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ISSPRO 3 3/8" Diameter Programmable Speedometer

Microprocessor Aircore Version

General Information:

Operating Voltage: 11 – 32 VDC. Note: Instrument comes equipped with a 12V lamp. Replace with one of proper voltage when installing instrument on 24V systems. 24V Lamp Part number is 656.

Input: Magnetic sensor or AC generator

Transient Protection: +100 V, -400 V

Reverse Voltage Protected

Calibration:

The ISSPRO Programmable Speedometer is calibrated (programmed) by setting a combination of ten switches found in the rear of the instrument. The odometer and pointer are electronically linked together and both are calibrated when the switches are properly set. Program before installing.
Note: the switch setting must be done with power "off". If power is left "on", changing the switch will have no effect on calibration until power is interrupted.

Calibration Procedure:

Calculate the "calibration number" from the appropriate formula below. (A minimum calibration number of 10080 is required to be within calibration range). Refer to the "CALIBRATION SWITCH SETTING" table with this number. Locate the row in which the calibration number is between the limits, then set the switches marked with a "X" to the "on" position (up).

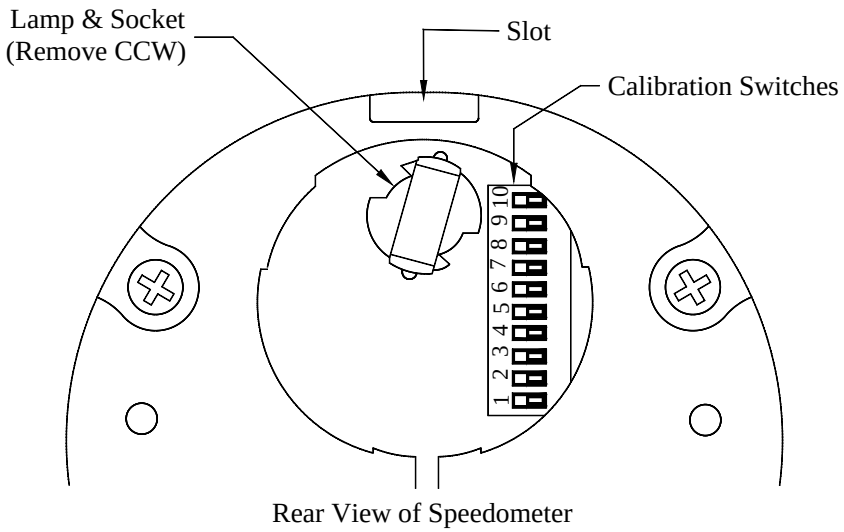
Example: Calibration number = 29644: From the table 29644 lies between 29581 and 29700, therefore, switches 4, 9, and 10 will be set to "on".

(1) Front wheel mounted tone wheel:
Calibration Number = Number of Slots in Tone Wheel X Tire Revs per Mile

(2) Tail Shaft mounted magnetic sensor:
Calibration Number = Tire Revs per Mile X Differential Ratio X 16

(3) Sender driven from transmission cable drive:
Calibration Number = Cable Turns Per Mile X Number of Pulses per Sender Turn

Note: For metric versions, substitute kilometers for miles in the above formulas. Multiply the resulting value by 1.609 to obtain final calibration number.



Rear View of Speedometer

If the number of cable turns per mile (or kilometer) is not known, follow this procedure: Obtain a ratio tester and correct drive tang for your transmission. With a steel tape measure, mark off 1/10th mile (528 ft.) (or kilometer [1000 meters]) in as straight of a line as possible. Mark start and stop lines with chalk or paint. Position the vehicle so that one of the wheels aligns with the start mark. Disconnect the speedometer cable at the transmission and install the ratio tester in its place. Secure the cables and reset the ratio tester. Drive the vehicle to the stop point positioning the selected wheel on the stop mark. The reading displayed on the ratio tester is the number of cable turns per mile (or kilometer) if using an Engler "SAC-10". If using an SS White ratio tester (P/N 312-12175Y), multiply the reading by 10 to obtain the cable turns per mile (or kilometer.

Frequently Used Senders	**#Pulses Per Turn**
DATCON 4-D-C 71267	8 *
DIXSON SG201A, SG201A1, SG202	2 *
ENGLER 870-0588	15
ISSPRO R8970, R8940	30
KIENZLE-ARGO 8-161-237008	8 *
MOTOROLA 4-100 (7SG100), 4-111 (7SG100B)	30
ROCKWELL 240R02-001	30
SUN Model CP7643	6 *
SYNCHRO-START Minigen	30
TELEFLEX 9604276	8 *
VDO (Old Style Engler) ISSPRO 300092	4 *
ZEMCO 4710	8 *
ZEMCO 6314	5 *

*Note: These senders do not produce the minimum required number of pulses to be in calibration range when driven at 1000 turns per mile (or kilometer). It may be necessary to change your sender to one that generates more pulses per rev such as an ISSPRO R8970.

Installation: Mount the speedo in the dash panel and connect the wires as described below:

RED – Connect to ignition switched power source.
BLACK – Connect to ground and sensor wire (-)
WHITE – Connect to sensor wire. (+)
GREEN – Connect to dash lamp power.
VIOLET – 2 speed axle (no connection if not used)
(Connection to positive gives correct MPH (or KPH) reading with 0.733 axle ratio change. A 0.680 ratio available on special factory orders.)

Installation Hints:

1.) When power is applied, the needle should go to mid scale then to the zero position. If it does not, there may be a bad connection in the “Hot” (red wire) or ground wire circuit. Check power to the meter by measuring with a voltmeter at the plug (meter leads on the pins that attach to the red and black wires). If there is power at the plug, the problem is in the gauge.

2.) Low voltage can cause inaccurate reading. If inaccuracy is suspected, measure voltage with vehicle operating and meter connected. This can be done by connecting a voltmeter to power source (i.e. fuse block, etc.) and/or piercing the red and black wire insulation with the meter leads.

3.) If speedo reads zero, then “jumps” to normal reading after a certain speed, adjust the sensor in closer to gear. (generators cannot be adjusted)

Note that "X" is Switch ON

Calibration # From	To	1	2	3	4	5	6	7	8	9	10	Freq at 60MPH
10080	10140	X	X		X		X		X	X	X	168
10141	10260		X		X		X		X	X	X	170
10261	10380	X			X		X		X	X	X	172
10381	10500				X		X		X	X	X	174
10501	10620	X	X	X			X		X	X	X	176
10621	10740		X	X			X		X	X	X	178
10741	10860	X		X			X		X	X	X	180
10861	10980			X			X		X	X	X	182
10981	11100	X	X				X		X	X	X	184
11101	11220		X				X		X	X	X	186
11221	11340	X					X		X	X	X	188
11341	11460						X		X	X	X	190
11461	11580	X	X	X	X	X			X	X	X	192
11581	11700		X	X	X	X			X	X	X	194
11701	11820	X		X	X	X			X	X	X	196
11821	11940			X	X	X			X	X	X	198
11941	12060	X	X		X	X			X	X	X	200
12061	12180		X		X	X			X	X	X	202
12181	12300	X			X	X			X	X	X	204
12301	12420				X	X			X	X	X	206
12421	12540	X	X	X		X			X	X	X	208
12541	12660		X	X		X			X	X	X	210
12661	12780	X		X		X			X	X	X	212
12781	12900			X		X			X	X	X	214
12901	13020	X	X			X			X	X	X	216
13021	13140		X			X			X	X	X	218
13141	13260	X				X			X	X	X	220
13261	13380					X			X	X	X	222
13381	13500	X	X	X	X				X	X	X	224
13501	13620		X	X	X				X	X	X	226
13621	13740	X		X	X				X	X	X	228
13741	13860			X	X				X	X	X	230
13861	13980	X	X		X				X	X	X	232
13981	14100		X		X				X	X	X	234
14101	14220	X			X				X	X	X	236
14221	14340				X				X	X	X	238
14341	14460	X	X	X					X	X	X	240
14461	14580		X	X					X	X	X	242
14581	14700	X		X					X	X	X	244
14701	14820			X					X	X	X	246
14821	14940	X	X						X	X	X	248
14941	15060		X						X	X	X	250
15061	15180	X							X	X	X	252
15181	15300								X	X	X	254
15301	15420	X	X	X	X	X	X	X		X	X	256
15421	15540		X	X	X	X	X	X		X	X	258
15541	15660	X		X	X	X	X	X		X	X	260
15661	15780			X	X	X	X	X		X	X	262
15781	15900	X	X		X	X	X	X		X	X	264
15901	16020		X		X	X	X	X		X	X	266
16021	16140	X			X	X	X	X		X	X	268
16141	16260				X	X	X	X		X	X	270
16261	16380	X	X	X		X	X	X		X	X	272
16381	16500		X	X		X	X	X		X	X	274
16501	16620	X		X		X	X	X		X	X	276
16621	16740			X		X	X	X		X	X	278
16741	16860	X	X			X	X	X		X	X	280
16861	16980		X			X	X	X		X	X	282
16981	17100	X				X	X	X		X	X	284
17101	17220					X	X	X		X	X	286
17221	17340	X	X	X	X		X	X		X	X	288
17341	17460		X	X	X		X	X		X	X	290
17461	17580	X		X	X		X	X		X	X	292
17581	17700			X	X		X	X		X	X	294

Calibration # From	To	1	2	3	4	5	6	7	8	9	10	Freq at 60MPH
17701	17820	X	X		X		X	X		X	X	296
17821	17940		X		X		X	X		X	X	298
17941	18060	X			X		X	X		X	X	300
18061	18180				X		X	X		X	X	302
18181	18300	X	X	X			X	X		X	X	304
18301	18420		X	X			X	X		X	X	306
18421	18540	X		X			X	X		X	X	308
18541	18660			X			X	X		X	X	310
18661	18780	X	X				X	X		X	X	312
18781	18900		X				X	X		X	X	314
18901	19020	X					X	X		X	X	316
19021	19140						X	X		X	X	318
19141	19260	X	X	X	X	X		X		X	X	320
19261	19380		X	X	X	X		X		X	X	322
19381	19500	X		X	X	X		X		X	X	324
19501	19620			X	X	X		X		X	X	326
19621	19740	X	X		X	X		X		X	X	328
19741	19860		X		X	X		X		X	X	330
19861	19980	X			X	X		X		X	X	332
19981	20100				X	X		X		X	X	334
20101	20220	X	X	X		X		X		X	X	336
20221	20340		X	X		X		X		X	X	338
20341	20460	X		X		X		X		X	X	340
20461	20580			X		X		X		X	X	342
20581	20700	X	X			X		X		X	X	344
20701	20820		X			X		X		X	X	346
20821	20940	X				X		X		X	X	348
20941	21060					X		X		X	X	350
21061	21180	X	X	X	X			X		X	X	352
21181	21300		X	X	X			X		X	X	354
21301	21420	X		X	X			X		X	X	356
21421	21540			X	X			X		X	X	358
21541	21660	X	X		X			X		X	X	360
21661	21780		X		X			X		X	X	362
21781	21900	X			X			X		X	X	364
21901	22020				X			X		X	X	366
22021	22140	X	X	X				X		X	X	368
22141	22260		X	X				X		X	X	370
22261	22380	X		X				X		X	X	372
22381	22500			X				X		X	X	374
22501	22620	X	X					X		X	X	376
22621	22740		X					X		X	X	378
22741	22860	X						X		X	X	380
22861	22980							X		X	X	382
22981	23100	X	X	X	X	X	X			X	X	384
23101	23220		X	X	X	X	X			X	X	386
23221	23340	X		X	X	X	X			X	X	388
23341	23460			X	X	X	X			X	X	390
23461	23580	X	X		X	X	X			X	X	392
23581	23700		X		X	X	X			X	X	394
23701	23820	X			X	X	X			X	X	396
23821	23940				X	X	X			X	X	398
23941	24060	X	X	X		X	X			X	X	400
24061	24180		X	X		X	X			X	X	402
24181	24300	X		X		X	X			X	X	404
24301	24900			X		X	X			X	X	406
24901	24540	X	X			X	X			X	X	408
24541	24660		X			X	X			X	X	410
24661	24780	X				X	X			X	X	412
24781	24900					X	X			X	X	414
24901	25020	X	X	X	X		X			X	X	416
25021	25140		X	X	X		X			X	X	418
25141	25260	X		X	X		X			X	X	420
25261	25380			X	X		X			X	X	422

Calibration # From	To	1	2	3	4	5	6	7	8	9	10	Freq at 60MPH
25381	25500	X	X		X		X			X	X	424
25501	25620		X		X		X			X	X	426
25621	25740	X			X		X			X	X	428
25741	25860				X		X			X	X	430
25861	25980	X	X	X			X			X	X	432
25981	26100		X	X			X			X	X	434
26101	26220	X		X			X			X	X	436
26221	26340			X			X			X	X	438
26341	26460	X	X				X			X	X	440
26461	26580		X				X			X	X	442
26581	26700	X					X			X	X	444
26701	26820						X			X	X	446
26821	26940	X	X	X	X	X				X	X	448
26941	27060		X	X	X	X				X	X	450
27061	27180	X		X	X	X				X	X	452
27181	27300			X	X	X				X	X	454
27301	27420	X	X		X	X				X	X	456
27421	27540		X		X	X				X	X	458
27541	27660	X			X	X				X	X	460
27661	27780				X	X				X	X	462
27781	27900	X	X	X		X				X	X	464
27901	28020		X	X		X				X	X	466
28021	28140	X		X		X				X	X	468
28141	28260			X		X				X	X	470
28261	28380	X	X			X				X	X	472
28381	28500		X			X				X	X	474
28501	28620	X				X				X	X	476
28621	28740					X				X	X	478
28741	28860	X	X	X	X					X	X	480
28861	28980		X	X	X					X	X	482
28981	29100	X		X	X					X	X	484
29101	29220			X	X					X	X	486
29221	29340	X	X		X					X	X	488
29341	29460		X		X					X	X	490
29461	29580	X			X					X	X	492
29581	29700				X					X	X	494
29701	29820	X	X	X						X	X	496
29821	29940		X	X						X	X	498
29941	30060	X		X						X	X	500
30061	30180			X						X	X	502
30181	30300	X	X							X	X	504
30301	30420		X							X	X	506
30421	30540	X								X	X	508
30541	30660									X	X	510
30661	30780	X	X	X	X	X	X	X	X		X	512
30781	30900		X	X	X	X	X	X	X		X	514
30901	31020	X		X	X	X	X	X	X		X	516
31021	31140			X	X	X	X	X	X		X	518
31141	31260	X	X		X	X	X	X	X		X	520
31261	31380		X		X	X	X	X	X		X	522
31381	31500	X			X	X	X	X	X		X	524
31501	31620				X	X	X	X	X		X	526
31621	31740	X	X	X		X	X	X	X		X	528
31741	31860		X	X		X	X	X	X		X	530
31861	31980	X		X		X	X	X	X		X	532
31981	32100			X		X	X	X	X		X	534
32101	32220	X	X			X	X	X	X		X	536
32221	32340		X			X	X	X	X		X	538
32341	32460	X				X	X	X	X		X	540
32461	32580					X	X	X	X		X	542
32581	32700	X	X	X	X		X	X	X		X	544
32701	32820		X	X	X		X	X	X		X	546
32821	32940	X		X	X		X	X	X		X	548
32941	33060			X	X		X	X	X		X	550

Note that "X" is Switch ON

Calibration # From	To	Calibration Switch Setting 1	2	3	4	5	6	7	8	9	10	Freq at 60MPH
33061	33180	X	X		X		X	X	X		X	552
33181	33300		X		X		X	X	X		X	554
33301	33420	X			X		X	X	X		X	556
33421	33540				X		X	X	X		X	558
33541	33660	X	X	X			X	X	X		X	560
33661	33780		X	X			X	X	X		X	562
33781	33900	X		X			X	X	X		X	564
33901	34020			X			X	X	X		X	566
34021	34140	X	X				X	X	X		X	568
34141	34260		X				X	X	X		X	570
34261	34380	X					X	X	X		X	572
34381	34500						X	X	X		X	574
34501	34620	X	X	X	X	X		X	X		X	576
34621	34740		X	X	X	X		X	X		X	578
34741	34860	X		X	X	X		X	X		X	580
34861	34980			X	X	X		X	X		X	582
34981	35100	X	X		X	X		X	X		X	584
35101	35220		X		X	X		X	X		X	586
35221	35340	X			X	X		X	X		X	588
35341	35460				X	X		X	X		X	590
35461	35580	X	X	X		X		X	X		X	592
35581	35700		X	X		X		X	X		X	594
35701	35820	X		X		X		X	X		X	596
35821	35940			X		X		X	X		X	598
35941	36060	X	X			X		X	X		X	600
36061	36180		X			X		X	X		X	602
36181	36300	X				X		X	X		X	604
36301	36420					X		X	X		X	606
36421	36540	X	X	X	X			X	X		X	608
36541	36660		X	X	X			X	X		X	610
36661	36780	X		X	X			X	X		X	612
36781	36900			X	X			X	X		X	614
36901	37020	X	X		X			X	X		X	616
37021	37140		X		X			X	X		X	618
37141	37260	X			X			X	X		X	620
37261	37380				X			X	X		X	622
37381	37500	X	X	X				X	X		X	624
37501	37620		X	X				X	X		X	626
37621	37740	X		X				X	X		X	628
37741	37860			X				X	X		X	630
37861	37980	X	X					X	X		X	632
37981	38100		X					X	X		X	634
38101	38220	X						X	X		X	636
38221	38340							X	X		X	638
38341	38460	X	X	X	X	X	X		X		X	640
38461	38580		X	X	X	X	X		X		X	642
38581	38700	X		X	X	X	X		X		X	644
38701	38820			X	X	X	X		X		X	646
38821	38940	X	X		X	X	X		X		X	648
38941	39060		X		X	X	X		X		X	650
39061	39180	X			X	X	X		X		X	652
39181	39300				X	X	X		X		X	654
39301	39420	X	X	X		X	X		X		X	656
39421	39540		X	X		X	X		X		X	658
39541	39660	X		X		X	X		X		X	660
39661	39780			X		X	X		X		X	662
39781	39900	X	X			X	X		X		X	664
39901	40020		X			X	X		X		X	666
40021	40140	X				X	X		X		X	668
40141	40260					X	X		X		X	670
40261	40380	X	X	X	X		X		X		X	672
40381	40500		X	X	X		X		X		X	674
40501	40620	X		X	X		X		X		X	676
40621	40740			X	X		X		X		X	678
40741	40860	X	X		X		X		X		X	680
40861	40980		X		X		X		X		X	682
40981	41100	X			X		X		X		X	684
41101	41220				X		X		X		X	686
41221	41340	X	X	X			X		X		X	688
41341	41460		X	X			X		X		X	690
41461	41580	X		X			X		X		X	692
41581	41700			X			X		X		X	694
41701	41820	X	X				X		X		X	696
41821	41940		X				X		X		X	698
41941	42060	X					X		X		X	700
42061	42180						X		X		X	702
42181	42300	X	X	X	X	X			X		X	704
42301	42420		X	X	X	X			X		X	706
42421	42540	X		X	X	X			X		X	708
42541	42660			X	X	X			X		X	710
42661	42780	X	X		X	X			X		X	712
42781	42900		X		X	X			X		X	714
42901	43020	X			X	X			X		X	716
43021	43140				X	X			X		X	718
43141	43260	X	X	X		X			X		X	720
43261	43380		X	X		X			X		X	722
43381	43500	X		X		X			X		X	724
43501	43620			X		X			X		X	726
43621	43740	X	X			X			X		X	728
43741	43860		X			X			X		X	730
43861	43980	X				X			X		X	732
43981	44100					X			X		X	734
44101	44220	X	X	X	X				X		X	736
44221	44340		X	X	X				X		X	738
44341	44460	X		X	X				X		X	740
44461	44580			X	X				X		X	742
44581	44700	X	X		X				X		X	744
44701	44820		X		X				X		X	746
44821	44940	X			X				X		X	748
44941	45060				X				X		X	750
45061	45180	X	X	X					X		X	752
45181	45300		X	X					X		X	754
45301	45420	X		X					X		X	756
45421	45540			X					X		X	758
45541	45660	X	X						X		X	760
45661	45780		X						X		X	762
45781	45900	X							X		X	764
45901	46020								X		X	766
46021	46140	X	X	X	X	X	X	X			X	768
46141	46260		X	X	X	X	X	X			X	770
46261	46380	X		X	X	X	X	X			X	772
46381	46500			X	X	X	X	X			X	774
46501	46620	X	X		X	X	X	X			X	776
46621	46740		X		X	X	X	X			X	778
46741	46860	X			X	X	X	X			X	780
46861	46980				X	X	X	X			X	782
46981	47100	X	X	X		X	X	X			X	784
47101	47220		X	X		X	X	X			X	786
47221	47340	X		X		X	X	X			X	788
47341	47940			X		X	X	X			X	790
47941	47580	X	X			X	X	X			X	792
47581	47700		X			X	X	X			X	794
47701	47820	X				X	X	X			X	796
47821	47940					X	X	X			X	798
47941	48060	X	X	X	X		X	X			X	800
48061	48180		X	X	X		X	X			X	802
48181	48300	X		X	X		X	X			X	804
48301	48420			X	X		X	X			X	806
48421	48540	X	X		X		X	X			X	808
48541	48660		X		X		X	X			X	810
48661	48780	X			X		X	X			X	812
48781	48900				X		X	X			X	814
48901	49020	X	X	X			X	X			X	816
49021	49140		X	X			X	X			X	818
49141	49260	X		X			X	X			X	820
49261	49380			X			X	X			X	822
49381	49500	X	X				X	X			X	824
49501	49620		X				X	X			X	826
49621	49740	X					X	X			X	828
49741	49860						X	X			X	830
49861	49980	X	X	X	X	X		X			X	832
49981	50100		X	X	X	X		X			X	834
50101	50220	X		X	X	X		X			X	836
50221	50340			X	X	X		X			X	838
50341	50460	X	X		X	X		X			X	840
50461	50580		X		X	X		X			X	842
50581	50700	X			X	X		X			X	844
50701	50820				X	X		X			X	846
50821	50940	X	X	X		X		X			X	848
50941	51060		X	X		X		X			X	850
51061	51180	X		X		X		X			X	852
51181	51300			X		X		X			X	854
51301	51420	X	X			X		X			X	856
51421	51540		X			X		X			X	858
51541	51660	X				X		X			X	860
51661	51780					X		X			X	862
51781	51900	X	X	X	X			X			X	864
51901	52020		X	X	X			X			X	866
52021	52140	X		X	X			X			X	868
52141	52260			X	X			X			X	870
52261	52380	X	X		X			X			X	872
52381	52500		X		X			X			X	874
52501	52620	X			X			X			X	876
52621	52740				X			X			X	878
52741	52860	X	X	X				X			X	880
52861	52980		X	X				X			X	882
52981	53100	X		X				X			X	884
53101	53220			X				X			X	886
53221	53340	X	X					X			X	888
53341	53460		X					X			X	890
53461	53580	X						X			X	892
53581	53700							X			X	894
53701	53820	X	X	X	X	X	X				X	896
53821	53940		X	X	X	X	X				X	898
53941	54060	X		X	X	X	X				X	900
54061	54180			X	X	X	X				X	902
54181	54300	X	X		X	X	X				X	904
54301	54420		X		X	X	X				X	906
54421	54540	X			X	X	X				X	908
54541	54660				X	X	X				X	910
54661	54780	X	X	X		X	X				X	912
54781	54900		X	X		X	X				X	914
54901	55020	X		X		X	X				X	916
55021	55140			X		X	X				X	918
55141	55260	X	X			X	X				X	920
55261	55380		X			X	X				X	922
55381	55500	X				X	X				X	924
55501	55620					X	X				X	926
55621	55740	X	X	X	X		X				X	928
55741	55860		X	X	X		X				X	930
55861	55980	X		X	X		X				X	932
55981	56100			X	X		X				X	934

Note that "X" is Switch ON

Calibration # From	To	1	2	3	4	5	6	7	8	9	10	Freq at 60MPH
56101	56220	X	X		X		X				X	936
56221	56340		X		X		X				X	938
56341	56460	X			X		X				X	940
56461	56580				X		X				X	942
56581	56700	X	X	X			X				X	944
56701	56820		X	X			X				X	946
56821	56940	X		X			X				X	948
56941	57060			X			X				X	950
57061	57180	X	X				X				X	952
57181	57300		X				X				X	954
57301	57420	X					X				X	956
57421	57540						X				X	958
57541	57660	X	X	X	X	X					X	960
57661	57780		X	X	X	X					X	962
57781	57900	X		X	X	X					X	964
57901	58020			X	X	X					X	966
58021	58140	X	X		X	X					X	968
58141	58260		X		X	X					X	970
58261	58380	X			X	X					X	972
58381	58500				X	X					X	974
58501	58620	X	X	X		X					X	976
58621	58740		X	X		X					X	978
58741	58860	X		X		X					X	980
58861	58980			X		X					X	982
58981	59100	X	X			X					X	984
59101	59220		X			X					X	986
59221	59340	X				X					X	988
59341	59460					X					X	990
59461	59580	X	X	X	X						X	992
59581	59700		X	X	X						X	994
59701	59820	X		X	X						X	996
59821	59940			X	X						X	998
59941	60060	X	X		X						X	1000
60061	60180		X		X						X	1002
60181	60300	X			X						X	1004
60301	60420				X						X	1006
60421	60540	X	X	X							X	1008
60541	60660		X	X							X	1010
60661	60780	X		X							X	1012
60781	60900			X							X	1014
60901	61020	X	X								X	1016
61021	61140		X								X	1018
61141	61260	X									X	1020
61261	61380										X	1022
61381	61500	X	X	X	X	X	X	X	X	X		1024
61501	61620		X	X	X	X	X	X	X	X		1026
61621	61740	X		X	X	X	X	X	X	X		1028
61741	61860			X	X	X	X	X	X	X		1030
61861	61980	X	X		X	X	X	X	X	X		1032
61981	62100		X		X	X	X	X	X	X		1034
62101	62220	X			X	X	X	X	X	X		1036
62221	62340				X	X	X	X	X	X		1038
62341	62460	X	X	X		X	X	X	X	X		1040
62461	62580		X	X		X	X	X	X	X		1042
62581	62700	X		X		X	X	X	X	X		1044
62701	62820			X		X	X	X	X	X		1046
62821	62940	X	X			X	X	X	X	X		1048
62941	63060		X			X	X	X	X	X		1050
63061	63180	X				X	X	X	X	X		1052
63181	63300					X	X	X	X	X		1054
63301	63420	X	X	X	X		X	X	X	X		1056
63421	63540		X	X	X		X	X	X	X		1058
63541	63660	X		X	X		X	X	X	X		1060
63661	63780			X	X		X	X	X	X		1062

Calibration # From	To	1	2	3	4	5	6	7	8	9	10	Freq at 60MPH
63781	63900	X	X		X		X	X	X	X		1064
63901	64020		X		X		X	X	X	X		1066
64021	64140	X			X		X	X	X	X		1068
64141	64260				X		X	X	X	X		1070
64261	64380	X	X	X			X	X	X	X		1072
64381	64500		X	X			X	X	X	X		1074
64501	64620	X		X			X	X	X	X		1076
64621	64740			X			X	X	X	X		1078
64741	64860	X	X				X	X	X	X		1080
64861	64980		X				X	X	X	X		1082
64981	65100	X					X	X	X	X		1084
65101	65220						X	X	X	X		1086
65221	65340	X	X	X	X	X		X	X	X		1088
65341	65460		X	X	X	X		X	X	X		1090
65461	65580	X		X	X	X		X	X	X		1092
65581	65700			X	X	X		X	X	X		1094
65701	65820	X	X		X	X		X	X	X		1096
65821	65940		X		X	X		X	X	X		1098
65941	66060	X			X	X		X	X	X		1100
66061	66180				X	X		X	X	X		1102
66181	66300	X	X	X		X		X	X	X		1104
66301	66420		X	X		X		X	X	X		1106
66421	66540	X		X		X		X	X	X		1108
66541	66660			X		X		X	X	X		1110
66661	66780	X	X			X		X	X	X		1112
66781	66900		X			X		X	X	X		1114
66901	67020	X				X		X	X	X		1116
67021	67140					X		X	X	X		1118
67141	67260	X	X	X	X			X	X	X		1120
67261	67380		X	X	X			X	X	X		1122
67381	67500	X		X	X			X	X	X		1124
67501	67620			X	X			X	X	X		1126
67621	67740	X	X		X			X	X	X		1128
67741	67860		X		X			X	X	X		1130
67861	67980	X			X			X	X	X		1132
67981	68100				X			X	X	X		1134
68101	68220	X	X	X				X	X	X		1136
68221	68340		X	X				X	X	X		1138
68341	68460	X		X				X	X	X		1140
68461	68580			X				X	X	X		1142
68581	68700	X	X					X	X	X		1144
68701	68820		X					X	X	X		1146
68821	68940	X						X	X	X		1148
68941	69060							X	X	X		1150
69061	69180	X	X	X	X	X	X		X	X		1152
69181	69300		X	X	X	X	X		X	X		1154
69301	69420	X		X	X	X	X		X	X		1156
69421	69540			X	X	X	X		X	X		1158
69541	69660	X	X		X	X	X		X	X		1160
69661	69780		X		X	X	X		X	X		1162
69781	69900	X			X	X	X		X	X		1164
69901	70020				X	X	X		X	X		1166
70021	70140	X	X	X		X	X		X	X		1168
70141	70260		X	X		X	X		X	X		1170
70261	70380	X		X		X	X		X	X		1172
70381	70980			X		X	X		X	X		1174
70981	70620	X	X			X	X		X	X		1176
70621	70740		X			X	X		X	X		1178
70741	70860	X				X	X		X	X		1180
70861	70980					X	X		X	X		1182
70981	71100	X	X	X	X		X		X	X		1184
71101	71220		X	X	X		X		X	X		1186
71221	71340	X		X	X		X		X	X		1188
71341	71460			X	X		X		X	X		1190

Calibration # From	To	1	2	3	4	5	6	7	8	9	10	Freq at 60MPH
71461	71580	X	X		X		X		X	X		1192
71581	71700		X		X		X		X	X		1194
71701	71820	X			X		X		X	X		1196
71821	71940				X		X		X	X		1198
71941	72060	X	X	X			X		X	X		1200
72061	72180		X	X			X		X	X		1202
72181	72300	X		X			X		X	X		1204
72301	72420			X			X		X	X		1206
72421	72540	X	X				X		X	X		1208
72541	72660		X				X		X	X		1210
72661	72780	X					X		X	X		1212
72781	72900						X		X	X		1214
72901	73020	X	X	X	X	X			X	X		1216
73021	73140		X	X	X	X			X	X		1218
73141	73260	X		X	X	X			X	X		1220
73261	73380			X	X	X			X	X		1222
73381	73500	X	X		X	X			X	X		1224
73501	73620		X		X	X			X	X		1226
73621	73740	X			X	X			X	X		1228
73741	73860				X	X			X	X		1230
73861	73980	X	X	X		X			X	X		1232
73981	74100		X	X		X			X	X		1234
74101	74220	X		X		X			X	X		1236
74221	74340			X		X			X	X		1238
74341	74460	X	X			X			X	X		1240
74461	74580		X			X			X	X		1242
74581	74700	X				X			X	X		1244
74701	74820					X			X	X		1246
74821	74940	X	X	X	X				X	X		1248
74941	75060		X	X	X				X	X		1250
75061	75180	X		X	X				X	X		1252
75181	75300			X	X				X	X		1254
75301	75420	X	X		X				X	X		1256
75421	75540		X		X				X	X		1258
75541	75660	X			X				X	X		1260
75661	75780				X				X	X		1262
75781	75900	X	X	X					X	X		1264
75901	76020		X	X					X	X		1266
76021	76140	X		X					X	X		1268
76141	76260			X					X	X		1270
76261	76380	X	X						X	X		1272
76381	76500		X						X	X		1274
76501	76620	X							X	X		1276
76621	76740								X	X		1278
76741	76860	X	X	X	X	X	X	X		X		1280
76861	76980		X	X	X	X	X	X		X		1282
76981	77100	X		X	X	X	X	X		X		1284
77101	77220			X	X	X	X	X		X		1286
77221	77340	X	X		X	X	X	X		X		1288
77341	77460		X		X	X	X	X		X		1290
77461	77580	X			X	X	X	X		X		1292
77581	77700				X	X	X	X		X		1294
77701	77820	X	X	X		X	X	X		X		1296
77821	77940		X	X		X	X	X		X		1298
77941	78060	X		X		X	X	X		X		1300
78061	78180			X		X	X	X		X		1302
78181	78300	X	X			X	X	X		X		1304
78301	78420		X			X	X	X		X		1306
78421	78540	X				X	X	X		X		1308
78541	78660					X	X	X		X		1310
78661	78780	X	X	X	X		X	X		X		1312
78781	78900		X	X	X		X	X		X		1314
78901	79020	X		X	X		X	X		X		1316
79021	79140			X	X		X	X		X		1318

Note that "X" is Switch ON

Calibration # From	To	1	2	3	4	5	6	7	8	9	10	Freq at 60MPH
79141	79260	X	X		X		X	X		X		1320
79261	79380		X		X		X	X		X		1322
79381	79500	X			X		X	X		X		1324
79501	79620				X		X	X		X		1326
79621	79740	X	X	X			X	X		X		1328
79741	79860		X	X			X	X		X		1330
79861	79980	X		X			X	X		X		1332
79981	80100			X			X	X		X		1334
80101	80220	X	X				X	X		X		1336
80221	80340		X				X	X		X		1338
80341	80460	X					X	X		X		1340
80461	80580						X	X		X		1342
80581	80700	X	X	X	X	X		X		X		1344
80701	80820		X	X	X	X		X		X		1346
80821	80940	X		X	X	X		X		X		1348
80941	81060			X	X	X		X		X		1350
81061	81180	X	X		X	X		X		X		1352
81181	81300		X		X	X		X		X		1354
81301	81420	X			X	X		X		X		1356
81421	81540				X	X		X		X		1358
81541	81660	X	X	X		X		X		X		1360
81661	81780		X	X		X		X		X		1362
81781	81900	X		X		X		X		X		1364
81901	82020			X		X		X		X		1366
82021	82140	X	X			X		X		X		1368
82141	82260		X			X		X		X		1370
82261	82380	X				X		X		X		1372
82381	82500					X		X		X		1374
82501	82620	X	X	X	X			X		X		1376
82621	82740		X	X	X			X		X		1378
82741	82860	X		X	X			X		X		1380
82861	82980			X	X			X		X		1382
82981	83100	X	X		X			X		X		1384
83101	83220		X		X			X		X		1386
83221	83340	X			X			X		X		1388
83341	83460				X			X		X		1390
83461	83580	X	X	X				X		X		1392
83581	83700		X	X				X		X		1394
83701	83820	X		X				X		X		1396
83821	83940			X				X		X		1398
83941	84060	X	X					X		X		1400
84061	84180		X					X		X		1402
84181	84300	X						X		X		1404
84301	84420							X		X		1406
84421	84540	X	X	X	X	X	X			X		1408
84541	84660		X	X	X	X	X			X		1410
84661	84780	X		X	X	X	X			X		1412
84781	84900			X	X	X	X			X		1414
84901	85020	X	X		X	X	X			X		1416
85021	85140		X		X	X	X			X		1418
85141	85260	X			X	X	X			X		1420
85261	85380				X	X	X			X		1422
85381	85500	X	X	X		X	X			X		1424
85501	85620		X	X		X	X			X		1426
85621	85740	X		X		X	X			X		1428
85741	85860			X		X	X			X		1430
85861	85980	X	X			X	X			X		1432
85981	86100		X			X	X			X		1434
86101	86220	X				X	X			X		1436
86221	86340					X	X			X		1438
86341	86460	X	X	X	X		X			X		1440
86461	86580		X	X	X		X			X		1442
86581	86700	X		X	X		X			X		1444
86701	86820			X	X		X			X		1446

Calibration # From	To	1	2	3	4	5	6	7	8	9	10	Freq at 60MPH
86821	86940	X	X		X		X			X		1448
86941	87060		X		X		X			X		1450
87061	87180	X			X		X			X		1452
87181	87300				X		X			X		1454
87301	87420	X	X	X			X			X		1456
87421	87540		X	X			X			X		1458
87541	87660	X		X			X			X		1460
87661	87780			X			X			X		1462
87781	87900	X	X				X			X		1464
87901	88020		X				X			X		1466
88021	88140	X					X			X		1468
88141	88260						X			X		1470
88261	88380	X	X	X	X	X				X		1472
88381	88500		X	X	X	X				X		1474
88501	88620	X		X	X	X				X		1476
88621	88740			X	X	X				X		1478
88741	88860	X	X		X	X				X		1480
88861	88980		X		X	X				X		1482
88981	89100	X			X	X				X		1484
89101	89220				X	X				X		1486
89221	89340	X	X	X		X				X		1488
89341	89460		X	X		X				X		1490
89461	89580	X		X		X				X		1492
89581	89700			X		X				X		1494
89701	89820	X	X			X				X		1496
89821	89940		X			X				X		1498
89941	90060	X				X				X		1500
90061	90180					X				X		1502
90181	90300	X	X	X	X					X		1504
90301	90420		X	X	X					X		1506
90421	90540	X		X	X					X		1508
90541	90660			X	X					X		1510
90661	90780	X	X		X					X		1512
90781	90900		X		X					X		1514
90901	91020	X			X					X		1516
91021	91140				X					X		1518
91141	91260	X	X	X						X		1520
91261	91380		X	X						X		1522
91381	91500	X		X						X		1524
91501	91620			X						X		1526
91621	91740	X	X							X		1528
91741	91860		X							X		1530
91861	91980	X								X		1532
91981	92100									X		1534
92101	92220	X	X	X	X	X	X	X	X			1536
92221	92340		X	X	X	X	X	X	X			1538
92341	92460	X		X	X	X	X	X	X			1540
92461	92580			X	X	X	X	X	X			1542
92581	92700	X	X		X	X	X	X	X			1544
92701	92820		X		X	X	X	X	X			1546
92821	92940	X			X	X	X	X	X			1548
92941	93060				X	X	X	X	X			1550
93061	93180	X	X	X		X	X	X	X			1552
93181	93300		X	X		X	X	X	X			1554
93301	93420	X		X		X	X	X	X			1556
93421	94020			X		X	X	X	X			1558
94021	93660	X	X			X	X	X	X			1560
93661	93780		X			X	X	X	X			1562
93781	93900	X				X	X	X	X			1564
93901	94020					X	X	X	X			1566
94021	94140	X	X	X	X		X	X	X			1568
94141	94260		X	X	X		X	X	X			1570
94261	94380	X		X	X		X	X	X			1572
94381	94500			X	X		X	X	X			1574

Calibration # From	To	1	2	3	4	5	6	7	8	9	10	Freq at 60MPH
94501	94620	X	X		X		X	X	X			1576
94621	94740		X		X		X	X	X			1578
94741	94860	X			X		X	X	X			1580
94861	94980				X		X	X	X			1582
94981	95100	X	X	X			X	X	X			1584
95101	95220		X	X			X	X	X			1586
95221	95340	X		X			X	X	X			1588
95341	95460			X			X	X	X			1590
95461	95580	X	X				X	X	X			1592
95581	95700		X				X	X	X			1594
95701	95820	X					X	X	X			1596
95821	95940						X	X	X			1598
95941	96060	X	X	X	X	X		X	X			1600
96061	96180		X	X	X	X		X	X			1602
96181	96300	X		X	X	X		X	X			1604
96301	96420			X	X	X		X	X			1606
96421	96540	X	X		X	X		X	X			1608
96541	96660		X		X	X		X	X			1610
96661	96780	X			X	X		X	X			1612
96781	96900				X	X		X	X			1614
96901	97020	X	X	X		X		X	X			1616
97021	97140		X	X		X		X	X			1618
97141	97260	X		X		X		X	X			1620
97261	97380			X		X		X	X			1622
97381	97500	X	X			X		X	X			1624
97501	97620		X			X		X	X			1626
97621	97740	X				X		X	X			1628
97741	97860					X		X	X			1630
97861	97980	X	X	X	X			X	X			1632
97981	98100		X	X	X			X	X			1634
98101	98220	X		X	X			X	X			1636
98221	98340			X	X			X	X			1638
98341	98460	X	X		X			X	X			1640
98461	98580		X		X			X	X			1642
98581	98700	X			X			X	X			1644
98701	98820				X			X	X			1646
98821	98940	X	X	X				X	X			1648
98941	99060		X	X				X	X			1650
99061	99180	X		X				X	X			1652
99181	99300			X				X	X			1654
99301	99420	X	X					X	X			1656
99421	99540		X					X	X			1658
99541	99660	X						X	X			1660
99661	99780							X	X			1662
99781	99900	X	X	X	X	X	X		X			1664
99901	100020		X	X	X	X	X		X			1666
100021	100140	X		X	X	X	X		X			1668
100141	100260			X	X	X	X		X			1670
100261	100380	X	X		X	X	X		X			1672
100381	100500		X		X	X	X		X			1674
100501	100620	X			X	X	X		X			1676
100621	100740				X	X	X		X			1678
100741	100860	X	X	X		X	X		X			1680
100861	100980		X	X		X	X		X			1682
100981	101100	X		X		X	X		X			1684
101101	101220			X		X	X		X			1686
101221	101340	X	X			X	X		X			1688
101341	101460		X			X	X		X			1690
101461	101580	X				X	X		X			1692
101581	101700					X	X		X			1694
101701	101820	X	X	X	X		X		X			1696
101821	101940		X	X	X		X		X			1698
101941	102060	X		X	X		X		X			1700
102061	102180			X	X		X		X			1702

Note that "X" is Switch ON

Calibration # From	To	Calibration Switch Setting 1	2	3	4	5	6	7	8	9	10	Freq at 60MPH
102181	102300	X	X		X		X		X			1704
102301	102420		X		X		X		X			1706
102421	102540	X			X		X		X			1708
102541	102660				X		X		X			1710
102661	102780	X	X	X			X		X			1712
102781	102900		X	X			X		X			1714
102901	103020	X		X			X		X			1716
103021	103140			X			X		X			1718
103141	103260	X	X				X		X			1720
103261	103380		X				X		X			1722
103381	103500	X					X		X			1724
103501	103620						X		X			1726
103621	103740	X	X	X	X	X			X			1728
103741	103860		X	X	X	X			X			1730
103861	103980	X		X	X	X			X			1732
103981	104100			X	X	X			X			1734
104101	104220	X	X		X	X			X			1736
104221	104340		X		X	X			X			1738
104341	104460	X			X	X			X			1740
104461	104580				X	X			X			1742
104581	104700	X	X	X		X			X			1744
104701	104820		X	X		X			X			1746
104821	104940	X		X		X			X			1748
104941	105060			X		X			X			1750
105061	105180	X	X			X			X			1752
105181	105300		X			X			X			1754
105301	105420	X				X			X			1756
105421	105540					X			X			1758
105541	105660	X	X	X	X				X			1760
105661	105780		X	X	X				X			1762
105781	105900	X		X	X				X			1764
105901	106020			X	X				X			1766
106021	106140	X	X		X				X			1768
106141	106260		X		X				X			1770
106261	106380	X			X				X			1772
106381	106500				X				X			1774
106501	106620	X	X	X					X			1776
106621	106740		X	X					X			1778
106741	106860	X		X					X			1780
106861	106980			X					X			1782
106981	107100	X	X						X			1784
107101	107220		X						X			1786
107221	107340	X							X			1788
107341	107460								X			1790
107461	107580	X	X	X	X	X	X	X				1792
107581	107700		X	X	X	X	X	X				1794
107701	107820	X		X	X	X	X	X				1796
107821	107940			X	X	X	X	X				1798
107941	108060	X	X		X	X	X	X				1800
108061	108180		X		X	X	X	X				1802
108181	108300	X			X	X	X	X				1804
108301	108420				X	X	X	X				1806
108421	108540	X	X	X		X	X	X				1808
108541	108660		X	X		X	X	X				1810
108661	108780	X		X		X	X	X				1812
108781	108900			X		X	X	X				1814
108901	109020	X	X			X	X	X				1816
109021	109140		X			X	X	X				1818
109141	109260	X				X	X	X				1820
109261	109380					X	X	X				1822
109381	109500	X	X	X	X		X	X				1824
109501	109620		X	X	X		X	X				1826
109621	109740	X		X	X		X	X				1828
109741	109860			X	X		X	X				1830

Calibration # From	To	Calibration Switch Setting 1	2	3	4	5	6	7	8	9	10	Freq at 60MPH
109861	109980	X	X		X		X	X				1832
109981	110100		X		X		X	X				1834
110101	110220	X			X		X	X				1836
110221	110340				X		X	X				1838
110341	110460	X	X	X			X	X				1840
110461	110580		X	X			X	X				1842
110581	110700	X		X			X	X				1844
110701	110820			X			X	X				1846
110821	110940	X	X				X	X				1848
110941	111060		X				X	X				1850
111061	111180	X					X	X				1852
111181	111300						X	X				1854
111301	111420	X	X	X	X	X		X				1856
111421	111540		X	X	X	X		X				1858
111541	111660	X		X	X	X		X				1860
111661	111780			X	X	X		X				1862
111781	111900	X	X		X	X		X				1864
111901	112020		X		X	X		X				1866
112021	112140	X			X	X		X				1868
112141	112260				X	X		X				1870
112261	112380	X	X	X		X		X				1872
112381	112500		X	X		X		X				1874
112501	112620	X		X		X		X				1876
112621	112740			X		X		X				1878
112741	112860	X	X			X		X				1880
112861	112980		X			X		X				1882
112981	113100	X				X		X				1884
113101	113220					X		X				1886
113221	113340	X	X	X	X			X				1888
113341	113460		X	X	X			X				1890
113461	113580	X		X	X			X				1892
113581	113700			X	X			X				1894
113701	113820	X	X		X			X				1896
113821	113940		X		X			X				1898
113941	114060	X			X			X				1900
114061	114180				X			X				1902
114181	114300	X	X	X				X				1904
114301	114420		X	X				X				1906
114421	114540	X		X				X				1908
114541	114660			X				X				1910
114661	114780	X	X					X				1912
114781	114900		X					X				1914
114901	115020	X						X				1916
115021	115140							X				1918
115141	115260	X	X	X	X	X	X					1920
115261	115380		X	X	X	X	X					1922
115381	115500	X		X	X	X	X					1924
115501	115620			X	X	X	X					1926
115621	115740	X	X		X	X	X					1928
115741	115860		X		X	X	X					1930
115861	115980	X			X	X	X					1932
115981	116100				X	X	X					1934
116101	116220	X	X	X		X	X					1936
116221	116340		X	X		X	X					1938
116341	116460	X		X		X	X					1940
116461	117060			X		X	X					1942
117061	116700	X	X			X	X					1944
116701	116820		X			X	X					1946
116821	116940	X				X	X					1948
116941	117060					X	X					1950
117061	117180	X	X	X	X		X					1952
117181	117300		X	X	X		X					1954
117301	117420	X		X	X		X					1956
117421	117540			X	X		X					1958

Calibration # From	To	Calibration Switch Setting 1	2	3	4	5	6	7	8	9	10	Freq at 60MPH
117541	117660	X	X		X		X					1960
117661	117780		X		X		X					1962
117781	117900	X			X		X					1964
117901	118020				X		X					1966
118021	118140	X	X	X			X					1968
118141	118260		X	X			X					1970
118261	118380	X		X			X					1972
118381	118500			X			X					1974
118501	118620	X	X				X					1976
118621	118740		X				X					1978
118741	118860	X					X					1980
118861	118980						X					1982
118981	119100	X	X	X	X	X						1984
119101	119220		X	X	X	X						1986
119221	119340	X		X	X	X						1988
119341	119460			X	X	X						1990
119461	119580	X	X		X	X						1992
119581	119700		X		X	X						1994
119701	119820	X			X	X						1996
119821	119940				X	X						1998
119941	120060	X	X	X		X						2000
120061	120180		X	X		X						2002
120181	120300	X		X		X						2004
120301	120420			X		X						2006
120421	120540	X	X			X						2008
120541	120660		X			X						2010
120661	120780	X				X						2012
120781	120900					X						2014
120901	121020	X	X	X	X							2016
121021	121140		X	X	X							2018
121141	121260	X		X	X							2020
121261	121380			X	X							2022
121381	121500	X	X		X							2024
121501	121620		X		X							2026
121621	121740	X			X							2028
121741	121860				X							2030
121861	121980	X	X	X								2032
121981	122100		X	X								2034
122101	122220	X		X								2036
122221	122340			X								2038
122341	122460	X	X									2040
122461	122580		X									2042
122581	122700	X										2044
122701	122820											2046