

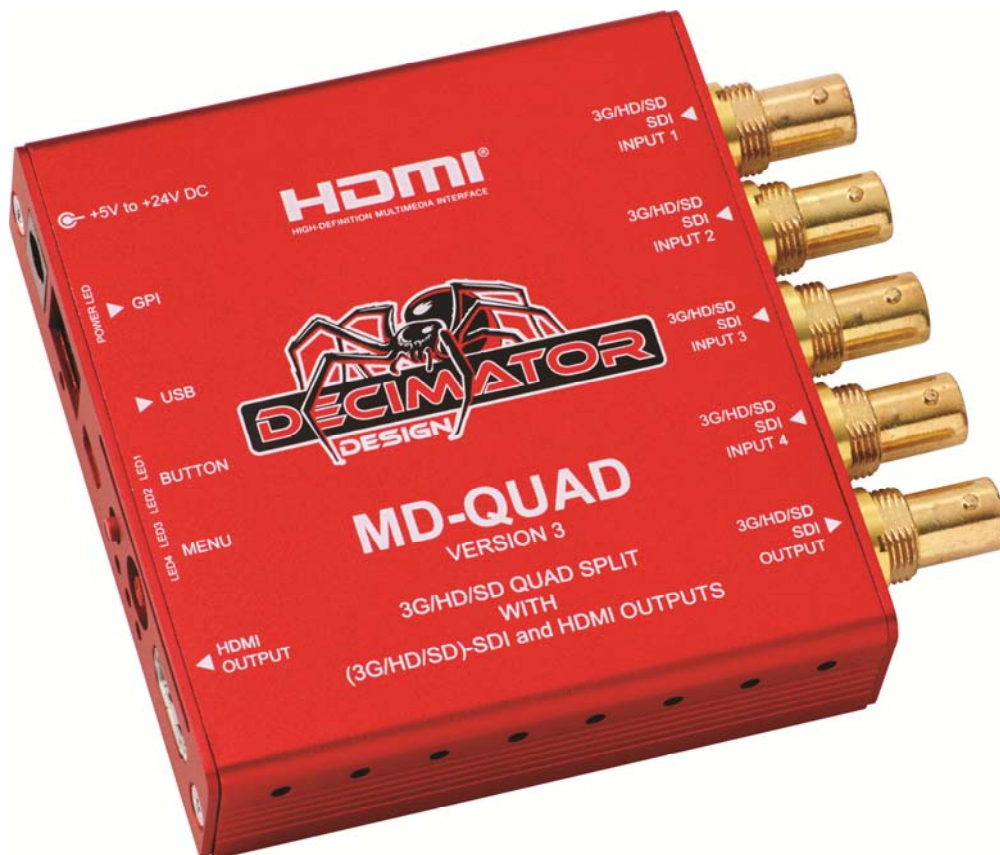


# MD-QUAD

VERSION 3

1 to 4 Channel (3G/HD/SD)-SDI  
Multi-Viewer / Quad-Split  
with SDI and HDMI outputs

**Operating Manual for Firmware Version 2.0**



# MD-QUAD 3

## FIRMWARE VERSION 2.0 SETTINGS

Please note: MD-QUAD 3 hardware has serial numbers starting with MQC.

The latest USB Control Software and Specifications for this product can be downloaded at:  
www.decimator.com

Use the rotary to select the menu and press the button to toggle the setting.

When the settings are changed the Power LED will change to Red and change back to Green when they are saved.

Defaults are highlighted.

### For all Menu Subsets when Rotary = 0. Input Status (Button is disabled)

LED	Description	LED Status			
		Off	Green	Red	Orange
1	Input 1 Format Detect	None	SD	HD	3G
2	Input 2 Format Detect	None	SD	HD	3G
3	Input 3 Format Detect	None	SD	HD	3G
4	Input 4 Format Detect	None	SD	HD	3G

### For all Menu Subsets when Rotary = 1. Menu Subset

LED 1	LED 2	LED 3	LED 4	Menu Subset
Off	Off	Off	Off	0
Off	Off	Off	Green	1

### Menu Subset = 0 / Rotary = 2. HDMI Output Type

LED 1	LED 2	LED 3	LED 4	Output
Off	Off	Off	Off	DVI RGB 4:4:4, No audio is passed
Off	Off	Off	Green	HDMI RGB 4:4:4, 2 Audio channels passed
Off	Off	Green	Off	HDMI YCbCr 4:4:4, 2 Audio channels passed
Off	Off	Green	Green	HDMI YCbCr 4:2:2, 2 Audio channels passed
Off	Green	Off	Off	HDMI RGB 4:4:4, 8 Audio channels passed
Off	Green	Off	Green	HDMI YCbCr 4:4:4, 8 Audio channels passed
Off	Green	Green	Off	HDMI YCbCr 4:2:2, 8 Audio channels passed

### Menu Subset = 0 / Rotary = 3. Output Select

LED 1	LED 2	LED 3	LED 4	Output
Green	Green	Green	Green	Multi-View
Green	Off	Off	Off	Video Source 1
Off	Green	Off	Off	Video Source 2
Off	Off	Green	Off	Video Source 3
Off	Off	Off	Green	Video Source 4

**Menu Subset = 0 / Rotary = 4. Multi-View Audio Source**

LED 1	LED 2	LED 3	LED 4	Output
Green	Off	Off	Off	Video Source 1
Off	Green	Off	Off	Video Source 2
Off	Off	Green	Off	Video Source 3
Off	Off	Off	Green	Video Source 4

**Menu Subset = 0 / Rotary = 5. Multi-View / Test-Pattern Mode Output Format**

LED 1	LED 2	LED 3	LED 4	Multi-View Output Format
Off	Off	Off	Off	1. SD 720x487i59.94
Off	Off	Off	Green	2. SD 720x576i50
Off	Off	Off	Red	3. HD 1920x1080i60
Off	Off	Off	Orange	4. HD 1920x1080i59.94
Off	Off	Green	Off	5. HD 1920x1080i50
Off	Off	Green	Green	6. HD 1920x1080psf30
Off	Off	Green	Red	7. HD 1920x1080psf29.97
Off	Off	Green	Orange	8. HD 1920x1080psf25
Off	Off	Red	Off	9. HD 1920x1080psf24
Off	Off	Red	Green	10. HD 1920x1080psf23.98
Off	Off	Red	Red	11. HD 1920x1080p30
Off	Off	Red	Orange	12. HD 1920x1080p29.97
Off	Off	Orange	Off	13. HD 1920x1080p25
Off	Off	Orange	Green	14. HD 1920x1080p24
Off	Off	Orange	Red	15. HD 1920x1080p23.98
Off	Off	Orange	Orange	16. HD 1280x720p60
Off	Green	Off	Off	17. HD 1280x720p59.94
Off	Green	Off	Green	18. HD 1280x720p50
Off	Green	Off	Red	19. HD 1280x720p30
Off	Green	Off	Orange	20. HD 1280x720p29.97
Off	Green	Green	Off	21. HD 1280x720p25
Off	Green	Green	Green	22. HD 1280x720p24
Off	Green	Green	Red	23. HD 1280x720p23.98
Off	Green	Green	Orange	24. 3G 1920x1080p60
Off	Green	Red	Off	25. 3G 1920x1080p59.94
Off	Green	Red	Green	26. 3G 1920x1080p50

**Menu Subset = 0 / Rotary = 6. Multi-View Windows**

LED 1	LED 2	LED 3	LED 4	Multi-View Windows
Off	Off	Off	Green	1
Off	Off	Green	Off	2
Off	Off	Green	Green	3
Off	Green	Off	Off	4

**Menu Subset = 0 / Rotary = 7. Multi-View Layout**

LED 1	LED 2	LED 3	LED 4	Description
Off	Off	Off	Off	1. 100% of Screen Size
Off	Off	Off	Green	2. 100% of Screen Size with Border
Off	Off	Off	Red	3. 90% of Screen Size
Off	Off	Off	Orange	4. 90% of Screen Size with Border
Off	Off	Green	Off	5. 100% of Screen Size with Gap
Off	Off	Green	Green	6. 100% of Screen Size with Border and Gap
Off	Off	Green	Red	7. 90% of Screen Size with Gap
Off	Off	Green	Orange	8. 90% of Screen Size with Border and Gap
Off	Off	Red	Off	9. Custom
Off	Off	Red	Green	10. Custom
Off	Off	Red	Red	11. Custom
Off	Off	Red	Orange	12. Custom
Off	Off	Orange	Off	13. Custom
Off	Off	Orange	Green	14. Custom
Off	Off	Orange	Red	15. Custom
Off	Off	Orange	Orange	16. Custom
Off	Green	Off	Off	17. Custom
Off	Green	Off	Green	18. Custom
Off	Green	Off	Red	19. Custom
Off	Green	Off	Orange	20. Custom
Off	Green	Green	Off	21. Custom
Off	Green	Green	Green	22. Custom
Off	Green	Green	Red	23. Custom
Off	Green	Green	Orange	24. Custom
Off	Green	Red	Off	25. Custom
Off	Green	Red	Green	26. Custom
Off	Green	Red	Red	27. Custom
Off	Green	Red	Orange	28. Custom
Off	Green	Orange	Off	29. Custom
Off	Green	Orange	Green	30. Custom
Off	Green	Orange	Red	31. Top to Bottom
Off	Green	Orange	Orange	32. Left to Right

**Menu Subset = 0 / Rotary = 8. Select Input/s to Configure**

LED 1	LED 2	LED 3	LED 4	Selected Input to configure
Off	Off	Off	Off	All inputs
Green	Off	Off	Off	Video Source 1
Off	Green	Off	Off	Video Source 2
Off	Off	Green	Off	Video Source 3
Off	Off	Off	Green	Video Source 4

**Menu Subset = 0 / Rotary = 9. UMD Enable for Selected Input/s**

LED	Description	LED Status	
		Off	Green
1	UMD Enable	Off	On

LED 2, 3 and 4 are off.

**Menu Subset = 0 / Rotary = A. Audio Meter Enable for Selected Input/s**

LED 1	LED 2	LED 3	LED 4	Description
Off	Off	Off	Off	Off
Off	Green	Off	Off	1 Pairs on Left
Green	Off	Off	Off	2 Pairs on Left
Off	Off	Off	Green	1 Pairs on Right
Off	Green	Off	Green	1 Pairs on Left and Right
Green	Off	Off	Green	2 Pairs on Left and 1 Pair on Right
Off	Off	Green	Off	2 Pair on Right
Off	Green	Green	Off	1 Pairs on Left and 2 Pair on Right
Green	Off	Green	Off	2 Pairs on Left and 2 Pair on Right

**Menu Subset = 0 / Rotary = B. Audio Bar Scale**

LED 1	LED 2	LED 3	LED 4	Reference Level
Off	Off	Off	Off	AES/EBU
Off	Off	Off	Green	VU
Off	Off	Green	Off	Extended VU
Off	Off	Green	Green	BBC (IEC 2a)
Off	Green	Off	Off	EBU (IEC 2b)
Off	Green	Off	Green	DIN (IEC 2b)
Off	Green	Green	Off	NORDIC (IEC 2b)

**Menu Subset = 0 / Rotary = C. Audio Test Signals**

LED 1	LED 2	LED 3	LED 4	Audio Test Signals
Off	Off	Off	Off	Off
Off	Off	Off	Green	1kHz on Group1, Pair 1 only
Off	Off	Green	Off	Pair 1 = 1kHz Tone, Pair 2 = 500Hz Tone Pair 3 = 1kHz Broken Tone, Pair 4 = 500Hz Broken Tone
Off	Off	Green	Green	1kHz Tone on Left for Pair 1, 2, 3 & 4 1kHz Broken Tone on Right for Pair 1, 2, 3 & 4

**Menu Subset = 0 / Rotary = D. Test Pattern**

LED 1	LED 2	LED 3	LED 4	Test Pattern
Off	Off	Off	Off	1. SMPTE HD Bars
Off	Off	Off	Green	2. Bars 100/0/100/0
Off	Off	Off	Red	3. Bars 100/0/75/0
Off	Off	Off	Orange	4. Bars 75/0/75/0
Off	Off	Green	Off	5. Bars 100% & Red
Off	Off	Green	Green	6. SMPTE EG 1 Bars
Off	Off	Green	Red	7. Path Equalizer & PLL
Off	Off	Green	Orange	8. Square on 4:3 Mon.
Off	Off	Red	Off	9. Square on 16:9 Mon.
Off	Off	Red	Green	10. 5 Step Y Staircase
Off	Off	Red	Red	11. 5 Step UV Staircase
Off	Off	Red	Orange	12. Y Sweep
Off	Off	Orange	Off	13. UV Sweep
Off	Off	Orange	Green	14. Y Multiburst
Off	Off	Orange	Red	15. UV Multiburst
Off	Off	Orange	Orange	16. Y Ramp
Off	Green	Off	Off	17. UV Ramp
Off	Green	Off	Green	18. Pluge
Off	Green	Off	Red	19. Convergence
Off	Green	Off	Orange	20. Tartan Bars

**Menu Subset = 0 / Rotary = D. Test Pattern (Continued)**

LED 1	LED 2	LED 3	LED 4	Test Pattern
Off	Green	Green	Off	21. 1 Field in 8 White
Off	Green	Green	Green	22. White 100%
Off	Green	Green	Red	23. White 75%
Off	Green	Green	Orange	24. Black
Off	Green	Red	Off	25. Red
Off	Green	Red	Green	26. Yellow
Off	Green	Red	Red	27. Green
Off	Green	Red	Orange	28. Blue
Off	Green	Orange	Off	29. Magenta
Off	Green	Orange	Green	30. Cyan
Off	Green	Orange	Red	31. Y Static X ZP/L
Off	Green	Orange	Orange	32. Y Static X ZP/H
Off	Red	Off	Off	33. Y Static Y ZP
Off	Red	Off	Green	34. Y Moving Left X ZP
Off	Red	Off	Red	35. Y Moving Right X ZP
Off	Red	Off	Orange	36. Y Moving Up Y ZP
Off	Red	Green	Off	37. Y Moving Down Y ZP
Off	Red	Green	Green	38. Y Moving Up XY ZP
Off	Red	Green	Red	39. Y Moving Down XY ZP
Off	Red	Green	Orange	40. Y Static C ZP
Off	Red	Red	Off	41. Y Moving In C ZP
Off	Red	Red	Green	42. Y Moving Out C ZP
Off	Red	Red	Red	43. UV Static X ZP/L
Off	Red	Red	Orange	44. UV Static X ZP/H
Off	Red	Orange	Off	45. UV Static Y ZP
Off	Red	Orange	Green	46. UV Moving Left X ZP
Off	Red	Orange	Red	47. UV Moving Right X ZP
Off	Red	Orange	Orange	48. UV Moving Up Y ZP
Off	Orange	Off	Off	49. UV Moving Down Y ZP
Off	Orange	Off	Green	50. UV Moving Up XY ZP
Off	Orange	Off	Red	51. UV Moving Down XY ZP
Off	Orange	Off	Orange	52. UV Static C ZP
Off	Orange	Green	Off	53. UV Moving In C ZP
Off	Orange	Green	Green	54. UV Moving Out C ZP

**Menu Subset = 0 / Rotary = F. Test Pattern Enable**

LED	Description	LED Status	
		Off	Green
1	Test Pattern	Off	On

LED 2, 3 and 4 are off.

**For all Menu Subsets when Rotary = E.**

Button 1 will reset all settings to their defaults.

**Menu Subset = 1 / Rotary = 2. Audio Meter Style**

LED 1	LED 2	LED 3	LED 4	Style
Off	Off	Green	Green	Vertical Bar and Float
Off	Off	Off	Green	Vertical Bar
Off	Off	Green	Off	Vertical Float

**Menu Subset = 1 / Rotary = 3. Audio Meter Reference Level**

LED	Description	LED Status		
		Off	Green	Red
1	Reference Level	-20dBFS	-18dBFS	-15dBFS

LED 2, 3 and 4 are off.

**Menu Subset = 1 / Rotary = 4. On Screen Input Format Enable**

LED	Description	LED Status		
		Off	Green	Red
1	On Screen Format	Off	On for 5 seconds	Always on

LED 2, 3 and 4 are off.

**Menu Subset = 1 / Rotary = 5. Multi-View Output Reference**

LED	Description	LED Status	
		Off	Green
1	Multi-View Output Reference	Free-run	Video Source 1

LED 2, 3 and 4 are off.

**Menu Subset = 1 / MENU = 6. GPI Configuration**

LED	Description	LED Status	
		Off	Green
1	GPI	Configuration 1	Configuration 2

LED 2, 3 and 4 are off.

**Menu Subset = 1 / MENU = 7. 3G Output Level**

LED	Description	LED Status	
		Off	Green
1	3G Output Level	A	B

LED 2, 3 and 4 are off.

**Menu Subset = 1 / MENU = 8, 9, A, B, C, D & F. Reserved for future use**

## **GPI (General Purpose Inputs)**

### **Configuration 0 (Tallies)**

<b>PIN</b>	<b>NAME</b>	<b>DESCRIPTION</b>
<b>1</b>	Q1_TALLY_EN	Ground pin to enable Tally on input 1
<b>2</b>	Q2_TALLY_EN	Ground pin to enable Tally on input 2
<b>3</b>	Q3_TALLY_EN	Ground pin to enable Tally on input 3
<b>4</b>	RX+	RS422/RS485 Positive Receive Pin
<b>5</b>	RX-	RS422/RS485 Negative Receive Pin
<b>6</b>	Q4_TALLY_EN	Ground pin to enable Tally on input 4
<b>7</b>	OS_TOGGLE	Ground pin to toggle outputs between quad-split and input 1, 2, 3 and 4.
<b>8</b>	GROUND	Use as reference ground.

### **Configuration 1**

<b>PIN</b>	<b>NAME</b>	<b>DESCRIPTION</b>
<b>1</b>	Q1_PT_EN	Ground pin to enable pass-through of input 1 to outputs.
<b>2</b>	Q2_PT_EN	Ground pin to enable pass-through of input 2 to outputs.
<b>3</b>	Q3_PT_EN	Ground pin to enable pass-through of input 3 to outputs.
<b>4</b>	RX+	RS422/RS485 Positive Receive Pin
<b>5</b>	RX-	RS422/RS485 Negative Receive Pin
<b>6</b>	Q4_PT_EN	Ground pin to enable pass-through of input 4 to outputs.
<b>7</b>	QS_EN	Ground pin to enable Quad-Split on outputs.
<b>8</b>	GROUND	Use as reference ground.

## **SERVICE WARRANTY**

Decimator Design warrants that this product will be free from defects in materials and workmanship for a period of 36 months from the date of purchase. If this product proves to be defective within this warranty period, Decimator Design, at its discretion, will either repair the defective product without charge for parts and labour, or will provide a replacement product in exchange for the defective product.

In order to service under this warranty, you the Customer, must notify Decimator Design of the defect before the expiration of the warranty period and make suitable arrangements for the performance of service. The Customer shall be responsible for packaging and shipping the defective product to a designated service centre nominated by Decimator Design, with shipping charges prepaid. Decimator Design shall pay for the return of the product to the Customer if the shipment is to a location within the country in which the Decimator Design service centre is located. The Customer shall be responsible for paying all shipping charges, insurance, duties, taxes, and any other charges for products returned to any other location.

This warranty shall not apply to any defect, failure or damage caused by improper use or improper or inadequate maintenance and care. Decimator Design shall not be obligated to furnish service under this warranty a) to repair damage resulting from attempts by personnel other than Decimator Design representatives to install, repair or service the product, b) to repair damage resulting from improper use or connection to incompatible equipment, c) to repair any damage or malfunction caused by the use of non-Decimator Design parts or supplies, or d) to service a product that has been modified or integrated with other products when the effect of such a modification or integration increases the time of difficulty of servicing the product.