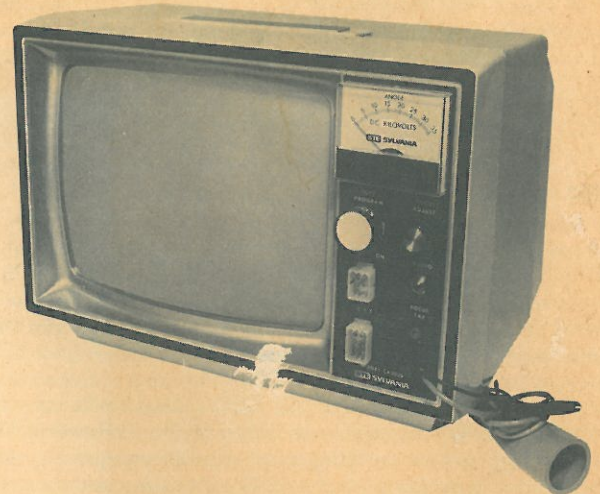


CHEK-A-COLOR™

MODEL CK3000 SOLID-STATE/HYBRID/TUBE COLOR RECEIVER TEST JIG



DESCRIPTION

The Sylvania Chek-A-Color Model CK3000 Color Receiver Test Jig is a state-of-the-art test instrument with features that provide for servicing SCR, transistor, tube, and hybrid sweep sets; the newer high-anode (30-kV) voltage chassis; 70° and 90° delta deflection systems; and high and low focus-voltage chassis of almost all makes and models® when used in conjunction with the comprehensive Sylvania Chek-A-Color Setup Manual (supplied) and an assortment of Sylvania adapters and extension cables, some of which are supplied with the unit.

Principal components of the CK3000 are: a 90°, strontium-leaded, 13V, vertical-line phosphor screen, in-line gun color picture tube, a 90° deflection yoke, an in-line static convergence and purity magnet assembly, an exclusive Sylvania-patented, impedance-matching (Yoke Programmer) deflection circuit, and an adjustable focus voltage supply featuring a thick-film, voltage-divider circuit for chassis with other than a 4.5-kV supply. A high voltage meter and speaker are also standard equipment on the CK3000.

Receiver-to-test jig connections are of the convenient front-panel, plug-in type. A complete set of plug-in ballasts to properly terminate receiver dynamic convergence circuitry is supplied. The CK3000 comes fully assembled, tested, and pre-converged; no modification nor assembly is required before use.

A list of Sylvania Chek-A-Color Adapter kits available for various brands of receivers and a Sylvania/RCA adapter cross-reference list are provided at the end of this instruction sheet. RCA adapters can provide partial coverage of, and are interchangeable with, some of the broader line of Sylvania adapters.

Convergence Terminations

Tube and hybrid receivers require a convergence ballast (supplied) to effect full vertical sweep; some solid-state receivers require a shorting plug (supplied) in the convergence socket to terminate the B+ or vertical circuit. Such a plug or ballast is specified in the convergence column of the Setup section in your Sylvania Chek-A-Color Setup Manual. Four different ballasts are supplied with the CK3000. Occasionally, a ballast adapter (optional equip-

ment) is required in series with the plug on the ballast to match the convergence socket on a particular receiver chassis, as specified in the Setup Manual.

Deflection Yoke Programming

The capability of the Model CK3000 to adapt solid-state as well as tube deflection receivers is achieved by Sylvania's exclusive patented Yoke Programmer circuit. This circuit is keyed at the "Yoke Program" socket on the front panel by plug-in Yoke Programmer modules (supplied) which series, parallel, and/or transform the CK3000 yoke coupling to reflect a variety of impedances to the receiver sweep circuit. Selected modules match SCR, transistor, tube, and hybrid sweep chassis.

Focus

If the receiver under test supplies standard focus voltage (approximately 4.5 kV), it is coupled to the CK3000 CRT through the B230 CRT Extension (supplied). Focus is then adjusted at the receiver.

If the receiver focus supply is other than standard, the focus lead of the B230 Extension is interrupted at a pin and jack connector. The pin plug is then connected to the "Focus" jack on the CK3000 front panel. Focus is then adjusted with the "Focus Adjust" control mounted below the meter.

CRT Connections

Adapters and extensions supplied with the unit quickly connect the receiver CRT chassis socket via the "CRT" plug on the front panel of the CK3000 to the test jig CRT base. Items applicable to 70° and 90° deflection receivers are

® Excluding receivers employing a toroid deflection yoke (110° and In-line)

specified in a following paragraph and in the Sylvania Chek-A-Color Setup Manual. An anode high-voltage lead (red) terminated in an alligator clip emerging from the front panel is provided to connect to the receiver high-voltage lead clip.

Chassis Ground Lead

A black lead terminated in an alligator clip emerging from the front panel is provided to ground the test jig chassis to the receiver chassis. IT IS ESSENTIAL THAT THIS CONNECTION BE SECURELY MADE BEFORE APPLICATION OF POWER TO PREVENT CREATING A SHOCK HAZARD AND POTENTIAL DAMAGE TO RECEIVER CHASSIS COMPONENTS, as well as to provide accurate front panel anode voltage metering.

Universal Adapters and Extensions Kit (Supplied)

A universal adapters and extensions kit is used with most 70° and 90° deflection sets. 70° deflection receivers use the A112 and A113 adapters and the B207 and B230 extensions to connect to the CK3000 yoke and picture tube. 90° deflection receivers use the B230 extension to connect the CRT and B207 extension to connect the deflection circuits. Often, deflection adapters (optional equipment) must be connected in series with the B207 extension to accommodate a special receiver connector, as noted in the Chek-A-Color Setup Manual.

Meter

The anode voltage meter has a 50- μ A movement with a suitable multiplier for measuring receiver anode voltage from 0-35 kV.

Audio

For quick checks of the receiver loudspeaker, the CK3000 includes a speaker terminated in a phono jack labeled "Audio" on the front panel. To facilitate servicing, terminate one end of a two-wire lead in a phono plug; terminate the other end in a pair of alligator clips for connecting to the receiver audio output.

Setup Manual

Specific adapters, extensions, ballasts, yoke programmer modules, and any special instructions which apply when using the Chek-A-Color test jig with different makes and models of receivers are listed in the Sylvania Chek-A-Color Setup Manual. A copy of this manual is supplied with the Model CK3000. The registration card in the front of the manual must be completed and mailed to receive the up-date service.

ASSEMBLY

No assembly of the CK3000 is required; the unit comes fully assembled, tested, pre-converged, and ready for use.

ACCESSORIES SUPPLIED

Supplied with each CK3000 are the following accessories:

Sylvania P/N	Description
Current Edition ET-1135	Sylvania Chek-A-Color Setup Manual (with Automatic Up-Date Service)
ET-1291	Sylvania CK3000 Color Receiver Test Jig Instruction Sheet
B207	90° Deflection Yoke Extension
B230	90° CRT Socket Extension (with Interrupted Focus Lead)
CVL1, CVL2, CVL3, CVL4	Convergence Ballasts (Complete Set)
YP05, YP07, YP1A, YP1, YP3, YP7, YP12, YP16	Yoke Programmer Modules

SETUP AND OPERATION

1. Refer to the Index section of the Chek-A-Color Setup Manual and find the Setup Number for the specific color receiver being serviced. Next, turn to the Setup section of the manual and find the applicable Setup Number; note the accessories indicated for that Setup Number.
2. Disconnect the chassis of the receiver to be serviced, FIRST MAKING CERTAIN THAT AC POWER IS TURNED OFF AND THAT THE HIGH VOLTAGE IS BLED. Unplug the deflection and convergence yokes, and the picture tube base and anode leads. If the chassis is to be removed completely from the cabinet, it is usually also necessary to disconnect at least the speaker and auto degaussing circuit.
3. Insert the specified yoke programmer module into the "Yoke Program" socket on the CK3000 front panel.
4. Connect test jig to the receiver chassis. For the deflection, convergence, and picture tube base circuits, use the adapters, extensions, and ballast specified in the Setup Manual. Clip leads from the CK3000 provided for making the ground and picture tube high voltage connections. Be certain that the test jig is properly grounded to the receiver chassis and that the GROUND AND HIGH VOLTAGE CONNECTIONS ARE SECURE. For 90° receiver deflection chassis, CRT Extension B230 (supplied) is used to connect the receiver CRT socket to the CK3000 front-panel "CRT" plug. The black focus lead of this CRT extension is interrupted with a pin and jack connection. In adapting to a receiver with conventional 4.5-kV focus, the pin and jack are left connected so the receiver supplies focus voltage directly to the test jig CRT. Focus voltage in this case is adjusted at the receiver. If the receiver has other than standard focus voltage, break this connection and plug the pin into the "Focus" voltage jack on the front panel of the CK3000. In this case, the CK3000 CRT derives focus voltage from the receiver anode voltage via the voltage divider network in the test jig. Focus may be adjusted by means of the "Focus" control on the front panel in this case.

5. Connect the receiver's degaussing circuit according to the Setup Manual. In some cases the manual suggests defeating with a jumper wire, but sometimes will warn DO NOT DEFEAT. If in doubt, leave the circuit open.
6. Before applying AC power to the chassis, thoroughly recheck:
 - A. The make and model of receiver being tested.
 - B. The setup procedure, including adapters, extension cables, yoke programmer, ballast, etc., specified in the Setup Manual.
 - C. That deflection, convergence, and other circuits are properly terminated. THE DEFLECTION CIRCUIT MUST ALWAYS BE SUITABLY CONNECTED BEFORE POWER IS APPLIED. Chassis components may be damaged if this precaution is not observed.
 - D. THAT CK3000 IS PROPERLY AND SECURELY GROUNDED to the receiver chassis.

TAKE THESE PRECAUTIONS TO AVOID CREATING A PERSONAL SHOCK HAZARD AND POSSIBLE FURTHER FAILURE OF RECEIVER COMPONENTS.

7. After servicing of the chassis is completed, MAKE SURE POWER TO THE CHASSIS IS TURNED OFF BEFORE OPENING ANY CONNECTIONS.

SETUP AND OPERATING NOTES

Convergence and Deflection

Static convergence of the Chek-A-Color test jig should be fairly constant. If static convergence has drifted exces-

sively, we do suggest degaussing and converging on occasion. For these reasons, the CK3000 does not feature internal degaussing.

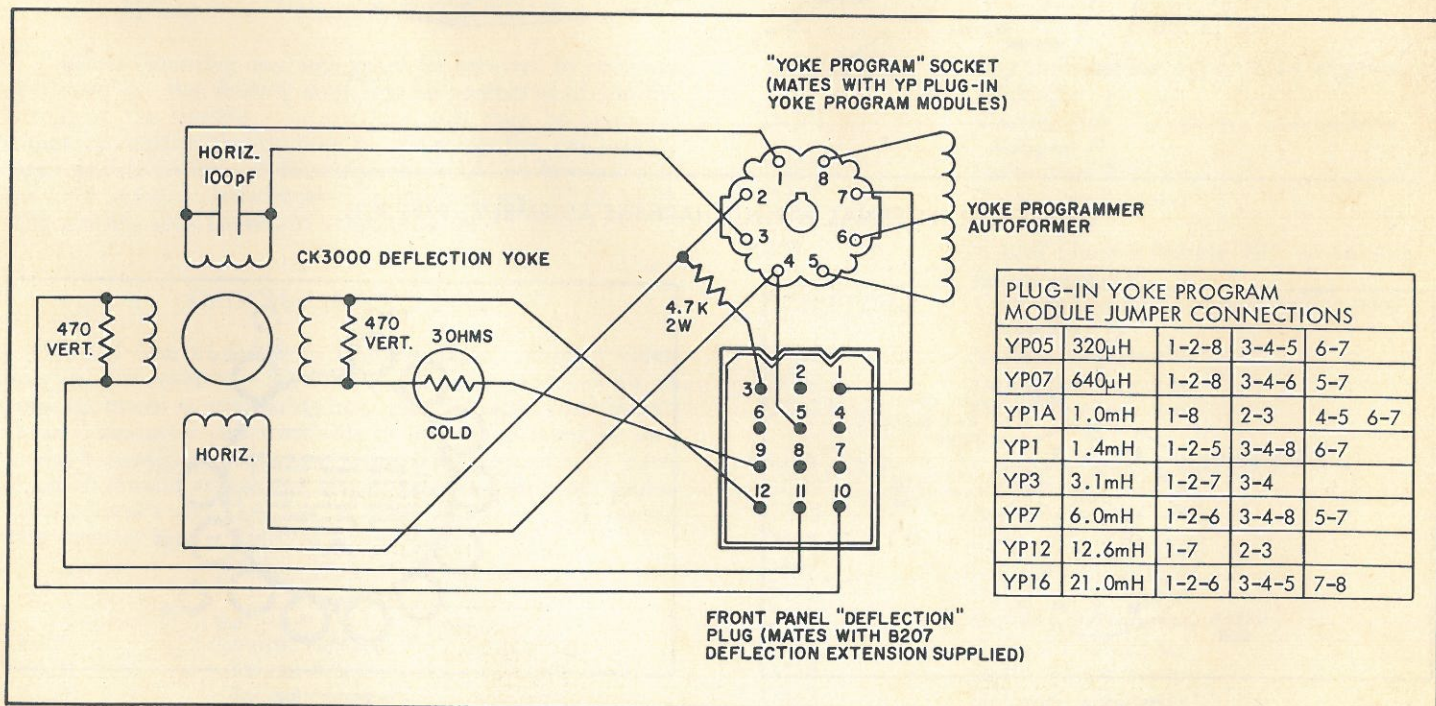
The deflection yoke must always be suitably connected before turning on the power to the receiver. The chassis under test may be damaged if the deflection circuit is not properly terminated. The convergence circuit is not generally so critical and usually can be left open if a suitable ballast is not available.

APPLICATIONS

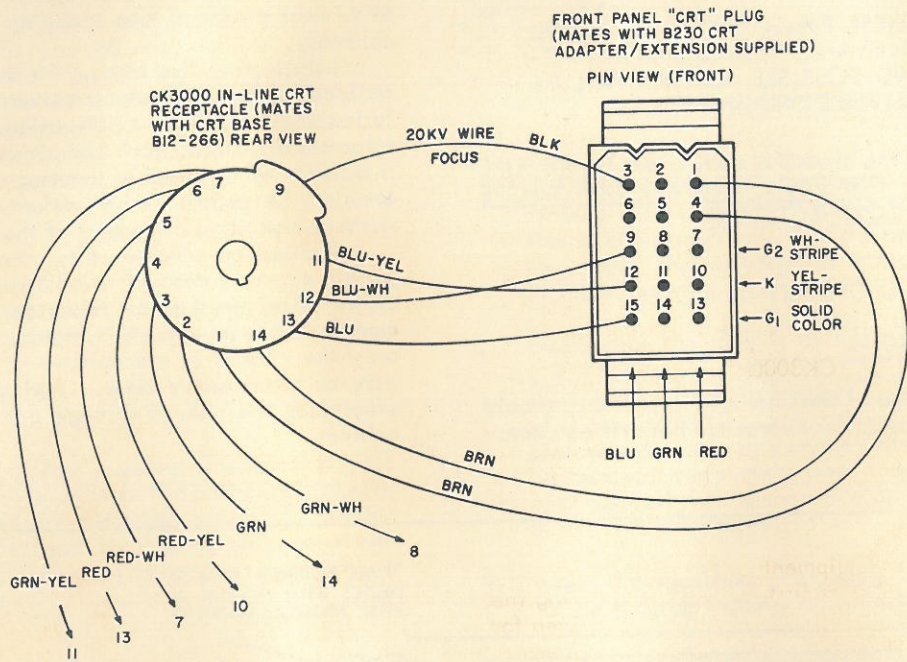
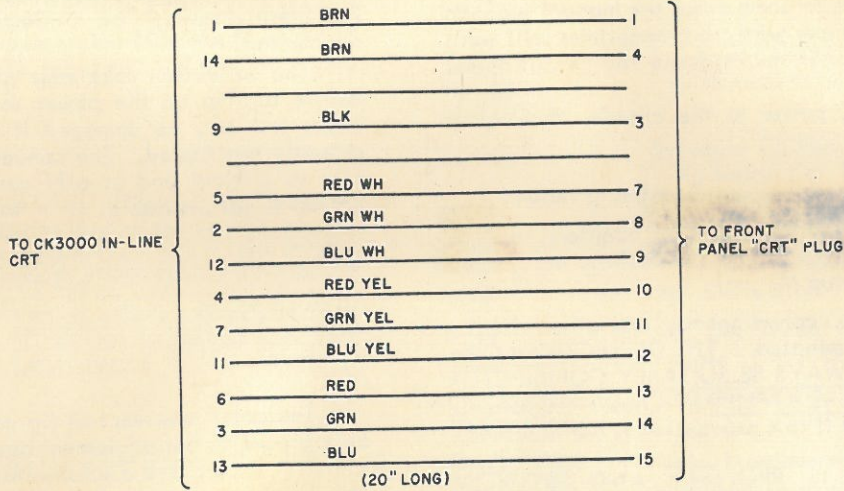
The color receiver test jig can be one of the most valuable pieces of test equipment available to the service technician. It can save a substantial amount of time and work. This is especially true of the Sylvania Chek-A-Color CK3000 with its versatility to test almost all makes and models of both solid-state and tube receivers with the same deflection assembly.

Substituting the test jig for the receivers picture tube, deflection yoke, and static converger is a fast means of isolating and identifying malfunctions to the chassis or picture tube and associated neck components. Using the CK3000 as a monitor when trouble shooting problems in the chassis enables the chassis to be worked on with physical freedom without disturbing alignment of the receivers picture tube.

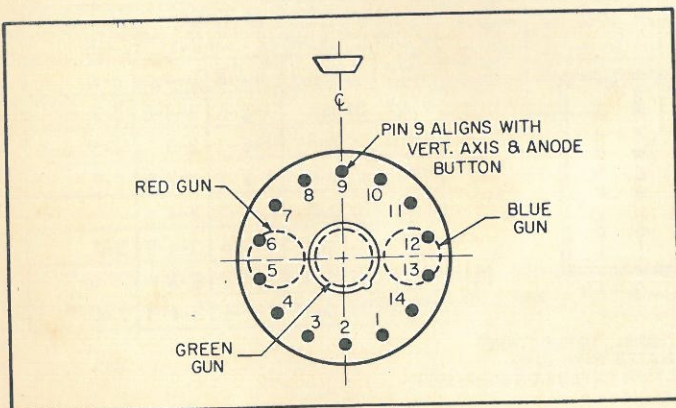
Applied on service calls, the test jig will more often enable accurate determination then and there just how much of the receiver must be taken to the shop. With console models this is an important factor. Pulling and transporting only the chassis in comparison to the entire receiver can save an extra man's time. Taking in just the chassis also eliminates the risk of damage occurring to the customer's cabinet.



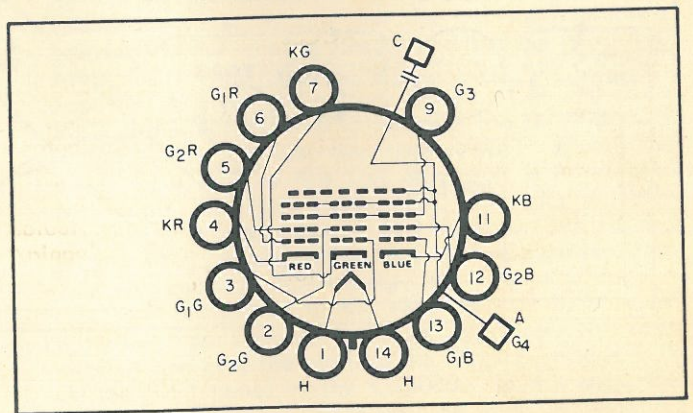
CK3000 DEFLECTION CIRCUIT



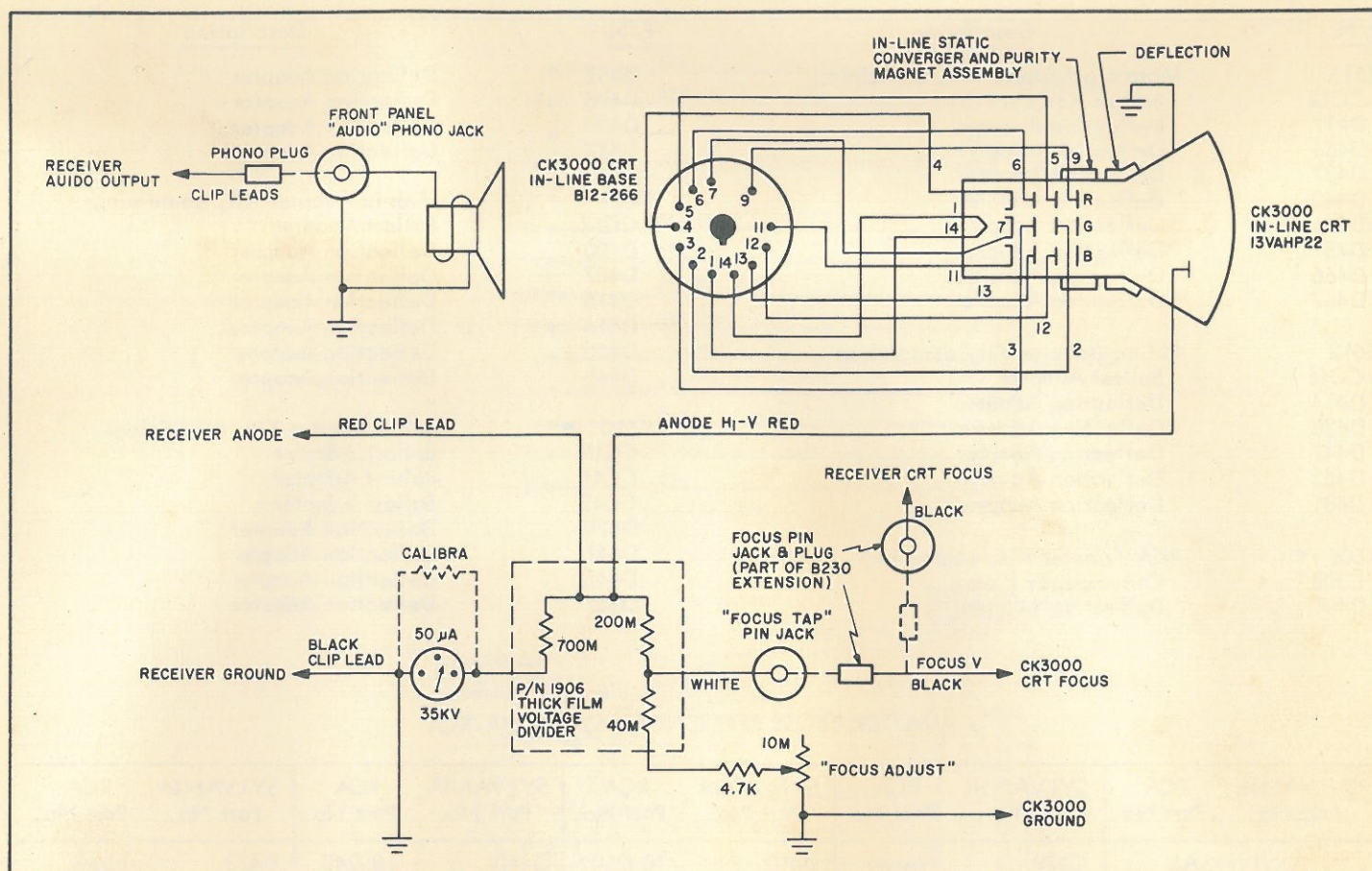
CK3000 CRT INTERNAL WIRING HARNESS ASSEMBLY, P/N 3031



CK3000 CRT
B12-266 BASE
REAR VIEW



CK3000 CRT
13VAHP22 - LARGE NECK, IN-LINE
14BP BASING



CK3000 ANODE HI-VOLTAGE/FOCUS VOLTAGE/AUDIO CIRCUIT

RETURNING EQUIPMENT FOR REPAIR

Before returning any equipment for service, in warranty or otherwise, the factory must first be contacted giving the nature of the trouble. Instructions will then be given for either correcting the trouble or returning the equipment. Upon authorization, this equipment should be forwarded to the GTE Sylvania Incorporated factory address, 7555 South 10th Street, Oak Creek, Wisconsin 53154.

OPTIONAL ACCESSORIES

A full line of Sylvania Chek-A-Color adapters which provide test coverage for almost all makes and models of color receivers is obtainable from your Sylvania Distributor. These accessories are available as individual items for servicing a specific chassis and also in the form of kits, each of which provides complete chassis coverage for a particular manufacturer's sets. A list of these kits and a Sylvania/RCA adapter cross-reference list follow:

P/N	Description
K605A	Admiral Adapter Kit, containing:
CC01	Ballast Adapter
CC28	Ballast Adapter
DC60/DC460	Combination Deflection/Convergence Adapter

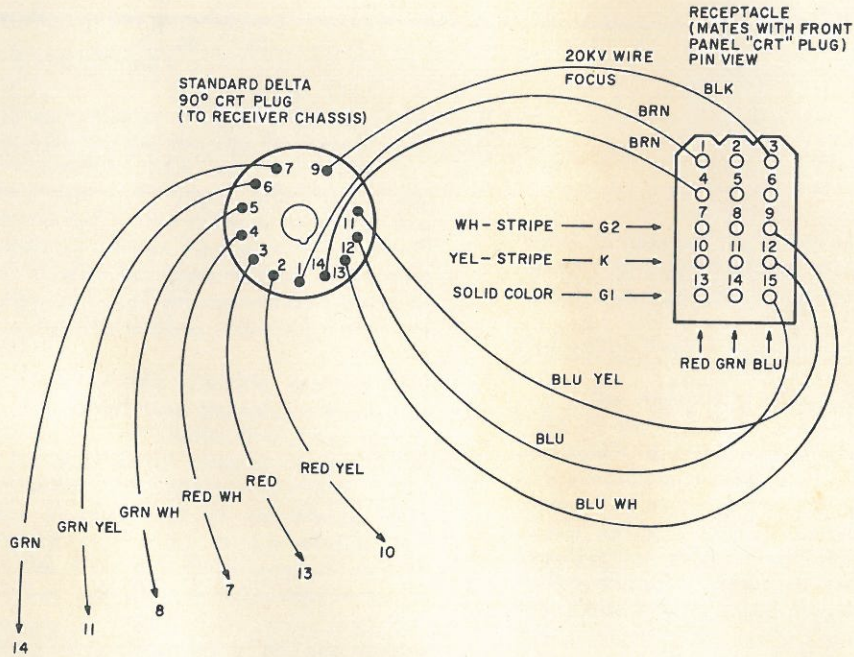
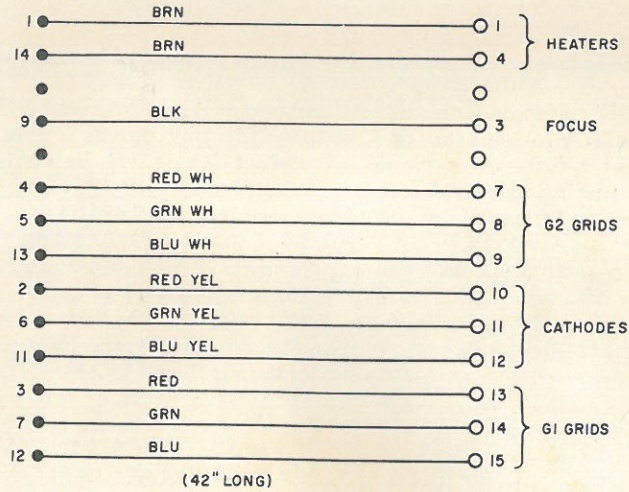
P/N	Description
DC65/DC465	Combination Deflection/Convergence Adapter
DC72	Combination Deflection/Convergence Adapter
D425	Deflection Adapter
D427	Deflection Adapter
K606	General Electric Adapter Kit, containing:
CC07	Ballast Adapter
DC62/DC462	Combination Deflection/Convergence Adapter
DC406	Deflection Adapter
DC429	Deflection Adapter
DC436	Deflection Adapter
K607A	Magnavox Adapter Kit, containing:
CC09	Ballast Adapter
CC49	Ballast Adapter
D408	Deflection Adapter
D409	Deflection Adapter
D410	Deflection Adapter
D412	Deflection Adapter
D424	Deflection Adapter
D430	Deflection Adapter
D445	Deflection Adapter
D449	Deflection Adapter
D459	Deflection Adapter

<u>P/N</u>	<u>Description</u>	<u>P/N</u>	<u>Description</u>
K611	Motorola Adapter Kit, containing:	D402	Deflection Adapter
CC12	Ballast Adapter	D403	Deflection Adapter
D411	Deflection Adapter	D405	Deflection Adapter
D426	Deflection Adapter	D422	Deflection Adapter
D437	Deflection Adapter		
D440	Deflection Adapter	K609	Sylvania Adapter Kit, containing:
D446	Deflection Adapter	CC17	Ballast Adapter
D451	Deflection Adapter	D400	Deflection Adapter
D466	Deflection Adapter	D407	Deflection Adapter
D467	Deflection Adapter	D415	Deflection Adapter
		D416	Deflection Adapter
		D455	Deflection Adapter
		D468	Deflection Adapter
K612	Philco Adapter Kit, containing:	K610	Zenith Adapter Kit, containing:
CC46	Ballast Adapter	CC19	Ballast Adapter
D414	Deflection Adapter	CC41	Ballast Adapter
D428	Deflection Adapter	CC42	Ballast Adapter
D447	Deflection Adapter	D420	Deflection Adapter
D452	Deflection Adapter	D441	Deflection Adapter
D481	Deflection Adapter	D442	Deflection Adapter
		D457	Deflection Adapter
K608	RCA Adapter Kit, containing:		
C308	Convergence Plug		
D401	Deflection Adapter		

ADAPTER CROSS REFERENCE - SYLVANIA/RCA

SYLVANIA Part No.	RCA Part No.	SYLVANIA Part No.	RCA Part No.	SYLVANIA Part No.	RCA Part No.	SYLVANIA Part No.	RCA Part No.	SYLVANIA Part No.	RCA Part No.
UNIVERSAL ADAPTERS** & EXTENSIONS		C329	None	D410	10J210	D440	10J240	D473	None
		C332	10J232	D411	10J211	D441	10J241	D474	10J631
		C334	10J234	D412	None	D442	10J639	D475	10J613
		C335	None	D413	None	D443	10J243	D476	None
A112	10J112	C341	None	D414	10J214	D444	10J244	D481	10J622
A113	10J113	C342	10J242	D415	10J215	D445	10J618	D482	None
B207	None	C345	10J245	D416	10J216	D446	None	DC72	None
B230	None	C346	10J246	D417	None	D447	10J247	DC460	None
CONVERGENCE*		C349	10J249	D418	10J218	D448	10J248	DC462	10J607
		C350	10J250	D419	None	D449	10J617		
C300	10J200	C353	10J253	D420	10J220	D450	10J629		
C301	10J201	C359	10J259	D421	10J608	D451	None		
C302	10J202	C360	10J260	D422	10J222	D452	10J252	**A112-70° Deflection Yoke Adapter	
C303	10J203	C369	None	D423	10J223	D453	None	A113-70° CRT Socket Adapter	
C304	None	C370	10J270	D424	10J224	D454	10J254	B207 - Deflection Yoke or Convergence Extension	
C305	10J205	C371	None	D425	10J225	D455	10J255	B230 - 90° CRT Socket Extension (Focus Lead Interrupted)	
C306	None			D426	10J226	D456	10J256		
C307	10J207			D427	10J227	D457	10J257		
C308 Plug	10J274			D428	None	D458	10J258		
C309	10J209			D429	10J229	D459	10J619		
C310	None	D400	10J272*	D430	10J230	D461	10J261		
C312	10J212	D401	None	D431	10J231	D463	10J263		
C313	10J213	D402	None	D432	10J609	D464	10J264		
C314	None	D403	None	D433	10J233	D466	None		
C317	10J217	D404	10J204	D434	None	D467	10J267		
C319	10J219	D405	None	D435	10J235	D468	None		
C321	10J221	D406	10J206	D436	10J615	D469	10J269		
C324	None	D407	10J628	D437	10J237	D470	None		
C328	10J228	D408	10J208	D438	10J238	D471	10J611		
		D409	None						

* A new line of adapters designated as the "CC" series Ballast Adapters is available as replacement for the "C" series Convergence Adapters. Both series, when used with the Convergence Ballast referenced in the Chek-A-Color Setup Manual, serve the same purpose, i.e., effect full vertical-sweep for tube and hybrid receivers. "CC" series adapters have only two leads, whereas the "C" series adapters are multi-lead and can also adapt jigs having dynamic convergence boards. For each "C" adapter P/N there is an equivalent "CC" adapter which has the same P/N except that the digit "3" is omitted after the "CC" (example: C309; equivalent (for CK3000 Test Jig only) is CC09).



B230 90° CRT SOCKET EXTENSION

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