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WORLD CLASS INSTRUMENTATION



Instruments • Auxiliary Gauges

Pro-Control Stepper Motor Analogue Gauges includes Sensor & Wiring Harness*

Stack's Pro-Control range of Professional Stepper Motor Analogue Gauges brings total control and driver awareness of critical engine functions. The Pro-Control series has all of the features of the Professional Stepper Motor Analogue Gauges (see right) plus:

- Configurable full dial colour change alarm warning.
- Peak "tell-tale" memory.
- Configurable backlight colour.
- 0-5V analogue output for data logger or ECU.
- Temperature gauges with built-in "fan controller".
- Pressure gauges with built-in "pump controller"
- Configurable Pro-Control output for activating accessories (requires relay).

NORMAL OPERATION

Any colour can be selected as blacklighting. With a choice of 7 LED backlighting colours (white, red, yellow, green, blue, purple and turquoise) the user can choose the optimum colour for maximum visibility and readability of the gauge, day and night.

PRO-CONTROL ALARMS & OUTPUTS

As well as the user-configurable full dial colour change alarm warning, the Pro Control feature activates an output at user defined low and high set points.



Auxiliary Gauges • Instruments Professional Stepper Motor Analogue Gauges includes Sensor & Wiring Harness* **52mm Gauge Mounts** Stack's new Gauge Roll Pods and Pedestal Mounts are the perfect These auxiliary instruments combine digital microprocessor precision with a high-precision stepper solution for mounting motor needle movement, to provide a new level of accuracy and reliability in 52mm gauges. They 52mm Gauges for combine the durability and readability of 270° mechanical gauges with the easy installation and safe optimum driver visibility operation of conventional electric gauges. The full sweep dialface together with white LED through the The heavy-duty Rolldial backlighting and illuminated needle ensure excellent readability day or night. Pods are vibration resistant, and will hold **WHITE & SILVER** the gauges in a variety of **DIAL FACE OPTIONS** positions. **ON SELECTED** Stack's Pedestal Mounts mean gauges can be **GAUGES!** mounted on the dash By popular demand. under the dash or on the selected gauges across the steering column. (ST262121) (ST264809) range are available with (ST264803) Roll Pod (40mm roll cage) white or silver dial faces. (ST262121) Carbon Fibre Pedestal Mount white LED backlighting and (ST264809) Standard Pedestal Mount orange illuminated needle. **FUEL PRESSURE (LOW)** FUEL PRESSURE (HIGH) WATER TEMPERATURE **OIL PRESSURE OIL TEMPERATURE** BLACK ST3301 BLACK ST3307 BLACK ST3309 0-7 BAR BLACK ST3303 0-7 BAR BLACK ST3305 40-120°C 40-140°C 0-1 BAR WHITE ST3351 WHITE ST3353 WHITE ST3355 WHITE ST3357 WHITE ST3350 SILVER ST3371 SILVER ST3375 SILVER ST3377 SILVER ST3379 0-100 PSI BLACK ST3302 0-15 PSI BLACK ST3304 0-100 PSI BLACK ST3306 100-260°F BLACK ST3308 140-280°F BLACK ST3310 WHITE ST3352 SILVER ST3372 WHITE ST3354 WHITE ST3356



BOOST PRESSURE -1.0 - +2.0 BAR BLACK ST3311 WHITE ST3361 SILVER ST3381 -30inHg - +30 PSI BLACK ST3312



BLACK ST3313 WHITE ST3363 0-1100°C SILVER ST3383 0-2000° F BLACK ST3314



FUEL LEVEL* PROGRAMMABLE BLACK ST3315 WHITE ST3365 SILVER ST3385



BATTERY VOLTAGE BLACK ST3316 WHITE ST3366 SILVER ST3386

This range of gauges have

been specially designed for

vehicles with no or low powered electrical systems. Temperature

gauge include bronze bourdon tube 270° sweep movement.

White LED backlighting and

illuminated needle ensure

excellent readability day or

night.

8-18 V



ANALOG CLOCK BLACK ST3317 WHITE ST3367 SILVER ST3387

12 hou

Mechanical Analogue Gauges

* Fuel Level gauge has 7 preset ranges and a universal-programmable calibration to suit all normal tank sensors with a resistance range of 0-280 ohms. All Stack 52mm Professional gauges come complete with wiring harness and associated solid-state sensor (except for Fuel Level and Battery Volts).

Electric Analogue Gauges



White LED backlighting and illuminated needle ensure excellent readability day or night.

* Supplied complete with associated sensor (wiring not included).



OIL TEMPERATURE BLACK ST3209 60-150°C WHITE ST3259 SILVER ST3279 140-300°F BLACK ST3210



WHITE ST3251 SILVER ST3271 0-100 PSI BLACK ST3202 WHITE ST3252



BOOST PRESSURE BLACK ST3211 0 - 2.5 BAR WHITE ST3261 SILVER ST3281 0-35 PSI BLACK ST3212



WATER TEMPERATURE BLACK ST3207 40-120°C WHITE ST3257 SILVER ST3277 100-250°F BLACK ST3208



BATTERY VOLTAGE BLACK ST3216 WHITE ST3266 SILVER ST3286

8-18 V



WATER TEMPERATURE 50-115°C BLACK ST3107 120-240°F BLACK ST3108



OIL PRESSURE 0-7 BAR BLACK ST3101 0-100 PSI BLACK ST3102



BOOST PRESSURE BLACK ST3111 -1.0 - +2.0 BAR WHITE ST3161 SILVER ST3181 -30inHg - +30 PSI BLACK ST3112 WHITE ST3162



Instruments • Tachometers

Clubman Tachometer

For the serious performance enthusiast, the 80mm sized Clubman features the unique, extremely rugged STACK stepper-motor movement, with Digital Quartz accuracy for unparalleled precision.

- Configurable for all negative earth and magneto ignition systems
- Unique Stack Stepper-Motor Needle Movement. Unrivalled Digital Quartz accuracy guaranteed for life.
- Ì

- Peak RPM 'Tell-Tale' memory. User adjustable shift light option (lamp not included).
- Exceptional reliability.
- Fully sealed against water and dust to IP67.
- -Fits standard 80mm cut outs.
- Supplied with mounting bracket, switch kit, and user manual.
- Maintenance free White LED backlighting on all ST200.
- 1 year Competition Warranty.

CHOOSE FROM A RANGE OF RPM SCALES AND WHITE OR BLACK **DIAL FACES**





(Black or White)

0-4-10.500 RPM (Black or White)



(ST200)

(Black or White)



Dash Top Mount Red Shift Light

Panel Mount Red Shift Light



OPTIONAL SHIFT LIGHTS

(ST537)

Classic Tachometers

Combining the best in modern technology with "Classic" styling to complement the car's original design.

Chronotronic™ 80mm Tachometers

- Accurate replica of original chronometric tachometer
- Stepper-Motor Needle
- Movement re-creates
- 'chronometric' motion to 4000rpm Chromed brass bezel.
- Maintenance-free white LED flood lighting
- 0-10000 RPM dial face.
- Peak RPM 'Tell-Tale' memory.
- User adjustable shift light (lamp not
- included). Fully sealed against water and dust to IP67.
- 1 Year Competition Warranty.

Needle Movement.

Peak RPM 'Tell-Tale' memory. Maintenance free backlighting. Unrivalled digital quartz

accuracy guaranteed for life.

Configurable for all negative

removable professional wiring

User adjustable shift light

earth ignition systems. 1 Year Competition Warranty.

Supplied with mounting

harness, shift light and

ST400 80mm Tachometers

Fits standard 80mm cut outs.

Choose from a range of RPM

0-6-13000

0-10-20000

bracket, switch kit,

(included)

manual

scales:

0-8000

0-3-8500

0-4-10500

- Configurable for all negative earth
- and magneto ignition systems.



(ST901096)

ST200 Classic Tachometers

Features classic styling and no backlighting. Other features as ST200, available in two sizes:

ST200C 80mm

Classic Tachometer Fits standard 80mm cut out. Choose from a range of RPM scales: 0-8000 0-10000 0-12000 (ST200C)

ST230C 125mm

Classic Tachometer Fits standard 80mm & 115mm cut outs Choose from a range of RPM scales: 0-6000 0-8000 (ST230C)



Programmable Speedometers



Stack's Speedometers match our range of Professional Stepper Motor and Pro-Control gauges. Simple wiring connections and easy to use push button programming make installation and calibration simple. Compatible with most OE vehicle speed sensors, as well as aftermarket speed pulse generators. Includes backlit odometer and two resettable tripmeter displays.

- Fully user programmable.
- LCD odometer with a resettable trip displays.
- Maintenance free through the dial white LED backlighting.
- LED illuminated needle for maximum visibility.
- Available in black or white dial faces.
- Fits 85mm cutouts.
- Optional sensors available for some cable-drive applications.
- ST3801 0-160 MPH/0-260 km/h (Black)
- ST3851 0-160 MPH/ 0-260 km/h (White)
- ST3802 0-260 km/h (Black)
- ST3852 0-260 km/h (White)

ST668 Wheel speed sensor for ST3800 Speedometers

be re-played via the needle on the dial. 'Re-live' your last run as many times as you like, review your shift points, gearing and maximum RPM around the track with fast and slow modes to aid analysis Unique Stack Stepper-Motor

Action Replay Tachometers The Action Replay Tachometer provides the ideal introduction to data recording for oval, sprint, hill-climb and drag racing. The engine RPM for the last run (up to 25 mins) is recorded in a solid-state memory, and at the touch of a button can

> (ST400) unn unhunhu , (ST430) ST430 125mm Tachometers

Monster 125mm (5") dial face. Fits standard 80mm & 115mm cut outs. Choose from a range of RPM

scales: 0-8000 0-6-13000

0-10000

ST700 Integrated Dash Display Systems • Instruments

The ST700 Dash Display systems integrate tachometer, sequential shift light and voltmeter in a single 80mm instrument. Standard options include speedometer, lap timer and two pressure or temperature. In addition the ST700 can be fitted with a range of performance options, including an acceleration timer, infrared lap timing system, split time memory and straight and corner speed readout. Standard features include:



- Adjustable day & night backlighting levels to suit ambient light conditions.
- Fully sealed against water and dust to IP67.
- Peak value 'Tell-Tale' memory is provided on all monitored parameters.
- Configurable for all vehicle types and negative earth ignition systems.
 - Supplied with mounting bracket, switch kit, separate professional wiring loom and manual.
- 1 year Competition Warranty.





Standard (Black or White) St

0-4-10500 RPM Standard (Black or White) St



0-6-15000 RPM Standard (Black or White)

0-10750 RPM



Optional (Black or White) Optional (Black or White) (Cost Option)

INTELLIGENT ALARM SYSTEM



Intelligent alarms are provided on all of the monitored parameters. Alarm levels are adjustable to suit the individual vehicle requirements.



The dash can be simply connected to the neutral position switch of any sequential gear box - requires ST918051 harness.

SEQUENTIAL SHIFT LIGHT



Ultra bright LED's that can be set to operate in 4 different shift light patterns - Sequential, Sequential Blink, Bar and Simultaneous modes. Each light can be set independently; brightness adjustable to suit light conditions.

CONFIGURABLE INPUTS



The ST700 features two configurable channels that can be set up for a pressure (oil, fuel, boost or general purpose) or a temperature (oil, water, differential, axle or general purpose). Choose between standard and solid state sensor options.

LAP TIMING SYSTEM



The lap timing receiver simply plugs into the standard dash wiring harness. Each time the vehicle passes the track side beacon the lap time "pops up" on the graphic display to an accuracy of 1/100th of a second.

(ST546) OPTION

ACCELERATION TIMER

This feature will record Standing 1/4 mile/400m time, and acceleration/deceleration time between any chosen speeds. Requires ST670 Speed Sensor.

(ST7095) **OPTION**



ST700 OPTIONAL PERFORMANCE FEATURES (Standard on some models)

This feature records 75 Lap and Split Times (if Split Timing is activated) to help the driver evaluate their consistency.

(ST7090) OPTION

SPEEDOMETER, ODOMETER & TRIPMETER

This option provides a street legal speedometer display readout with trip and odometer. The user can select MPH or km/h and miles or kilometres. Requires ST670 Speed Sensor.

(ST7094) OPTION

PERFORMANCE UPGRADE



Consists of the Split Time system and the Straight and Corner Speed readout options; providing realtime information that allows the driver to evaluate their own performance. Requires ST670 Speed Sensor and ST546 Lap Timing system. (ST7093) **OPTION**

SPEED SENSOR

Simply plug this sensor into the wiring loom to display speed on the LCD readout.

(ST670) OPTION

Model	Speed (ST670)	RPM	Batt.	2x Config. Channels*	Neutral Indicator** (ST918051)	Lap Time (ST546)	Lap Memory (ST7090)	Perf. Upgrade (ST7093)	Accel. Timer (ST7095)	Odometer (ST7094)
ST700	OPTION	~	~	~	OPTION	OPTION	OPTION	OPTION	OPTION	OPTION
ST700M	~	~	~	~	OPTION	✓	~	~	OPTION	OPTION
ST700SR	~	~	~	~	OPTION	OPTION	OPTION	OPTION OPTION		~

*Analog channels require optional Analog Sensor Harness (ST918049) **Neutral Indicator harness requires Analog Sensor Harness (ST918049)

ST700 SENSOR OPTIONS

(Note: these are not included with the dash system and must be ordered separately, with the ST918049 Sensor Harness.)

Standard Sensors	10 bar/150 PSI Pressure Sensor	M10 (ST744K)	1/8" NPTF (ST745K)				
	-150 °C Fluid Temperature Sensor	M10 (ST762K)	1/8" NPTF (ST744K)				
Solid-State Sensors	10 bar/150 PSI Pressure Sensor	M10 (ST747-M10)	1/8" NPTF (ST747-1/8"NPTF)				
	-20 to 150°C Temperature Sensor	M	6 x 1 (ST769)				
	0 to 3.5 bar/50 PSI Boost Sensor	1/8" NPTF (ST740)					



STACK STACK





Instruments • Integrated Dash Display Systems

The ST800 Dash Display System replaces all dashboard instruments - tachometer, oil pressure gauge, fuel pressure gauge, water temperature gauge, oil temperature gauge and voltmeter - with a single lightweight carbon composite display module.

OPTIONAL SEQUENTIAL SHIFT LIGHT MODULE - - -



All Stack Dash Displays can drive the new Sequential Shift Light Module. Using the display menus, each of the 5 shift lights can be independently programmed to a specific RPM value,

to provide complete flexibility. The Sequential Shift Light connects to the dash harness with just 3 wires, and is ideal for dash-top mounting. (ST539)

LIGHTWEIGHT CARBON **COMPOSITE HOUSING**

Fully sealed against water and dust to IP67 for maximum reliability year after year.

BRIGHT WHITE LED

BACKLIGHTING ensures clear viewing day and night.

WIDE CHOICE OF DIAL FACES -

including Inverted Dial Faces. See Dial Face section below for more information.

ANALOGUE TACHOMETER

The preferred choice of most racers.

SUPER-BRIGHT **1** - - -



WARNING LIGHTS



TRANSFLECTIVE LCD BACKLIT DISPLAY

Contrast improves when under bright illumination clearly visible in bright sunlight.

– DRIVER SELECTABLE LCD **DISPLAY LAYERS**

Selectable layers show different engine and performance information. Maximum peak value 'Tell-Tale' memory is provided on Speed, Temperature parameters and RPM. Minimum peak value tell tales are provided on pressure and voltage parameters.

USER CONFIGURABLE INPUTS, DISPLAYS & ALARMS

The ST8916S System has 11 user-configurable sensor inputs and optional CAN ECU interface for maximum flexibility. The LCD display layers and alarms are also fully configurable (PC required for configuration).

HIGH ACCURACY SOLID-STATE PRESSURE & TEMPERATURE SENSORS

The solid-state pressure and temperature sensors are smaller, lighter, more accurate and more reliable. Solid-state pressure sensor (ST747) supplied as standard with all ST800 Dash Display Systems.

Street & Track Dash Displays



These systems are designed for vehicles and motorcycles which must meet road legal requirements, and feature speedometer. odometer and trin meter. Each system includes all sensors (except fuel level sensor), mounting kit, switch kit, and professional ready-wired loom

(ST8130/ST8130P/ST8130M/ST8110SR)

DIAL FACE OPTIONS

All models come with White LED backlighting as standard

	0-8000 P.C.	0-3-8000	0-4-1002	003-10500	0-6-13000	800.	0-4-1000	0-6-1.300 Inverted	0-10.20 Inverted	0-8000 MIL	0-3-8000 15	-10500	0-6-13000 White**
	0.8	6.3	5	6.	0.6	°.	<u>0</u>	0.6	0-1	0.8	6	6.	0.6
ST8100-UK	~	~	~	~	~	~	~	~	~	√**	~	~	~
ST8100M-UK	~	~	~	~	~	~	~	~	~	√**	~	~	~
ST8100-AR-UK	~	~	~	~	~	~	~	~	~	√**	~	~	~
ST8100M-AR-UK	~	~	~	~	~	~	~	~	~	√**	~	~	~
ST8130-UK	~	~	~	~	~				~	~	~	~	~
ST8130P-UK	~	~	~	~	~				~	~	~	~	~
ST8130M-UK	~	~	~	~	~				~	~	~	~	~
ST8110SR-UK	~	~	~	~	~				~	~	~	~	~
ST8916S	~	~	~	~	~	~	~	~		√**	~	~	~
**Extra cost option													

INTELLIGENT ALARMS

Low Oil P

Provided on all monitored parameters. Alarm levels are user adjustable to suit individual vehicle

requirements. An internal alarm light is standard and an optional external light can simply be plugged into the dash harness.

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Action Replay Dash Display



Specifically designed to offer an alternative to PC-based data acquisition systems, the Action Replay Dash Display provides the ideal introduction to multi-channel data recording for oval. sprint, hillclimb and drag racing.

Record your RPM, speed (AR model only)*, temperatures, pressures and lap times* on the track. Back in the pits, you can replay the data on the Dash Display, showing the values for every point on the track.

The 'M' model provides the ultimate feedback tool, by replaying the Performance Meter & Predictive Lap Time to display exactly how much time was gained/lost, and where on the track.

- Replay of all engine parameters, and optionally speed & laptimes**
- Replay Performance Meter & Predictive Lap Time data (M model only)
- Alarms and laptimes pop-up on the display as they did while on-track
- Records up to 15 runs, and up to 2 hours of data.
- Upgrade to full data logging with optional PC download/ software kit

(ST8100-AR / ST8100M-AR)

* Requires optional sensor at extra cost. ** See Performance Features section opposite page for more information.



SATELLITE DISPLAY SYSTEM

Where space allows, the ST8956SD Satellite Dash-Logger system provides all of the features of the Steering Wheel Dash-Logger in a dash-mountable format. (ST8956SD)



Steering Wheel Display Systems • Instruments

NEW for 2013, the ST8956SWD Steering Wheel Dash-Logger System replaces all dashboard instruments - tachometer, speedometer, gear number, pressure and temperature gauges, voltmeter and lap timing. The design uses the latest LED technology and is specially designed for vehicles such as Formula cars where a conventional dash system cannot be easily fitted. Supplied as standard with temperature and pressure sensors, the system can optionally be connected to 3rd party ECU's via CAN. The system has built-in data recording of all channels, and includes DataPro Analysis software.



Standard features include:

- Alarms and Peak Value Recall on all engine parameters.
- Performance Meter and Predictive Lap Time displays as standard.
- Fully configurable data recorder and DataPro analysis software.
- Gear display from gearbox sensor or automatic calculation from speed/RPM. High accuracy solid-state pressure and temperature sensors.
- Optional CAN interface to 3rd party ECU's.
- Fully configurable using the drag and drop PC configuration software.
- High intensity LED's ensure easy readability. Military specification connectors.
- Supplied complete with control module, all sensors and harnesses.



COLOUR LED READOUTS 'AT A GLANCE' Separate red and green LED readouts enable the driver to

instantly identify specific information of interest.

9 STAGE SEQUENTIAL SHIFT LIGHT/TACHOMETER

The 9 sequentially illuminated ultra-bright shift lights provide a precise indication of engine RPM, and rate of change of RPM, enabling the driver to perfectly anticipate gear shift points.

Model	Display	Speed	RPM	Oil	Fuel	Water	Oil	Gear	Lap	Lap	Lap Timing	CAN Interface	Data	Performance Meter /
		(ST670)		Pres.	Pres.	Temp.	Temp.	No.	Time	No.	(ST546)	(ST918083)	Recording	Predictive Lap Time
ST8956SWD-270	270mm Wheel	OPTION	~	~	~	~	~	✓ [1]	✓ [2]	√ [2]	OPTION	OPTION	~	√ [2]
ST8956SWD-340	340mm Wheel	OPTION	~	~	~	~	~	✓ [1]	√ [2]	√ [2]	OPTION	OPTION	√	√ [2]
ST8956SD	Satellite Display	OPTION	~	~	~	~	~	✓ [1]	√ [2]	√ [2]	OPTION	OPTION	✓	√ [2]

[1] Requires appropriate gear position sensor, ST670 Speed Sensor or CAN ECU data . [2] Requires infra-red (ST546) lap timing kit.

PERFORMANCE FEATURES FOR DASH DISPLAY SYSTEMS

(Standard on some models)

SPEED SENSOR

Simply plug this speed sensor into the wiring loom to enable speed to be displayed on the LCD readout. (ST670)

LAP TIME MEMORY

Best Previous Lap Time: Displays the fastest previous lap time.

Running Lap Time: Displays the time into the current lap.

Predicted Lap Time: Displays the current prediction of the next lap time.

RUM	3					
Lap	4	-01	:24.	01	Ø.	29.

Available on the ST8100M and ST8100M-AR Systems only, this feature records every lap by session. Once back in the pits, the driver can review each lap time, starting at the fastest lap, on the LCD display.



The lap timing receiver simply plugs into the standard dash wiring harness. When the vehicle passes the track side beacon the lap time "pops up" in the graphic display with an accuracy of 1/100th of a second. At any time the driver can select the Lap Time Display layer to show the Last Lap Time, Best Lap Time and number of laps driven.

Enables the driver to experiment with different lines through corners, with immediate visual feedback

Enables the driver to optimise qualifying, by giving early prediction of a fast lap, or a lap off the pace, which should be aborted.

Shows potential lap time when the driver cannot get a clear flag to flag lap in.

Performance Meter : Functions as an in-car coach, continually setting pace for the driver to beat, and displaying how much time is lost each time a mistake is made.

DISPLAY OPTIONS	DISPLAT OPTIONS																						
* See Performance Feature	s secti	on abo																			(e)o	. T	
	ن. پ ^{ور}	For P. Vitracin	For allying 'g	Total , Coacity	Row Racing	Fuer,	Speed (ST	(0400, 000)	Oil Prove Tri	Fuel Pessure Differen	Water	Oil Temperatur	Boose dure	Batton	CAN ECU LIN.	Sequential Shife	Lap Timing (ST346) ming	Lap Mas	Predice:	Perfort dp Time	Action De Meter	Data Real Men	Data Analysis
ST8100-UK	~	~		8	~		OPTION		~	1	~	×		~		OPTION	OPTION						
ST8100M-UK	×	~		8	~		~		~	~	~	1		~		OPTION	~	~	~	~			
ST8100-AR-UK	~	~		8	~		OPTION		~	~	~	 ✓ 		~		OPTION	OPTION				~	~	OPTION
ST8100M-AR-UK	~	~		8	~		~		~	~	~	1		~		OPTION	~	~	~	~	~	~	OPTION
ST8130-UK		~	~	8	~	~	~	~	~	OPTION	~	~		~		OPTION	OPTION						
ST8130P-UK		~	~	8	~	~	~	~	~	~	~	~		~		OPTION	OPTION						
ST8130M-UK		~	~	8	~	~	~	~	~	~	~	~		~		OPTION	~		~	~			
ST8110SR-UK		~	~	9	~	~	~	~	~	~	~	~	~	~		OPTION	OPTION						
ST8916S	~	~		11	~		8 FULLY CONFIGURABLE INPUTS & LAP-TIMING. CHOOSE PULSE OR 0-5V ANALOG SENSORS (NOT INCLUDED).								OPTION	OPTION	OPTION		~	[1]		~	~
[1] Requires infra-red (ST54	6) lap t	iming	kit.																				

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PERFORMANCE METER & PREDICTIVE LAP TIMING SYSTEM



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