Anthem MRX 1140-740-540 AVR and AVM 90-70 AVP serial commands		Aug 5 2020	
Command	**Description**	**Related Query Command**	**Report**
;	(semicolon) Command separator/terminator - note that semicolon is the only valid line feed.	there will be a semicolon at the end of report	
comment	**Host MCU**		
IDQ?	Query model and firmware version	returns IDQ followed by model, software version, region, software build date e.g. "IDQMRX 1140 US 0.2.3Aug 05 2020"	
IDM?	Query model	returns IDM followed by model e.g. "IDMMRX 1140"	
IDS?	Query software version	returns IDS followed by software version e.g. "IDS0.2.3"	
DSPIDS	Query DSP software version		
LCDIDS	Query LCDC software version		
GSN	Query serial number		
IDR?	Query region	returns IDR followed by region e.g. "IDRUS" or "IDREU" or "IDRCN"	
IDB?	Query software build date	returns IDB followed by software build date e.g. "IDBAug 13 2020"	
IDH?	Query hardware version	returns IDH followed by hardware version e.g. "IDH1"	
comment	**Networking Module (NM)**		
NMSVER	Module software version	ex: NMVER0.1.2945	
NMHVER	Module hardware version	ex: NMHVER1	
RVER	Release version	ex: RVER0.2.2945	
RBD	Release build date		
NMR	Module region		
WMAC	Wi-Fi MAC address	ex: 01.23.45.67.89.AB	
EMAC	Ethernet MAC address	ex: 01.23.45.67.89.AB	
NMST	Network status	ex: 192.168.1.54 or 'Up' or 'Down' or 'Connecting'. Up to 32 characters	
comment	**Upper case letters represent command, lower case represent variables which must be entered.**		
comment	**System Status**		
Z1VIR?	Query video input resolution: 0=no input, 1=other, 2=1080p60, 3=1080p50, 4=1080p24, 5=1080i60, 6=1080i50, 7=720p60, 8=720p50, 9=576p50, 10=576i50, 11=480p60, 12=480i60, 13=3D, 14=4k60, 15=4k50, 16=4k24	returns Z1VIRxx	yes
Z1IRH?	Query active horizontal video resolution (in pixels)	return Z1IRHxxxx	yes
Z1IRV?	Query active vertical video resolution (in pixels/lines)	return Z1IRVxxxx	yes
Z1AIC?	Query audio input channels: 0=no input, 1=other, 2=mono (center channel only), 3=2-channel, 4=5.1-channel, 5==7.1-channel, 6=Atmos, 7=DTS-X	returns Z1AICx	yes
Z1AIF?	Query audio input format: 0=no input, 1=Analog, 2=PCM, 3=Dolby, 4= DSD, 5=DTS, 6=Atmos, 7=DTS-X.	Returns Z1AIFxx	yes
Z1BRT?	Query audio input bit rate (kbps). For Analog/PCM inputs this is equal to the sample rate multiplied by the bit depth and the number of channels	returns Z1BRTxxxx, 0=analog	yes
Z1SRT?	Query audio input sampling rate (kHz)	returns Z1SRTxxx, 0=analog direct	yes

Z1BDP?	Query audio bit depth	returns Z1BDPxxx, 16-bit, 24-bit, 32-bit	yes
Z1AIN?	Query the current audio input name (maximum of 16 characters returned)	Returns Z1AINx. Ex: Current audio input format is DTS Master Audio. 'Z1AIN?' Returns 'Z1AINDTS Master Audio'	yes
Z1AIR?	Query the current audio input rate name (maximum of 16 characters returned).	Returns Z1AIRx. For lossy input formats, returns the bit rate (ex 'Z1AIR384 kbps'). For lossless audio, analog audio, or PCM audio inputs it returns the sample rate combined with bit depth (ex: Z1AIR48/16).	yes
comment	**Speaker Setup - Amp Matrixing**		
SSAMF	Front: MRX740 only: y=0 Front, y=1 Zone 2, y=2 Height 1, y=3 Height 2 MRX1140 only: y=0 Front, y=1 Zone 2, y=2 Front Wide, y=3 Height 3	SSAMF? returns SSAMFy	yes
SSAMS	Surround: MRX740 only: y=0 Surround, y=1 Zone 2, y=2 Height 2 MRX1140 only: y=0 Surround, y=1 Zone 2, y=2 Height 3	SSAMS? returns SSAMSy	yes
SSAMB	Back: MRX740 only: y=0 Back, y=1 Zone 2, y=2 Zone 2 On Demand, y=3 Height 1, y=4 Front (Bi-Amp) MRX1140 only: y=0 Back, y=1 Zone 2, y=2 Zone 2 On Demand, y=3 Front Wide, y=4 Front (Bi-Amp)	SSAMB? returns SSAMBy	yes
SSAMH1	Height 1: MRX1140 only: y=0 Height 1, y=1 Zone 2, y=2 Front (Bi-Amp)	SSAMH1? returns SSAMH1y	yes
SSAMH2	Height 2: MRX1140 only: y=0 Height 2, y=1 Zone 2, y=2 Front Wide, y=3 Front (Bi-Amp)	SSAMH2? returns SSAMH2y	yes
comment	**Speaker Setup - 3D Sound**		
SS3DHLy	Height (MRX 540 only) y=0 Height (Atmos), y=1 Back (No Atmos)	SS3DHL? returns SS3DHLy	
SS3DH1y	Height 1 y=0 Front In-Ceiling, y=1 Front Dolby, y=2 Front On-Wall, y=3 Middle In-Ceiling, y=4 Middle Dolby, y=5 Back In-Celing, y=6 Back Dolby, y=7 Back On-Wall, y=8 Off	SS3DH1? returns SS3DH1y	
SS3DH2y	Height 2 (MRX 740/1140, AVM 70/90) y=0 Middle In-Ceiling, y=1 Middle Dolby, y=2 Back In-Celing, y=3 Back Dolby, y=4 Back On-Wall, y=5 Off	SS3DH2? returns SS3DH2y	
SS3DH3y	Height 3 (MRX 1140, AVM 70/90) y=0 Back In-Celing, y=1 Back Dolby, y=2 Back On-Wall, y=3 Off	SS3DH3? returns SS3DH3y	
comment	**Profile Setup - Speaker Setup**		
	p is the profile number: 1 - 4		
SSSPp0yyy	Speaker Profile name of the specified profile number. yyy=16 characters.	SSSPp0? returns SSSPp0yyy	yes
SSSPp1y	Subwoofer MRX 540/740: y=0 Off, y=1 On MRX 1140, AVM 70: y=0 None, y=1 to 2 AVM 90: y=0 None, y=1 to 4	SSSPp1y? returns SSSPp1y	yes
SSSPp5y	Front (read only) y=1 On	SSSPp5y? returns SSSPp5y	yes
SSSPp6y	Front Wide MRX 1140, AVM 70/90 only) y=0 Off, y=1 On	SSSPp6y? returns SSSPp6y	yes
SSSPp7y	Center y=0 Off, y=1 On	SSSPp7y? returns SSSPp7y	yes
SSSPp8y	Surround y=0 Off, y=1 On	SSSPp8y? returns SSSPp8y	yes
SSSPp9y	Back y=0 Off, y=1 On	SSSPp9y? returns SSSPp9y	yes
SSSPpAy	Height 1 y=0 Off, y=1 On	SSSPpAy? returns SSSPpAy	yes
SSSPpBy	Height 2 (MRX 740/1140, AVM 70/90) y=0 Off, y=1 On	SSSPpBy? returns SSSPpBy	yes
SSSPpCy	Height 3 (MRX 1140, AVM 70/90) y=0 Off, y=1 On	SSSPpCy? returns SSSPpCy	yes
comment	**Profile Setup - Bass Management**		
	p is the profile number: 1 - 4		

BMSPp0y	LFE Low Pass Filter y=40 to 120 (Hz) step 10, y=130 Bypass	BMSPp0? returns BMSPp0y	yes
BMSPp10y	Subwoofer 1 Phase Frequency y=40 to 120 (Hz)	BMSPp10? returns BMSPp10y	yes
BMSPp11y	Subwoofer 1 Phase y=0 to 180 (degrees) step 1	BMSPp11? returns BMSPp11y	yes
BMSPp12y	Subwoofer 1 Polarity y=0 Normal, y=1 Inverted	BMSPp12? returns BMSPp12y	yes
BMSPp20y	Subwoofer 2 Phase Frequency (MRX 1140, AVM 70/90 only) y=40 to 120 (Hz)	BMSPp20? returns BMSPp20y	yes
BMSPp21y	Subwoofer 2 Phase (MRX 1140, AVM 70/90 only) y=0 to 180 (degrees) step 1	BMSPp21? returns BMSPp21y	yes
BMSPp22y	Subwoofer 2 Polarity (MRX 1140, AVM 70/90 only) y=0 Normal, y=1 Inverted	BMSPp22? returns BMSPp22y	yes
BMSPp30y	Subwoofer 3 Phase Frequency (AVM 90 only) y=40 to 120 (Hz)	BMSPp30? returns BMSPp30y	yes
BMSPp31y	Subwoofer 3 Phase (AVM 90 only) y=0 to 180 (degrees) step 1	BMSPp31? returns BMSPp31y	yes
BMSPp32y	Subwoofer 3 Polarity (AVM 90 only) y=0 Normal, y=1 Inverted	BMSPp32? returns BMSPp32y	yes
BMSPp40y	Subwoofer 4 Phase Frequency (AVM 90 only) y=40 to 120 (Hz)	BMSPp40? returns BMSPp40y	yes
BMSPp41y	Subwoofer 4 Phase (AVM 90 only) y=0 to 180 (degrees) step 1	BMSPp41? returns BMSPp41y	yes
BMSPp42y	Subwoofer 4 Polarity (AVM 90 only) y=0 Normal, y=1 Inverted	BMSPp42? returns BMSPp42y	yes
BMSPp5y	Front Crossover y=30 Off, 40 to 250 (Hz) step 10	BMSPp5? returns BMSPp5y	yes
BMSPp6y	Front Wide Crossover (MRX 1140, AVM 70/90 only) y=30 Off, 40 to 250 (Hz) step 10	BMSPp6? returns BMSPp6y	yes
BMSPp7y	Center Crossover y=30 Off, 40 to 250 (Hz) step 10	BMSPp7? returns BMSPp7y	yes
BMSPp8y	Surround Crossover y=30 Off, 40 to 250 (Hz) step 10	BMSPp8? returns BMSPp8y	yes
BMSPp9y	Back Crossover y=30 Off, 40 to 250 (Hz) step 10	BMSPp9? returns BMSPp9y	yes
BMSPpAy	Height 1 Crossover y=30 Off, 40 to 250 (Hz) step 10	BMSPpA? returns BMSPpAy	yes
BMSPpBy	Height 2 Crossover (MRX 740/1140, AVM 70/90 only) y=30 Off, 40 to 250 (Hz) step 10	BMSPpB? returns BMSPpBy	yes
BMSPpCy	Height 3 Crossover (MRX 1140, AVM 70/90 only) y=30 Off, 40 to 250 (Hz) step 10	BMSPpC? returns BMSPpCy	yes
BMSPpDy	Super Sub Fronts y=0 No, y=1 Yes	BMSPpD? returns BMSPpDy	yes
comment	**Profile Setup - Listener Position**		
	p is the profile number: 1 - 4		
LPSPp1y	Subwoofer (1) Distance y=0 to 180 Feet: 0'0" to 30'0", step 2"; Metric: 0 to 900 cm, step 5 cm	LPSPp1? returns LPSPp1y	yes
LPSPp2y	Subwoofer 2 Distance (MRX 1140, AVM 70/90 only) y=0 to 180 Feet: 0'0" to 30'0", step 2"; Metric: 0 to 900 cm, step 5 cm	LPSPp2? returns LPSPp2y	yes
LPSPp3y	Subwoofer 3 Distance (AVM 90 only) y=0 to 180 Feet: 0'0" to 30'0", step 2"; Metric: 0 to 900 cm, step 5 cm	LPSPp3? returns LPSPp3y	yes
LPSPp4y	Subwoofer 4 Distance (AVM 90 only) y=0 to 180 Feet: 0'0" to 30'0", step 2"; Metric: 0 to 900 cm, step 5 cm	LPSPp4? returns LPSPp4y	yes
LPSPp5y	Front Left Distance y=0 to 180 Feet: 0'0" to 30'0", step 2"; Metric: 0 to 900 cm, step 5 cm	LPSPp5? returns LPSPp5y	yes
LPSPp6y	Front Right Distance y=0 to 180 Feet: 0'0" to 30'0", step 2"; Metric: 0 to 900 cm, step 5 cm	LPSPp6? returns LPSPp6y	yes
LPSPp7y	Front Wide Left Distance (MRX 1140, AVM 70/90 only) y=0 to 180 Feet: 0'0" to 30'0", step 2"; Metric: 0 to 900 cm, step 5 cm	yLPSPp7? returns LPSPp7	yes
LPSPp8y	Front Wide Right Distance (MRX 1140, AVM 70/90 only) y=0 to 180 Feet: 0'0" to 30'0", step 2"; Metric: 0 to 900 cm, step 5 cm	yLPSPp8? returns LPSPp8	yes
LPSPp9y	Center Distance y=0 to 180 Feet: 0'0" to 30'0", step 2"; Metric: 0 to 900 cm, step 5 cm	LPSPp9? returns LPSPp9y	yes
LPSPpAy	Surround Left Distance y=0 to 180 Feet: 0'0" to 30'0", step 2"; Metric: 0 to 900 cm, step 5 cm	LPSPpA? returns LPSPpAy	yes
LPSPpBy	Surround Right Distance y=0 to 180 Feet: 0'0" to 30'0", step 2"; Metric: 0 to 900 cm, step 5 cm	LPSPpB? returns LPSPpBy	yes
LPSPpCy	Back Left Distance y=0 to 180 Feet: 0'0" to 30'0", step 2"; Metric: 0 to 900 cm, step 5 cm	LPSPpC? returns LPSPpCy	yes
LPSPpDy	Back Right Distance y=0 to 180 Feet: 0'0" to 30'0", step 2"; Metric: 0 to 900 cm, step 5 cm	LPSPpD? returns LPSPpDy	yes

LPSPpEy	Height 1 Left Distance y=0 to 180 Feet: 0'0" to 30'0", step 2"; Metric: 0 to 900 cm, step 5 cm	LPSPpE? returns LPSPpEy	yes
LPSPpFy	Height 1 Right Distance y=0 to 180 Feet: 0'0" to 30'0", step 2"; Metric: 0 to 900 cm, step 5 cm	LPSPpF? returns LPSPpFy	yes
LPSPpGy	Height 2 Left Distance (MRX 740/1140, AVM 70/90 only) y=0 to 180 Feet: 0'0" to 30'0", step 2"; Metric: 0 to 900 cm, step 5 cm	LPSPpG? returns LPSPpGy	yes
LPSPpHy	Height 2 Right Distance (MRX 740/1140, AVM 70/90 only) y=0 to 180 Feet: 0'0" to 30'0", step 2"; Metric: 0 to 900 cm, step 5 cm	LPSPpH? returns LPSPpHy	yes
LPSPpIy	Height 3 Left Distance (MRX 1140, AVM 70/90 only) y=0 to 180 Feet: 0'0" to 30'0", step 2"; Metric: 0 to 900 cm, step 5 cm	LPSPpI? returns LPSPpIy	yes
LPSPpJy	Height 3 Right Distance (MRX 1140, AVM 70/90 only) y=0 to 180 Feet: 0'0" to 30'0", step 2"; Metric: 0 to 900 cm, step 5 cm	LPSPpJ? returns LPSPpJt	yes
comment	**Profile Setup - Level Calibration**		
	p is the profile number: 1 - 4		
LCSPp0y	Calibration Level y=-15 dB to +15 dB, step 0.5 dB	LCSPp0? returns LCSPp0y	yes
LCSPp1y	Subwoofer (1) y=-15 dB to +15 dB, step 0.5 dB	LCSPp1? returns LCSPp1y	yes
LCSPp2y	Subwoofer 2 (MRX 1140, AVM 70/90 only) y=-15 dB to +15 dB, step 0.5 dB	LCSPp2? returns LCSPp2y	yes
LCSPp3y	Subwoofer 3 (AVM 90 only) y=-15 dB to +15 dB, step 0.5 dB	LCSPp3? returns LCSPp3y	yes
LCSPp4y	Subwoofer 4 (AVM 90 only) y=-15 dB to +15 dB, step 0.5 dB	LCSPp4? returns LCSPp4y	yes
LCSPp5y	Front Left y=-15 dB to +15 dB, step 0.5 dB	LCSPp5? returns LCSPp5y	yes
LCSPp6y	Front Right y=-15 dB to +15 dB, step 0.5 dB	LCSPp6? returns LCSPp6y	yes
LCSPp7y	Front Wide Left (MRX 1140, AVM 70/90 only) y=-15 dB to +15 dB, step 0.5 dB	LCSPp7? returns LCSPp7y	yes
LCSPp8y	Front Wide Right (MRX 1140, AVM 70/90 only) y=-15 dB to +15 dB, step 0.5 dB	LCSPp8? returns LCSPp8y	yes
LCSPp9y	Center y=-15 dB to +15 dB, step 0.5 dB	LCSPp9? returns LCSPp9y	yes
LCSPpAy	Surround Left y=-15 dB to +15 dB, step 0.5 dB	LCSPpA? returns LCSPpAy	yes
LCSPpBy	Surround Right y=-15 dB to +15 dB, step 0.5 dB	LCSPpB? returns LCSPpBy	yes
LCSPpCy	Back Left y=-15 dB to +15 dB, step 0.5 dB	LCSPpC? returns LCSPpCy	yes
LCSPpDy	Back Right y=-15 dB to +15 dB, step 0.5 dB	LCSPpD? returns LCSPpDy	yes
LCSPpEy	Height 1 Left y=-15 dB to +15 dB, step 0.5 dB	LCSPpE? returns LCSPpEy	yes
LCSPpFy	Height 1 Right y=-15 dB to +15 dB, step 0.5 dB	LCSPpF? returns LCSPpFy	yes
LCSPpGy	Height 2 Left (MRX 740/1140, AVM 70/90 only) y=-15 dB to +15 dB, step 0.5 dB	LCSPpG? returns LCSPpGy	yes
LCSPpHy	Height 2 Right (MRX 740/1140, AVM 70/90 only) y=-15 dB to +15 dB, step 0.5 dB	LCSPpH? returns LCSPpHy	yes
LCSPpIy	Height 3 Left (MRX 1140, AVM 70/90 only) y=-15 dB to +15 dB, step 0.5 dB	LCSPpI? returns LCSPpIy	yes
LCSPpJy	Height 3 Right (MRX 1140, AVM 70/90 only) y=-15 dB to +15 dB, step 0.5 dB	LCSPpJ? returns LCSPpJy	yes
LCSPpKy	Test Noise y=0 Off, y=1 On. Only one profile can have Test Noise active at a time.	LCSPpK? returns LCSPpKy	yes
comment	**Input Setup**		
	i is the input number: 1 to ZZ, the number of configured inputs (max 30)		
ICN?	Query number of active input configurations. The system supports 30 input configurations.	returns ICNyy e.g. "ICN9" for a system with 9 active inputs	yes
IIAIi	Insert input number. Shift all higher numbered inputs down. Default values are assigned.		
IDAIi	Delete input number. Shift all higher numbered inputs up.		
ISiINyyyy	The name of the input yyyy is 16 characters	returns 'ISiINyyyy' where 'yyyy'= Input name as set in the setup menu. Maximum length of the long input name is 16 ASCII characters.	yes
ISiVIDx	Video Input Jack x=0 None, x=1 to 7 HDMI 1 to 7	ISiVID? returns IsiVIDx	yes

ISiAIJx	Audio Input Jack x=0 None, x=1 HDMI MRX 540/740/1140 only: x=2 HDMI eARC, x=3 Digital Coaxial 1, x=4 Digital Coaxial 2, x=5 Digital Optical 1, x=6 Digital Optical 2, x=7 Digital Optical 3, x=8 Analog 1, x=9 Analog 2, x=10 Analog 3, x=11 Analog 4, x=12 Analog 5, x=13 Streaming, x=14 Bluetooth AVM 70/90 only: x=2 HDMI Audio Return Channel, x=3 Digital Coaxial 1, x=4 Digital Coaxial 2, x=5 Digital Optical 1, x=6 Digital Optical 2, x=7 Digital Optical 3, x=8 Analog 1, x=9 Analog 2, x=10 Analog 3, x=11 Analog 4, x=12 Phono (MM), x=13 Streaming, x=14 Bluetooth	ISiAIJ? returns IsiAIJx	yes
ISiCAx	Convert Analog MRX 540/740/1140 x=0 No, x=1 32/96 kHz AVM 70/90 x=0 No, x=1 48/96/192 kHz	ISiCA? returns IsiCAx	
ISiSPp	Set Speaker Profile to # p for profile 1 (p=1), profile 2 (p=2), profile 3 (p=3) and profile 4 (p=4) for the Input # i (i=1-ZZ where ZZ is the number of active input configurations).	ISiSP? returns ISiSPp	yes
ISiARCx	Anthem Room Correction x=0 Off, x=1 On. ARC must have been performed.	ISiARC? returns IsiARCx	yes
ISiRFx	Rumble Filter (AVM 70/90 only) x=0 Off, x=1 On	ISiRF? returns IsiRFx	yes
ISiDVx	Set Dolby Audio Post-Processing off (x=0), Movie (x=1), Music (x=2) or Night (x=3) for the input i.	ISiDV? returns ISiDVx	yes
ISiPMx	Mode Pre-set for Mono Source x=0 Mono, x=1 Last Used, x=2 All Channel Mono	ISiPM? returns IsiPMx	yes
ISiPSx	Mode Pre-set for Stereo Source x=0 None, x=1 Last Used, x=2 AnthemLogic-Cinema, x=3 AnthemLogic-Music, x=4 Dolby Surround, x=5 DTS Neural:X, x=6 DTS Virtual:X, x=7 All Channel Stereo, x=8 Mono, x=9All Channel Mono	ISiPS? returns IsiPSx	yes
ISiPCx	Mode Pre-set for Multi-Channel Source x=0 None, x=1 Last Used, x=2 Dolby Surround, x=3 DTS Neural:X, x=4 DTS Virtual:X, x=5 All Channel Stereo, x=6 Mono, x=7 All Channel Mono	ISiPC? returns IsiPCx	yes
ISiLSxxx	Set Lip Sync to xxx (0-150) ms for the Input # i (i=1-ZZ where ZZ is the number of active input configurations). Step must be in increments of 5ms or error will result.	ISiLS? returns ISiLSxxx	yes
ISiITx	Input Trim x= -12 dB to +12 dB, step 0.5 dB	ISiIT? returns IsiITx	yes
comment	**General Configuration - Preferences**		
GCLx	Language x=0 English, x=1 Chinese, x=2 German, x=3 Spanish, x=4 French, x=5 Italian	GCL? returns GCLx	yes
GCTZccc	Time Zone ccc= -12.00 to 14.00	GCTZ? returns GCTZccc	yes
GCBUx	Beta Updates x=0 No, x=1 Yes	GCBU? returns GCBUx	yes
GCDUx	Distance Units x=0 Feet, x=1 Metres	GCDU? returns GCDUx	yes
GCFPBx	Front panel brightness: x=0 to 100 (%), default 30%	GCFPB? returns GCFPBx (x=0-100)	yes
GCCWUBx	Wake-Up Brightness: x=<Front Panel brightness> to 100 (%)	GCCWUB? returns GCCWUBx	yes
GCOSIDx	On-Screen Display Info x=0 Off, x=1 16:9, x=2 2.4:1	GCOSID? returns GCOSIDx	yes
GCFPDIx	Front Panel Display Info x=0 All, x=1 Volume only	GCFPDI? returns GCFPDIx	yes
GCMVSx	Master Volume Scale x=0 per cent (%), x=1 dB	GCMVS? returns GCMVSx	yes
GCMLx	Mute Level x= -50 to -5 (dB), 5 dB steps	GCML? returns GCMLx	yes
GCMMVx	Main Maximum Volume x= -40 to +10 (dB), 0.5 dB steps	GCMMV? returns GCMMVx	yes
GCZ2MMVx	Zone 2 Maximum Volume (MRX 740/1140, AVM 70/90 only) x= -40 to +10 (dB), 0.5 dB steps	GCZ2MMV? returns GCZ2MMVx	yes
GCMPOVx	Main Power-On Volume x=0 Last Used, x=1 -90 (dB) to <Main Maximum Volume>, 0.5 dB steps	GCMPOV? returns GCMPOVx	yes
GCZ2POVx	Zone 2 Power-On Volume (MRX 740/1140, AVM 70/90 only) x=0 Last Used, x=1 -90 (dB) to <Zone 2 Maximum Volume>, 0.5 dB steps	GCZ2POV? returns GCZ2POVx	yes
GCMPOIx	Main Power-On Input x=0 Last Used, <Input List>	GCMPOI? returns GCMPOIx	yes
GCZ2POIx	Zone 2 Power-On Input (MRX 740/1140, AVM 70/90 only) x=0 Last Used, <Input List>	GCZ2POI? returns GCZ2POIx	yes
GCHMMOx	Headphone Mutes Main Outputs x=0 No, x=1 Yes	GCHMMO? returns GCHMMOx	yes
GCDSZx	Default Streaming Zone (MRX 740/1140, AVM 70/90 only) x=0 Main, x=1 Zone 2	GCDSZ? returns GCDSZx	yes
GCFCSIx	Favor Current Streaming Input (MRX 740/1140, AVM 70/90 only) x=0 No, x=1 Yes	GCFCSI? returns GCFCSIx	yes
GCNSPOx	No Signal Power Off x=0 5 minutes, x=1 10 minutes, x=2 20 minutes, x=3 1 hour, x=4 2 hours, x=5 6 hours, x=7 Never	GCNSPO? returns GCNSPOx	yes

GCSHDMIBx	Standyby HDMI Bypass x=0 Off, x=1 Last Used, x=2 to 8 HDMI 1 to 7	GCSHHDMI? returns GCSHDMIBx	yes
GCCSTBYx	Set Connected Standby to Disabled (x=0) or Enabled (x=1). This must be enabled for the power-on command to operate via IP. With serial control, the power-on command need not be sent twice (once for wake-up) when this setting is enabled.	GCCSTBY? returns GCCSTBYx	yes
GCCECCx	CEC Control x=0 Off, x=1 On	GCCECC? returns GCCECCx	yes
GCCPFCx	CEC Power-Off Control x=0 Disabled, x=1 Enabled CEC must be On to operate	GCCPFC? returns GCCPFCx	yes
GCCTVAx	HDMI Audio to TV x=0 Off, x=1 On CEC must be Off to operate	GCCTVA? returns GCCTVAx	yes
GCMLOWSx	Mute Line-Out When Selecting x=0 None, x=1 to 7 HDMI 1 to 7, x=8 HDMI Audio Return Channel, x=9 to 10 Digital Coaxial 1 to 2, x=11 to 13 Digital Optical 1 to 3, x=14 to 17 Analog 1 to 4 MRX 540/740/1140 only: x=18 Analog 5 AVM 70/90 only: x=18 Phono (MM)	GCMLOW? returns GCMLOWSx	yes
GCMDOWSx	Mute DIGITAL-Out When Selecting x=0 None, x=1 to 7 HDMI 1 to 7, x=8 HDMI Audio Return Channel, x=9 to 10 Digital Coaxial 1 to 2, x=11 to 13 Digital Optical 1 to 3, x=14 to 17 Analog 1 to 4 MRX 540/740/1140 only: x=18 Analog 5 AVM 70/90 only: x=18 Phono (MM)	GCMDOW? returns GCMDOWSx	yes
comment	**General Configuration - Triggers**		
	t is the trigger number: 1 to 3		
GCTDx	Trigger Delay x=0 None, x=1 250 ms	GCTD? returns GCTDx	yes
GCTtCx	Trigger control. x=0 menu control, x=1 RS-232/IP	GCTtC? Returns GCTtCx	yes
GCTtPx	Power MRX 540 only: x=0 Off, x=1 Main MRX 740/1140, AVM 70/90 only: x=0 Off, x=1 Main, x=2 Zone 2, x=3 Main or Zone 2	GCTtP? returns GCTtPx	yes
GCTtIix	Input i=1 to ZZ (maximum 30) MRX 540 only: x=0 Off, x=1 Main MRX 740/1140, AVM 70/90 only: x=0 Off, x=1 Main, x=2 Zone 2, x=3 Main or Zone 2	GCTtIi? returns GCTtIix	yes
comment	**General Configuration - Remote Control**		
GCDNccc	Device Name. 16 characters 0-9, A-Z, a-z, ' ', '-', '.', '/'	GCDN? Returns GCDNccc	yes
GCTCPxxxx	TCP Port x=1025 to 49150	GCTCP? Returns GCTCPxxxx	yes
GCRIRx	Rear IR. X=0 Off, x=1 On	GCRIR? Returns GCRIRx	yes
GCFIRx	Front IR. X=0 Off, x=1 On	GCFIR? Returns GCFIRx	yes
GCTXSx	Tx Status x=0 Off, x=1 IP only, x=2 IP and RS-232	GCTXS? Returns GCTXSx	yes
comment	**General Configuration - IP Settings**		
	i=1 Ethernet, i=2 Wi-Fi		
GCIPViA	Apply Change. Uses these preconfigured settings.	Set only	
GCIPViMx	Mode. X=0 Auto (DHCP), x=1 Manual	GCIPViM? returns GCIPViMx	yes
GCIPViIccc	IP Address. ccc=32-bit IPV4, up to 15 characters	GCIPViI? returns GCIPViIccc	yes
GCIPViSccc	Subnet mask. ccc=32-bit IPV4, up to 15 characters	GCIPViS? returns GCIPViSccc	yes
GCIPViGccc	Gateway. ccc=32-bit IPV4, up to 15 characters	GCIPViG? returns GCIPVGiccc	yes
GCIPViDccc	DNS. ccc=32-bit IPV4, up to 15 characters	GCIPViD? returns GCIPVDiccc	yes
comment	**General Configuration - IP Status**		
	Returns the settings for the active channel only		
GCIPSTT?	Status. NM will populate with data like "Ethernet", "Wi-Fi", "Connecting", "Disconnected", etc.	GCIPSTT? returns GCIPSTccc	
GCIPSTM?	Mode. X=0 Auto (DHCP), x=1 Manual	GCIPSTM? returns GCIPSTMx	
GCIPSTI?	IP Address. ccc=32-bit IPV4, up to 15 characters	GCIPSTI? returns GCIPSTIccc	
GCIPSTS?	Subnet. ccc=32-bit IPV4, up to 15 characters	GCIPSTS? returns GCIPSTSccc	

GCIPSTG?	Gateway. ccc=32-bit IPV4, up to 15 characters	GCIPSTG? returns GCIPSTGccc	
GCIPSDN?	DNS. ccc=32-bit IPV4, up to 15 characters	GCIPSTD? returns GCIPSTDccc	
comment	**Main Zone and Zone 2 (common)**		
	z=1 Main Zone, z=2 Zone 2		
ZzPOWy	Power.z=zone: 1 (main), 2 (where applicable). y: 0=off, 1=on.	ZzPOW? returns ZxPOWy	yes
ZzINPy	Current Input. Select: yy=1-ZZ. Where ZZ is the number of active input configurations for the specified zone. Eg: 'Z1INP9' would select the 9th input in the main zone.	ZzINP? returns ZxINPy e. g. "Z1INP10".	yes
ZzVOLsyy	Volume setting: s=sign: +/-, yy=value. Example: Z1VOL-35 represents main zone volume set to -35 dB. Entry is rounded to nearest valid value.	ZzVOL? returns ZzVOLsyy	yes
ZzVDN	Volume Down. A step is 0.5 dB.	currently returns ZzPVOLyy	
ZzVUP	Volume Up. A step is 0.5 dB.	currently returns ZzPVOLyy	
ZzPVOLyy	Volume Percent setting: yy=per cent value (0 to 100%, step of 1%).	ZzPVOL? returns ZzPVOLyy	yes
ZzPVDN	Volume Percent Down. A step is 1% (may be 0.5, 1, 2, 3 or 4 dB).	currently returns ZzPVOLyy	
ZzPVUP	Volume Percent Up. A step is 1% (may be 0.5, 1, 2, 3 or 4 dB).	currently returns ZzPVOLyy	
ZzMUTy	Mute: 0=unmute, 1=mute, t=toggle	ZzMUT? returns ZzMUTy (y=0-1)	yes
	Terse volume mapping table: [0% = -90 db] step 4 dB [4% = -74 dB] step 3 dB [11% = -53 dB] step 2 dB [20% = -35 dB] step 1 dB [30 % = -25 dB] step 0.5 dB [100% = +10 dB]. Converted dB round up to the next per cent. i.e. -89.5 to -86 dB round to 1%.		
comment	**Main Zone only**		
Z1ALMy	Audio Listening Mode: 0=None, 1=AnthemLogic-Cinema, 2=AnthemLogic-Music, 3=Dolby Surround, 4=DTS neural:X, 5=DTS Virtual:X, 5=Stereo, 6=All Channel Stereo, 7=Mono*, 8=All-Channel Mono*. *Applicable to 2-channel source only.	Z1ALM? returns Z1ALMy	yes
Z1ADN	Audio Listening Mode: next lower numbered selection.		
Z1AUP	Audio Listening Mode: next higher numbered selection.		
Z1TONyszz	Tone setting: y=0 bass, 1 treble. s=sign: +/-, zz=value. Example: Z1TON0-01 represents a bass cut by 1 dB. Range is -10 dB to +10 dB with 0.5 dB steps.	Z1TONy? returns Z1TONyszz	yes
Z1TUPy	Tone Up. y=0 bass, 1 treble. Step is 0.5 dB.		
Z1TDNy	Tone Down. y=0 bass, 1 treble. Step is 0.5 dB.		
Z1BALsyyy	Balance setting: yyy=-5 to 5 with 0.5 dB steps. Examples: Z1BAL5 represents balance completely to the right; Z1BAL-5 represents balance completely to the left; Z1BAL0 is balance in the middle; Z1BAL-1.5 represents balance partly to the left. Entry is rounded to nearest valid value.	Z1BAL? returns Z1BALyyy	yes
Z1BLT	Shift the balance of all channels 0.5 dB to left.		
Z1BRT	Shift the balance of all channels 0.5 dB to right.		
Z1DSCSy	Dolby Surround Centre Spread. Y=0 off, Y=1 on	Z1DSCS? Return Z1DSCSy	yes
Z1LEVyszz	Level setting: y=Channels: 1=subwoofers, 5=fronts, 6=front wides, 7=center, 8=surrounds, 9=backs, A=Heights1, B=Heights2, C=Heights3, D=LFE. s=sign: +/-, zz=value. Front Wide, Height2 and Height3 are for MRX 740/1140, AVM 70/90 only. Example: Z1LEV1+01 represents fronts boosted by 1 dB. Entry is rounded to nearest valid value. Subs, fronts, front wides, center, surrounds, backs and all heights have range -10 dB to +10 dB. LFE has range -10 dB to 0 dB.	Z1LEVy? returns Z1LEVyszz	yes
Z1LUPy	Level pp: y=channels: 1=subwoofers, 5=fronts, 6=front wides, 7=center, 8=surrounds, 9=backs, A=Heights1, B=Heights2, C=Heights3, D=LFE. Step is 0.5 dB.		

Z1LDNy	Level Down: y=channels:1=subs, 5=fronts, 6=front wides, 7=center, 8=surrounds, 9=backs, A=Heights1, B=Heights2, C=Heights3, D=LFE. Step is 0.5 dB.		
comment	**ARC Metadata**		
Z1ARCVAL?	ARC Valid. X=0 Not valid, x=1 Valid. Can only be set externally to 0 which causes system to erase the ARC coefficients block stored in external flash.	Returns Z1ARCVALx	
Z1ARCUPL?	ARC Date. 16 characters. 0-9, A-Z, a-z, ' ', '-', '.', '/'	Returns Z1ARCUPLccc	
Z1ARCNAM?	ARC Name. 16 characters. 0-9, A-Z, a-z, ' ', '-', '.', '/'	Returns Z1ARCNAMccc	
comment	**System Control - Audio**		
Z1DYNy	Dolby Digital Dynamic Range (Dolby Digital 5.1 source): y=0 Normal, y=1 Reduced, y=2 Late Night.	Z1DYN? returns Z1DYNy (y=0-2)	yes
Z1DIA?	Query Dolby Digital dialog normalization	returns Z1DIAx where x is dB of normalization, n=not applicable	yes
comment	**System Control - Basic Control**		
Z1MSGxyyyy	Display custom on-screen status message for duration of display timeout: x=row 0-3, yyyy=message (up to 32 characters).	Set only.	
Z1SHCy	Show/Hide custom message. y=0 hide, y=1 show.	Z1SHC? Returns Z1SHCy	yes
Z1SMDx	Setup menu display: x=0 Close, x=1 Open, x=t Toggle	Z1SMD? returns Z1SMDx (x=0-1)	yes
ZzSIMyyyy	Simulate IR command for zone (z=1, z=2). yyyy=IR command as listed at the bottom of this document.	Set only.	
comment	**Trigger Control**		
RxSETy	Trigger set: x=1 Trigger 1, x=2 Trigger 2, x=3 Trigger 3. y=0 Off, y=1 On. Only available if trigger control has been set to RS-232/IP for the specified trigger	RxSET? returns RxSETy	yes
comment	**Control - Advanced Control**		
CTRLxy	Exclusive Control. x = domain (0=arc, 1=scratchpad, 2=firmware) y = action (0=released, 1=taken) ex: CTRL01 will take exclusive control over ARC (enter arc mode)	CTRLx? Return CTRLxy	
CPYSxy	Copy Settings from x to y. x = Current, User, Installer, Scratchpad y = Current, User, Installer, Scratchpad ex: CPYS03 -> copy settings from current to scratchpad copying to/from scratchpad requires scratchpad exclusive control	Set only.	
CPYS01	Save User Settings. MCU will save the current settings as user settings backup.	Set only.	
CPYS02	Save Installer Settings. MCU will save the installer settings as user settings backup.	Set only.	
CPYS10	Load User Settings. MCU will reload current settings from the user settings backup. Issue 'Bulk Settings Changed' (BSC1) to all open connections.	Set only.	
CPYS20	Load Installer Settings. MCU will reload current settings from the installer settings backup. Issue 'Bulk Settings Changed' (BSC1) to all open connections.	Set only.	
SPDSZ	Scratchpad Size. Query the size of the scratchpad (size in bytes of an entire binary copy of the current system settings).	SPDSZ? -> MCU returns SPDSZ<size32> where <size32> is 32 bit max size of the system settings when stored in the scratchpad.	
CJFUPDx	Check for NM Update. Sent from the MCU to the NM to request that it check for updates from USB (x=0) or Network (x=1).	Set only.	
UPDUSB	Check for Update via USB. MCU should first check if the USB stick has a host fw update. If yes, prompt the user to install that. Otherwise, host MCU should issue Check for NM Update from USB (CKFUPD0) to NM.	Set only.	
UPDOTA	Check for Update via Network. MCU should issue Check for NM Update from Network (CKFUPD1) to the NM.	Set only.	

NMWPS	WPS Pushbutton. Sent from the MCU to the NM to trigger WPS bush button.	Set only.	
RWIFIS	Reset NM Wireless Settings. Sent from the MCU to the NM to request that it clear the wireless settings. Should be sent whenever 'reset network settings' or 'load factory defaults	Set only.	
LDFDS	Load Factory Defaults. Load the factory default settings. Afterwards, the host MCU should send RWIFIS to NM and issue 'Bulk Settings Changed' (BSC1) to all open connections.	Set only.	
LOTFS	Reset On-the-Fly Settings. Load the factory default On-The-Fly settings. Afterwards, the Host MCU should issue 'Bulk Settings Changed' (BSC1) to all open connections.	Set only.	
Z1EMSGrt	Exclusive Control Message. 2 rows of up to 32 characters r=0 Title, r=1 Message. t= 1 to 32 character long string: ' ', '-', '.', '/', 0-9, A-Z, a-z		
Z1EPRGx	Exclusive Control Progress. x=0 to 100 % progress, x=101 hide progress bar.		
Z1SPRx	Show Prompt. x=0 Close x=1 show prompt with 1 option x=2 show prompt with 2 options x=3 show prompt with 3 options		
Z1PROxt	Prompt Options. t is up to 16 characters for option x. x=0 Option 1 x=1 Option 2 x=2 Option 3 t=1 to 16 character long string: ' ', '-', '.', '/', 0-9, A-Z, a-z		
Z1PRMmsg	Prompt Message. msg is up to 32 characters for message. 1 to 32 character long string: ' ', '-', '.', '/', 0-9, A-Z, a-z.		
Z1PRSx	Current Prompt Selection. The current prompt selection. x=0 No selection x=1 Option 1 x=2 Option 2 x=3 Option 3		
comment	**System Control - Flash Access**		
PRGSxy	Program Start. x = mode (0=arc, 1 scratchpad, 2=firmware-MCU, 3=firmware-dsp, 4=firmware-fp, 5=firmware-osd) y = action (0=not ok to program, 1=ok to program)	PRGSx? returns PRGSxy	
PRGRxyz	Program Resume. x = mode (0=arc, 1=scratchpad, 2=firmware-MCU, 3=firmware-dsp, 4=firmware-fp, 5=firmware-osd) y = <offset32><checksum32> -> result of resume request on success where offset32 -> 32 bit value as hex of current write progress checksum32 -> 32 bit crc of current write progress Whether or not the programming will resume where it left off or restart is up to the client. It could compare the checksum and offset to the data it wants to program and if they match it could resume with programming blocks, otherwise it could restart with a program start command.	PRGRx? returns PRGRxyz	
PRGBxy	Program Block. x = mode (0=arc, 1=scratchpad, 2=firmware-MCU, 3=firmware-dsp, 4=firmware-fp, 5=firmware-osd) y = <offset32><countbytes16><byte1>...<byteN> offset32 -> 32 bit value as hex (8 chars) countbytes16 -> 16 bit value as hex (4 chars) byte1...byteN -> 8 bit value as hex (2 chars)		
PRGFxy	Program Finish. x = mode (arc, scratchpad, firmware-MCU, firmware-dsp, firmware-fp, firmware-osd) y = <numberofbytes32><applicationchecksum32> When firmware programming is finished successfully the Host MCU automatically resets into the bootloader in order to update itself. When ARC coefficients programming is finished successfully the Host MCU automatically re-processes the ARC coefficients and, if valid, download them to the DSP and set ARC Coefficients => ARC Valid = valid		

RDBLxy?	Read Block. x = mode (0=arc, 1=scratchpad, 2=firmware-MCU, 3=firmware-dsp, 4=firmware-fp, 5=firmware-osd) y = <offset32><countbytes16> offset32 -> 32 bit value as hex (8 chars) countbytes16 -> 16 bit value as hex (4 chars)	Host MCU responds from RDBLxyz where z = <byte1> ... <byteN>, byte1...byteN -> 8-bit value as hex (2 chars)	
comment	**System Control - ARC Mode**		
Z1ARCMENx	Measure with ARC EQ Applied. x=0 Disabled, x=1 Profile 1, x=2 Profile 2, x=3 Profile 3, x=4 Profile 4.		
Z1ARCPRCx	Measure with Speaker Processing Applied. x=0 Disabled, x=1 Profile 1, x=2 Profile 2, x=3 Profile 3, x=4 Profile 4. Speaker processing means apply the crossovers, phase, level adjustments etc...		
Z1ARCCRP	Test Tone Control. bitmask selecting weather or not the specified audio channel should play the test tone. See the Channel Bit Masks table for valid values For example: Z1ARCCRP00000011 will play the arc chirp on subwoofer 1 and the front left speaker simultaneously Note that values returned from queries of this value should return the current chirp state register from the DSP		
Z1ARCCLOx	Chirp Level Offset. Applied to the ARC chirp vs. reference level x= -50 to +10 dB, 0.5 dB step.		
comment	**System Control - Stream Service**		
NMSNstr	Service Name. str is hex encoded UTF8 with maximum length 64 bytes. Care should be taken to render the UTF8 characters.		
NMTIstr	Title. str is hex encoded UTF8 with maximum length 64 bytes. Care should be taken to render the UTF8 characters.		
NMARstr	Artist. str is hex encoded UTF8 with maximum length 64 bytes. Care should be taken to render the UTF8 characters.		
NMALstr	Album. str is hex encoded UTF8 with maximum length 64 bytes. Care should be taken to render the UTF8 characters.		
NMTEx	State. x=0 Stopped, x=1 transitioning, x=2 paused, x=3 playing.	NMTE? Returns NMTEx	
NMPC	Pause Command. Causes plackback to pause. Sent from Host MCU to Networking module.		
NMSC	Stop Command. Causes playback to stop. Sent from Host MCU to Networking module.		
commant	**Other Commands**		
FCCcount	Query Fault Counter Count. Query the number of fault counters on the system. Returns FCC<count> where <count> is 8-bit hex encoded ascii.	FCC? returns FCCcount	
FCQx	Query Fault Counter. Queries the number of faults that have occurred for fault counter with index <#> (starts at 0). <#> sent as 8-bit hex encoded ascii. Specifics of fault counter <#> are implementation specified (ANAM should provide documentation on the meaning of each fault counter)	FCQx? returns FCQxn	
FCRx	Reset Fault Counter. Reset (set to 0) the specified fault counter x.	Set only.	
FCNxs	Query Fault Counter Name. Get the implementation specified name (s) of the fault counter x.	FCNx? returns FCNxs. s is 32 characters.	
PRUID1sn	Serial Number as a text string.	PRUID1? Returns PRUID1sn	
PRUID0key	Commit. key=7F36FD81-7A63-43EF-8246-270496C147F9. Sending this command commits the current factory settings to a dedicated region in flash.		

BSC1	Bulk Settings Changed. Sent by host MCU whenever bulk operations are performed on the Menu Settings / On-the-fly Adjustments / etc. Normally those operations would result in significant system notifications, however, the MCU can instead send BSC1 to all active connections to indicate that all cached settings should be invalidated. For example: load user settings could change hundreds of settings at once, sending notifications for each one would be wasteful. Instead, the host MCU should send BSC1.		
Sample Command Strings			
To send a power-on command, send "Z1POW1;" using the semi-colon ";" command separator/terminator.			
Notes:			
1. Successful serial commands return ';' after the action is completed.			
2. When a recognized command cannot be executed "!E<OriginalCommand>" is returned. Ex: trigger control is set to Menu, and "R1SET1;" is sent on the serial port, then the system would return "!ER1SET1<LF>". Ex2: no tuner preset assigned for preset #03 and "T1PSL03<LF>" is sent then the system would return "!ET1PSL03<LF>"			
3. Out-of-range parameters return the message "!R<OriginalCommand>". Ex: 'Z1VOL+50;' would result in a response: '!			
4. Invalid commands return the message "!I<OriginalCommand>". Ex 'HELLO;' would result in a response '!IHELLO;'			
5. Receiving a command for a zone when the zone is off (but the system is not in standby), returns the message "!Z<OriginalMessage>".			
6. Ony a few commands are valid when the system is in standby 'IDM?', 'ZxPOWy', 'ZxPOW?'. All other commands are considered 'Invalid'.			
7. Maximum command length is 256 bytes including the terminator. Maximum response length is 258 bytes.			
8. Average command processing latency must be less than 30 ms.			
9. Individual commands have a maximum processing latency of 100 ms.			
10. Systems that communicate over RS232 should wait for at least 1 s for a response before retransmision			
11. When Standby IP Control is disabled in setup menu (this saves energy), the unit can still be powered on serially but power-on command must be sent twice - wait for semicolon response before sending power-on command the second time (around 1s). To avoid having to send power-on command twice, enable Standby IP Control via SIPx command.			
RS-232 Pin Configuration:			
2 - Tx			
3 - Rx			
5 - Ground			
RS-232 Cable:			
Straight-wired DB9 is used for PC connection.			
Factory Default Communication Settings:			
Baud rate - 115200			
Data bits - 8			
Parity - None			
Stop Bit - 1			
Flow Control - None			
Simulated IR Command values for ZxSIMyyyy (use 0 to fill in blanks Ex: Key 1 = 0001)			
yyyy	Main Zone IR Key	Zone 2 IR Key	
0	Key 0		
1	Key 1		
2	Key 2		
3	Key 3		
4	Key 4		

5	Key 5		
6	Key 6		
7	Key 7		
8	Key 8		
9	Key 9		
10	Power On	Power On	
11	Power Off	Power Off	
12	Setup		
13	Input	Input	
14	Mode		
15	Dim		
16	Level		
17	Info		
18	Up		
19	Down		
20	Left		
21	Right		
22	Select		
23	Page Up	Next Pre-set	
24	Page Down	Previous Pre-set	
25	Volume Up	Volume Up	
26	Volume Down	Volume Down	
27	Mute Toggle	Mute Toggle	
28	Last		
29	Tone		
30	Bass		
31	Treble		
32	Lip Sync		
33	Balance		
34	Dynamics		
35	Clear		
36	Preset		
	Channel	**Bitmask**	
	Subwoofer 1	00000001	
	Subwoofer 2	00000002	
	Subwoofer 3	00000004	
	Subwoofer 4	00000008	
	Front Left	00000010	
	Front Right	00000020	
	Front Wide Left	00000040	
	Front Wide Right	00000080	
	Center	00000100	
	Surround Left	00000200	
	Surround Right	00000400	
	Back Left	00000800	
	Back Right	00001000	
	Height 1 Left	00002000	
	Height 1 Right	00004000	
	Height 2 Left	00008000	
	Height 2 Right	00010000	
	Height 3 Left	00020000	
	Height 3 Right	00040000	