SERVICE MANUAL ADDENDUM

Due to engineering up-dates on the newer models of the Hy-Gain 2679, the Channel Selector P.C. assembly has been changed and is now called the Attenuator/Channel Selector Logic assembly.

The new logic circuit allows start up on channel 19 for operator convenience. When channeled through all 40 channels, there is a slight delay between channel 40 and channel 1 due to recycling of the logic circuits. During this delay, the channel indicator LED's will be blanked.

Included in this service addendum are voltage measurement charts, schematic diagram, and component parts list.

IC VOLTAGE MEASUREMENT CHART

Pin	IC 301	IC 302	IC 303	IC 304	IC 305
1	1.6	n.c.	4.5	see B^6 chart A	see pin 10 chart D
2	min. -4.9, max. -2.5	n.c.	4.5	see B^4 chart A	see Z^3 chart B
3	0	n.c.	4.6	see chart C	see chart D
4	n.c.	0	4.5	see chart C	see chart D
5	n.c.	n.c.	4.4	see B^6 chart A	see B^1 chart A
6	min. -10.2, max. -8.3	n.c.	4.4	see B^3 chart A	see B^0 chart A
7	min. -9.5, max. -7.5	4.5	0	0	0
8	12.6	4.5	4.4	see B^2 clhart A	see pin 3 chart C
9		9.4	4.4	see pin 4, IC305	see pin 11 chart C
10		2.8(stby), .3(up), 8.4(dwn)	4.5	see chart C	see chart D
11		n.c.	4.6	see chart C	see chart D
12		n.c.	4.5	see pin 4 chart C	see pin 10 chart D
13		see B^4 chart A	4.5	see pin 10 chart C	see Z^2 chart B
14		see B^5 chart A	9.4	9.4	9.4
15		9.4			
16		see B^6 chart A			
17		see B^0 chart A			
18		see B^1 chart A			
19		see B^2 chart A			
20		see B^3 chart A			
21		0			
22		n.c.			
23		0			
24		n.c.			
25		see Z^0 chart B			
26		see Z^1 chart B			
27		see Z^3 chart B			
28		see Z^3 chart B			

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CHART A

0 = 0V
1 = 9.2V

	pins						
	17	18	19	20	13	14	16
Chn'l	B^0	B^1	B^2	B^3	B^4	B^5	B^6
1	0	0	0	0	0	1	0
2	1	0	0	0	0	1	0
3	0	1	0	0	0	1	0
4	0	0	1	0	0	1	0
5	1	0	1	0	0	1	0
6	0	1	1	0	0	1	0
7	1	1	1	0	0	1	0
8	1	0	0	1	0	1	0
9	0	1	0	1	0	1	0
10	1	1	0	1	0	1	0
11	0	0	1	1	0	1	0
12	0	1	1	1	0	1	0
13	1	1	1	1	0	1	0
14	0	0	0	0	1	1	0
15	1	0	0	0	1	1	0
16	1	1	0	0	1	1	0
17	0	0	1	0	1	1	0
18	1	0	1	0	1	1	0
19	0	1	1	0	1	1	0
20	0	0	0	1	1	1	0
21	1	0	0	1	1	1	0
22	0	1	0	1	1	1	0
23	1	0	1	1	1	1	0
24	1	1	0	1	1	1	0
25	0	0	1	1	1	1	0
26	0	1	1	1	1	1	0
27	1	1	1	1	1	1	0
28	0	0	0	0	0	0	1
29	1	0	0	0	0	0	1
30	0	1	0	0	0	0	1
31	1	1	0	0	0	0	1
32	0	0	1	0	0	0	1
33	1	0	1	0	0	0	1
34	0	1	1	0	0	0	1
35	1	1	1	0	0	0	1
36	0	0	0	1	0	0	1
37	1	0	0	1	0	0	1
38	0	1	0	1	0	0	1
39	1	1	0	1	0	0	1
40	0	0	1	1	0	0	1

CHART B

Chn'l	Z^3	Z^2	Z^1	Z^0
1	4.5	4.5	0	4.7
2	4.5	4.5	4.7	0
3	4.5	4.5	4.7	4.7
4	4.5	9	0	0
5	4.5	9	0	4.7
6	4.5	9	4.7	0
7	4.5	9	4.7	4.7
8	9.1	4.5	0	0
9	9.1	4.5	0	4.7
10	.4	.4	0	4.2
11	.4	.4	0	8.8
12	.4	.4	4.7	4.2
13	.4	.4	4.7	8.8
14	.4	4.9	0	4.2
15	.4	4.9	0	8.8
16	.4	4.9	4.7	4.2
17	.4	4.9	4.7	8.8
18	4.9	.4	0	4.2
19	4.9	.4	0	8.8
20	.4	.4	4.7	0
21	.4	.4	4.7	4.7
22	.4	.4	8.8	0
23	.4	.4	8.8	4.7
27	.4	4.9	4.2	0
25	.4	4.9	4.2	4.7
26	.4	4.9	8.8	0
27	.4	4.9	8.8	4.7
28	4.9	.4	4.2	0
29	4.9	.4	4.2	4.7
30	.4	.4	4.2	4.2
31	.4	.4	4.2	8.8
32	.4	.4	8.8	4.2
33	.4	.4	8.8	8.8
34	.4	4.9	4.2	4.2
35	.4	4.9	4.2	8.8
36	.4	4.9	8.8	4.2
37	.4	4.9	8.8	8.8
38	4.9	.4	4.2	4.2
39	4.9	.4	4.2	8.8
40	.4	4.5	0	0

CHART C

0 = 0V
1 = 9.4V

	pins			
Chn'l	3	4	10	11
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	1	0
6	0	0	1	0
7	0	0	1	0
8	0	0	0	0
9	0	0	0	0
10	0	0	0	0
11	0	0	0	0
12	0	0	1	0
13	0	0	1	0
14	0	0	0	0
15	0	0	0	0
16	0	0	0	0
17	0	0	0	0
18	0	0	1	0
19	0	0	1	0
20	0	0	0	0
21	0	0	0	0
21	0	0	0	0
22	0	0	0	0
23	0	0	1	0
24	0	0	0	0
25	0	0	0	0
26	0	0	1	0
27	0	0	1	0
28	0	0	0	0
29	0	0	0	0
30	0	0	0	0
31	0	0	0	0
32	0	0	0	0
33	0	0	1	0
34	0	0	1	0
35	0	0	1	0
36	0	1	0	0
37	0	1	0	0
38	0	1	0	0
39	0	1	0	0
40	0	1	0	0

CHART D

	pins			
Chn'l	3	6	10	11
1	4.5	0	0	4.6
2	4.5	9.4	0	4.6
3	4.5	9.4	0	4.6
4	4.5	0	0	9.4
5	4.5	9.4	0	9.4
6	4.5	9.4	0	9.4
7	4.5	9.4	0	9.4
8	9.4	9.4	0	4.6
9	9.4	9.4	0	4.6
10	.3	9.4	0	.4
11	.3	0	0	.4
12	.3	9.4	0	.4
13	.3	9.4	0	.4
14	.3	0	0	5.1
15	.3	9.4	0	5.1
16	.3	9.4	0	5.1
17	.3	0	0	5.1
18	5.1	9.5	0	.4
19	5.1	9.4	0	.4
20	.3	0	0	.4
21	.3	9.4	0	.4
22	.3	9.4	0	.4
23	.3	9.4	0	.4
24	.3	9.4	0	5.1
25	.3	0	0	5.1
26	.3	9.4	0	5.1
27	.3	9.4	0	5.1
28	5.1	0	0	.4
29	5.1	9.4	0	.4
30	.3	9.4	0	.4
31	.3	9.4	0	.4
32	.3	0	0	.4
33	.3	9.4	0	5.1
34	.3	9.4	0	5.1
35	.3	9.4	0	5.1
36	.3	0	0	5.1
37	.3	9.4	0	5.1
38	5.1	9.4	0	.4
39	5.1	9.4	0	.4
40	.3	0	0	4.6

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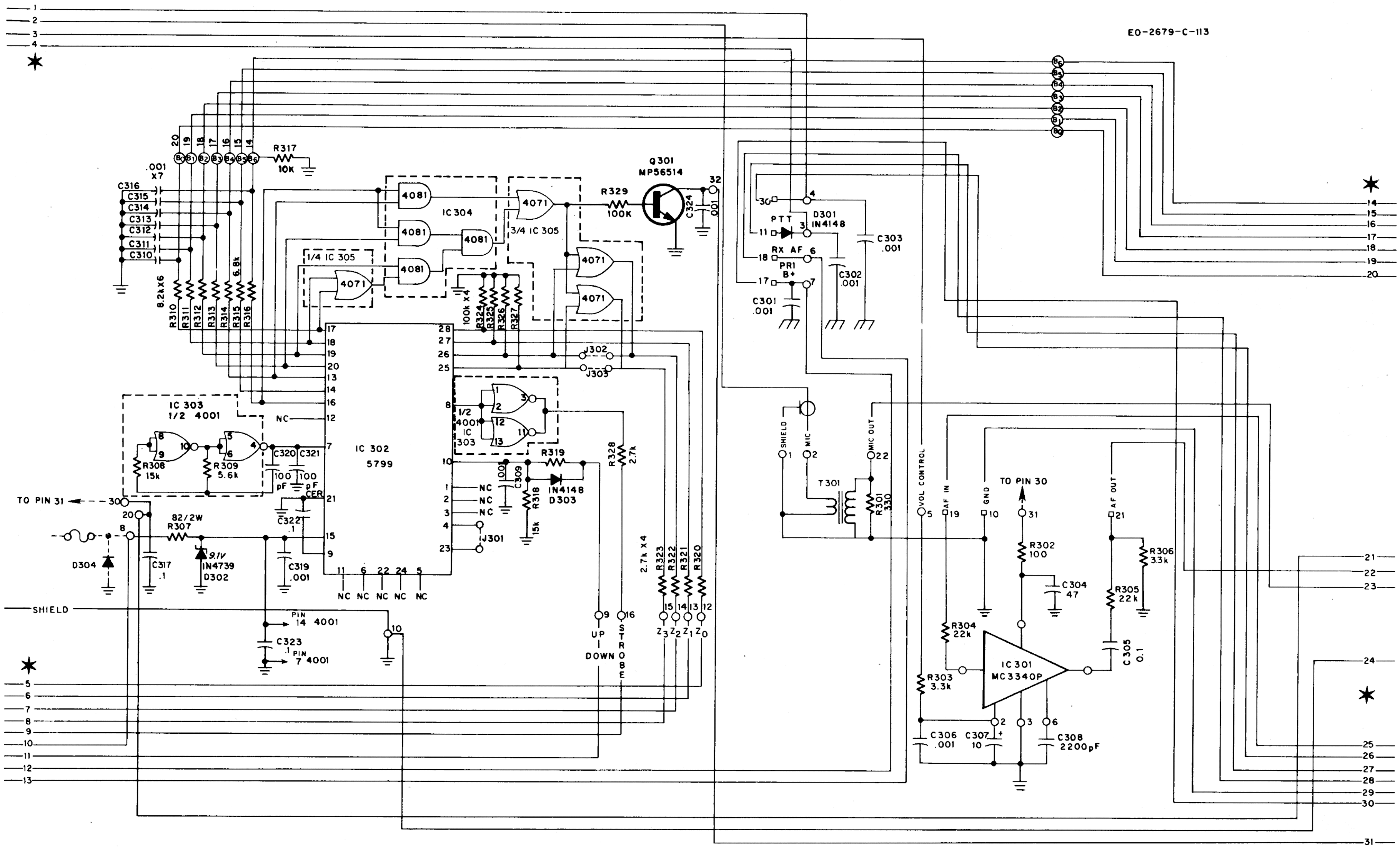

(REVISION A)

NOTES:

1. All resistors are 10%, ¼ watt, with values given in ohms, unless specified otherwise.
2. All capacitor values are given in uF, unless specified otherwise.
3. D302, U301, U302, and U303 are Hy-Gain custom components, type numbered with Hy-Gain part numbers.
4. Symbols used:
   - channel select ground
   - audio ground
   - ✶-numbered wires on schematic pages have no reference to electronic components, but are for ease in tracing wiring only

Attenuator/Channel Selector Logic Assembly

Reference Designator	Description	Part No.
C301	.001 uF, ceramic disc	722849
C302	.001 uF, ceramic disc	722849
C303	.001 uF, ceramic disc	722849
C304	47 uF, 16V, pc mount	722347
C305	.1 uF, ceramic disc	720146
C306	.001 uF, ceramic disc	722849
C307	10 uF, 16V, pc mount	720144
C308	.0022 uF, ceramic disc	722459
C309	.001 uF, ceramic disc	722849
C310	.001 uF, ceramic disc	722849
C311	.001 uF, ceramic disc	722849
C312	.001 uF, ceramic disc	722849
C313	.001 uF, ceramic disc	722849
C314	.001 uF, ceramic disc	722849
C315	.001 uF, ceramic disc	722849
C316	.001 uF, ceramic disc	722849
C317	.1 uF, ceramic disc	720146
C318	not used	
C319	.001 uF, ceramic disc	722849
C320	100 pF, DSM, 5%, 500V	721663
C321	100 pF, ceramic disc	720195
C322	.1 uF, ceramic disc	720146
C323	.1 uF, ceramic disc	720146
C324	.001 uF, ceramic disc	722849
D301	1N4148 diode	760037
D302	1N4739, 9.1V zener	760145
D303	1N4148 diode	760037
L301	6.8 uH rf choke	722857
Q301	MPS6514 transistor	760039
R301	330, ¼w, 10% carbon	720086
R302	100, ¼w, 10% carbon	720130
R303	3.3k, ¼w, 10% carbon	720109
R304	22k, ¼w, 10%, carbon	720129

NOTE: all resistors are ¼w 10% carbon unless otherwise noted.

R301	330	720086
R302	100	720130
R303	3.3k	
R303	3.3k	720109
R304	22k	720129
R305	22k	720129
R306	3.3k	720109
R307	82, 2w	722846
R308	15k	720175
R309	5.6k	722381
R310	8.2k	722258
R311	8.2k	722258
R312	8.2k	722258
R313	8.2k	722258
R314	8.2k	722258
R315	6.8k	722848
R316	8.2k	722258
R317	10k	720114
R318	15k	720175
R319	10k	720114
R320	2.7k	720134

Reference Designator	Description	Part No.
R321	2.7k	720134
R322	2.7k	720134
R323	2.7k	720134
R324	100k	720081
R325	100k	720081
R326	100k	720081
R327	100k	720081
R328	2.7k	720134
R329	100k	
R329	100k	720081
T301	microphone transformer	730036
U301	MC3340P atten ic	760105
U302	5799 cb controller ic	760096
U303	4001 cmos nor gate ic	760114
U304	4081 cmos or gate ic	760120
U305	4071 cmos and gate ic	760123