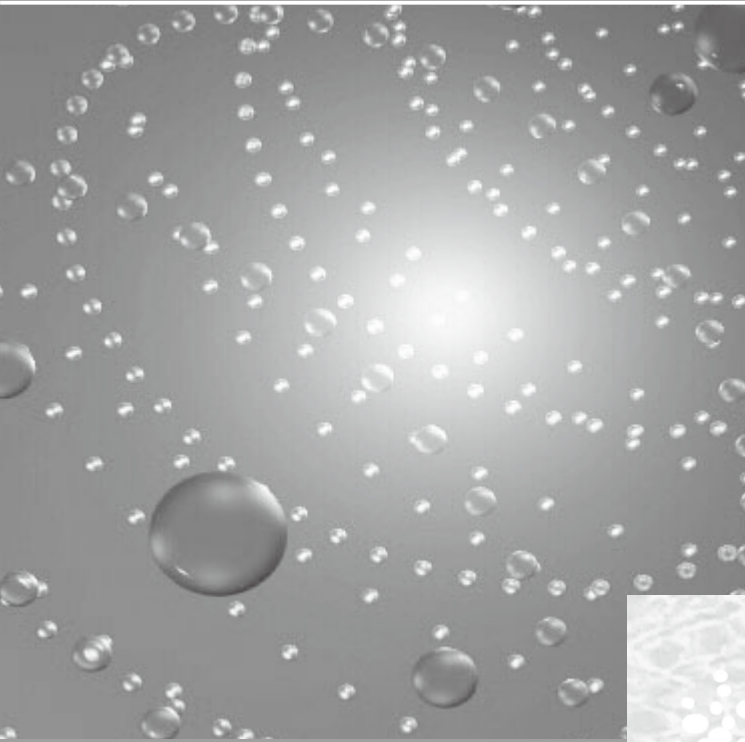


Diving Skills



●●●Diving Skills●●●

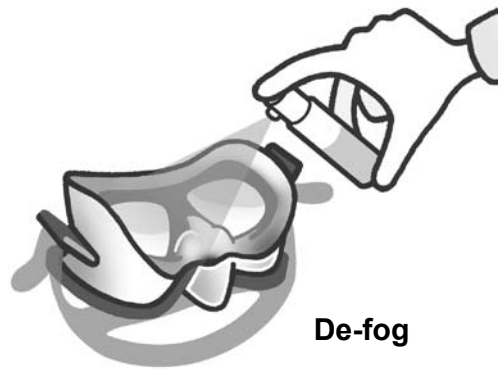
Before beginning your open water practical skills training, in a safe, shallow water area you should practice your skills. It is important to have self-confidence in your abilities before beginning open water practical skills training.



Donning Snorkel Set

[Mask]

First, we need to de-fog our mask. Then we need to tie up any loose hair so it doesn't enter the mask, breaking the seal. After fitting to the face, pull the straps around the back of the head and adjust the tension.



De-fog



Be Careful of Your Hair

[Fin]

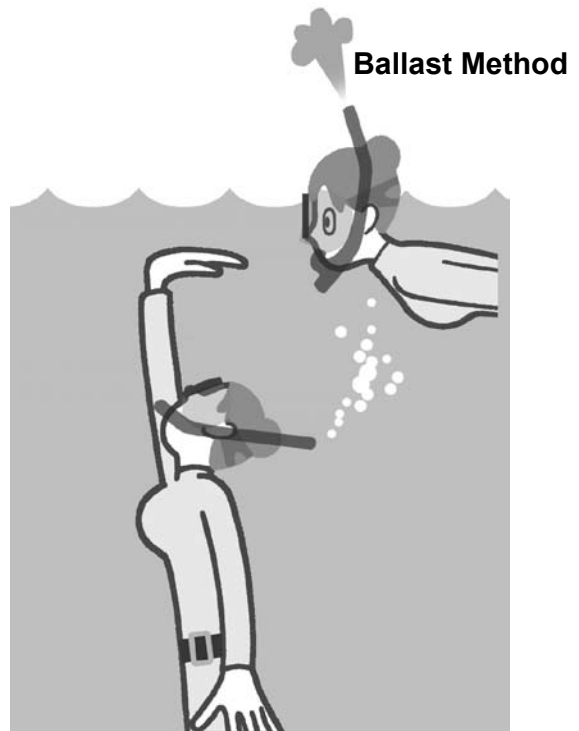
While your buddy helps support your balance, you hold one fin in which to place your foot while gripping the other empty fin. Once your foot is sufficiently in the pocket, pull tight the strap (of an open heel pocket fin). If you are using the full foot pocket type, carefully fold up the heel.



Cooperating With Your Buddy

Snorkel Clear

To clear your snorkel there is the ballast method and the displacement method. The ballast method involves inhaling a large breath at the surface and blowing strongly into the snorkel. The displacement method involves using the remaining air in the snorkel to blow out while keeping your head up. Either method will allow you to clear your snorkel easily.

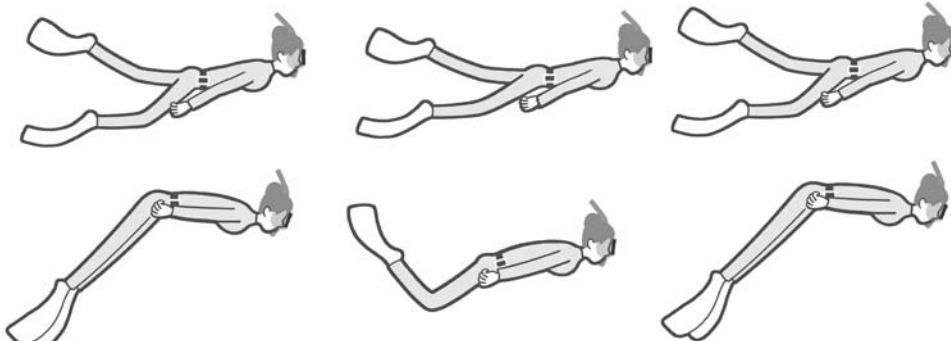


Displacement Method

Fin Work

While slightly bending the legs, we slowly and in a large cycle kick with our whole legs. With this method we can gain suitable propulsive power. The dolphin kick can be achieved by joining your legs together and moving them in unison, much as a dolphin does.

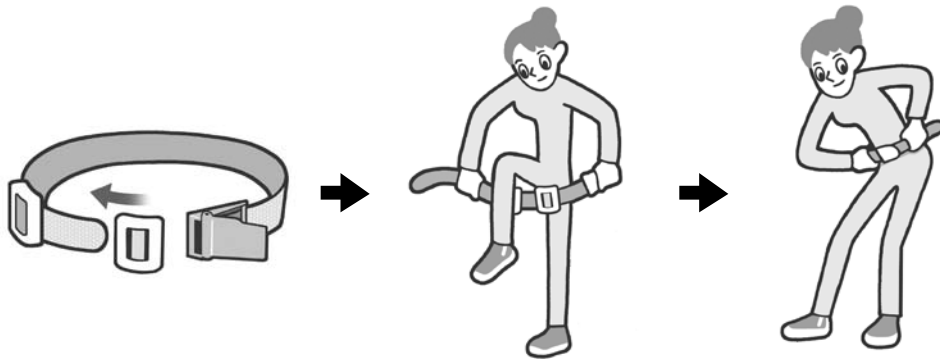
Usual Kick



Dolphin Kick

Donning the Weight Belt

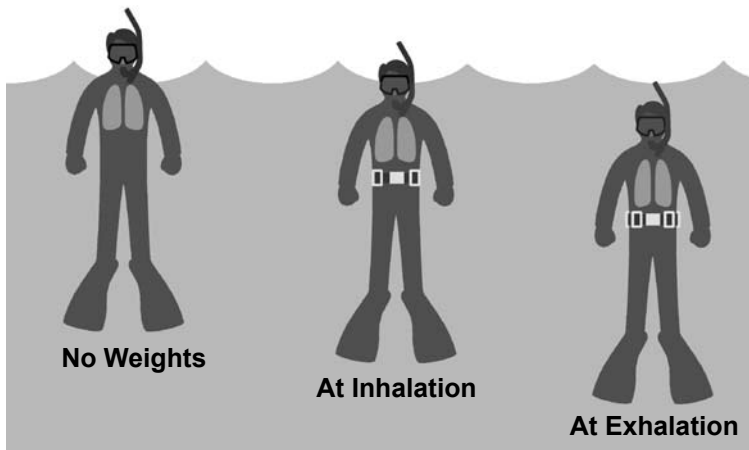
We place weights around our waist and equally on our right and left sides so that our weight is balanced. We put on the belt with the buckle in our left hand and the free end in our right, and tightly close the buckle to avoid it slipping down or around our waist.



1.Put the weights on the belt 2.Place around our waist 3.Fasten tight

Adjusting The Weights

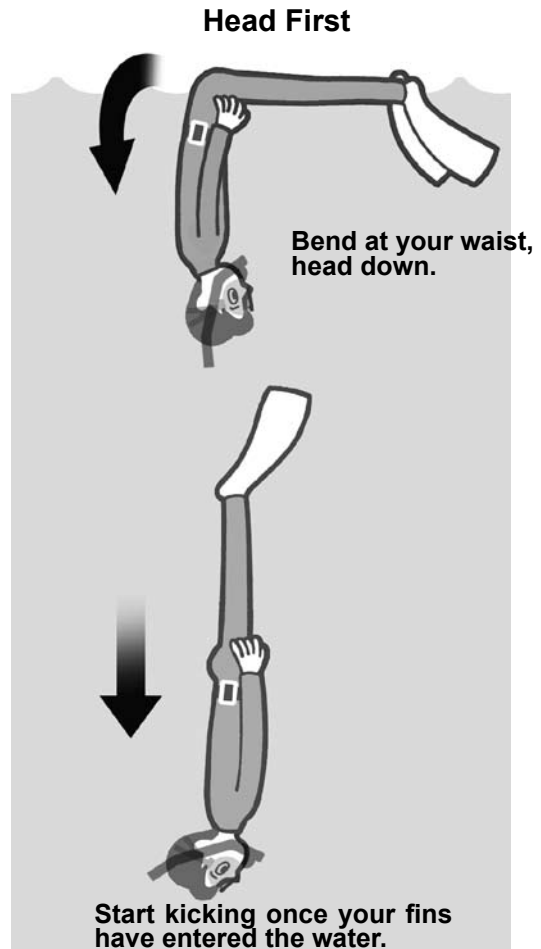
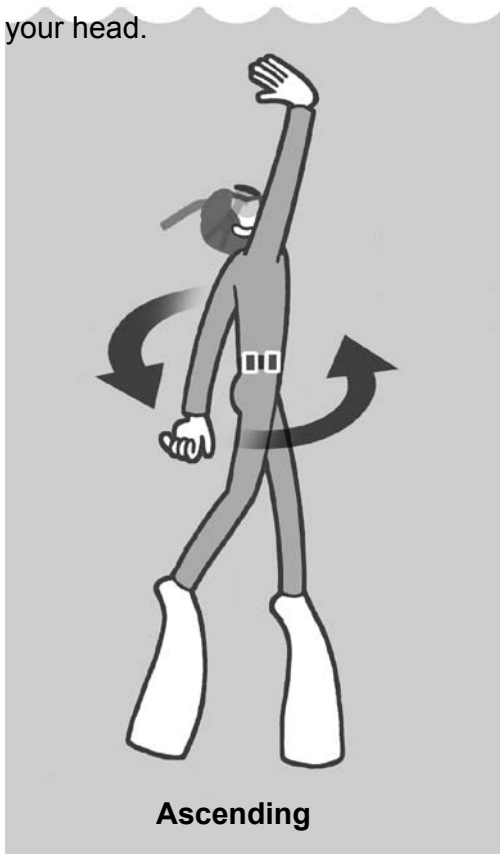
After putting on our snorkel set, wet suit and weight belt, see if you can float. If, upon inhaling, you are at eye level and, upon exhaling, you sink to the top of your head, your weighting is suitable. Overweighting is dangerous and to be avoided.



Head First

This is a technique used to descend from the water's surface. Bend at your waist as if in a bow. Then kick your legs up above you and their weight will help to start you to sink. With your fins that were held straight along with your legs now entering the water, you kick to propel yourself downwards.

To ascend, slowly rotate 360 degrees to check the safety of the surface (approaching boats, etc) while kicking slowly and holding one hand up above your head. hand up above your head.



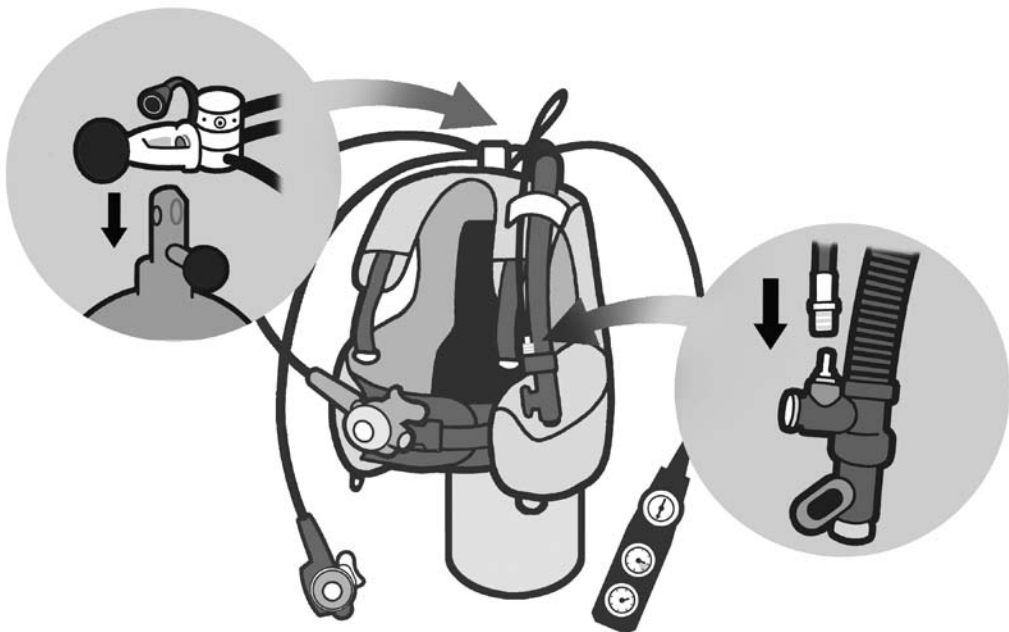
Equipment Set-up

1. Turn the tank valve so its opening faces the BC. Tightly fasten the tank belt, ensuring that the tank is properly positioned. You can lift the BC to make sure the tank does not slip.



Be Careful of Tank Placement

2. Making sure that the second stage (regulator) is on the right side of the BC, take off the first stage's dust cap, and place over the tank valve's yoke screw. Tighten. Make sure to also connect the BC inflator hose.



Set-up

●●●Diving Skills●●●

3. After placing the pressure gauge face down, slowly open the valve. Once the valve has been opened fully, turn back 1/4 turn, to ensure it can get stuck in the open position.

Open the tank valve slowly.



Place the pressure gauge face down

4. Check the pressure gauge to ensure sufficient air for the dive. Make sure the regulator, octopus and inflator are all working fine, as well as that the air quality is good. If you won't be entering the water soon, lay the BC and tank on its side.



Take a breath off the regulator to check out the air - is it good and sufficient?

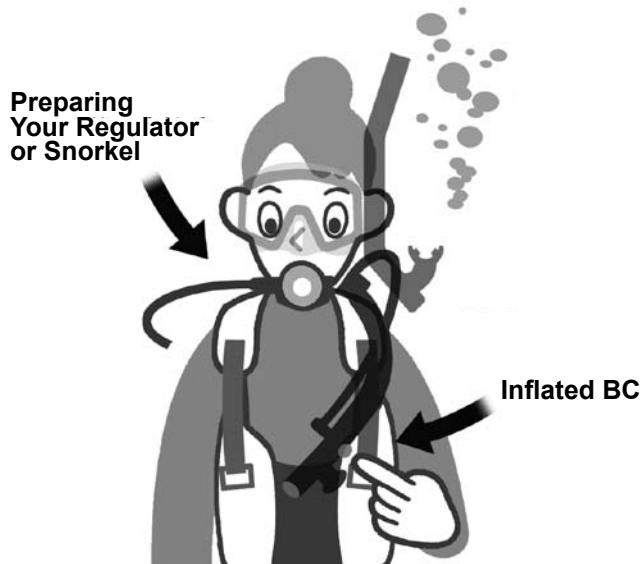
5. Finally, after completing your set-up, you check (and vice versa) your dive buddy's equipment to make sure it is set up and working properly. We call this a "Buddy Check".



Buddy Check

Entry

Before you enter the water, you first ensure sufficient buoyancy by inflating your BC. Next, ensure you have prepared your regulator or snorkel.



[Wading Entry]

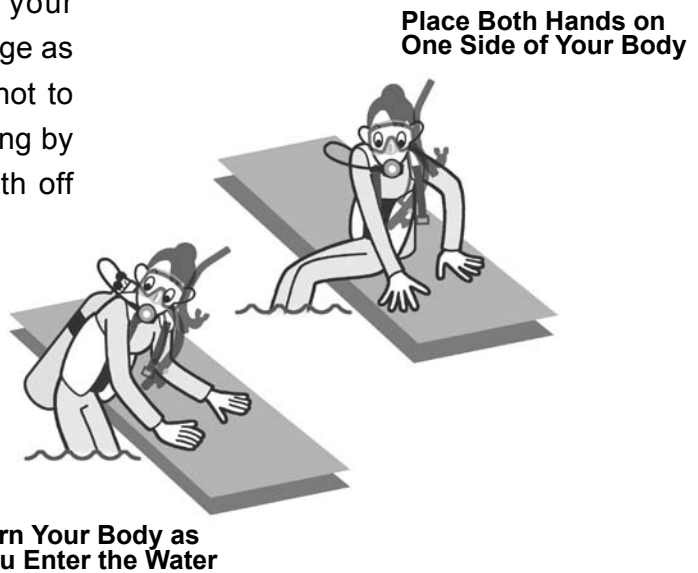
This is the recommended entry when waves are high during a beach entry. Facing your dive buddy and joining arms, you approach the surf together. Standing sideways to the waves now, you and your partner support each other as you each take small steps, taking into account the timing of the wave breaks. Once you've reached a suitable point to descend, diving below the waves quickly will ensure as smooth an entry as possible.



Work With Your Dive Buddy

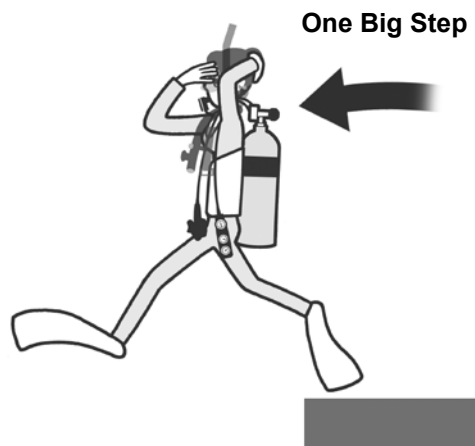
[Sitting Front Entry]

This entry is the simplest to complete. Sit at the water's edge, facing the water. Place both hands on one side of your body and push off and away from the edge while turning your body so that it now faces the edge as it enters the water. Take care not to catch your equipment on anything by making sure that you push both off and away from the edge.



[Giant Stride Entry]

Standing at the water's edge, use your hands to secure your mask and take a giant step off and away from the edge. Take care not to catch your equipment on anything by making sure that you push both off and away from the edge.



Descent

To descend, place the regulator in your mouth, and deflate your BC. Keep your body straight and your fins out. Mark your destination point and breath slowly - now you will gently sink. It is at this point that you may start to feel squeeze due to pressure, so be sure to equalize using the Valsalva maneuver and mask blow technique.



Snorkel-to-Regulator Exchange

[Rope Descent]

In this method you descend while holding a rope or anchor line. Please make sure not to lose your grip on the rope.



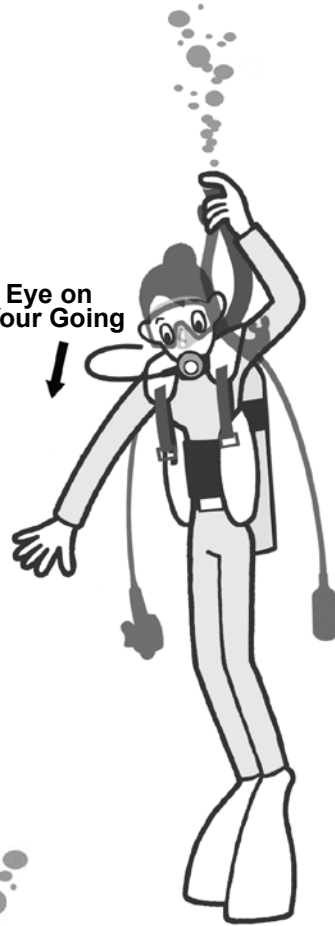
Rope Descent

●●●Diving Skills●●●

[Free Descent]

When there is no rope or anything else to hold onto, we descend freely - often called feet-first. It is important to control your angle of descent so that you are vertical or slightly forward to avoid rolling backwards.

Keep an Eye on
Where Your Going



Feet-First



Avoid Rolling Backwards

Regulator Clear

Regulator clear is a method for clearing water from inside your regulator. If your regulator has come out of your mouth underwater, you won't be able to breathe from it again until the water has been removed. There are two methods: the first is the breath purge; the second is the purge button purge.



Once you've replaced the regulator to your mouth, if you blow one strong breath the water will be blown out.



Once you've replaced the regulator to your mouth, if you press the purge button the water will be blown out.



Any time the regulator is out of your mouth, make small, slow bubbles to ensure your breathing is not static, thus avoiding lung damage.

Mask Clear

This is a method for clearing any water that might accidentally get into your mask while diving. While pushing with your hand on the upper part of the mask's frame, slowly blow air from your nostrils while gradually looking upwards towards the water's surface. This will cause any water to drain from the seal around the nose/upper lips area.



Blow Air From Your Nose

Mask Recovery

There are instances where your mask is accidentally knocked off, such as by another diver's fin. If this happens, calm yourself, don the mask again, and perform the mask clear technique.

1



Recover your mask

2



Don the mask again.
Watch out for loose hair

3



Adjust and tighten the strap

4



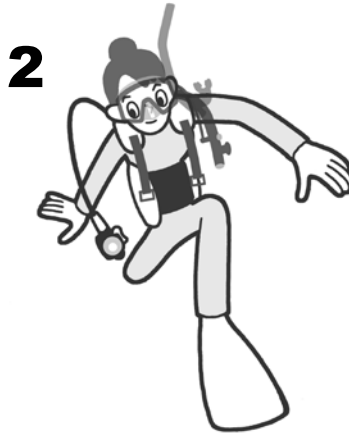
Perform a mask clear

Regulator Recovery

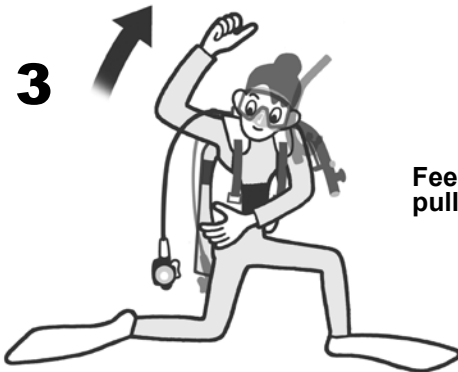
This allows us to recover and replace our regulator when it has been knocked or pulled from our mouths. There are two methods: The common method is to lower our right shoulder, bring back our right hand to our right knee and sweep back around to the front of us feeling for the regulator's hose.



1
Drop Right Shoulder,
Reach Back With Right Hand,
Touch Right Knee and Sweep



2
Feel for the regulator hose,
pulling it towards you



3
Grab the regulator at the end
of the hose and prepare to
do a Regulator Clear.

The second method involves lifting the tank upward by grabbing the tank's bottom with your left hand while feeling for the 1st stage and tracing the hose to the regulator.



Tracing the Regulator Hose
From the 1st Stage

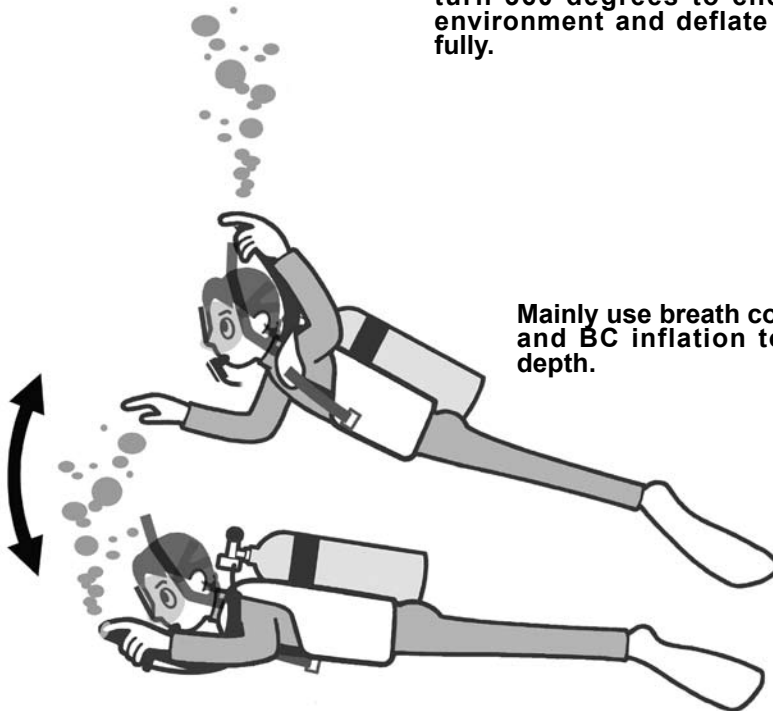
Buoyancy Control

When we are descending we can add air to our BC/dry suit to control our rate of descent. Conversely, on ascent we can deflate our BC/dry suit to slow our rate of ascent. So, it is important to quickly moderate our buoyancy using air in our BC/dry suit. As well, since this buoyancy will change according to depth, you must adjust for this change.

Always maintain neutral buoyancy while diving. Neutral buoyancy can be thought of as like floating in air, so it is also called hovering.



When beginning your ascent, turn 360 degrees to check your environment and deflate your BC fully.



Mainly use breath control and BC inflation to control depth.

BC Donning and Removing

[At the Water's Surface]

There are times when you may need to don and remove your equipment at the water's surface. First, ensure the BC's buoyancy and air supply.



Put some air in the BC



Put on the BC with your right arm first; take off from your left arm first.



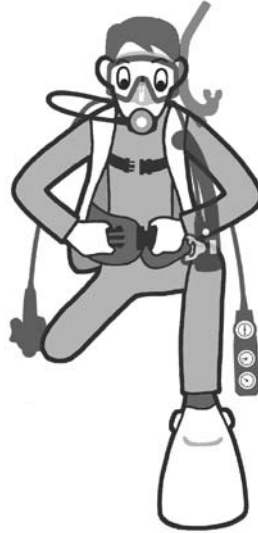
Always ensure that the hoses are not caught. Tighten the waist straps and buckles, again ensuring all hoses are okay.

●●●Diving Skills●●●

[Underwater]

If you become entangled on something like fishing net and your dive buddy is not close by to help, you may need to remove your BC to self-rescue.

1



Release any buckles.

2



Remove starting with your left arm.

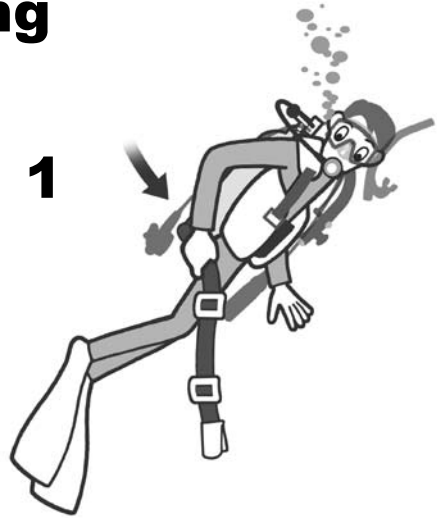
3



While maintaining the tank's weight, bring the BC around to your right.

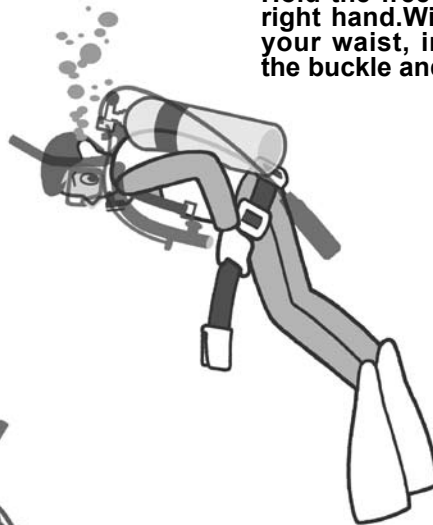
Weight Belt Donning and Removal

There are occasions where weight belts slip off and need to be replaced underwater. Take hold of the free end of the buckle in your right hand and turn once fully to the left.



Hold the free end of the belt in your right hand. With the belt now around your waist, insert the free end into the buckle and tighten.

2



Turn once fully to the left

3

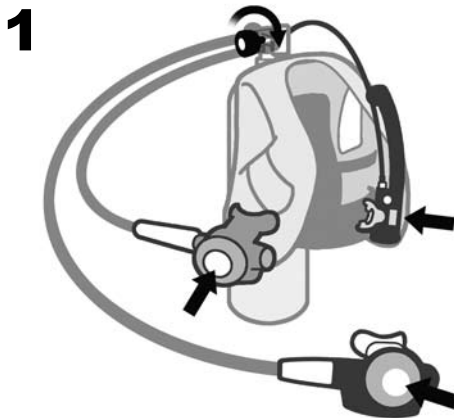


Fasten buckle while on the horizontal.

Equipment Release

First, close the tank valve fully. Use the purge button to remove all air remaining in the hoses. Unscrew the yoke screw, and remove the 1st stage from the valve outlet.

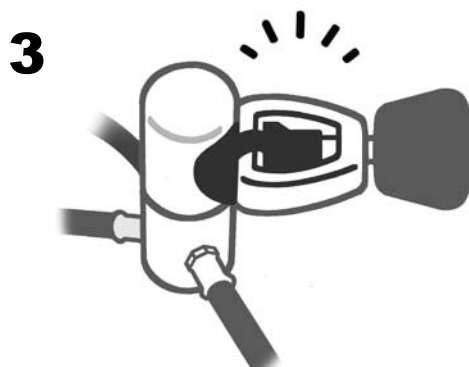
Use tank air to dry off the dust cap, while protecting the 1st stage inlet from having air blown into it. Ensure the dust cap is tight enclosed by the yoke screw. After disconnecting all hoses, take the BC off the tank.



Close the tank valve and remove any air remaining in the hoses.



Dry off the dust cap with tank air



Don't forget to close the yoke screw tightly with the dust cap

Dealing With Emergencies

[Leg Cramps]

Cramping is common due to factors like sudden exercise and cold from cold water, so warming up and wearing appropriate dive wear are the first line of defense. If you develop cramps, massaging the affected muscle is very effective. Afterwards, trying a different kick style and speed will help prevent a reoccurrence.



Grab your fin tip and stretch your leg muscles.

[Panic]

If you let small troubles and worries affect you too much, increased respiration and heart rate will lead to breathing problems and a loss of self-control. In that case, stop, take hold of something like a rock, and breathe slowly to calm yourself down.

[Octopus Breathing]

Hold onto each other with your right hand (you'll need your left for BC control). Keep eye contact, receive the octopus, and slowly and safely ascend to the water's surface. If the dive buddy uses the Air 2 or similar combined octopus/inflator-type of equipment, you receive the regulator and your buddy switches to the combined octopus/inflator.



**In the case of a combined octopus/
inflator**



**In the case of a combined octopus/
inflator (on the left)**

[Pony Bottle]

Generally used near the water's surface, having a pony bottle is not an excuse for poor air monitoring, since the amount of air available is small. If your dive buddy has an out-of-air emergency, you can hand off the bottle and slowly and safely ascend to the surface in sync, but there is no need to hold on to each other in this case.

[Buddy Breathing]

If, by chance, your dive buddy should suffer an out-of-air emergency and you have no octopus or have a malfunctioning octopus, your last option is sharing your regulator in turns. We call this buddy breathing. Usually, you take turns taking 2 breaths each while slowly and safely ascending. Of course, having and maintaining back-up scuba equipment is something every diver should do.

1



2



Continually holding the octopus hose, you pass over the octopus mouthpiece.

3



Take turns taking 2 breaths each.



When your dive buddy is breathing, support him by his wrist.

[Emergency Ascent]

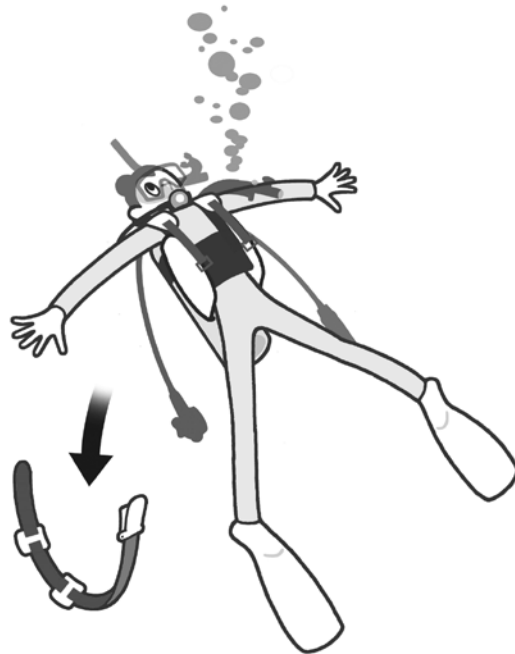
When there is no other option but to swim to the surface, while ascending you must constantly blow small bubbles to avoid a lung over-expansion injury. It is very important here to control your speed of ascent as much as possible.



Ascend while blowing small bubbles.

[Positive Ascent]

Again, when there is no other option but to swim to the surface, and controlling speed of ascent is not a priority (such as a serious injury), you drop your weight belt and use any available BC/dry suit air to ascend.



Drop your weight belt before ascending.

[Diver Tow]

Pulling an injured or fatigued diver on the water's surface is called a tow. It is possible to perform artificial respiration while towing a diver.



BC Pull Method

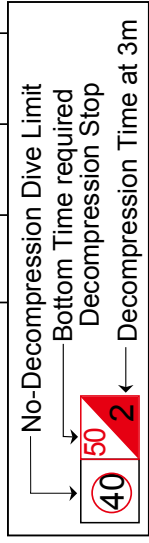


Fin Push Method

Stars DIVE TABLE

Surface Interval Time Table (H:min)

"A"	"B"	"C"	"D"	"E"	"F"	"G"	✈️
1:30	0:30	0:15	0:15	0:15	0:15	0:15	6:00
2:00	0:45	0:30	0:30	0:30	0:30	0:30	12:00
2:00	1:00	0:30	1:00	1:00	1:00	1:00	18:00
3:00	2:00	1:30	2:00	2:00	2:00	2:00	24:00
4:00	3:00	2:00	3:00	3:00	3:00	3:00	30:00
6:00	4:00	3:00	4:00	4:00	4:00	4:00	36:00



D ¹ (m)	AT ² (min' sec ³)	B	C	D	E	F	G	Residual Nitrogen Time Table (min)						NDL ³ (min)	D (m)						
9	1'00"	25	→	50	75	100	—	163	252	158	257	149	266	134	281	103	312	70	345	415	9
12	1'10"	18	→	36	54	72	90	80	62	79	63	75	67	56	86	28	114	19	123	142	12
15	1'30"	→	16	→	32	→	3	61	3	50	14	47	17	32	32	13	51	10	54	64	15
18	1'50"	10	→	20	30	→	2	39	1	37	3	34	6	22	18	11	29	8	32	40	18
21	2'10"	6	12	18	30	36	3	29	1	27	1	27	3	17	13	9	21	7	23	30	21
24	2'30"	5	10	15	20	25	1	14	6	8	6	12	6	14	6	8	12	6	14	20	24
27	2'40"	5	10	15	20	1	1	12	3	8	7	5	10	12	3	8	7	5	10	15	27
30	3'00"	6	→	14	18	2	1	10	4	7	7	5	9	10	4	7	7	5	9	14	30
33	3'20"	→	6	10	14	1	1	9	1	6	4	4	6	9	1	6	4	4	6	10	33
36	3'40"	→	6	10	14	3	3	7	3	5	5	4	6	7	3	5	5	4	6	10	36
39	3'50"	→	6	10	1	1	1	6	0	3	6	3	3	6	6	0	3	3	6	6	39



Bottom Time (min) - Residual Group Table No-Decompression Dive Limit (min) - Residual Nitrogen Time Table (min)

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