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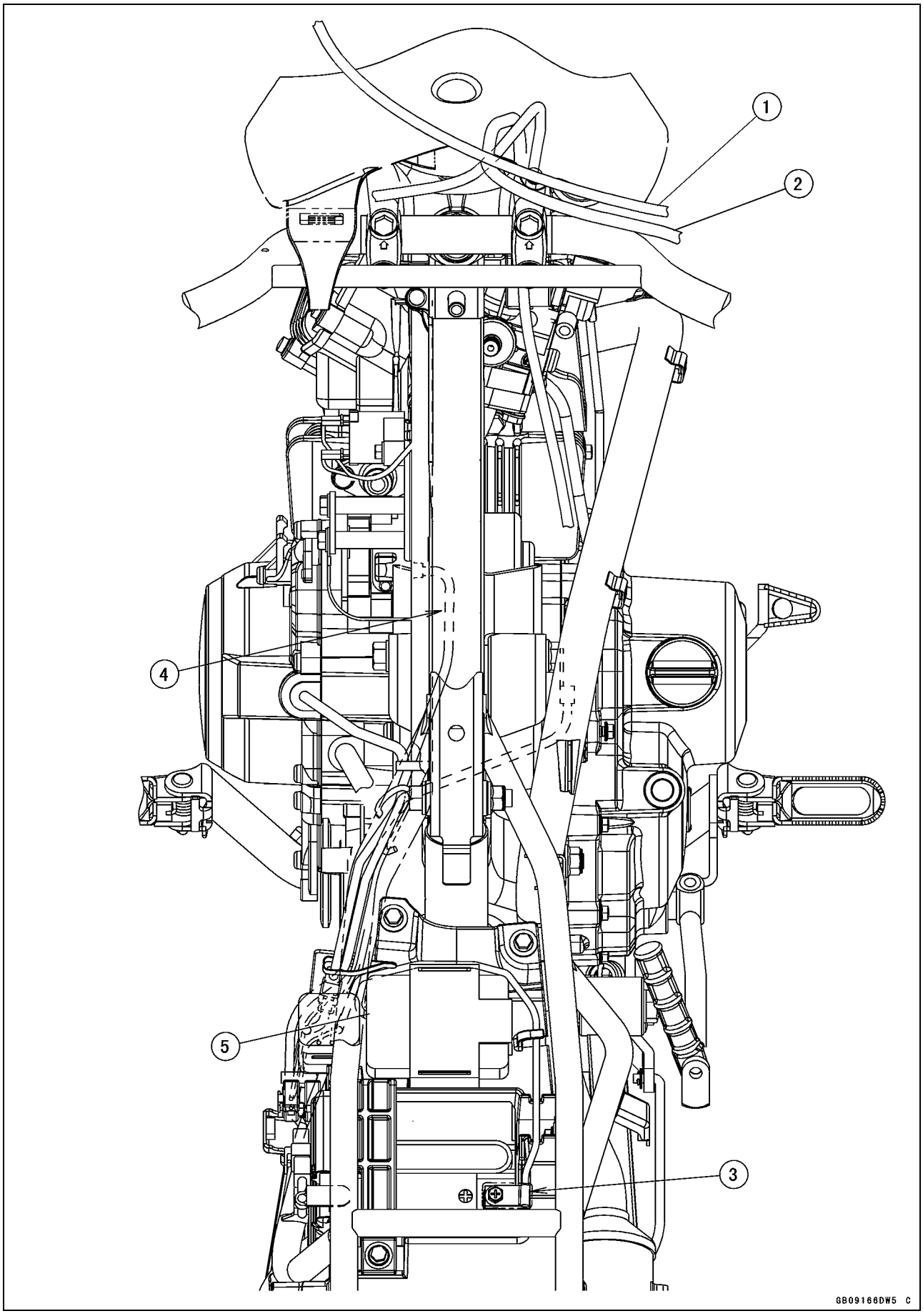
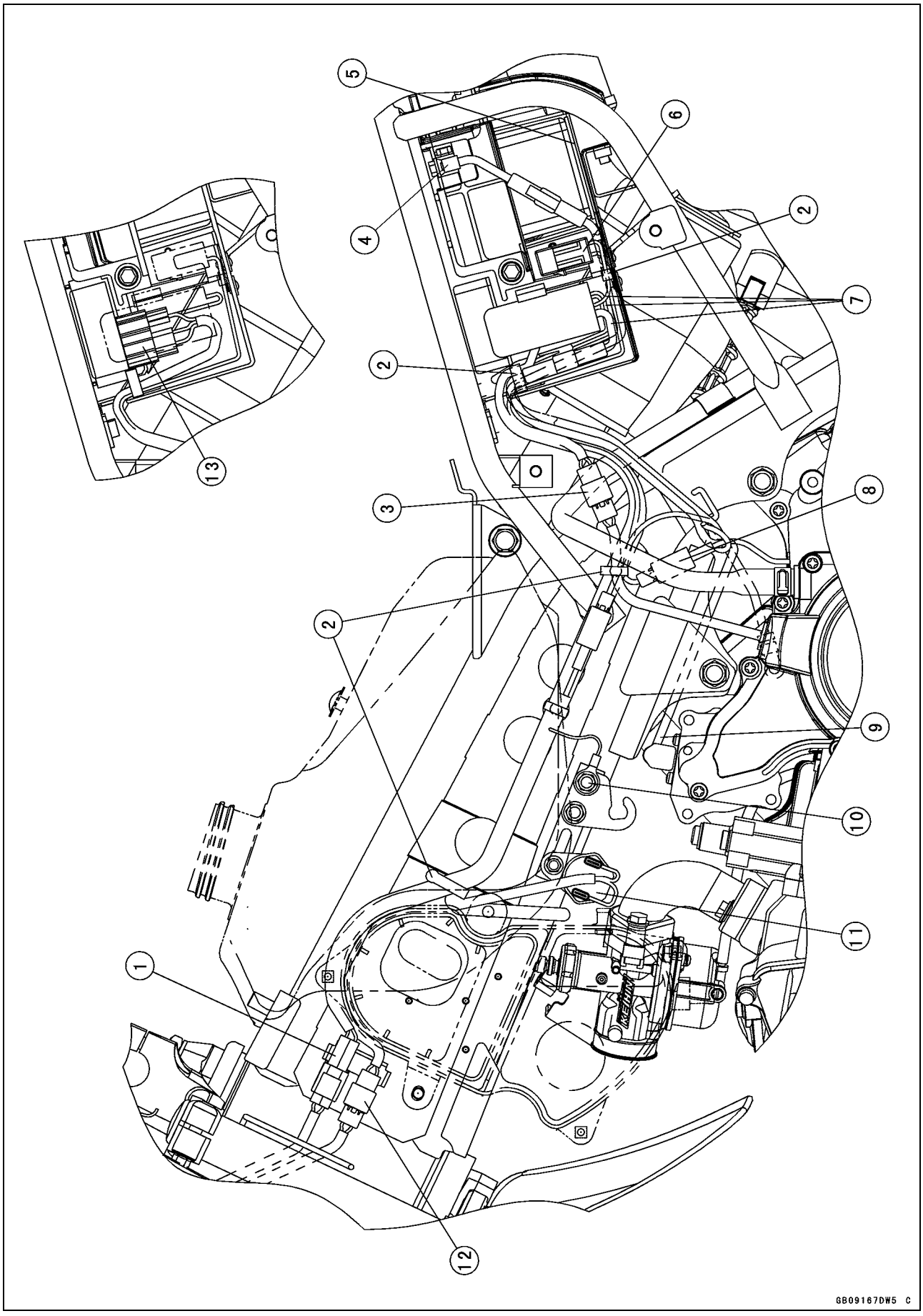
Cable, Wire, and Hose Routing



Cable, Wire, and Hose Routing

1. Brake Cable
2. Throttle Cable
3. Battery Positive (+) Cable
4. Route the starter motor cable through the inside of engine mount.
5. Igniter

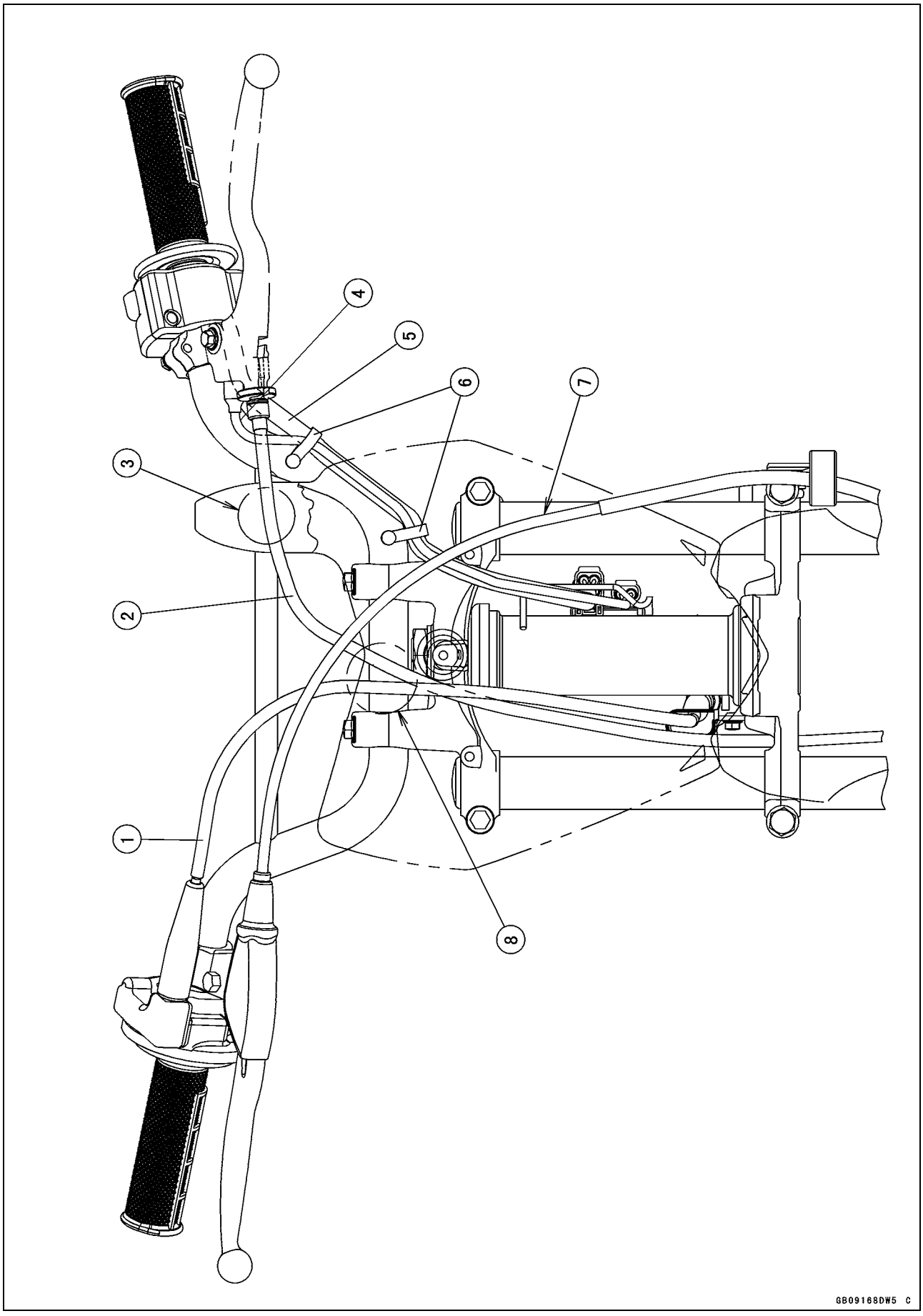
Cable, Wire, and Hose Routing



Cable, Wire, and Hose Routing

1. Left Switch Housing Lead Connector
2. Clamps
3. Alternator Lead Connector
4. Battery Negative (–) Cable
5. Damper
6. Fuse
7. Starter Relay Leads
8. Gear Position Switch Lead Connector
9. Starter Motor Cable
10. Frame Ground Lead Terminal
11. Ignition Coil
12. Starter Lockout Switch Lead Connector (KLX110D Models)
13. Igniter

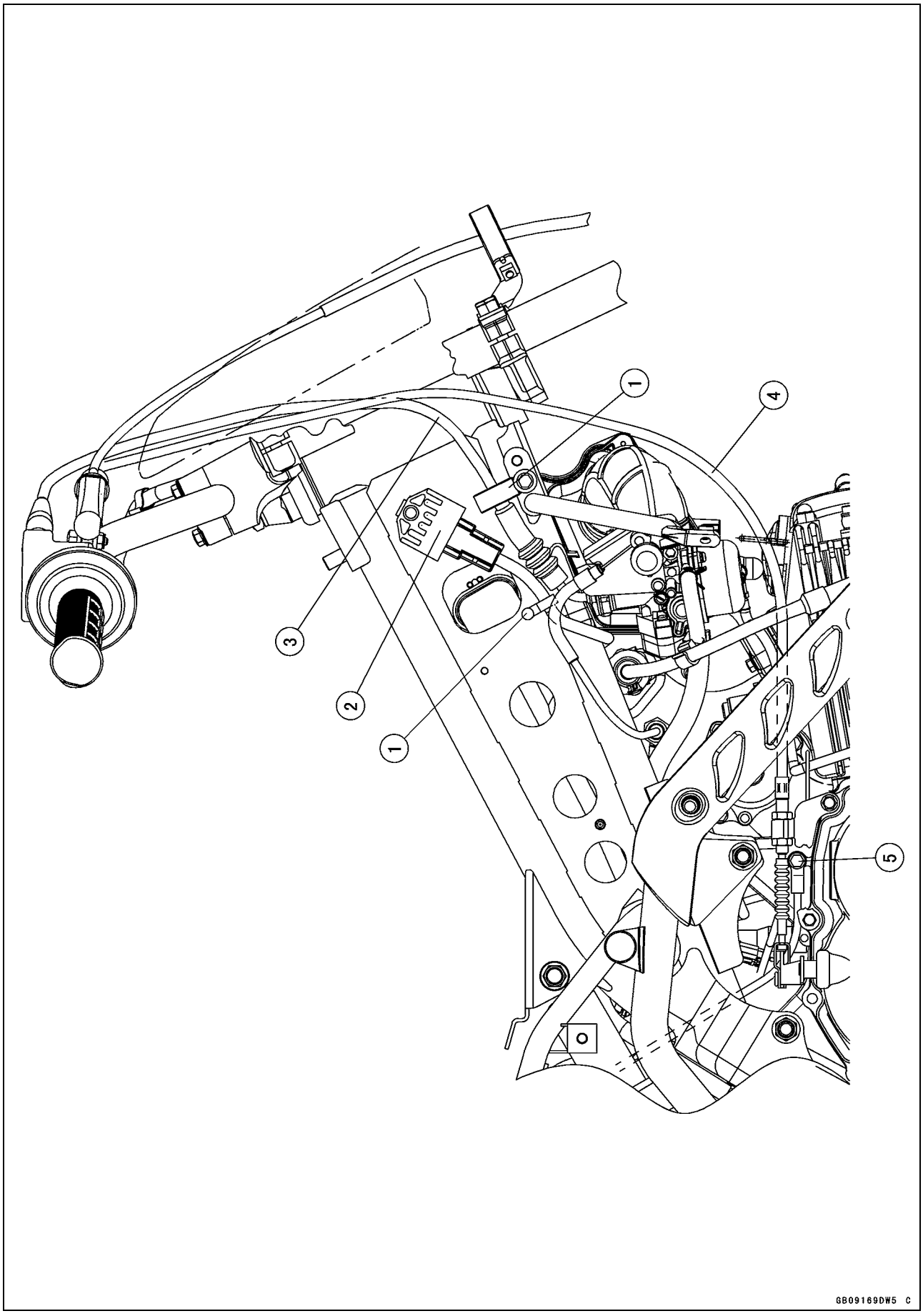
Cable, Wire, and Hose Routing



Cable, Wire, and Hose Routing

1. Throttle Cable
2. Clutch Cable (KLX110D Models)
3. Route the clutch cable in front of the band of number plate.
4. Starter Lockout Switch Lead (KLX110D Models)
5. Left Switch Housing Lead
6. Clamps
7. Route the brake cable in front of the number plate.
8. Route the throttle cable and clutch cable inside of the number plate.

Cable, Wire, and Hose Routing



Cable, Wire, and Hose Routing

1. Clamps
2. Regulator/Rectifier
3. Throttle Cable
4. Clutch Cable (KLX110D Models)
5. Engine Ground Lead Terminal

Troubleshooting Guide

This is not an exhaustive list, giving every possible cause for each problem listed. it is meant simply as a rough guide to assist the troubleshooting for some of the more common difficulties.

Engine Doesn't Start, Starting Difficulty:

Starter motor not rotating:
- Engine stop switch not ON
- Starter lockout switch trouble (KLX110D)
- Gear position switch trouble
- Starter motor trouble
- Battery voltage low
- Starter relay not contacting or operating
- Starter button not contacting
- Wiring open or shorted
- Engine stop switch trouble
- Fuse blown

Starter motor rotating but engine doesn't turn over:
- Starter clutch trouble
- Starter idle gear trouble

Engine won't turn over:
- Valve seizure
- Cylinder, piston seizure
- Crankshaft seizure
- Connecting rod small end, big end seizure
- Transmission gear or bearing seizure
- Camshaft seizure
- Starter idle gear seizure
- Kick shaft return spring broken
- Kick ratchet gear not engaging

No fuel flow:
- No fuel in tank
- Fuel tank cap air vent obstructed
- Fuel tap clogged
- Fuel tap turned off
- Fuel line clogged
- Carburetor float valve clogged

Engine flooded:
- Fuel level in carburetor float bowl too high
- Float valve worn or jammed with foreign matter
- Starting technique faulty (When flooded, crank the engine with the throttle fully opened to allow more air to reach the engine.)

Fuel/air mixture incorrect:
- Pilot screw and/or idle adjusting screw maladjusted
- Pilot jet or air passage clogged
- Air cleaner clogged, poorly sealed or missing
- Starter jet clogged

No spark; spark weak:
- Engine stop switch turned OFF
- Spark plug dirty, broken or gap maladjusted
- Spark plug cap or ignition coil lead trouble
- Spark plug cap shorted or not in good contact
- Spark plug incorrect
- Igniter trouble
- Crankshaft sensor trouble
- Ignition coil trouble
- Engine stop switch shorted
- Gear position switch trouble
- Wiring shorted or open
- Rotor damaged

Compression Low:
- Spark plug loose
- Cylinder head not sufficiently tightened down
- No valve clearance
- Cylinder, piston worn
- Piston ring bad (worn, weak, broken or sticking)
- Piston ring/groove clearance excessive
- Cylinder head gasket damaged
- Cylinder head warped
- Cylinder gasket damaged
- Valve spring broken or weak
- Valve not seating properly (valve bent, deformed, worn or carbon accumulation on the seating surface)

Poor Running at Low Speed:

Spark weak:
- Battery voltage low
- Spark plug dirty, broken or gap maladjusted
- Spark plug cap or ignition coil lead trouble
- Spark plug cap shorted or not in good contact
- Spark plug incorrect
- Igniter trouble
- Crankshaft sensor trouble
- Rotor damaged
- Ignition coil trouble
- Wiring connector not in good contact

Fuel/air mixture incorrect:
- Pilot screw and/or idle adjusting screw maladjusted
- Pilot jet or air passage clogged
- Needle Jet or air passage clogged
- Air cleaner clogged, poorly sealed or missing
- Choke valve closed
- Fuel level in carburetor float bowl too high or too low
- Fuel tank cap air vent obstructed
- Fuel tap clogged
- Carburetor holder loose
- Air cleaner duct loose

Troubleshooting Guide

Compression low:
- Spark plug loose
- Cylinder head not sufficiently tightened down
- No valve clearance
- Cylinder, piston worn
- Piston ring bad (worn, weak, broken or sticking)
- Piston ring/groove clearance excessive
- Cylinder head gasket damaged
- Cylinder head warped
- Cylinder gasket damaged
- Valve spring broken or weak
- Valve not seating properly (valve bent, deformed, worn or carbon accumulation on the seating surface)
- Decompression trouble

Other:
- Igniter trouble
- Engine oil level too high
- Engine oil viscosity too high
- Brake dragging
- Drive train trouble
- Engine overheating
- Clutch slipping

Poor Running or No Power at High Speed:

Firing incorrect:
- Spark plug dirty, broken or gap maladjusted
- Spark plug cap or ignition coil lead trouble
- Spark plug cap shorted or not in good contact
- Spark plug incorrect
- Igniter trouble
- Crankshaft sensor trouble
- Rotor damaged
- Ignition coil trouble
- Wiring connector not in good contact

Fuel/air mixture incorrect:
- Choke valve closed
- Main jet clogged or wrong size
- Jet needle or needle jet worn
- Air jet clogged
- Fuel level in carburetor float bowl too high or too low
- Needle Jet or air passage clogged
- Air cleaner clogged, poorly sealed or missing
- Air cleaner duct loose
- Water or foreign matter in fuel
- Carburetor holder loose
- Fuel tank cap air vent obstructed
- Fuel tap clogged
- Fuel line clogged

Compression low:
- Spark plug loose
- Cylinder head not sufficiently tightened down
- No valve clearance
- Cylinder, piston worn
- Piston ring bad (worn, weak, broken or sticking)
- Piston ring/groove clearance excessive
- Cylinder head gasket damaged
- Cylinder head warped
- Cylinder gasket damaged
- Valve spring broken or weak
- Valve not seating properly (valve bent, deformed, worn or carbon accumulation on the seating surface.)
- Decompression trouble

Knocking:
- Carbon built up in combustion chamber
- Fuel poor quality or incorrect
- Spark plug incorrect
- Igniter trouble

Other:
- Throttle valve won't fully open
- Brake dragging
- Air cleaner clogged
- Water or foreign matter in fuel
- Clutch slipping
- Overheating
- Engine oil level too high
- Engine oil viscosity too high
- Drive chain trouble
- Crankshaft bearing worn or damaged

Engine Overheating:

Firing incorrect:
- Spark plug dirty, broken or maladjusted
- Spark plug incorrect
- Igniter trouble

Fuel/air mixture incorrect:
- Main jet clogged or wrong size
- Fuel level in carburetor float bowl too low
- Carburetor holder loose
- Air cleaner clogged, poorly sealed or missing
- Air cleaner duct loose
- Choke valve closed

Compression high:
- Carbon built up in combustion chamber

Engine load faulty:
- Clutch slipping
- Engine oil level too high
- Engine oil viscosity too high
- Brake dragging
- Drive chain trouble

Lubrication inadequate:
- Engine oil level too low
- Engine oil poor quality or incorrect

Troubleshooting Guide

Clutch Operation Faulty:

Clutch slipping:
- No clutch release play (KLX110C)
- No clutch lever play (KLX110D)
- Clutch cable maladjusted (KLX110D)
- Clutch inner cable sticking (KLX110D)
- Friction plate worn or warped
- Steel plate worn or warped
- Clutch spring broken or weak
- Clutch release maladjusted (KLX110C)
- Clutch release function trouble
- Clutch hub or housing unevenly worn

Clutch not disengaging properly:
- Clutch release play excessive (KLX110C)
- Clutch lever play excessive (KLX110D)
- Clutch spring compression uneven
- Engine oil deteriorated
- Engine oil viscosity too high
- Engine oil level too high
- Clutch housing seized
- Clutch release function trouble
- Clutch hub nut loose
- Clutch plate warped or rough
- Clutch hub spline damaged

Gear Shifting Faulty:

Doesn't go into gear; shift pedal doesn't return:
- Clutch not disengaging
- Shift fork bent, worn, or seized
- Shift return spring pin loose
- Shift return spring weak or broken
- Shift shaft lever broken
- Pawl guide plate broken
- Shift pawl broken
- Shift pawl spring tension loose
- Gear seized
- Gear set lever operation trouble
- Shift drum broken

Jumps out of gear:
- Shift fork ear worn, bent
- Gear groove worn
- Gear dogs and/or dog holes worn
- Shift drum groove worn
- Gear set lever spring weak or broken
- Shift fork guide pin worn
- Drive shaft, output shaft and/or gear splines worn

Overshifts:
- Gear set lever spring weak or broken
- Pawl guide plate worn

Abnormal Engine Noise:

Knocking:
- Igniter trouble
- Carbon built up in combustion chamber
- Fuel poor quality or incorrect
- Spark plug incorrect
- Overheating

Piston slap:
- Cylinder/piston clearance excessive
- Cylinder, piston worn
- Connecting rod bent
- Piston pin, piston pin hole worn

Valve noise:
- Valve clearance incorrect
- Valve spring broken or weak
- Camshaft bearing or cam face worn
- Valve lifter worn

Other noise:
- Connecting rod big end and/or small end clearance excessive
- Piston ring worn, broken or stuck
- Piston seizure, damaged
- Cylinder head gasket leaking
- Exhaust pipe leaking at cylinder head connection
- Crankshaft runout excessive
- Engine mounts loose
- Crankshaft bearing worn
- Camshaft chain tensioner trouble
- Camshaft chain, sprocket, chain guide worn
- Primary gear worn or damaged
- Alternator rotor loose

Abnormal Drive Train Noise:

Clutch noise:
- Clutch housing finger and friction plate tang worn
- Clutch housing gear worn
- Metal chips jammed in clutch housing gear teeth

Transmission noise:
- Bearings worn
- Transmission gears worn or chipped
- Metal chips jammed in gear teeth
- Engine oil insufficient, low viscosity
- Kick ratchet gear not properly disengaging from kick gear
- Kick shaft idle gear worn or chipped

Drive chain noise:
- Drive chain maladjusted
- Drive chain worn
- Rear and/or engine sprocket worn
- Drive chain lubrication insufficient
- Rear wheel misaligned

Abnormal Frame Noise:

Front fork noise:
- Oil insufficient or too thin
- Spring weak or broken

Rear shock absorber noise:
- Shock absorber damaged

Troubleshooting Guide

Brake noise:
Brake linings over worn or worn unevenly
Drum worn unevenly or scored
Brake spring(s) weak or broken
Foreign matter in hub
Brake not properly adjusted
Other noise:
Bracket, nut, bolt, etc., not properly mounted or tightened

Abnormal Exhaust Color:

White smoke:
Piston oil ring worn
Cylinder worn
Valve oil seal damaged
Valve guide worn
Engine oil level too high
Black smoke:
Air cleaner element clogged
Main jet too large or fallen off
Choke valve closed
Fuel level in carburetor float bowl too high
Brown smoke:
Main jet too small
Fuel level in carburetor float bowl too low
Air cleaner duct loose
Air cleaner poorly sealed or missing

Handling and/or Stability Unsatisfactory:

Handlebar hard to turn:
Cable, hose, wire routing incorrect
Steering stem nut too tight
Steering stem bearing damaged
Steering stem bearing lubrication inadequate
Steering stem bent
Tire air pressure too low
Handlebar shakes or excessively vibrates:
Tire worn
Swingarm pivot bearings worn
Rim warped or not balanced
Spokes loose
Wheel bearing worn
Handlebar holder bolt loose
Steering stem head nut loose
Front, rear axle runout excessive
Handlebar pulls to one side:
Frame bent
Rear wheel misalignment
Swingarm bent or twisted
Swingarm pivot shaft runout excessive
Steering maladjusted
Steering stem bent
Front fork bent
Right and left front fork oil level uneven
Suspension operation trouble:
(Too hard)
Tire air pressure too high
Front fork oil excessive
Front fork oil viscosity too high
Front fork bent
(Too soft)
Front fork oil insufficient or leaking
Front fork oil viscosity too low
Front fork, rear shock absorber spring weak
Rear shock absorber oil or gas leaking
Tire air pressure too low

Brake Doesn't Hold:

Brake not properly adjusted
Brake linings over worn or worn unevenly
Drum worn unevenly or scored
Cam, camshaft, shaft hole worn
Oil, grease on lining and drum
Dirt, water between lining and drum
Overheated

Battery Trouble:

Battery discharged:
Charge insufficient
Battery faulty (too low terminal voltage)
Battery lead making poor contact
Alternator trouble
Wiring faulty
Regulator/rectifier trouble
Battery overcharged:
Alternator trouble
Regulator/rectifier trouble
Battery faulty