



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

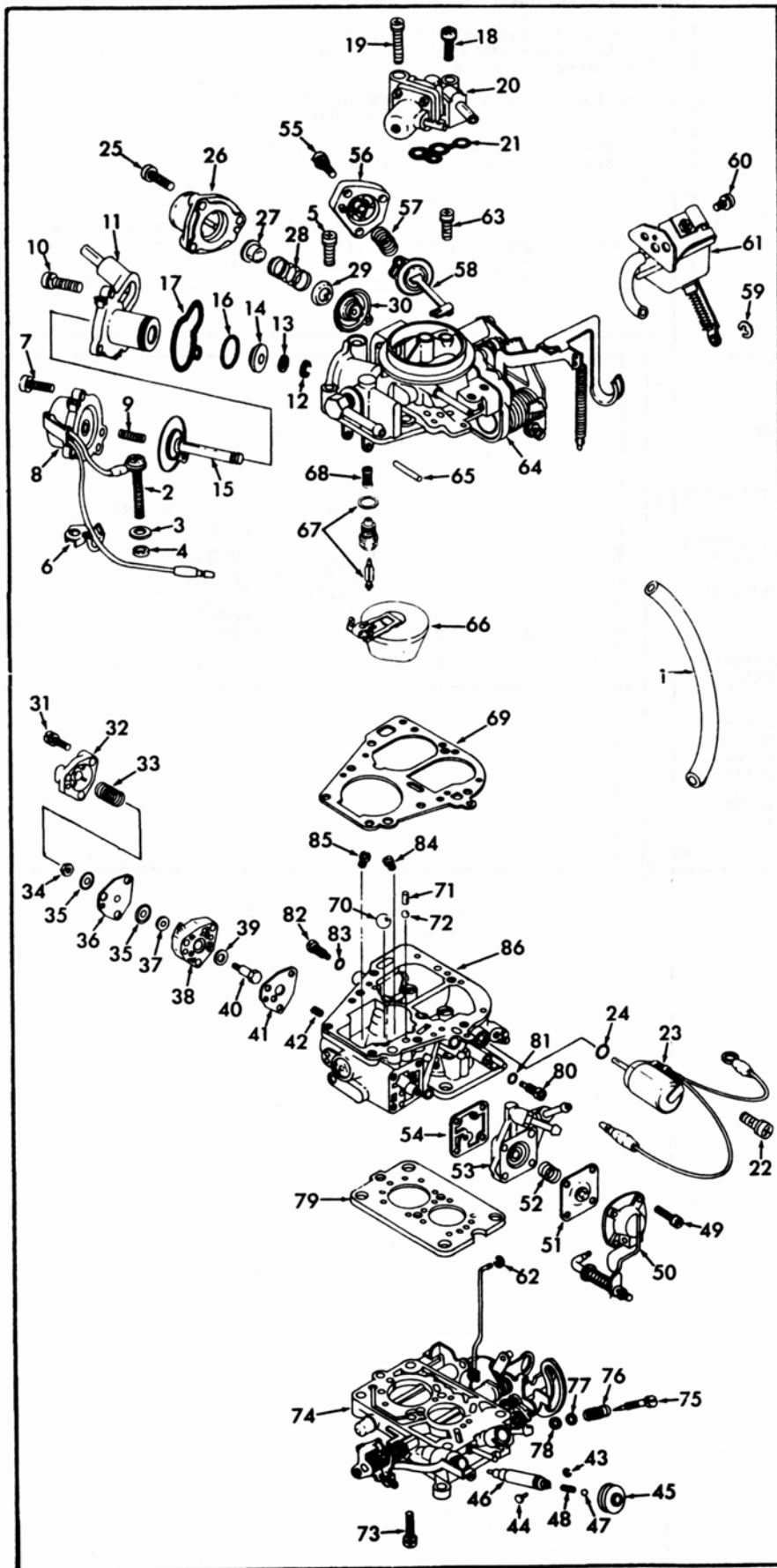
OFF VEHICLE CARBURETOR SERVICE

(MIKUNI) SOLEX-MODELS 28-32 DIDTA, 30-32DIDTA

50-591-1

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. SNAP LINKS OUT OF PLASTIC RETAINERS. UNHOOK THROTTLE RETURN SPRING AT LOWER END AND SECONDARY LEVER RETURN SPRING AT UPPER END. WHEN REMOVING CHOKE, PULL OFF DIAPHRAGM AND DIAPHRAGM SHAFT WILL NOT CLEAR GUIDE PIN. TAP PIN IN A LITTLE UNTIL SHAFT CAN BE TURNED SLIGHTLY AND REMOVED. NOTE SIZES AND LOCATION OF PRIMARY & SECONDARY JETS FOR PROPER REASSEMBLY. (RECORD SIZES BELOW.)

BY PASS SCREW AND ADJUSTING SCREW LOCATED ON PRIMARY SIDE OF FLOAT BOWL ARE SEALED BY WHITE PAINT AT THE FACTORY. IT IS RECOMMENDED THAT THEY NOT BE REMOVED OR TAMPERED WITH. NO SERVICE INSTRUCTIONS ARE AVAILABLE FOR SERVICE. TAMPERING WITH ANY FACTORY SEALED ADJUSTMENT WILL BE AT THE RISK OF THE INDIVIDUAL SERVICING THE CARBURETOR.

BEFORE REMOVING IDLE ADJUSTING NEEDLE (75), TURN IN COUNTING THE NUMBER OF TURNS IT TAKES TO LIGHTLY SEAT NEEDLE AND RECORD FOR REASSEMBLY.

NOMENCLATURE

REF. NO.	REF. NO.
1 HOSE - WATER	43 E-CLIP - PIN
2 SCREW & LKWSHR. - GRD LEAD	44 PIN - SUB EGR VALVE
3 WASHER - FLAT	45 BOOT - SUB EGR VALVE
4 SEAL - GRD LEAD SCREW	46 VALVE ASSY - SUB EGR
5 SCREW & LKWSHR. - WIRE CLAMP	47 BALL - SUB EGR VALVE
6 CLAMP - WIRE	48 SPRING - BALL
7 SCREW & LKWSHR (3) - SOLENOID BOWL VENT	49 SCREW & LKWSHR (4) - PUMP COVER
8 SOLENOID ASSY - BOWL VENT	50 COVER & LINK ASSY - PUMP DIAPH
9 SPRING - SOLENOID BOWL VENT	51 DIAPHRAGM ASSY
10 SCREW & LKWSHR - BOWL VENT HSG	52 SPRING - DIAPHRAGM
11 HOUSING ASSY - BOWL VENT	53 HOUSING - DIAPHRAGM
12 E-CLIP - VENT VALVE	54 GASKET - HOUSING
13 WASHER - VENT VALVE	55 SCREW & LKWSHR (3) - COVER
14 VENT VALVE	56 COVER - CHOKE BREAKER
15 DIAPHRAGM - VENT VALVE	57 SPRING - DIAPHRAGM
16 O-RING - VENT VALVE HSG	58 DIAPHRAGM ASSY - CHOKE BREAKER
17 SEAL - VENT VALVE HSG	59 E-CLIP - SEC. VAC UNIT LINK
18 SCREW & LKWSHR. - GRD LEAD	60 SCREW & LKWSHR (2) - SEC VAC UNIT
19 SCREW & LKWSHR. - AIR SWITCHING VALVE	61 SECONDARY VACUUM UNIT ASSY
20 AIR SWITCHING VALVE ASSY	62 E-CLIP - CHOKE ROD
21 SEAL - AIR SWITCHING VALVE ASSY	63 SCREW & LKWSHR (4) - BOWL COVER
22 SCREW & LKWSHR. - SOLENOID ASSY	64 BOWL COVER ASSY
23 SOLENOID ASSY - FUEL CUT OFF	65 PIN - FLOAT
24 O-RING - SOLENOID	66 FLOAT ASSY
25 SCREW & LKWSHR. (3) - MIXTURE CONTROL VALVE	67 NEEDLE & SEAT ASSY
26 COVER - MCV	68 SCREEN - FUEL INLET
27 SPRING GUIDE - MCV	69 GASKET - BOWL COVER
28 SPRING - MCV	70 BALL - ROLL OVER
29 GUIDE - MCV	71 WEIGHT - PUMP DISC BALL
30 DIAPHRAGM - MCV	72 BALL - PUMP DISC
31 SCREW & LKWSHR (3) - VALVE COVER	73 SCREW & LKWSHR (2) - THROTTLE BODY
32 COVER - ENRICHMENT VALVE	74 THROTTLE BODY ASSY
33 SPRING - DIAPHRAGM RETURN	75 NEEDLE - IDLE MIXTURE
34 NUT - VALVE STEM	76 SPRING - MIXTURE NEEDLE
35 WASHER (2) - DIAPHRAGM	77 WASHER - NEEDLE SEAL
36 DIAPHRAGM - ENRICHMENT VALVE	78 SEAL - IDLE NEEDLE
37 WASHER - STEM (FIBER)	79 GASKET - THROTTLE BODY
38 HOUSING - ENRICHMENT VALVE	80 JET - PRIMARY PILOT
39 VALVE (RUBBER)	81 O-RING - PRI. PILOT JET
40 STEM - ENRICHMENT VALVE	82 JET - SECONDARY PILOT
41 GASKET - VALVE MOUNTING	83 O-RING - SEC. PILOT JET
42 JET - ENRICHMENT	84 JET - PRIMARY MAIN
	85 JET - SECONDARY MAIN
	86 BOWL ASSY - FLOAT

CLEANING

CLEANING MUST BE DONE WITH CARBURETOR DISASSEMBLED. SOAK PARTS LONG ENOUGH TO SOFTEN AND REMOVE ALL FOREIGN MATERIAL. USE A CARBURETOR CLEANER. MAKE CERTAIN THE THROTTLE BODY IS 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 BOWL COVER (64), FLOAT BOWL (66) OR THROTTLE BODY (74) FOR A PROLONG PERIOD OF TIME BECAUSE OF PLASTIC AND RUBBER COMPONENTS THAT ARE NOT REMOVABLE. DO NOT SOAK OR WASH DIAPHRAGM ASSEMBLIES, FLOAT, SOLENOIDS OR RUBBER PARTS SUCH AS (1), (8), (15), (20), (21), (23), (30), (45), (58), (61), (66) IN CLEANING SOLVENTS. THESE PARTS WILL BE USED OVER.

REASSEMBLY

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

SPECIAL INSTRUCTIONS

IDLE ADJUSTING NEEDLE (75) - TURN IN UNTIL LIGHTLY SEATED, THEN BACK OUT NUMBER OF TURNS RECORDED ON DISASSEMBLY. (BASIC SET 2 1/2 TURNS OUT)

LINK INSTALLATION - INSTALL LINK END INTO LARGE OPENING OF PLASTIC BUSHING SNAP INTO PLACE.

ROLL OVER BALL (70) - INSTALL STEEL BALL IN CHAMBER OF FLOAT BOWL AND UNDER BRASS BLADE WHICH MUST BE FACING DOWNWARD.

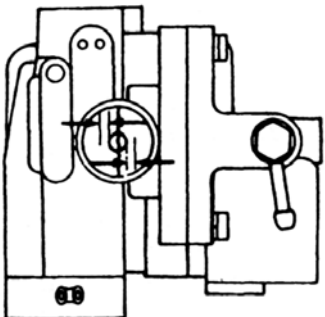
SMALL SPRING GUIDE

ITEM NO 28 - 1/2" x 1 1/16"
33 - 5/16" x 1 1/16"
52 - 7/16" x 9/16"
57 - 5/16" x 3/4"



ADJUSTMENTS

ENGINE AT NORMAL OPERATING TEMPERATURE OPERATING AT IDLE SPEED. IN NEUTRAL AND WITH ALL ACCESSORIES OFF NORMAL FUEL LEVEL IS WITHIN LEVEL MARK ON THE SIGHT GLASS. FUEL LEVEL CAN BE 1/60" (4MM) ABOVE OR BELOW THE NORMAL LEVEL. IF IT STAYS WITHIN THIS RANGE IT NEED NOT BE ADJUSTED.



NOTE TO CHANGE FLOAT LEVEL REQUIRES CHANGING THE THICKNESS OF THE NEEDLE SEAT GASKET (DO NOT BEND FLOAT HANGER)

FIG 1
FLOAT LEVEL CHECK

IDLE SPEED AND MIXTURE SETTING PROCEDURE (CHECK EMISSION LABEL IN ENGINE COMPARTMENT)

- 1 TRANSMISSION IN NEUTRAL. PARKING BRAKE ON. A/C, LIGHTS, ALL ACCESSORIES OFF
- 2 RUN ENGINE TO OPERATING TEMPERATURE 80 TO 90°C (170° TO 190°F)
- 3 AIR HOSE RUNNING BETWEEN THE REED VALVE AND AIR CLEANER. REMOVE FROM REED VALVE AND PLUG THE AIR INLET OF THE REED VALVE (THIS STEP NOT FOR CANADA)
- 4 SET THE ENGINE SPEED AND THE IDLE CO TO THE RESPECTIVE VALUES SPECIFIED BY ADJUSTING THE SPEED ADJUSTING SCREW AND THE MIXTURE ADJUSTING SCREW (NOTE DO NOT USE PROPANE)
- 5 UNPLUG THE AIR INLET OF THE REED VALVE AND RECONNECT THE AIR HOSE TO THE REED VALVE
- 6 RECHECK ENGINE IDLE SPEED ADJUST IF NOT IN SPECIFIED RANGE

ENGINE	TRANS	LOCAL	CURB IDLE R.P.M.	CURB IDLE CO%
F	ALL/T	50S	750 ± 50	10 ± 0.5*
J	ALL/T	CAN	850 ± 50	10 ± 2.5
K	M/T	50S	650 ± 50	10 ± 0.5*
K	A/T	50S	700 ± 50	10 ± 0.5*
K	ALL/T	CAN	850 ± 50	0.5 TO 2.0
U	M/T	CALIF	650 ± 50	10 ± 0.5*
U	A/T	CALIF	700 ± 50	10 ± 0.5*
W	ALL/T	49S	750 ± 50	10 ± 0.5*
W	ALL/T	CALIF	750 ± 50	10 ± 0.5*

*WITH AIR INJECTION SYSTEM DISCONNECTED

FIG 3

IDLE SPEED AND MIXTURE SETTING PROCEDURE (CHECK EMISSION LABEL IN ENGINE COMPARTMENT)

- 1 TRANSMISSION IN NEUTRAL. PARKING BRAKE ON. A/C, LIGHTS, ALL ACCESSORIES OFF
- 2 RUN ENGINE TO OPERATING TEMPERATURE 80 TO 90°C (170 TO 190°F)
- 3 SET ENGINE SPEED AND IDLE CO CONCENTRATION TO THE ENRICHED IDLE SPEED AND ENRICHED IDLE CO AS SPECIFIED IN CHART MAKE ADJUSTMENT USING IDLE SPEED ADJUSTING SCREW AND THE IDLE MIXTURE ADJUSTING SCREW
- 4 RESET THE ENGINE SPEED TO THE NOMINAL SPECIFICATIONS OF THE CURB IDLE SPEED AS SHOWN IN CHART BY ADJUSTING THE IDLE MIXTURE ADJUSTING SCREW
- 5 PROPERLY ADJUSTED WHEN CURB IDLE SPEED AND CO ARE WITHIN RESPECTIVE SPECIFICATIONS WITHOUT ANY MISFIRING IF NOT, REPEAT ADJUSTMENTS

ENGINE	TRANS	ENRICHED		ENRICHED		CURB IDLE R.P.M.	CURB IDLE CO%
		LOCAL	R.P.M.	IDLE	CO%		
U	M/T	49S	730 ± 10	10 ± 0.1	650 - 50	Below 0.1	Below 0.1
U	A/T	49S	780 ± 10	1.0	700 ± 50	Below 0.1	Below 0.1

