

SPARK GAP

COIL CURRENT ADJUST  
& CONDENSER LEAKAGE

TEST SELECTOR  
SWITCH

PILOT LITE

CALIBRATE CONTROL  
For functions marked \*  
On Test Selector Switch

CONDENSER LEAKAGE  
AND COIL TESTS

POWER SWITCH  
Models A & B have  
On/Off Toggle Switch

POLARITY REVERSE SWITCH  
For Diode test on Hi Resistance Scale

# GENERAL INFORMATION

## MODEL A AC

The ST-75A has a built in regulated power supply which will compensate for intermittent changes in line voltage caused by heavy loads from other shop equipment. It will also keep the tester operating normally during "brown-outs" down to 95 volts.

## MODEL B BATTERY

The ST-75B is powered by two internal 6 Volt Lantern batteries connected in series to give 12 Volt DC power. Any 6 Volt Lantern battery is acceptable. Some common numbers are Eveready 73, NEDA 918, Burgess TW1 and Mallory M918. They are available at most hardware or sporting goods stores. Should it be necessary, Stevens can furnish batteries, but the cost of transportation may exceed the cost of the batteries themselves.

## BATTERY INSTALLATION

Connect the two batteries together end to end with the brass jumper strap furnished with the tester. Connect the positive terminal of one battery to the negative terminal of the other, leaving one positive and one negative terminal for connection to the tester. Open the back of the cabinet and find one black and one red battery lead with spade connectors. These are connected directly to the two remaining battery terminals, Red to Positive and Black to Negative.

## RECHARGEABLE BATTERIES

The ST-75B can also be run from any other 12 Volt storage battery if you want the convenience of a rechargeable power supply. Simply bring the battery leads out through the hole in the back of the cabinet and connect the spade lugs to the battery clips furnished. Connect the clips directly to the battery, Red to Positive and Black to Negative.

## PORTABILITY

When transporting the tester, first be certain that the back is latched securely. Turn the tester face up and swing the combination stand/handle into carrying position. Leads can be coiled and placed on the face of the tester. For use in boats, the ST-75 will operate in this position and will be quite stable.

## MODEL C COMBINATION

The ST-75C incorporates all of the features described under AC and Battery models.

To switch from battery to line source or back to battery, simply turn the power switch to the desired position. The line cord need not be disconnected to operate from batteries and the batteries need not be disconnected to operate from line source.

## OPERATION

With the instrument turned off, the meter needle should rest at zero at the left hand end of the scale. If it does not, it can be reset by turning the screw on the face of the meter.

Turn Power Switch on. Pilot Lite indicates when tester is on.

*Battery Model should be turned off when not in use. The pilot lite places a slight drain on batteries. If unit is left on with selector switch on either Hi or Lo Resistance, battery drain is considerably greater.*

### VOLTAGE TEST 0 - 20 Volts DC

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For this function only, Power Switch need not be on.

No calibration is required.

Set Selector Switch to 0 - 20 V position.

Using white test leads, connect black clip to negative and red clip to positive.

Read voltage on 0 - 20 scale.

## COIL TEST

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Set Selector Switch to Coil Std or, if the coil is marked CD in the specifications, turn to Coil CD. (The specs could call for standard coil test on a coil used in a CD system. Test should be made according to the specs).

The remaining test procedure is the same for Standard or CD:

Turn Coil Current Adjust to Low end.

Place coil on insulated surface such as a wooden workbench.

Connect test leads to coil primary, observing polarity shown in the specifications by the designation N or R. Normal polarity (N) is black clip to ground lead and red clip to breaker point or pack lead; (R) indicates the leads should be reversed. If polarity is not designated on the spec sheet, test both ways to determine which hookup produces the cleanest, straightest spark.

Connect Hi Voltage lead to coil secondary. A plug-in adaptor is furnished to facilitate reaching the contact on coil secondaries with deep boot insulators.

Please note: For maximum service life, coil tests should be made in short bursts of 3-4 seconds on and 1-2 seconds off. Long duration tests may cause overheating and shortened life of some internal components.

Depress Coil Test switch and turn Coil Current Adjust clockwise observing meter reading on 0-4 Amp scale. When current reaches reading called for in test specs, coil should be firing steadily at spark gap. The readings in the specs are maximums; therefore, coils should begin to fire at a lower reading. Spark should be straight and steady. The effect of polarity (N or R discussed above) is simply to produce a clean spark. Wrong polarity will result in a bowing of spark on one or both sides of center.

During coil test, insulation leaks may be found by probing over the coil surface and coil Hi Tension lead with test prod. (Remember not to hold the switch on for long periods of time.)

### TESTING COILS WITHOUT SPECS:

If a coil to be tested cannot be found in the specifications, comparative testing is a practical option. Test as usual, increasing current input until coil fires properly at spark gap. Make a note of current reading on 0 - 4 Amp scale, then test another coil of the same type, checking to see that they both fire steadily with the same input.

If the same type coil is not available for comparison, perform the test on the coil anyway. Most defective coils will produce intermittent or unsteady spark, orange or yellow colored spark, or no spark at all.

Instructions for checking coil primary and secondary resistance are on the following pages under Resistance tests.

## LO RESISTANCE

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Set Selector Switch to Lo Resistance position.

Clip test leads together and adjust Calibrate Control for zero at right hand end of scale. Calibration is quite sensitive at this point. To assure accuracy, first adjust needle past zero and adjust back to zero from right to left. To check, disconnect and reclip test leads together to be certain needle returns to zero.

*CAUTION: Connecting the test clips to a live circuit while on either of the resistance positions will damage the tester. Be certain engine is off, ignition off or battery disconnected. If there is any doubt, turn Selector Switch back to Volts to check circuit.*

### Breaker Point Test

Breaker Points are tested by attaching black clip to ground side of points and red clip to insulated side. When closed, good points will read very low resistance in the narrow green band at the right hand end of the scale.

Also see section on cleaning points, Page 7.

### Coil Primary Resistance

The resistance of the primary winding of coils may be checked on the Lo Resistance scale by connecting the test leads directly across the coil primary. Resistance is read on the LO-R scale.

## HI RESISTANCE

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Set Selector Switch to Hi Resistance position.

Clip test leads together and adjust Calibrate Control for zero at right hand end of scale.

*CAUTION: Connecting the test clips to a live circuit while on either of the resistance positions will damage the tester. Be certain engine is off, ignition off or battery disconnected. If there is any doubt, turn Selector Switch back to Volts to check circuit.*

### Coil Secondary Resistance

The secondary winding resistance is checked by attaching the black clip to the coil ground side, and the red clip to the high tension lead or tower. Resistance is read on the HI-R scale.

### Diode Test

Diodes may be checked by attaching the red and black clips across the diode terminals. Polarity need not be observed. Note meter reading, then rotate polarity reversing switch and note meter reading again. Good diodes will have relatively low resistance with one polarity and high resistance with the opposite polarity.

### Continuity Tests

The Hi Resistance scale may be used for continuity tests to locate suspected breaks in lead wires, poor contact in connectors, etc. Remember the *Caution* note above.

## CONDENSER LEAKAGE

Set Selector Switch to Condenser Lkge position.

Turn Coil Current Adjust to maximum clockwise position. A guideline is printed on the panel as a reminder to do this. No actual calibration is required.

Connect test leads to condenser. Polarity need not be observed.

Depress Condenser Leakage switch. The meter needle will jump up as current is fed into the condenser. It should then drop back to the green area as the condenser holds the charge. If it stays in the red area, the condenser is leaking and should be replaced.

Condenser is automatically discharged when lever switch is released.

## CONDENSER SERIES RESISTANCE

Set Selector Switch to Condenser Res position.

Clip test leads together and adjust Calibrate Control to the diamond shaped calibrate mark on Cond Resistance scale.

Connect test leads to condenser. Polarity need not be observed. Good condensers will read in the green area of scale. Condensers reading in red area should be replaced.

Wiggle or work the condenser leads while watching the needle for flickers which indicate intermittent breaks.

## CONDENSER CAPACITY

Set Selector Switch to Condenser Cap position.

Clip test leads together and adjust Calibrate Control for full scale.

Connect test leads to condenser. Polarity need not be observed.

Read condenser value on bottom (Capacity) scale.

### Cleaning Points with the ST-75

The ST-75 may be used to pass a current through the points after cleaning or when installing new points, which will aid in establishing a good electrical contact between the point faces.

To clean points:

Connect Black test clip to the armature plate.

Connect Red test clip to the hot or coil side of the points.

If the coil is connected to the points, be sure to ground the spark plug lead. Failure to do so can result in damage to the coil.

Turn Coil Current Adjust to Low end.

Set Selector Switch to Coil Std.

Depress and hold coil test switch and increase Coil Current Adjust to 2.5 Amps.

Snap breaker points open and closed several times. This will burn off any oxide coating on the point faces.

Check points on Lo Resistance Scale. The procedure may be repeated if the desired results are not obtained the first time

This method of cleaning points will have little or no effect on pitted or burned points, which should be replaced.



## Special or Uncommon Coil Tests

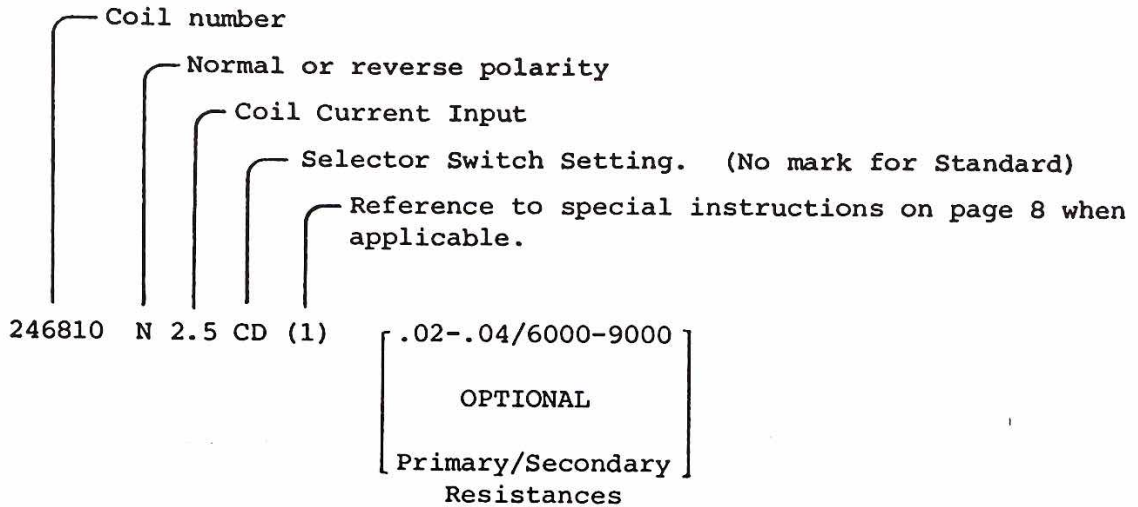
This page is used in conjunction with the coil specifications in the following section. Where a coil is listed in the specifications followed by a number in parentheses, refer to the corresponding number below.

To avoid confusion between tester leads and coil leads in the text, the word **lead** always refers to a coil, and the word **clip** is used for the tester.

1. Connect Black Test Clip to coil frame, Red Clip to single red lead. Connect Hi Tension clip to secondary of coil which has red leads. For second test, transfer red test clip and Hi Tension clip to the other coil.
2. Connect test clips to coil primary leads. Connect Hi Tension clip to secondary of coil to which Red test clip is connected. Other secondary must be grounded to Black test clip.
3. Connect test clips to primary leads. Ground one secondary to black test clip. Test other secondary - if no spark is obtained or is weak or bowed, interchange secondary leads and retest. To test other secondary, reverse primary leads and reverse secondary leads.
4. Connect Red test clip to frame or bracket, black test clip to primary lead.
5. Coil has two primaries and should be tested once with one and again with the other.
6. Ground bare lead to negative terminal (black clip).
7. Connect black clip to both short leads, Red Clip to long lead.
8. Connect a Load Adaptor, PL-88, between the red primary clip and coil primary. To test refer to OMC Service Manual or see Note 3 above.

## COIL TEST SPECIFICATIONS

The specifications on these pages consist of:



*Primary and secondary coil resistances, which can be measured with the Lo and Hi Resistance functions of the ST-75, are often available with the engine manufacturer's service literature. Some of these readings are also furnished in the following specifications, immediately following the specs for coil power test, as shown above, marked "Optional".*

*Primary resistance specs in very low ranges, such as in the example above, may appear as a direct short (no resistance) and may also change with temperature variations. Allow some leeway with resistance tests. The coil power test is more reliable and conclusive.*

## CONDENSER CAPACITY SPECIFICATIONS

*Condenser capacity specifications can also be found in most service literature. Capacity specs have been reprinted for some of the manufacturers immediately following their coil listings.*

*Similar to coil resistance specs, condenser capacity specs have closer tolerances than is practical at times. A condenser must be very noticeably out of spec to cause malfunction or point burning, so more emphasis should be placed on condenser leakage and series resistance tests.*

29656 N 1.2	292184 N 2.2	296834 N 2.2	<b>BRIGGS &amp; STRATTON</b>
29657 N 1.2	295680 N 2.2	296858 N 2.2	
290880 N 2.0	296084 N 2.2	297106 N 2.2	
291617 N 2.2	296171 N 2.2		

M.1634.E N 3.2

**BRITISH  
SEAGULL**

**CHRYSLER**

12057 N 2.2	.62-.68/5590-7250	91475-2 N 1.4	2.9-3.6/6900-9400
12211 N 2.4	.50-.65/4100-5900	316475 N 1.3	1.7-2.3/12300-16700
12226 N 2.4	.48-.54/6900-7800	321475-1 R 1.4 CD	.01 /665-735
A12231 R 2.2	.48-.54/6900-7800	345475 R 1.3 CD	
A12345 N 2.4	.48-.54/6900-7800	380475 N 1.2	
12348 N 2.0	.50-.65/4100-5900	474475 N 2.2 CD	
12358 N 2.4		510475 R 1.6 CD	.03-.05/230-260
85475-2 N 1.3	1.7-2.3/12300-16700	615475 R 1.4 CD	

CONDENSERS:

12042 .28-.33	12139 .26-.30	12181 .16-.20
12117 .16-.20	12143 .16-.20	12196 .26-.30
12119 .26-.30	12178 .16-.20	14022-1 .36-.44

135-13-990 2.4	135-15-500 2.3	<b>CLINTON</b>
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CONDENSERS:	135-29-990 .15-.19	135-33-500 .24-.28
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580380 R 2.2	580602 R 1.5	810518 R 2.7	<b>CUSHMAN</b>
580527 R 1.5	806938 N 2.7	811827 R 3.2	

X 5345 R 2.9	DX 2477 N 2.5	X 7500 R 3.2	<b>ELGIN</b>
X 7120 R 2.7	EX 2477 N 2.2	X 11406 R 3.4	
X 11563 N 1.3	LX 2477 N 2.4	X 12660 R 3.7	
X 12302 R 3.2			

EVINRUDE

114828	N 1.8	1.26-1.54/4490-5990		
275370	N 2.2		581610	R 1.9 CD .05-.15/1100-1500
276039	N 2.2		581611	R 1.9 CD .05-.15/1100-1500
375189	N 2.2	(7)	581685	R 1.9 CD .05-.15/1100-1500
378231	N 1.2		581686	R 1.9 CD .05-.15/1100-1500
379569	N 1.2		581764	R 1.9 CD .05-.15/1100-1500
381886	N 1.4	CD	581786	R 1.3 1.05-1.65/12000-15000
580040	N 2.2		581819	1.6 CD .05-.15/225-325
580084	N 2.2		581823	1.6 CD .05-.15/225-325
580118	R 2.7		581826	1.6 CD .05-.15/225-325
580197	R 2.0		581862	1.6 CD .05-.15/225-325
580243	N 2.2		581997	R 1.2 CD .05-.15/225-325
580380	R 2.2		581998	R 1.2 CD .05-.15/225-325
580416	R 2.2		582090	R 1.9 CD .01-.02/1100-1500
580527	R 1.5		582091	R 1.9 CD .01-.02/1100-1500
580602	R 1.5		582106	R 1.4 CD .05-.15/225-325
580688*	N 1.4	CD .04-.14/1700-2100	582159	R 1.9 CD .05-.15/1100-1500
580730*	N 1.4	CD .04-.14/1700-2100	582160	R 1.9 CD .05-.15/1100-1500
580740*	N 1.4	CD .04-.14/1700-2100	582249	N 2.2 .75-1.2/4500-5000
580821	R 1.4	CD .01-.02/1700-2100	582330	R 1.2 CD .05-.15/225-325
580847*	N 1.4	CD .04-.14/1700-2100	582366	R 1.4 CD .05-.15/225-325
580971	N 2.2	.55-.69/3700-4700	582370	N 2.2 .55-.69/3700-4700
581032	R 1.4	CD .01-.02/1700-2100	582381	R 1.4 CD .05-.15/225-325
581124	R 1.8	.51-.63/5600-7000	582382	R 1.4 CD .05-.15/225-325
581319	R 1.3	1.2-1.5/10500-13500	582455	N 2.2 .55-.69/3700-4700
581370	R 1.3	1.05-1.65/12000-15000	582508	R 1.4 CD .05-.15/225-325
581407	R 1.3	1.05-1.65/12000-15000	582931	N 1.8 .59-.81/6700-9100
581503	R 1.9	CD .05-.15/1100-1500	582995	N 1.8 0.7-.11/4500-5100
581609	R 1.9	CD .05-.15/800-1800	583298	N 1.4 CD .05-.15/225-325
			583740	N 1.4 CD .05-.15/225-325

\*Replacement Coils: N 1.9 CD .04-.14/1100-1500

CONDENSERS:	72-864	.27-.33	580321	.18-.22
	300153	.15-.21	580422	.25-.29
	580256	.37-.41		

L2477	R 2.7	B2477	N 2.2	EX2477	N 2.2	FAIRBANKS MORSE
C2477	N 2.4	G2477	N 2.4	LX2477	N 2.2	
H2477	R 2.7	DX2477	N 2.4	QY2477C	R 2.7	

CONDENSERS:	SXY2433	.28-.33	AXM2433	.18-.23
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580118	R 2.7	580197	N 2.0	580243	N 2.2	GALE PRODUCTS
CONDENSERS:	580256	.37-.41	580321	.18-.22	580422	

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**HOMELITE**

90098-A R 1.6                    68256 2.2                    A68649 2.0

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**American Honda Motor Company, Inc.****HONDA**

30400-045-035	1.3			30500-431-000	1.1		
30400-046-156	1.4			30500-437-000	2.2	CD	
30400-107-107	1.5			30500-444-003	2.3	CD	
30400-114-017	2.2			30500-466-000	R 2.1	CD	
30400-129-670	2.2			30500-467-000	R 2.1	CD	
30400-137-670	1.7			30500-881-732	1.0	CD	(3)
30400-306-673	1.1	(3)		30500-918-670	1.3		
30400-330-003	1.5			30500-937-000	1.1		
30500-098-671	1.1			30500-943-003	1.3		
30500-115-013	2.1			30500-950-013	N 2.5		
30500-120-005	1.9			30500-957-003	1.0		(3)
30500-147-003	1.3			30500-ZE8-701	N 1.4		
30500-153-003	1.3			30501-300-003	1.0		(3)
30500-165-003	2.5			30501-323-003	1.0		(3)
30500-286-007	R 1.1			30501-371-003	1.1		(3)
30500-292-672	R 1.1			30501-404-000	1.0		(3)
30500-310-670	R 1.1			30501-415-003	N 1.3	CD	
30500-312-007	R 1.1			30501-449-750	R 1.4	CD	
30500-355-003	2.3			30501-333-013	1.0		(3)
30500-356-003	N 2.5			30510-369-003	N 1.0		
30500-358-003	2.6			30530-102-780	1.4		
30500-360-003	2.2	CD		30530-126-921	1.1		
30500-362-000	1.5			30530-148-003	1.3		
30500-376-003	N 2.3			30530-152-771	1.2		
30500-381-000	N 1.5			30530-382-841	1.3		
30500-402-003	1.4			30530-383-771	1.2		
30500-422-003	1.3	CD	(3)	30530-413-003	1.3	CD	(3)
30500-428-003	N 2.0	CD		30530-447-003	1.3	CD	(3)

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**HUSQVARNA**

501 5162-01	(AM 4 System)	R 1.4	CD
501 5254-01	(AM 2 System)	R 1.7	CD

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**JACOBSEN**

A1404 R 2.7                    A3167 N 2.2                    314303 R 3.2

**Outboard Marine Corporation**

**JOHNSON**

114828	N 1.8		581503	R 1.9 CD	.05-.15/1100-1500
72-641	R 2.1		581609	R 1.9 CD	.05-.15/800-1800
72-852	N 1.5		581610	R 1.9 CD	.05-.15/1100-1500
72-875	N 1.9		581611	R 1.9 CD	.05-.15/1100-1500
72-1072	N 1.6		581685	R 1.9 CD	.05-.15/1000-1500
72-1074	R 2.7		581686	R 1.9 CD	.05-.15/1100-1500
72-1108	R 2.5		581764	R 1.9 CD	.05-.15/1100-1500
375102	N 1.4		581786	R 1.3	1.05-1.65/12000-15000
375189	N 2.2 (7)		581819	1.6 CD	.05-.15/225-325
378231	N 1.2		581823	1.6 CD	.05-.15/225-325
379569	N 1.2		581826	1.6 CD	.05-.15/225-325
381886	N 1.4 CD		581862	1.6 CD	.05-.15/225-325
383444	N 1.4		581997	R 1.2 CD	.05-.15/225-325
580040	N 2.2		581998	R 1.2 CD	.05-.25/225-325
580056	N 2.2		582090	R 1.9 CD	.01-.02/1100-1500
580118	R 2.7		581091	R 1.9 CD	.01-.02/1100-1500
580197	R 2.0		582106	R 1.4 CD	.05-.15/225-325
580243	N 2.2		582159	R 1.9 CD	.05-.15/1100-1500
580380	R 2.2		582160	R 1.9 CD	.05-.15/1100-1500
580416	R 2.2		582249	N 2.2	.75-1.2/4500-5000
580527	R 1.5		582330	R 1.2 CD	.05-.15/225-325
580602	R 1.5		582366	R 1.4 CD	.05-.15/225-325
580688*	N 1.4 CD	.04-.14/1700-2100	582370	N 2.2	.55-.69/3700-4700
580730*	N 1.4 CD	.04-.14/1700-2100	582381	R 1.4 CD	.05-.15/225-325
580740*	N 1.4 CD	.04-.14/1700-2100	582382	R 1.4 CD	.05-.15/225-325
580821	R 1.4 CD	.01-.02/1700-2100	582455	N 2.2	.55-.69/3700-4700
580847*	N 1.4 CD	.04-.14/1700-2100	582508	R 1.4 CD	.05-.15/225-325
580971	N 2.2	.55-.69/3700-4700	582931	N 1.8	.59-.81/6700-9100
581032	R 1.4 CD	.01-.02/1700-2100	582995	N 1.8	0.7-.11/4500-5100
581124	R 1.8	.51-.63/5600-7000	583298	N 1.4 CD	.05-.15/225-325
581319	R 1.3	1.2-1/5/10500-13500	583740	N 1.4 CD	.05-.15/225-325
581370	R 1.3	1.05-1.65/12000-15000	584451	N 1.1 CD	.23-.33/2000-2600
581407	R 1.3	1.05-1.65/12000-15000	584826	N 1.1 CD	.23-.33/2000-2600

\* Replacement Coils: N 1.9 CD .04-.14/1100-1500

Condensers:	72-864	.27-.33	580321	.18-.22
	300153	.150-.205	580422	.25-.29
	580256	.27-.41		

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21121-039	R 1.8 CD	21121-067	R 2.0 CD	<b>KAWASAKI</b>
21121-064	R 1.3 CD	21121-070	R 1.8 CD	

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220435	N 2.2	234422	2.0	<b>KOHLER</b>
232901	2.0	275756	N 2.1	

Condensers

220082	.27-.31	235786	.13-.16	280969	.28-.33
230722	.18-.23	A235648	.12-.14	266562	.18-.23
280980	.27-.31	232813	.13-.16	33-147-01	.23-.27
231719	.24-.28	270541	.30-.34		

578111 N 2.3  
580118 R 2.7

580184 R 2.7  
678539 N 2.3

LAWNBOY

CONDENSERS:

580321 .15-.18  
677299 .15-.18

11441M N .8 CD (3)  
41832M N .8 CD (3)  
80182M 1.8  
80413M 1.8  
80931M 1.9  
81438M 1.8

81549M R 1.4 CD  
81656M 1.9  
82960M 1.7  
83575M 1.7  
84874M N .9 CD (3)  
95188M N .8 CD (3)

95470M R .9 CD  
96569M R .9 CD  
96570M R .9 CD  
97077M R .9 CD  
97817M N .9 CD  
339-7370A8 N .8 CD

MARINER

332-2983A2 N 1.4 CD .01-.02/250-350  
332-4895A1 N 1.2 CD .01-.02/5700-7300  
332-4895A2 N 1.4 CD .01-.02/5700-7300  
336-4409A2 N 1.4 CD (6) .20-.40/450-650  
336-4528A1 N 1.2 CD .01-.02/5000-6000  
336-4528A2 N 1.2 CD (6) .01-.02/5000-6000  
336-4592A1 N 1.3 CD .01-.03/850-1150  
339-5288A1 N 1.2 CD (6) .02-.04/9000-12000  
339-5288A2 N 1.2 CD (6) .02-.04/9000-12000  
339-5748A2 N 1.2 CD (6) .02-.04/9000-12000  
339-7370A8 N .8 CD  
398-2568A1 R 1.5 CD .40-.60/5500-7500

CONDENSERS:

336-4463 .5  
398-2203 .18

MERCURY

379569 N 1.2  
580380 R 2.2  
580527 R 1.5  
580602 R 1.5

581246 R 1.4 CD .01-.02/1700-2100  
581458 R 1.4 CD .01-.02/1700-2100  
581616 R 1.9 CD .05-.15/800-1800

OMC  
SNOWMOBILE

383444 N 1.4

OMC  
STERNDRIVE

FG-114	N 2.0	FG-2145	N 2.2	07969-01-B	2.0	R. E. PHELON
FG-307	N 2.2	FG-2180	N 2.2	08119-02	2.2	
FG-420	N 2.2	FG-2331	N 2.2	08635	2.2	
FG-463	N 2.0	FG-2546	N 2.0	08635-00-A	2.2	
FG-470	N 2.1	FG-3294B	R 3.2	08878	2.2	
FG-792	R 3.2	03595	2.3	08921-01	2.0	
FG-608	N 2.1	03773-00-B	2.4	08992	2.2	
FG-678	N 2.2	05960	1.8 CD	09428	2.0	
FG-1054	N 2.2	07423	1.8	09524	1.8 CD (5)	
FG-1070	N 2.2	07423-01-B	1.8	09667	2.5	
FG-1309	N 2.2	07427-01	2.0	10088	1.4 CD	
FG-1573	N 2.2	07427-01-M	2.0	10236-00-A	1.4 CD	
FG-1618	N 2.2	07601	2.2	10236-01	1.4 CD	
FG-1641	N 2.1	07795	2.0	10236-02	1.4 CD	
FG-1835	R 2.7	07898	1.2 (3)	10236-03	1.4 CD	
FG-1835B	R 2.7	07969-01	2.0	11181	2.4	

CONDENSERS:

00410-00-D	.15-.19	03505-00-M	.15-.19	07270	.15-.19
00471	.13-.18	03597	.24-.28	07437	.12-.17
00471-00-B	.13-.18	03693	.15-.19	07460	.15-.19
00607-00-B	.15-.19	03723	.15-.19	07468	.11-.15
00607-00-C	.15-.19	04016	.18-.22	07499	.15-.19
00955	.15-.19	04082	.15-.19	07507	.15-.19
CEX955	.15-.19	04312	.24-.28	07533	.12-.17
00987	.15-.19	04449	.15-.19	07829	.26-.32
CEX987	.15-.19	04477	.15-.19	07909	.11-.15
01019	.15-.19	06048	.15-.19	08052	.15-.19
01057	.15-.20	06048-00-B	.15-.19	08095	.24-.28
01316	.15-.19	06168	.15-.19	08244	.15-.19
01338	.15-.19	06200-00-D	.19-.25	08466	.19-.23
01355	.15-.19	06325	.24-.28	08589	.15-.19
01770	.15-.19	06453	.15-.19	08725	.15-.19
01928	.24-.28	06548	.23-.28	08725-00-A	.15-.19
02111	.15-.19	06548-00-B	.23-.28	08841	.15-.19
02138	.12-.17	06867	.11-.15	08852	.24-.28
02176	.15-.19	07022	.15-.19	08852-01	.24-.28
02448	.15-.19	07047	.18-.22	08860	.15-.19
02508	.15-.19	07130	.15-.19	08932-01	.23-.28
02642	.15-.19	07146	.18-.22	08977	.15-.19
02733	.15-.19	07157	.15-.19	11184	.18-.22
02993	.18-.22	07157-00-K	.15-.29	11239	.15-.19
03044	.24-.28	07184	.24-.28	11655	.15-.19
03478	.18-.22	07224	.15-.19	09221	.15-.19
03505	.15-.19	07239	.18-.22	09072	.15-.19
03505-00-M	.15-.19	07251	.11-.15	11746	.15-.19

60-084 R 2.8

60-1030 N 2.0

60-1445 N 3.5

PIONEER  
GEN-E-MOTOR



420276 R 3.2	470685 (blue) N 2.0	PIONEER
470184 N 2.7	470685 (purple) N 2.2	SAWS
470187 N 2.7	580454 N 2.3	

3080838 1.7 (1)	3081602 R 1.8 CD	POLARIS
3081177 2.0 (2)	3081627 1.5 CD (3)	
3081272 N 1.8	3081974 N 2.2	Condensers:
3081303 1.5 CD (3)	3081980 N 2.2	
3081389 R 1.8 CD	3081603 2.4 CD	3081254 .25
3081514 1.5 CD (3)	3081954 1.6 CD (3)	
3081573 N 2.5		

**Arctic Enterprises**

**SPIRIT**

3011-076 1.7	3012-042 1.3 CD
3011-305 1.3 CD (3)	3012-043 R 1.3 CD
3011-624 1.5 CD (3)	3012-092 1.6 CD (3)

1106-404-3210 2.2		STIHL
1108-404-3200 1.6		
1110-400-0507* R 1.2 CD		
1111-400-1305 R 1.3 CD		
1113-400-1300 R 2.3	.8-1.1/6500-8000	CONDENSERS:
1113-400-1301 R 1.2 CD		
1114-404-3200 2.1	1.5-1.9/6500-9000	1113-404-3400 .15-.19
1115-400-0507* R 1.2 CD		1114-404-3400 .2
1115-404-3200 1.6	.6-.7/5900-6500	1115-404-3400 .15-.19
1116-404-3200 2.1	.8-1.3/7200-8800	1116-400-2000 .17
1117-400-1305 2.1		1118-404-3400 .15-.19
1118-400-1305 1.9	.7-1.0/7700-10300	
1120-404-3200 2.1	.8-1.3/7200-8800	
4112-404-3200 2.3		

\*Disconnect coil from module to test

610298 1.8 (3)	610783 1.3 CD (4)	TECUMSEH
610706 2.4 (5)	610785 1.3 CD (4)	
610760 1.3 CD (4)		

CONDENSERS:

29164 .18-.22	610294 .16-.20	610416 .18-.22
30548A .16-.20	610303 .18-.22	610467 .16-.20
32015 .24-.31	610331 .16-.20	610707 .18-.22
610269 .18-.23	610370 .16-.20	610767 .16-.20

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3148-9100-00	1.8		3177-9100-20	1.0	<b>VOLVO</b>
3174-9100-10	2.2		3198-8505-00	1.4 CD	<b>PENTA</b>
3177-9100-00	1.8				

CONDENSERS:	3132-9600-01	.20-.24	3174-9600-10	.23-.27
	3173-9600-00	.20-.24	3192-9600-00	.29-.35

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**Arctic Enterprises**

3011-305 1.3 CD (3)

**WETBIKE**

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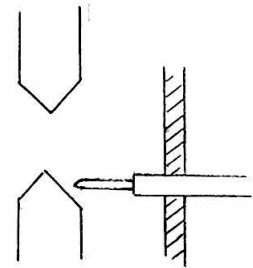
624-82310-21	1.8		664-82320-11	1.9	<b>YAMAHA</b>
646-81311-21	1.8		654-82310-21	1.7	
650-82310-12	1.9		676-82310-20	1.7	
663-85570-11	R 1.4 CD		677-82320-10	1.8	

# ST-75 FINAL TEST AND ADJUSTMENT

1. Preliminary Inspection: Make visual inspection of solder connections on all switches, controls and terminal strips etc.

Check 4 power supply diodes - all bands toward outside of chassis. Check filter capacitor polarity - plus side in same direction as diode bands. Check regulator diode - banded end toward center of chassis.

2. Spark Gap Adjustment: Set lower spark gap pin so that needle on back plate aligns approximately in center of tapered part of pin as shown at right. Adjust needle to .005 or .010" away from tapered pin. Adjust gap between upper and lower pins to  $7/32$ ".



3. Check and adjust meter zero if necessary. Tap meter lightly while making adjustment.
4. Set selector switch to 0-20V position. Place test leads across 6 or 12V battery. Reading should be 5.7 minimum on 6V battery and 11.4 on 12V battery. Make test 3 or 4 times to be certain that reading repeats accurately, and that meter returns to zero each time.
5. Set selector switch to Std Coil position. Insert vibrator (replaced by motor/switch on later models). Attach test leads to coil and depress test switch while increasing coil current to rated value. Steady spark should appear at spark gap about .2 or .3A below maximum rating.
6. Set selector to CD Coil. Attach leads to coil. Rotate coil current control to minimum end and repeat test as for standard coil.

NOTE: If on either of the coil tests spark is erratic or intermittent, vibrator (or motor/switch) is at fault and should be replaced (or repaired). On CD coil test, faulty vibrators will sometimes cause the spark intensity to increase when lever switch is released.

7. Set selector switch to LO Resistance. Short test leads together and adjust calibrate control for zero at right end of scale. Open leads and adjust trimpot at upper right of PC board for zero at left end. Repeat until no further adjustment is necessary. Check a 1 ohm resistor; should read center scale + or - one division.
8. Set selector switch to HI Resistance. Adjust same as for low resistance using trimpot at lower left on under side of board. Check a 1000 ohm resistor; should read center scale + or - one division.

Place test leads across diode. Reading should be approximately 2000 ohms. Check polarity reversal switch. Reading should be at maximum resistance end of scale.

9. Set selector switch to Condenser Leakage. Place test leads across capacitor and rotate coil current control to maximum end. Depress lever switch. Meter should indicate upscale, then gradually drop down to green area of leakage scale. Repeat 2 or 3 times. Return control to minimum end of scale after test.
10. Set selector switch to Condenser Resistance. Short test leads and rotate calibration control fully clockwise. Adjust trimpot (upper right 2nd from top) for 3.4 on current scale, then adjust calibration control to marker on condenser resistance scale (3 on current scale). Test .1, .25, & .5 mfd capacitors with and without 1 ohm resistor. Should read in green area without resistor (at least 3 divisions above center scale) and in red area with 1 ohm resistor.
11. Set selector switch to Condenser Capacity. Short test leads and adjust calibration control for full scale reading. Place test leads across .25 capacitor and adjust trimpot (center of board above meter terminals) for 2.75 on current scale. Repeat above 2 steps until no change is noted. Check .1 and .5 mfd capacitors.

NOTE: Occasional instruments should have the regulated power supply tested by disconnecting one side of the regulator diode and connecting a 0-500 MA meter in series. With selector in 0-20V position, turn instrument on and observe current drain. Should be approximately 300 to 350 MA.