Technics

SU-V60/V50/V40

Stereo Integrated Amplifiers

class AA
VC-4 Amplifier System

1. Class AA VC-4 amplification for extra clean power.
2. Heavy duty power supply with outstanding stability.
3. 6-Position multiple input facilities.

SU-V60

Stereo Integrated Amplifier

120W+120W

SU-V50

Stereo Integrated Amplifier

85W+85W

SU-V40

Stereo Integrated Amplifier

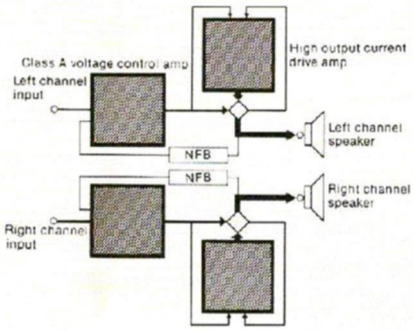
70W+70W

Introducing three new amplifiers that have the power, flexibility and sonic purity to handle components ranging from digital audio to a video source. Behind this remarkable performance is Technics' original Class AA amplification, a major breakthrough in power amplifier technology. All three amps also feature generous output power and a wide selection of front panel controls.

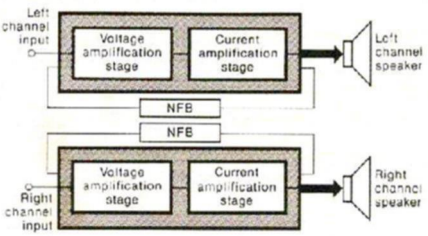
Class AA VC-4 amplification

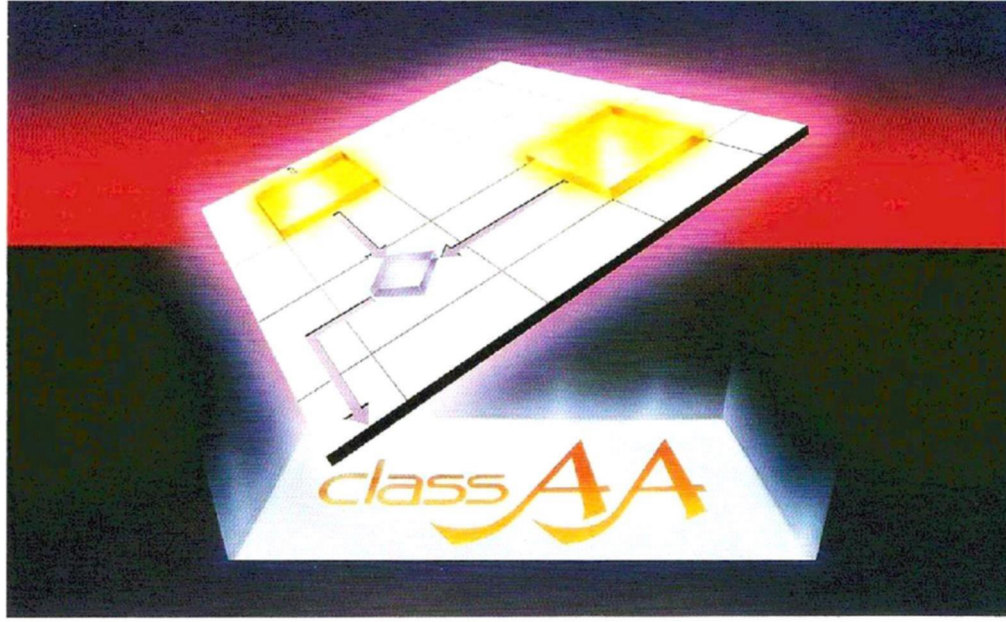
The innovative power amp section of these amplifiers is based on VC-4 Class AA construction. It comprises a voltage control amp and current drive amp in each channel, a total of four amp circuits. A special Class AA bridge connection to the separate current drive amp isolates the voltage control amp from the load, thereby dramatically reducing distortion. Current to the speakers is supplied by the current drive amp, avoiding the adverse influence fluctuations in speaker impedance and current/voltage phase differences caused by complex speaker impedances. This also prevents speaker back electromotive force from affecting voltage control. The resulting power output is very impressive. The SU-V60, for example, is rated at 90W+90W into 8 ohms with distortion of 0.002% (20Hz ~ 20kHz, 8 ohms). That's enough power and purity for the most demanding audio and video components.

Class AA VC-4 amplifier system



Typical conventional amplifier





Heavy duty power supply

To match the wide dynamic range of today's sophisticated sources, the SU-V60, V50 and V40 employ a power supply capable of handling signal peaks with room to spare. Main components of this power supply include a high capacity transformer, large electrolytic capacitors, each of which can supply up to 300A of instantaneous current, and power transistors having excellent linearity. The Concentrated Power Block construction helps prevent electromagnetic distortion.

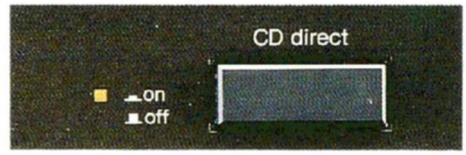
Large capacitors (SU-V60)

6-Position multiple input facilities

Designed to serve as the control center of an entire home entertainment system, each of these amps is equipped with input and selection facilities to handle a wide variety of audio and video components. An orange indicator lights to show which source has been selected. To permit recording one source while listening to another, the SU-V60 and SU-V50 have a separate recording input selector and the SU-V60 has red indicators to confirm the current setting.

"Direct Switching" for CD input

If you want, the input signal from the CD player can be routed directly to the power amp section. This preserves the purity of the digital input signal since the input selector circuitry is completely bypassed.

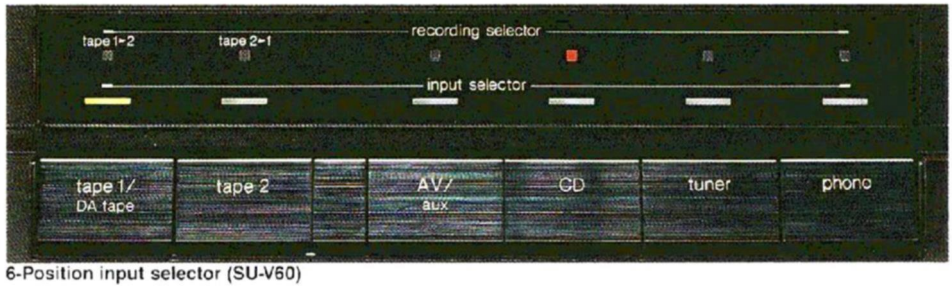


Ultra-quiet phono EQ

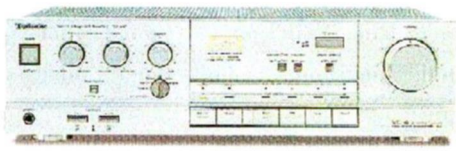
The SU-V60 and V50 are compatible with both MM and MC cartridges. This convenience of the SU-V60 is complemented by ultra-low noise FET and ICL (input capacitorless) construction in the phono EQ to faithfully handle the phono input signal. The result is a S/N ratio of 86dB (IHF A) for MM cartridges (2.5mV) and 68dB (IHF A) for MC (250μV).

More valuable features

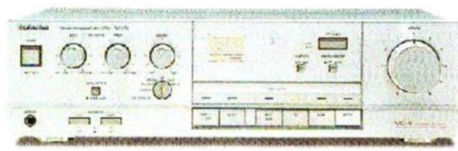
- Low-noise NFB-type tone controls.
- Electronic protection circuit.
- Subsonic filter switch (SU-V60).
- Tone defeat switch.
- Main and/or remote speaker selection.
- Loudness switch.
- Class AA operation monitors for voltage control (orange) and current drive (red).
- Large cabinet feet.



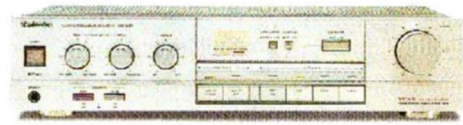
6-Position input selector (SU-V60)



SU-V60



SU-V50



SU-V40

Silver cabinet color is also available.

Technical Specifications (DIN 45 500)

	SU-V60	SU-V50	SU-V40
MAIN AMPLIFIER SECTION			
1kHz continuous power output			
both channels driven	120W x 2 (4Ω) 120W x 2 (8Ω)	85W x 2 (4Ω) 85W x 2 (8Ω)	70W x 2 (4Ω) 65W x 2 (8Ω)
20Hz ~ 20kHz continuous power output			
both channels driven	90W x 2 (8Ω)	65W x 2 (8Ω)	50W x 2 (8Ω)
Total harmonic distortion			
rated power at 1kHz	0.005% (4Ω) 0.0009% (8Ω)	0.005% (4Ω) 0.0009% (8Ω)	0.005% (4Ω) 0.0009% (8Ω)
at 20Hz ~ 20kHz	0.002% (8Ω)	0.002% (8Ω)	0.003% (8Ω)
half power at 1kHz	0.002% (4Ω) 0.0008% (8Ω)	0.002% (4Ω) 0.0008% (8Ω)	0.002% (4Ω) 0.0008% (8Ω)
at 20Hz ~ 20kHz	0.002% (8Ω)	0.002% (8Ω)	0.003% (8Ω)
Intermodulation distortion			
rated power			
at 250Hz:8kHz=4:1, 8Ω	0.005%	0.005%	0.007%
at 50Hz:7kHz=4:1, SMPTE, 8Ω	0.005%	0.005%	0.007%
Power bandwidth			
both channels driven, −3 dB	5Hz ~ 60kHz (0.03% THD, 8Ω)	5Hz ~ 60kHz (0.03% THD, 8Ω)	5Hz ~ 65kHz (0.05% THD, 8Ω)
Residual hum and noise	0.8 mV	0.8 mV	0.8 mV
Damping factor	30 (4Ω), 60 (8Ω)	30 (4Ω), 60 (8Ω)	30 (4Ω), 60 (8Ω)
Headphones output level and impedance	600mV/330Ω	500mV/330Ω	450mV/330Ω
Load impedance			
MAIN or REMOTE	4Ω ~ 16Ω	4Ω ~ 16Ω	4Ω ~ 16Ω
MAIN and REMOTE	8Ω ~ 16Ω	8Ω ~ 16Ω	8Ω ~ 16Ω
PRE AMPLIFIER SECTION			
Input sensitivity and impedance			
PHONO MM	2.5mV/47kΩ	2.5mV/47kΩ	2.5mV/47kΩ
MC	170μV/220Ω	170μV/220Ω	—
TUNER, CD, AV/AUX TAPE1/DA TAPE, TAPE2	150mV/22kΩ	150mV/22kΩ	150mV/22kΩ
PHONO maximum input voltage (1kHz, RMS)			
MM	160mV	160mV	160mV
MC	12mV	12mV	—
Input capacitance	150pF	150pF	150pF
S/N rated power (4Ω)			
PHONO MM (2.5mV)	78dB (86dB, IHF A)	77dB (83dB, IHF A)	76dB (81dB, IHF A)
MC (250μV)	65dB (68dB, IHF A)	64dB (65dB, IHF A)	—
TUNER, CD, AV/AUX TAPE1/DA TAPE, TAPE2	92dB (100dB, IHF A)	91dB (100dB, IHF A)	91dB (100dB, IHF A)
Frequency response			
PHONO	RIAA standard curve ±0.8dB (30Hz ~ 15kHz)	RIAA standard curve ±0.8dB (30Hz ~ 15kHz)	RIAA standard curve ±0.8dB (30Hz ~ 15kHz)
TUNER, CD, AV/AUX TAPE1/DA TAPE, TAPE2	5Hz ~ 120kHz (−3dB) +0, −0.2dB (20Hz ~ 20kHz)	5Hz ~ 120kHz (−3dB) +0, −0.2dB (20Hz ~ 20kHz)	5Hz ~ 120kHz (−3dB) +0, −0.2dB (20Hz ~ 20kHz)
Tone controls			
BASS	50Hz, +10dB ~ −10dB	50Hz, +10dB ~ −10dB	50Hz, +10dB ~ −10dB
TREBLE	20kHz, +10dB ~ −10dB	20kHz, +10dB ~ −10dB	20kHz, +10dB ~ −10dB
Subsonic filter	20Hz −6dB/oct	—	—
Loudness control (volume at −30dB)	50Hz, +9dB	50Hz, +9dB	50Hz, +9dB
Output voltage			
TAPE1, TAPE2, REC OUT	150mV	150mV	150mV
Channel balance			
AUX (250Hz ~ 6300Hz)	±1dB	±1dB	±1dB
Channel separation			
AUX (1kHz)	50dB	50dB	60dB
GENERAL			
Power consumption	560W	420W	380W
Power supply	AC220V for continental Europe, 240V for U.K. and Australia, 110/127/220/240V* for other countries, 50/60Hz	AC220V for continental Europe, 240V for U.K. and Australia, 110/127/220/240V* for other countries, 50/60Hz	AC220V for continental Europe, 240V for U.K. and Australia, 110/127/220/240V* for other countries, 50/60Hz
Dimensions (W x H x D)	430 x 116 x 340 mm ($16^{15}/_{16}$" x $4^{9}/_{16}$" x $13^{6}/_{16}$")	430 x 116 x 290 mm ($16^{15}/_{16}$" x $4^{9}/_{16}$" x $11^{7}/_{16}$")	430 x 97 x 290mm ($16^{15}/_{16}$" x $3^{27}/_{32}$" x $11^{7}/_{16}$")
Weight	8.5kg (18.8 lb)	7.7kg (17.1 lb)	6.3kg (13.9 lb)

Note: Total harmonic distortion is measured by the digital spectrum analyzer (HP 3045 system).
* Instead of a voltage selector, the voltage is preset for some countries.

Technics
Matsushita Electric

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