



General Instructions

- Take lots of pictures as you take your carburetor apart. This will give you a reference of where things go.
- Using a cookie sheet with folded up sides will help keep parts from falling on the floor.
- We suggest not removing the throttle shaft, valves, or choke shaft unless they are corroded, or very dirty. These parts can be easily damaged and are difficult to re-assemble.
- Instruction sheets that come with our carburetor kits are somewhat generic. It may not match your parts exactly.
- Do NOT use WD-40 around your carburetor. It reacts with ethanol.
- Using Silicon Spray Lubricant on the gaskets will help with sticking in case you need to take the carburetor apart again.
- Be careful after taking the top of the carburetor off. Turning the carburetor upside down may cause parts to fall out and you won't know where they were.
- Screws and jets that are frozen can often be removed after heating outside the screw or jet.
- Stuck check balls can be removed by heating the outside of where the check ball resides and tapping the carburetor on the work bench.
- Do not discard any parts until complete done. You may have to refer for size, or matching.

Cleaning:

- Clean with carburetor dis-assembled.
- Soak all parts except rubber & electrical in Simple Green for 2 hours. Aluminum parts will get discolored if left longer.
- Wash parts with hot water if available to remove all chemicals.
- Blow out each passage way taking special notice of the smaller ones. Test each passage that air goes through the entire passage.
- Blow out the idle mixture hole.

- Check any hole above the idle mixture hole (inside the bore). This is the idle discharge and often becomes plugged.
- A tooth brush can facilitate cleaning parts.
- Soda blasting, then washing again will make the carburetor look good any will clean any minor deposits.
- Any corrosion, or deposits that are hard to remove may indicate the passages are also corroded and the carburetor should be replaced.
- If your engine has been sitting for 6 months or more, the gas has probably turned, and the gas tank will need to be cleaned as well as the fuel lines. Flushing new gas through the tank will not be enough.

Assembly:

- Do NOT apply any gasket sealant on any of the gaskets. Gas will break sealant part and the particles will clog the small passages.
- Test your float.
 - Brass floats should be immersed into hot water. As the air inside expands any leak will be noticeable with air bubbles.
 - Plastic, or Nitrophyl floats should be weighed. The weight is in grams. Check our technical pages for any weight specification that we may have.
- Most gaskets will fit as expected, but you may have to trim some, especially under the venturis.
- Your kit may include multiple gaskets in order to get better coverage out of the kit. Use the one that fits the best. Look for any opening the gasket may leave allowing air into the carburetor. Some holes may be casting holes that don't lead to anything and do not have to be covered.
- Mounting gaskets for multiple bore carburetors do not have to have matching holes. Example a four-barrel gasket can be open in the middle instead of 4 holes as long as the carburetor has some kind of passage between bores. The passage is between primary, or secondary, not both.
- When adjusting the float be careful not to put any pressure on the needle. The viton tip is easily damaged.
- Most idle mixture screws can be cleaned using a soft wire wheel. Inspect for any scoring, which would indicate over tightening. Screw with scoring should be replaced.

Accelerator Pumps:

- On leather cups run your finger around the inside of the cup to break any manufacturer sealant.
- Apply 2 drops of oil to cups (leather, or rubber) before inserting into carburetor. Do not soak the cup in oil. The swelling of the cup needs to happen inside the carburetor. Allow the 2 drops of oil and the gas to do its job naturally.
- Twist the pump as you are inserting to help keep the cup from curling or folding over.
- Test your accelerator pump circuit before putting the top of the carburetor back on. Our technical pages have instructions on how to do this for most carburetor types.
- Pump wells are usually slight tapered, and the pump will not seal until it gets towards the bottom.

INSTRUCTION SHEET

OFF VEHICLE CARBURETOR SERVICE

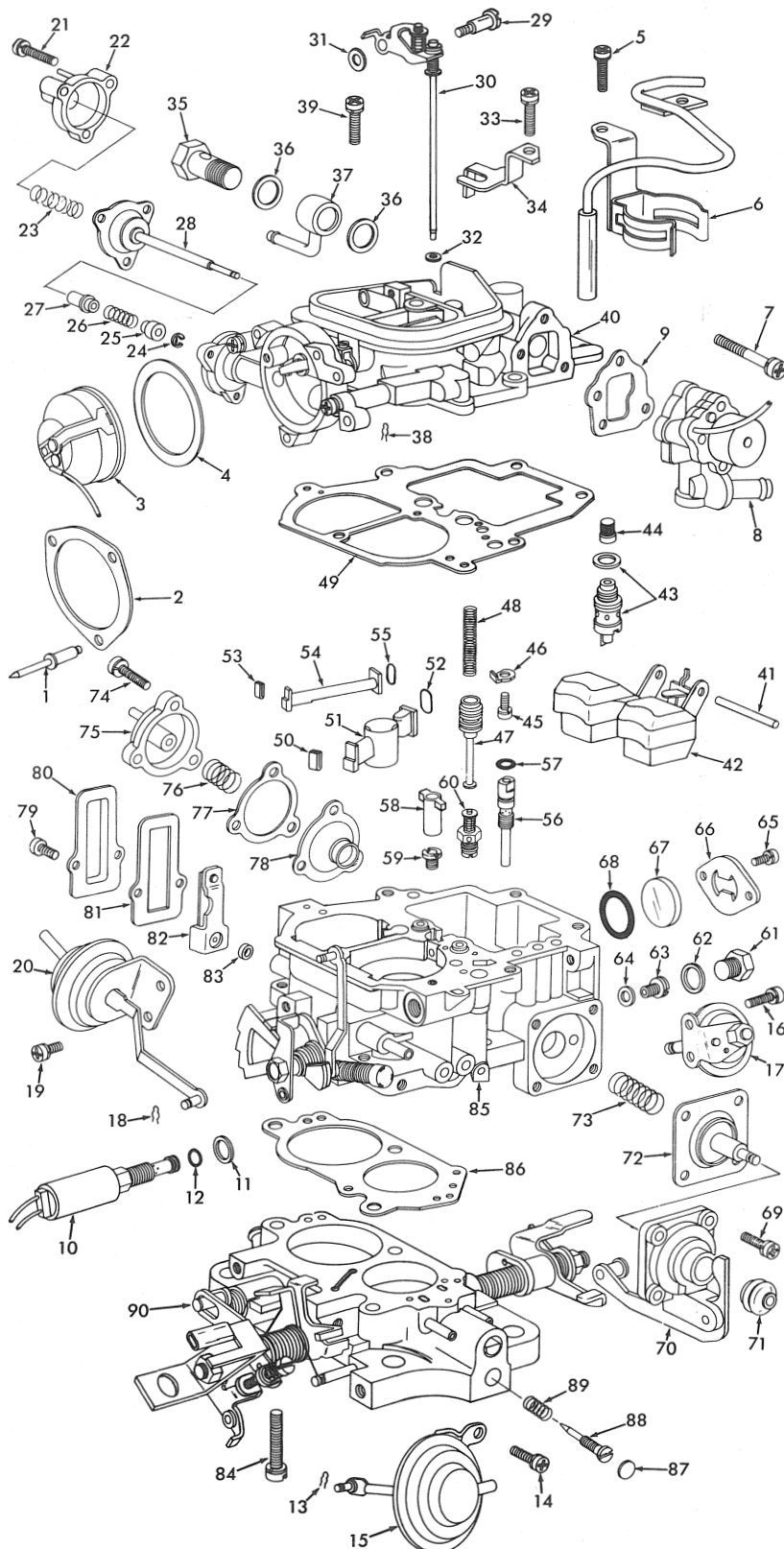
AISAN 2 BARREL

TOYOTA 22R ENGINE

50-613-2

GENERAL EXPLODED VIEW

THE GENERAL DESIGN AND PARTS SHOWN WILL VARY TO
INDIVIDUAL UNITS COVERED ON THIS INSTRUCTION SHEET.



DISASSEMBLY

USE EXPLODED VIEW AS A GUIDE. THE NUMERICAL SEQUENCE MAY GENERALLY BE FOLLOWED TO DISASSEMBLE UNIT FAR ENOUGH TO PERMIT CLEANING AND INSPECTION. DRILL OR CUT OFF POP RIVET HEADS (1) TO REMOVE CHOKE COVER. TO REMOVE PLUGS COVERING SCREWS (21) AND IDLE NEEDLE (88) CENTER PUNCH CENTER OF PLUGS. CAREFULLY DRILL A HOLE IN PLUG. (NOTE THERE IS ONLY .040" CLEARANCE BETWEEN PLUG AND SCREWS OR NEEDLE.) USE A PULLER OR PRY PLUG FROM HOLE.

NOMENCLATURE

REF. NO.	REF. NO.
1. POP RIVET (3)-CHOKE RETAINER	44. SCREEN-FUEL INLET
2. RETAINER - CHOKE COVER	45. SCREW & LOCKWASHER-RETAINER
3. CHOKE COVER ASSY.-ELECTRIC	46. RETAINER-POWER PISTON
4. GASKET-CHOKE COVER	47. PISTON-POWER
5. SCREW & LOCKWASHER (2)-TUBE & BRACKET ASSY.	48. SPRING-POWER PISTON
6. TUBE & BRACKET ASSY.	49. GASKET-BOWL COVER
7. SCREW & LOCKWASHER (3)-BOWL VENT SOLENOID ASSY.	50. RETAINER-VENTURI
8. BOWL VENT SOLENOID ASSY.	51. VENTURI-PRIMARY
9. GASKET-BOWL VENT SOLENOID ASSY.	52. O-RING-PRI. VENTURI
10. SOLENOID ASSY.-IDLE SHUT OFF	53. RETAINER-VENTURI
11. GASKET-SOLENOID	54. VENTURI-SECONDARY
12. O-RING-SOLENOID	55. O-RING-SEC. VENTURI
13. RETAINER-THROTTLE POSITIONER STEM	56. JET-SLOW
14. SCREW & LOCKWASHER (2)-THROTTLE POSITIONER	57. O-RING-SLOW JET
15. THROTTLE POSITIONER ASSY.	58. GUIDE-METERING NEEDLE
16. SCREW & LOCKWASHER-DASHPOT	59. JET-SEC. MAIN
17. DASHPOT ASSY.	60. POWER VALVE & JET ASSY.
18. RETAINER-CHOKE OPENER STEM	61. PLUG-PRI. MAIN JET
19. SCREW & LOCKWASHER (2)-CHOKE OPENER	62. GASKET-PLUG
20. CHOKE OPENER ASSY.	63. JET-PRI. MAIN
21. SCREW & LOCKWASHER (3)-COVER	64. GASKET-PRI. MAIN JET
22. COVER-CHOKE BREAKER	65. SCREW (2)-WINDOW RETAINER
23. SPRING-CHOKE BREAKER	66. RETAINER-WINDOW
24. E-CLIP-BUSHING DIAPHRAGM STEM	67. WINDOW-FUEL LEVEL
25. BUSHING-OUTER	68. O-RING-WINDOW
26. SPRING-DIAPHRAGM STEM	69. SCREW & LOCKWASHER (4)-PUMP COVER
27. BUSHING-INNER	70. COVER-PUMP
28. DIAPHRAGM ASSY.-CHOKE BREAKER	71. BOOT-PUMP STEM
29. SCREW-SEC. METERING NEEDLE ASSY.	72. DIAPHRAGM ASSY.-PUMP
30. SEC. METERING NEEDLE ASSY.	73. SPRING-PUMP DIAPHRAGM
31. WASHER-SCREW	74. SCREW & LOCKWASHER (3)-COVER
32. SEAL-METERING NEEDLE (PLASTIC)	75. COVER-AUX. PUMP
33. SCREW & LOCKWASHER-FUEL UNION BRACKET	76. SPRING-AUX. PUMP DIAPHRAGM
34. BRACKET-FUEL UNION	77. GASKET-DIAPHRAGM
35. BOLT-FUEL UNION	78. DIAPHRAGM ASSY.-AUX. PUMP
36. GASKET (2)-FUEL UNION	79. SCREW & LOCKWASHER (2)-COVER
37. FUEL UNION	80. COVER-HOT IDLE COMPENSATOR VALVE
38. RETAINER-FAST IDLE LINK (UPPER)	81. GASKET-COVER
39. SCREW & LOCKWASHER (2)-BOWL COVER	82. VALVE-IDLE COMPENSATOR
40. BOWL COVER ASSY.	83. SEAL-IDLE COMP. VALVE
41. PIN-FLOAT	84. SCREW & LOCKWASHER (3)-THROTTLE BODY
42. FLOAT & LEVER ASSY.	85. BOWL ASSY.
43. NEEDLE & SEAT ASSY.	86. GASKET-THROTTLE BODY
	87. PLUG-IDLE NEEDLE
	88. NEEDLE-IDLE ADJUSTING
	89. SPRING-IDLE ADJ. NEEDLE
	90. THROTTLE BODY ASSY.

CLEANING

CLEANING MUST BE DONE WITH CARBURETOR DISASSEMBLED. USE A CARBURETOR CLEANING SOLVENT. SOAK PARTS LONG ENOUGH TO SOFTEN AND REMOVE ALL FOREIGN MATERIAL. MAKE CERTAIN THE THROTTLE BORES ARE FREE OF ALL CARBON DEPOSITS. WASH OFF IN SUITABLE SOLVENT. BLOW OUT ALL PASSAGES IN CASTINGS WITH COMPRESSED AIR AND CHECK CAREFULLY TO INSURE THOROUGH CLEANING OF OBSCURE AREAS. CAUTION: DO NOT SOAK RUBBER PARTS, OR ITEMS SUCH AS (3), (8), (10), (15), (17), (20), (42), (82) IN CLEANING SOLVENTS.

REASSEMBLY

REASSEMBLE IN REVERSE ORDER OF DISASSEMBLY. NOTE SPECIAL INSTRUCTIONS AND ADJUSTMENTS.

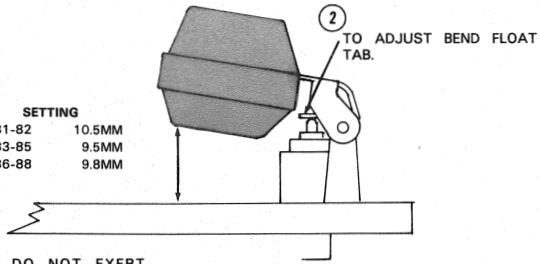
SPECIAL INSTRUCTIONS

IDLE ADJUSTING NEEDLE (88)-TURN NEEDLE IN UNTIL LIGHTLY SEATED. THEN BACK OUT 2 1/2 TURNS.

ADJUSTMENTS

- ① BOWL COVER INVERTED. (NO GASKET). FLOAT RESTING ON NEEDLE OF ITS OWN WEIGHT. MEASURE DISTANCE BETWEEN FLOAT AT TOE END AND CASTING SURFACE.

SETTING	
1981-82	10.5MM
1983-85	9.5MM
1986-88	9.8MM



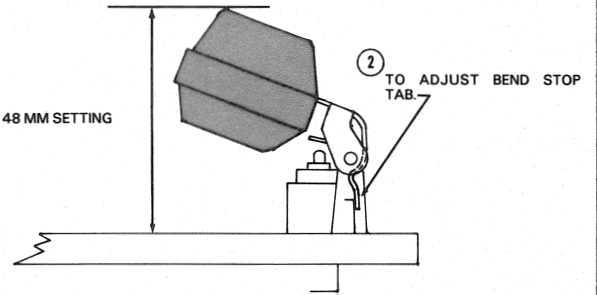
CAUTION: DO NOT EXERT PRESSURE ON RESILIENT NEEDLE VALVE.

DRY FLOAT LEVEL ADJUSTMENT

FIG. 1

- ① BOWL COVER INVERTED. RAISE FLOAT BY HAND UNTIL IT CONTACTS FLOAT HANGER. MEASURE DISTANCE FROM BOTTOM OF FLOAT TO CASTING SURFACE.

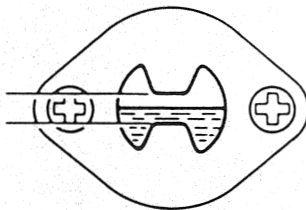
48 MM SETTING



FLOAT DROP ADJUSTMENT

FIG. 2

FUEL LEVEL



CHECK THAT THE WET FUEL LEVEL IS BETWEEN GAUGE LEGS. CORRECT IF NECESSARY.

WET FLOAT LEVEL

FIG. 3

REV. 12/86