

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)
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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 1pm 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
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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:

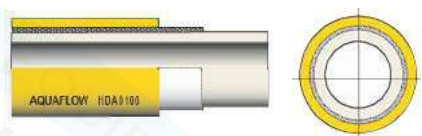
- SY-2460SM-28 Amron Single Muff Operator Headset with Boom Mic and Dual Banana Plugs
- SY-2405-28 Amron Hand-Held Push-to-Talk Microphone
- SY-2401-28 Amron Deluxe Headset with Boom Mic
- SY-2460-28 Amron Standard Headset with Boom Mic
- SY-2822-28 Amron Remote Walk-and-Talk (4-wire mode)
- SY-2821-28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



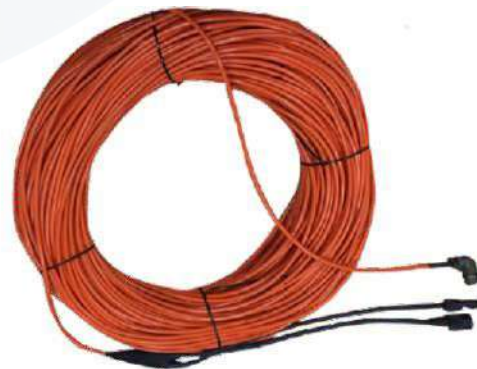
PART NO : SY-UWC-325/p/e



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.

CLASS WITNESS CERTIFICATES

Industry & Facilities Division
Third Party Inspection Report

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INSPECTION REPORT No: DHA.4.20.17.018

Revision No: 0

Project: Third Party Inspection Services

BY Client: Synergy Diving and Equipment Solutions FZC

Manufacture/Vendor: WIS Strategic Diving and Equipment Solutions FZC

Item No: 02 (Serial No) 001

Inspection Location: 1. Doha, Qatar (see details)
Inspection performed on: 14.06.2020

Previous Inspection (Certificate No):
Serial Inspection (Equipment ID):

NATURAL SUBJECT OF INSPECTION

ITEM / TAG No: Triton 362

QTY: 01

QTY Offered by Supplier: 01

A- INSPECTION RESULT

Satisfactory Without comments

Satisfactory with comments (Any of failing Panels or Non Conformity items is self-corrected)

Not Satisfactory (NCR issued during the inspection)

Inspection Summary: (For details refer to section B)

As the request of Mr. SYNERGY (REMARKS BY THE CLIENT) PRESENTED TRAD WITNESS for the Diver Panel Pneumatic testing was carried out at Synergy (HQ) Quatar on 14th June 2020 and results were found satisfactory.

High Pressure Lines were carried out @ 3300 psi and low pressure @ 330 psi - serial no: TRITON 362

Open Box Contaminated: Yes, visible in section C No

Open Panels (see items): Yes, visible in section B No

Welded Area Leaking: Yes, reported (see item No. 001) No

BY Testability Stamping: Yes No

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Third Party Inspection Report

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INSPECTION REPORT No: DHA.4.20.17.018-01

Revision No: 0

BY Inspector: Vivas Raj

BY Co-Inspector: Sambhosh Paul (Phone and Signature)

BY Office: Dubai

Inspection Report Date: 14.06.2020

Distribution: CLIENT BY MANUFACTURER OTHER

Attachments Report: Yes - details section B No

B- REFERENCE DOCUMENTATION

Title	Reference no	Rev.	Approval Status	Approved by	Date
Diving Equipment System	EN ISO 2449	06	As Final	Synergy	July 2014
Respiratory Protection Testing Procedures	EN ISO 2449-01	01	As Final	Synergy	May 2016

C- ATTENDANCES

Name	Position	Representing
Mr. Vivas Raj	Mechanical Inspector	Reserve, Qatar
Mr. Sambhosh Paul	QA Engineer	Synergy Diving and Equipment

D- MEASURING & TESTING EQUIPMENT USED

Equipment Type	Equipment Identity no	Last Calibration Date	Expiry Date
Digital Pressure Gauge	13242	JUL11.2019	25.11.2019
Digital Pressure Gauge	AG-252401P	10.04.2019	04.04.2021

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Third Party Inspection Report

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INSPECTION REPORT No: DHA.4.20.17.018-01

Revision No: 0

E- INSPECTION DETAILS

E1- Details of Witness (W) & Hold (H) Inspection Points

- Pneumatic test was witnessed by TRITON 362 for High Pressure @ 3300 PSI.
- Pneumatic test was witnessed by TRITON 362 for Low Pressure @ 330 PSI.
- Verification of Calibration Certificates for the measuring instruments and pressure gauges were found in order.

E2- Details of Monitoring and Surveillance Points

- Visual inspection of two Diver air panel was inspected and found satisfactory at the time of inspection.
- Verification of serial number TRITON 362 was visually inspected to be valid.
- Pneumatic test was witnessed with no other particular no pressure drop or leakage was observed and found satisfactory.
- Verification of calibration certificates for the measuring instruments were found in order.

E3- Details of Certificates Review

- Calibration certificates of all measuring instruments used were verified and found valid.

F- HEALTH, SAFETY & ENVIRONMENT COMMENTS

(Comment on Observations and Actions Taken During the Inspection)

- Take proper safety precaution during inspection period and avoid suffocation.

G- NON CONFORMITIES

Item	Description	Status	Requirer	Report No	Closure No	Comment


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Third Party Inspection Report

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INSPECTION REPORT No: DHA.4.20.17.018-01

Revision No: 0



J- ATTACHMENTS

Item	Attachment Name	Total Pages	Description
1	2 Diver Panel (Serial No)	01	Diving Section
2	Checklist - Spotting Air Report	01	Spotting the Results
3	Calibration Certificate	02	Cal. Certificate for the gauges

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Third Party Inspection Report

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INSPECTION REPORT No: DHA.4.20.17.018-01

Revision No: 0

ANNEXURE

Inspection Details: TRITON 362 Two Diver Panel

Witnessed Two Diver Panel - Pneumatic Pressure Testing with following details:

Description: Two Diver Panel

Country of Origin: UAE

Manufacturer Serial No: TRITON 362

Year of Manufacture: June 2020

Design Pressure: LP 330psi / HP 3300 psi

Test Pressure: LP 330psi / HP 3300 psi

Date of Witness for Pneumatic Test: 14.06.2020

Pneumatic Test Details

- Pneumatic pressure test of Two Diver panels (Serial No: TRITON 362) was witnessed per the approval procedure.
- High pressure supplied to the panel was 3300 psi - design pressure being 3300 psi
- Low pressure supplied to the panel was 330 psi - design pressure being 330 psi
- Over Pressure on the panel was held for 30-min duration, observing no pressure drop or leakages and hence found satisfactory.
- Soap Solution leak test was performed on O-Rings, valves and piping's showing no indications of leakages and hence found satisfactory.

END OF REPORT

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Certifications

Provided with each panel

Manufacturer International	Synergy certification IMCA D023
Class	Bureau Veritas pressure test certificates
Warranty	1 year international manufacturer warranty
Weight	46 kg

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



29th Street, Amman Road, Behind Al Huraiz Est. For Industry,
Al Qusais, Industrial Area - 1,
Dubai, United Arab Emirates



Tel : 009714 2580533 



Fax : 042516664 



UAE : 00971505648178 



UK : 00447951966260 



Website : www.synergiequipment.com



Email : ram@synergiequipment.com



For Sale : info@synergiequipment.com

