

X-Y MONITOR

PARTS CATALOG
& SCHEMATICS

PART #902-2132

WELLS GARDNER 19 IN. COLOR X-Y MONITOR
MODEL NO. 19K6401

PARTS LIST

DEFLECTION PC BOARD (P322)

Resistors

<u>Ref.</u>	<u>Part No.</u>	<u>Description</u>
R100	340X3150-934	15 ohm 5% 0.5W
R101	340X3150-934	15 ohm 5% 0.5W
R102	340X2102-934	1K ohm 5% 0.25W
R103	340X2102-934	1K ohm 5% 0.25W
R104	340X2101-934	100 ohm 5% 0.25W
R105	340C2101-934	100 ohm 5% 0.25W
R106	43X0477-002	22 ohm 10% 3W
R602	340X2471-934	470 ohm 5% 0.25W
R603	340X2471-934	470 ohm 5% 0.25W
R604	340X3362-934	3.6K ohm 5% 0.5W
R605	340X2910-934	91 ohm 5% 0.25W
R606	340X3822-934	8.2K ohm 5% 0.5W
R607	340X2471-934	470 ohm 5% 0.25W
R608	340X2101-934	100 ohm 5% 0.25W
R609	340X2240-934	24 ohm 5% 0.25W
R610	43X0401.056	1.5 ohm 5% 10W N.I.
R611	340X2390-934	39 ohm 5% 0.25W
R612	340X5680-733	68 ohm 5% 2W
R614	340X3122-234	1.2K ohm 5% 0.5W
R615	340X2100-934	10 ohm 5% 0.25W
R702	340X2471-934	470 ohm 5% 0.25W
R703	340X2471-934	470 ohm 5% 0.25W
R704	340X3362-934	3.6K ohm 5% 0.5W
R705	340X2910-934	91 ohm 5% 0.25W
R706	340X3472-934	4.7K ohm 5% 0.5W
R707	340X2471-934	470 ohm 5% 0.25W
R708	340X2101-934	100 ohm 5% 0.25W
R709	340X2240-934	24 ohm 5% 0.25W
R710	43X0401-056	1.5 ohm 5% 10W N.I.
R711	340X2390-934	39 ohm 5% 0.25W
R713	340X5680-733	68 ohm 5% 2W
R714	340X3132-234	1.3K ohm 5% 0.5W
R715	340X2100-934	10 ohm 5% 0.25W
R800	340X2103-934	10K ohm 5% 0.25W
R801	340X2333-934	33k ohm 5% 0.25W
R802	340X5222-743	2.2K ohm 10% 2W
R803	340X2333-934	33K ohm 5% 0.25W
R804	340X2155-934	1.5M ohm 5% 0.25W
R805	340X2155-934	1.5M ohm 5% 0.25W
R806	340X2221-934	220 ohm 5% 0.25W
R807	340X2221-934	220 ohm 5% 0.25W
R808	340X3271-934	270 ohm 5% 0.5W
R809	340X3271-934	270 ohm 5% 0.5W

DEFLECTION PC BOARD (P322)

Capacitors

<u>Ref.</u>	<u>Part No.</u>	<u>Description</u>
C100	45X0564-001	4700mf 63V Electrolytic
C101	45X0564-001	4700mf 63V Electrolytic
C102	45X0565-001	330mf 50V Electrolytic
C103	45X0565-001	330mf 50V Electrolytic
C104	80X0099-193	0.1mf 50V Disc Ceramic
C105	80X0099-193	0.1mf 50V Disc Ceramic
C106	343X5632-040	0.056mf 10% 400V
C107	45X0565-001	330mf 50V Electrolytic
C108	45X0565-001	330mf 50V Electrlytic
C600	80X0099-005	0.001mf 20% Z5F
C602	47X0786-006	0.22mf 50V
C603	46X0541-003	0.47mf 100V
C604	80X0099-193	0.1mf 50V Disc Ceramic
C701	80X0099-005	0.001mf 20% Z5F
C702	47X0786-006	0.22mf 50V
C703	46X0541-003	0.47mf 100V
C704	80X0099-193	0.1mf 50V Disc Ceramic
C800	45X0560-019	1.0mf 50V Electrolytic
C801	45X0560-019	1.0mf 50V Electrolytic
C802	45X0560-019	1.0mf 50V Electrolytic
C803	45X0560-019	1.0mf 50V Electrolytic

Semi-Conductors

D100	66X0079-001	Diode S5A2
D101	66X0079-001	Diode S5A2
D102	66X0079-001	Diode S5A2
D103	66X0079-001	Diode S5A2
D104	66X0071-001	Diode 1N4001
D105	66X0071-001	Diode 1N4001
D106	66X0071-001	Diode 1N4001
D107	66X0071-001	Diode 1N4001
D600	66X0070-001	Diode 1N914B
D601	66X0070-001	Diode 1N914B
D602	66X0071-001	Diode 1N4001
D603	66X0071-001	Diode 1N4001
D700	66X0070-001	Diode 1N914B
D701	66X0070-001	Diode 1N914B
D702	66X0071-001	Diode 1N4001
D800	7A036-001	L.E.D.
D801	66X0070-001	Diode 1N914B
D802	66X0070-001	Diode 1N914B
D803	66X0070-001	Diode 1N914B
D804	66X0070-001	Diode 1N914B
Q100	86X0125-001	Transistor MPSU07 (NPN)
Q101	86X0126-001	Transistor MPSU57 (PNP)
Q600	86X0127-001	Transistor TPS98 (NPN)
Q601	86X0127-001	Transistor TPS98 (NPN)
Q602	86X0127-001	Transistor TPS98 (NPN)

DEFLECTION PC BOARD (P322)

Semi-Conductors

<u>Ref.</u>	<u>Part No.</u>	<u>Description</u>
Q603	86X0126-001	Transistor MPSU57 (PNP)
Q604	86X0125-001	Transistor MPSU07 (NPN)
Q700	86X0127-001	Transistor TPS98 (NPN)
Q701	86X0127-001	Transistor TPS98 (NPN)
Q702	86X0127-001	Transistor TPS98 (NPN)
Q703	86X0126-001	Transistor MPSU57 (PNP)
Q704	86X0125-001	Transistor MPSU07 (NPN)
Q800	86X0072-001	Transistor (PNP)
Q801	86X0127-001	Transistor TPS98 (NPN)
Q802	86X0127-001	Transistor TPS98 (NPN)
ZD100	66X0040-027	Zener Diode ,46V, 5%, 1.0W
ZD101	66X0040-027	Zener Diode ,46V, 5%, 1.0W

Miscellaneous

F100	16X0185-001	Fuse 6.25A Slo-Blo
F101	16X0185-001	Fuse 6.25A Slo-Blo
F600	16X0184-001	Fuse 3A Normal Blow
F700	16X0184-001	Fuse 3A Normal Blow
P100	6A0394-007	Header, 7 Ckt
P101	6A0394-005	Header, 5 Ckt
P600	6A0394-007	Header, 7 Ckt
P602	6A0394-005	Header, 5 Ckt
P700	6A0394-007	Header, 7 Ckt
P701	6A0394-005	Header, 5 Ckt
P702	6A0394-005	Header, 5 Ckt
	43X0474-001	Thermistor PTC

NECK PC BOARD (P341)

Resistors

R500	340X2102-934	1K ohm 5% 0.25W
R501	340X2102-934	1K ohm 5% 0.25W
R502	340X2102-934	1K ohm 5% 0.25W
R503	340X2102-934	1K ohm 5% 0.25W
R504	340X2102-934	1K ohm 5% 0.25W
R505	340X2102-934	1K ohm 5% 0.25W
R506	340X2103-934	10K ohm 5% 0.25W
R507	40X0641-001	500 ohm, Green Control
R508	40X0641-001	500 ohm, Green Control
R509	40X0641-001	500 ohm, Green Control
R510	340X2432-934	4.3K ohm 5% 0.25W
R511	340X2431-934	430 ohm 5% 0.25W
R512	340X2432-934	4.3K ohm 5% 0.25W
R513	340X2431-934	430 ohm 5% 0.25W
R514	340X2432-934	4.3K ohm 5% 0.25W
R515	340X2431-934	430 ohm 5% 0.25W

NECK PC BOARD (P341)

Resistors

<u>Ref.</u>	<u>Part No.</u>	<u>Description</u>
R516	40X0641-004	15K ohm, Black Control
R517	40X0641-004	15K ohm, Black Control
R518	40X0641-004	15K ohm, Black Control
R519	340X5123-733	12K ohm 5% 2W metal oxide
R520	340X5123-733	12K ohm 5% 2W metal oxide
R521	340X5123-733	12K ohm 5% 2W metal oxide
R522	340X3272-244	2.7 ohm 10% 0.5W comp.
R523	340X3272-244	2.7 ohm 10% 0.5W comp.
R524	340X3272-244	2.7 ohm 10% 0.5W comp.
R525	340X3226-244	22M ohm 10% 0.5W comp.
R526	340X5102-733	1K ohm 5% 2W metal oxide
R527	340X3330-934	33 ohm 5% 0.5W
R528	340X4399-331	0.39 ohm 5% 1W metal oxide
R529	340X2123-934	12K ohm 5% 0.25W
R530	340X2123-934	12K ohm 5% 0.25W
R531	340X2123-934	12K ohm 5% 0.25W
R532	340X3182-944	1.8K ohm 10% 0.5W comp.
R534	340X2273-934	27K ohm 5% 0.25W
R535	40X0590-014	25K ohm Trim Pot.
R536	340X3392-944	3.9K ohm 10% 0.5W comp.
R537	340X3104-244	100K ohm 10% 0.5W

Capacitors

C500	80X0099-006	470mf 10% Z5F ceramic
C501	80X0099-006	470mf 10% Z5F ceramic
C502	80X0099-006	470mf 10% Z5F ceramic
C503	45X0569-004	2.2mf 350V Electrolytic
C504	80X0099-118	100pf 2KV 10%
C505	80X0099-061	0.01mf 1KV 20%

Semi-Conductors

D500	66X0070-001	Diode 1N914B
D501	66X0069-001	Diode 250V HS
Q500	86X0115-001	Transistor D40P3 (NPN)
Q501	86X0115-001	Transistor D40P3 (NPN)
Q502	86X0115-001	Transistor D40P3 (NPN)
Q503	86X0113-001	Transistor 2N3904 (NPN)
ZD500	66X0040-011	Zener Diode 4.3V, 5%, 0.5W
ZD501	66X0040-026	Zener Diode 18V, 5%, 1.0W

Miscellaneous

P500	6A0395-001	Header, 8 Ckt, 90°
	3A0636-001	PIX Socket

HIGH VOLTAGE PCB ASSEMBLY (P324)

Resistors

<u>Ref.</u>	<u>Part No.</u>	<u>Description</u>
R901	43X0477-001	3.9 ohm 10% 3.0W
R902	340X3279-944	0.27 ohm 10% 0.5W
R903	340X3039-934	3.9 ohm 5% 0.5W
R904	340X3471-934	470 ohm 5% 0.5W
R905	340X3561-934	560 ohm 5% 0.5W
R906	340X3682-934	6.8K ohm 5% 0.5W
R908	340X2102-934	1K ohm 5% 0.25W
R909	340X2104-934	100K ohm 5% 0.25W
R910	340X2123-934	12K ohm 5% 0.25W
R911	340X2682-934	6.8K ohm 5% 0.25W
R912	340X3150-834	15 ohm 5% 0.5W
R913	43X0401-057	560 ohm 10% 5W
R914	340X3151-934	150 ohm 5% 0.5W
R915	340X2102-934	1K ohm 5% 0.25W
R916	340X2332-934	3.3K ohm 5% 0.25W
R917	340X3033-934	3.3 ohm 5% 0.5W
R918	40X0590-014	25K ohm Trim Pot.
R919	340X2241-934	240 ohm 5% 0.25W
R920	340X3152-834	1.5K ohm 5% 0.5W
R921	340X2222-934	2.2K ohm 5% 0.25W
R922	340X2113-934	11K ohm 5% 0.25W
R923	340X2332-934	3.3K ohm 5% 0.25W
R924	340X2561-934	560 ohm 5% 0.25W
R925	340X2101-934	100 ohm 5% 0.25W
R926	340X5022-333	2.2 ohm 5% 2W
R927	340X3151-934	150 ohm 5% 0.5W
R928	340X4563-933	56K ohm 5% 1W

Capacitors

C901	45X0569-003	100mf 100V Electrolytic
C903	80X0099-134	0.015mf 100V ceramic
C904	349X1044-109	0.1mf 100V 20% mylar
C905	45X0568-001	33mf 63V Electrolytic
C909	45X0524-021	22mf 50V Electrolytic
C910	45X0524-036	10mf 300V Electrolytic
C911	46X0536-015	0.01mf polypropelene
C912	349X1041-100	0.1mf 100V 5% mylar
C913	80X0099-005	0.001mf 20% Z5F
C914	45X0569-001	47mf 50V Electrolytic
C915	80X0099-005	0.001mf 20% Z5F
C916	46X0536-016	0.035mf 400V 5% polypropelene
C920	80X0099-028	68pf 10% NPO

Semi-Conductors

D901	66X0083-001	Diode HS
D902	66X0068-002	Diode, Silicon
IC901	86X0134-001	I.C. NE555P
Q901	86X0071-001	Transistor MPSA06 (NPN)

HIGH VOLTAGE PCB ASSEMBLY (P324)

Semi-Conductors

<u>Ref.</u>	<u>Part No.</u>	<u>Description</u>
Q902	86X0071-001	Transistor MPSA06 (NPN)
Q903	86X0120-001	Transistor
Q904	86X0071-001	Transistor MPSA06 (NPN)
Q905	86X0116-001	Transistor 2N6557, Horz. Driver
Q906		Transistor BU207

Miscellaneous

3A0614-001	Power Transistor Socket
3A0629-005	Housing, 5 Ckt, Amp #22
3A0627-003	Housing, Amp #350342-3

Transformer

T901	52X0126-001	Transformer, Horiz. Driver
------	-------------	----------------------------

INTERFACE PC BOARD (P325)

Resistors

R200	340X2331-934	330 ohm 5% 0.25W
R201	340X2102-934	1K ohm 5% 0.25W
R203	340X2132-934	1.3K ohm 5% 0.25W
R204	340X2472-934	4.7K ohm 5% 0.25W
R205	340X2472-934	4.7K ohm 5% 0.25W
R206	340X2332-934	3.3K ohm 5% 0.25W
R207	40X0639-007	5K ohm, Control
R208	340X2470-934	47 ohm 5% 0.25W
R209	40X0639-006	2K ohm, Control
R210	340X2332-934	3.3K ohm 5% 0.25W
R211	340X2473-934	47K ohm 5% 0.25W
R212	40X0639-008	10K ohm, Control
R213	340X2392-934	3.9K ohm 5% 0.25W
R214	340X5102-733	1K ohm 5% 2W
R215	340X2562-934	5.6K ohm 5% 2W
R216	340X2273-934	27K ohm 5% 2W
R217	340X2103-934	10K ohm 5% 2W
R218	340X2472-934	4.7K ohm 5% 2W
R219	340X2472-934	4.7K ohm 5% 2W
R220	340X2332-934	3.3K ohm 5% 2W
R221	40X0639-007	5K ohm, Control
R222	340X2470-934	47K ohm 5% 0.25W
R223	40X0639-006	2K ohm, Control
R224	340X2332-934	3.3K ohm 5% 0.25W
R225	340X2473-934	47K ohm 5% 0.25W
R226	40X0639-008	10K ohm, Control
R227	340X2432-934	4.3K ohm 5% 0.25W
R228	340X5102-733	1K ohm 5% 2W
R229	340X2562-934	5.6K ohm 5% 0.25W

INTERFACE PC BOARD (P325)

Resistors

<u>Ref.</u>	<u>Part No.</u>	<u>Description</u>
R230	340X2273-934	27K ohm 5% 0.25W
R231	340X2103-934	10K ohm 5% 0.25W
R249	340X2562-934	5.6K ohm 5% 0.25W
R250	340X2562-934	5.6K ohm 5% 0.25W

Capacitors

C200	45X0525-003	0.47mf 35V Electrolytic
C201	45X0525-003	0.47mf 35V Electrolytic
C202	45X0524-052	150mf 10V Electrolytic
C203	45X0524-052	150mf 10V Electrolytic

Semi-Conductors

D200	66X0070-001	Diode 1N914B
D201	66X0070-001	Diode 1N914B
D202	66X0070-001	Diode 1N914B
D203	66X0070-001	Diode 1N914B
D204	66X0070-001	Diode 1N914B
D205	66X0070-001	Diode 1N914B
D206	66X0070-001	Diode 1N914B
D207	66X0070-001	Diode 1N914B
IC200	86X0138-001	I.C. TL081CP
IC201	86X0138-001	I.C. TL081CP
Q200	86X0114-001	Transistor 2N3906 (PNP)
Q201	86X0113-001	Transistor 2N3904 (NPN)
VDR200	43X0470-001	VDR
VDR201	43X0470-001	VDR
ZD200	66X0040-017	Diode,Zener, 13V,5%, 1.0W
ZD201	66X0040-017	Diode,Zener, 13V,5%, 1.0W
ZD202	66X0040-028	Diode,Zener, 5.1V 5%, 0.5W
ZD203	66X0040-028	Diode,Zener, 5.1V 5%, 0.5W

Miscellaneous

J200	3A0618-005	PCB Connector, 5 Ckt
J201	3A0618-005	PCB Connector, 5 Ckt
P200	6A0394-004	Header, 4 Ckt

HIGH VOLTAGE UNIT ASSEMBLY

T900	53X0487-002	H.V. Transformer
	86X0128-001	Transistor BU409
	86X0118-001	Transistor BU207
	3A0624-001	Transistor Socket

FINAL ASSEMBLY PARTS

<u>Ref.</u>	<u>Part No.</u>	<u>Description</u>
Q102	86X0137-001	Transistor 2N3716X
Q103	86X0135-001	Transistor 2N3792X
	88X0145-506	PIX Tube, 19VNJP22
	38A5873-000	Degaussing Coil Ass'y
	38A5769-000	HV Unit
	2A0684-001	Lateral/ purity Ass'y
	9A2819-001	Yoke, Deflection
	9A2753-005	Degaussing Coil
	3A0624-001	Transistor Socket

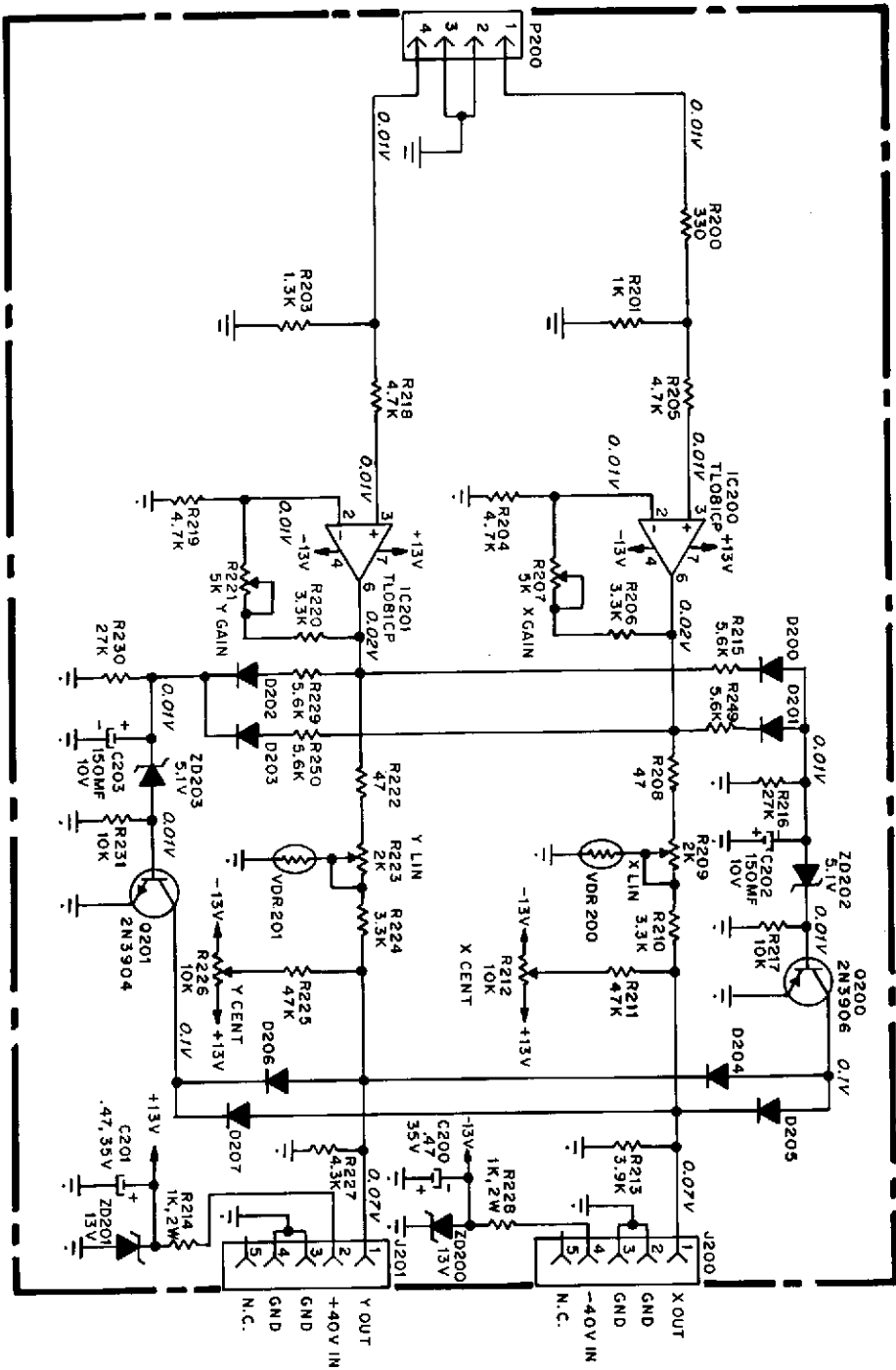
"Y" HEAT SINK ASSEMBLY

Q605	86X0123-001	Transistor 2N3716
Q606	86X0135-001	Transistor 2N3792X
Q607	86X0123-001	Transistor 2N3716
Q608	86X0135-001	Transistor 2N3792X
	340X4399-331	Resistor, 0.39 ohm 5% 1W
	3A0634-001	Transistor Socket

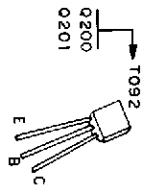
"X" HEAT SINK ASSEMBLY

Q705	86X0123-001	Transistor 2N3716
Q706	86X0124-001	Transistor 2N3792
Q707	86X0123-001	Transistor 2N3716
Q708	86X0124-001	Transistor 2N3792
	340X4399-331	Resistor, 0.39 ohm 5% 1W
	3A0634-001	Transistor Socket

INTERFACE PCB (PLUG-IN) FOR MODEL 19K6401



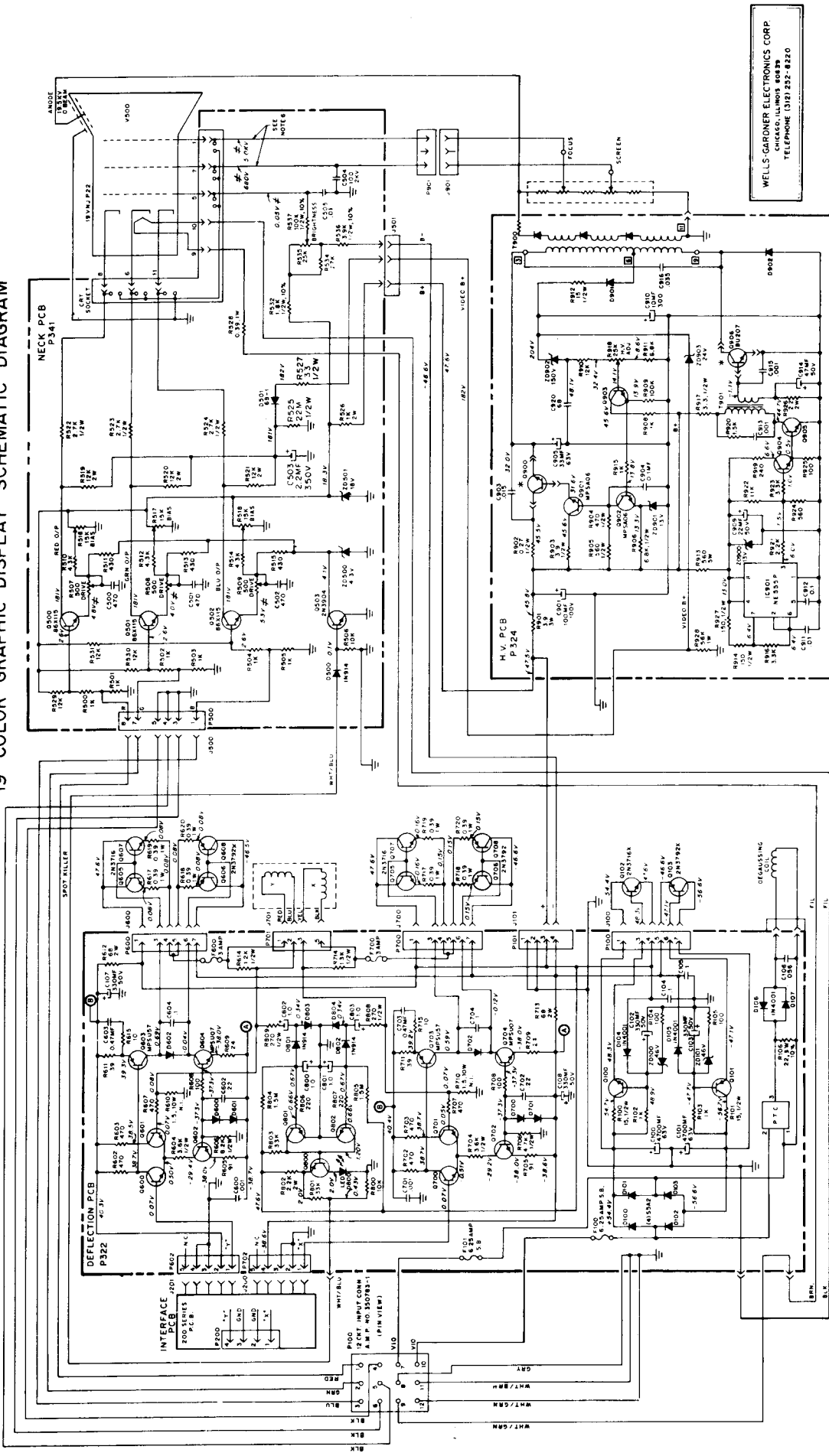
GENERAL NOTES:
 1. FOR DETAIL OF GENERAL NOTES SEE
 NOTES NO. 1, 2 AND 4 ON MAIN SCHEMATIC
 (19K6400 SERIES).



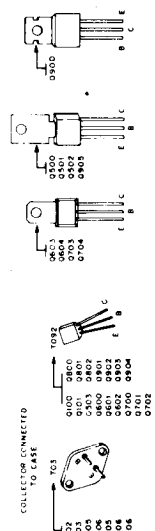
WELLS-GARDNER ELECTRONICS CORP.
 CHICAGO, ILLINOIS 60639
 TELEPHONE (312) 252-8220

19K6401-5841

19" COLOR GRAPHIC DISPLAY SCHEMATIC DIAGRAM



WELLS-GARDNER ELECTRONICS CORP.
CHICAGO, ILLINOIS 60679
TELEPHONE (312) 257-8220



- GENERAL NOTES:
1. ALL ELECTROLYTIC CAPACITORS ARE INDICATED BY THE LETTER 'E' UNLESS OTHERWISE NOTED. R.C. 1.000, M. 1.000, 0.000.
 2. CAPACITANCE VALUE OF 1.0 IS LESS IN MICROFARADS ABOVE 1 IN PICOFARADS UNLESS OTHERWISE NOTED.
 3. * R. 9000 AND 9006 ARE NOT ON H.V. PCB.
 4. ALL ELECTROLYTIC CAPACITORS ARE INDICATED BY THE LETTER 'E' UNLESS OTHERWISE NOTED. R.C. 1.000, M. 1.000, 0.000.
 5. METER VOLTAGES ARE MEASURED WITH NO SIGNAL.
 6. * P. VOLTAGE VARIES WITH CONTROL SETTINGS.

19K6400 SERIES - 5640C