PASSPORT
TO INNOVATION

**auto
MASKIN**

auto-MASKIN

Managing Energy

Auto-Maskin has been creating advanced energy management solutions since 1969, earning a reputation for producing high-quality products for marine and automation applications around the world.

Auto-Maskin's team of dedicated specialists keeps this legacy alive, bringing their expertise and enthusiasm to every product in this passport.

Products and services

Engine management

Auto-Maskin's expertise lies in world-class, type-approved engine management.

Propulsion management

We cater to various propulsion systems, whether it's a single diesel engine, a complex hybrid solution, or alternative fuel setups.

Power management

Advanced emergency power systems and integrated power management products.

Ship alarm systems

User-friendly operator interface offering instant recognition of vessel status.

ecoEnergy

Battery banks that utilize the ingenious Kraft™ power solutions to reduce ecological footprints.

Custom projects

Over fifty years of experience in designing and producing custom projects that combine well-proven design with modern products and technology.

Battery banks are increasingly being specified as the preferred solution

Kraft™ **PowerBank**
Modular battery storage system

Aviation
Marine
Telecom
Fish farms

Construction sites
Utilities
Disaster relief
Events

Cost optimisation
Charg from grid at low prices, use or sell stored energy at higher prices.

Grid reinforcement
Peak shaving and extra power for areas with inadequate power grid.

Emergency power / UPS
Backup power for critical applications.

Off-grid power
Solar and wind-powered micro-grid charging.

Genset optimisation
Efficient operation and maintenance of gensets.

Control and monitoring
Local control, remote monitoring.

Revolutionary Energy Integration

Equipped with the Kraft™ smart logic, this innovative system seamlessly integrates traditional and renewable power sources, improving the way you utilise energy. A wide range of transportable battery banks, capacities and options are available.

- Built-in energy management
- Hybrid - Solar, wind and diesel genset control
- Live spot prices for forecast based charging
- Graphical interface for overview and control
- Remote monitoring using the Broadcast system
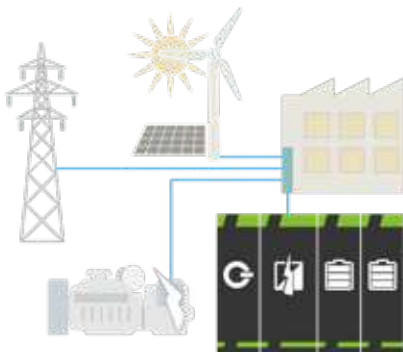
Key specifications

Battery type: **Li-Ion**
Capacity: **From 50 kWh**
AC voltage: **115 - 400 VAC**
AC current: **From 32 A**

Marine Broadcast
Cloud-based Remote Monitoring

Cloud-based
Remote Monitoring

- ■ Real-time remote monitoring of entire fleets at any location
- ■ Web-based, no software or installation needed
- ■ Cell phones and tablets supported
- ■ Free entry level

Introducing Marine Broadcast

The secure cloud-based vessel monitoring solution available for Marine Watch, Marine Pro 200 and 400 series.

- ■ Connects vessel to ship management team
- ■ Stationary and mobile devices supported
- ■ Intuitive operator interface
- ■ Easy to administrate
- ■ Multi user support
- ■ Preinstalled in the panels
- ■ Quick setup
- ■ Free entry level

Broad-cast

Part #: 2500622

Marine Watch S Series
Classed Alarm Management System

- ■ Full vessel alarm system
- ■ IACS compliant
- ■ Edge-to-edge glass front
- ■ Touch screen with swipe support
- ■ Supports Periodically Unattended Machinery Spaces
- ■ System redundancy
- ■ No programming
- ■ Cost-effective
- ■ Multi-panel support

S-ONE Alarm Panel
Configurable main panel or subpanel

- Swipe and touch screen, clear graphics and intuitive design
- Selection of themes and day/night modes
- Timestamped event log
- Events can be grouped
- Includes Dead Man Alarm
- Engineers call
- Location-based buzzer
- Install as many panels as needed

Part #: 1500073 WxHxD: 333 x 202 x 51 mm

S-ACE Annunciator Panel
Announce alarms anywhere on your craft

- Configured automatically when connected to the local Ethernet
- Apply filter to see only certain groups of events
- Install as many panels as needed

Part #: 1500075 WxHxD: 167 x 135 x 68 mm

S Series I/O Cabinets
I/O cabinets with a wide range of options

- ■ Two types: 60 or 120 switch inputs
- ■ Support for up to four I/O cabinets in each S Series system
- ■ Multiple power and input options available
- ■ Plug & Play to S-ONE
- ■ Marine grade, IACS compliant
- ■ Pre-configured smart I/O
- ■ Add more I/O types from the options list
- ■ Optionally, install an S-ONE in the I/O cabinet door

Image shows S-C60 I/O Panel with a door mounted S-ONE Alarm Panel.

WxHxD: 600x600x210 / 600x800x210 mm

Part #: 1500080: S-C60 I/O Cabinet
1500081: S-C120 I/O Cabinet

Cabinet sizes depend on number of input channels and configuration.

* 2 x S-AI8 gives a total of 16 flexible analogue input channels.
2 x S-DO8 gives a total of 16 digital output channels.

Options

1500082: 12V option for S-C60 and S-C120
1500083: S-UPS Intelligent UPS Power
1500086: S-DMO Door-mounted S-ONE
1500090: S-AI8 Eight Analogue Inputs
1500087: S-DO8 Eight Digital Outputs
2500230: S-BC Broadcast SMS/email Alarming
2500622: Marine Broadcast (cloud-based service)

Modular and scalable

The system architecture of the Marine Watch S Series is scalable and can be used in installations with several hundreds of channels.
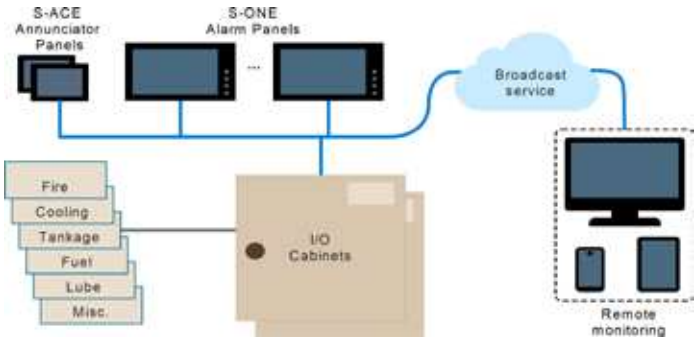
Analogue input option

The S-AI8 Eight Analogue Inputs option allows for the utilization of warning and alarm setpoints on analogue signals. By providing live instrument views, operators gain immediate access to the statuses of each channel.

Digital output option

The S-DO8 Eight Digital Outputs option offers signal outputs in the form of on-screen toggle or momentary switches controlled by the operator.

Ease of installation

The system is a breeze to install. The complete system is configured on one S-ONE Alarm Panel only, without the use of extra tools. Any other panels are automatically configured over the network.

Marine Watch LT Series

Alarm Management System

- Unclassed vessel alarm system
- High-resolution colour touch screen
- Improved vessel safety
- System redundancy
- No programming
- Cost-effective
- Multi-panel support

LT-ONE Alarm Panel
Main alarm operater panel

- Up to 20 digital alarm channels
- Up to 16 analogue alarm channels
- Marine-grade
- User-configurable with no extra tool required
- Easy installation

Part #: 1500074 WxHxD: 167 x 135 x 68 mm
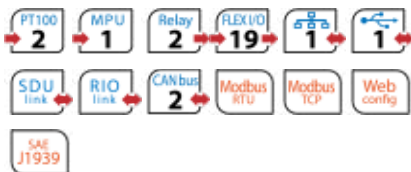
LT-ACE Annunciator Panel
Remote alarm operator panel

- Multiple power and input options are available
- Marine-grade
- Self-configuring

Part #: 1500120 WxHxD: 167 x 135 x 68 mm
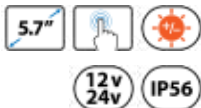
Marine Pro 400 Series

- Provides clear, accurate decision making tools

- A multiple IACS Class Approved core diesel engine control and monitoring system

- Expandable to include other vessel systems and multiple engines

- Automatic component integration reduces cost of installation and commissioning

- Plug & Play expansion via Ethernet for remote panels and additional features

- Requires no special tools or software

RP 480i Remote Panel

The RP 480i is a high resolution 12" touchscreen remote panel that can monitor and control up to eight DCU engine controllers in the Auto-Maskin Marine Pro 200 or 400 Series.

- Truly self-configuring
- No practical limit to the number of panels
- "Glass" helm design

Part #: 1500061 WxHxD: 333 x 202 x 51 mm

DCU 410E Engine Controller

- ■ Easy and intuitive operation
- ■ Includes engine troubleshooting tools
- ■ No special software or tools required
- ■ Programable logic

Part #: 1006445 WxHxD: 260 x 160 x 50 mm

8	4-20mA 4	0-5 v 2	PT100 4	MPU 1
Relay 2	Prog 24v 12	Crank 1.8A	1	1
SDU link	RIO link	MK-14	CANbus 2	
Modbus RTU	Modbus TCP	Web config	SAE J1939	

200 Series · 400 Series · Broadcast · IACS

5.7" · A · 15 · m ft C F

24v · IP56 front
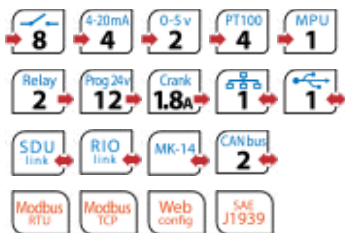
DCU 408E Engine Controller

- ■ Reduced cost where no local display is required
- ■ Includes engine troubleshooting tools
- ■ No special software or tools required
- ■ Programable logic

Part #: 1006510 WxHxD: 244 x 164 x 50 mm

8	4-20mA 4	0-5 v 2	PT100 4	MPU 1	Relay 2
Prog 24v 12	Crank 1.8A	1	1	SDU link	RIO link
MK-14	CANbus 2	Modbus RTU	Modbus TCP	Web config	SAE J1939

200 Series · 400 Series · IACS

Broadcast · 24v
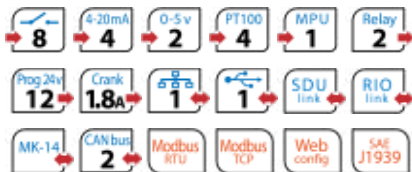
SDU 420 Safety Shutdown Unit

- Ability to derate rather than shutdown
- Gear and RPM interlocks available on all channels
- Analogue channels available for shutdown
- Local indication for each channel status
- Wire break and short-circuit detection as standard
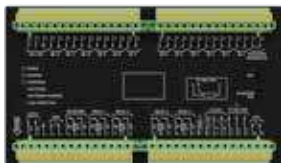
Part #: 1500158 WxHxD: 183 x 105 x 52 mm

SDU 404 Safety Shutdown Unit

- Low-cost IACS compliance for smaller engines
- "Requires In gear" logic available on shutdown channels
- Small footprint with premium features still included
- Local indication for each channel status
- Wire break and short-circuit detection as standard

Part #: 1006418 WxHxD: 101 x 105 x 52 mm

RIO 410 Remote I/O Unit

- Plug & Play connectivity to any DCU
- Simplified wiring to sensors
- Lowest cost of analogue integration
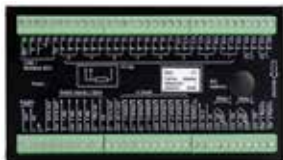
Part #: 006453 WxHxD: 185 x 105 x 45 mm

| 4 | 4-20mA 9 | 0-5 v 1 | PT100 8 | TC 2 |

| Relay 2 | Prog 24v 2 | RIO link |

200 Series | 400 Series | IACS ✓

24v | IP30

RIO 412 Exhaust Temperature Interface

- Provides additional engine performance monitoring
- Variety of alarm configurations provide early warning
- Ease of connection to DCUs

Part #: 1006454 WxHxD: 149 x 73 x 145,3 mm

| TC 20 | CANbus 1 | SAE J1939 |

200 Series | 400 Series | IACS ✓

12v 24v | IP65

LSU 408 Load Sharing Unit

- Ability to control up to 16 gensets and associated breakers
- Automatically detected and displayed by any Marine Pro engine controller
- Multiple compatibilities to most engine governor types and alternator AVR types
- Tiebreaker dependent load sharing
- Load depended start/stop
- Redundant load sharing buses
- Heavy consumer request

Part #: 1311188 WxHxD: 248 x 197 x 57 mm

15	4-20mA 1	NTC 4	MPU 1	Relay 2	Prog 24v 5
PWM 1	1	USB 1	CANbus 2	Modbus RTU	Modbus TCP
Web config	CAN open				

200 Series · 400 Series · IACS · 12v 24v · IP20
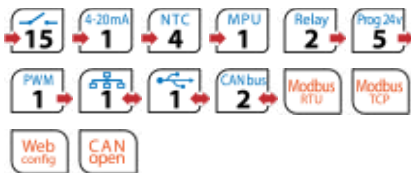
RIO 425 AC Generator Interface

- Reduces costs as no AC metering is required
- Automatically detected and displayed by any Marine Pro engine controller
- Self-contained

Part #: 1500443 WxHxD: 52 x 85 x 70 mm

RIO link

200 Series · 400 Series · 85-265v · IP51

Marine Pro 200 Series

- ■ A premium featured range of controllers and displays

- ■ Global product line with multiple languages built-in

- ■ No special software, skills or tools required

DCU 210E Engine Controller

- ■ Simple set-up and intuitive operation
- ■ Highly flexible and with configurable channels that reduce costs
- ■ Durable, rugged and sealed for use in demanding conditions

Part #: 1006475 WxHxD: 167 x 135 x 68 mm

| PT100 **2** | MPU **1** | Relay **2** | FLEX I/O **19** | 🖧 **1** | ⟵ **1** |
| SDU link | RIO link | CANbus **2** | Modbus RTU | Modbus TCP | Web config |
| SAE J1939 |

200 Series	Broad-cast	5.7"
🖐	☀	15
m c ft °F	12v 24v	IP56
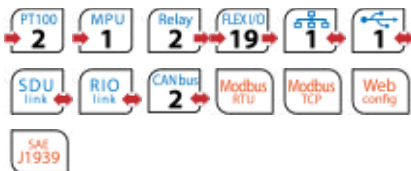
DCU 208E Engine Controller

- ■ Reduced cost option where no local display is required
- ■ Highly flexible and with configurable channels that reduce costs
- ■ Durable, rugged and sealed for use in demanding conditions

Part #: 1006477 WxHxD: 163 x 131 x 75 mm

| PT100 **2** | MPU **1** | Relay **2** | FLEX I/O **19** | 🖧 **1** | ⟵ **1** |
| SDU link | RIO link | CANbus **2** | Modbus RTU | Modbus TCP | Web config | SAE J1939 |

| 200 Series | Broad-cast |
| 12v 24v | IP56 |
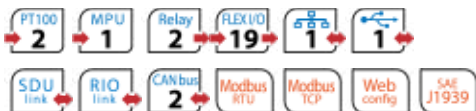
RP 210E Remote Panel

- Lowest cost installation and commissioning
- Feature-rich enabling improved operational efficiency
- No practical limits to distance or number of remote panels connected

Part #: 1006476 WxHxD: 167 x 135 x 68 mm

RP 220E Remote Panel

- Lowest cost installation and commissioning
- Reduces console space required to monitor two engines
- Works seamlessly with any Marine Pro controller

Part #: 1006472 WxHxD: 167 x 135 x 68 mm

RP 206E Remote Panel

- Lowest cost installation and commissioning
- Monitor-only functionality maintains operational security
- Durable, rugged and sealed for use in demanding conditions

Part #: 1006478 WxHxD: 167 x 135 x 68 mm

RIO 210 Remote I/O Unit

- Cost-effective analogue sensor integration
- Simplified wiring to sensors reduces costs
- Simple configuration via any Marine Pro DCU
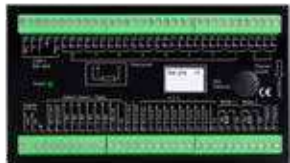
Part #: 1006462 WxHxD: 185 x 105 x 45 mm

Marine ProConnect

- "Plug and Play" engine control kits for specific engine models

- Includes harness, key-switch, a DCU 210E Engine Controller and a USB stick with configuration files

- Connectors matched to each engine model and optional auxiliaries

- Harnesses available in several lengths

- No special tools or cables are needed

- USB port for "One Touch" updates

The fastest install there is

The DCU 210E Engine Controller is already well known for being very easy to install. Now, the installation is even quicker with harnesses prepared for specific engine models with all necessary connectors, ready configuration files and even a key switch.

The DCU 210E has pre-defined configuration files and compliments the engine capability. Any extra configuration can be done using any web browser. The full system warranty supported globally by Auto-Maskin means "Peace of Mind".
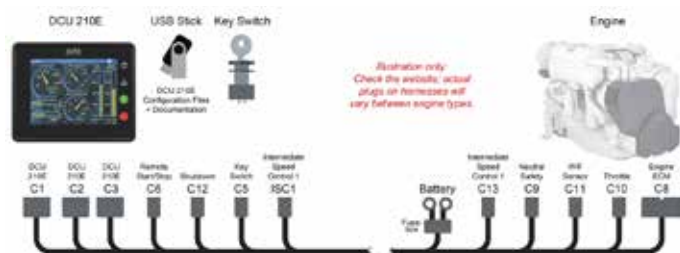
ProConnect engine models

ProConnect C1 for Cummins QSB6.7, QSC, QSL9 or QSM11 engines
Part #: 1100711 (25 ft / 7.6 m) | 1501046 (50 ft / 15.2 m)

ProConnect X15 for Cummins X15 engines

Part #: 1501029 (10 ft / 3 m) | 1500394 (25 ft / 7.6 m) | 1500384 (50 ft / 15.2 m) | 1500379 (75 ft / 22.8 m)

ProConnect B4.5 for Cummins B4.5 engines

Part #: 1501025 (10 ft / 3 m) | 1500987 (25 ft / 7.6 m) | 1500998 (50 ft / 15.2 m) | 1501027 (75 ft / 22.8 m)

ProConnect will be made available for more engine brands and models based on demand. Please send a request for any additional engine models.

Marine Pro 300 Series

- Provides cost-effective certification compliance
- Easy installation and configuration reduces costs
- Well-proven with thousands in the field

DCU 305 R3 LT Engine Controller

- Most cost-effective option for IACS installations
- Ideally suited to mechanical engines
- Easy to install, configure and operate

Part #: 1006420 WxHxD: 260 x 160 x 35 mm

RSP 305 Remote Panel

- Low-cost installation with minimum wiring
- Replicates the Engine room data for up to four DCU 305 engine controllers
- Truly self-configuring panel

Part #: 1006500 WxHxD: 250 x 160 x 50 mm

MK-14 Relay Expansion Unit

- Can be Event or Sensor driven
- Plug & Play connectivity reduces costs and technical risk
- Significantly reduces wiring complexity

Part #: 1121341 WxHxD: 117 x 105 x 52 mm

AK-6 Analog Expansion Module

- Easily expands the analogue input capability of the 300 series engine controllers
- Preserves the relay extension capability of the 300 series engine controllers

Part #: 1075264 WxHxD: 117 x 105 x 35 mm

RK-66 Interface Module

- Mandatory requirement for each DCU 305 controller, and is included when purchasing any DCU 305
- Specifications are given for DCU 305
- Available as a replacement unit only

Part #: 1075410 WxHxD: 240 x 105 x 35 mm

Legend

Inputs

- Digital switch
- Analogue 4-20mA
- Analogue 0-5V
- Analogue 0-10V
- PT100 Platinum thermo sensor
- NTC Negative Temp. Coefficient sensor
- TC Thermocouple sensor
- MPU Magnetic pickup

Outputs

- Relay
- Prog 24v Programmable 24V
- PWM Pulse Width Modulated signal
- Crank signal
- Shutdown signal
- HDMI High-Definition Multimedia Interface

Connections

- Cam Video camera over Ethernet
- DCU DCU over Ethernet
- LT-ONE LT-ONE over Ethernet

Flexible I/O

- FLEX I/O Fully configurable analogue or digital

Interfaces

- Ethernet port
- USB port
- SDU link connector
- RIO link connector
- MK-14 connector
- AK-6 connector
- AK-6 + MK-14 connector
- RS-232 connector
- CAN bus connector

Protocols

- Modbus RTU protocol
- Modbus TCP protocol
- Rudolf configuration
- Web based configuration
- CANopen protocol
- SAE J1939 CAN bus protocol

Compatibility

- 200 Series
- 300 Series
- 400 Series
- Broadcast compatible
- LT Series
- S Series
- IACS approved

Properties

- Screen size
- Touch screen
- Adjustable backlight
- Automatic backlight
- Night mode
- Number of languages
- Metric / imperial
- Power supply voltage
- IP Dust and water protection
- Mounted front dust and water protection

Legacy products

The oldest legacy products supported today were developed and supplied back in the '70s. If you provide us with the article and serial numbers, then the expert team at Auto-Maskin will safely guide you to spare parts that fit right in.

- ■ Spare part
- ■ In-field service
- ■ Authorised repair centers
- ■ Documentation

We are in it for the long-run

Auto-Maskin has supplied thousands of units annually to customers in every corner of the world for over 50 years. The majority of our customers returns when it's time for an upgrade.

- "Not only have the Auto-Maskin products a quality that gives them a long and trouble-free life at sea, but the support over its lifetime is next to none - it is simply the best."

Auto-Maskin has a guaranteed 10-year service, support, and equivalent parts program. As a customer, you can rely on that the product in your vessel can be supported over its lifetime - we are in it for the long-run.

Discontinued products

Products that are no longer serviceable or possible to produce are still very much alive with our support team.

- ■ Documentation
- ■ Knowledge-based support
- ■ Product upgrade support

Global Presence

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