

CCW Mk3

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CCW Mk3

Overview

- 284mm FIA certified Ultra lightweight carbon steering wheel
- Native MATLAB Autocoding supported on request
- Configurable with up to 6 paddles
- Configurable backlit buttons, rotaries for colour and brightness
- On board High-Speed Solid-State Logger

The Cosworth Carbon Wheel Mk3 (CCW Mk3) is the latest generation of professional motorsport steering wheels developed through decades of engineering experience within high end motorsport prototype applications. Its combination of 12 backlit RGB LED push buttons, 4 x 12-way backlit RGB LED rotary switches, and 4 x 16-way thumbwheel encoders offer fast efficient control to the endurance driver.

The CCW Mk3 has dedicated inputs for up to two push-pull digital paddles and four additional inputs for various additional paddle combinations. All buttons and rotaries are backlit and fully configurable using the highly acclaimed Cosworth toolchain APIs incorporating advanced Math, Logic, and Autocoding.



For example, users can configure the colour of the backlight independently for each button or rotary and brightness controlled in two zones - button backlight and rotary backlight.

All inputs and embedded diagnostics system channels can be transmitted over 2 failover CAN ports for use with other peripheral systems on the car. The CCW Mk3 incorporates an industry leading sunlight viewable 1000nit, 800x480 WVGA, 16.7M colour 5" TFT display that is fully controllable by Cosworth's range of ECUs, VCUs, PDMs, and Data loggers, or it can be run in full stand-alone mode with built in ultra-high-speed solid-state storage, offering up to 4GB for data logging directly on the wheel

Electrical data	
Operating Voltage	7 to 30V
Current consumption**1	~900mA @ 14.4V
Operating Internal Temp	-10°C to + 55°C
Storage Temp	-20°C to + 60°C
Communication	
Ethernet	1x 100MB/S
CAN Ports	2x CAN 2.0B
Debug	RS232

Display data	
Screen	TFT Active matrix
Resolution	800 x 400
Viewable Area	108mm x 64.8mm
Contrast Ratio	600:1
Brightness	1000 nit
Display Colours	16.7M
Viewable Angle	D70 ° U60° L&R75°
LEDs	32 x RGB LEDs

Mechanical data	
Size	158 x 284 x 88 mm
Weight	1700 grams
Environmental	IP65
Vibration	Cosworth DV-V®
Case	Prepreg Carbon Fibre
Grips	55A Shore PU
Metal Parts	6082-T651 Anodized
Quick Release Mechanism	See QR Section

Product Variant Matrix

Hardware Options

Hardware Variant	01D-641350-G	01D-641350-GC	01D-641350-GCA	01D-641350-GCD
2x Gear Shift Paddles Fitted	YES	YES	YES	YES
2x Clutch Paddles Fitted	-	YES	YES	YES
2x Analogue Paddles Fitted	-	-	YES	-
2x Digital Paddles Fitted	-	-	-	YES

Software Token Options

Software Variant	320 (Default)	340	360
Token Part Number	01P-641350-320	01P-641350-340	01P-641350-360
Logging Enabled	-	YES	YES
Logging Capacity (MB)	-	1,024	4,096
Bandwidth (bytes/sec)	-	50,000	100,000
Cont. Sampling Rate (Hz)	-	500	1,000
Burst Sampling Rates (Hz)	-	500	1,000
Math Channels	200	500	1,000
Logic Channels	Enabled	Enabled	Enabled
Digital Gear Paddles (Push Pull)	2	2	2
Additional Paddles	Up to 4	Up to 4	Up to 4
CAN Ports	2	2	2
Ethernet Port (100MB/s)	1	1	1
Ethernet Display Support	N/A - Controlled via compatible Cosworth device	YES	YES
Ethernet Display Pages	TBD - Controlled via compatible Cosworth device	48 (Per Display)	48 (Per Display)
Toolset Display Builder	YES	YES	YES
RGB LED Backlit Control	YES	YES	YES
RLU Remote Logging	YES	YES	YES
Setup Locking Option	YES	YES	YES
Auto-Coding Customer	-	-	Enabled
Auto-Coding Developer	-	-	Upgrade Option





Ordering information

CCW Mk3 8STA Gear Only	01D-641350-G
CCW Mk3 8STA Gear and Clutch	01D-641350-GC
CCW Mk3 8STA Gear Clutch Analogue	01D-641350-GCA
CCW Mk3 8STA Gear Clutch Digital	01D-641350-GCD
Cosworth Krontec QR-03	31M-0041
Krontec QR-04 (New for 2025)	31M-0050

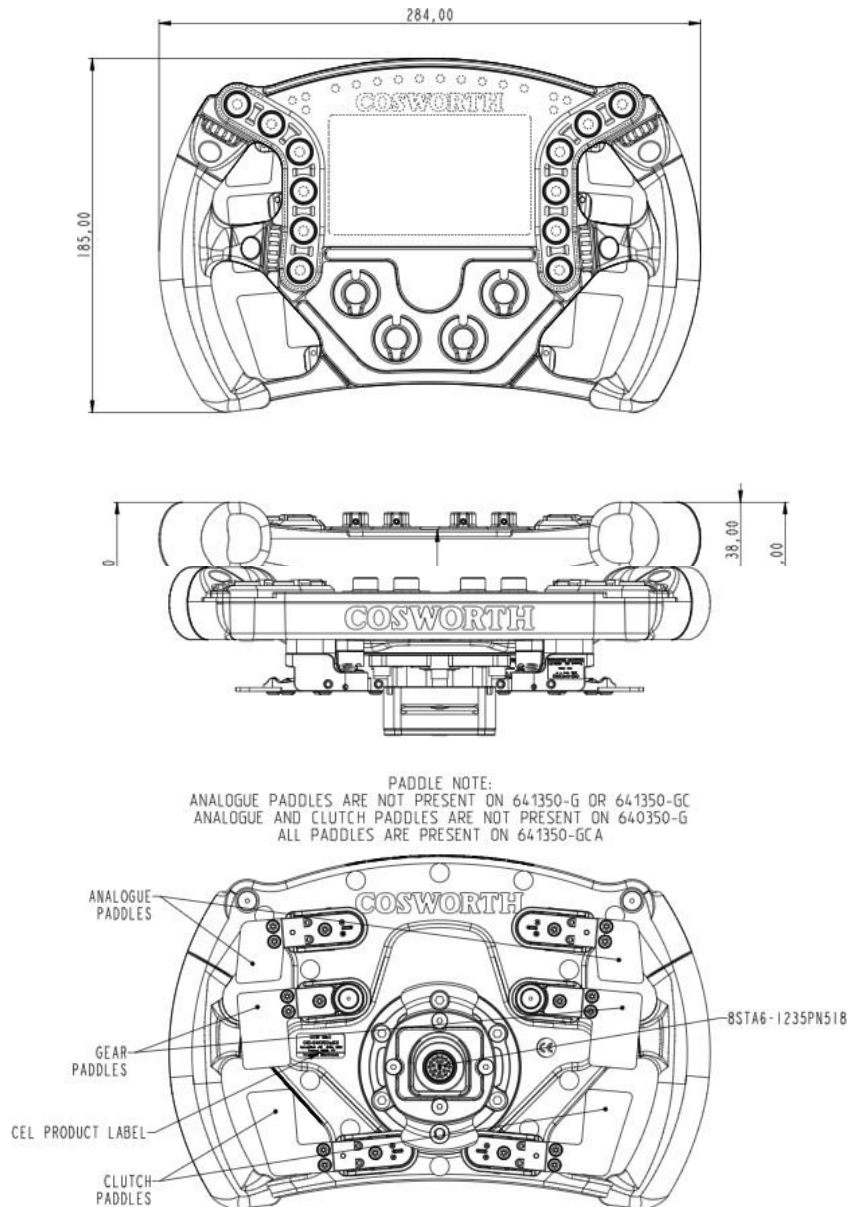
Compatible devices

Badenia 2	01L-650100
Badenia 5	01L-650080
Centaurus 3	01I-610160
Centaurus 5 MK2	01I-610140
Antares 4	01E-501154
Antares 6	01E-501156
Antares 8	01E-501120

Software information

	Pi Toolset	Configuration software for power control and logging (v9 and above)
	Pi Toolbox	Professional Data Analysis (v10 and above)
	API	Cosworth DAE Engine for Real time Data pipelines.
	Auto-Coding via MATLAB/Simulink®	Customer auto-coding are available via MATLAB/Simulink® and Cosworth Workspace Editor

Dimensions



Installation

- Make sure that the unit is protected against severe vibrations.
- Make sure that the unit is positioned in an area with sufficient cooling air flow to prevent overheating.
- Make sure that the unit is mounted away from sources of electrical interference.
- Make sure that the correct Cosworth Column/Car side male QR is used as this is a proprietary part that ensures correct hermetical sealing of the Autosport column connector.

Connector information

Please note, pin allocation is in functional order, not pin number order.

Connector	Mating connector
8STA612-35PN518	8STA012-35SN518

Pin	Function	Min gauge	Cable	Description
1	Batt+	22AWG		ALL Batt+ pins MUST be connected
12	Batt+	22AWG		
2	Chassis Gnd	22AWG		ALL Chassis Gnd pins MUST be connected
4	Chassis Gnd	22AWG		
10	Chassis Gnd	22AWG		
20	CANL1	28AWG	Twisted Pair	CAN 1 with 120Ohm software selectable termination
21	CANH1	28AWG		
13	CANL2	28AWG	Twisted Pair	CAN 2 with 120Ohm software selectable termination
14	CANH2	28AWG		
17	ENET RX+	26AWG	Ethernet PIC	Ethernet 1 100BaseT for PC / expansion comms
18	ENET TX+	26AWG		
19	ENET RX-	26AWG		
22	ENET TX-	26AWG		
15	RS232 RX	26AWG	Twisted Pair	Debug connections only
16	RS232 TX	26AWG		
8	OPTO IN	26AWG		Software selectable control
9	OPTO OUT	26AWG		
6	Up Shift	28AWG		Left Push or Right Pull Software selectable 10k pull up to 5v3 Right Push or Left Pull
7	Down Shift	28AWG		
5	Clutch L Sig	28AWG		1M Pull Down
3	Clutch R Sig	28AWG		1M Pull Down
11	Ref Gnd	28AWG		Analogue paddle reference



Quick Release Information

Due to the vast choice of Quick Release available on the market, by default the CCW MK3 does not ship with a QR and with a transportation cap affixed instead.

The customer now has the choice of which QR to affix to the wheel. The compatible products are shown in the table below:

Manufacturer	Manufacturer Part Number	Cosworth Part Number	Description
Cosworth/Krontec	Available only from Cosworth	31M-0041	Cosworth Krontec QR-03
Krontec	QR-46	31M-0050	Krontec QR-04 (New for 2025)
MPI	MPI-QR-RX-06-MK3	n/a	MPI QR RX06

Please ensure you add the appropriate QR part number to your steering wheel order.

Recycling and Environmental Protection

Cosworth Electronics is committed to conducting its business in an environmentally responsible manner and strive for high environmental standards.

Manufacture: Cosworth products comply with the appropriate requirements of the Restriction of Hazardous Substance (RoHS)

Disposal: Electronic equipment should be disposed of in accordance with the regulations in force and in particular in accordance with the Waste in Electrical and Electronic Equipment directive (WEEE).

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T (UK) +44 (0) 1604 598 300

T (US) +1 (317) 644 1037

E enquiries@cosworth.com

W www.cosworth.com

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