



Installation/User's Guide

Guide de l'Utilisateur

Installations- /Gebrauchsanleitung

SmartDock®

Hands-free SCBA Holder by IMMI

For International Markets

U.S. Patent No.
7,922,246

Patent Pending

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General Information

SmartDock is a hands-free self-contained breathing apparatus (SCBA) holder for fire apparatus. In the event of a collision, the top claws lock from inertial forces for a secure hold.

The unique feature of the SmartDock hands-free SCBA holder is that it removes the need for the firefighter to perform any extra latching, buckling or strapping action when placing the bottle in the bracket, or for removal.

Once installed per these instructions, the SmartDock is designed to meet EN1846-2 and NFPA 1901 requirements without any extra action by the firefighter, other than properly placing the bottle into the bracket.

The SmartDock uses inertia to keep the claws locked during deceleration. This inertial action ensures that the SmartDock system will hold an SCBA bottle during an impact caused by a crash.

Short of bolting the SCBA bottle to the structure of the cab, there is no way to guarantee the bottle will always be retained if the crash is sufficiently severe. The SmartDock bracket has been tested to meet EN1846-2 and NFPA 1901 requirements during a frontal crash. This capability provides the optimum combination of convenience and strength, keeping the bottle retained beyond European and NFPA requirements and eliminating the risk that a firefighter will forget to engage the strap or the latch. For these reasons, we believe SmartDock provides the safest solution to in-cab SCBA storage available today.

Please use the link below to find alternate translations of these installation instructions: imminet.com/fire-and-ems-vehicles/smartdock. For additional translation requests, please email info@imminet.com or call +44 1670 501 950 .

Veuillez utiliser le lien ci-dessous pour trouver des traductions alternatives de ces instructions d'installation : imminet.com/fire-and-ems-vehicles/smartdock. Pour toute demande de traduction supplémentaire, envoyez un email à info@imminet.com ou appelez le +44 1670 501 950 .

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WARNING

Failure to follow these warnings may result in serious injury or death.

- Read all SmartDock Installation / User's Guide instructions before installing or using SmartDock.
- SmartDock is to be used for Self Contained Breathing Apparatus (SCBA) storage only.
- Only install SmartDocks into approved seats.
- Keep air pack harness loose when seated and belted. Bottle may not stay in holder during a crash if the user has the harness strapped on tightly.
- Ensure proper fit of SCBA in SmartDock claws.
- Ride only with SCBA installed in seat.
- Always wear seat belt – SCBA harness is not designed to hold firefighter in a crash.
- Use only with SCBA bottle and air pack weighing less than 15.75 kg.

- **Adjust to fit before use**

The SmartDock SCBA holder must be adjusted to fit the SCBA bottle to be stored in it. Storing any SCBA bottle and pack that does not fit properly is dangerous as it may not be retained during a crash.

- **Top Claw Grip/Adjustment**

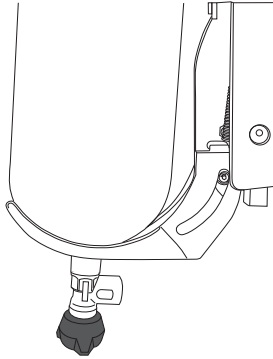
The claws grip the bottle during a crash. The top claw assembly must be adjusted vertically so it grips the bottle where air pack harnesses, hoses or other obstructions do not prevent the claws from closing properly. Do not store any bottle and air pack if the claws cannot be adjusted to be clear of obstructions.

Never modify the SmartDock or adjust the claws outside of the range provided.

- Air packs must be maintained in good condition and kept clean. Storing dirty, oily or damaged bottles may affect the ability of the SmartDock to hold the bottle. The SmartDock must be kept clean. Make sure the claws are kept clean and oil free. To clean the SmartDock, use only warm water and mild detergent.
- Use only furnished grade 10.9 (ASTM F568M/ISO898) fasteners to attach the SmartDock unit to vehicle structure or seat brackets.

Bottom Claw

During a crash, the air pack is held in place by the top and bottom claws. The bottom claw is the receptacle into which the bottle must fit (see drawing below).



⚠ WARNING

Failure to install, maintain and use SmartDock in accordance with the instructions in this Installation /User's Guide and those provided by the Vehicle Manufacturer can result in serious injury or death.

Standards Reference:

NFPA-1901, 2009 Edition, *Standard for Automotive Fire Apparatus*

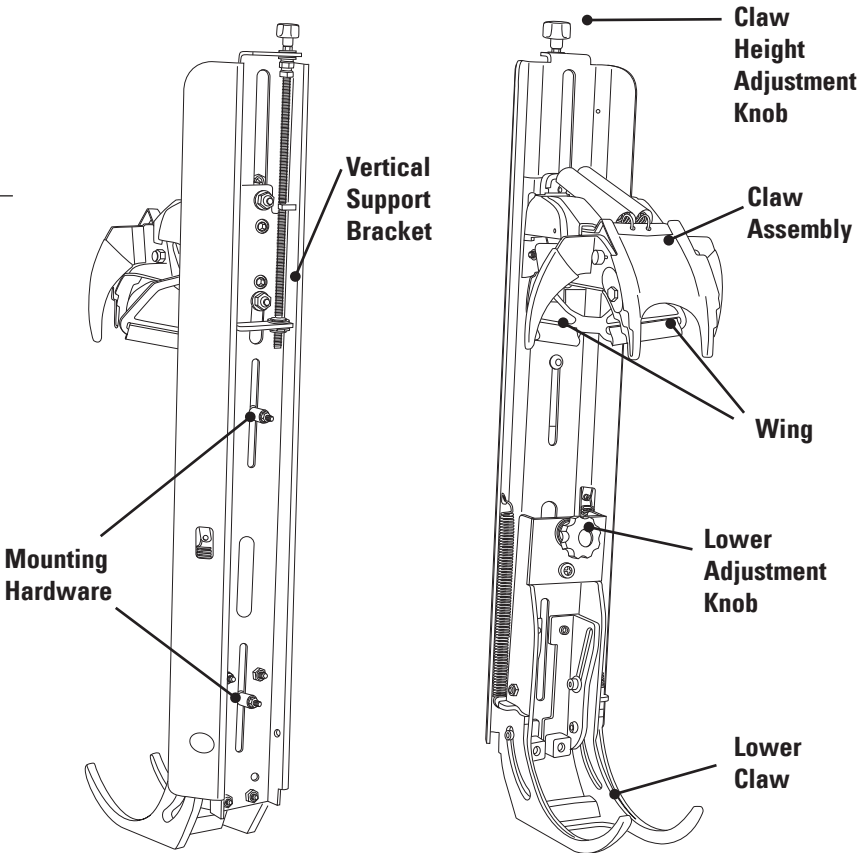
EN1846-2, *Firefighting and Rescue Service Vehicles*

**Users must read and follow these instructions.
They are written to comply with NFPA and European guidelines.**

Tool List

- T45 Torx Plus driver
- 13 mm sockets (2)
- Torque wrench capable of reading from 8 to 30 ft*lbs (10 to 40 N-m)

SmartDock Parts

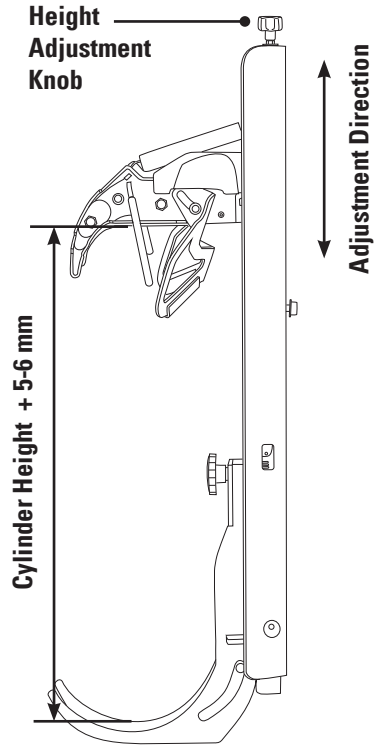


SmartDock Initial Set-Up and Adjustment

Step 1. Raise SmartDock "Head"

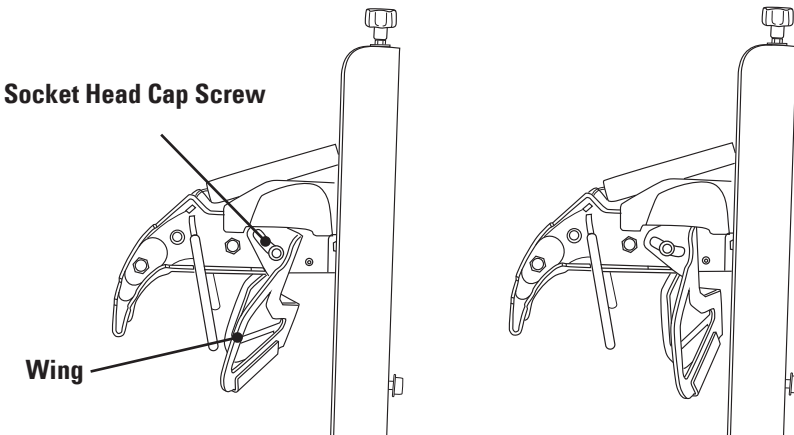
Before installing the cylinder into the SmartDock for the first time, verify that the SmartDock head is at least as high or slightly higher than the length of the SCBA bottle as measured from the rounded bottom to the rounded top of the cylinder. Use caution when working with the SmartDock head to avoid pinch points.

Note: Turning the height adjustment knob clockwise raises the head and counter-clockwise lowers the head.



Step 2. Adjust "Wing"

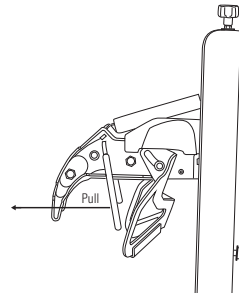
Using a T45 Torx Plus key, loosen the socket head cap screws on both sides that hold the wing adjustment and adjust the wing to its most rearward position. It is only necessary to loosen the button head cap screws about 1/4 turn.



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Step 3. Open the SmartDock

Grasp the yellow side of the "claw" on the SmartDock head and pull it out while rotating it up. The mechanism will be staged in its open position.



Step 4. Lower Adjustment Knob

For 9 L bottles, leave the lower adjustment knob in the as-shipped position (fully seated against the lower claw).

For 6.8 L bottles, adjust knob out approximately 25mm (1").

For all other sizes, adjust the knob in or out as required to fully seat the lower claw.

⚠ CAUTION

SmartDock claw assembly uses high spring force to open and close. Use caution and avoid potential pinch points when operating claw assembly manually.

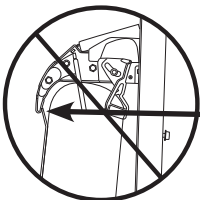
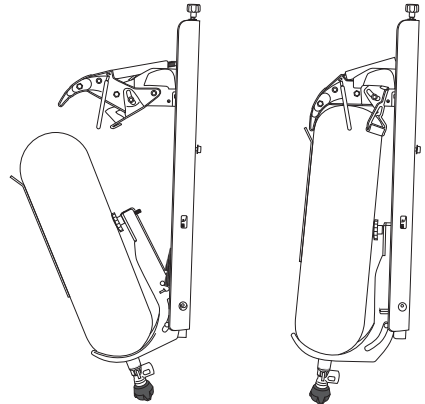
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Step 5. Insert Cylinder into SmartDock

You are now ready to insert the SCBA cylinder into the SmartDock and complete the initial adjustment procedure.

- Place SCBA cylinder valve into SmartDock lower claw.
- Push the top of the SCBA cylinder into the open SmartDock head, which will automatically close once inserted far enough.

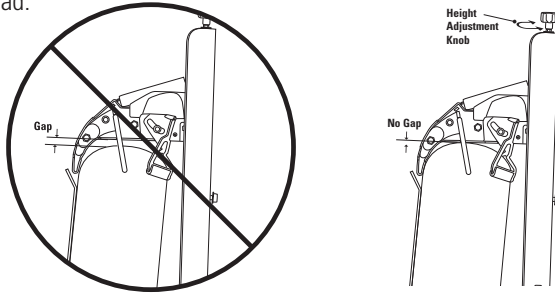
Note: Insertion will become easier after final adjustments have been made.



Note: No part of the SCBA pack (frame, hoses, etc.) should be inside the claw.

Step 6. Adjust Head Height

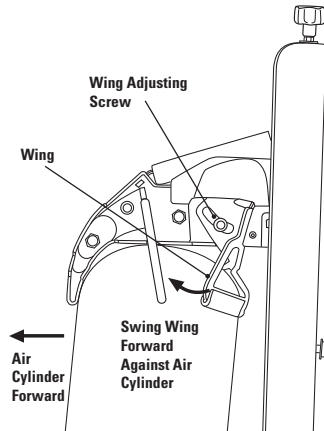
During normal operation, the SmartDock head should just touch the top of the SCBA air cylinder. Adjust the head height by turning the height adjustment knob counterclockwise to lower the head until the gap between the top of the SCBA air cylinder and the bottom of the SmartDock head is eliminated. The top of the SCBA air cylinder should be just touching the bottom of the SmartDock head.



Step 7. Final "Wing" Adjustment

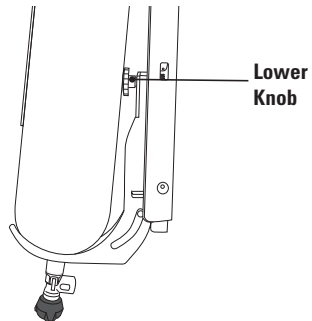
The SmartDock "wing" holds the SCBA air cylinder in the proper orientation and helps close the head when inserting the SCBA air cylinder into the SmartDock. The head will not properly close if the wing is improperly adjusted.

Holding the SCBA air cylinder forward against the two front claws, loosen the two wing adjusting screws, swing the wing forward until it touches the SCBA air cylinder, and then tighten the wing adjusting screws to 30 N-m.



Step 8. Final Lower Knob Adjustment

With the bottle in the SmartDock, the lower adjustment knob should contact the bottle and force it to the front of lower claws.



Installing the SmartDock Into the Seat

The SmartDock ships with pre-installed mounting bolts, spacers, and locking nuts for seat installation. The SmartDock uses the existing SCBA holder mounting brackets that are supplied with SCBA compatible seats. **Only install SmartDocks into approved seats.**

1. After removing the locknuts, place the SmartDock in the seat and check the position of the pre-installed mounting bolts and spacers. If the pre-installed hardware does not line up with the existing mounting holes, the upper and lower bolts may be shifted in their respective mounting slots.
2. Align the mounting bolts with the desired holes in the seat and secure them to the seat using the supplied 8mm threaded locking nuts. Using 13mm sockets, torque all fasteners to 27 N-m.

Mounting the SmartDock to the Vehicle

10 The SmartDock is supplied with pre-installed bolts and spacers for mounting directly to the vehicle structure. Use only the supplied hardware.

1. Place the SmartDock in the desired location.
2. Remove and discard the nuts that are installed on the SmartDock mounting bolts.
3. Align the two pre-installed 8mm threaded mounting bolts with the threaded anchor points on the vehicle.
4. Using a 13mm socket, tighten mounting bolts to 27 N-m.

Normal Usage Adjustment

During normal use, the SmartDock head must be raised or lowered to properly fit the SCBA and ensure the safe functioning of the system. This is due to small differences in SCBA air cylinder length that can affect the fit of individual SCBA air cylinders and the SmartDock.

- If the head is too high, the SCBA air cylinder will seem loose in the SmartDock, as the head will not be touching the top of the SCBA air cylinder. If severely out of adjustment, the claw may seem like it stays open too long, and it may be difficult to keep the pack, hoses and straps out during the insertion of the SCBA.
- If the head is too low, the SCBA air cylinder will be difficult to insert and the SmartDock head will require some force to completely close instead of drawing the air cylinder in automatically. In some severe cases, the head may not close at all.

To lower the SmartDock head, turn the height adjustment knob **counterclockwise** as if you were trying to “unscrew” the knob.

To raise the SmartDock head, turn the height adjustment knob **clockwise** as if you were trying to “tighten” the knob.

When tilting the cab for maintenance, it is recommended to remove SCBA packs from the SmartDock.

SmartDock Use

Use the following steps to safely ride in the seat when traveling to a fire:

(Note: You should only ride with the SCBA installed in the seat.)

1. Wear air pack that is stored in the seat back.
2. Leave the SCBA pack harness loose until you exit the seat.
3. Buckle seat belt.
4. Do not unbuckle seat belt until the vehicle has come to a stop, the parking brake is engaged and the officer indicates it is safe to exit the cab.
5. Exit the seat by bending forward to release the SmartDock and then tighten the pack harness straps.

Maintenance

The SmartDock needs to be kept clean. Make sure the claws are kept clean and oil free. Check the claws periodically to make sure they freely open and snap shut. To clean the SmartDock, use only warm water and mild detergent. Never lubricate.

Following any accident, the SmartDock should be thoroughly inspected for any compromised components.

Air packs must be maintained in good condition and kept clean. Storing dirty, oily or damaged bottles may affect the ability of the SmartDock to hold the bottle.

For additional information, visit imminet.com/fire-and-ems-vehicles/smartdock/.



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