



# TUBE REFERENCE GUIDE

**MESA Matched & Tested – Our Premium Quality Guarantee**  
We start by specifying and selecting only the finest tubes available from around the world. We then test and match these tube, while under the stress of actual operating

conditions, to the tightest, most demanding specifications in our industry with the use of our proprietary aerospace designed tube analysis system called Robotube. We accept only the “finest of the finest” and back them with

the best warranty in the business for a minimum of six months! Install with the confidence of guaranteed premium performance from the worlds leading designer of custom, handcrafted amplifiers, MESA/Boogie® Ltd.

Tube Model	Description	Where Used
6L6 STR-440	The 440 is our very best overall 6L6 - It is a premium grade, US equivalent and our tube of choice in the production of all new Mesa 6L6 powered models - Remarkable bass definition, articulate mids and shimmering highs keep every note amazingly intelligible, with a smooth, creamy character - Premium structural quality provides exceptional consistency and reliability - Rivals NOS (New Old Stock) durability and sonic character - Amazing for all styles of music	Stock in: F-50, F-100, Solo 50, Rect-O-Verb, Dual Rec, Triple Rec, Roadster, Road King, Mark I, Mark IV, Lone Star, 2:50, 2:90, Recto 2:100 & Bass 400+
5881 STR-425	Our 425 is a Russian military grade 6L6 that was designed with an emphasis on rugged durability and consistency, capable of handling high voltage requirements - It produces a thick, rich tone with tapered highs that lends itself to styles of jazz, fusion, some blues or any style where tapered highs and a full round tone are desired - If you find your amp to be too bright with standard 6L6's, the 5881 may be your passion	Substitute in: F-50, F-100, Solo 50, Rect-O-Verb, Dual Rec, Triple Rec, Roadster, Road King, Mark I, Mark IV, Lone Star, 2:50, 2:90, Recto 2:100 & Bass 400+
6V6 STR-417	Our 417 is the little brother to the 6L6 and it is all about classic American tube tone from yesteryear - Extremely sweet and bubbly with a beautifully deep bass and spacious shimmering highs, this tube defines vintage “Deluxe” styled tone and is a great substitute in the Mark I, Mark IV & Lone Star when used with their “Tweed” Switch feature - Please see the amplifier owner’s manual for correct use of this tube	Substitute in: Mark I, Mark IV & Lone Star
EL-34 STR-447	The 447 is our very best overall EL-34 - It is a premium grade, NOS (New Old Stock) equivalent and our tube of choice in the production of all new Mesa EL-34 powered models - It has a traditional EL-34 tone & feel that is very urgent and aggressive and is an excellent choice for all styles of gain, especially classic rock, alternative rock & metal - This tube is true to the crown with focused low end, crushing mid range crunch and crystal-like highs - This is one of our favorites for authentic British tone - Excellent structural quality provides exceptional consistency and reliability	Stock in: Road King, Stiletto Ace, Stiletto Deuce, Stiletto Trident - Substitute in: Solo 50, Rect-O-Verb, Dual Rec, Triple Rec, Roadster, Mark IV (outside sockets only), Lone Star, 2:50 & Recto 2:100
EL34 STR-450	Our 450 is an actual German made, “A” grade NOS (New Old Stock) Siemens EL-34 - This legendary European EL-34 is known for its unsurpassed “bell-tone” clarity and touch sensitive sustain & articulation - Premier German engineering provides unsurpassed structural quality that makes this one of the most toneful, consistent and reliable EL-34's you can buy - This is a final chance to own a real authentic EL-34 classic - Quantities are subject to final availability	Substitute in: Solo 50, Rect-O-Verb, Dual Rec, Triple Rec, Road King, Roadster, Stiletto Ace, Stiletto Deuce, Stiletto Trident, Mark IV (outside sockets only), Lone Star, 2:50 & Recto 2:100
EL84 / 6BQ5	The EL-84 is the little brother to the EL-34 and is the classic European designed tube that lead the British invasion - Our EL-84 is tight and aggressive, yet smooth and warm, with an amazing chiming mid and top end - Brilliant focus with a frequency response that always brings your guitar to the front of the mix - This tube is true to its classic roots and is extremely consistent and reliable	Stock in: F-30, Lone Star Special & 20:20
12AX7 / 7025 / ECC83	Our 12AX7 preamp tubes provide the maximum level of high gain output and overall tonal quality with unsurpassed consistency and reliability - They possess a smooth and balanced response across the tonal spectrum and are extremely lively, open and expressive	Stock preamp tube for all MESA/Boogie Guitar & Bass Amps, Preamps & Power Amps
SPAX7A	Our SPAX7 preamp tubes are a premium grade substitute for any 12AX7 positions - They are a “Special Requirement Preamp Tube” that possess an even higher standard of overall performance, due to their incredibly low sensitivity to microphonic noise - This is the ultimate preamp tube to use in all critical gain stage positions - It is the absolute best of the best!	Stock preamp tube in select, critical stages of MESA/Boogie Guitar & Bass Amps, Preamps & Power Amps - Substitute for all MESA/Boogie Guitar & Bass Amps, Preamps & Power Amps
12AT7 / ECC81	Our 12AT7 is a classic low gain preamp tube, most often used as a reverb driver and/or phase inverter in older amplifiers - It is used as a reverb driver in older MESA/Boogie designs, such as the Studio Preamp and some Mark Series amplifiers - It is also currently used in our Mark I Re-Issue Amplifier	Stock use as reverb driver tube in Mark I reissue - Not currently used in any other MESA/Boogie amplifiers but offered for use in other manufacturers’ amplifiers
5AR4 / GZ34	Our 5AR4 rectifier tube produces a vintage feel with light to mild “sag” - While it produces more “sag” than Silicon Diodes, it is the least “saggy” of our tube rectifier offerings (The Rectifier is part of the Power Supply and its purpose is to convert AC into DC)	Not currently used in any MESA/Boogie amplifiers but offered for use in other manufacturers’ amplifiers
5Y3	Our 5Y3 is a true, authentic 5Y3 NOS (New Old Stock) equivalent, modeled after the original Phillips 5Y3 and is built to our exacting specification, especially for the Lone Star Special - This tube produces a sultry vintage sag, creating a silky, smooth feel on the strings and provides the most sag of all of our rectifier tubes	Stock in: Lone Star Special
5U4G	Our 5U4G rectifier tube is a classic 1930's “Coke Bottle” design - It produces a flexible, elastic feel that is a bit more controlled and slightly less “saggy” than our new 5U4GB - It has a nice spongy feel but has moderate life expectancy and reliability compared to our new 5U4GB - Due to its tall “Coke Bottle” design, this tube may not fit in all amplifiers - Please confirm the height between the amp chassis and the cabinet before recommending this tube (The Rectifier is part of the Power Supply and its purpose is to convert AC into DC)	Substitute in: Dual Rectifier, Triple Rectifier, Roadster, Road King, Stiletto Ace, Stiletto Deuce, Stiletto Trident & Lone Star
5U4GB	The 5U4GB rectifier tube is our very best overall 5U4 and our tube of choice in the production of all new Mesa amps featuring this tube - Based upon classic 1950's technology, the 5U4GB is a new and vastly improved 5U4 design that is extremely reliable and consistent, as well as much more compact - It is basically the size of a 6L6 power tube, so please take special care to install them in the correct tube position(s), especially when replacing 6L6's at the same time - This tube produces a “traditional vintage sag” with the most elastic and compressed feel of the two 5U4's that we offer - Amazing feel and exceptional overall quality make this our factory favorite	Stock in: Dual Rectifier, Triple Rectifier, Roadster, Road King, Stiletto Ace, Stiletto Deuce, Stiletto Trident & Lone Star



# PRODUCT SPECIFICATIONS

Model / Format / Speaker	Chan.	Modes	Power Section & Wattage(s)	Power Device	Styles / Gain Voicing	Standard Footswitch Functions
Express 5:25 Short Head (TBA)	Two	Four	Duo-Class - 5 Watts Class A or 25 Watts Class A/B	2xEL84	All Styles - Clean, Medium Gain & High Gain	Channel 1&2, Reverb & Variable Contour
Express 5:25 1x12 Combo w/Black Shadow	Two	Four	Duo-Class - 5 Watts Class A or 25 Watts Class A/B	2xEL84	All Styles - Clean, Medium Gain & High Gain	Channel 1&2, Reverb & Variable Contour
Express 5:50 Medium Head (TBA)	Two	Four	Duo-Class - 5 Watts Class A or 50 Watts Class A/B	2x6L6	All Styles - Clean, Medium Gain & High Gain	Channel 1&2, Reverb & Variable Contour
Express 5:50 Long Head (TBA)	Two	Four	Duo-Class - 5 Watts Class A or 50 Watts Class A/B	2x6L6	All Styles - Clean, Medium Gain & High Gain	Channel 1&2, Reverb & Variable Contour
Express 5:50 1x12 Combo w/C90	Two	Four	Duo-Class - 5 Watts Class A or 50 Watts Class A/B	2x6L6	All Styles - Clean, Medium Gain & High Gain	Channel 1&2, Reverb & Variable Contour
Express 5:50 2x12 Combo w/C90's	Two	Four	Duo-Class - 5 Watts Class A or 50 Watts Class A/B	2x6L6	All Styles - Clean, Medium Gain & High Gain	Channel 1&2, Reverb & Variable Contour
Single Rectifier Solo Head (25 1/2")	Two	Five	Class A/B - 50 Watts	2x6L6	Modern Styles - Clean, Crunch & High Gain	Channel 1, 2 & Solo
Recto-Verb Head (26 7/8")	Two	Five	Class A/B - 50 Watts	2x6L6	Modern Styles - Clean, Crunch & High Gain	Channel 1, 2, Solo & Reverb
Recto-Verb 1x12 3/4-Back Combo w/C90	Two	Five	Class A/B - 50 Watts	2x6L6	Modern Styles - Clean, Crunch & High Gain	Channel 1, 2, Solo & Reverb
Dual Rectifier Solo Head (25 1/2")	Three	Eight	Class A/B - 100 Watts	4x6L6	Modern Styles - Clean, Crunch & High Gain	Channel 1, 2, 3, Solo & FX Loop
Triple Rectifier Solo Head (25 1/2")	Three	Eight	Class A/B - 150 Watts	6x6L6	Modern Styles - Clean, Crunch & High Gain	Channel 1, 2, 3, Solo & FX Loop
Roadster Head (25 5/8")	Four	Twelve	Class A/B Channel Assignable Multi-Watt - 50 or 100 Watts	4x6L6	All Styles - Clean, Medium Gain & High Gain	Channel 1, 2, 3, 4, Reverb, Mute (tune), FX Loop & Solo
Roadster 1x12 Closed Back Combo w/V30 (26 3/4")	Four	Twelve	Class A/B Channel Assignable Multi-Watt - 50 or 100 Watts	4x6L6	All Styles - Clean, Medium Gain & High Gain	Channel 1, 2, 3, 4, Reverb, Mute (tune), FX Loop & Solo
Roadster 2x12 Closed Back Combo w/V30's (26 3/4")	Four	Twelve	Class A/B Channel Assignable Multi-Watt - 50 or 100 Watts	4x6L6	All Styles - Clean, Medium Gain & High Gain	Channel 1, 2, 3, 4, Reverb, Mute (tune), FX Loop & Solo
Road King Solo Head (27 3/4")	Four	Twelve	A/B Progressive Linkage w/Ch. Asgn. Multi-Watt - 50/100/120	2xEL34 & 4x 6L6	All Styles - Clean, Medium Gain & High Gain	Channel 1, 2, 3, 4, Solo, Reverb, Mute (tune), Loop 1 & 2
Road King 2x12 Combo w/90's (28 1/2")	Four	Twelve	A/B Progressive Linkage w/Ch. Asgn. Multi-Watt - 50/100/120	2xEL34 & 4x 6L6	All Styles - Clean, Medium Gain & High Gain	Channel 1, 2, 3, 4, Solo, Reverb, Mute (tune), Loop 1 & 2
Stiletto Ace Head (26 3/4")	Two	Six	Class A/B - 50 Watts	2xEL34	All Styles - Clean, Classic Crunch & High Gain	Channel 1, 2 & Solo
Stiletto Ace 1x12 Closed Back Combo w/V30	Two	Six	Class A/B - 50 Watts	2xEL34	All Styles - Clean, Classic Crunch & High Gain	Channel 1, 2 & Solo
Stiletto Ace 2x12 Closed Back Combo w/V30	Two	Six	Class A/B - 50 Watts	2xEL34	All Styles - Clean, Classic Crunch & High Gain	Channel 1, 2 & Solo
Stiletto Deuce Stage II Solo Head (25 1/2")	Two	Six	Class A/B Channel Assignable Multi-Watt - 50 or 100 Watts	4xEL34	Classic & Modern Styles - Clean, Crunch & High Gain	Channel 1, 2 & Solo
Stiletto Trident Stage II Solo Head (25 1/2")	Two	Six	Class A/B Channel Assignable Multi-Watt - 50 or 150 Watts	6xEL34	Classic & Modern Styles - Clean, Crunch & High Gain	Channel 1, 2 & Solo
Mark I Reissue Short Head (18 3/4") - Limited Avail.	One	Two	Class A/B - 60/100 Watt Power Switch	4x6L6	Classic Styles - Clean, Blues & Classic High Gain	N/A
Mark I Reissue 1x12 Compact Combo w/C90 - Limited Avail.	One	Two	Class A/B - 60/100 Watt Power Switch	4x6L6	Classic Styles - Clean, Blues & Classic High Gain	N/A
Mark IV Short Head (18 3/4")	Three	Five	Simul-Class - Options to run 30, 50, 70 or 85 Watts	4x6L6	All Styles - Clean, Medium Gain & High Gain	Channel 1, 2, 3, Lead+EQ, EQ & FX Loop
Mark IV Medium Head (22 1/2")	Three	Five	Simul-Class - Options to run 30, 50, 70 or 85 Watts	4x6L6	All Styles - Clean, Medium Gain & High Gain	Channel 1, 2, 3, Lead+EQ, EQ & FX Loop
Mark IV 1x12 WideBody Combo w/C90	Three	Five	Simul-Class - Options to run 30, 50, 70 or 85 Watts	4x6L6	All Styles - Clean, Medium Gain & High Gain	Channel 1, 2, 3, Lead+EQ, EQ & FX Loop
Mark IV 1x12 Compact Combo w/C90	Three	Five	Simul-Class - Options to run 30, 50, 70 or 85 Watts	4x6L6	All Styles - Clean, Medium Gain & High Gain	Channel 1, 2, 3, Lead+EQ, EQ & FX Loop
Lone Star Special Head (22 7/8")	Two	Four	Pure Class A Channel Assignable Multi-Watt - 5, 15 or 30 Watts	4xEL-84	Classic Styles - Clean, Blues & Classic High Gain	Channel 1, 2 & Solo
Lone Star Special 1x12 Combo (22 7/8") w/C90	Two	Four	Pure Class A Channel Assignable Multi-Watt - 5, 15 or 30 Watts	4xEL-84	Classic Styles - Clean, Blues & Classic High Gain	Channel 1, 2 & Solo
Lone Star Special 2x12 Combo w/C90's	Two	Four	Pure Class A Channel Assignable Multi-Watt - 5, 15 or 30 Watts	4xEL-84	Classic Styles - Clean, Blues & Classic High Gain	Channel 1, 2 & Solo
Lone Star Special 4x10 Combo w/Jensen & Eminence	Two	Four	Pure Class A Channel Assignable Multi-Watt - 5, 15 or 30 Watts	4xEL-84	Classic Styles - Clean, Blues & Classic High Gain	Channel 1, 2 & Solo
Lone Star Head (26 7/8")	Two	Four	Duo-Class w/Ch. Asgn. Multi-Watt - 10 (Class A) / 50 or 100 (AB)	4x6L6	Classic Styles - Clean, Blues & Classic High Gain	Channel 1, 2 & Solo
Lone Star 1x12 Combo (26 7/8") w/C90's	Two	Four	Duo-Class w/Ch. Asgn. Multi-Watt - 10 (Class A) / 50 or 100 (AB)	4x6L6	Classic Styles - Clean, Blues & Classic High Gain	Channel 1, 2 & Solo
Lone Star 2x12 Combo w/C90's	Two	Four	Duo-Class w/Ch. Asgn. Multi-Watt - 10 (Class A) / 50 or 100 (AB)	4x6L6	Classic Styles - Clean, Blues & Classic High Gain	Channel 1, 2 & Solo
Lone Star 4x10 Combo w/Jensen & Eminence	Two	Four	Duo-Class w/Ch. Asgn. Multi-Watt - 10 (Class A) / 50 or 100 (AB)	4x6L6	Classic Styles - Clean, Blues & Classic High Gain	Channel 1, 2 & Solo
Rectifier Recording Pre-Amp - 2 Rack Spaces	Two	Six	N/A	6x12AX7	All Styles - Clean, Medium Gain & High Gain	Channel 1, 2 & Solo/Vintage
TriAxis Pre-Amp - 1 Rack Space	Ninety	Eight	N/A	5x12AX7	All Styles - Clean, Medium Gain & High Gain	Full MIDI Implementation & Continuous Control
20/20 Power Amp - 1 Rack Space	N/A	N/A	Dyna-Watt - 20 Watts per Channel	4xEL84	All Styles - Tight Lows, Rich Mids, Chiming Highs	N/A
Stereo 2:Fifty Power Amp - 2 Rack Spaces	N/A	N/A	Class A/B - 50 Watts per Channel	4x6L6	All Styles - Fat Lows, Punchy Mids, Sparkling Highs	N/A
Simul-Class 2:Ninety Power Amp - 2 Rack Spaces	N/A	Four	Simul-Class - 45 or 90 Watts per Channel	8x6L6	All Styles - Juicy Lows, Lush Mids, Shimmering Highs	N/A
Recto Stereo 2:One Hundred Power Amp - 2 Rack Spaces	N/A	Two	Class A/B - 100 Watts per Channel	8x6L6	All Styles - Bold Lows, Articulate Mids, Spanking Highs	N/A
WalkAbout Compact Bass Amp - Metal Chassis	One	One	Simul-State - 300 Watts @ 4 Ohms (165 @ 8)	6xMos-Fet	All Styles - Exceptional Tone Shaping, Fidelity & Power	N/A
WalkAbout Bass Head - Retro Styled Head Case	One	One	Simul-State - 300 Watts @ 4 Ohms (165 @ 8)	6xMos-Fet	All Styles - Exceptional Tone Shaping, Fidelity & Power	N/A
WalkAbout Scout 1x12 Bass Combo w/Scout Neodym	One	One	Simul-State - 300 Watts @ 4 Ohms (165 @ 8)	6xMos-Fet	All Styles - Neodym Speaker Tech. w/Passive Bass Radiator	N/A
WalkAbout Scout 1x15 Bass Combo w/Scout Neodym	One	One	Simul-State - 300 Watts @ 4 Ohms (165 @ 8)	6xMos-Fet	All Styles - Neodym Speaker Tech. w/Passive Bass Radiator	N/A
M-Pulse 600 Rackmount Head - 2 Rack Spaces	One	Two	Simul-State - 600 Watts @ 4 Ohms (320 @ 8)	8xMos-Fet	All Styles - Exceptional Tone Shaping, Fidelity & Power	Parametric EQ, Compressor, Solo & FX
M-Pulse 600 Head - Retro Styled Head Case	One	Two	Simul-State - 600 Watts @ 4 Ohms (320 @ 8)	8xMos-Fet	All Styles - Exceptional Tone Shaping, Fidelity & Power	Parametric EQ, Compressor, Solo & FX
Venture 600 2x12 Bass Combo w/PowerHouse Neodym	One	Two	Simul-State - 600 Watts @ 4 Ohms (320 @ 8)	8xMos-Fet	All Styles - Portable Bass Combo w/Amazing Power & Control	Parametric EQ, Compressor, Solo & FX
Big Block 750 Rackmount Head - 2 Rack Spaces	Two	Two	Simul-State - 750 Watts @ 2 Ohms (550 @ 4, 280 @ 8)	12xMos-Fet	All Styles - Massive Authority, Footswitchable Overdrive	Over-Drive & Mute (tune)
Big Block 750 Head - Retro Styled Head Case	Two	Two	Simul-State - 750 Watts @ 2 Ohms (550 @ 4, 280 @ 8)	12xMos-Fet	All Styles - Massive Authority, Footswitchable Overdrive	Over-Drive & Mute (tune)
Big Block Titan-V12 Rackmount Head - 3 Rack Spaces	Two	Four	Simul-State - 1200 Watts @ 4 Ohms (840 @ 2, 650 @ 8)	22xMos-Fet	All Styles - The Ultimate in Power and Performance Versatility	Channel 1/2, Overdrive 1/2, Input A/B, Solo & Mute (tune)
Big Block Titan-V12 Head - Retro Styled Head Case	Two	Four	Simul-State - 1200 Watts @ 4 Ohms (840 @ 2, 650 @ 8)	22xMos-Fet	All Styles - The Ultimate in Power and Performance Versatility	Channel 1/2, Overdrive 1/2, Input A/B, Solo & Mute (tune)
Bass 400+ Rackmount Head - 4 Rack Spaces	One	Three	Class A/B - 500 Watts @ 2	12x6L6	Classic Styles - All Tube Power - A Rock Legend	N/A

AS PART OF OUR ONGOING COMMITMENT TO CONTINUOUS INNOVATIVE IMPROVEMENT, PLEASE BE AWARE THAT SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE