

STR-GX800ES/GX900ES

SERVICE MANUAL

US Model
Canadian Model
STR-GX800ES/GX900ES
AEP Model
E Model
Australian Model
STR-GX900ES



Photo : STR-GX900ES

SPECIFICATIONS

Audio Power Specifications

(For U.S.A. and Canadian models)
POWER OUTPUT AND TOTAL HARMONIC DISTORTION

With 8-ohm load, both channels driven, from 20 - 20,000 Hz, rated 100 watts (STR-GX900ES) or 90 watts (STR-GX800ES) per channel minimum RMS power, with no more than 0.05 % total harmonic distortion from 250 milliwatts to rated output. (U.S.A. model only)

US and Canadian models :

	STR-GX900ES Surround mode (8 ohms)	STR-GX800ES Surround mode (8 ohms)
FRONT (at 20 Hz-20 kHz)	100 W + 100 W	90 W + 90 W
CENTER* (at 20 Hz-20 kHz)	100 W	90 W
REAR (at 1 kHz)	30 W + 30 W	30 W + 30 W

AEP, E and Australian models:

Surround mode (1 kHz, THD 0.8 %)	Front	100 W + 100 W
	Center*	100 W
	Rear	30 W + 30 W

* (only in the DOLBY SUR, THEATER and LIVE modes)

Other Specifications

Amplifier section (Front)

US and Canadian models :
Continuous RMS power (at 20 Hz-20 kHz)

	STR-GX900ES	STR-GX800ES
8 ohms	100 W + 100 W	90 W + 90 W
4 ohms	100 W + 100 W	90 W + 90 W

AEP model :

		Model for Scandinavian countries, Switzerland, Spain and Portugal	Model for other countries
(DIN, 1 kHz, THD 0.8 %)	8 ohms	100 W + 100 W	100 W + 100 W
	4 ohms	—	100 W + 100 W

E and Australian models :

(DIN 1 kHz, THD 0.8 %)	8 ohms	100 W + 100 W
	4 ohms	100 W + 100 W

US, Canadian, and Australian models :

Dynamic power output (in the stereo mode)		STR-GX900ES	STR-GX800ES
	8 ohms, at 1 kHz IHF	125 W + 125 W	115 W + 115 W
	4 ohms, at 1 kHz IHF	195 W + 195 W	185 W + 185 W
	2 ohms, at 1 kHz IHF	255 W + 255 W	245 W + 245 W
Frequency response	PHONO	RIAA equalization curve ±0.5 dB	
	CD, DAT/MD, TAPE, TV, LD, VIDEO 1,2,3	10 Hz - 50 kHz ± 1 dB (Direct pass)	
Damping factor (8 ohms, at 1kHz)	50		
Input sensitivity/impedance	PHONO MM	2.5 mV, 50 kilohms	
	CD	300 mV, 50 kilohms	
	DAT/MD, TAPE, TV, LD, VIDEO 1,2,3	250 mV, 50 kilohms	
S/N	PHONO MM	75 dB 75 dB** (A, 2.5mV)	
	CD, DAT/MD, TAPE, TV, LD, VIDEO 1,2,3	82 dB 82 dB** (A, 150mV)	

** 781HF

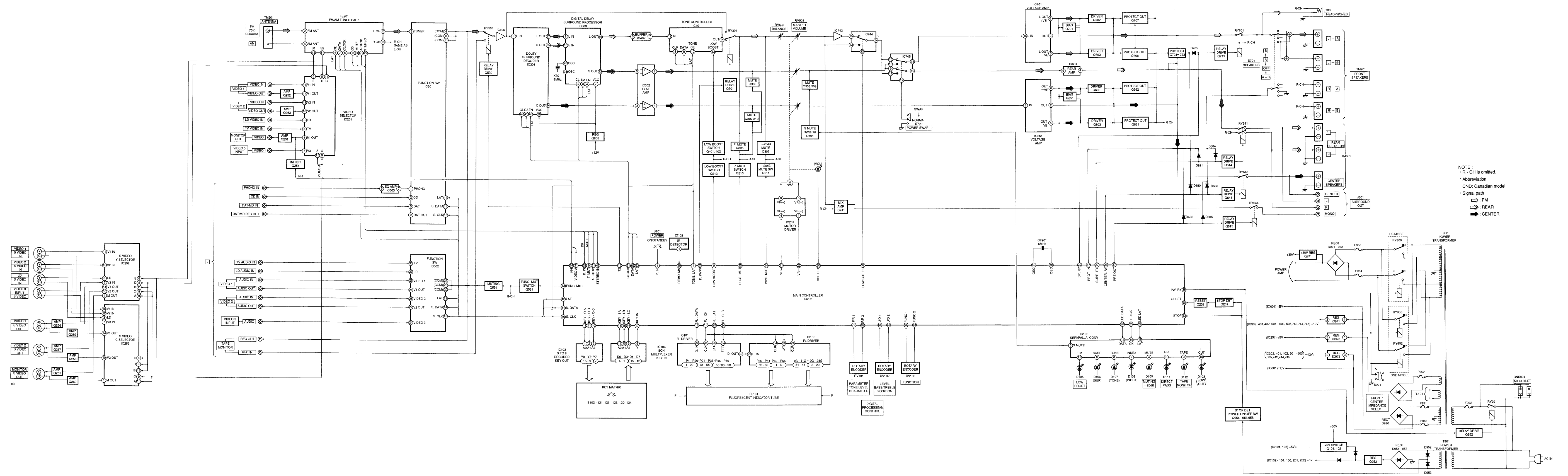
Output sensitivity/impedance	DAT/MD REC OUT, TAPE REC OUT, VIDEO 1,2	250 mV 10 kilohms
	HEADPHONES	Accepts headphones of high and low impedance
	SURROUND OUT REAR	1 V, 1 kilohm
	SURROUND OUT CENTER	1 V, 1 kilohm
	SURROUND OUT MONO	1 V, 1 kilohm
MUTING	-20dB	
LOW BOOST	+ 7dB at 70 Hz (STR-GX900ES) + 10 dB at 70Hz (STR-GX800ES)	
Low cut filter	90 Hz, 12 dB/oct	
Tone (STR-GX800ES)	BASS: ± 10 dB at 100 Hz TREBLE: ± 8 dB at 10 kHz	

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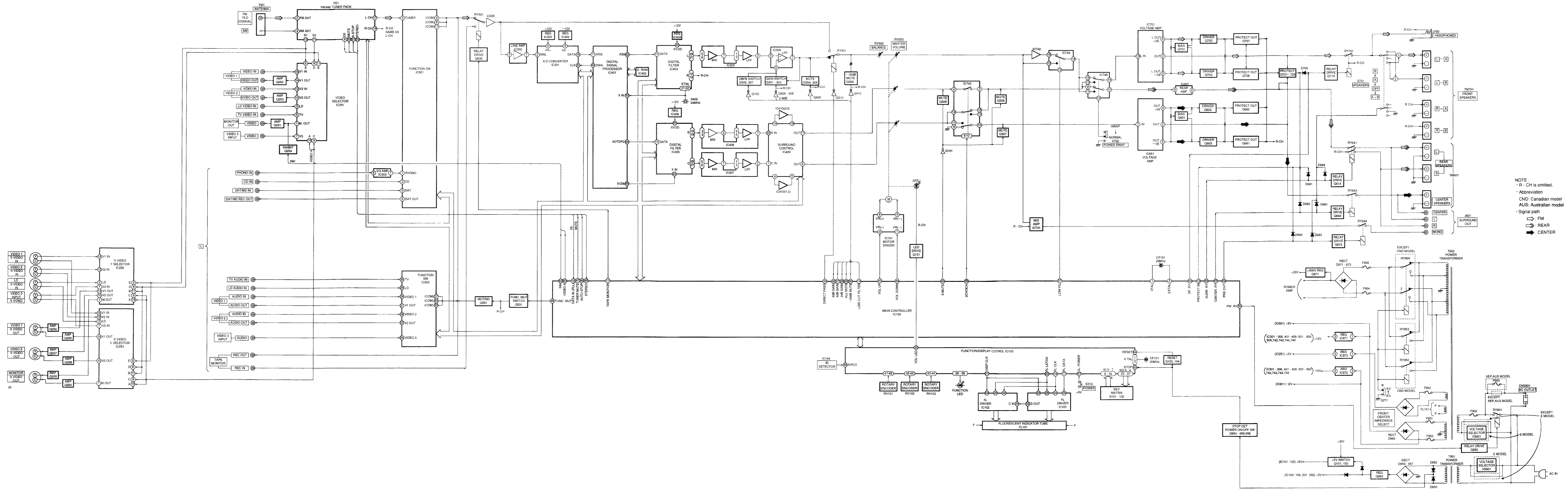
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FM STEREO FM-AM RECEIVER
SONY®

2-3. BLOCK DIAGRAM (STR-GX800ES)

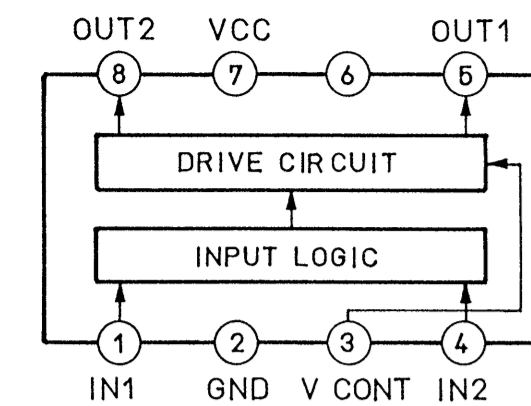


2-4. BLOCK DIAGRAM (STR-GX900ES)

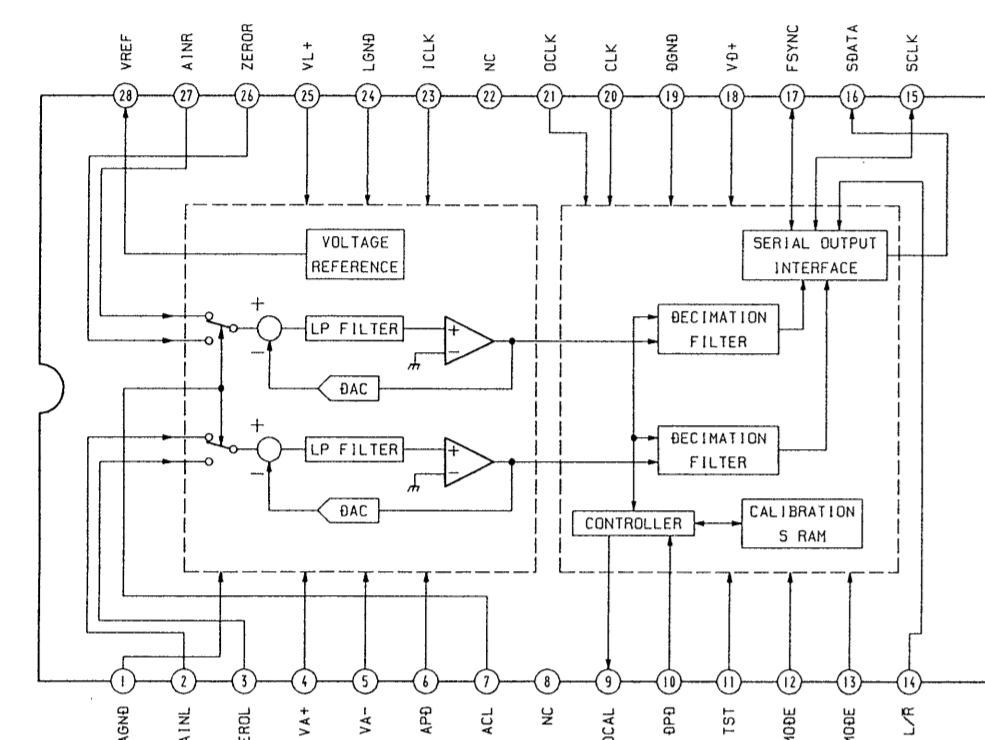


IC Block Diagrams

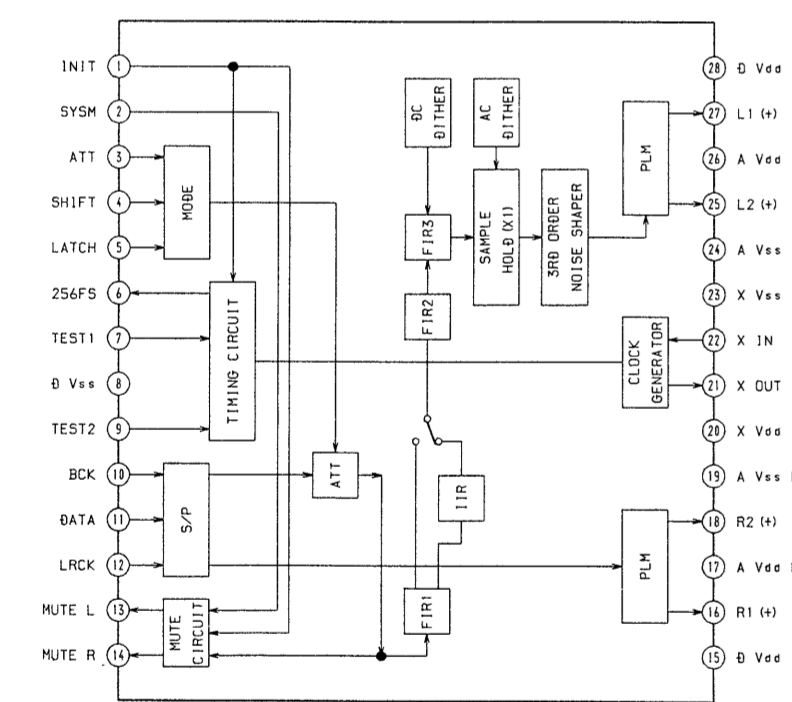
IC151 LB1639



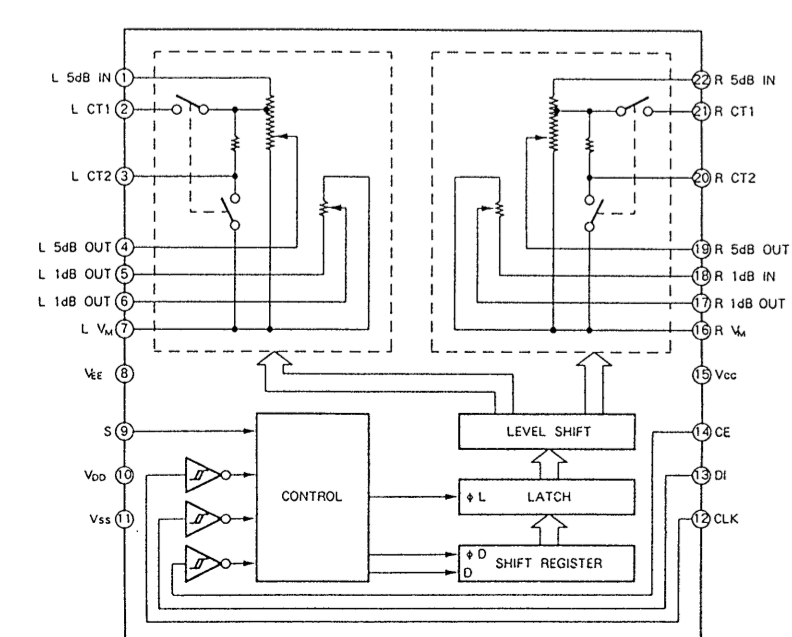
IC301 AK5369VP



IC404, 405 CXD2564AM



IC409 LC7355



Note: All capacitors are in µF unless otherwise noted. pF=µF/100. 50WV or less are not indicated except for electrolytics and tantalums. All resistors are in Ω and 1/4W or less unless otherwise specified. Δ: internal component. B+: B+ Line B-: B- Line Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions. no mark: FM Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances. Signal path: →: FM

2-7. SCHEMATIC DIAGRAM — SURROUND SECTION — (STR-GX900ES) See pages 59, 63 for IC Pin Functions. (IC150, 202, 401)

