

Pspatial Audio Equalisation Guide

EQ Characteristics in Stereo Lab

EQ Characteristic	A	A2	A3	B	B2	C	D	E	F	G	H	J	K	S
Name	RIAA	Decca LP	TELDEC/AES	NAB	Columbia LP	CCIR / CG**	Quad 22	500-Flat	Flat/Acoustic	European 78s	American 78s	Columbia 78s	Ceramic	Displacement
To shelf, atten	500R-13.7	500C-13.7	500R-10.5	500-16	500C-16	350-10.5	350-5.5	500R-0	n/a	300-0	300-5.5	300-16	n/a	n/a
Similar to	BSI 33		AES				Philips 78	Telefunken 78						
Identical with	BS 1928 IEC 98A New Ortho RIAA	Decca 33.3 London	DIN /TELDEC	NAB	Columbia LP	BSI 78 BS1928 (CG) IEC CCIR				Blumlein European 78s	Decca 78 frrr			

* Indicates no bass-shelf in characteristic. ** Original CCIR had no bass shelf but DGG added 3180µs (50Hz); thus CCIR= Coarse Groove

Major LP Equalisations & their parameters

EQUALISATION	Time Constants	CODE	Bass Shelf Code
NAB	3180 µs (50Hz), 318 µs (500 Hz) and 100 µs (1,590 Hz)	500-16	X=12dB
Columbia (LP)	1,590 µs (100 Hz), 318 µs (500 Hz), and 100 µs (1,590Hz)	500C-16	C=14dB
<i>Modification of bass-shelf of NAB to produce the Columbia is the origin of the 500 modified, or 500M term.</i>			
AES	398 µs (400 Hz) and 64 µs (2,500 Hz)	400-11.5	A=16dB
London (Decca 33.3)	1,590 µs (100 Hz), 318 µs (500 Hz), and 57 µs (2,800Hz)	500C-12	B=18dB
CCIR / Coarse Groove	450 µs (350 Hz), and 50 µs (3,180 Hz), DGG added 3180 µs (50 Hz)	350-10.5	R=20dB
RIAA	3180 µs (50 Hz), 318 µs (500 Hz), and 75 µs (2,120 Hz)	500R-13.7	N= None
TELDEC (DIN 45533)	3180 µs (50 Hz), 318 µs (500 Hz), and 50 µs (3,180 Hz)	500R-10.5	

Recording Equalisation Guide by Label: LP & Shellac

Red = Not in Quad's original list

Table indicates: pre-RIAA characteristic and change-over date along with Quad 22 recommendation and any modern revision

LABEL	Quad	Old EQ	C/O Date	Pspatial	Pspatial Comment	LP DISCS
Allagro	B	500C-16	1956	B2	Note late c/o date	
Allied	B	500-16	1958	B	Note late c/o date	
American Rec' Society	C	400-11.5	1958	A3	Note late c/o date	
Angel	B	500N-12.7	1952	A		
Archiv	C		1962	C/A3	Use A3 for discs between 1959 and 1962	
Argo	B		by 1955	B		
Artist		500-16	Not known	B		
Atlantic	B	500-16	by 1955	B		
Audiophile	C	500-11.5	1958	A	Note late c/o date	
Bach Guild	B	500-16	to disc #529	B		
Banner	B	500-16	to #10002	B		
Bartok	C	Various	1953	A, B, C	B prior to 1952; C 1952-1953, A thereafter.	
Blue Note	C	400-11.5	1955	A3	Note late c/o date. Select for best balance	
Brunswick	C	400-11.5	Not known	A3		
Caedmon	B	350-10.5	Not known	C	Used CCIR. Use B only for records #1001 - 1022	
Capitol	C	400-11.5	by 1953	A3	Early adopter of RIAA, use A for all records after 1953	
Capitol - Soria	C	400-11.5	Not known	A3		
Cetra - Soria	B	500C-16	1961	B2	Note very late c/o date	
Colosseum	B	500C-16	1954	B2		
Columbia	B	500C-16	1955	B2	Use B2 for all Columbia discs prior to 1955	
Concert Hall	B	Various	1956	A or B	B for discs before 1954	
Cook	A	500-11.5/13.5	1958	A or A2	Note late c/o date	
Coral	C	500-16	1958	B	Late c/o from NAB	
Decca UK	A	Decca 33.3	1956	A2	See manual.	
Decca US	C	500-16	late 1955	A, B, C	Evidence 500C-10.5, 400-11.5 and 500B-16 all were used.	
DGG	B	350-10.5	1962	C/A3	Use C pre 1955. DGG probably used DIN (A3) from 1957 until 1962	
Dial	B	500-16	Not known	B		
Durium	C		Not known	B		
Elektra	B	Various	by 1955	B or A	Few records, adopted RIAA early	
EMI			to July 1953	G	After 7/1953, use RIAA exclusively	
EMS	C	400-11.5	by 1955	A3		
Epic	C	500C-16	by 1955	B2		
Esoteric	C	400-11.5	by 1955	A3		
Felsted	C		Not known	C		
Handel Soc'	B	500C-16	1957	B2	Note late c/o date	
Haydn Soc'	B	500C-16	1957	B2	Note late c/o date	
HMV (US)	B	500R/N-16	1958	B	Note late c/o date. But see EMI.	
London	A	500C-10.5	by 1955	A2	See manual.	
Lyrichord	B	500-16	1957	B	Note late c/o date	
Mercury	C	400-11.5	1954	A3		
MGM	C	500-16/500-11.5	1952	B or A	B prior to 1952; A after.	
Nixa	B		Not known	B		
Nocturne		400-11.5	by 1955	A3		
Oceanic	B	500C-16	1958	B2	Note late c/o date	
Oiseau-Lyre	A	500C-10.5	by 1955	A3	TELDEC curve	
Oxford	B	500C-16	1958	B2	Note late c/o date	
Parlophone	B		1962	B/A3		
Period	B		Not known	B		
Philharmonia	C	400-11.5	1958	A3	Note late c/o date	
Philips	C	350-10.5	Not known	C		
Polymusic	B	500-16	1958	B	Note late c/o date	
Rachmaninoff Soc'	B	500C-16	1958	B2	Note late c/o date	
RCA	B	500N-12.7	1952	A	Certainly A after 1952 as RCA invented New Orthophonic	
Remington	B	500-16	1958	B	Note late c/o date	
Renaissance	B	500C-16	Not known	B2		
Stradivari	B	500-16	1958	B	Note late c/o date	
Swing	B		Not known	B		
TELDEC		500R-10.5	after 1955	A3	Cut to DIN standard 45357 until 1962	
Telefunken	A	350-10.5	until 1962	C/A3	CCIR pre 1957. Probably used DIN standard 45357 until 1962	
Tempo	B	500-16	1958	B		
Urania	C	500-16	to 1954	B or C	Some releases Eqd as 400-11.5 for which use C	
Vanguard	B	500C-16	by 1955	B2		
Vox	B	500C-16	by 1955	B2		
Westminster	B or C	NAB / AES	late 1955	B or A	Dust jacket should indicate which	



QUAD 22 BUTTONS

A			
B			
C			
D			

LABEL (or type)	EQ	Pspatial	Pspatial Comment	SHELLAC DISCS
AOC	Acoustic	F	Budget label for Vocalion (see below). Ran until 1927	
Aeolian-Vocalion	Acoustic	F	1916 - 1926	
Aeolian-Vocalion	250N-0	G	1926 - 1933, with M in a circle (acquired by Brunswick in 1925)	
Ariel	Mail order discs (from Sheffield UK). Used variety of masters mostly from Parlophone from about 1924 until 1938	A3	Proprietary EQ (with curve thought to be similar to AES)	
Audiophile	Small catalogue of 78s on vinyl.	F	German label	
Beka	Acoustic	F	Specialist label founded in 1923: mainly Scottish traditional music	
Beltona	300-0	G	Division of RCA Victor from 1932 to 1950. Budget label	
Bluebird	250N-0 / 250N-6	G/H	Subsidiary of Vocalion, ceased production in 1934	
Broadcast	250N-0	G	1920-1925, both Hill & Dale and lateral cuts	
Brunswick	Acoustic	F	1925 - 1940.	
Brunswick	250N-0	G	Sold to Decca (US) and revived in 1943 mostly for re-issues.	
Brunswick	300N-5.5	H	1942 (founded) to 1951. Experiment with C on late discs	
Capitol	250N-8	H	1951-1955 (AES curve)	
Capitol / Capitol Cetra	400N-12.7	C	German Capitol: produced by Teldec using original US Capitol masters.	
Capitol - Telefunken	250N-8 (later 400N-12.7)	H/C	1944 - 1955, frrr, prod. by Decca UK, matrix prefix DCAP	
Capitol (Europ.)	300N-5.5	H	founded 1930s by RAI, Italy	
Cetra	250N-0	G	founded 1949, Cetra prod. in US	
Cetra-Soria	250N-0	G	1912 - 1927 mostly reissues from Vocalion	
Coliseum	300-0	G	1901 - 1925 when acq by British Columbia Gramophone Co	
Columbia Phonograph (US)	Acoustic	F	Used WE system until receivership	
Columbia Phonograph (US)	250-0	G	Post CBS takeover in 1938	
Columbia (American)	300N-5.5	H	Reportedly ca. 1941 - 1948.	
Columbia (American)	300N-16	J	1927 - 1953. EMI(UK) since 1931	
Columbia (British)	300N-0	G	Subsidiary of Decca formed in 1949	
Coral	400N-12	A3	pre 1946	
Decca (American)	300N-0	G	1946 - 1951	
Decca (American)	300N-5.5	H	1951 - 1953/! AES curve	
Decca (American)	400N-12	A3	1935 - 1944	
Decca (British)	300N-0	G	1944 - 1956	
Decca (British frrr)	300N-5.5	H	Originally the German branch of Berliner's The Gramophone Company.	
Deutsche Grammophon	300N-0	G	to 1958	
Dot	400N-12	A3	Hill & Dale modulation	
Edison Diamond discs	Acoustic	F	Electrola Gesellschaft m.b. H. Berlin	
Electrola	Acoustic	F	Prior to 1927	
EMI-HMV (British)	Acoustic	F	1927 - 1963	
EMI-HMV (British)	300N-0	G	EMI from 1931	
Gramophone Company	300N-0	G	some, re-releases of acoustics mastered 1909-1926	
His Master's Voice (Brit.)	Acoustic	F	1927 - 1953, prod. by EMI(UK)	
His Master's Voice (Brit.)	300N-0	G	1944 - 1955, frrr, prod. by Decca UK,	
L'Oiseau-Lyre	300N-5.5	H	London was label used to release Decca Ltd (UK) recordings in the USA. See Decca.	
London (USA)	London in the UK was used for releases from American labels which British Decca licensed. This EQ is therefore variable			
London (UK)	London in the UK was used for releases from American labels which British Decca licensed. This EQ is therefore variable			
Mercury	250N-8	H	Founded 1945	
Mercury	400N-12	A3	1951 - Oct 1954; to matrix MGS0026, 7000	
MGM (American)	500N-12	A	founded 1946. In the UK MGM was administered by EMI	
Nat. Gramophonic Soc.	300-0	G	1926 - 1933, with M in a circle, cat. HHH to TTT and NGS.65 to NGS.102	
Octacros	300N-0	G	1931 - ?, Britain, a Synchronophone label	
Odeon	250-0	G	1925 - 1928, with W in a circle (a Lindström label)	
Odeon	Probably 300N-0	G	1928 - 1936, matrix with £ in a circle (a Lindström label)	
Odeon	300N-0	G	1931 - 1944, with © before matrix no., [Bc]	
Odeon	300N-0	G	to 1953, (1926 sub. of Brit. Columbia, 1931 sub. of EMI)	
OKeh	250N-8 (400N-8)	H	1926 - end (a Columbia label since 1926)	
Parlophone	250-0 (300N-0)	G	1925 - 1949	
Pathé (inc Hill & Dale types)	Acoustic	F	Until 1928 (when Pathé was sold to British Columbia Gramophone)	
Pathé	300N-0	G	1931 - 1944, with © before matrix no., [Bc]	
Philips	300-5.5	H	1950 to 1953. Dutch founder ran Decca pressing shop.	
Polydor	300N-5.5	H	sub-label of Deutsche Grammophon	
RCA Victor	300N-0	G	1931 - 1944, with □ after matrix no., EMI UK reissues, [Bc]	
RCA Victor	500N-8/10/12	A3	Some instability in characteristic between 1944 and 1947	
RCA Victor	500N-12.3	A	1947 - Aug 1952 (Old Orthographic)	
RCA Victor	500R-13.7	A	RIAA after August 1952, after matrix E2RP4094	
RCA Victor (European)	300N-0	G	1930 - 1950	
Regal	250-0	G	British budget-price label for Columbia.	
Regal Zonophone (Brit.)	250-0	G	Regal became R2 after the EMI merger in 1931	
Regal Zonophone (Brit.)	500N-0	E	1949 - 7/1953, matrix no. CAR6800	
Scala	300-0	G	Budget label with masters mostly sourced from Aeolian	
Supraphon	400N-0	E	Czech, since 1932, a subsid. of Ultraphon	
Synchronophone	300N-0	G	1931 - ?, Britain	
Telefunken	300N-5.5	H	1944 - 1955, frrr, prod. by Decca UK,	
Telefunken	400N-0	E	1951-1953, (Telefunken + Decca UK = TELDEC since 1950)	
Theme	250N-6	H	all N78	
Turicaphon	400N-0	E	Switzerland, 1930 - , a subsid. of Ultraphon	
Ultraphon	400N-0	E	Europe 1929-1932, taken over by Telefunken	
Unison	300-0	G	1926 - 1933, with M in a circle	
Victor (Victrola)	250-0	G	1925 - 1931. Sold to RCA in 1930; see RCA Victor above	
Vocalion	Acoustic	G	From 1916 to about 1926	
Vocalion	250-0	G	1926 - 1933, to cat. X10029 A.0269 and K05312, with M in a circle	
Vocalion	300N-5.5	H	1944 - 1955, frrr, prod. by Decca UK, series V1000	
Voice of the Stars	300N-0	G	1931 - 1944, with © before matrix no., [Bc]	
Zonophone	Acoustic	G	Pre 1925	
Zonophone	250N-0	G	1925 - 1944	

