

**THREE DIVER PORTABLE PANEL WITH THREE DIVER RADIO AND TWO DIVER CCTV**  
**#SY-3DAP-D040-R-2DV**



**PART NO : SY-3DAP-D040-R-2DV**

Three diver panel with radio and diver 1 / diver 2 cctv system

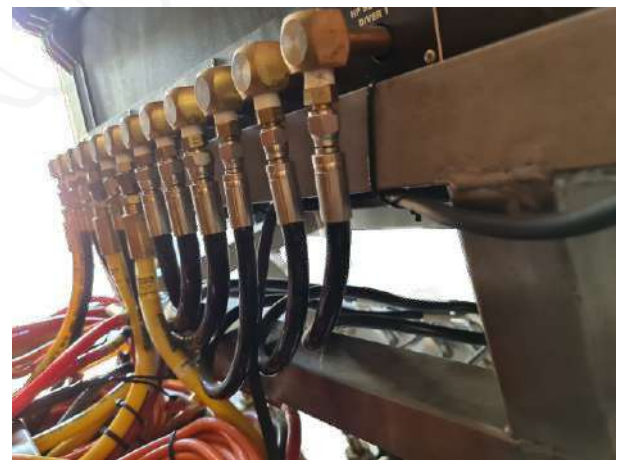


**THREE DIVER PORTABLE PANEL WITH THREE DIVER RADIO AND TWO DIVER CCTV**  
#SY-3DAP-D040-R-2DV

SF - DIVING PANEL WITH D1/D2/D3 INLET FITTINGS (AIR SUPPLIES HP/LP) ON LEFT SIDE AND D1/D2/D3 OUTLET FITTINGS (TO DIVER) ON RIGHT SIDE



DIVING PANEL WITH D1/D2/D3 INLET (HP/LP) AND OUTLET FITTINGS (TO DIVER) FROM THE BACKSIDE OF THE PANEL





## THREE DIVER PORTABLE PANEL WITH THREE DIVER RADIO AND TWO DIVER CCTV #SY-3DAP-D040-R-2DV

### 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<br><b>Exterior dimensions:</b> 80.14 x 52.1 x 31.67cm (31.55" x 20.51" x 12.47")<br><b>Interior dimensions:</b> 72.16 x 44.2 x 27.03cm (28.41" x 17.40" x 10.64")<br><b>Weight without foam:</b> 10.9kg (24.03lbs) |
|------|---|

|  |
|--|
| 1 x 0-230 fsw/70 msw Depth gauge, 3.5", 0.25 % accuracy, mirror scale, with calibration point , Diver 1, Color coded<br><b>Green</b> |
|--|

|  |
|--|
| 1 x 0-230 fsw/70 msw Depth gauge, 3.5", 0.25 % accuracy, mirror scale, with calibration point, Diver 2, Color coded<br><b>Blue</b> |
|--|

|   |
|---|
| 1 x 0-230 fsw/70 msw Depth gauge, 3.5", 0.25 % accuracy, mirror scale, with calibration point, Diver 3, Color coded<br><b>Red</b> |
|---|

|               |  |
|---------------|--|
| Air Supplies  | HP - 3 independent supplies, one per diver, LP - 3 independent supplies, one per diver |
| Communication | Amron 2830A-11 Three 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:

|               |  |
|---------------|--|
| Option 1 - SF | All fittings provided on both sides of case – Left side all inlet fittings for hp air, lp air, right side divers air supply and pneumo fittings. |
| Option 2 - BF | All fittings provided from behind the panel for inlets and outlets   |
| Calibration   | Inbuilt calibration points for pneumo gauges   |

### Two Diver CCTV :

|                             |   |
|-----------------------------|---|
| CCTV                        | For both diver 1 and diver 2  |
| Monitor                     | TFT 15.5" (split CCTV image for diver 1 / diver 2)  |
| Surface control unit        | All touch button controls with backlight for low visibility operations, video and light control |
| Primary recording           | 1 TB hard drive to record all diver video simultaneously  |
| Secondary back up recording | 1 TB backup hard drive to record all diver video simultaneously                                 |

## SY-2830A-11 AMCOM III THREE-DIVER RECHARGEABLE BASIC PORTABLE COMMUNICATOR

### SY-2830A-11 AMCOM III THREE-DIVER RECHARGEABLE PORTABLE COMMUNICATOR WITH OUTDOOR AC POWER MODULE AND INTERNATIONAL LOCKING POWER CORD



#### 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:

- Separate channels and volume controls for each diver and tender to accommodate individual earphone and microphone adjustments, equipment variations and individual comfort levels.
- Divers' umbilicals can be set to 4-wire mode (full duplex) or 2-wire mode (push-to-talk) or any combination of the two modes for any diver.
- Ability to use both dynamic and pre-amplified diver microphones with a unique circuit that detects microphone type and automatically adjusts volume levels.
- Weatherproof push-to-talk microphone for better voice intelligibility topside. For optimum clarity, see Tech Note (below) for other recommended equipment.
- 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.

## SY-2830A-11 AMCOM III THREE-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: 41 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: 17.05 Lbs. (7.73 Kg)

### INCLUDED WITH COMMUNICATOR:

SY-2830A-11 AMCOM III Two-Diver Rechargeable Basic Portable Communicator with Outdoor Power Module and International Locking Power Cord includes:

- (1) SY-2405-28 Amron Hand-Held Push-to-Talk Microphone
- (1) SY-2890-05 Amron 12 VDC Sealed Lead Acid Gel-Cell Rechargeable Battery with Slide terminals
- (1) SY-283XA-UM Amron Three-Diver Portable Communicator User Manual

### AVAILABLE OPTIONS:

- SY-2460SM-28 Amron Single Muff Operator Headset with Boom Mic and Dual Banana Plugs
- SY-2401-28 Amron Deluxe 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, use the 2405-28 Push-to-Talk Microphone, included with this model. For optimum communications, we recommend purchasing the 2401-28 Deluxe Headset with Boom Mic, topside. For tender mobility, 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 2830A-03 Three-Diver Deluxe Portable Communicator with Wireless Tender.



# SYNERGY SURFACE DIVING HOSES AND UMBILICALS SY-AQUAFLOW



Diving Umbilical with protective outer sheet



Diving Umbilical with spiral wrap



Diving Umbilical without protective outer sheet

## 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)              |



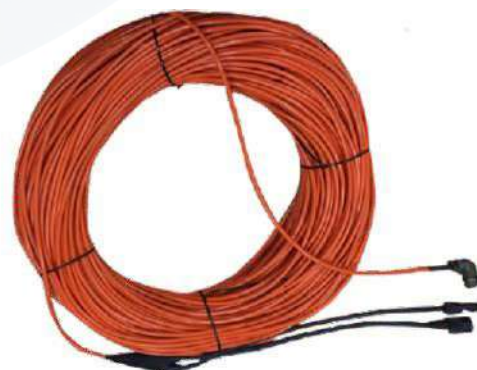
**PART NO : SY-UWC-325/p/e**



**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-3-FS**



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**

|                       |                           |
|-----------------------|---------------------------|
| <b>Certifications</b> | 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  
 Inspection System  
 Third Party Inspection Report

Inspection Report No: **IR-ALC1-2024-08** Revision No: **01**  
 DV Job No (incl ref): **2024/21-203** Project: **THIRD PARTY INSPECTION SERVICE**  
 DV Ref (DV Internal Proj): **01** DV Client: **SYNERGY INNOVATIVE EQUIPMENT TRADING**  
 DV Ref Client to DV: **NA** Manufacturer / Vendor: **SYNERGY INNOVATIVE EQUIPMENT TRADING**  
 DV Ref Client to Manufacturer: **NA** Sub-Product: **NA**  
 Inspection Location: **SYNERGY INNOVATIVE EQUIPMENT TRADING, AL-DUBAI, U.A.E.** Inspection Performed on: **06/02/2024**  
 Inspection performed on: **06/02/2024** Total number of days inspection performed: **1**

**MATERIAL SUBJECT OF INSPECTION**

| Description                             | Item Tag/Ref         | Quantity by vendor | Quantity checked by inspector |
|---|----------------------|--------------------|-------------------------------|
| Three (3) Panel Pressure test cylinders | Item No: 02218 - 022 | 100                | 100                           |

**A - INSPECTION RESULT**

Satisfactory (as defined)  Satisfactory with comments (any work to be done is clearly defined)  Not Satisfactory (clearly defined)  Not Satisfactory (clearly defined) (Minor)

**Inspection Summary:**  
 Witness of compliance for cylinders as of three (3) out of three (3) cylinders (02218/02219 & 02220) Pressure tested at 200 bar. 100% A/C and 100% hydro tested.

**Open Item Comments:** No. defects by section II:  Nil  
 Open Puncture Leaks (Section II):  Nil  
 Open Puncture Leaks (Section II):  Nil  
 Pressure Test Issues:  Nil  
 DV Transferability:  Yes

Industry & Facilities Division  
 Inspection System  
 Third Party Inspection Report

On behalf of Synergy Vehicle  
 DV Coordinator: **Sherwin Palli**

DV Office Code: **01**  
 DV Office: **SYNERGY INNOVATIVE EQUIPMENT TRADING**  
 Inspection Report Date: **06/02/2024**  
 DV Office: **NA**  
 DV Office: **NA**  
 DV Office: **NA**

**B - REFERENCE DOCUMENTATION**

| Title                       | Reference No. | Revision | Approved Status  | Approved By | Date       |
|-----------------------------|---------------|----------|------------------|-------------|------------|
| Design/Supplier/Inspection  | 02218/022     | 01       | Approved in File | Sherwin     | 06/02/2024 |
| Pressure Test Pressure Test | 02218/022/022 | 01       | Approved in File | Sherwin     | 06/02/2024 |

**C - ATTACHMENTS**

| File Name          | Location             | Accessing  | Status     | Access     |
|--------------------|----------------------|------------|------------|------------|
| 01 - Puncture Test | Pressure Test Report | 06/02/2024 | 06/02/2024 | 06/02/2024 |
| 02 - Pressure Test | Pressure Test        | 06/02/2024 | 06/02/2024 | 06/02/2024 |

**D - MEASURING & TESTING EQUIPMENT USED**

| Equipment Used | Equipment Model No | Lot/Serial Number | Expiry Date |
|----------------|--------------------|-------------------|-------------|
| Pressure Gauge | 02218/022          | 01/01/2024        | 01/01/2024  |

Industry & Facilities Division  
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 Third Party Inspection Report

**E - INSPECTION DETAILS**

**E1 - Details of Witness (A) & Note (H) Inspection Points**

Witness of compliance for cylinders as of three (3) out of three (3) cylinders (02218/02219 & 02220) Pressure tested at 200 bar. 100% A/C and 100% hydro tested.

**E2 - Details of Monitoring and Surveillance Points**

NA

**E3 - Details of Certificate Review**

Pressure gauge calibration certificate reviewed.

Industry & Facilities Division  
 Inspection System  
 Third Party Inspection Report

**F - HEALTH, SAFETY & ENVIRONMENT COMMENTS**

Inspection on: **06/02/2024**

**2. HAZARDS for my safety**

**Hazards**

| Is the equipment safety tagged?   | Yes/No/NA |
|---|-----------|
| Is the permit to work, tag, and/or lockout in place?                                      | Yes       |
| Are tools and equipment in good condition and tagged?                                     | Yes       |
| Is my work environment, i.e. all necessary equipment (scaffolding, ladders, etc.) tagged? | Yes       |
| Is the working area free from any other work or activities?                               | Yes       |
| Is the equipment being worked on the best in place?                                       | Yes       |
| Are workers aware of any potential hazards in the work area?                              | Yes       |
| Have I communicated with the other groups about their activities?                         | Yes       |

**Personal Health**

| Are I fit for this work?  | Yes/No/NA |
|---|-----------|
| Are I fit for this work?  | Yes       |
| Is the task considered heavy lifting, and I accepted to manage the factors? | Yes       |

**Conditions**

| Weather conditions: conditions are a factor on this job, are there measures in place to manage it? | Yes/No/NA |
|--|-----------|
| Weather conditions: conditions are a factor on this job, are there measures in place to manage it? | Yes       |
| Are I familiar with the equipment to be used?  | Yes       |

Industry & Facilities Division  
 Inspection System  
 Third Party Inspection Report

**G - NON COMPONENTS**

| Item | Category | Description | Notes | Inspected On | Inspected By | Approved On | Approved By | Comments |
|------|----------|-------------|-------|--------------|--------------|-------------|-------------|----------|
|      |          |             |       |              |              |             |             |          |

**H - PUNCH LIST**

| Item | Ref | Category | Description | Status | Inspected On | Inspected By | Approved On | Approved By | Comments |
|------|-----|----------|-------------|--------|--------------|--------------|-------------|-------------|----------|
|      |     |          |             |        |              |              |             |             |          |

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 Inspection System  
 Third Party Inspection Report

**I - DIGITAL PICTURES**

02218/022 - pressure gauge ready  
 02218/022 - pressure gauge ready  
 02218/022 - pressure gauge ready

**J - ATTACHMENTS**

| File Name | Description (Attachment Name) | Inspection | File # Pages |
|-----------|-------------------------------|------------|--------------|
|           |                               |            |              |

| Certifications             | Provided with each panel                   |
|----------------------------|--|
| Manufacturer International | Synergy certification<br>IMCA D040         |
| Class                      | Bureau Veritas pressure test certificates  |
| Warranty                   | 1 year international manufacturer warranty |
| Weight                     | 64 kg                                      |

## THREE DIVER PORTABLE PANEL WITH THREE DIVER RADIO AND TWO DIVER CCTV #SY-3DAP-D040-R-2DV

### ORDERING INFORMATION

| Sr. | Part Number           | Description  |
|-----|-----------------------|--|
| 1   | SY-3DAP-D040-R-2DV-SF | Portable three diver panel, offshore, imca with radio and diver 1 and diver 2 cctv, side inlet and outlet fittings |
| 2   | SY-3DAP-D040-R-2DV-BF | Portable three diver panel, offshore, imca with radio and diver 1 and diver 2 cctv, back inlet and outlet fittings |


| Sr. | Part Number              | Description  |
|-----|--------------------------|--|
| 1   | SY-2830A-11              | Amcom iii three-diver rechargeable basic portable communicator   |
| 2   | SY-UDA-0204              | 4 core Umbilical air/gas, pneumo, communication and video cables   |
| 3   | SY-UDA-0103              | 3 core Umbilical air/gas, pneumo, communication  |
| 4   | SY-ORANGESHEATH          | Full braided protective outer sheath (for complete protection of umbilicals)   |
| 5   | SY-SPIRAL WRAP           | Spiral wrap (in 10 mtr lengths) (for umbilical protection)   |
|     | <b>Fittings as below</b> |  |
| 6   | SY-386-PB-AIR            | 3/8"x 6 jic phosphor bronze reusable umbilical air/gas hose end fitting  |
| 7   | SY-144-PB-PNEUMO         | 1/4" x 4 jic phosphor bronze reusable umbilical pneumo end fitting   |
| 8   | SY-RMG-3-FS              | Marsh marine, 3 pin, Female, 18"   |
| 9   | SY-BANPLUGS-TWIN         | Twin banana plugs surface communication end fitting (Red/Black)  |
| 10  | SY-RMK-5-FS              | Marsh marine, 5 pin, female, 18"   |
| 11  | SY-K-FLS-D               | Locking sleeve, delrin , for RMK-5-FS  |
| 12  | SY-RMG-3-FS              | Marsh mkarine, 3 pin, female, 18"  |
| 13  | SY-G-FLS-D               | Locking sleeve, delrin, for RMG-3-FS   |
| 14  | 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






**THREE DIVER PORTABLE PANEL WITH THREE DIVER RADIO AND TWO DIVER CCTV**  
**#SY-3DAP-D040-R-2DV**

# Contact us

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