

Supplement - 1999 Model

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How to Use this Manual

This "Supplement-1999 Model " designed to be used in conjunction with the front part of this manual (up to 16 - 1) and /or Base Manual ZX400H Service Manual –Part No. 99924-1137-01.

The specifications and maintenance procedures described in this chapter are only those that are unique to the ZX400-L9 model.

Complete and proper servicing of the ZX400-L9 model therefore requires mechanics to read both this chapter and the front of this manual.

General Information

General Specifications

| Item | ZX400-L9 |
|---------------------------|---|
| Dimensions: | |
| Overall length | 1 995 mm |
| Overall width | 700 mm |
| Overall height | 1 080 mm |
| Wheelbase | 1 385 mm |
| Road clearance | 120 mm |
| Seat height | 790 mm (SG, KR) 760 mm |
| Dry weight | 162 kg, (SG, KR) 159 kg |
| Curb weight: | 95 kg, (SG, KR) 93 kg |
| Front | 93 kg, (SG, KR) 92 kg |
| Rear | |
| Fuel tank capacity | 16.0 L |
| Performance: | |
| Minimum turning radius | 3.2 m |
| Engine: | |
| Type | 4-stroke, DOHC, 4-cylinder |
| Cooling system | Liquid-cooled |
| Bore and stroke | 57.0 × 39.0 mm |
| Displacement | 398 mL |
| Compression ratio | 12.1 |
| Maximum horsepower | 47.8 kW (65 PS) @ 13 000 r/min (rpm), |
| Maximum Torque | 36.3 N-m (3.7 kg-m, 26.8 ft-lb) @ 12 000 r/min (rpm), |
| Carburetion system | Carburetor, Keihin CVK-D 32 × 4 |
| Starting system | Electric starter |
| Ignition system | Battery and coil (transistorized) |
| Timing advance | Electronically advanced |
| Ignition timing | From 12.5° BTDC @ 1 200 r/min (rpm) to 45° BTDC @ 6 000 r/min (rpm), |
| Spark plug | NGK CR9EK or ND U27ETR |
| Cylinder numbering method | Left to right, 1-2-3-4 |
| Firing order | 1-2-4-3 |
| Valve timing: | |
| Inlet: | Open 23° (BTDC) |
| | Close 65° (ABDC) |
| | Duration 268° |
| Exhaust: | Open 57.5° (BBDC) |
| | Close 27.5° (ATDC) |
| | Duration 265° |
| Lubrication system | Forced lubrication (wet sump with cooler) |
| Engine oil: | Grade SE, SF, or SG class |
| | Viscosity SAE 10W-40, 10W-50, 20W-40, or 20W-50 |
| | Capacity 3.0 L |
| Drive Train: | |
| Primary reduction system: | |
| Type | Gear |
| Reduction ratio | 2.195 (90/41) |

| Item | ZX400-L9 | |
|------------------------------|---------------------|--|
| Clutch type: | | Wet multi disc |
| Transmission: | Type | 6-speed, constant mesh, return shift |
| | Gear ratios: | |
| | 1st | 2.846 (37/13) |
| | 2nd | 2.000 (38/19) |
| | 3rd | 1.578 (30/19) |
| | 4th | 1.318 (29/22) |
| | 5th | 1.200 (30/25) |
| | 6th | 1.111 (30/27) |
| Final drive system: | Type | Chain drive |
| | Reduction ratio | 3.000 (45/15) |
| | Overall drive ratio | 7.317 @Top gear |
| Frame: | | |
| Type | | Press, diamond |
| Caster (rake angle) | | 23.5° |
| Trail | | 82 mm |
| Front tire: | Type | TUBELESS |
| | Size | 120/60-R17 55V |
| Rear tire: | Type | TUBELESS |
| | Size | 160/60-R17 69V |
| Front suspension: | Type | Telescopic fork |
| | Wheel travel | 120 mm |
| Rear suspension: | Type | Swingarm (uni-trak) |
| | Wheel travel | 120 mm |
| Brake type: | Front | Dual disc |
| | Rear | Single disc |
| Electrical Equipment: | | |
| Battery | | 12 V 8 Ah |
| Headlight: | Type | Semi-sealed beam |
| | Bulb | Quartz-halogen 12 V 60/55 W, (UK, SG) 12 V 60/35 W × 2 |
| Tail/brake light: | | 12 V 5/21 W × 2 |
| Alternator: | Type | Three-phase AC |
| | Rated output | 23 A @10 000 r/min (rpm), 14 V, |

Specifications are subject to change without notice, and may not apply to every country.

(SG) : Singapore Model

(UK) : U.K. Model

(KR) : Korea Model

17-6 SUPPLEMENT - 1999 MODEL

The scheduled maintenance must be done in accordance with this chart to keep the motorcycle in good running condition. **The initial maintenance is vitally important and must not be neglected.**

| OPERATION | FREQUENCY | *ODOMETER READING | | | | | | | |
|---|-----------|-------------------------------------|------------------------|----------------------------|---------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| | | Whichever comes first ↓ Every | 1 000 km (600 mile) | 60 000 km (40 000 mile) | 12 000 km (7 500 mile) | 18 000 km (12 000 mile) | 24 000 km (15 000 mile) | 30 000 km (20 000 mile) | 36 000 km (24 000 mile) |
| Spark plug – clean and gap † | | | • | • | • | • | • | • | |
| Valve clearance – check † | | | | • | | • | | • | |
| Air cleaner element – clean † # | | | | • | | • | | • | |
| Throttle grip play – check † | | • | | • | | • | | • | |
| Idle speed – check † | | • | | • | | • | | • | |
| Idle speed – adjust | | • | | • | | • | | • | |
| Carburetor synchronization – check † | | | | • | | • | | • | |
| Engine oil – change # | 6 months | • | • | • | • | • | • | • | |
| Oil filter – replace | | • | | • | | • | | • | |
| Radiator hoses, connections – check † | | • | | | | | | | |
| Coolant – change | 2 years | | | | | • | | | |
| Clutch – adjust | | • | • | • | • | • | • | • | |
| Drive chain wear – check † # | | | • | • | • | • | • | • | |
| Drive chain – lubricate # | 600 km | | | | | | | | |
| Drive chain slack – check † # | 1 000 km | | | | | | | | |
| Brake lining or pad wear – check † # | | | • | • | • | • | • | • | |
| Brake fluid level – check † | month | • | • | • | • | • | • | • | |
| Brake fluid – change | 2 years | | | | | • | | | |
| Brake master cylinder cup and dust seal – replace | 4 years | | | | | | | | |
| Caliper piston seal and dust seal – replace | 4 years | | | | | | | | |
| Brake light switch – check † | | • | • | • | • | • | • | • | |
| Steering – check † | | • | • | • | • | • | • | • | |
| Steering stem bearing – lubricate | 2 years | | | | | • | | | |
| Front fork oil – change | 2 years | | | | | • | | | |
| Rear shock absorber oil leak – check † | | | | • | | • | | • | |
| Front fork oil leak – check † | | | | • | | • | | • | |
| Tire wear – check † | | | • | • | • | • | • | • | |
| Swingarm pivot, uni-trak linkage – lubricate | | | | • | | • | | • | |
| General lubrication – perform | | | | • | | • | | • | |
| Nut, bolt, and fastener tightness – check † | | • | | • | | • | | • | |
| Coolant filter – clean | year | | | | | | | | |

: Service more frequently when operating in severe conditions, dusty, wet, muddy, high speed, or frequent starting/stopping.

* : For higher odometer readings, repeat at the frequency interval established here.

† : Replace, add, adjust, clean, or torque if necessary.

Torque and Locking Agent

| Fastener | Torque | | | Remarks |
|---|--------|------|----------|---------|
| | N-m | kg-m | ft-lb | |
| Brakes : | | | | |
| Bleed valves | 7.8 | 0.80 | 69 in-lb | |
| Caliper Mounting Bolts (Front) | 32 | 3.3 | 24 | |
| Caliper Assembly Bolts: Front | 21 | 2.1 | 15 | |
| Rear | 32 | 3.3 | 24 | |
| Pad Spring Screws | 2.9 | 0.30 | 26 in-lb | |
| Disc Mounting Bolt: Front | 27 | 2.8 | 20 | |
| Rear | 23 | 2.3 | 17 | |
| Brake Hose Banjo Bolts | 25 | 2.5 | 18 | |
| Brake Lever Pivot Bolt | 1.0 | 0.10 | 9 in-lb | |
| Brake Lever Pivot Locknut | 5.9 | 0.60 | 52 in-lb | |
| Front Brake Light Switch Mounting Screw | 1.2 | 0.12 | 10 in-lb | |
| Brake Pedal Mounting Bolt | 34 | 3.5 | 25 | |
| Rear Master Cylinder Rod Locknut | 18 | 1.8 | 13 | |
| Caliper Mounting Bolts (Rear) | 25 | 2.5 | 18 | |
| Rear Master Cylinder Mounting Bolts | 23 | 2.3 | 17 | |
| Torque Link Bolt | 25 | 2.5 | 18 | |
| Torque Link Nut | 25 | 2.5 | 18 | |

Fuel System

Specifications

| Item | Standard |
|-----------------------------------|--|
| Throttle Grip Free Play: | 2 ~ 3 mm |
| Choke Cable Free Play: | 2 ~ 3 mm |
| Idle Speed : | 1300 ± 50r/min (rpm), (IT, UK, NL, GR) 1200 ± 50r/min (rpm) |
| Carburetor Specifications: | |
| Make/ type | Keihin/ CVK-D32 |
| Synchronization vacuum | 2.7 kPa (2 cm Hg) or less difference between two cylinders |
| Main jet Standard | #95 |
| Option | #90, 92, 98, 100 |
| Main air jet | #100 |
| Needle jet | #6 |
| Jet needle mark | N 77W, (IT, UK, NL, GR) N 77S |
| Pilot jet (slow jet) | #35 |
| Pilot air jet | #120, (IT, UK, NL, GR) #110 |
| Pilot screw | 1 3/4, (IT, UK, NL, GR) 1 5/8 |
| Starter jet | #45 |
| Service fuel level | 8 ± 1 mm below the mark |
| Float height | 11 ± 2 mm |
| Air Cleaner: | |
| Air cleaner element oil: Grade | SE or SF class |
| Viscosity | SAE 30 |

(IT): Italia Model
(GR): Greece Model

(UK): U.K. Model

(NL): Netherlands Model

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Wheels/Tires

Specifications

| Item | Standard | Service Limit |
|---------------------------|---|---------------|
| Wheels: | | |
| Rim runout: Axial | --- | TIR 0.5 mm |
| Radial | --- | TIR 0.8 mm |
| Axle runout/ 100 mm | TIR 0.5 mm or less | TIR 0.2 mm |
| Tires: | | |
| Front: Type | Tubeless | --- |
| Size | 120/60 R17 55V | |
| Make | BRIDGESTONE, CYROX-7 | |
| Rear: Type | Tubeless | --- |
| Size | 160/60 R17 69V | |
| Make | BRIDGESTONE, CYROX-20 | |
| Air pressure (when cold): | | |
| Front: | Up to 185 kg (408 lb) load 225 kPa (2.25 kg/ cm ² , 32 psi) | --- |
| Rear: | Up to 185 kg (408 lb) load 250 kPa (2.50 kg/ cm ² , 36 psi) | --- |
| Tread depth: | | |
| Front: | 3.4 mm | 1 mm |
| Rear: | 5.8 mm under 130 km/h (80mph) over 130 km/h (80mph) | 2 mm 3 mm |

Suspension

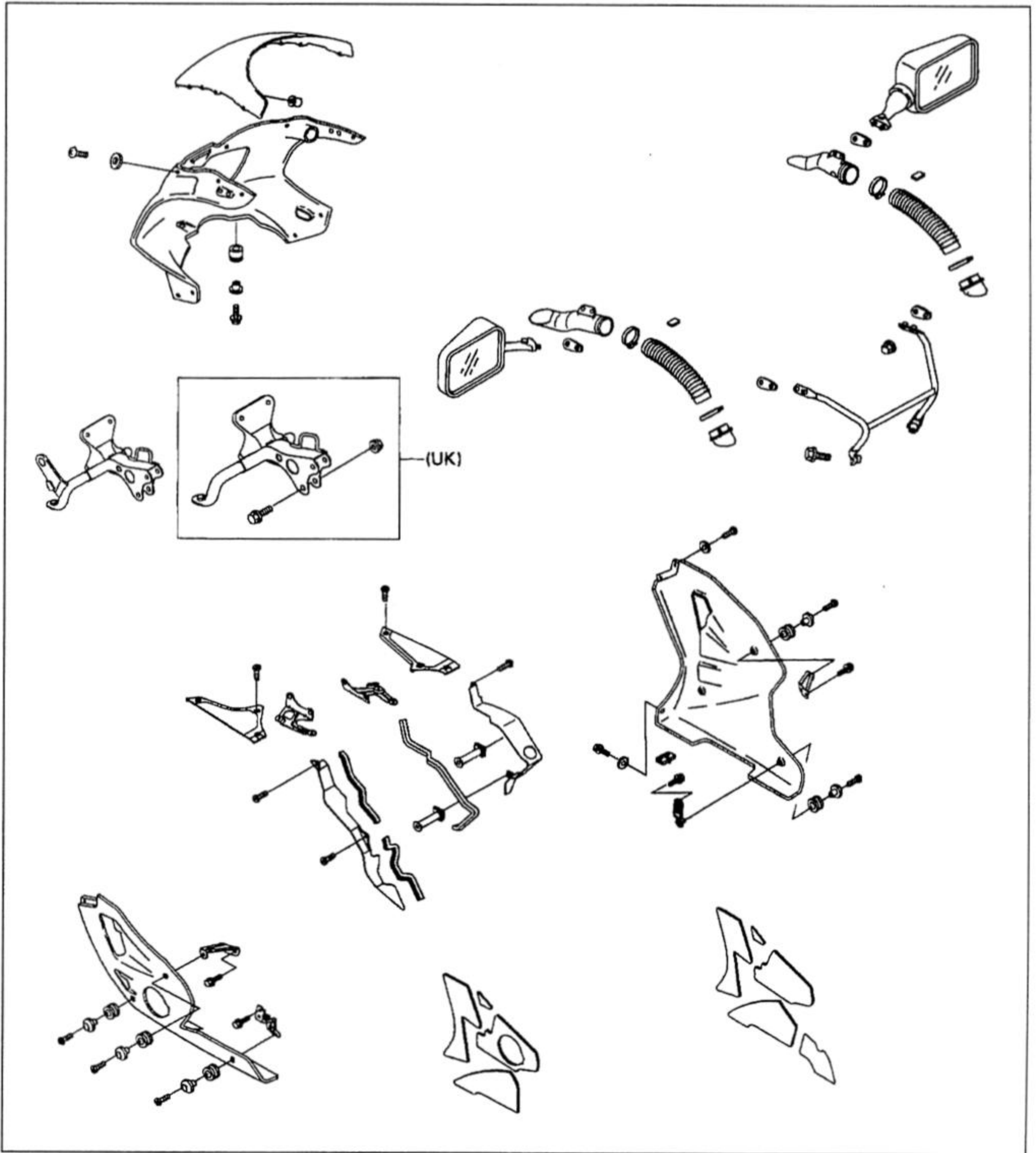
Specifications

| Item | Standard | Service Limit |
|---|---|--|
| Front Fork: | | |
| Rebound damping setting | 6 clicks counterclockwise (front the seated position adjuster turned fully clockwise) | (adjustable range) 12 clicks |
| Spring preload setting | 6 th mark from the top | (adjustable range) 7 makes |
| Fork oil: | | |
| Viscosity | SAE 5W | --- |
| Amount (per side) | 424 ± 2.5 mL | --- |
| Oil level (fully compressed, with spring) | 85 ± 8 mm below from top of outer tube | --- |
| Fork spring free length | 325.1 mm | 319 mm |
| Rear Shock Absorber: | | |
| Rebound damping setting | No. 2 of 4 position, (SG) No. 1 of 4 position | --- |
| Spring preload setting | Spring free length minus 6.5 mm | Spring free length minus 6.5 mm to 24.5 mm |
| Gas pressure | 980 kPa (10 kg/ cm ² , 142 psi) Non-adjustable | --- |

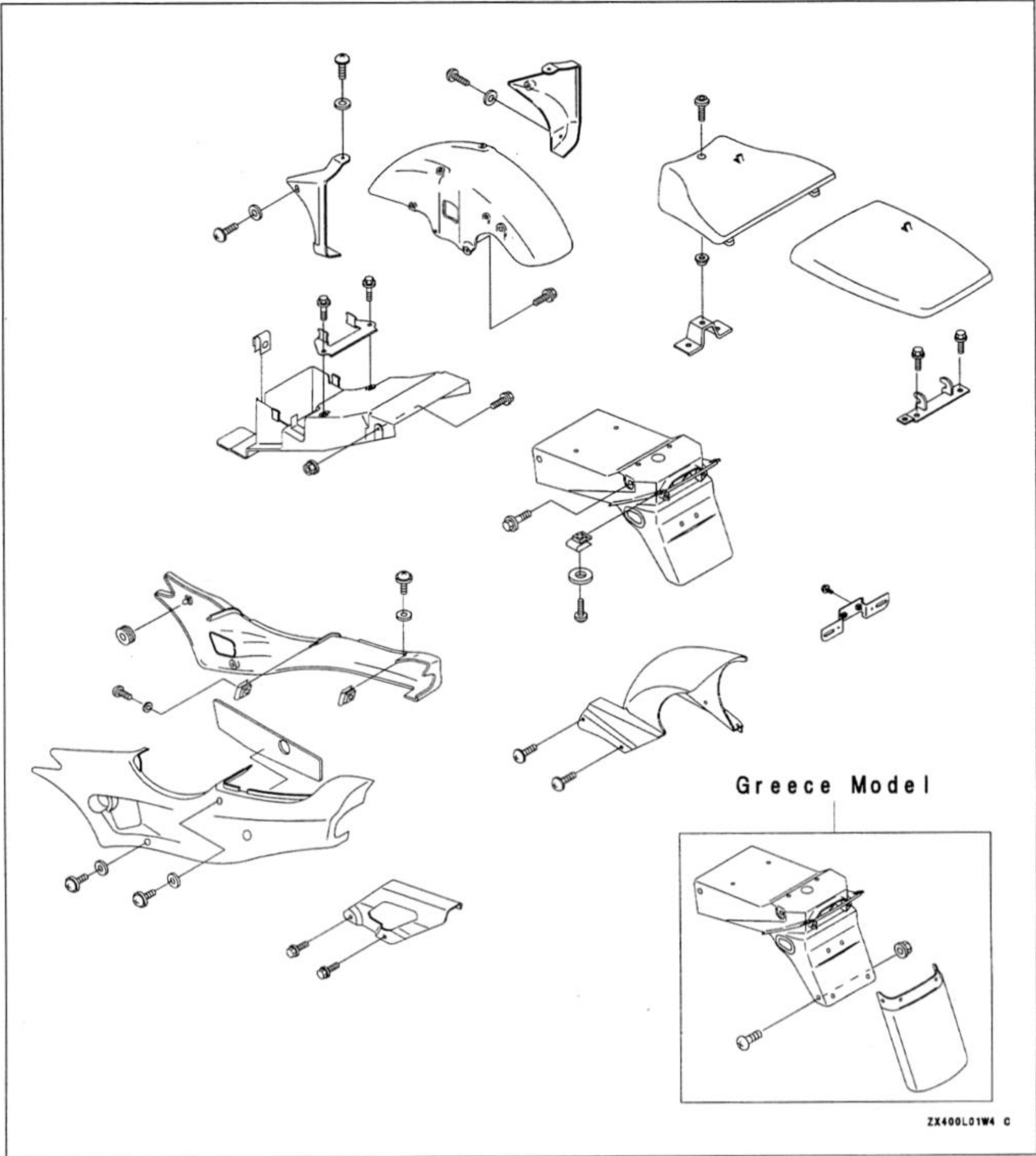
(SG): Singapore Model

Frame

Exploded View



UK : U.K. Model



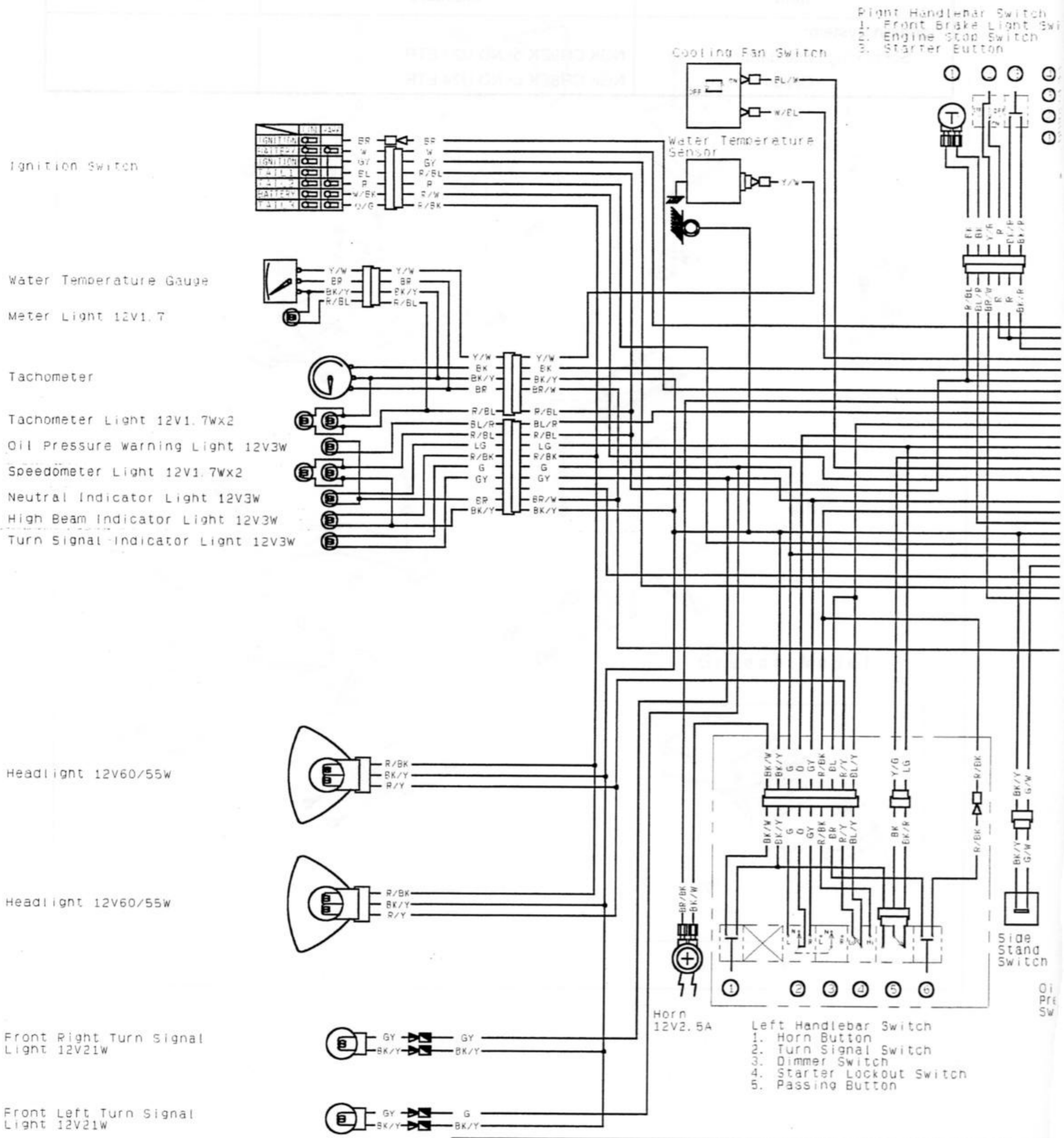
Electrical System

Specifications

| Item | Standard | Service Limit |
|--|--|---------------|
| Ignition System: Spark Plug : Standard ; Option ; | NGK CR9EK or ND U27 ETR NGK CR8EK or ND U24 ETR | |

17-12 SUPPLEMENT - 1999 MODEL

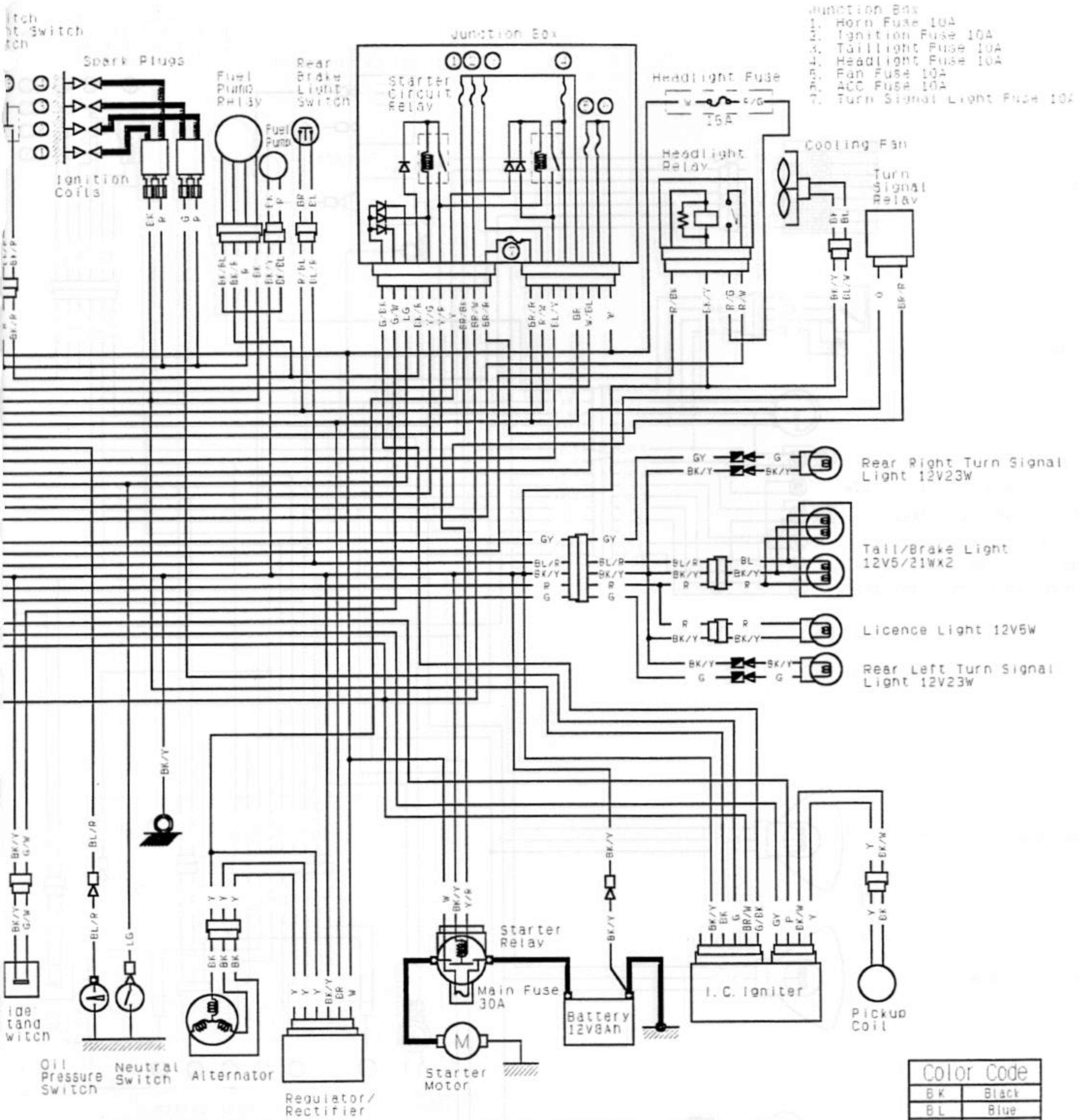
Wiring Diagram (Singapore Model)



LEFT HANDLEBAR SWITCH CONNECTIONS

| Horn Button | | Turn Signal Switch | | | Dimmer Switch | | | Starter Lockout Switch | | | Passing | | | | |
|-------------|------|--------------------|------------|---|---------------|----|-------|------------------------|------|------|--------------|------|----|------|-------|
| Color | BK/W | BK/Y | Color | G | O | GY | Color | R/Y | BL/Y | R/BK | Color | BK/Y | BK | BK/R | Color |
| | | | R | | | | HI | | | | Clutch Lever | | | | |
| Push | | | OFF (Push) | | | | LO | | | | Released | | | | Push |
| | | | L | | | | | | | | Pulled in | | | | |

LA, LB (Austria, Dutch, French, Korea Models)



- Junction Box
- 1. Horn Fuse 10A
 - 2. Ignition Fuse 10A
 - 3. Taillight Fuse 10A
 - 4. Headlight Fuse 10A
 - 5. Rad Fuse 10A
 - 6. ACC Fuse 10A
 - 7. Turn Signal Light Fuse 10A

| | | | |
|----------------|-------|----|------|
| Passing Button | Color | BR | R/BK |
| Push | | | |

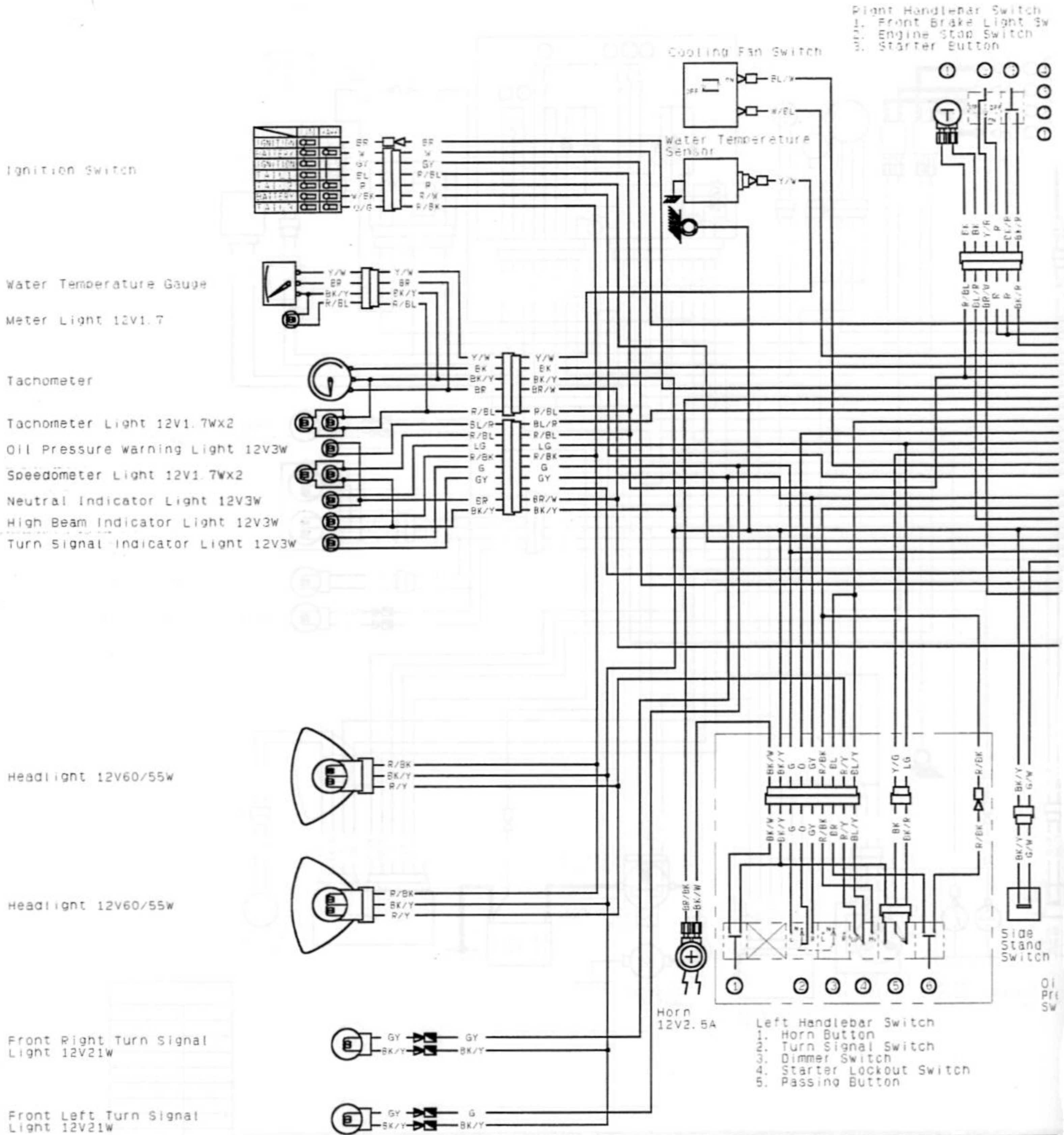
| IGNITION SWITCH CONNECTIONS | | | | | | | |
|-----------------------------|-----------------------------------|---------|----------|-------|-------|---------|-------|
| | Ignition | Battery | Ignition | Tail1 | Tail2 | Battery | Tail3 |
| Color | BR | W | GY | BL | R | W/BK | O/G |
| OFF. LOCK | [Diagram showing switch contacts] | | | | | | |
| ON | [Diagram showing switch contacts] | | | | | | |
| P(PARK) | [Diagram showing switch contacts] | | | | | | |

| RIGHT HANDLEBAR SWITCH CONNECTIONS | | | | | | | | |
|------------------------------------|--------------------|----|----------------|-----|---|-------|------|------|
| Front Brake Light Switch | Engine Stop Switch | | Starter Button | | | | | |
| Color | BK | BK | Color | Y/R | R | Color | BK/R | BK/R |
| Brake Lever | OFF | | Push | | | | | |
| Pulled In | RUN | | Push | | | | | |

| Color Code | |
|------------|-------------|
| BK | Black |
| BL | Blue |
| BR | Brown |
| CH | Chocolate |
| DG | Dark Green |
| G | Green |
| GY | Gray |
| LB | Light Blue |
| LG | Light Green |
| O | Orange |
| P | Pink |
| PU | Purple |
| R | Red |
| W | White |
| Y | Yellow |

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ZX400-L5, L6, L7, L8 (Austria, Dutch, French, Korea Models)

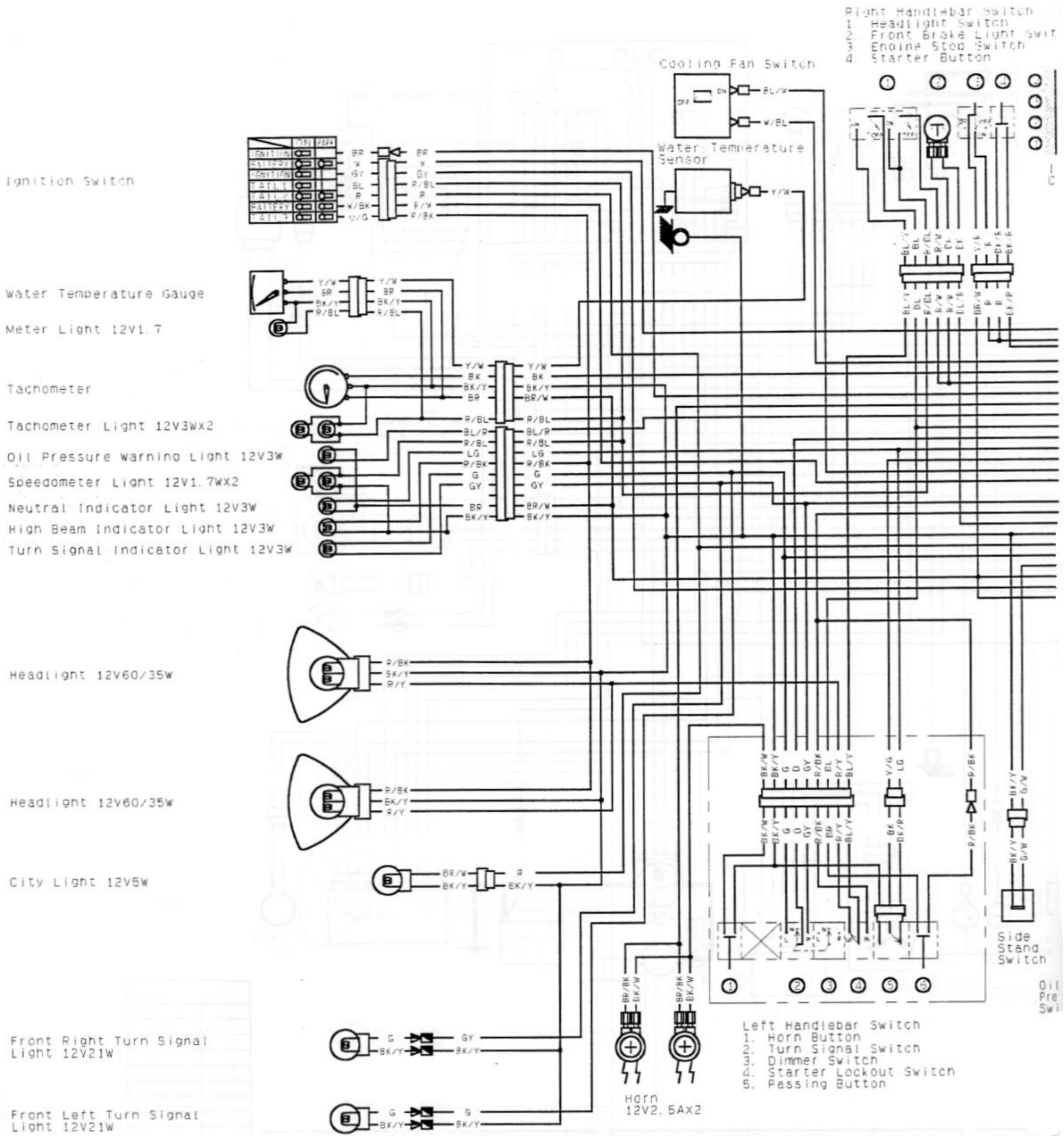


Right Handlebar Switch
 1. Front Brake Light Sw
 2. Engine Stop Switch
 3. Starter Button

Left Handlebar Switch
 1. Horn Button
 2. Turn Signal Switch
 3. Dimmer Switch
 4. Starter Lockout Switch
 5. Passing Button

| LEFT HANDLEBAR SWITCH CONNECTIONS | | | | | | | | | | | | | | |
|-----------------------------------|--------------------|---------------|-----|-----|------------------------|-------|-----|---------|------|--------------|------|-----|------|-------|
| Horn Button | Turn Signal Switch | Dimmer Switch | | | Starter Lockout Switch | | | Passing | | | | | | |
| Color | BK/W BK/Y | Color | G | O | GY | Color | R/Y | BL/Y | R/BK | Color | BK/Y | BK | BK/R | Color |
| Push | OFF (Push) | R | --- | --- | --- | HI | --- | --- | --- | Clutch Lever | --- | --- | --- | Push |
| | L | --- | --- | --- | --- | LO | --- | --- | --- | Released | --- | --- | --- | --- |
| | | | | | | | | | | Pulled in | --- | --- | --- | |

ZX400-L9 Wiring Diagram (U.K. Model)

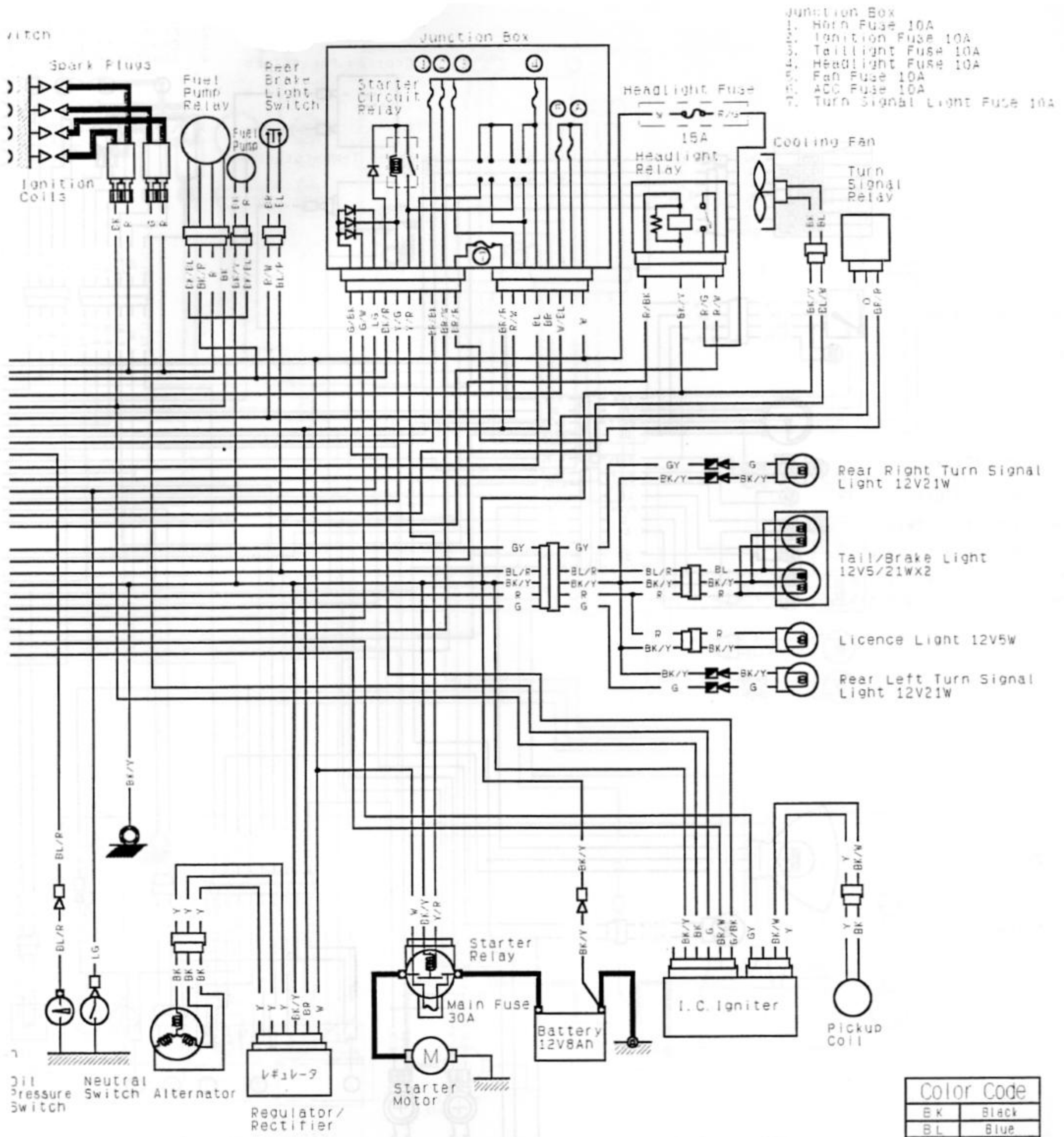


- Right Handlebar Switch
1. Headlight Switch
 2. Front Brake Light Switch
 3. Engine Stop Switch
 4. Starter Button

- Left Handlebar Switch
1. Horn Button
 2. Turn Signal Switch
 3. Dimmer Switch
 4. Starter Lockout Switch
 5. Passing Button

| LEFT HANDLEBAR SWITCH CONNECTIONS | | | | | | | | | |
|-----------------------------------|--------------------|---------------|------------------------|----------------|--------------|-------|--------------|-------|---------|
| Horn Button | Turn Signal Switch | Dimmer Switch | Starter Lockout Switch | Passing Button | | | | | |
| Color | BK/W BK/Y | Color | G O GY | Color | R/Y BL/YR/BK | Color | BK/Y BK BK/R | Color | BR R/BK |
| Push | OFF (Push) | HI | Clutch Level | Push | | | | | |
| | L | LO | Released | Push | | | | | |
| | | | Pulled in | | | | | | |

| IGNI | |
|-----------|-----------|
| Color | BR |
| OFF. LOCK | OFF. LOCK |
| ON | ON |
| P (PARK) | P (PARK) |



- Junction Box
1. Horn Fuse 10A
 2. Ignition Fuse 10A
 3. Taillight Fuse 10A
 4. Headlight Fuse 10A
 5. Fan Fuse 10A
 6. ACC Fuse 10A
 7. Turn Signal Light Fuse 10A

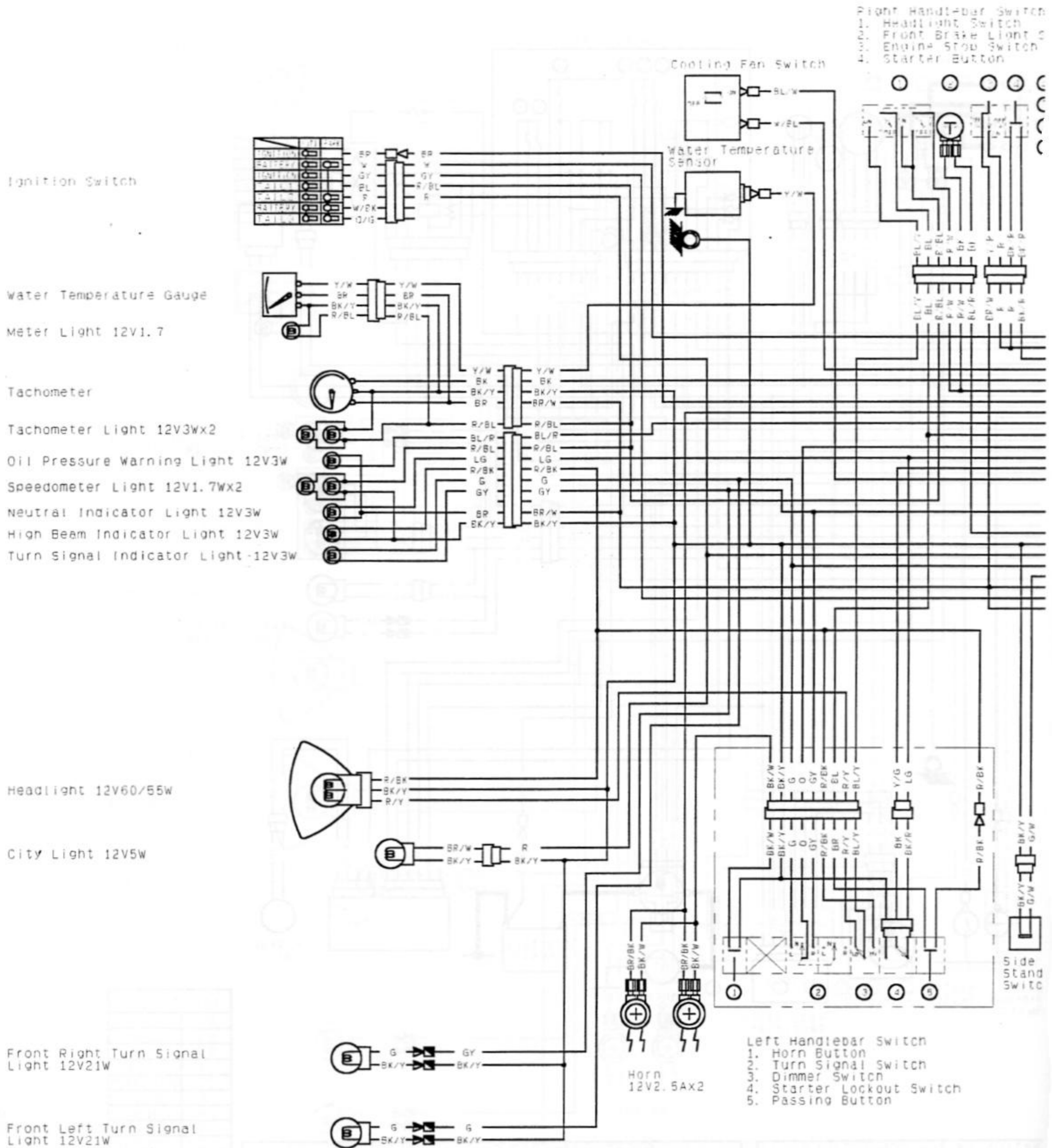
| IGNITION SWITCH CONNECTIONS | | | | | | |
|-----------------------------|---------|----------|-------|-------|---------|-------|
| Ignition | Battery | Ignition | Tail1 | Tail2 | Battery | Tail3 |
| BR | W | GY | BL | R | W/BK | O/G |
| | | | | | | |

| RIGHT HANDLEBAR SWITCH CONNECTIONS | | | | | | | |
|------------------------------------|------|--------------------------|------|--------------------|-----------------------------------|----------------|------|
| Headlight Switch | | Front Brake Light Switch | | Engine Stop Switch | | Starter Button | |
| Color | BL/Y | BL | R/BL | R/W | Color | BK | BK |
| OFF | | | | | Color <td>Y/R <td>R</td> </td> | Y/R <td>R</td> | R |
| | | | | | Color <td>BK/P</td> <td>BK/R</td> | BK/P | BK/R |
| | | | | | Color <td></td> <td></td> | | |
| ON | | | | | Color <td></td> <td></td> | | |

| Color Code | |
|------------|-------------|
| BK | Black |
| BL | Blue |
| BR | Brown |
| CH | Chocolate |
| DG | Dark Green |
| G | Green |
| GY | Gray |
| LB | Light Blue |
| LG | Light Green |
| O | Orange |
| P | Pink |
| PU | Purple |
| R | Red |
| W | White |
| Y | Yellow |

17-18 SUPPLEMENT - 1999 MODEL

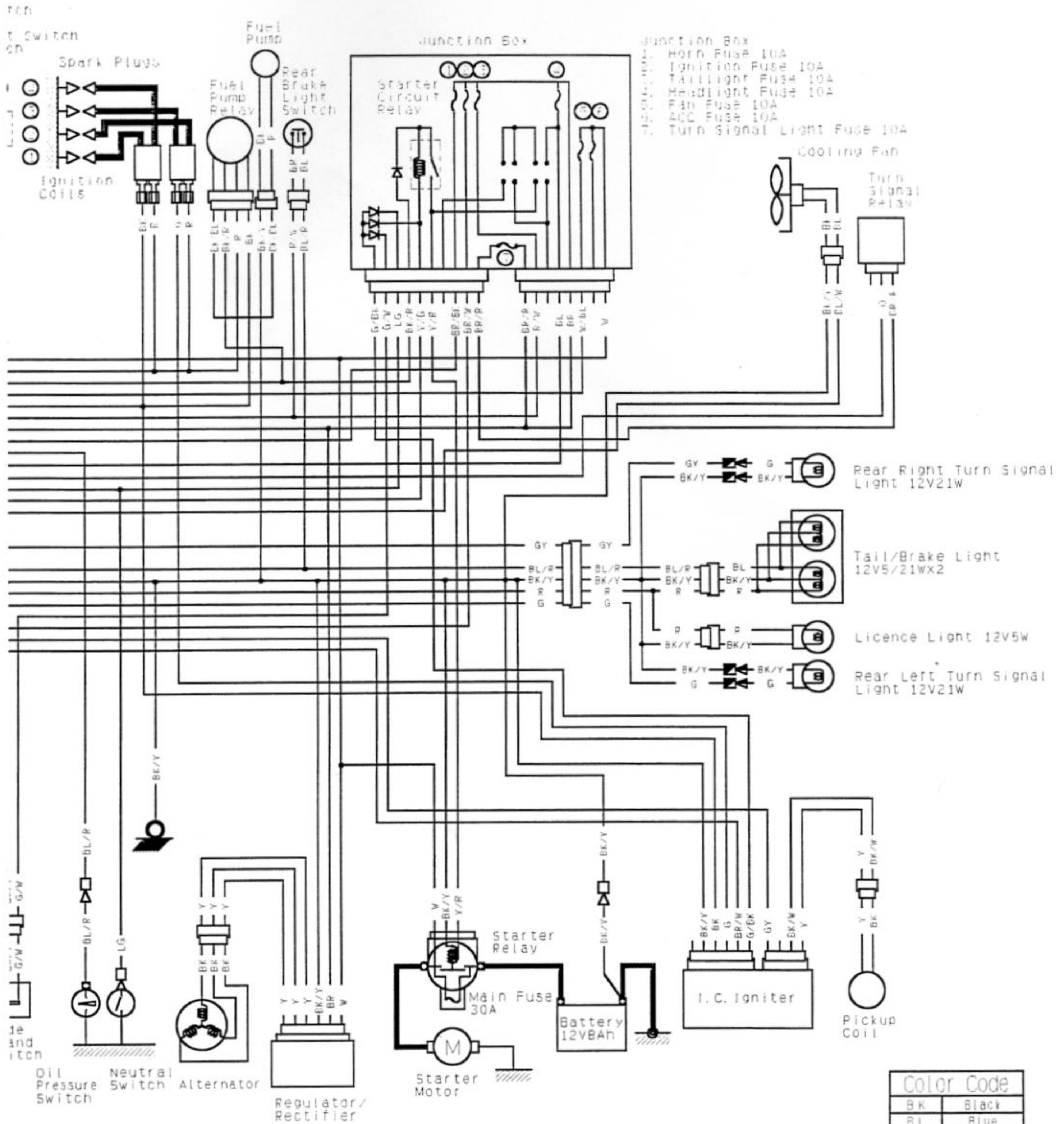
ZX400-L9 Wiring Diagram (Austria, Dutch, German, German, Greece, Italy Models)



LEFT HANDLEBAR SWITCH CONNECTIONS

| Horn Button | | Turn Signal Switch | | Dimmer Switch | | | Starter Lockout Switch | | | Passing Button | |
|-------------|--------|--------------------|--------|---------------|--------|-----------|------------------------|--------------|--------|----------------|--------|
| Color | Wiring | Color | Wiring | Color | Wiring | Color | Wiring | Color | Wiring | Color | Wiring |
| | BR/BK | R | BK/Y | H | R/Y | HI | BL/YR/BK | clutch Lever | BK/Y | BK | BK/R |
| Push | — | OFF (Push) | — | LO | — | Released | — | Push | — | — | — |
| | | L | — | | — | Pulled in | — | | — | | — |

| IGNITION | |
|-----------|--------|
| Color | Wiring |
| OFF. LOCK | BR |
| ON | — |
| P (PARK) | — |



- JUNCTION BOX
- 1. Horn Fuse 10A
 - 2. Ignition Fuse 10A
 - 3. Taillight Fuse 10A
 - 4. Headlight Fuse 10A
 - 5. Park Fuse 10A
 - 6. ACC Fuse 10A
 - 7. Turn Signal Light Fuse 10A

| Color Code | |
|------------|-------------|
| BK | Black |
| BL | Blue |
| BR | Brown |
| CH | Chocolate |
| DG | Dark Green |
| G | Green |
| GY | Gray |
| LB | Light Blue |
| LG | Light Green |
| O | Orange |
| P | Pink |
| PU | Purple |
| R | Red |
| W | White |
| Y | Yellow |

| IGNITION SWITCH CONNECTIONS | | | | | | |
|-----------------------------|---------|----------|-------|--------|---------|--------|
| Ignition | Battery | Ignition | Taill | Taill2 | Battery | Taill3 |
| BR | W | GY | BL | R | W/BK | O/G |
| ON | | | | | | |

| RIGHT HANDLEBAR SWITCH CONNECTIONS | | | | | | | | | | | | | |
|------------------------------------|------|----|--------------------------|-----|-------------|--------------------|----|-------|----------------|---|-------|------|------|
| Headlight Switch | | | Front Brake Light Switch | | | Engine Stop Switch | | | Starter Button | | | | |
| Color | BL/Y | BL | R/BL | R/W | Color | BK | BK | Color | Y/R | R | Color | BK/R | BK/P |
| OFF | | | | | Brake Level | | | OFF | | | | | |
| ON | | | | | Pulled In | | | RUN | | | | | |