

TWO DIVER PORTABLE PANEL SY-2DPDO23-X-XXX



PART NO : SY-2DPD023-R-1 DV

Two diver panel with inbuilt radio, analyser for each diver, diver 1 cctv



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Information Two Diver Panel

| | |
|------|---|
| Case | Model 1650, Black, Interior (28.57" L x 17.52" W x 10.65" H), with wheels and handle, water, rust and dust proof), Pelican USA Exterior dimensions: 80.14 x 52.1 x 31.67cm (31.55" x 20.51" x 12.47") Interior dimensions: 72.16 x 44.2 x 27.03cm (28.41" x 17.40" x 10.64") Weight without foam: 10.9kg (24.03lbs) |
|------|---|

1 x 0-230 fsw/70 msw Depth gauge, 4.5", 0.25 % accuracy, mirror scale, with calibration point , Diver 1, Stainless steel

1 x 0-230 fsw/70 msw Depth gauge, 4.5", 0.25 % accuracy, mirror scale, with calibration point, Diver 2, Stainless steel

| | |
|---------------|---|
| Air Supplies | HP -2 independent supplies per diver, LP - 1 common to both divers |
| Communication | Amron 2820A-01 Two diver radio with AC/DC power supply |
| Regulator | 1 x Per diver, Suitable for breathing air, Inlet: 6000 psi, Outlet: 400 psi |
| Relief valves | 0-250 psi on regulated diver supply line, 100 psi on pneumo gauges |

| | |
|------------------|--|
| Air supply ports | D1 inlet and outlet ports on left side. D2 Inlet and outlet ports on right side |
| Calibration | Inbuilt calibration points for pneumo gauges |
| Analyser | Oxygen analyser with hi low alarm for each diver |
| Flowmeter | Dwyer flowmeter O - 5 lpm per analyser |
| Flow restrictor | Downstream flow restrictor for each diver umbilical line |

| | |
|-----------------------------|--|
| Usb out | Provided to copy data from hard drive to any usb storage stick |
| Hdmi out | Provided to mirror image of live data feed from diver to client room or remote location |
| CCTV | via hdmi cable |
| Monitor | Can be provided for both diver 1 and diver 2 TFT 15.5" (splitter will be provided if both diver CCTV options are required) |
| Surface control unit | Video / light control, patented design, outland/synergy design, usa |
| Primary recording | Mini DVR from 32gb to 128gb option for diver video |
| Secondary back up recording | 1 TB backup hard drive to record all diver video simultaneously |

Client Optional

| | |
|------------|--|
| Asset info | Panels can be embossed with client logos, asset information, serial numbers etc on special request |
|------------|--|

SY-2820A-11 AMCOM II TWO-DIVER RECHARGEABLE BASIC PORTABLE COMMUNICATOR



NEWLY DESIGNED ENHANCEMENTS:

High Audio Fidelity

Ultra-low noise circuit combined with noise suppression circuitry produces crystal clear speech. Automatic gain adjustment

will guard audio signal from distortion, enhance speaker protection and audio quality. Increases band width 47%.

Extended Battery Operation Time

Audio amplifier card deploys the state-of-the-art Class-D digital audio power amplifier. Has very low power dissipation, produces less heat, and extends battery life up to 32%.

Flexible Gain Settings

The audio amplifier card has adjustable gain settings to accommodate different communication applications and environments.

Ultra-Low Electromagnetic Interference (EMI)

EMI is achieved through spread-spectrum and de-phase control techniques providing for optimum integration with diving systems.

Outdoor Rated AC Power Module

Weather resistant, IP65 rated AC power entry module accommodates country specific AC power cords.

Country Specific V-Lock AC Power Cord

At time of order, simply choose the IP54 rated Locking AC power cord you need.

FEATURES:

- Single volume control for both divers.
- Diver's umbilicals can be set up on 4-wire mode (full duplex) or 2-wire mode (push-to-talk) or any combination of the two modes for each diver.
- Ability to use both dynamic and pre-amplified diver microphones with a unique circuit that detects microphone type and automatically adjusts volume levels.
- The divers' connections consist of cross-talk and separate speaker and microphone inputs.
- Internal charger allows for simultaneous charging and operation of the unit while protecting the rechargeable battery from being over-charged. Automatically supplies power to the audio amplifier when AC power is disconnected to allow for continued operation.
- See Tech Note (below) for recommended accessories.

SY-2820A-11 AMCOM II TWO-DIVER RECHARGEABLE BASIC PORTABLE COMMUNICATOR

SPECIFICATIONS:

- Input Impedance (Each Input): 250 Ohms
- Frequency Response: 300 - 10000 Hz
- Common Mode Rejection: 40 dB Minimum
- Current Drain Maximum Full Volume: 3 Amps
- Minimum Quiescent: 0.190 Amps
- Output Impedance: 4 Ohm
- Power Supply Voltage: 12 VDC Nominal (9 Volts Minimum - 16 Volts Maximum)
- AC Power Operating Range: 90-264 VAC, 50-60 Hz
- Sensitivity (Input): 0.5 mV
- Output Power (RMS @ 4 Ohm Load, 12 VDC): 10 Watts Audio
- Battery Life: 45 hours
- Dimensions: 10 in. H x 9 in. W x 14.5 in. L (25.4 cm x 22.9 cm x 36.8 cm)
- Weight: 16.25 Lbs. (7.37 Kg)

INCLUDED WITH COMMUNICATOR:

SY-2820A-11AMCOM II Two-Diver Rechargeable Basic Portable Communicator with Outdoor Power Module and International Locking Power Cord includes:

- (1) SY-2890-05 Amron 12 VDC Sealed Lead Acid Gel-Cell Rechargeable Battery with Slide terminals
- (1) SY-282XA-UM Amron Two Diver Portable Communicator User Manual

AVAILABLE OPTIONS:

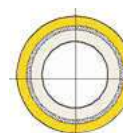
- SY-2460SM-28 Amron Single Muff Operator Headset with Boom Mic and Dual Banana Plugs
- SY-2405-28 Amron Hand-Held Push-to-Talk Microphone
- SY-2401-28 Amron Deluxe Headset with Boom Mic
- SY-2460-28Amron Standard Headset with Boom Mic
- SY-2822-28 Amron Remote Walk-and-Talk (4-wire mode)
- SY-2821-28 Amron Remote Walk-and-Talk (2-wire mode)

TECH NOTE:

All communicators will inherently transfer topside noise to the divers when the tender speaks directly into the communicator's panel speaker. To eliminate background noise at the surface, we recommend purchasing the 2405-28 Push-to-Talk Microphone (not included with this model). For optimum communications, it is recommended to use the 2401-28 Deluxe Headset with Boom Mic, topside. For tender maneuverability, use the 2401-28 Deluxe Headset with Boom Mic along with the 2822-28 Remote Walk-and-Talk (4-wire mode) or the 2821-28 Remote Walk-and-Talk (2-wire mode). For wireless tender communications, order the 2825A-03 Two Diver Deluxe Portable Communicator with built-in Wireless Tender option.

SYNERGY SURFACE DIVING HOSES AND UMBILICALS SY-AQUAFLOW

Known worldwide for its lightweight and ultra flexible construction, Aquaflow hoses are ideal for surface demand applications. Aquaflow kink resistant construction comprises of an extruded core tube, reinforcement of high strength yarn and a bonded outer cover. Both tube and cover are extruded from high performance thermoplastic polymers which are particularly clean and free from odors often associated with conventional rubber hoses. Coupled with the wide operating temperature range this ensures breathing gas quality is maintained under all conditions from -20°C to +66°C.



| Part No. | Nominal Bore | | O.D. | | Min. bend radius | | Working pressure | | Nom. burst pressure | | Weight in air | | Weight in sea water | | Typical application |
|------------|--------------|------|------|------|------------------|----|------------------|-----|---------------------|-----|---------------|-----|---------------------|-----|---------------------|
| | in | mm | in | mm | in | mm | psi | bar | psi | bar | lb/ft | g/m | lb/ft | g/m | |
| SY-HDA0104 | 1/4 | 6.3 | 0.50 | 12.7 | 1.25 | 32 | 300 | 21 | 1200 | 84 | 0.078 | 116 | -0.009 | -14 | Pneumo |
| SY-HDA0106 | 3/8 | 9.5 | 0.66 | 16.8 | 2 | 50 | 500 | 35 | 2000 | 140 | 0.119 | 177 | -0.034 | -50 | Air/Gas |
| SY-HDA1108 | 1/2 | 12.7 | 0.83 | 21.0 | 3 | 76 | 300 | 25 | 1200 | 84 | 0.178 | 265 | -0.054 | -80 | Hot water |

Aquaflow Umbilicals



Lightweight, ultra flexible and kink resistant, Aquaflow Umbilicals are ideal for breathing gas supply, comms and pneumo service for surface demand umbilicals. They can be produced in production runs up to 740 meters long and can be over extruded or braided for additional protection against abrasion and use in contaminated waters.

The unique materials and cabled "rope-like" construction combine to produce the most flexible, controlled buoyancy umbilicals available today. The umbilicals have no need

for tape, the repairs are much reduced and they have a longer life. They keep the professional diver safer and more efficient both while diving and on deck. They will ultimately reduce costs for the operator. The highest quality materials, workmanship with competitive pricing and unmatched service to our clients worldwide. SYNERGY invites you to visit our website or contact us directly so that we can assist you with all your Diving Umbilical needs.

SYNERGY SURFACE DIVING HOSES AND UMBILICALS SY-AQUAFLOW

SY-UDA0103

3 part surface demand



SY-UDA0204

3 part plus video



OUTLAND VIDEO CAMERA / LIGHTS / UMBILICALS

| Mechanical | Specification |
|---------------|----------------------------------|
| Weight | 6 oz (.2kg) Dry, 3 oz(.06kg) wet |
| Depth Rating | 2000 ft (600m) |
| Housing | Black delrin |
| Electrical | |
| Image Device | 1/3" CCD sensor (412k pixel) |
| Sensitivity | .001 lux @f1.4 |
| Resolution | 600 TV lines standard |
| Video Out | 1.2 Vpp |
| Power | 12 VDC @ 110 ma. |
| Optical | |
| Lens | 3.6mm, Electronic-Iris |
| Focus | Fixed 4" to infinity |
| Angle of View | 70 horz. (in water) |



PART NO : SY-UWC-325/p/e



PART NO : SY-UWL-401

| Mechanical | Specification |
|--------------|----------------------------------|
| Weight | 7oz(0.2kg) Dry, 3 oz.(.1kg) Wet |
| Depth Rating | 2000 ft (600m) |
| Housing | 6061-16 Anodized Aluminium |
| Electrical | |
| Power | 12 VDC @ 110 ma. |
| Wattage | 18 watt (Eq to 150 watt halogen) |
| Output | 700 lux at 1 meter |

| Mechanical | Specification |
|-------------------|--------------------------------|
| Conductors | 16ea #22 awg 1 RG-59 Coax |
| Length (mtrs) | 100/150/200 as per requirement |
| Diameter | 8.5mm (0.35") |
| Materials | Orange Polyurethane jacket |
| Breaking Strength | 1200 lbs |
| End fittings | |
| Diver End | Moulded Y connection |
| Camera | Rmk-5-fs with locking sleeve |
| Light | Rmg-3-fs with locking sleeve |
| Surface end | Soldered connection |
| Cable | 8 pin amphenol connector |



PART NO : SY-VC-150M

SYNERGY PIGTAILS AND CONNECTORS

| | |
|------------------------|---|
| Connector | SY-RMK-5-FS |
| Type | 5 Female Sockets |
| Cable | 18 in Pigtail of 18 SO AWG Cable |
| Material | Special Neoprene, Molded |
| Contacts | Copper Alloy, Hard Gold Plated per ASTM-B-488 |
| Voltage Rating | 600 VDC |
| Pressure Rating, Mated | Up to 20,000 psi |
| Mates with | SY-XSL-5-BCL on Outland Camera SY-UWC-325/p/e |

PART NO : SY-RMK-5-FS



PART NO : SY-RMG-3FS



Locking sleeve for Rmg-3-fs

PART NO : SY-G-FLS-D



Locking sleeve for Rmk-5-fs

PART NO : SY-K-FLS-D



| | |
|------------------------|--|
| Connector | SY-RMG-3-FS |
| Type | 3 Female Sockets |
| Cable | 18 in Pigtail of 18 SO AWG Cable |
| Material | Special Neoprene, Molded |
| Contacts | Copper Alloy, Hard Gold Plated per SY-ASTM-B-488 |
| Voltage Rating | 600 VDC |
| Pressure Rating, Mated | Up to 20,000 psi |
| Mates with | SY-XSG-3-BCL on Outland light SY-UWL-401 |

PART NO : SY-MS3108B-18-08P



| | |
|-----------------------|---------------------------|
| Certifications | Provided with each system |
| International | IMCA D023 |
| Manufacturer | Synergy Certificates |
| Electrical | Continuity/Function test |



PART NO : SY-CLBRK

SS camera and light bracket with jubilee clamp

Cannon Right Angle Amphenol Connector is used for connecting the video camera umbilical to the surface video console unit.

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TWO DIVER PORTABLE PANEL SY-2DPDO23-X-XXX

ORDERING INFORMATION

| Sr. | Part Number | Description |
|-----|------------------|---|
| 1 | SY-2DPD023 | Portable two diver panel with 2 x analyser, 2 x flow meter , 2 x flow restrictor, offshore, imca (no radio, no diver cctv) |
| 2 | SY-2DPD023-R | Portable two diver panel with 2 x analyser, 2 x flow meter , 2 x flow restrictor, offshore, imca with radio (no diver cctv) |
| 3 | SY-2DPD023-R-1DV | Portable two diver panel with 2 x analyser, 2 x flow meter , 2 x flow restrictor, offshore, imca with radio and diver 1 cctv |
| 4 | SY-2DPD023-R-2DV | Portable two diver panel with 2 x analyser, 2 x flow meter , 2 x flow restrictor, offshore, imca with radio and diver 1 /diver 2 cctv |

| Sr. | Part Number | Description |
|-----|--------------------------|--|
| 1 | SY-2820A-11 | Amcom ii two-diver rechargeable basic portable communicator |
| 2 | SY-PRO-02 | Oxygen analyser with hi low alarm |
| 3 | SY-VFA-23-BV | Flow meter, 0.6 to 5 lpm |
| 4 | SY-FLRST | Flow restrictor, diver downstream |
| 5 | SY-UDA-0204 | 4 core Umbilical air/gas, pneumo, communication and video cables |
| 6 | SY-UDA-0103 | 3 core Umbilical air/gas, pneumo, communication |
| | Fittings as below | |
| 7 | SY-386-PB-AIR | 3/8"x 6 jic phosphor bronze reusable umbilical air/gas hose end fitting |
| 8 | SY-144-PB-PNEUMO | 1 /4" x 4 jic phosphor bronze reusable umbilical pneumo end fitting |
| 9 | SY-RMG-3-FS | Marsh marine, 3 pin, Female, 18" |
| 10 | SY-BAN PLUGS-TWIN | Twin banana plugs surface communication end fitting (Red/Black) |
| 11 | SY-RMK-5-FS | Marsh marine, 5 pin, female, 18" |
| 12 | SY-K-FLS-D | Locking sleeve, delrin , for RMK-5-FS |
| 13 | SY-RMG-3-FS | Marsh marine, 3 pin, female, 18" |
| 14 | SY-G-FLS-D | Locking sleeve, delrin, for RMG-3-FS |
| 15 | SY- MS3108B-18-08P | Cannon right angle amphenol connector is used for connecting the Surface end of the video camera umbilical to the surface video console unit |

BESPOKE DESIGNS – ANY CONFIGURATION AS PER CLIENT REQUIREMENT


TWO DIVER PORTABLE PANEL SY-2DPDO23-X-XXX

Contact us



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