of the Road
Part no. BAT06*

*Exide
Part no. BAT07*

*"T" Shaped Ariel SQ4 Etc.
Part no. BAT08*

*Small e.g. Bantam
Part no. BAT09*

*6 Volt Battery Fits Inside Fibreglass Shells
Part no. 6N6-3B*

6 Volt Top Quality USA made Gel Battery

*Long life, fit in any position. 2 in series give 12v
Part no. SUND614*

12 Volt Battery Fits inside shells

*Taiwanese
Part no. 33-304*

*Yuasa
Part no. 32-304*



12 Volt Battery

Fits most British Machines 1964 on. These batteries are approximately the same size as the original 5 amp batteries.

*7 Amp (L5 1/2", W2 3/4", H5 1/2")
Part no. B2202*

*9 Amp (L5 3/8", W2 3/4", H5 3/8")
Part no. B2206*

*5 Amp
Slightly smaller 5 amp battery to fit G/N15 models. These machines originally came with two 6 volt batteries wired in series.*

*(L4 3/4", W2 1/8", H5 1/4")
Part no. B2207*

*14 Amp for MK3 Commando (L5 3/8", W3 1/2", H6 1/4")
Part no. B2204*

*16 Amp for T160 (L5 3/8", W3 1/2", H6 1/4")
Part no. B2205*

12 Volt Yuasa Battery (Top Quality)

*9 Amp
(L5 1/2", W2 3/8", H5 3/8")
Part no. 10-151*



Maintenance Free 12 Volt Batteries

*POWERSTAR 9amp AGM Battery
Classic Look for 12 volt British Bikes
AGM Technology for better starts and longer life
2 year Warranty 5 1/2" X 3" X 5 1/4" Tall
Part no. 12N9-4B-1SR*



*GENESIS 7amp Sealed
Lead Acid Battery
5 3/4" X 2 1/2" X 3 3/4" Tall
Part no. NP7-12*



*BSA- Battery platform for Swingarm models
A7/10, B31/31 & DBD34
Part no. 42-4515*

Acid Trap

*To mount outside of leak acid battery for vent overflow
Part no. ACIDTRAP*

Battery Straps & Fittings

Norton Commando 1971-74:

Battery Straps (2 Required)

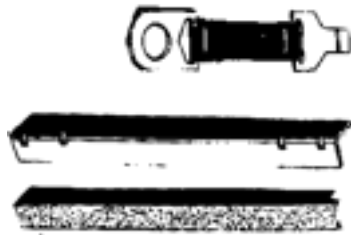
Part no. 06-1662

Retaining Bar

Part no. 06-1667

Rubber for Bar

Part no. 06-1659



Atlas:

Battery Platform

Part no. 19086

Triumph/BSA

Battery Trays 1967-70 A50/65

Part no. 68-4595

Triumph 500 & 650 pre oil in frame twins

Part no. 82-8024

Molded Rubber for Battery

As original Triumph part but will work with all bikes using regular 12 volt battery

Part no. 82-8091



Replica Battery Strap Assembly

Copy of that used on 1954-62 BSA models, but can also be adapted for other bikes using the regular original 6 volt battery

Part no. 42-4514A



Universal Battery Carrier

Similar to that used on 1949 onwards Matchless & AJS models, can be adapted for other makes

Part no. 99-4514



Rubber Straps

As original to fit several different Triumph & BSA models.

18"

Part no. 82-9005

10"

Part no. 82-9353



Buckles for Triumph Machines

Most Oil-in-frame Models

Part no. 83-3849

Most 1968 on Pre-oil-in-frame Models

Part no. 82-8032

Stainless Steel Battery Buckles

T150 type

Part no. 82-9355S/S

For BSA A50/65 68-70

Part no. 82-9004S/S

For Triumph 500/65 twins 68-70

Part no. 82-8032S/S

For Triumph/BSA Oil-in-frame twins 71-78

Part no. 83-3849S/S



Spark Plugs

See chart below for specific applications

We have found no perceptible difference in performance and reliability between NGK and CHAMPION plugs. Problems with fouling are usually caused by carburetion or ignition faults.

Notes:

- The words “hot” or “cold” and “hard” or “soft” are often used when describing plugs and unfortunately, these words seem to mean different things to different people. A lower performance motor (e.g. iron head A10) will need a soft plug which will burn hot, otherwise it will foul up. If the same plug is put into a high performance race motor it will probably get red hot and burn a hole in the piston - the race motor will need a hard plug, which will stay cooler. The disadvantage of this with high performance motors is that when cold and being started up the hard plug is much more likely to foul up - it doesn't burn off the excess gas and oil as well as the soft plug. This is why race motors are often started on a soft plug to get them warmed up and then the correct plug is put in before they go out onto the track.
- With NGK, the heat ranges are easy to follow - the lower the number the softer the plug. You will see Norton Atlas machines listed with BR6ES - a soft plug. The Atlas came with concave pistons giving about 7.5:1 compression ratio. These pistons have not been made for years and virtually every Atlas motor we come across has Commando pistons (almost 9:1) fitted. There is nothing wrong with this, however in addition to retarding the ignition timing from 32 degrees to 28 degrees a harder plug must be used - e.g. BP7ES or BP8ES. It is better to start with a number too high because a fouled plug is preferable to a hole in a piston!
- “R” in the NGK plug number indicates a resistor type where possible we recommend most especially with Magneto bikes, you use non resistor plugs which we endeavor to keep in stock

NGK Cross Reference Chart for Obsolete Plugs

NGK	KLG	Champion	AC	Autolite	Bosch	LODG
BR6ES	FE70	N5, N6, N84	45XL,45N	AG4	W145T2	HBLN
BR7ES	FE75	N4,N88	44XL,44N	AG3	W160T2	HLN
B8HS	F80	L5, L81	42F	AE2	W240T1	2HN
B8ES,B9ES	FE80	N3	43XL,43N	AG2	W240T2	2HLN

Order Plugs By Their Manufacturers' Number

NGK	NGK
BR6ES	BPR7ES
B6HS	B8ES
B7ES	BP8ES
BR7ES	BPR8ES
BP7ES	B9ES

COMMANDO OWNERS – We carry – specially imported NGK BP7ES non-resistor plugs.



Recommended Plugs

Make/Model	Year	NGK	Champion
BSA			
A7/10 (Iron Head)	1947-59	B6HS	
A7/10 (Iron Head)	1960-63	B7HS	
A7/10 (Alloy Head)	All	B8ES	N3C
A50	1962-70	B7ES	N4C
A50W	1966	B8ES	N3C
A65	1962-65	B7ES	N4C
A65T	1966-70	B7ES	N4C
A65T	1971	B8ES	N3C
A65T	1972	B7ES	N4C
A65L & S	1966-72	B8ES	N3C
A75	All	B8ES	N3C
Norton			
Atlas, P11 & G/N15	All	BP7ES	N4C
Commando	1968-70	BP7ES	N4C
Commando	1971-77	BP7ES	N7YC
Triumph			
Cub	All	B6HS	
T25	1970-72	B8ES	N4C
T100	All	B8ES	N4C
650 Twins	1963-9	B8ES	N4C
650 Twins	1970-72	B8ES	N3C
750 Twins	1973-78	B8ES	N3C
T140E	All	BR6ES	N4C
T150/160	All	B8ES	N3C

Spark Plug Caps

Also see Complete Plug Wire sets in Wiring Harness Section

Champion Plug Caps

BSA Type (10k ohms resistance)

Part no. **19-7621**

Triumph Type

Part no. **60-0262**

Standard Black Rubber Caps

Part no. **76020**

Triumph Type NGK Non-Resistor Black "Plastic Caps

Part no. **45-999**

NGK Best Quality Resistor Type Caps

90 Degree Type

Part no. **26-992**

120 Degree Type

Part no. **900-231**



Wiring Connectors & Parts

Crimp Type

For 1mm Wire

Part no. **CB1**



For 2mm Wire

Part no. **CB2** (CB2 terminals can be soldered to 1 or 2mm wire)



Single Connectors

Part no. **99-100**

Double Connectors

Part no. **99-101**

3 Way Connector (common)

Part no. **99-113**

5 Way Connector (not common)

Part no. **99-115**

Spade Connectors (for 1/4" blade - e.g. coils rectifiers etc.)

Part no. 99-104

Cover for Same

Part no. 99-105

Large Spade Connector (for Zener Diode)

Part no. 99-106

Cover for Same

Part no. 99-112

1/4" Ring terminal

Part no. RR6

Crimping Tools

Professional Bullet crimping quality tool

Produces a secure solderless

connection in seconds.

Robust construction for long life.

Part no. TT85



Versatile quality tool. Produces excellent crimp on regular non-insulated terminals and bullets.

Part no. MP71



Economy tool for crimping non-insulated terminals. Includes wire stripper and cable cutter.

Part no. 99-D1



Heat Shrink Tubing

Sold by 1ft Length

3/16"

Part no. 62004

1/4"

Part no. 62005

3/8"

Part no. 62007

1/2"

Part no. 62010

Bulk Wire for Making/Repairing Wiring Harnesses

Most original cables were Ref 14. As existing stock runs out we will be replacing all wiring with Ref 16. Other colours available for special order. Specifications- all use strands 0.3mm (0.010") in Diameter.

REF14 14 Strands, Rated 8.75 AMPS, OD 1MM SQ (.040")

REF16 32 Strands, Rated 16.5 AMPS, OD 1MM SQ (.040")

REF20 20 Strands, Rated 12.5 AMPS, OD 1.5MM SQ (.060")

REF25 25 Strands, Rated 25 AMPS, OD 2MM SQ (.080")

REF28 28 Strands, Rated 17.5 AMPS, OD 2MM SQ (.080")

Part No.	Description	Part No.	Description
REF14/BROWN	Brown	REF20/GREEN/YELLOW	Green/Yellow
REF14/BROWN/BLACK	Brown/Black	REF16/BROWN/BLUE	Brown/Blue
REF14/WHITE	White	REF20/BLACK/YELLOW	Black/Yellow
REF16/BLUE	Blue	REF20/RED/GREEN	Red/Green
REF14/GREEN/RED	Green/Red	REF20/BROWN/WHITE	Brown/White
REF16BW	Black/White	REF20/BLUE/PURPLE	Blue/Purple
REF16BY	Black/Yellow	REF20/GREEN/WHITE	Green/White
REF16GB	Green/Black	REF20/BLACK	Black
REF16GR	Green/Red	REF20/BROWN/BLACK	Brown/Black
REF16GW	Green/White	REF20/WHITE	White
REF16PB	Purple/Black	REF20/BLUE	Blue
REF16W/R	White/Red	REF25NG	Brown/Green
REF16W/Y	White/Yellow	REF16/BLUE/RED	Blue/Red
REF16WG	White/Green	REF16/BROWN	Brown
REF20/BLUE/WHITE	Blue/White	REF16/BROWN/BLACK	Brown/Black
REF20/BROWN	Brown	REF16/BROWN/LT.GREEN	Brown/Light Green
REF16/RED	Red	REF16/WHITE	White
REF16BG	Brown/Green	REF16/BLUE/RED	Blue/Red
REF16BP	Brown/Purple	REF16BR	Black/Red
REF16NW	Brown/White	REF20/BLACK/WHITE	Black/White
REF20/RED/BROWN	Red/Brown	REF20BR	Blue/Red