

# Wells-Gardner Electronics Corporation



## Large Screen U3000 Service Guide

1996

9500 W. 55th Street  
Suite A  
McCook, IL 60525  
(800) 336-6630  
Phone (708) 290-2100  
Fax (708) 290-2200  
1-800-336-6630



# Large Screen U3000

## SERVICE GUIDE



VGA RESOLUTION  
3000  
TD3

### SPECIFICATIONS

CRT size (diagonal measure): 27"  
Phosphor type: P22  
CRT etch: Polished faceplate; other faceplates available.  
Striped trio spacing: 0.84 mm

### INPUT SIGNALS

Input connector: 15 pin D-sub male; VGA compatible.  
Video type: RGB analog.  
Video input impedance: 75 Ohm; 470 Ohm optional.  
Video level: 0.7 volts peak-to-peak; other levels optional.  
Sync type: Standard VGA TTL sync; composite optional.  
Sync input impedance: 4.7K Ohm.  
Horizontal sync frequency: 31.5 KHz  
Vertical sync frequency: 60 to 70 Hz

### LIGHT OUTPUT

40 fL typical

### GEOMETRY

Horizontal linearity: +/-7%  
Vertical linearity: +/-5%  
Picture size regulation: 2%  
Geometric distortion: +/-2% max.

### POWER INPUT

Input voltage: 90 - 264 VAC, 50 - 60 Hz; no isolation transformer required.  
Maximum power: 160 watts

### USER CONTROLS

Remote controls: Brightness, contrast, horizontal size,  
horizontal centering, vertical size, vertical centering.  
Internal controls: Horizontal hold, vertical hold, vertical linearity, focus.

### MISCELLANEOUS

Operating temperature: 0 to 55 C  
Agency compliance: UL, CSA, DHHS radiation performance std, TUV.

### RESOLUTION

Graphics modes: VGA: 640 X 200, 640 X 350, 640 X 480  
Video bandwidth: 25 MHz typical.

SPECIFICATION SUBJECT TO CHANGE WITHOUT NOTICE

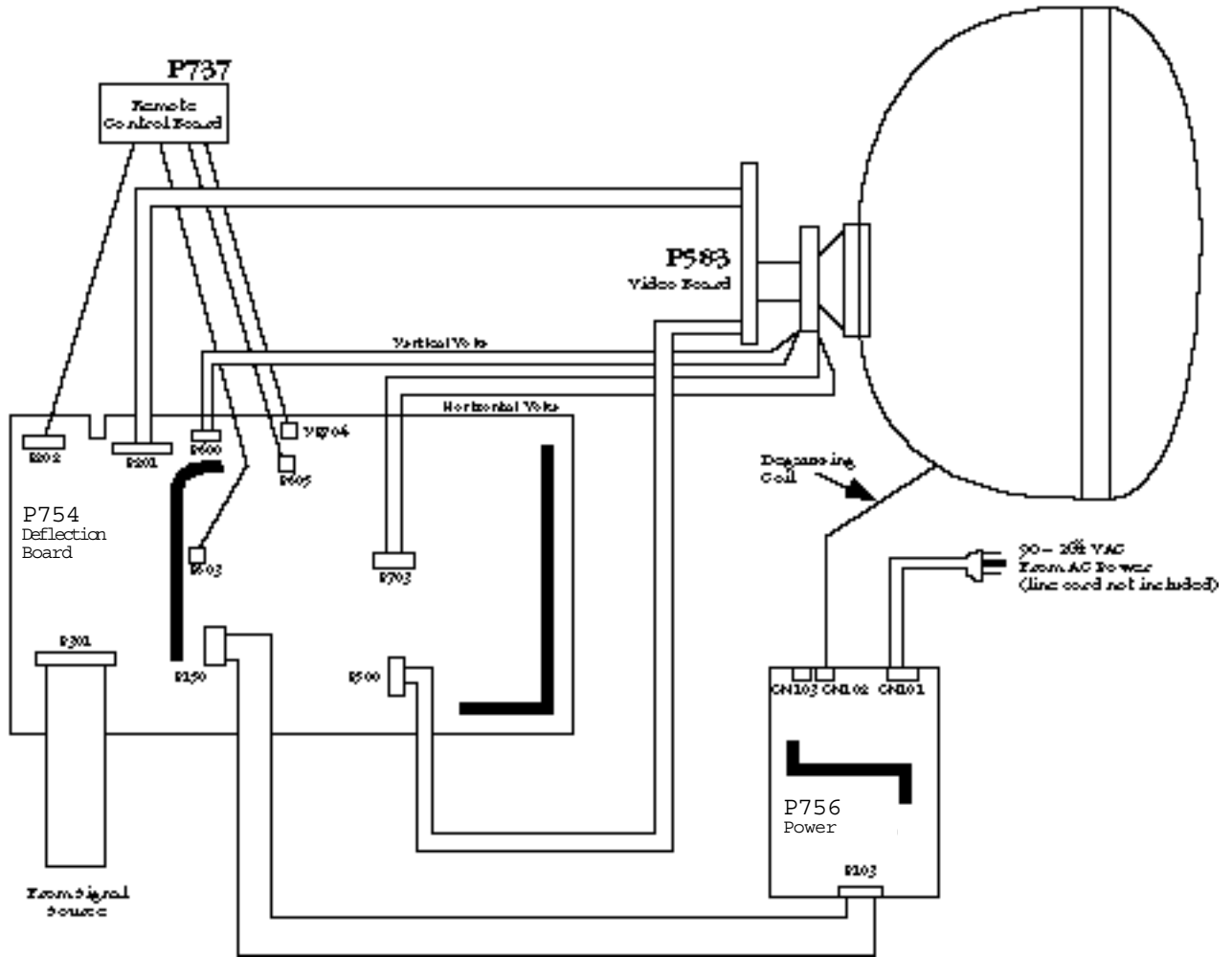


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ELECTRONIC CORPORATION

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## Monitor Connection Diagram



AC Input Connector:  
CN101

PCB connector  
Amp type 640445-5  
Mating Amp type 640251-5

Pin	Description
1	AC hot
2	N/A
3	AC neutral
4	N/A
5	Ground

Input Signal Connector: P301

PCB connector  
Amp type 1-640445-0  
Mating Amp type 1-640251-0

Pin	Description
1	Horizontal sync
2	Vertical sync
3	Sync ground
4	Shield ground
5	Blue return
6	Green return
7	Red return
8	Blue video
9	Green video
10	Red video

Optional Cable connector  
Amp type 748364-1 (DB15)  
Mating Amp type 748565-1

Pin	Description
1	Red video
2	Green video
3	Blue video
4	N/A
5	N/A
6	Red return
7	Green return
8	Blue return
9	N/A
10	Mode select
11	Sync return
12	N/A
13	Horizontal sync
14	Vertical sync
15	Shield ground

## REPLACEMENT PARTS LIST

### Large Screen U3000

#### POWER SUPPLY BOARD ASSEMBLY

Designation	Description	W/G Part No.
D101-D104	DIODE, 1N5406	066X0135-001
D106	DIODE, BYV28-200	066X0097-001
D107	DIODE, MUR490	066X0126-002
D118	DIODE, BYV28-200	066X0097-001
Q101	FET, SSP6N60	086X0334-001
U101	IC, UC3842AN REG.	086X0257-001

#### MISCELLANEOUS

Designation	Description	W/G Part No.
001	29", CRT	088X0370-
025A1442-001	DEFLECTION BOARD ASSEMBLY	
025A1447-001	POWER SUPPLY BOARD ASSEMBLY	
001	VIDEO BOARD ASSEMBLY	025A1354-

#### DEFLECTION BOARD ASSEMBLY

Designation	Description	W/G Part No.
D602	DIODE, 1N4001	066X0071-001
D603	DIODE, RL202	066X0147-001
D704	DIODE, DD20R	066X0143-001
D705	DIODE, MUR490	066X0126-002
F101	FUSE, 3.15A, 5 X 20 MM	016X0210-009
Q500, Q502, Q504	TRANSISTOR, 2SC3950	086X0290-001
Q501, Q503, Q505	TRANSISTOR, 2SC3782	086X0287-001
Q601	TRANSISTOR, 2SD525R	086X0074-001

Designation	Description	W/G Part No.
Q602	TRANSISTOR, 2SB595R	086X0075-001
Q701	TRANSISTOR, 2SC3688	068X0321-001
U200	IC, LM1203 VIDEO	086X0270-001
U300	IC, 74LS156 DEMULT.	086X0295-001
U302	IC, 74LS86 EXL-OR	086X0313-001
U303	IC, 74LS123 DUAL-MONO	086X0338-001
U600	IC, TDA1175 VERT.	086X0347-001
U700	IC, LA7850 HORZ.	086X0274-001