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NEWHAVEN DISPLAY INTERNATIONAL

User's Guide

C-58-0601

VFD

(Vacuum Fluorescent Character Display Module)

For product support, contact

New haven Display International
2511 Technology Drive #101
E lgin , IL 601 24
Tel: (847) 8 44-8795 Fax: (847) 8 44-8796

October 31, 2006

NEWHAVEN DISPLAY INTERNATIONAL

October 31, 2006

Vacuum Fluorescent Display Specification

PART NUMBER: C-58-0601

FEATURES: 6 Digits, Seven Segmented, with Icons – AUTOMOTIVE

APPLICATION: Character Display (*7-Segmented*)

RATINGS: Below

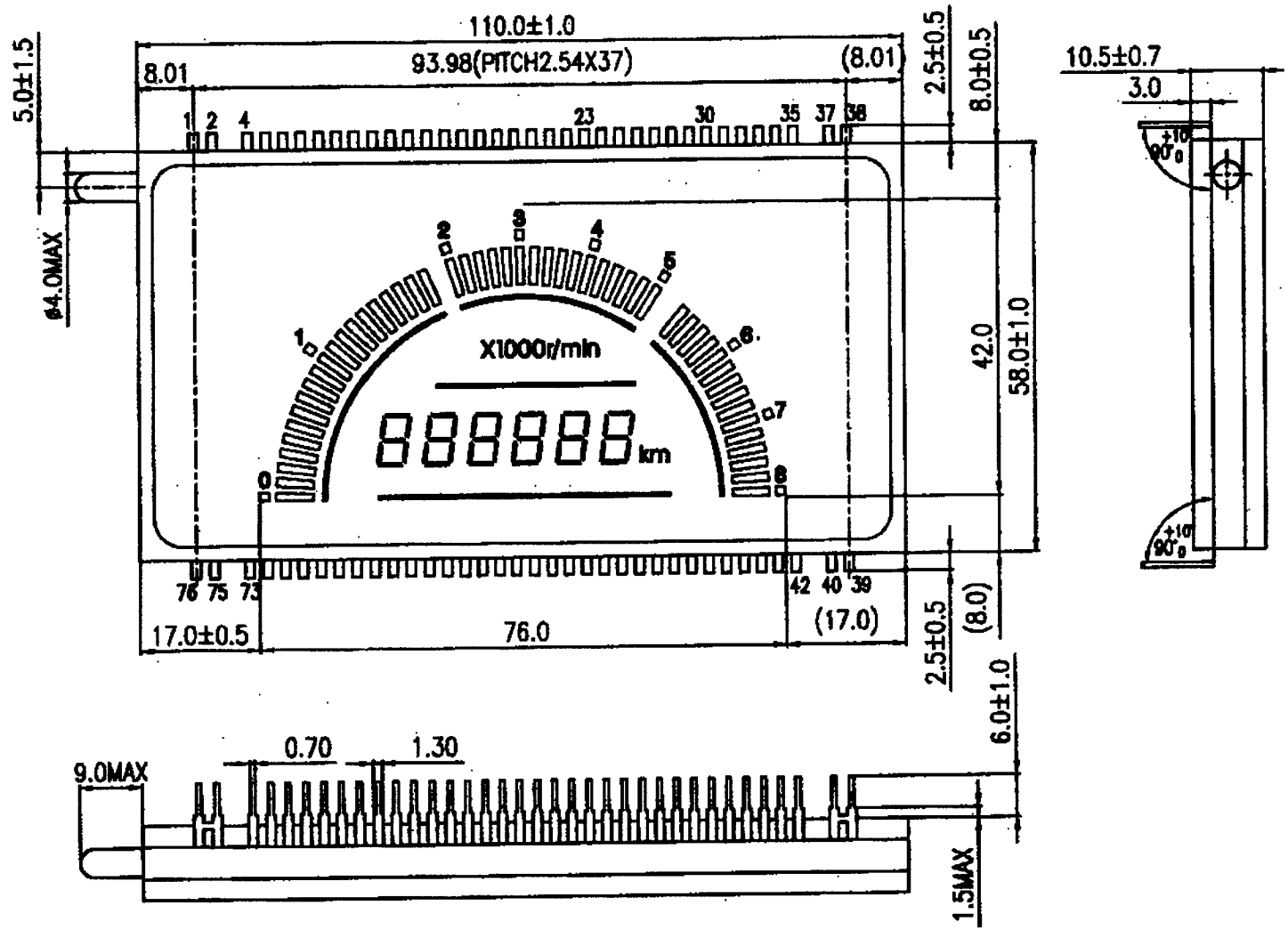
Outer Dimensions	Panel Length	P.L.	110.0	mm
	Panel Height	P.H.	58.0	mm
	Panel Thickness	P.T.	10.5	mm
Leads	Lead Pitch	L.P.	2.54	mm
	Lead Out	-	SIL	
Character Size	Character Height	C.H.	7.6	mm
	Character Width	C.W.	4.3	mm

Item	Symbol	Min.	Recommended	Max.	Unit
Filament Voltage	Ef	3.78	4.2	4.62	Vac
Peak Grid Voltage	ec	-	32.0	38.0	Vp-p
Peak Anode Voltage	eb	-	32.0	38.0	Vp-p
Cut-off Bias	Ek	-	-	-	-
Duty Cycle	Du	-	1/ 7	-	-
Pulse Width	tp	-	100	-	uS
Operating Temperature	Topr	-30	-	+ 85	C
Storage Temperature	Tstg	-40	-	+ 100	C
Color of Illumination	Green / Red				

Electrical Characteristics

Item	Symbol	Test Condition	Min.	Typical	Max.	Unit
Filament Current	If	Ef = 4.2 Vac	340.0	378.0	416.0	mAac
	-	eb = ec = 0	-	-	-	-
Anode Current	ib/1G	Ef = 4.2 Vac	-	40.0	80.0	mAp-p
	ib/2,3G	eb = 32.0 Vp-p	-	32.0	64.0	mAp-p
	Ib/4,5G	ec = 32.0 Vp-p	-	8.0	16.0	mAp-p
	Ib/6G	Du = 1/7	-	15.0	30.0	mAp-p
	-	tp = 100 uS	-	-	-	mAp-p
Grid Current	ic/1G		-	38.0	76.0	mAp-p
	ic/2,3G		-	30.0	60.0	mAp-p
	ic/4,5G		-	7.5	15.0	mAp-p
	ic/6G		-	14.0	28.0	mAp-p
	-		-	-	-	mAp-p
Luminance	L(G)		1500 (437)	2060 (600)	-	cd/m^2 (fL)
	L(R)		146 (44)	292 (88)	- -	cd/m^2 (fL)
	-		- -	- -	- -	cd/m^2 (fL)
Luminance Ratio	Lmin/Lmax		70	-	-	%
Grid Cut-off Voltage	Ecco	Ef = 4.2 Vac Eb = 32.0 Vdc	-6.0	-	-	Vdc
Anode Cut-off Voltage	Ebco	Ef = 4.2 Vac ec = 32.0 Vp-p Du = 1/7 tp = 100 uS	-6.0	-	-	Vdc

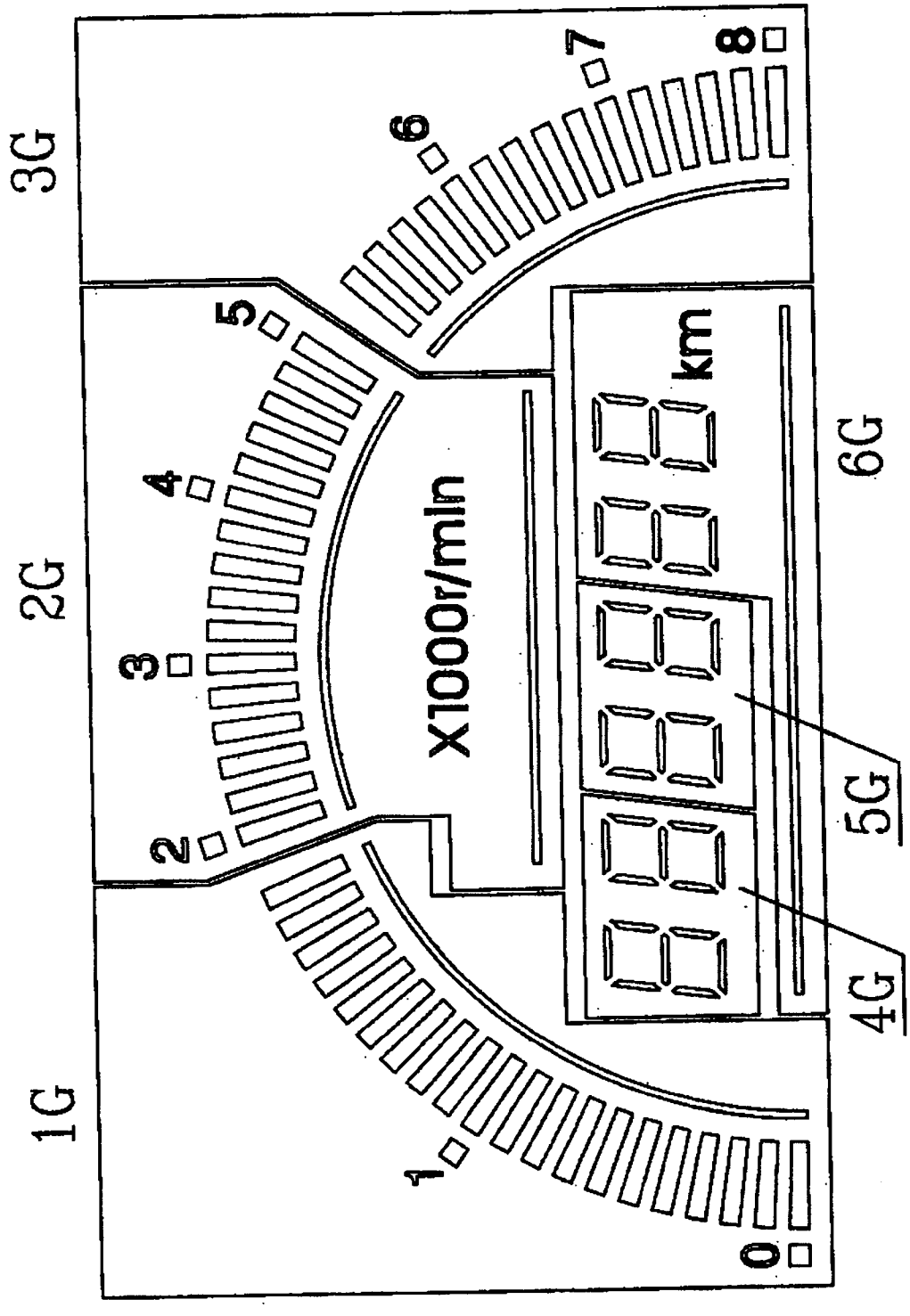
**** Drive Mode = Dynamic State***

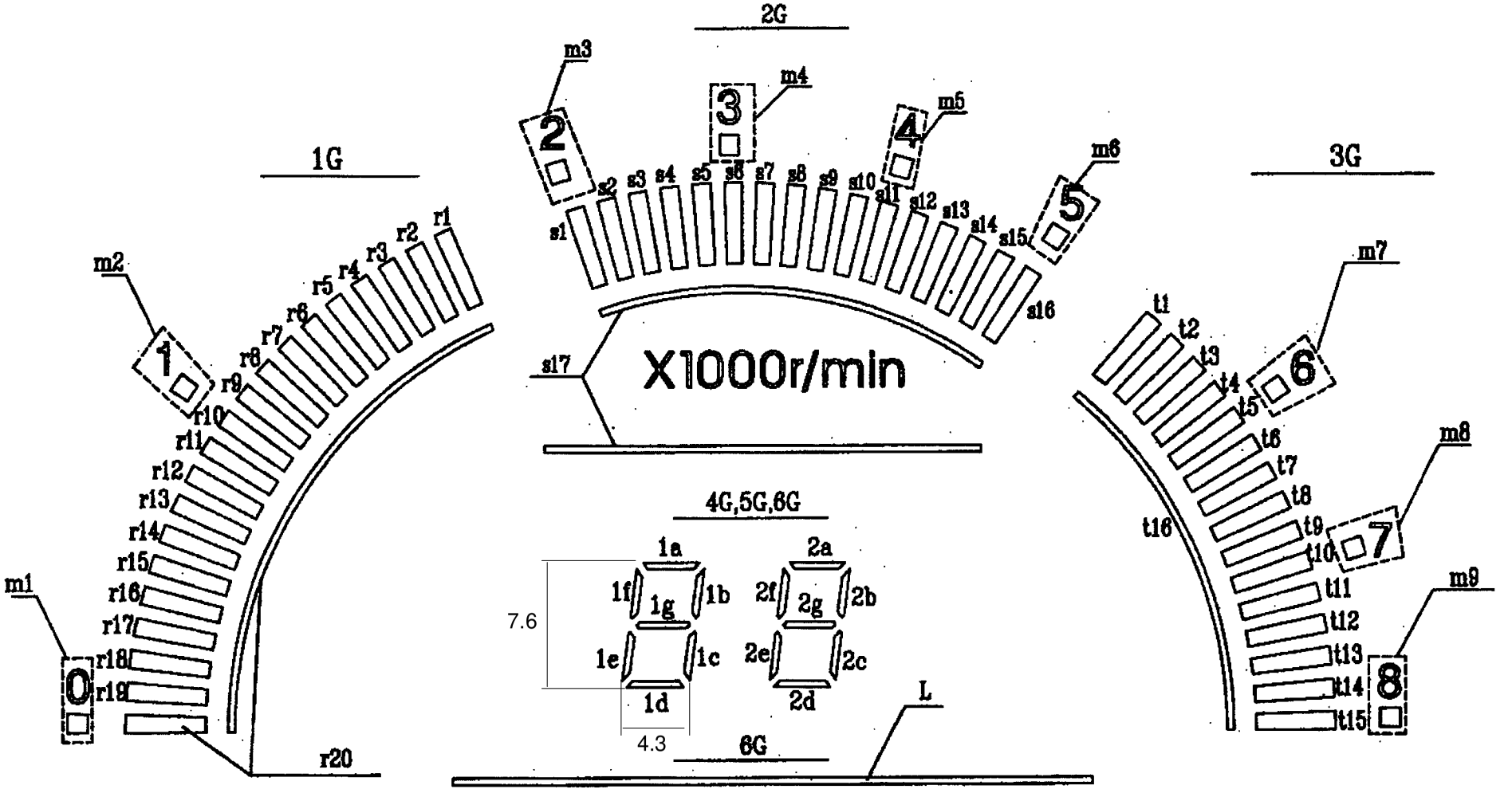


Pinout Connections

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Connect	F1	F1	Np	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17
Pin No.	21	22	23	24~29		30	31	32	33	34	35	36	37~40		41	42~73		74	75	76
Connect	P18	P19	P20	Nc		1G	2G	3G	4G	5G	6G	Np	F2		Np	Nc		Np	F1	F1

F: Filament G: Grid P: Anode NP: No Pin NC: No Connection


3G
2G
1G
6G
5G
4G
X1000r/min
km
0
1
2
3
4
5
6
7
8



t5~t15 . m7 . m8 . m9 .

.5.

	1G	2G	3G	4G	5G	6G
P1	r16	s16				
P2	r15	s15	t1	1a	1a	1a
P3	r14	s14	t2	1f	1f	1f
P4	r13	s13	t3	1b	1b	1b
P5	r12	s12	t4	1g	1g	1g
P6	r11	s11	t5	1e	1e	1e
P7	r10	s10	t6	1c	1c	1c
P8	r9	s9	t7	1d	1d	1d
P9	r8	s8	t8			
P10	r7	s7	t9	2a	2a	2a
P11	r6	s6	t10	2f	2f	2f
P12	r5	s5	t11	2b	2b	2b
P13	r4	s4	t12	2g	2g	2g
P14	r3	s3	t13	2e	2e	2e
P15	r2	s2	t14	2c	2c	2c
P16	r1	s1	t15	2d	2d	2d
P17	r17					
P18	r18					
P19	r19					
P20	r20.m1.m2	m3.m4.m5. m6.s17 **X1000r/min**	m7.m8.m9 t16			**km.L**