



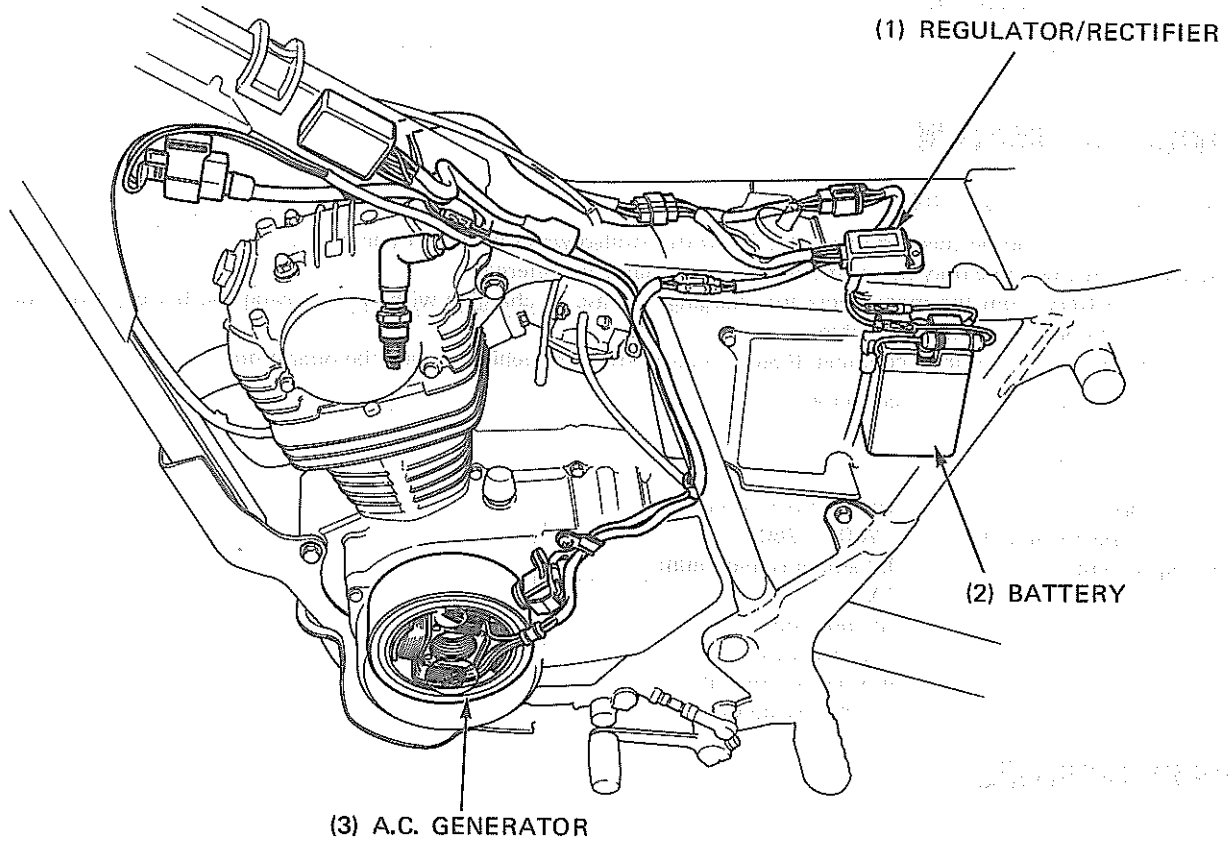
BATTERY/CHARGING SYSTEM

BATTERIE/LADESYSTEM

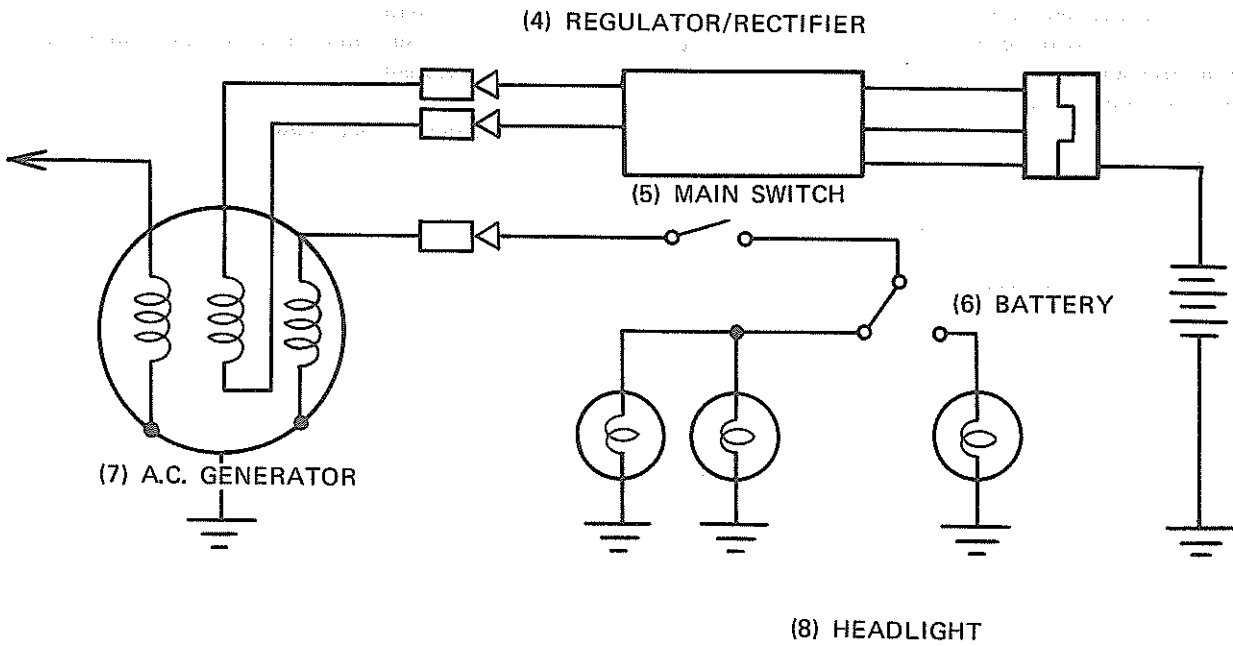
BATTERIE/CIRCUIT DE CHARGE

- (1) REGLER/GLEICHRICHTER
- (2) BATTERIE
- (3) LICHTMASCHINE
- (4) REGLER/GLEICHRICHTER
- (5) ZÜNDSCHALTER
- (6) BATTERIE
- (7) LICHTMASCHINE
- (8) SCHEINWERFER

- (1) REGULATEUR/REDRESSEUR
- (2) BATTERIE
- (3) GENERATRICE DE COURANT
ALTERNATIF
- (4) REGULATEUR/REDRESSEUR
- (5) COMMUTATEUR PRINCIPAL
- (6) BATTERIE
- (7) GENERATRICE DE COURANT
ALTERNATIF
- (8) PHARE



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13. BATTERY/ CHARGING SYSTEM



HONDA
TL125-TLR200

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SERVICE INFORMATION

GENERAL INSTRUCTIONS

Battery acid level should be checked regularly. Fill with distilled water whenever necessary.

Quick charge must be done only in an emergency; slow-charge is preferred.

Remove the battery from the motorcycle for charging. In case of charging without removing the battery from the vehicle, make sure to disconnect the battery cable.

Hydrogen gas is generated during charging. Keep fire away from the vehicle during the operation.

A.C. generator removal Section 9

SPECIFICATIONS

Battery capacity	6V, 2 ampere-hour
Electrolyte specific gravity	1.260-1.280
Charging current	0.2 amperes maximum
Fuse	7A
Rectifier	Silicon diode
Generator	A.C. generator alternating current 0.1045 kw/5,000 min ⁻¹ (rpm)

TROUBLESHOOTING

No power-key turned on

1. Dead battery
 - Battery not charged
 - Battery electrolyte evaporated
 - Charging system false
2. Battery cable disconnected
3. Main fuse burned out
4. Ignition switch false

Low power-key turned on

1. Weak battery
 - Battery electrolyte level low
 - Battery run down
 - Charging system false
2. Battery connection loose

Low power-engine running

1. Weak battery
 - Battery electrolyte level low

Intermittent power

1. Battery connection loose
2. Charging system connection loose
3. Loose connection or short circuit in ignition system
4. Loose connection or short circuit in ignition system

Charging system false

1. Wire or connection loose, broken, or shorted
2. Rectifier false
3. A.C. generator false

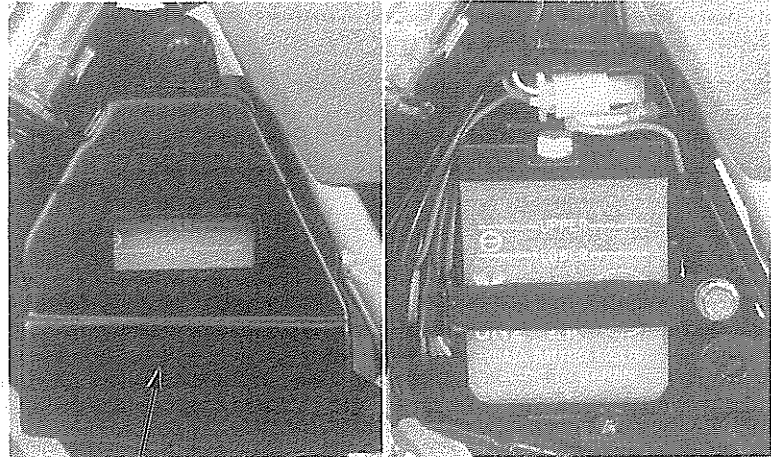
BATTERY

BATTERY REMOVAL

Remove the battery box cover.
Disconnect the wire connections.
Remove the battery holder and the battery.

NOTE

Battery installation is essentially the reverse order of the removal mentioned above. Make sure to insert the battery into the breather tube securely.



(1) BATTERY BOX COVER

SPECIFIC GRAVITY INSPECTION

Inspect each cell by drawing electrolyte into a hydrometer.

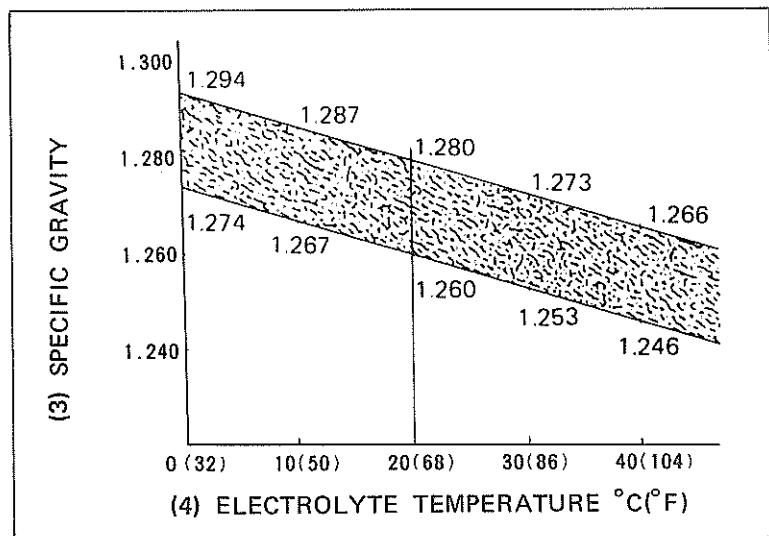
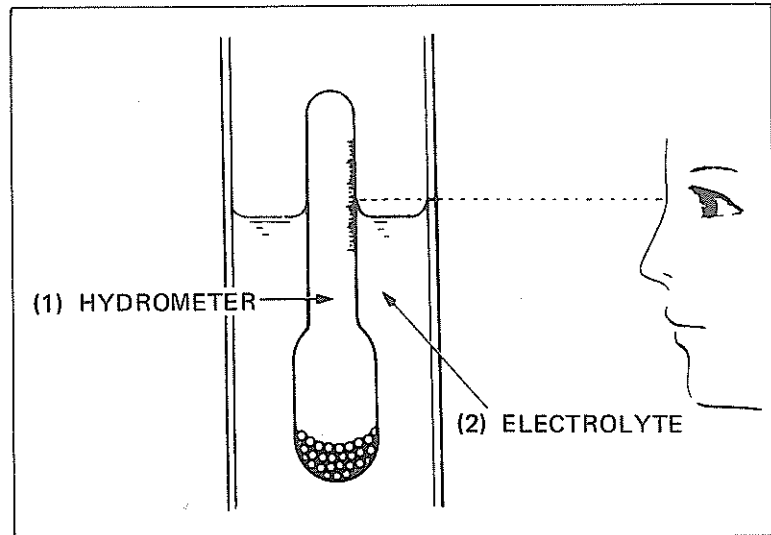
SPECIFIC GRAVITY	20°C (68°F)
Fully charged	1.260-1.280
Undercharged	1.250 or below
Charging necessary	1.220 or below

NOTE

Specific gravity changes according to the electrolyte temperature as shown. Replace the battery if sulfation is appeared. Replace the battery if paste is settled on the bottom of the cell.

WARNING

The battery electrolyte contains sulfuric acid. Protect your eyes, skin and clothing. In case of contact, flush thoroughly with water and call a doctor if electrolyte gets in your eyes. The battery generates hydrogen gas which can be highly explosive. do not smoke or allow flames or sparks near the battery, especially while charging it.





BATTERY/CHARGING SYSTEM

CHARGING

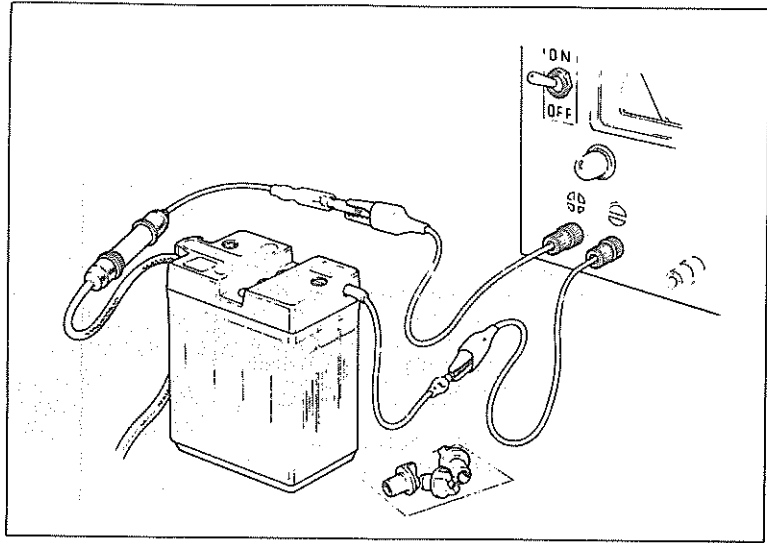
Connect the charger positive (+) cable to the battery positive (+) terminal.

Connect charger negative (-) cable to the battery negative (-) terminal.

CHARGING CURRENT; 0.2 amperes maximum

WARNING

Remove the battery caps before charging. Keep a flame or a spark away from the charging battery. Turn the power ON/OFF at the charger, not at the battery terminals. Stop charging if the electrolyte temperature exceeds 45°C (117°F).



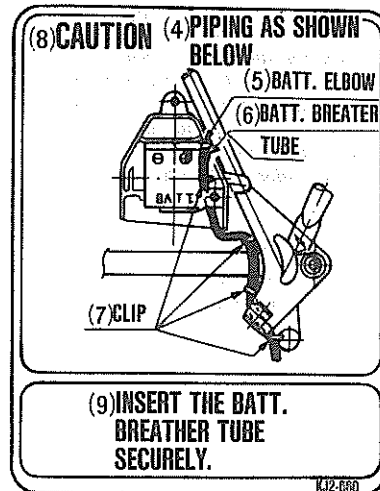
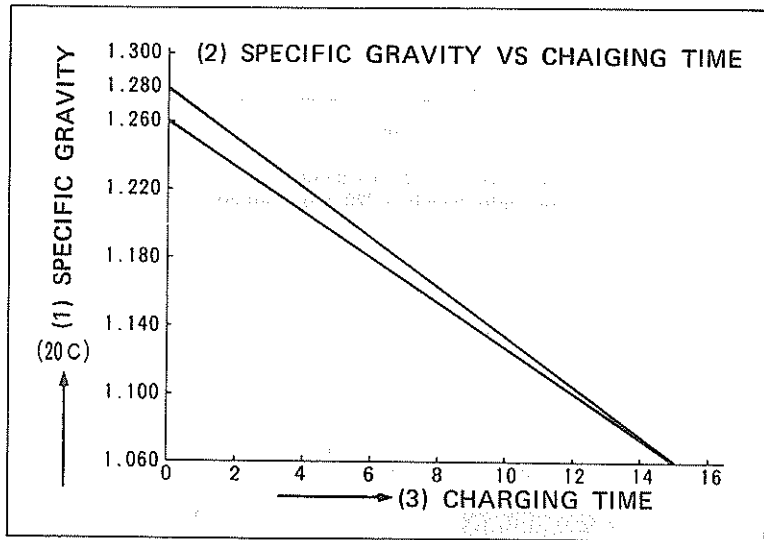
NOTE

The battery might be damaged by quick charging. Slow charging is preferred.

It should take 3-15 hours for charging. Charge till the specific gravity comes up to 1.260-1.280 (20°C, 68°F)

NOTE

Connect the battery breather tube as shown.



CHARGING SYSTEM

CHARGING TEST

Perform the test after warming up the engine.

NOTE

Use a fully charged battery to check the charging system output.

Connect a voltmeter and an ammeter to check the charging system as shown.

TECHNICAL DATA;

(day)

Charging start 900rpm max. / 6.3V min.

4,000rpm 3.0A min. / 9.0V

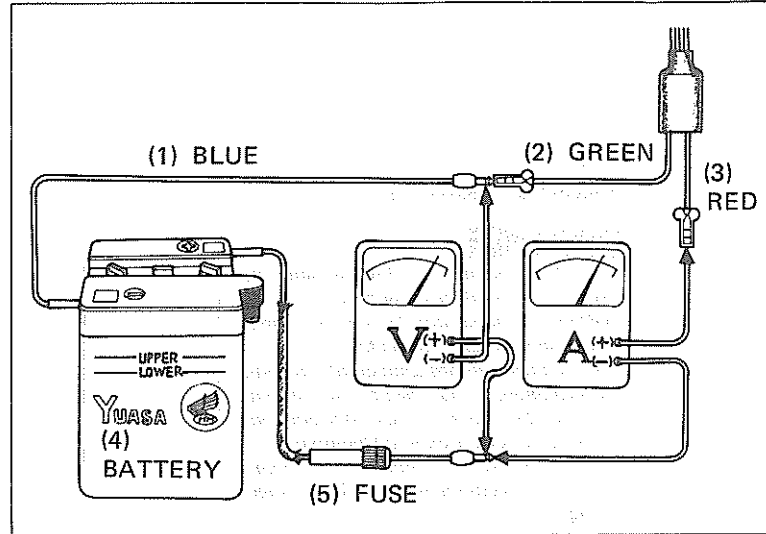
8,000rpm 6.0A min. / 8.0V

(night)

Charging start 1,800 rpm max. / 6.3V min.

4,000rpm 1.8A min. / 8.0A

8,000rpm 3.0A min. / 8.0V



A.C. GENERATOR

A.C. GENERATOR INSPECTION

NOTE

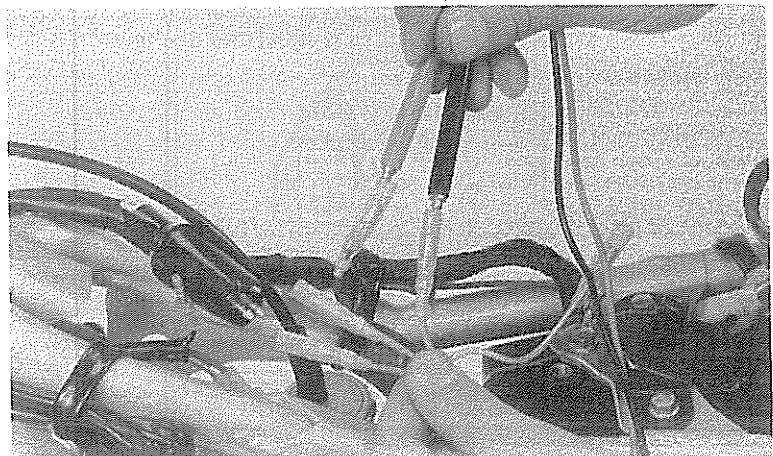
It is not necessary to remove the stator to make this inspection.

disconnect the A.C. generator coupler.
Check the resistances of the A.C. generator stator coils.

Black/red - ground 220.5-269.5Ω

Yellow - pink 0.67-0.82Ω

White/yellow - ground 0.63-0.77Ω



RECTIFIER

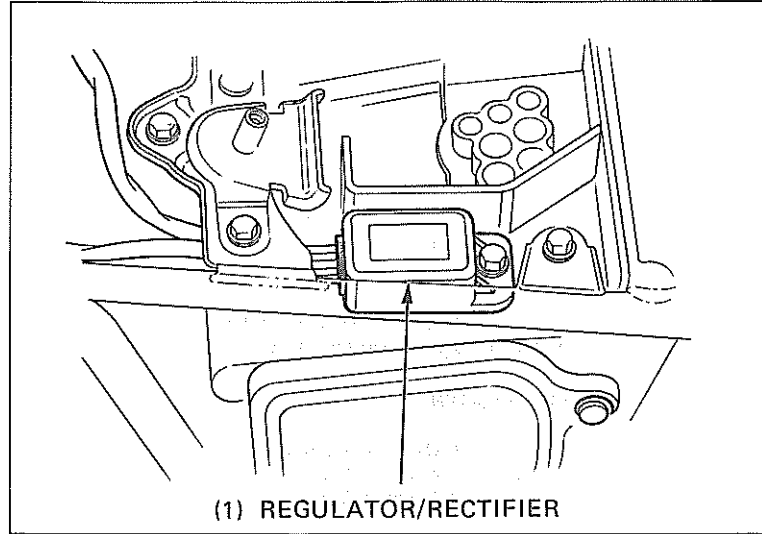
Remove the seat.
Disconnect the coupler and wires of the rectifier.
Check for the resistances between the leads.
Replace the rectifier unit if the readings are not within the limits shown in the table below.

NOTE

For accurate testing, it is necessary to use a specified electric tester. Test with an improper tester may result in false readings.
Use SANWA ELECTRIC TESTER(SP-10D) or KOWA ELECTRIC TESTER (TH-5H).

Range;
SANWA; $\times k\Omega$
KOWA; $\times 100\Omega$

Numerical values in the table below show the readings in a tester.



Tester (+) Tester (-)	Yellow	Pink	Green	Red	Black
Yellow		∞	∞	1-20	∞
Pink	∞		∞	1-20	∞
Green	1-20	1-20		3-100	0.5-10
Red	∞	∞	∞		∞
Black	10-100	10-100	5-50	5-200	



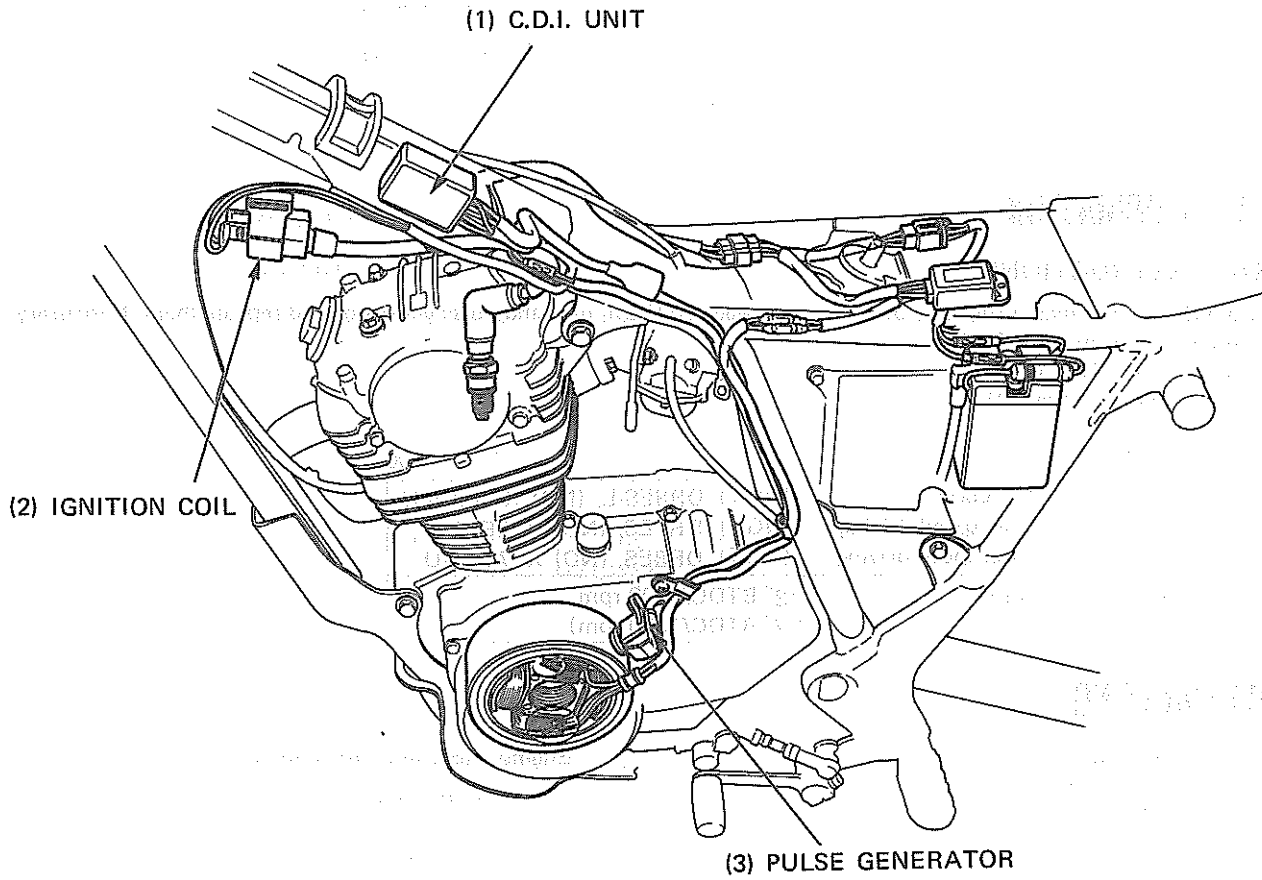
IGNITION SYSTEM

ZÜNDSYSTEM

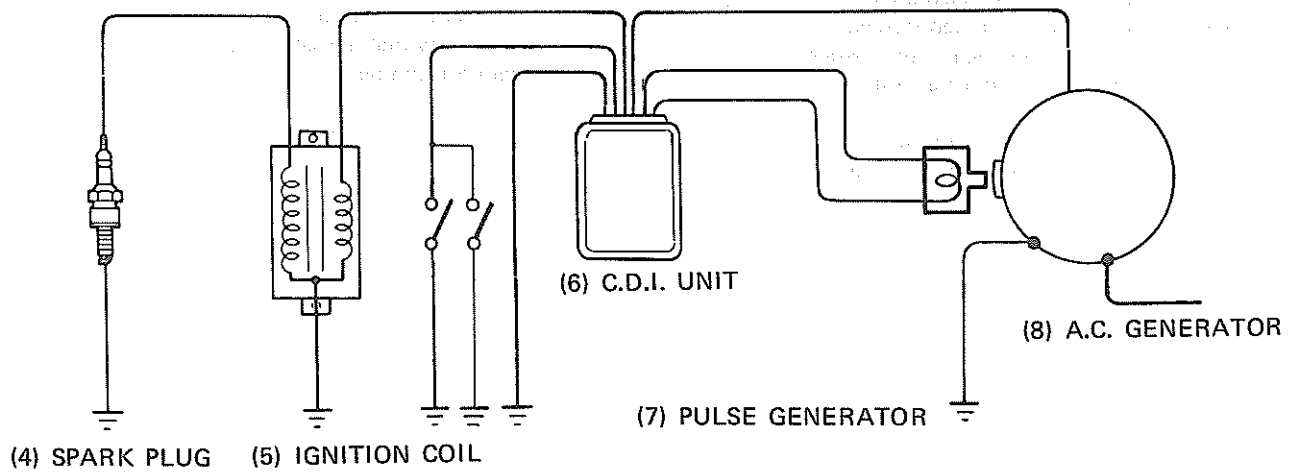
CIRCUIT D'ALLUMAGE

- (1) CDI-EINHEIT
- (2) ZÜNDSPULE
- (3) IMPULSGEBER
- (4) ZÜNDKERZE
- (5) ZÜNDSPULE
- (6) CDI-EINHEIT
- (7) IMPULSGEBER
- (8) LICHTMASCHINE

- (1) UNITE C.D.I.
- (2) BOBINE D'ALLUMAGE
- (3) GENERATEUR D'IMPULSIONS
- (4) BOUGIE D'ALLUMAGE
- (5) BOBINE D'ALLUMAGE
- (6) UNITE C.D.I.
- (7) GENERATEUR D'IMPULSIONS
- (8) GENERATRICE DE COURANT ALTERNATIF



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14. IGNITION SYSTEM



HONDA
TL125·TLR200

SERVICE INFORMATION	14-1	A.C. GENERATOR	14-4
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C.D.I. UNIT	14-2	IGNITION TIMING	14-5
IGNITION COIL	14-4		

SERVICE INFORMATION

GENERAL INSTRUCTIONS

If there is anything abnormal at the time of ignition, inspect C.D.I. unit and pulse generator and replace them if necessary.

Ignition timing inspection (Page 3-11)

Spark plug inspection (Page 3-7)

Pulse generator removal (Page 9-4)

SPECIFICATIONS

(): TLR200

Spark plug	Standard	(NGK) DR8ES-L, (ND) X24ESR-U
	Low speed driving	(NGK) DR7ES, (ND) X22ESR-U
	High speed driving	(NGK) DR8ES, (ND) X27ESR-U
Ignition timing	Initial	13° BTDC/1300 rpm (7° BTDC/1300 rpm)

TROUBLESHOOTING

Engine starts but stops

1. No sparks at plug
2. Improper ignition timing
3. Faulty spark plug

No sparks at plug

1. Engine stop switch "OFF"
2. Poorly connected, broken or shorted wires
 - Between A.C. generator and ignition coil
 - Between C.D.I. unit and engine stop switch
 - Between C.D.I. unit and ignition coil
 - Between C.D.I. unit and main switch
 - Between ignition coil and spark plug
 - Between pulse generator and C.D.I. unit
3. Faulty main switch
4. Faulty ignition coil
5. Faulty C.D.I. unit
6. Faulty exciter coil in A.C. generator
7. Faulty pulse generator

Engine starts but runs poorly

1. Ignition primary circuit
 - Faulty ignition coil
 - Loose or barn wire
 - Faulty A.C. generator
2. Ignition second circuit
 - Faulty plug
 - Faulty C.D.I. unit
 - Faulty pulse generator
 - Faulty high tension cord
3. Ignition timing
 - Faulty C.D.I. unit
 - Faulty pulse generator



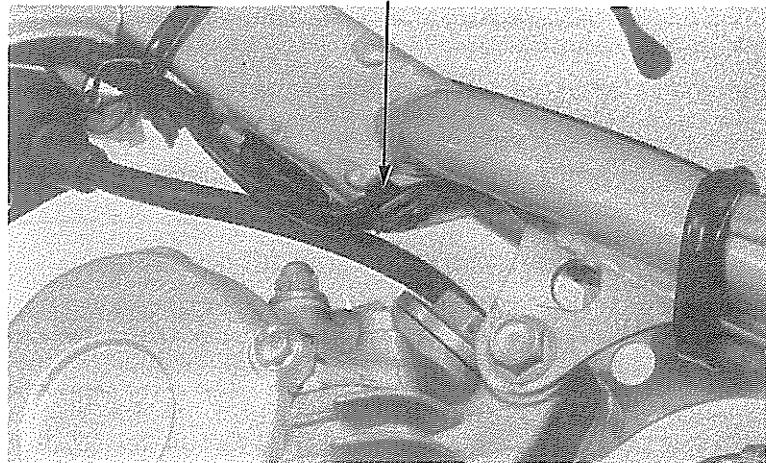
IGNITION SYSTEM

C.D.I. UNIT

C.D.I. UNIT REMOVAL

Remove the seat and the fuel tank.
Disconnect the wires of C.D.I. unit.
Remove C.D.I. unit between frame pipes.

(1) C. C. I. UNIT



C.D.I. UNIT INSPECTION

Measure the resistances between the leads.
Replace C.D.I. unit if the readings are not within the limits in the table below.

NOTE

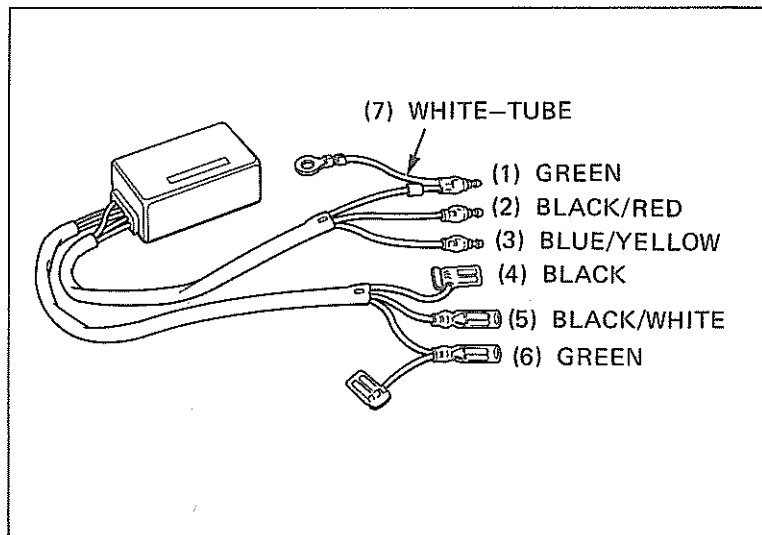
For accurate testing, it is necessary to use a specified electric tester. Test with an improper tester may result in false readings.

Use SANWA ELECTRIC TESTER (SP-10D) or
KOWA ELECTRIC TESTER (TH-5H)

Range:

SANWA; $xk\Omega$

KOWA; $x100\Omega$



	GREEN	BLACK/RED	BLUE/YELLOW	BLACK	BLACK/WHITE
GREEN		0.1-20	1-100	∞	1-50
BLACK/RED	∞		∞	∞	0.1-20
BLUE/YELLOW	1-100	10-200		∞	30-300
BLACK	∞	∞	∞		∞
BLACK/WHITE	∞	∞	∞	∞	

*A tester's hand may run out momentarily when a tester is connected.

IGNITION COIL

IGNITION COIL REMOVAL

Remove the seat and the fuel tank.
 Remove the ignition coil.



(1) IGNITION COIL

IGNITION COIL INSPECTION

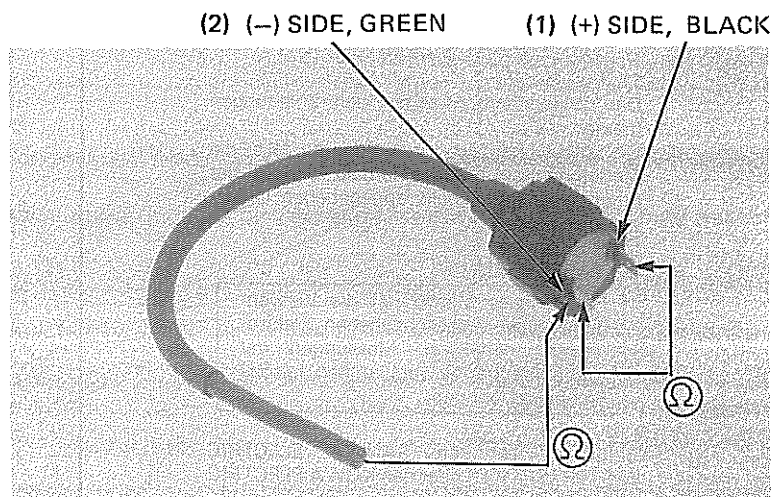
Measure the resistance between the leads of the primary and secondary coil.

Primary coil; 0.15-0.2Ω

Secondary coil; 3.7-4.5kΩ

NOTE

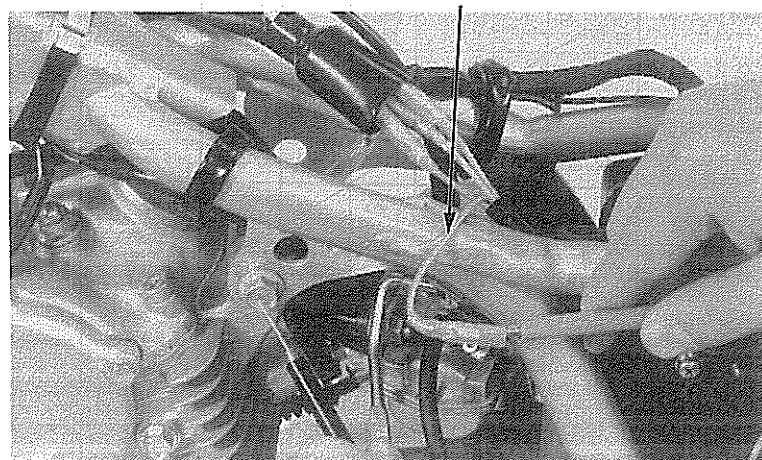
Inspect the functioning of the ignition coil by C.D.I. tester to have accurate measurement.



A.C. GENERATOR

Measure the resistance between the black/red lead and body ground.

Resistance; 220.5-269.5Ω



(1) BLACK/RED LEAD

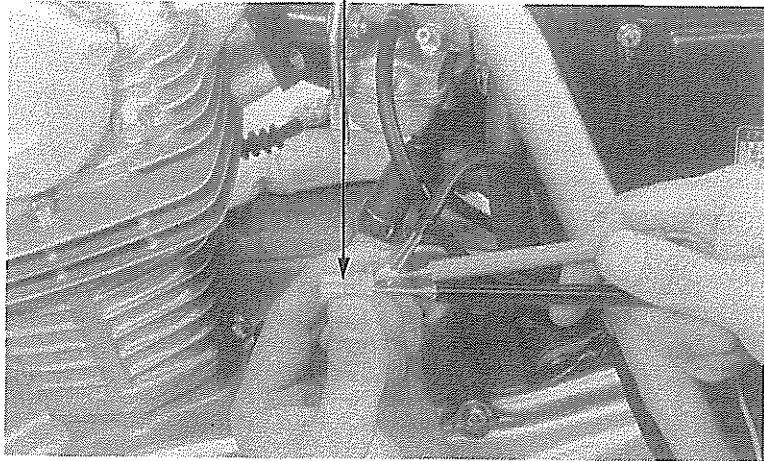
PULSE GENERATOR

(1) PULSE GENERATOR COUPLER

Remove the seat and the fuel tank.
Disconnect the generator wires.
Measure the resistance between the green and blue
wires of the coupler.

Resistance; 391.2-478.1Ω

Pulse generator removal (Page 9-3)



15. SWITCHES



HONDA
TL125-TLR200

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MAIN SWITCH	15-2
LIGHTING/DIMMER/HORN SWITCHES	15-2
ENGINE STOP SWITCH	15-3
FRONT BRAKELIGHT SWITCH	15-3
REAR BRAKELIGHT SWITCH	15-3

SERVICE INFORMATION

GENERAL INSTRUCTIONS

Some wires have different color band around them near the connector. Connect a wire with another of the same color. Note the colors of the wires before disconnecting.

All plastic plugs have locking tabs that must be released before disconnecting, and must be aligned when reconnecting.

To isolate an electric failure, check the continuity of the electrical path through the part. A continuity check can usually be made without removing the part from the motorcycle-by simply disconnecting the wires and connecting a continuity tester or voltmeter to the terminals or connections.

TROUBLESHOOTING

No lights come on when ignition switch is turned on.

1. Faulty or burned out bulb
2. Faulty switch
3. Wiring to that component has open circuit
4. Blown fuse

Headlight beams do not shift when hi-lo switch is operated

1. Faulty dimmer switch

Engine does not stop when the engine stop switch is turned to "OFF"

1. Faulty engine stop switch
2. Faulty connection or open circuit of the engine stop switch wire

Engine does not start

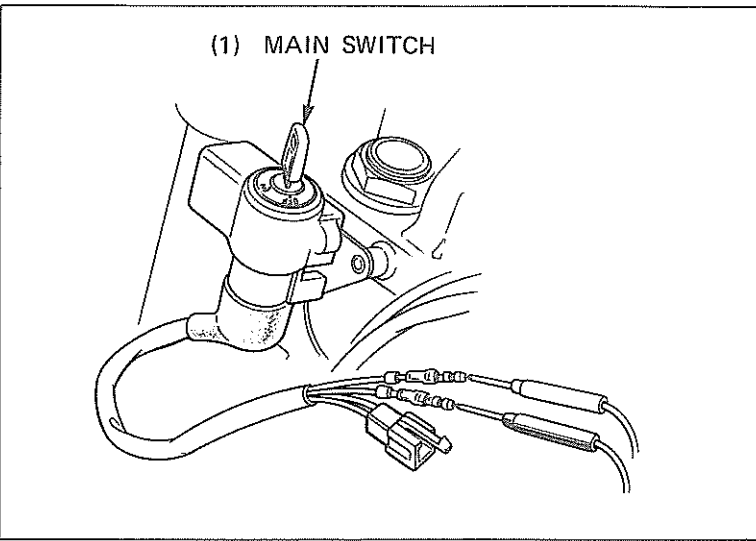
1. Engine stop switch wire shorted.



SWITCHES

MAIN SWITCH

Remove the headlight cover.
Disconnect the white 2-P coupler, the green and the black/white wires.
Check for continuity.
Continuity should exist between the color corded wires indicated by interconnected circles in the table below.



	BLACK	RED	BLACK/WHITE	GREEN
ON	○	○		
OFF			○	○

LIGHTING/DIMMER/HORN SWITCHES

Remove the headlight cover and disconnect each switch wire.
Check for continuity as shown in the table below.
Continuity should exist between the color corded wires indicated by interconnected circles in the table below.

	BLACK	BROWN/WHITE	BLUE/WHITE	WHITE/YELLOW
LIGHTING				
●				
P		○	○	
H	○	○	○	○
DIMMER		BLUE	BLUE/WHITE	WHITE
H		○	○	
(N)		○	○	○
LO			○	○
HORN		BLACK	LIGHT GREEN	
(ON)		○	○	
OFF				

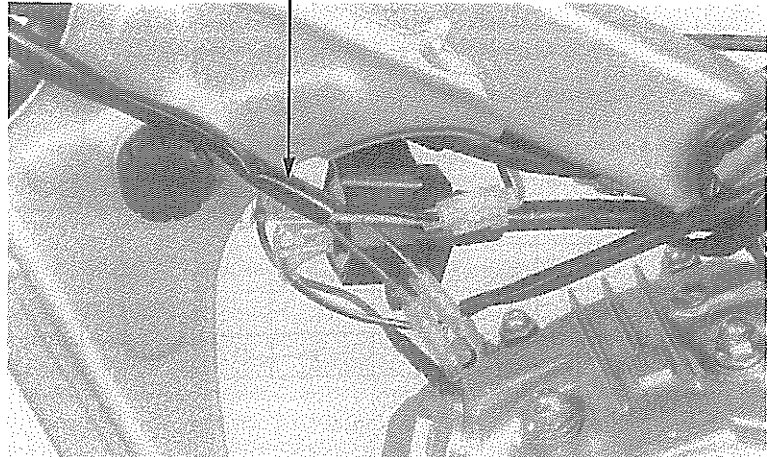
ENGINE STOP SWITCH

Remove the seat and the fuel tank.
Disconnect the engine stop switch wires and C.D.I. unit wires.

Check for continuity between the green and the black/white wires of the engine stop switch wires.
The switch is normal if there is continuity between circles "O-O" as shown below.

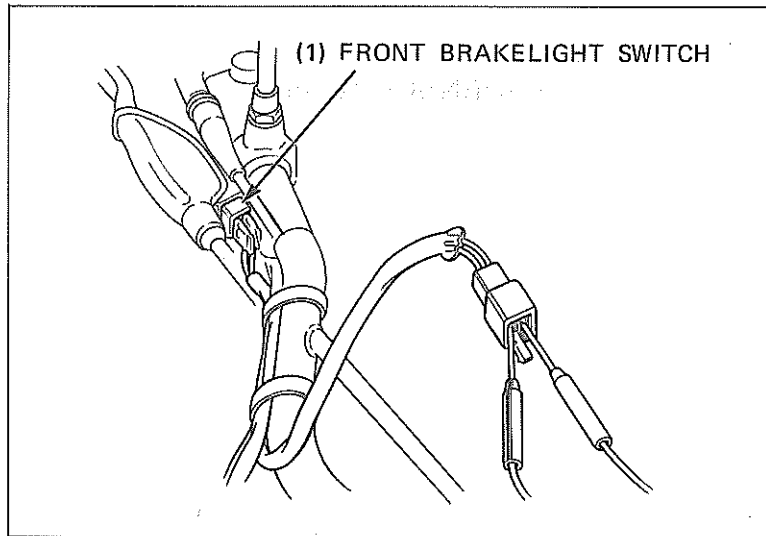
	BLACK/WHITE	GREEN
OFF	○	○
RUN		
OFF	○	○

(1) ENGINE STOP SWITCH



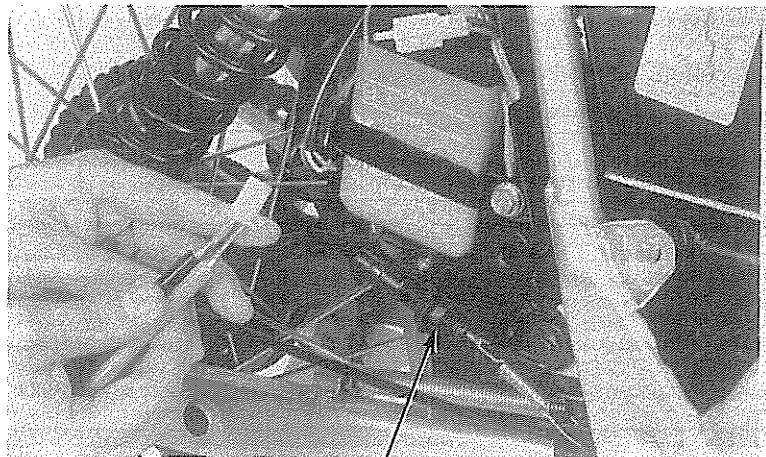
FRONT BRAKELIGHT SWITCH

Remove the headlight cover.
Disconnect the front brakelight switch coupler.
Check for continuity between the wires in the coupler.
The switch is normal if there is continuity when the lever is squeezed.



REAR BRAKELIGHT SWITCH

Remove the battery box cover.
Disconnect the rear brakelight switch coupler.
The switch is normal if there is continuity when the brake pedal is stepped down.



(1) REAR BRAKELIGHT SWITCH

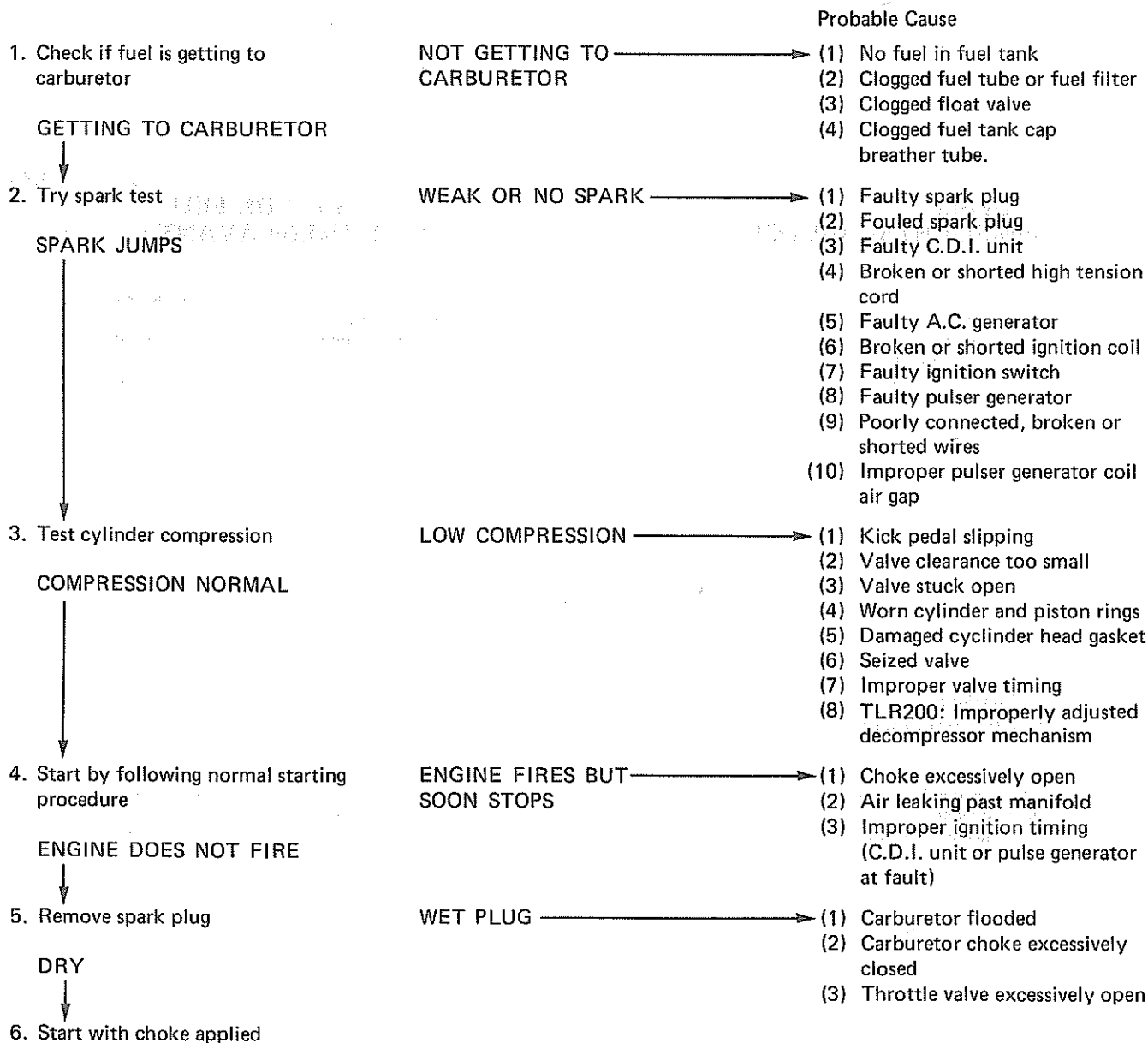
16. TROUBLESHOOTING



HONDA
TL125-TLR200

ENGINE DOES NOT START OR IS HARD TO START	16-1
ENGINE LACKS POWER	16-2
POOR PERFORMANCE AT LOW AND IDLE SPEEDS	16-3
POOR PERFORMANCE AT HIGH SPEEDS	16-4
POOR HANDLING	16-4

ENGINE DOES NOT START OR IS HARD TO START



ENGINE LACKS POWER

1. Raise wheels off ground and spin by hand

WHEEL SPINS FREELY

2. Check tire pressure with tire gauge

PRESSURE NORMAL

3. Try rapid acceleration from low to second

ENGINE SPEED LOWERED WHEN CLUTCH IS RELEASED

4. Lightly accelerate engine

ENGINE SPEED INCREASED

5. Check ignition timing

CORRECT

6. Check valve clearance

CORRECT

7. Test cylinder compression using compression gauge

NORMAL

8. Check carburetor for clogging

NOT CLOGGED

9. Remove spark plug

NOT FOULED OR DISCOLORED

Probable Cause:

WHEEL DOES NOT SPIN FREELY

- (1) Brake dragging
- (2) Worn or damaged wheel bearing
- (3) Wheel bearing needs lubrication
- (4) Drive chain too tight
- (5) Rear axle nut excessively tightened

PRESSURE TOO LOW

- (1) Punctured tire
- (2) Faulty tire valve

ENGINE SPEED DOES NOT CHANGE WHEN CLUTCH IS RELEASED

- (1) Clutch slipping
- (2) Worn clutch disc/plate
- (3) Warped clutch disc/plate

ENGINE SPEED NOT INCREASED SUFFICIENTLY

- (1) Carburetor choke closed
- (2) Clogged air cleaner
- (3) Restricted fuel flow
- (4) Clogged fuel tank breather tube
- (5) Clogged muffler

INCORRECT

- (1) Faulty C.D.I. unit
- (2) Faulty pulser generator
- (3) Faulty ignition advancer

INCORRECT

- (1) Improper valve adjustment
- (2) Worn valve seat

TOO LOW

- (1) Valve stuck open
- (2) Worn cylinder and piston rings
- (3) Leaking head gasket
- (4) Improper valve timing
- (5) TLR200: Improperly adjusted decompressor mechanism

CLOGGED

- (1) Carburetor not service frequently enough

FOULED OR DISCOLORED

- (1) Plug not serviced frequently enough
- (2) Use of plug with improper heat range



TROUBLESHOOTING

10. Remove oil level gauge and check oil level and fouling

CORRECT



11. Check if engine overheats

NOT OVERHEATED



12. Accelerate or run at high speed

ENGINE DOES NOT KNOCK

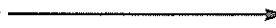
Probable Cause:

OIL LEVEL INCORRECT



- (1) Oil level too high
- (2) Oil level too low
- (3) Contaminated oil

OVERHEATED



- (1) Excessive carbon build-up in combustion chamber
- (2) Used of improper grade of fuel
- (3) Clutch slipping
- (4) Fuel air mixture too lean

ENGINE KNOCKS



- (1) Worn piston and cylinder
- (2) Fuel air mixture too lean
- (3) Use of improper grade of fuel
- (4) Excessive carbon build-up in combustion chamber
- (5) Ignition timing too advanced (Faulty C.D.I. unit or advancer)

POOR PERFORMANCE AT LOW AND IDLE SPEEDS

1. Check ignition timing and valve clearance

CORRECT



2. Check if air is leaking past manifold

NOT LEAKING



3. Try spark test

GOOD SPARK

Probable Cause:

INCORRECT



- (1) Improper valve clearance
- (2) Improper ignition timing (Faulty C.D.I. unit or spark advancer)

LEAKING



- (1) Deteriorated insulator O-ring
- (2) Loose carburetor

WEAK OR INTERMITTENT SPARK



- (1) Faulty, carbon or wet fouled spark plug
- (2) Faulty C.D.I. unit
- (3) A.C. generator faulty
- (4) Faulty ignition coil
- (5) Faulty pulser advancer

POOR PERFORMANCE AT HIGH SPEEDS

	Probable Cause
1. Check ignition timing and valve clearance CORRECT	INCORRECT → (1) Improper valve clearance (2) Faulty C.D.I. unit (3) Faulty pulser generator (4) Faulty advancer
2. Disconnect fuel tube at carburetor FUELS FLOWS FREELY	FUEL FLOW RESTRICTED → (1) Lack of fuel in tank (2) Clogged fuel line (3) Clogged fuel tank breather tube (4) Clogged fuel valve
3. Remove carburetor and check for clogged jet NOT CLOGGED	CLOGGED → (1) Clean
4. Check valve timing CORRECT	INCORRECT → (1) Cam sprocket not installed properly
5. Check valve spring tension NOT WEAKENED	WEAK → (1) Faulty spring

POOR HANDLING

	Probable Cause
1. If steering is heavy	Check tire pressure → (1) Steering head adjuster too tight (2) Damaged steering cones or steel balls
2. If either wheel is wobbling	→ (1) Excessive wheel bearing play (2) Bent rim (3) Improperly installed wheel hub (4) Swing arm pivot bushing excessively worn (5) Bent frame (6) Improper drive chain tension or adjustment
3. If the motorcycle pulls to one side	→ (1) Misaligned shock absorber (2) Front and rear wheels not aligned (3) Bent front fork (4) Bent swingarm