



Overboard Rescue System for Commercial and Recreational Vessels

Owner's Manual

- Provide Flotation
- Make Contact
- Hoist Aboard



Approval Limitations

This Type V device is designed and tested to the same standard as a Type IV Throwable Device except for the throwing requirement. Because it is designed to be a part of a system for recovering persons overboard, it has the approval limitation that it can only substitute for a Type IV PFD with the following restrictions:

- Sailboats must be greater than 20' in length
- Power vessels must have an attachment point at least 10' above deck
- Lifesling3 must be used in accordance with the owner's manual provided

Meaning of Special Approval

Special approvals are granted by the U.S. Coast Guard for PFDs which do not meet the requirements for approval under Type I through IV categories but which offer other significant safety features. This device permits a single person to recover another person who has fallen overboard.

This device is part of the Lifesling Overboard Rescue System. Practical knowledge of the system's use is essential before an emergency requires its use.

This Owner's Manual must be maintained on board the vessel carrying Lifesling3.

USCG Approval No. 160.050/152/1 (Commercial/Recreational)



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Crew Overboard



Deploy



Retrieve



Hoist Aboard

Practice training with Lifesling3 is essential if it is to perform successfully during a crew overboard emergency.

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Use of the Lifesling3

The Lifesling3 is a flotation device intended to assist in the rescue of crew overboard (COB) on a variety of vessels. It combines a flexible flotation collar, a floating retrieval line, and fiberglass storage case. It differs from traditional Type IV Throwable Devices in that it remains connected to the vessel, and thus can be pulled back to the vessel and redeployed. It can also be used to hoist the COB onboard using some form of mechanical advantage (block and tackle, powerblock, or winch).

Recovery Steps

1. Contact the COB (Fig. 1)

Immediately after the COB (crew overboard) goes in the water, shout “MAN OVERBOARD” and stop the vessel or execute your pre-planned maneuver to get back to the COB. A crewmember should be designated as a “spotter” to point in the direction of the COB at all times. Carefully approach the COB, keeping him on the leeward side and heave the Lifesling3 to him.

2. Towing the Lifesling3 (Fig. 2)

If contact with the COB is not made, either recover the Lifesling3 and throw again, or circle the COB with the vessel while trailing the Lifesling3 astern. After 1-2 circles, the line and sling should be drawn into the center of the circle so the COB can grasp it.

Care must be taken not to run over the trailing line. Use of a water-activated Hemilight during a night or foggy rescue is recommended. A Hemilight aids the rescuer in seeing the line in the dark or fog. See page 11.

3. Secure to the COB (Fig.3)

As soon as the COB has the Lifesling3 line or the sling itself, stop the vessel (powerboats stop engines; sailboats go head to wind and drop sails). The COB places the Lifesling3 over his head and under his arms and snaps the buckle. The strain on the retrieval line will also cause the sling to close around the COB. The Lifesling3’s 21# of buoyancy will support the COB. Do not tow the COB as this could cause him to be pulled under water. **Remember that the propeller presents a constant danger to the COB as long as it is turning.**



Fig. 1
“MAN OVERBOARD”

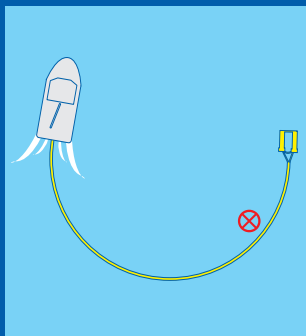


Fig. 2
Circle COB



Fig. 3
COB fastens Lifesling3

4. Pull the COB alongside (Fig. 4)

The COB may be more comfortable by rotating the Lifesling3 and floating on his or her back, but once alongside, make sure he is facing the retrieval line. Maintain tension on the retrieval line so he will not slip out, and to reduce his immersion in the water and therefore his heat loss to the water.

5. Reboard the COB (Fig. 5)

In calm waters, a swim step, stern ladder or side ladder may be used to reboard the COB. In rougher conditions, these devices may pose a hazard to the COB, and it may be safer to hoist the COB onboard using the retrieval line and sling. Secure the COB safely from drowning danger while preparing to hoist COB aboard.

Rig a hoisting tackle or other mechanical lifting device with the lifting point at least 10' off the deck of the boat, so the COB can be hoisted high enough to clear the rail. Attach one end of the tackle to the retrieval line loop that runs through the D-rings of the Lifesling3 (or through the two D-rings if the lifting point is not quite high enough.) Pull the tail of the tackle and hoist the COB onboard.

6. If you cannot get the COB onboard... (Fig. 6)

Radio or signal other vessels or the Coast Guard for help. Remember, once the person is alongside, you will not lose them and there is time to summon help.

Keys for effective rescues:

1. Minimize the distance traveled away from the COB; keep him in sight!
2. Insure that two crewmembers are familiar with the Lifesling retrieval technique
3. Follow and practice the recommended techniques to insure proficiency.



Fig. 4
Pull COB to boat



Fig. 5
Hoist COB



Fig. 6
Call for help

Commercial Vessels

Additional Instructions

For large vessels, two methods are commonly used for maneuvering back to the COB:

1. Anderson Turn (Fig. 7)

- A. Put the rudder over full in the direction of the person in the water; i.e., if the person fell overboard to port, put the helm hardover to port. Stop the engine.
- B. When clear of the COB, go ahead full using full rudder.
- C. When about two-thirds of the way around, back the engine down to two-thirds of full throttle. Stop the engine when the person is 15 degrees off the bow. Ease rudder and back engine down as required.
- D. Bring vessel upwind of COB and stop vessel with COB amidships, clear of propellers.

2. Williamson Turn (Fig. 8)

- A. Put the rudder hardover in the same direction as the COB; i.e., if the person fell overboard to starboard, put the helm hardover to starboard.
- B. When heading is about 60 degrees beyond the original course, reverse the helm to the opposite direction.
- C. Continue the turn until 180 degrees from the original course.
- D. Bring the vessel back to the COB, on the upwind side, forward of the propellers.

Hoisting Methods (Fig. 9)

Commercial vessels may have powered hoisting means such as powerblocks, electric or hydraulic winches, electric davits, etc. Insure that the hoisting point is 10' off the deck. Boats with a superstructure may be able to rig lifting tackle or come-along to hoist COB aboard. For manual lifting, we recommend 3:1 or 5:1 tackle with 3/8" line. See page 10 for lifting tackle packages.

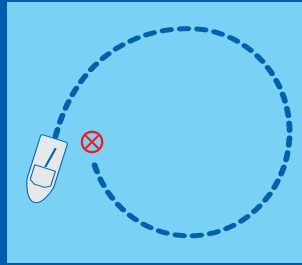


Fig. 7
Anderson turn

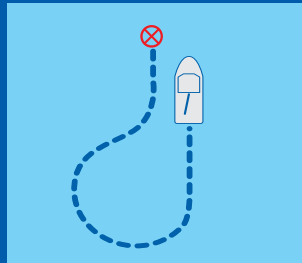


Fig. 8
Williamson turn



Fig. 9
Hoisting aboard

Recreational Powerboats

Additional Instructions

It is extremely important to always be aware of the inherent danger of your boat's propeller(s) when approaching the Crew Overboard. When the COB is attached to the Lifesling3, turn off your engine(s) before pulling the COB alongside the boat. If your boat is in danger of drifting into shore or other boats, you might consider dropping anchor before pulling the COB to the boat.

Depending on the design of the boat, there are several methods to consider when reboarding the COB.

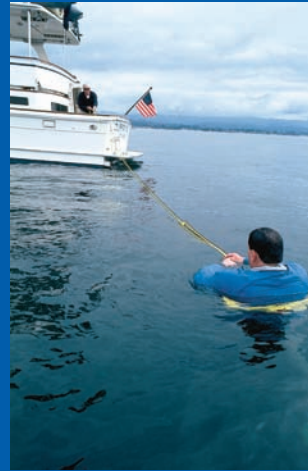
In calm conditions, swim steps and/or ladders may be used. As sea conditions deteriorate, both devices may injure the COB due to wave action. If other crewmembers assist the COB from the swimstep, insure that they wear flotation and are secured to the vessel with a harness or line.

The Lifesling3 is intended to lift the COB on board in rough conditions using some form of technical advantage (supplied by the user.)

Boats with a flybridge or strong tower can use lifting tackle to hoist the COB aboard. Experience indicates that a 5:1 tackle with a cam cleat, and 3/8" line is a good choice. The lifting point should be at least 10' above the deck so the COB can clear the railing.

Larger yachts may have power-assisted davits or other mechanical means to help in hoisting.

For more information on hoisting methods, see page 10.



Sailboats

Additional Instructions

Crew Overboard maneuvers, whether upwind or downwind, require practice and an understanding of how to sail. Experience has shown that improvised maneuvers have a lower chance of success, and that a modest amount of practice on your boat will greatly enhance your ability to consistently and quickly retrieve your COB.

QuickStop Maneuver

1. Shout “MAN OVERBOARD!,” turn the boat into the wind to reduce speed, and throw the Lifesling. (Fig. 10)
2. Continue sailing through the eye of the wind but do not release the jib sheet. Allow the sail to backwind. (Fig. 11)
3. Continue turning downwind without trimming sails. When the boat is downwind of the COB, continue the circle to draw the Lifesling3 line to the COB. If the COB does not get the line or the sling on the first pass, continue circling. (Fig. 12)
4. See instructions for hoisting COB on page 10.
5. **Before turning the engine on, watch for trailing lines that will foul the propeller.**

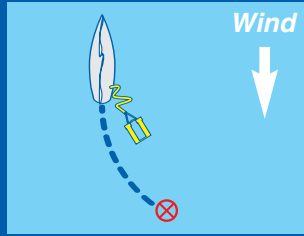


Fig. 10
“MAN OVERBOARD!”

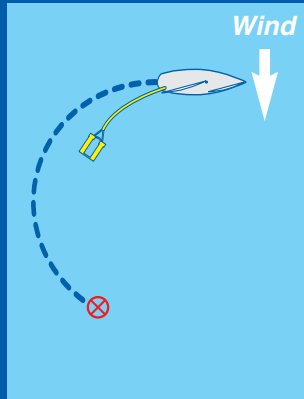


Fig. 11
Allow Jib to back.
Deploy Lifesling3.
Head to wind.

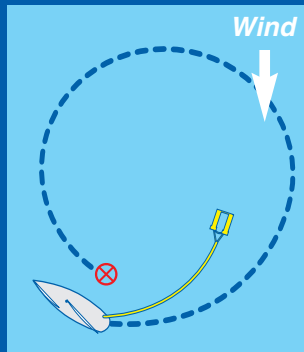


Fig. 12
Circle the COB.
Do not trim sails.

Sailboats

Additional Instructions

Deep Beam Reach Maneuver

1. Shout “MAN OVERBOARD!,” turn the boat to a broad reach (a.k.a. deep beam reach).
2. After two boat lengths, tack boat and reverse course sail upwind of victim, controlling speed with sail trim. (Fig. 13–15)

Other Maneuvers

1. Deploy Lifesling3 by either towing it past COB or throwing it to the COB.
2. If the boat is flying a spinnaker, round the boat up immediately to reduce the distance traveled away from the COB. When the boat nears head-to-wind, let the spinnaker halyard run free. Gather the spinnaker. Sheet in the mainsail and beat back to the COB or use an auxiliary engine.
3. If the boat is running with a whisker pole, let the genoa sheet run. Beat back to the COB, or, if need be, use an auxiliary engine.
4. Use of auxiliary power is generally discouraged, but may be necessary in light air, if the boat has no headsail up, or has little ability to go to weather.
5. See instructions for hoisting COB on page 10.
6. **Before turning the engine on, watch for trailing lines that will foul the propeller.**

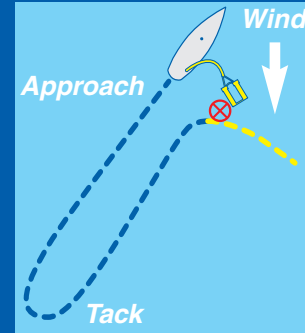


Fig. 13
Close-hauled

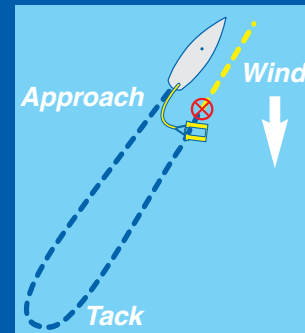


Fig. 14
Broad reach

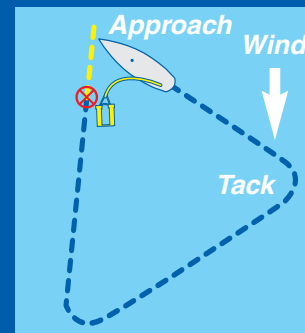


Fig. 15
Running

Hoisting Tackle Instructions

Lifesling3 is designed to lift the COB on board in rough conditions with the use of a variety of lifting devices which must be supplied by the user.

Storage: If you use a block and tackle, we recommend that you “two-block” and fake the line, bitter end first, into a small storage bag to reduce the chance of fouling and to ease the line running through the blocks. (Fig. 16)

Procedure: At dock, or even better, at sea, practice rigging the lifting tackle and know the proper leads. Improper handling can cause tangling and delay rescue.

1. Pull the COB to the boat and secure the retrieval line.
2. Grab the block and tackle and snap the bag onto the lifelines next to the COB.

For 3:1 Block and Tackle (#561100)

3. Open the sack and pull out the block with the carabiner and snap it to the loop that runs through the D-rings of the sling.
4. Secure the top block outside of the life lines or rails to any convenient halyard.
5. Hoist the top block at least 10 feet above the deck. The stuffed line should pull right out of the sack (Fig. 17).
6. Lead the tail of the hoisting line through the boat’s jib lead block or other fair-leading deck block to a winch.
7. After releasing the retrieval line from the boat, use the power of your winch plus the mechanical advantage of your 3:1 hoisting tackle to haul the COB aboard (Fig. 18).

For 5:1 Block and Tackle (# 595720)

- 3a. Open the sack and pull out two-blocks. Fasten the block with the cam cleat (top block) to a strong lifting point 6-10 feet off the deck (if to a halyard, hoist the block at least 10' above the deck).
- 4a. After releasing the rope from the cam cleat, pull the bottom block away from the two-block position, lead the bottom block outside the rails, and snap the block’s snap to the loop of the retrieval line of Lifesling3 or to the two D-rings of the sling.

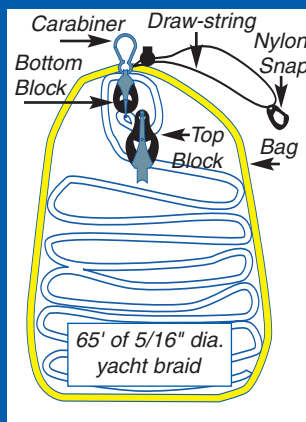


Fig. 16
Hoisting Tackle

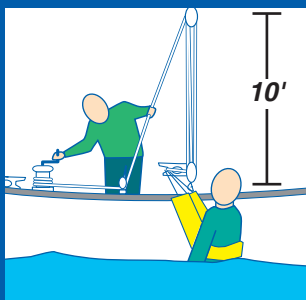


Fig. 17
Hoist top block



Fig. 18
Haul COB out of water

- 5a. Pull on the tail of the hoisting line, making sure the line is wedged in the cam cleat to prevent the COB from falling back into the water if your hands slip or let go. Hoist the COB aboard (Fig. 19).

Lifesling3 Repacking and Storage Instructions

Your Lifesling3 is like a parachute: it works only when you pack it right!

1. Your Lifesling3 has been packed so that it is ready for use. However, we strongly encourage you to remove the Lifesling3 and retrieval line so that you and your crew will understand how to repack the Lifesling3.
2. Repacking Lifesling3:
 - a. The nylon covered end of the line will remain outside of the case or bag.
 - b. Fake the line into the center container of the case beginning with the portion nearest the nylon covered end and finishing with Lifesling3.
 - c. Place Lifesling3 in the case with its bolsters on either side of the container of stuffed line.
 - i. Do not make the mistake of starting at the Lifesling end when faking the line into the storage case. (Fig. 20)
 - ii. Do not coil the line or it will jam in the container.
3. Make sure that the nylon covered end of the line is securely tied to a strong point on the boat. (Fig. 21)

Installation of Optional Water-activated Light

1. An ACR water-activated Hemilight (#7928302) can be snapped to the strap by the D-Ring as marked. Make sure the light is facing out, not in.

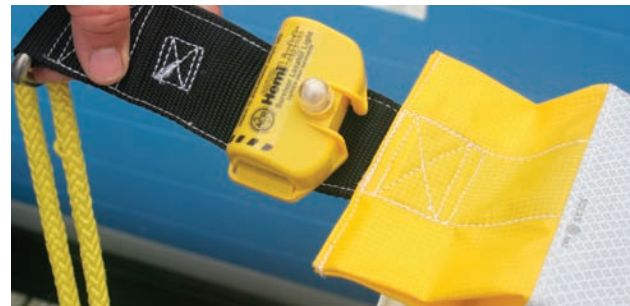


Fig. 19
Hoist COB aboard

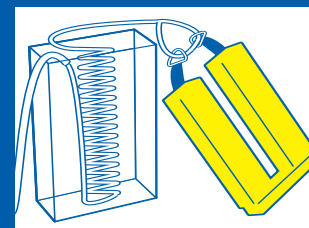


Fig. 20
Fake line into case



Fig. 21
Tie nylon covered end to a secure point.

Installing the Lifesling3

The Lifesling3 case is designed to be installed either on a rail or to a flat surface.

Rail Mounting

The Lifesling3 comes with three mounting brackets that can be used to attach the case in a variety of locations and configurations. (Fig. 22) Be sure to mount the Lifesling3 case in a location where it can be easily accessed in the event of a COB.

To mount the case on a 7/8" (22mm) rail, insert 7/8" spacer rings into the mounting brackets. To mount the case on a 1" (25mm) rail, remove the spacer rings from the mounting brackets. For 1 1/8" (29mm) to 1 1/4" (32mm) rails, see accessories list on page 14.

After determining the appropriate location and configuration for the Lifesling3 case on your vessel, drill two 3/16" holes on the back of the case for each mounting bracket used.

Fasten the case onto the rail using mounting brackets, screws, washers and nuts. Be certain that the screw heads and washers are mounted on the inside of the case to prevent line from snagging or Lifesling3 from tearing on mounting hardware. (Fig. 23)

Fig. 23

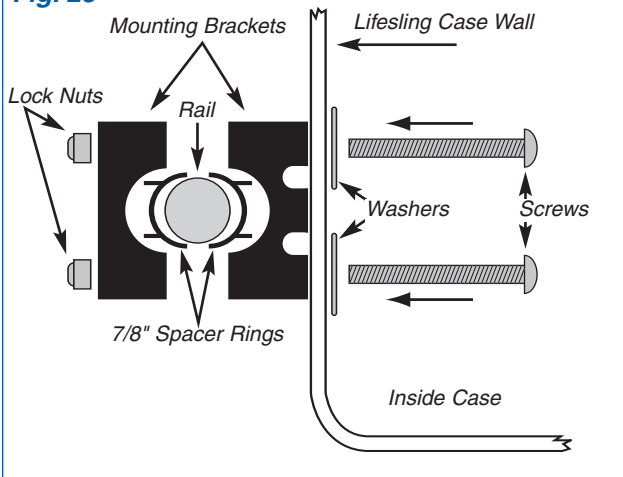
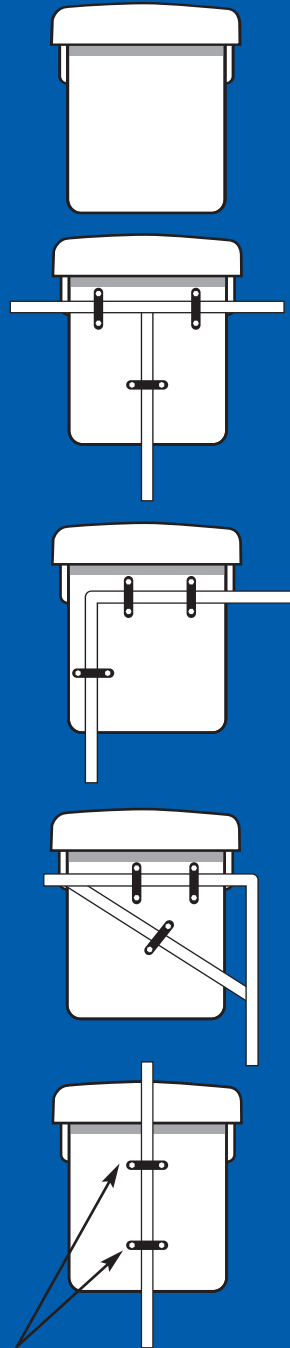


Fig. 22



Installing the Lifesling3

Flat Surface Mounting

1. Use the optional bulkhead mounting kit (#165326) listed under accessories on page 14.
2. Use bolts, nuts and fender washers, or screws and fender washers. Use thick nylon washers between the case and the flat surface as spacers.

Refer to individual mounting kits for instructions.

Note: Install Lifesling3 in an area where the opening of the top will not be obstructed.

Lifesling3 Retrieval Line

When installing Lifesling3, tie and seize the nylon-covered end of the polypropylene tether to any strong point on the boat. Lifesling3 may be useless if the end of the tether is not fastened to the boat. Do not remove the nylon cover. It is there to protect the polypropylene line from degradation from the sun. **Make sure that none of the yellow polypropylene line is exposed to the sun.**

If there is a need to undo the retrieval line loop that runs through the D-rings or webbing loops of Lifesling3, whether to adjust the size of the loop or to repair Lifesling3, be sure to permanently tape or seize the bow-line exactly as shown to prevent slipping when you re-tie it. (Fig. 24)

Caution: Maintain minimum loop size to accommodate largest person on board.

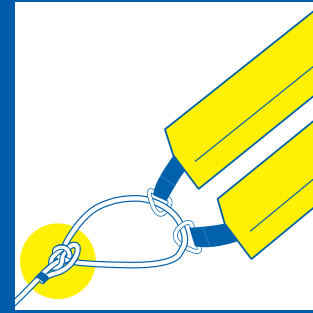


Fig. 24
Tape or seize bow-line



1. Retrieval line tail covered with a nylon sleeve for UV protection
2. Durable, UV-resistant fiberglass case with instruction decal
3. 2" SOLAS grade reflective tape increases visibility at night
4. Buoyant bolsters provide minimum 21 lb. flotation
5. D-rings provide easy entry and secure closure during rescues
- 6 150' of 3/8" polypropylene floating tether

United States Coast Guard Approved

Accessories:

	Model
Lifesling bulkhead mounting kit	165326
Permanent rail clamps for 1 1/8" (29mm) to 1 1/4" (32mm) rails	562272
Nylon removable rail clamps for 7/8" (22mm) rails	5142054
Nylon removable rail clamps for 1" (25mm) rails	5142070
Water-activated ACR Hemilight	7928302
Replacement fiberglass case only	7296957
3:1 hoisting tackle for sailboats	561100
5:1 hoisting tackle for powerboats	595720
Instruction decal	7939788

Hypothermia

Hypothermia or rapid cooling of the overboard victim accounts for many fatalities at sea, even in warm temperature climates. A decrease in body core temperature can occur quickly, resulting in confusion, lack of coordination, weakness, hallucination and coma – all complicating rescue efforts. Treatment of moderate hypothermia requires immediate measures:

1. Dry the victim thoroughly
2. Facilitate passive heat transfer from others' body heat
3. Pile blankets on the victim
4. Insist on immobility and warming long after the victim feels normal
5. Administer no liquids, stimulants, alcohol or hot foods
6. Assess the victim for injuries
7. Inform emergency facilities of the accident and the victim's condition: Evacuation and hospitalization of the victim may be advised



Legal Responsibility

The skipper is legally responsible for the safety of the people on his boat. Conditions differ and therefore these instructions should be taken as suggestions which cannot cover every circumstance.

Warranty

West Marine warrants that if used and store according to directions, it will be free from defects in material and workmanship for a period of twelve (12) months from the date of its retail sale. This warranty shall be limited to the repair and, as necessary, replacement of parts, and any necessary labor and services required to repair or replace any parts, necessary to render the device free of defects. The sole obligation of West Marine shall be the repair or replacement of Lifesling3 and under no circumstances shall West Marine, its agents, or successors, be liable for any direct, consequential or other damages arising out of any claimed defect in the device or the method of its use.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, WHETHER RELATING TO FITNESS, MECHANICALITY, OR OTHERWISE. Except as to the express warranty set forth, the manufacturer DISCLAIMS any and all warranties and representations relating to the product.