

## PRELIMINARY PRODUCT SUMMARY

# TSW-510 Steering Wheel

The TSW-510 is a lightweight carbon fibre steering wheel can be customised with either an SIU-320 or SIU-700 Steering Wheel Interface Unit and PCU-8E or PCU-700 Driver Display Unit. It is designed to connect to a host ECU via CAN or CAN FD to both present the driver with information as well as transmit data of the potentiometers and switches. It has a fully configurable high resolution 4.3" backlit IPS LCD true colour display and LED lamps. The display is suitable for use in direct sunlight and at night.

### APPLICATION

- Suitable for motorsport use

### KEY FEATURES

- Compatible with various Quick Releases
- Data Display and warning lamps
- Brightness adjustable via CAN message for low-light conditions
- Option for Backlit buttons and rotaries
- Fifteen RGB high intensity LEDs for a range of user-configurable colours
- Two sets of 3 side RGB high intensity LEDs with current monitoring
- Sixteen gauge types for displaying data, include bar tacho, rev lights and variable text
- Alarm pages or user-configurable text warnings can be triggered by CAN messages
- Twelve metal dome buttons on front face
- Six button inputs on rear face, 2 for the switch modifiers, 2 for the gearshift paddles and 2 for gearshift redundancy
- Three 14-position rotary switches on front face
- Six 12-position thumb wheel rotary switches
- Two analogue rotary position sensors in the pivot for the clutch/regen paddles
- Universal paddle mounts to allow teams to customise the lower paddle grips as necessary to suit driver
- Push/pull design of gear shift paddle allows the driver to change gear either up or down with a single finger depending on which hand is on the wheel
- Amplified strain gauge input available for steering wheel torque measurement
- Diagnostic measurements of internal temperature and supply voltages

### COMMUNICATIONS

- One CAN interface configurable as CAN-FD (4Mbps maximum) or CAN 2.0 (1Mbps) with no internal termination
- One USB interface for configuration only

### INPUTS

- Two individual device reset inputs



### ELECTRICAL

- Supply voltage 8V to 16V DC
- Transient voltage and reverse-polarity protection

### MECHANICAL

- Carbon Fibre body material with rubber grips
- Weight approximately 1.2kg without Quick Release

### CONNECTION DEFINITION

- Compatible with various connectors located within the Quick Release

Pin Description
Unit Supply Positive
Unit Supply Ground
CAN +
CAN -
USB Data +
USB Data -
USB 5V
USB Ground
Reset input SIU
Reset input PCU
Spare Clutch
Spare Gearshift

### ENVIRONMENTAL AND COOLING

- IP rated
- Operating Temperature 0°C to +70°C
- Storage Temperature -10°C to +85°C

### ELECTRO MAGNETIC COMPATIBILITY

- Complies with the essential protection requirements of 2014/30/EU

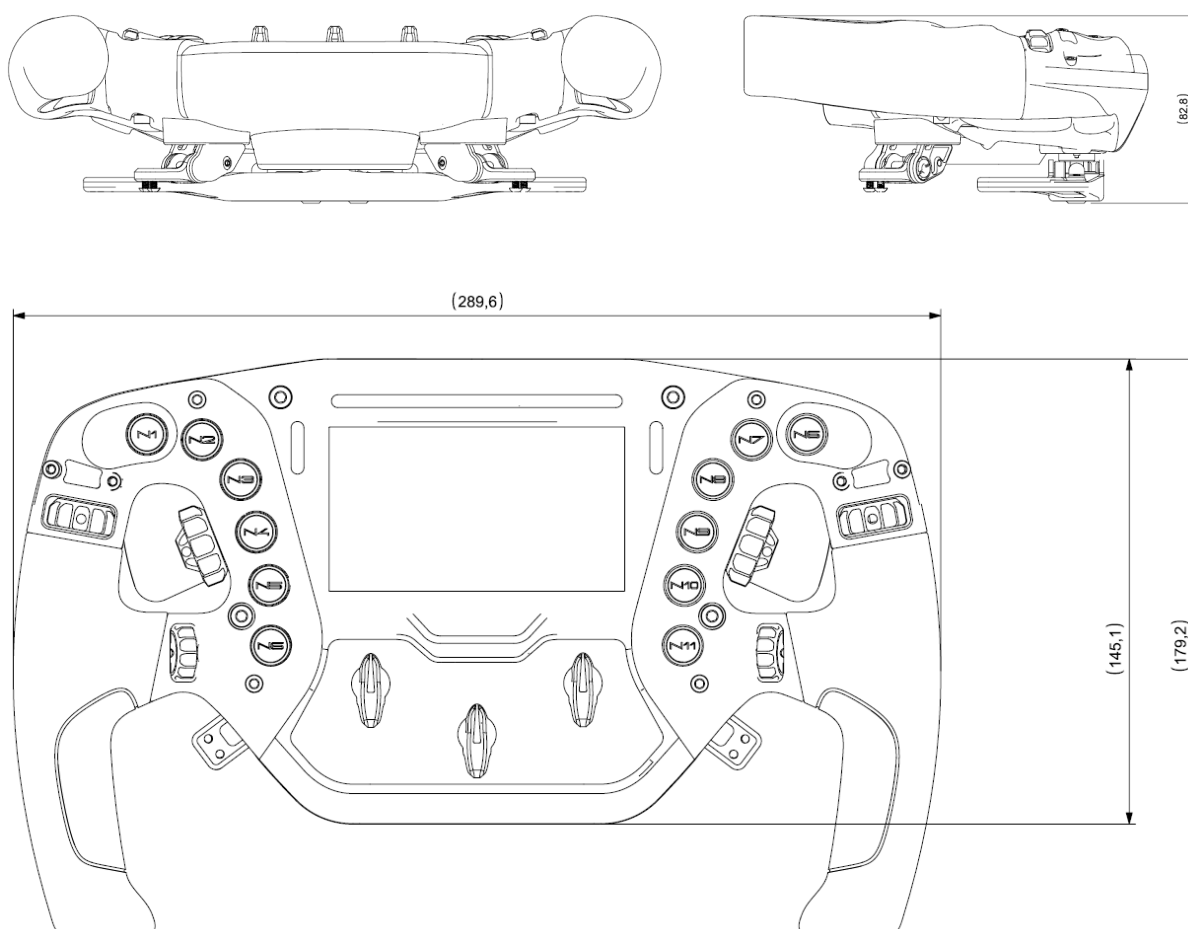
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### BASE UNIT

Order Code	Description
O 030 021 001 000	TSW-510 Steering Wheel

- Design for illustration only and subject to change. Quick Release not shown.



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