

RGDS



RAID™ 

TECHNICAL PROGRAMS

TABLE OF CONTENTS

TABLE OF CONTENTS

TABLE OF CONTENTS	2	Hypoxic Trimix Open Circuit Instructor Program	58
RAID TECHNICAL DIVER STANDARDS	3	Hypoxic Trimix Open Circuit Instructor Trainer Program.....	61
RAID General Diving Standards (Click to Download)	3	Cavern Instructor Program.....	64
TEACHING TECHNICAL PROGRAMS.....	3	Cave 1 (C1) Instructor Program	68
Introduction	3	Cave 2 (C2) Instructor Program	70
A Note On Expectations, Outcomes and Health ..	3	Cave Instructor Trainer Program	74
OPEN CIRCUIT TECHNICAL PROGRAM STANDARDS	5	CCR TECHNICAL PROGRAM STANDARDS.....	78
Credits for OC Tech Courses.....	5	Rebreather Diving Procedures	78
Upgrade information for OC Tech Courses.....	5	Teaching Specialties While Using A Rebreather	78
Nitrox Plus	8	Depth Progression Between Dives.....	79
Decompression / Limited Trimix Decompression	11	CCR Breathing Gas	79
Advanced Decompression	15	CCR - REBREATHER PROGRAMS.....	79
Extended Decompression	19	CCR - Try Rebreather.....	79
Normoxic Decompression.....	23	CCR - Rebreather Reboot	80
HYPOXIC TRIMIX	26	CCR - Sport	82
Introduction	26	CCR - KISS	84
Limited Hypoxic Trimix (80m / 260ft).....	26	CCR - Diver (40m).....	86
Hypoxic Trimix (100m/330ft)	29	CCR - Decompression / Limited Trimix.....	89
OVERHEAD PROGRAMS	32	CCR - Normoxic Trimix	92
Cavern Program	32	CCR - Hypoxic Trimix.....	95
Cave 1 (C1) Program	35	LEADERSHIP COURSES AND RATINGS (TECHNICAL CLOSED CIRCUIT)	99
Cave 2 (C2) Program.....	38	CCR - KISS Instructor	101
LEADERSHIP COURSES AND RATINGS (TECHNICAL OPEN CIRCUIT).....	40	CCR - Limited Trimix Instructor Program	103
Decompression Instructor Program.....	41	CCR - Normoxic Trimix Instructor Program	106
Advanced Decompression Instructor Program ..	44	CCR - Hypoxic Trimix Instructor Program.....	109
Extended Decompression Instructor Program ..	46	INSTRUCTOR TRAINER	113
Normoxic Decompression Instructor Program ..	48	Technical Instructor Trainer OC & CCR.....	113
Limited Hypoxic Trimix Open Circuit Instructor Program.....	51	LICENSE AGREEMENT	115
Limited Hypoxic Trimix Open Circuit Instructor Trainer Program	54	ACKNOWLEDGEMENTS	115
		DISCLAIMER.....	115

RAID TECHNICAL DIVER STANDARDS

[RAID GENERAL DIVING STANDARDS \(CLICK TO DOWNLOAD\)](#)

TEACHING TECHNICAL PROGRAMS

INTRODUCTION

This section of the RAID General Diving Standards (RGDS) covers standards for courses that subject all participants (Students, Instructors, and Assistants) to a higher level of risk. Accordingly, when running a RAID Technical Program, our Instructors must follow the RGDS and the technical program standards for each specific course covered below. In the event of conflict or doubt, a RAID Professional is expected to follow the most conservative guidelines in their personal diving, as well as when teaching and guiding.

Additionally, RAID HQ maintains a policy of regularly updating its standards. These changes are driven by input from industry governing bodies, RAID Members, Students, Support Personnel, and community norms. Instructors delivering Technical Programs must always follow the latest version of the RGDS available on the RAID Website.

A NOTE ON EXPECTATIONS, OUTCOMES AND HEALTH

Technical Programs, by their nature, demand a detailed and thoughtful approach from Instructors, Students, and Support Personnel. As such, allowances should be made to allow Students to master skills thoroughly. This is a critical part of ANY RAID course, but it is an absolute must in technical diving. This often results in courses that run considerably longer and require more dives and in-water time than the minimum standards allow. The potential impact of this extra time and effort on the course budget, in terms of time and cost, must be understood by all Students.

Graduates from any Technical Program enjoy a higher-than-average profile in their community. As such, their behaviour during pre-dive preparation, during dives themselves, and throughout post-dive debriefs and equipment breakdowns sets an example.. Whether that example is positive or not depends, in part, on the quality of instruction they received during Technical Training. Be aware that, as a Technical Instructor, you are shaping community influence.

Generally, Technical Diving requires more stamina than pure recreational diving. No agency can honestly expect to mandate specific fitness levels for its Students or Instructors, but we do outline swim tests and stamina exercises for various courses. These can be used as a benchmark for general diver (and Instructor) fitness. As a RAID Technical Instructor, you are expected to promote general fitness and demonstrate exercises to develop and maintain physical and mental strength.

The learning environment should also support success. Therefore, Student-to-Instructor ratios should be adjusted when temperature, visibility, and variable currents pose a special challenge.

SWIM TEST

Several RAID Diver and Instructor Programs require participants to demonstrate their basic fitness and swimming skills before starting their training.

The general “readiness assessment” is a swim test. An excellent strategy is to advise Students what’s expected of them and give them time and an opportunity to practice beforehand, so that when they start the In-Water Training, they can easily pass the requirements.

In deep water, while wearing complete equipment appropriate to the course, candidates must:

- Swim 300 metres / 300 yards underwater continuously, without stopping, while recording a gas consumption calculation (SAC Rate).
- Tow an inert diver who is also fully equipped with complete Technical Scuba Equipment, for 150 metres / 150 yards.

TEACHING TECHNICAL PROGRAMS

Pro Skill Circuit Demonstration

In a pool or confined water, Instructors must demonstrate and pass the following Technical Skills. Scores are awarded as per the standard RAID evaluation criteria.

- S-Drill.
- Neutral buoyancy and trim.
- Frog kick.
- Reverse kick.
- Proper regulator switch procedures.
- Gas sharing stationary.
- Gas sharing swim and ascent.
- SMB deployment while hovering.
- Lost mask procedures.
- Stage remove and replace underwater.
- Stage exchange whilst neutrally buoyant.
- Gas switch.
- Major shutdown, right hand side.
- Major shutdown, left hand side.
- Full diagnostic shutdown.

Additional Sidemount Skills:

- Remove and replace the right cylinder underwater.
- Partial cylinder removal with both cylinders.
- Failed bungee.
- Free flow second stage – feathering.
- Shutdown the right-hand side while hovering.
- Shutdown the left-hand side while hovering.
- Valve roll off.

NOTE: ALL SKILLS MUST BE COMPLETED NEUTRALLY BUOYANT

OPEN CIRCUIT TECHNICAL PROGRAM STANDARDS

CREDITS FOR OC TECH COURSES

UPGRADE INFORMATION FOR OC TECH COURSES

Course Name	Certification Options	Upgrading from	Upgrading to	Credit needed	Who can teach
Nitrox Plus				Specialty Credit	Decompression Inst.
Decompression	<ul style="list-style-type: none"> Decompression 40m (Air) 			Technical Credit	Decompression Inst. 40m (Air)
	<ul style="list-style-type: none"> Decompression 45m (Air) 			Technical Credit	Decompression Inst. 45m (Air)
	<ul style="list-style-type: none"> Limited Trimix Decompression 45m 			Technical Credit	Limited Deco Inst. 45m (Trimix)
		Decompression 40m (Air)	Decompression 45m (Air)	Upgrade Credit	Decompression Inst. 45m (Air)
		Decompression 40m (Air)	Limited Trimix Decompression 45m	Upgrade Credit	Limited Deco Inst. 45m (Trimix)
		Decompression 45m (Air)	Limited Trimix Decompression 45m	Upgrade Credit	Limited Deco Inst. 45m (Trimix)
Advanced Decompression	<ul style="list-style-type: none"> Advanced Decompression 50m (Air) 			Technical Credit	Advanced Deco Inst. 50m (Air)
	<ul style="list-style-type: none"> Advanced Decompression 50m (Trimix) 			Technical Credit	Advanced Deco Inst. 50m (Trimix)
		Advanced Decompression 50m (Air)	Advanced Decompression 50m (Trimix)	Upgrade Credit	Advanced Deco Inst. 50m (Trimix)
Extended Decompression 55m (Air)	<ul style="list-style-type: none"> Extended Decompression 55m (Air) 			Technical Credit	Extended Decompression Inst. 55m (Air)
		Extended Decompression 55m (Air)	Advanced Decompression 50m (Trimix)	Upgrade Credit	Advanced Deco Inst. 50m (Trimix)
Normoxic Decompression 60m (Trimix)	<ul style="list-style-type: none"> Normoxic Decompression 60m (Trimix) 			Technical Credit	Normoxic Deco Inst. 60m (Trimix)
Hypoxic Trimix Instructor	<ul style="list-style-type: none"> Limited Hypoxic Trimix 80m 			Technical Credit	Hypoxic Trimix Deco Inst. 100m
	<ul style="list-style-type: none"> Hypoxic Trimix 100m 			Technical Credit	Hypoxic Trimix Inst. 100m
		Limited Hypoxic Trimix 80m	Hypoxic Trimix 100m	Upgrade Credit	Hypoxic Trimix Inst. 100m

OC TECHNICAL DIVER

AIR / NITROX PATHWAY 40M - 55M

NITROX PLUS RECREATIONAL SINGLE CYLINDER



40m air/nitrox
Not required to start your technical pathway.

Designed to give recreational divers a glimpse of technical diver skills, dive planning, and equipment. Single cylinder with a bailout cylinder. Decompression limited to 10 minutes using a conservative decompression algorithm.

DECOMPRESSION SIDEMOUNT TWINSET



40m air / nitrox
45m air / nitrox

First level technical / decompression diver course using Twinset or Sidemount. One decompression gas up to 100% oxygen.

To upgrade to TRIMIX: complete the *Limited* Trimix Decompression 45m course.

ADVANCED DECOMPRESSION SIDEMOUNT TWINSET



50m air / nitrox

Second level technical / decompression diver course using Twinset or Sidemount. Two decompression gasses up to 100% oxygen.

To upgrade to TRIMIX: complete the Advanced Trimix Decompression 50m course.

EXTENDED DECOMPRESSION SIDEMOUNT TWINSET



55m air / nitrox

This course is a technical / decompression diver course designed to teach extended range planning and skills when access to trimix is limited or unavailable. Allows as many as three decompression gases, containing up to 100% oxygen.

To upgrade to TRIMIX: complete the Advanced Trimix Decompression course.

TRIMIX PATHWAY 45M - 100M

LIMITED *TRIMIX* DECOMPRESSION SIDEMOUNT TWINSET



45m air / nitrox / trimix

First level technical / decompression diver course using Twinset or Sidemount. One decompression gas up to 100% oxygen.

ADVANCED *TRIMIX* DECOMPRESSION SIDEMOUNT TWINSET



50m air / nitrox / trimix
(Trimix Decompression)

Second level technical / decompression diver course using Twinset or Sidemount. Two decompression gasses up to 100% oxygen.

NORMOXIC *TRIMIX* DECOMPRESSION SIDEMOUNT TWINSET



60m mixed gas including normoxic trimix

Third level technical / decompression course using Twinset or Sidemount. Up to three stage cylinders with decompression gasses up to 100% oxygen.

HYPoxic *TRIMIX* SIDEMOUNT TWINSET



80m mixed gas including hypoxic trimix
(Limited Hypoxic Trimix)
100m mixed gas including hypoxic trimix

Fourth level technical / decompression diver course using Twinset or Sidemount. Up to four stage cylinders with decompression gasses up to 100% oxygen.

OC TECHNICAL INSTRUCTOR

COURSES INSTRUCTORS MAY TEACH

AIR PATHWAY

DECOMPRESSION INSTRUCTOR 40m SIDEMOUNT TWINSET



- 40m Nitrox Plus (Air/Nitrox) Recreational config
- 40m Decompression Diver (Air/Nitrox)

To upgrade to TRIMIX INSTRUCTOR: complete the Decompression Trimix Instructor 45m Program.

DECOMPRESSION INSTRUCTOR 45m SIDEMOUNT TWINSET



- 40m Nitrox Plus (Air/Nitrox)
- 40m Decompression Diver (Air/Nitrox)
- 45m Decompression (Air/Nitrox)

To upgrade to TRIMIX INSTRUCTOR: complete the Decompression Trimix Instructor 45m Program.

ADVANCED DECOMPRESSION INSTRUCTOR 50m SIDEMOUNT TWINSET



- 40m Nitrox Plus (Air/Nitrox)
- 40m Decompression (Air/Nitrox)
- 45m Decompression (Air/Nitrox)
- 50m Advanced Decompression (Air/Nitrox)

To upgrade to TRIMIX INSTRUCTOR: complete the Advanced Decompression Trimix Instructor 50m Program.

EXTENDED DECOMPRESSION INSTRUCTOR 55m SIDEMOUNT TWINSET



- 40m Nitrox Plus (Air/Nitrox)
- 40m Decompression (Air/Nitrox)
- 45m Decompression (Air/Nitrox)
- 50m Advanced Decompression (Air/Nitrox)
- 55m Extended Decompression (Air/Nitrox/oxygen)

To upgrade to TRIMIX INSTRUCTOR: complete the Advanced Decompression Trimix Instructor 50m Program.

TRIMIX PATHWAY

LIMITED DECOMPRESSION INSTRUCTOR 45m SIDEMOUNT TWINSET



- 40m Nitrox Plus (Air/Nitrox)
- 40m Decompression (Air/Nitrox)
- 45m Decompression (Air/Nitrox)
- 45m Limited Trimix Decompression (Trimix)

ADVANCED DECOMPRESSION INSTRUCTOR 50m SIDEMOUNT TWINSET



- 40m Nitrox Plus (Air/Nitrox)
- 40m Decompression (Air/Nitrox)
- 45m Decompression (Air/Nitrox)
- 45m Limited Trimix Decompression (Trimix)
- 50m Advanced Decompression (Air/Nitrox)
- 50m Advanced Decompression (Trimix)

NORMOXIC DECOMPRESSION INSTRUCTOR 60m SIDEMOUNT TWINSET



- 40m Nitrox Plus (Air/Nitrox)
- 40m Decompression (Air/Nitrox)
- 45m Decompression (Air/Nitrox)
- 45m Limited Trimix Decompression (Trimix)
- 50m Advanced Decompression (Air/Nitrox)
- 50m Advanced Decompression (Trimix)
- 55m Extended Decompression (Air/Nitrox)
- 60m Normoxic Trimix (Trimix)

HYPOXIC TRIMIX INSTRUCTOR 80m / 100m SIDEMOUNT TWINSET



- 40m Nitrox Plus (Air/Nitrox)
- 40m Decompression (Air/Nitrox)
- 45m Decompression (Air/Nitrox)
- 45m Limited Trimix Decompression (Trimix)
- 50m Advanced Decompression (Air/Nitrox)
- 50m Advanced Decompression (Trimix)
- 55m Extended Decompression (Air/Nitrox)
- 60m Normoxic Trimix (Trimix)
- 80m Limited Hypoxic Trimix (Mixed gas including Hypoxic Trimix)
- 100m Hypoxic Trimix (Mixed gas including Hypoxic Trimix)

NITROX PLUS

I. Purpose

This course is designed to train Students to safely:

- Dive to a maximum depth of 40 meters /130 feet.
- Use air and nitrox mixes up to 50% oxygen.
- Complete a maximum of 10 minutes of decompression while using a single bottom mix and single bailout cylinder for safety.
 - Bailout must be breathable at the maximum dive depth.
 - Bailout must have sufficient volume to complete a safe ascent, including the required decompression within the RAID recommended contingency gas volume guidelines.

NOTE: The Nitrox Plus course is not an optimized decompression course, but rather an introduction to decompression for recreational divers who wish to conduct deep dives using a superior risk management strategy. It may also be considered a good first step in a structured technical diving education.

II. Student Prerequisites

A Student taking this course must:

- Be a minimum of 18 years old.
- Be certified as a RAID Open Water 20 and RAID Deep 40 diver or equivalent, or be certified as a RAID Explorer 30 or RAID Advanced 35 diver or equivalent.
- Be certified as a RAID Nitrox diver or equivalent.
- Have a minimum of 10 logged hours underwater or 20 dives using open circuit.
- Complete the registration process, including all mandatory online documentation.
- Be certified as a RAID Sidemount or RAID Twinset Diver if doing the course using either configuration.
 - Students wanting to add an additional bailout cylinder must have a minimum of 5 dives on either system before adding a third cylinder.

III. Course Requirements

To obtain certification, the Student must meet the following requirements.

- Complete the online academic modules, quizzes, and exam.
 - Equipment.
 - Physics.
 - Physiology.
 - Management.
 - Confined Water.
 - Open Water.

OPEN CIRCUIT TECHNICAL PROGRAM STANDARDS

- Complete all the skill requirements as outlined in the manuals for in-water training.
 - Pre-dive safety checks.
 - Buoyancy check.
 - Stage remove and replace on the surface.
 - Descents.
 - Buoyancy and trim.
 - Long hose recovery.
 - Frog kick.
 - Back fin.
 - SAC rate calculations.
 - Bailout remove and replace underwater.
 - Gas sharing stationary.
 - Gas sharing swim.
 - Back-up mask deployment.
 - SMB deployment.
 - Ascent.

IV. Who can conduct the course (minimum level Instructor for the Course)

The RAID Professional conducting this course must be at least a Decompression Instructor or above.

V. Supervision

A RAID Decompression Instructor must supervise the entire course.

A Certified Assistant must be a RAID Divemaster or higher who is certified as a Decompression diver or higher.

VI. Instructor/Student Ratios

Confined Water

- A maximum of 8 Students: 1 Instructor

Open Water

- A maximum of 6 Students: 1 Instructor

VII. Depth Limitations During Training

The training dive depth limits for individual dives are outlined in the Nitrox Plus training materials.

Overall, training dives must not exceed:

- Confined water - the maximum depth of 5 metres / 15 feet.
- Open water - the maximum depth is 40 metres / 130 feet.

OPEN CIRCUIT TECHNICAL PROGRAM STANDARDS

At least two dives should be deeper than 35 metres / 115 feet.

VIII. Equipment Requirements

Nitrox Plus is a maximum two-cylinder course* (refer to note for Sidemount and twinset) .

- Single cylinder (with or without H or Y valve) of adequate capacity for the planned dive.
- One standard primary regulator setup fitted with a long hose, including a piston clip.
- One low-pressure (LP) inflator hose for BCD and dry suit (if appropriate). LP connectors must be interchangeable.
- One backup regulator with standard hose fitted with neck bungee.
- One SPG with a piston clip.
- Bailout cylinder holding a suitable gas volume for planned dives.
- Bailout cylinder rigging kit.
- Cylinder marking for MOD, Diver Name and Mix (labelled as per RAID cylinder marking standards).
- Suitable DIN regulator with SPG on a short HP hose.
- A recreational BCD that has the capacity to carry a bailout cylinder.

OR

Wing, plate and harness with a single tank adaptor.

- Personal dive computer.
- Backup computer or depth dive timer.
- Wetnotes or wrist slate or finger slate.
- Primary SMB.
- 1 x reel or spool with adequate line length for the dive depth.
- 1 x cutting device.
- Backup mask.
- Light where appropriate.
- Smartphone, tablet or laptop with decompression software.
- Access to an oxygen analyzer.

***NOTE: Students certified on sidemount or twinset may carry an additional bailout cylinder if they have at least 5 dives logged using that system.**

IX. In Water Training

To be certified as a Nitrox Plus diver, the Student must complete these requirements:

- Minimum of 1 confined water dive with no minimum time requirement.
- Minimum of 4 open water dives with at least 2 hours of underwater training.

OPEN CIRCUIT TECHNICAL PROGRAM STANDARDS

- Minimum of 6 open water dives with at least 3 hours of underwater training if Nitrox Plus is combined with RAID Sidemount or RAID Twinset courses.

X. Certification

The Nitrox Plus certification entitles the holder to dive with a certified dive buddy to a maximum depth of 40 metres / 130 feet in conditions similar to or better than those experienced during training, using air or nitrox, with a maximum decompression schedule of 10 minutes, using the most conservative decompression parameters.

XI. Special standards for this certification

When combining this course with RAID Sidemount or RAID Twinset courses, certification should precede the Nitrox Plus certification.

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals.

DECOMPRESSION / LIMITED TRIMIX DECOMPRESSION

I. Purpose

This course is designed to train Students to safely:

- Dive to a maximum depth of 40 metres /130 feet using air or nitrox,
- Dive to a maximum depth of 45 metres /145 feet using air or nitrox, *
- Dive to a maximum depth of 45 metres /145 feet using air or nitrox, or trimix. * (Limited Trimix Decompression)
- Use air, nitrox, oxygen and trimix (where applicable).
- The END/EAD for trimix must not exceed 30 metres /100 feet.
- Complete planned decompression.
 - Divers must have sufficient volume to complete a safe ascent, including the required decompression plus one-third reserve to share gas with a buddy.
- Use a higher oxygen content nitrox (up to 100% oxygen) in a separate single (one only) stage cylinder to optimize decompression dive times.
 - Bottom gas may have a maximum PO₂ of 1.4 at depth.
 - Decompression gas may have a maximum PO₂ of 1.6 at depth.

***NOTE: Review Instructor and supervision requirements below.**

II. Student Prerequisites

A Student taking this course must:

- Be a minimum of 18 years old.
- Be certified as a RAID Open Water 20 and RAID Deep 40 diver or equivalent.
 - Or be certified as a RAID Explorer 30 or RAID Advanced 35 diver or equivalent.
- Be certified as a RAID Nitrox diver or equivalent.
- Have a minimum of 30 logged hours underwater or 25 dives using open circuit.

OPEN CIRCUIT TECHNICAL PROGRAM STANDARDS

- Complete the registration process, including all mandatory online documentation.
- Certified as a RAID Sidemount or RAID Twinset Diver if doing the course using either configuration.

NOTE: Sidemount or Twinset courses may be combined with the Decompression course, provided all relevant skills are mastered in confined water. When combined with the Decompression course, open water time for Sidemount or Twinset courses may be reduced to 2 hours.

III. Course Requirements

To earn certification, the Student must fulfill the following requirements:

- Complete the online academic modules, quizzes, and exam.
 - Equipment.
 - Physics.
 - Physiology.
 - Management.
 - Confined water.
 - Open Water.
- Complete all the skill requirements as outlined in the manuals for in-water training.
 - Pre-dive safety checks.
 - Buoyancy check.
 - Stage (deco cylinder) remove and replace on the surface.
 - Descents.
 - Buoyancy and trim.
 - Long hose recovery.
 - Frog kick.
 - Back fin.
 - Modified flutter kick.
 - Helicopter turn.
 - SAC rate calculations.
 - Stage remove and replace underwater.
 - Gas sharing stationary.
 - Gas sharing swim.
 - Gas sharing swimming ascent.
 - Back-up mask deployment.
 - Gas switch protocols.

OPEN CIRCUIT TECHNICAL PROGRAM STANDARDS

- Shutdown drills.
- SMB deployment.
- Ascent with simulated decompression and real decompression.

IV. Who can conduct the course (minimum level Instructor for the Course)

The RAID Professional conducting this course must be at least a:

- Decompression Instructor, or above, to certify to 40 metres / 130 feet using air or nitrox.
- Advanced Decompression Instructor, or above, to certify to 45 metres / 145 feet using air or nitrox.
- Advanced Decompression Trimix Instructor or above, to certify to 45 metres / 145 feet using air, nitrox, or trimix.

V. Supervision

A certified RAID Decompression Instructor is defined as an in-status RAID Twinset Decompression Instructor, or RAID Sidemount Decompression Instructor, or higher.

During the 2025 rollout phase,

- Deco 40 Instructors or higher may conduct the Decompression course.
- Deco 50 Instructors or higher may conduct the Decompression course 45 metres / 145 feet.
- Deco 50 Trimix Instructors or higher may conduct the Decompression course 45 metres / 145 feet using Trimix.

All training must be conducted by one of the Instructors mentioned above. The Instructor must be physically present and directly supervise all training segments.

A Certified Assistant must be a RAID Divemaster or higher who is certified as a Decompression diver or higher.

NOTE: Instructors certified as OC Decompression Instructors and CCR Decompression Instructors, or higher, may use the rebreather for which they are certified to teach while conducting Decompression Diver training dives, provided that skills pertinent to open-circuit diving are not demonstrated. This standard only applies to open water dives.

VI. Instructor/Student Ratios

The maximum ratios are:

Confined Water

- A maximum of 6 Students: 1 Instructor.

Open Water

- A maximum of 4 Students: 1 Instructor.

VII. Depth Limitations During Training

The training dive depth limits for individual dives are outlined in the training materials. Overall, training dives must not exceed 5 metres / 15 feet in confined water and 40 metres / 130 feet in open water, or 45 metres / 145 feet for Students completing the deeper certification. At least two dives should be deeper than 35 metres / 115 feet.

Training dives should be planned and executed using conservative decompression parameters. For the safety of the student and instructor, RAID recommends that during training, the most conservative settings be applied.

VIII. Equipment Requirements

- Twinset or sidemount cylinder setup.
- Technical regulator setup fitted with a long hose, including a piston clip.
- One low-pressure (LP) inflator hose for BCD and dry suit (if appropriate). LP connectors must be interchangeable.
- One backup regulator with standard hose fitted with neck bungee.
- One SPG with a piston clip.
- Stage cylinder holding a suitable gas volume for planned dives.
- Stage cylinder rigging kit.
- Cylinder marking for MOD, Diver Name and Mix (labelled as per RAID cylinder marking standards).
- Suitable DIN regulator with SPG on a short HP hose.
- Wing, plate and harness.
- Redundant buoyancy.
- Personal dive computer.
- Backup computer or depth dive timer.
- Wetnotes or wrist slate or finger slate.
- Primary SMB.
- Emergency SMB.
- 1 x reels or spools with adequate line length for the dive depth.
- 2 x cutting devices.
- Backup Mask.
- Light where appropriate.
- Smartphone, tablet or laptop with decompression software.
- Access to an oxygen analyzer.

IX. In Water Training

Each Student must complete these requirements.

- Minimum of 1 confined water dive with no minimum time requirement.
- Minimum of 4 open water dives with at least 3 hours of underwater training.
- At least 1 additional decompression dive for Students completing Limited Trimix.

OPEN CIRCUIT TECHNICAL PROGRAM STANDARDS

- One dive should be an actual decompression dive.
- If combining a RAID Sidemount or RAID Twinset course with a Decompression course, a minimum of 2 open water dives with at least 2 hours of underwater training must be added.

X. Certification

The Decompression certification entitles the holder to dive with a certified dive buddy to a maximum depth of 40 metres / 130 feet or 45 metres / 145 feet, or 45 metres /145 feet using trimix (Limited Trimix Decompression) in conditions similar to or better than those experienced during training using air, nitrox or trimix with optimized decompression. Certification will be awarded as either twinset or sidemount certifications, depending on the diving system used for training.

XI. Special standards for this certification

- Students certified as Sidemount Decompression may crossover to Twinset Decompression by completing 1 confined water session and 2 open water dives.
- Students certified as Twinset Decompression may crossover to Sidemount Decompression by completing 1 confined water session and 2 open water dives.
- Decompression Students certified to 40 metres /130 feet may complete an upgrade course to 45 metres /145 feet or 45 metres /145 feet Trimix with a suitably certified Instructor.

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals.

ADVANCED DECOMPRESSION

I. Purpose

This course is designed to train Students to safely:

- Dive to a maximum depth of 50 metres / 165 feet.
- Use air, nitrox, oxygen and trimix (where applicable).
- The END/EAD for trimix must not exceed 30 metres / 100 feet.
- Complete planned decompression.
 - Divers must have sufficient gas volume to complete a safe ascent, including the required decompression plus one-third reserve to share gas with a buddy.
- Use a higher oxygen content nitrox (up to 100% oxygen) in up to 2 separate stage cylinders to optimize decompression dive times.
 - Bottom gas may have a maximum PO₂ of 1.4 at depth.
 - Decompression gas may have a maximum PO₂ of 1.6 at depth.

II. Student Prerequisites

A Student taking this course must:

- Be a minimum of 18 years old.

OPEN CIRCUIT TECHNICAL PROGRAM STANDARDS

- Be certified as RAID Decompression and Master Rescue (or equivalent).
- Have a minimum of 50 logged hours underwater or 75 dives using open circuit.
- Must have logged at least 10 dives between 25 - 40 metres / 85 - 130 feet.
- Complete the registration process, including all mandatory online documentation.
- Submit current First Aid & CPR training and Oxygen Administration certificates
- Be certified as a diver in RAID Sidemount or RAID Twinset if doing the course using either configuration.

III. Course Requirements

To earn certification, the Student must fulfill the following requirements:

- Complete the online academic modules, quizzes, and exam.
 - Equipment.
 - Physics.
 - Physiology.
 - Management.
 - Confined Water.
 - Open Water.
- Complete all the skill requirements as outlined in the manuals for in-water training.
 - Pre-dive safety checks.
 - Buoyancy check.
 - Stage remove and replace on the surface.
 - Descents.
 - Buoyancy and trim.
 - Long hose recovery.
 - Frog kick.
 - Back fin.
 - Modified flutter kick.
 - Helicopter turn.
 - SAC rate calculations.
 - Stage remove and replace underwater.
 - Gas sharing stationary.
 - Gas sharing swim.
 - Gas sharing swimming ascent.

OPEN CIRCUIT TECHNICAL PROGRAM STANDARDS

- Back-up mask deployment.
- Gas switch protocols.
- Breathing from a free-flowing decompression regulator.
- Shutdown drills.
- SMB deployment.
- Ascent with simulated decompression and real decompression.

IV. Who can conduct the course (minimum level Instructor for the Course)

The RAID Professional conducting this course must be at least a:

- RAID Advanced Decompression Instructor or higher.
- Trimix Decompression Instructor or above to sign off on trimix.
- Instructors must hold the Instructor rating for the system they are teaching, twinset or sidemount.

V. Supervision

A certified RAID Advanced Decompression Instructor is defined as an in-status RAID Twinset Advanced Decompression Instructor, RAID Sidemount Advanced Decompression Instructor, or higher.

Instructors conducting the Trimix component of this course must be certified as Deco 50 Trimix Instructors or higher, or Advanced Decompression Trimix Instructors.

Any of the Instructors mentioned above must conduct all training. The Instructor must be physically present and directly supervise all training segments.

A Certified Assistant must be a RAID Divemaster or higher and hold a certification in Advanced Decompression or higher.

NOTE: Instructors who are certified as OC Advanced Decompression Instructors and CCR Normoxic Instructors or higher may use the rebreather they are certified to teach while conducting Decompression Diver training dives, where skills pertinent to open circuit diving will not be demonstrated. This standard only applies to open water dives.

VI. Instructor/Student Ratios

The maximum ratios are:

Confined Water

- A maximum of 6 Students: 1 Instructor.

Open Water

- A maximum of 4 Students: 1 Instructor.

NOTE: It is highly recommended that a certified RAID assistant be utilized.

VII. Depth Limitations During Training

The training dive depth limits for individual dives are outlined in the training materials. Overall, training dives must not exceed the maximum depth of 5 metres / 15 feet in confined water and 50 metres / 165 feet in open water. At least two dives should be deeper than 40 metres / 130 feet and one dive deeper than 45 metres / 145 feet.

OPEN CIRCUIT TECHNICAL PROGRAM STANDARDS

Training dives should be planned and executed using conservative decompression parameters. For the safety of the student and instructor, RAID recommends that during training, the most conservative settings be applied.

VIII. Equipment Requirements

- Twinset or sidemount cylinder setup.
- Technical regulator setup fitted with a long hose, including a piston clip.
- One low-pressure (LP) inflator hose for BCD and dry suit (if appropriate). LP connectors must be interchangeable.
- One backup regulator with standard hose fitted with neck bungee.
- One SPG with a piston clip.
- Stage cylinder holding a suitable gas volume for planned dives.
- Stage cylinder rigging kit.
- Cylinder marking for MOD, Diver Name and Mix (labelled as per RAID cylinder marking standards).
- Suitable DIN regulator with SPG on a short HP hose.
- Wing, plate and harness.
- Redundant buoyancy.
- Personal dive computer.
- Backup computer or depth dive timer.
- Wetnotes or wrist slate or finger slate.
- Primary SMB.
- Emergency SMB.
- 1 x reels or spools with adequate line length for the dive depth.
- 2 x cutting devices.
- Backup mask.
- Light where appropriate.
- Smartphone, tablet or laptop with decompression software.
- Access to a nitrox or mixed gas analyzer if required for trimix.

IX. In Water Training

Each Student must complete these requirements.

- Minimum of 1 confined water dive with no minimum time requirement.
- Minimum of 4 open water dives with at least 3 hours of underwater training.

X. Certification

The Advanced Decompression certification entitles the holder to dive with a certified dive buddy to a maximum depth of 50 metres / 165 feet) in conditions similar or better than those experienced during training using air, nitrox or trimix (if applicable) with optimized decompression. Certification will be awarded in the diving system used for training.

XI. Special standards for this certification

- Students certified as Sidemount Advanced Decompression may crossover to Twinset Decompression by completing 1 confined water session and 2 open water dives.
- Students certified as Twinset Advanced Decompression may crossover to Sidemount Decompression by completing 1 confined water session and 2 open water dives.

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals.

EXTENDED DECOMPRESSION

I. Purpose

This course is designed to train Students to safely:

- Dive to a maximum depth of 55 metres / 180 feet.
- Use air, nitrox, oxygen.
- Complete planned decompression.
 - Divers must have sufficient volume to complete a safe ascent, including the required decompression plus one-third reserve to share gas with a buddy.
- Use a higher oxygen content nitrox (up to 100% oxygen) in up to 3 separate stage cylinders to optimize decompression dive times.
 - Bottom gas may have a maximum PO₂ of 1.4 at depth.
 - Decompression gas may have a maximum PO₂ of 1.6 at depth.

II. Student Prerequisites

A Student taking this course must:

- Be a minimum of 18 years old.
- Be certified as RAID Advanced Decompression or Limited Trimix Decompression.
- Be certified as RAID Master Rescue (or equivalent).
- Have a minimum of 65 logged hours underwater or 100 dives using open circuit.
- Have logged at least 20 dives between 30 - 40 metres /100 - 130 feet.
- Have logged at least 10 decompression dives.
- Complete the registration process, including all mandatory online documentation.
- Submit current First Aid & CPR training and Oxygen Administration certificates.

OPEN CIRCUIT TECHNICAL PROGRAM STANDARDS

- Be certified as a RAID Sidemount or RAID Twinset divers if doing the course using either configuration.

III. Course Requirements

To earn certification, the Student must fulfill the following requirements:

- Complete the online academic modules, quizzes, and exam.
 - Management.
 - Confined water.
 - Open Water.
- Complete all the skill requirements as outlined in the manuals for in-water training:
 - Pre-dive safety checks.
 - Buoyancy check.
 - Stage remove and replace on the surface.
 - Descents.
 - Buoyancy and trim.
 - Long hose recovery.
 - Frog kick.
 - Back fin.
 - Modified flutter kick.
 - Helicopter turn.
 - SAC rate calculations.
 - Stage remove and replace underwater.
 - Gas sharing stationary.
 - Gas sharing swim.
 - Gas sharing swimming ascent.
 - Back-up mask deployment.
 - Gas switch protocols.
 - Shutdown drills.
 - SMB deployment.
 - Rescue ascent.
 - Ascent with simulated failed decompression plan.

OPEN CIRCUIT TECHNICAL PROGRAM STANDARDS

IV. Who can conduct the course (minimum level Instructor for the Course)

The RAID Professional conducting this course must be at least a RAID Extended Decompression Instructor, Normoxic Trimix Instructor, or above.

Instructors must hold the Instructor rating for the system they are teaching, twinset or sidemount.

V. Supervision

A certified RAID Extended Decompression Instructor is defined as an in-status RAID Twinset Extended Decompression Instructor or RAID Sidemount Extended Decompression Instructor or higher.

All training must be conducted by any Instructor listed above. The Instructor must be physically present and directly supervise all training segments.

A Certified Assistant must be a RAID Divemaster or higher, certified in Extended Decompression or higher.

NOTE: Instructors certified as OC Extended Decompression Instructors and CCR Normoxic Instructors, or higher, may use the rebreather for which they are certified to teach while conducting Decompression diver training dives, provided that skills pertinent to open-circuit diving are not demonstrated. This standard only applies to open water dives.

VI. Instructor/Student Ratios

The maximum ratios are:

Confined Water

- A maximum of 4 Students: 1 Instructor.

Open Water

- A maximum of 3 Students: 1 Instructor.
- A maximum of 4 Students: 1 Instructor with a Certified Assistant.

NOTE: It is highly recommended that a certified RAID Assistant be utilized.

VII. Depth Limitations During Training

The training dive depth limits for individual dives are outlined in the training materials. Overall, training dives must not exceed a maximum depth of 5 metres/ 15 feet in confined water and 55 metres / 180 feet in open water. At least two dives should be deeper than 45 metres / 145 feet and one dive deeper than 50 metres / 165 feet.

Training dives should be planned and executed using conservative decompression parameters. For the safety of the student and instructor, RAID recommends that during training, the most conservative settings be applied.

VIII. Equipment Requirements

- Twinset or sidemount cylinder setup.
- Technical regulator setup fitted with a long hose, including a piston clip.
- One low-pressure (LP) inflator hose for BCD and dry suit (if appropriate). LP connectors must be interchangeable.
- One backup regulator with standard hose fitted with neck bungee.
- One SPG with a piston clip.

OPEN CIRCUIT TECHNICAL PROGRAM STANDARDS

- Stage cylinders holding a suitable gas volume for planned dives.
- Stage cylinder rigging kit.
- Cylinder marking for MOD, Diver Name and Mix (labelled as per RAID cylinder marking standards).
- Suitable DIN regulator with SPG on a short HP hose.
- Wing, plate and harness.
- Redundant buoyancy.
- Personal dive computer.
- Backup computer or depth dive timer.
- Wetnotes or wrist slate or finger slate.
- Primary SMB.
- Emergency SMB.
- 1 x reels or spools with adequate line length for the dive depth.
- 2 x cutting devices.
- Backup Mask.
- Light where appropriate.
- Smartphone, tablet or laptop with decompression software.
- Access to a nitrox or mixed gas analyzer.

IX. In Water Training

Each Student must complete these requirements.

- Minimum of 1 confined water dive with no minimum time requirement.
- Minimum of 4 open water dives with at least 3 hours of underwater training.

X. Certification

The Extended Decompression certification entitles the holder to dive with a certified dive buddy to a maximum depth of 55 metres / 180 feet in conditions similar to or better than those experienced during training, using air or nitrox with optimized decompression. Certification will be awarded in the diving system used for training.

XI. Special standards for this certification

- Students certified as Sidemount Extended Decompression may crossover to Twinset Extended Decompression by completing 1 confined water session and 2 open water dives.
- Students certified as Twinset Extended Decompression may crossover to Sidemount Extended Decompression by completing 1 confined water session and 2 open water dives.

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals.

NORMOXIC DECOMPRESSION

I. Purpose

This course is designed to train Students to safely:

- Dive to a maximum depth of 60 metres /200 feet.
- Use air, nitrox, oxygen and trimix.
- Complete planned decompression.
 - Divers must have sufficient volume to complete a safe ascent, including the required decompression plus one-third reserve to share gas with a buddy.
- The END/EAD for trimix must not exceed 30 metres / 100 feet.
- Use a higher oxygen content nitrox (up to 100% oxygen) in up to 3 separate stage cylinders to optimize decompression dive times.
 - Bottom gas may have a maximum PO₂ of 1.4 at depth.
 - Decompression gas may have a maximum PO₂ of 1.6 at depth.

II. Student Prerequisites

A Student taking this course must:

- Be a minimum of 18 years old.
- Be certified as RAID Advanced Decompression or Limited Trimix Decompression.
- Be a certified RAID Master Rescue (or equivalent).
- Have a minimum of 65 logged hours underwater or 100 dives using open circuit.
- Must have logged at least 20 dives between 30 - 40 metres/100 - 130 feet.
- Must have logged at least 10 decompression dives.
- Complete the registration process, including all mandatory online documentation.
- Submit current First Aid & CPR training and Oxygen Administration certificates.
- Be certified as RAID Sidemount or RAID Twinset divers, depending on the configuration you will be using during your training.

III. Course Requirements

To earn certification, the Student must fulfill the following requirements:

- Complete the online academic modules, quizzes, and exam.
 - Diving in General.
 - Confined Water.
 - Open Water.

OPEN CIRCUIT TECHNICAL PROGRAM STANDARDS

- Complete all the skill requirements as outlined in the manuals for in-water training.
 - Pre-dive safety checks.
 - Buoyancy check.
 - Stage remove and replace on the surface.
 - Descents.
 - Buoyancy and trim.
 - Long hose recovery.
 - Frog kick.
 - Back fin.
 - Modified flutter kick.
 - Helicopter turn.
 - SAC rate calculations.
 - Stage remove and replace underwater.
 - Gas sharing stationary.
 - Gas sharing swim.
 - Gas sharing swimming ascent.
 - Back-up mask deployment.
 - Gas switch protocols.
 - Shutdown drills.
 - SMB deployment.
 - Rescue ascent.
 - Ascent with simulated failed decompression plan.

IV. Who can conduct the course (minimum level Instructor for the Course)

The RAID Professional conducting this course must be at least a RAID Normoxic Decompression Instructor or above. Instructors must hold the Instructor rating for the system they are teaching, twinset or sidemount.

V. Supervision

A certified RAID Normoxic Decompression Instructor is defined as an in-status RAID Twinset Normoxic Decompression Instructor or RAID Sidemount Normoxic Decompression Instructor or higher.

All training must be conducted by any Instructor listed above. The Instructor must be physically present and directly supervise all training segments.

A Certified Assistant must be a RAID Divemaster or higher, certified as a Normoxic Decompression diver or higher.

OPEN CIRCUIT TECHNICAL PROGRAM STANDARDS

NOTE: Instructors who are certified as OC Normoxic Decompression Instructors and CCR Normoxic Instructors or higher may use the rebreather they are certified to teach while conducting Decompression training dives, where skills pertinent to open circuit diving will not be demonstrated. This standard only applies to open water dives.

VI. Instructor/Student Ratios

The maximum ratios are:

Confined Water

- A maximum of 4 Students: 1 Instructor.

Open Water

- A maximum of 3 Students: 1 Instructor.
- A maximum of 4 Students: 1 Instructor with a Certified Assistant.

NOTE: It is highly recommended that a certified RAID assistant be utilized

VII. Depth Limitations During Training

The training dive depth limits for individual dives are outlined in the training materials. Overall, training dives must not exceed the maximum depth of 5 metres / 15 feet in confined water and 60 metres / 200 feet in open water. At least two dives should be deeper than 45 metres / 145 feet, and one dive deeper than 50 metres / 165 feet.

Training dives should be planned and executed using conservative decompression parameters. For the safety of the student and instructor, RAID recommends that during training, the most conservative settings be applied.

VIII. Equipment Requirements

- Twinset or sidemount cylinder setup.
- Technical regulator setup fitted with a long hose, including a piston clip.
- One low-pressure (LP) inflator hose for BCD and dry suit (if appropriate). LP connectors must be interchangeable.
- One backup regulator with standard hose fitted with neck bungee.
- One SPG with a piston clip.
- Stage cylinders holding a suitable gas volume for planned dives.
- Stage cylinder rigging kit.
- Cylinder marking for MOD, Diver Name and Mix (labelled as per RAID cylinder marking standards).
- Suitable DIN regulator with SPG on a short HP hose.
- Wing, plate and harness.
- Redundant buoyancy.
- Personal mixed gas dive computer.
- Backup computer or depth dive timer.
- Wetnotes or wrist slate or finger slate.

HYPOXIC TRIMIX

- Primary SMB.
- Emergency SMB.
- 1 x reels or spools with adequate line length for the dive depth.
- 2 x cutting devices.
- Backup Mask.
- Light where appropriate.
- Smartphone, tablet or laptop with decompression software.
- Access to a mixed gas analyzer.

IX. In Water Training

Each Student must complete these requirements.

- Minimum of 1 confined water dive with no minimum time requirement.
- Minimum of 5 open water dives with at least 3 hours of underwater training.

X. Certification

The Normoxic Trimix certification entitles the holder to dive with a certified dive buddy to a maximum depth of 60 metres / 200 feet in conditions similar to or better than those experienced during training using air, nitrox or trimix with optimized decompression. Certification will be awarded in the diving system used for training.

XI. Special standards for this certification

- Students certified as Sidemount Normoxic Decompression divers may crossover to Twinset Decompression divers by completing 1 confined water session and 2 open water dives.
- Students certified as Twinset Normoxic Decompression divers may crossover to Sidemount Normoxic Decompression divers by completing 1 confined water session and 2 open water dives.

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals.

HYPOXIC TRIMIX

INTRODUCTION

Within this course, there are two certification options: the Limited Hypoxic Trimix (80m / 265ft) and Hypoxic Trimix (100m / 330ft). Below are the standards for both courses. As with all multi-certification courses offered by RAID, a drop-down list of certification options will appear during the certification process. Select the e-card associated with the level of training provided.

LIMITED HYPOXIC TRIMIX (80M / 260FT)

I. Purpose

This course is designed to train Students to safely:

- Dive to a maximum depth of 80m/265ft using open circuit scuba, depending on the course level taken.

HYPOXIC TRIMIX

- Use air, nitrox, oxygen and trimix mixes as breathing gas.
- The END/EAD for all gases must not exceed 30m/100 ft or a PO₂ of 1.4 for bottom mixes, 1.6 for decompression mixes.
- Complete optimized decompression dives within gas planning protocols, without any time limitations.
- Use up to four decompression gases of up to 100% oxygen for optimized decompression obligations.
- Use a “travel gas” when using hypoxic gas mixes.
- This program is a technical program for twinset and technical sidemount divers only.

II. Student Prerequisites

A Student taking this course must:

- Be a minimum of 18 years old.
- Be certified as RAID Master Rescue and Normoxic Decompression / Deco 60 diver (or equivalent).
- Submit current First Aid & CPR training and Oxygen Administration certificates.
- Have logged 100 hours underwater or 100 dives using open circuit.
- Must have logged at least 20 hours between 30m/100ft and 60m/200ft.
- Have a minimum of 15 logged decompression dives.
- Complete the registration process, including all mandatory online documentation.
- Submit a dive medical passed by a Licensed medical practitioner if required.
- Documented proof of prerequisite requirements must be presented to the Dive Centre for approval before any in-water training.

III. Course Requirements

To obtain certification, the Student must meet the following requirements.

1. Complete the online academic modules, quizzes, and exam successfully.
2. Pass the swim and stamina/stress tests as appropriate.
3. Complete all the skill requirements as outlined in the Instructor Guidelines for Confined Water Training and Open Water Training.
4. All confined and open water skills are completed and signed off through the RAID Website by both the Instructor and Student.
5. The Student has logged all their training dives online in their personal “E-logbook”.
6. The RAID Dive Centre has confirmed certification online through the RAID website and uploaded any relevant documentation.

IV. Who can conduct the course (minimum level Instructor for the course)

Limited Hypoxic Trimix Diver (80m/260ft) can be taught by a Limited Hypoxic Trimix instructor or above.

Hypoxic Trimix Diver (100m/330ft) can be taught by a Hypoxic Trimix instructor or above.

V. Supervision

A RAID Limited Hypoxic Trimix Open Circuit Instructor must conduct all training. The Instructor must be physically present and directly supervise all training segments. An Instructor wishing to teach Limited Hypoxic Trimix to Sidemount Students must also be a RAID Sidemount Instructor. The Instructor must be present at all times and in direct supervision during this course.

Certified RAID Assistant

A Certified Assistant must be a RAID Divemaster (or higher) who is certified as Limited Hypoxic Trimix or higher.

VI. Instructor/Student Ratios

The maximum ratios are:

Use your discretion as a RAID Instructor to determine whether the conditions warrant reducing the maximum ratios as stated below. Always consider group control and Student safety.

Confined Water Training

- Maximum ratio: 4:1 Instructor

Open Water Training

- Maximum ratio: 3:1 Instructor
- 4:1 with a Certified RAID Assistant when conditions such as current, visibility and water temperature are favourable, otherwise the use of a Certified Assistant does not affect ratios.

VII. Depth Limitations During Training

Training dive depth limits are outlined in the Hypoxic Trimix Open Circuit Diver and Instructor training materials.

Confined water training dives must not exceed the maximum depth of 10m / 30ft.

Open water training dives may not exceed a maximum depth of 80m / 265ft.

VIII. Equipment Requirements

Twinset Configuration

- Refer to Twinset Equipment Configuration in the Equipment section.

Sidemount Configuration

- Refer to the Sidemount Equipment Configuration in the Equipment section.

Decompression or Stage Cylinder Configuration

- Each stage cylinder must have an oxygen clean DIN regulator with SPG on a short HP hose (e.g. 15 cm/6 inch).
- Each cylinder must have its contents analyzed and labelled as per RAID Standards for an optimized decompression mix.
- Sufficient gas must be carried to maintain the rule of thirds based on planned depth and decompression schedules.

Dry suit Inflation

- Dry suit divers are required to have an independent dry suit inflation system.

HYPOXIC TRIMIX

IX. In Water Training

Confined Water Training

- There is no minimum time requirement for confined water, but ALL skills must be completed.

Open Water Training

- A minimum of 5 hours (300 minutes).

Minimum Dive

- 1 confined water dive and 4 in open water.

NOTE: The Instructor must show demonstration mastery of all skills necessary for certification. To clarify this point, when an Instructor teaches Twinset and Sidemount Students simultaneously, the Instructor must have access to both configurations and demonstrate the skill procedures for each configuration separately in confined water.

X. Certification

The RAID Limited Hypoxic Trimix Open Circuit diver course certifies divers to dive to a maximum depth of 80m / 265ft. The certification allows the use of air, nitrox, oxygen and hypoxic trimix as breathing gases. This program is an open circuit technical program for twinset and technical sidemount users only.

XI. Special standards for this certification

Instructors who are certified as a Limited Hypoxic Trimix Open Circuit Instructor as well as a Rebreather Hypoxic Trimix Instructor may use the rebreather they are certified to teach while conducting Limited Hypoxic Trimix training dives, where skills pertinent to open circuit diving will not be demonstrated. This standard applies ONLY to open-water dives.

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals.

HYPOXIC TRIMIX (100M/330FT)

I. Purpose

This course is designed to train Students to safely:

- Dive to a maximum depth of either 100m/330ft using open circuit scuba, depending on the course level taken.
- Use air, nitrox, oxygen, and trimix mixes as breathing gas.
- The END/EAD for all gases must not exceed 30m/100ft or a PO_2 of 1.4 for bottom mixes, 1.6 for decompression mixes.
- Complete optimized decompression dives within gas planning protocols, without any time limitations.
- Use up to four decompression gases of up to 100% oxygen for optimized decompression obligations.
- Use a “travel gas” when using hypoxic gas mixes.
- This program is a technical program for twinset and technical sidemount divers only.

II. Student Prerequisites

A Student taking this course must:

- Be a minimum of 18 years old.

HYPOXIC TRIMIX

- Be certified as RAID Master Rescue and Normoxic Decompression / Deco 60 diver (or equivalent).
- Submit current First Aid & CPR training and Oxygen Administration certificates.
- Must have logged 100 hours underwater or 100 dives using open circuit.
- Must have logged at least 20 hours between 30m/100ft and 60m/200ft.
- Have a minimum of 15 logged decompression dives.
- Complete the registration process, including all mandatory online documentation.
- Submit a dive medical passed by a Licensed medical practitioner if required.
- Documented proof of prerequisite requirements must be presented to the Dive Centre for approval before any in water training.

III. Course Requirements

To earn certification, the Student must fulfill the following requirements:

- Complete the online academic modules, quizzes, and exam.
- Complete all the skill requirements as outlined in the Hypoxic Trimix diver and Instructor manuals.
- All confined and open water skills are completed and signed off through the RAID Website by both the Instructor and Student.
- Complete all confined and open water dives.
- The Student has logged all their training dives online in their personal "E-logbook".
- The RAID Dive Centre, or Instructor, has confirmed certification online through the RAID website and uploaded any relevant documentation.

IV. Who can conduct the course (minimum level Instructor for the Course)

The RAID Professional conducting this course must at least be a RAID Hypoxic Trimix Open Circuit Instructor. An Instructor wishing to teach Hypoxic Trimix to Sidemount Students must also be a RAID Sidemount Instructor.

V. Supervision

A RAID Hypoxic Trimix Instructor must conduct all training. The Instructor must be physically present and directly supervise all training segments. An Instructor wishing to teach Hypoxic Trimix Open Circuit to Sidemount Students must also be a RAID Sidemount Instructor.

Certified RAID Assistant

A Certified Assistant must be a RAID Divemaster (or higher) and certified as a Hypoxic Trimix diver or higher.

VI. Instructor/Student Ratios

Use your discretion as a RAID Instructor to determine whether the conditions warrant reducing the maximum ratios as stated below. Always consider group control and Student safety.

HYPOXIC TRIMIX

Confined Water Training

- Maximum ratio: 4:1 Instructor

Open Water Training

- Maximum ratio: 3:1 Instructor
- 4:1 with a Certified RAID Assistant

VII. Depth Limitations During Training

Training dive depth limits are outlined in the Hypoxic Trimix diver and Instructor Training materials.

- Confined Water training dives must not exceed the maximum depth of 10m / 30ft.
- Open water training dives may not exceed a maximum depth of 100m / 330ft.

VIII. Equipment Requirements

Twinset Configuration

- Refer to Twinset Equipment Configuration in the Equipment section.

Sidemount Configuration

- Refer to the Sidemount Equipment Configuration in the Equipment section.

Decompression or Stage Cylinder Configuration:

- Each stage cylinder must have an oxygen clean DIN regulator with SPG on a short HP hose (e.g. 15 cm/6 inch).
- Each cylinder must have its contents analyzed and labelled as per RAID Standards for an optimized decompression mix.
- Sufficient gas must be carried to maintain the rule of thirds based on planned depth and decompression schedules.

Dry Suit Inflation

- Dry suit divers are required to have an independent dry suit inflation system.

IX. In Water Training

Each Student must complete these requirements.

Confined Water Training

- There is no minimum time requirement for confined water, but ALL skills must be completed.

Open Water Training

- A minimum of 5 hours (300 minutes).

Minimum Dives

- 1 confined water dive and 5 in open water.

NOTE: The Instructor must demonstrate all skills necessary for certification. To clarify this point, when an Instructor teaches Twinset and Sidemount Students simultaneously, the Instructor must have access to both configurations and demonstrate the skill procedures for each configuration separately in confined water.

OVERHEAD PROGRAMS

IX. Certification

The RAID Hypoxic Trimix course certifies divers to dive to a maximum depth of 100m / 330ft.

The certification allows the use of air, nitrox, oxygen and hypoxic trimix as breathing gases. This program is an open circuit technical program for twinset and technical sidemount users only.

XI. Special standards for this certification

Instructors who are certified as a Hypoxic Trimix Open Circuit Instructor as well as a Rebreather Hypoxic Trimix Instructor may use the rebreather they are certified to teach while conducting Hypoxic Trimix training dives, where skills pertinent to open circuit diving will not be demonstrated. This standard applies ONLY to open-water dives.

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals.

OVERHEAD PROGRAMS

CAVERN PROGRAM

I. Purpose

This course is designed to safely train Students in the established procedures and protocols to dive in an overhead environment while being within the light zone at all times, without incurring any decompression obligations and within the course limits outlined below.

II. Student Prerequisites

A Student taking this course must:

- Be a minimum of 18 years old.
 - 15 years old with parental / guardian consent and must dive with a suitably qualified adult.
- Be a certified Open Water 20 diver or equivalent for at least 3 months.
- Must have logged 20 hours underwater or 25 dives using open circuit.
- Be certified as a RAID Deep 40 or equivalent, or RAID Explorer 30 or equivalent, **should any training dives be conducted deeper than 18 metres / 60 feet.**
- Must be certified as a Sidemount or Twinset diver if using either configuration.

III. Course Requirements

To obtain certification, the Student must meet the following requirements.

- 1) Complete the online academic modules, quizzes, and exam successfully.
- 2) All confined and Open Water skills are completed and signed off through the RAID Website by both the Instructor and Student.
- 3) The Student has logged all their training dives online in their personal RAID E-logbook.
- 4) The RAID Dive Centre has confirmed certification online through the RAID Website.

OVERHEAD PROGRAMS

IV. Who can conduct the course (minimum level Instructor for the Course)

RAID Cavern Instructor or Cave 1 Instructor or higher.

V. Supervision

A certified RAID Cavern Instructor or Cave 1 Instructor or higher.

- A Cavern Instructor wishing to teach Students in sidemount, must be a RAID Sidemount Instructor.
- A Cavern Instructor wishing to teach Students in twinset, must be a RAID Twinset Instructor.

The Instructor must always be present and in direct supervision of ALL training segments during this course.

A Certified Assistant must be a RAID Divemaster or higher who is also certified as a RAID Cave 1 diver or higher, but this does not affect the ratios.

VI. Instructor/Student Ratios

The maximum ratios are:

Confined Water or Pool Training

- Maximum ratio: 6:1 with a maximum depth of 6 metres /20 feet.

Overhead Training

- Maximum ratio: 4:1.

It is highly recommended that a certified RAID Assistant be utilized. Using a certified RAID Assistant does not affect ratios, but it is recommended as a contingency “buddy” in the cave environment. Ratios should be reduced if conditions are less than ideal.

VII. Depth Limitations During Training

Training dive depth limits are outlined in the Cavern training materials. Training dives must not exceed the maximum depth of 6 metres / 20 feet in confined water and a maximum of 40m / 130 ft in open water; core level certification applies.

- **VIIa. Visual Limitations During Training**

Training dives must be conducted in conditions where the starting visibility is at least 10m / 30 ft. Primary lights must have a manufacturer’s recommended burn time of at least one hour longer than the duration of the planned dives.

- **VIIb. Gas Limitations During Training**

Cylinders must be filled to 200bar / 3000psi and the minimum cylinder size is 11.1 litres / 80 cubic feet.

Students may use a maximum of one-third of the starting pressure of a single cylinder for penetration into the overhead environment. Calculation of thirds must allow a generous additional gas reserve. Students using twinset or sidemount configuration will be limited to 1/6 of their available gas supply.

Students may use air or nitrox for bottom mixes, calculated at a maximum PO₂ of 1.4 in the deepest cave passage. (N.B. Trimix may be used if Students (and Instructor) are certified. The END / EAD for trimix must not exceed 30 metres / 100 feet and deliver a maximum PO₂ of 1.4 bar.

- **VIIc. Penetration Limitations During Training**

- Dives must follow a permanent guideline.
- No passages or restrictions through which divers are required to swim in single file.

OVERHEAD PROGRAMS

- No jumps allowed.
- Maximum penetration of 60 linear metres / 200 feet from the surface.
- All cavern training dives must be conducted during daylight hours and may not be started 90 minutes before sunset.

VIII. Equipment Requirements

Single cylinder (with or without H or Y valve) of adequate capacity for the planned dive. A minimum of an 11.1 litres / 80 cubic feet cylinder is highly recommended.

- A DIN first stage with:
 - One primary regulator with a long hose, including a piston clip for clipping off the regulator.
 - One low-pressure inflator hose for the BCD, and an additional hose for a Dry suit if applicable.
 - One backup regulator with standard hose fitted with neck bungee.
 - One SPG with a piston clip for attaching to the D Ring when stowed.

OR

- A standard recreational regulator setup:
 - Fitted with a long hose fitted to the primary regulator.
 - Buoyancy compensator
 - Standard BCD or backplate and wing with harness with adequate lift for the environment.

Twinset Configuration

- Refer to Twinset Equipment Configuration in the Equipment section.

Sidemount configuration

- Refer to the Sidemount Equipment Configuration in the Equipment section.

Additional required cavern-specific equipment per Student (unless noted):

- One cutting device.
- Primary dive light (with burn time at least one hour longer than planned dive time.)
- One fully charged backup light, each with a manufacturer's burn time of at least one hour.
- A minimum of 3 Personalized Directional markers (Arrows), two marked for the lost buddy scenario.
- A minimum of 3 personalized Non-directional markers (Cookies or REMs).
- One personal safety spool (to be carried by each Student at all times).
- One jump spool or cavern reel per Student.
- One primary reel per Student team.
- Spare mask.

IX. In-Water Training

Dive times for the diver course are a minimum of:

OVERHEAD PROGRAMS

Confined Water Training

- Adequate time to show mastery of all skills.

Overhead

- A minimum of 4 hours (240 minutes) in the overhead environment.
- A minimum of at least four penetrations in the overhead environment.
- A minimum of 3 hours of land drills, dryland instruction, kit configuration and dive debriefing.

X. Certification

This certification allows divers to safely and efficiently conduct dives with a similarly certified buddy within the limits of their core-level certification and experience in an overhead-cavern environment within the light zone, to a maximum penetration of 60 linear metres / 200 feet from the surface.

XI. Special standards for this certification

- **Students using twinset or sidemount configuration will be limited to 1/6 of their available gas supply.**
- **No Student may be allowed to enter the overhead until they have demonstrated control of buoyancy (hover within plus or minus 50 centimetres / 20 inches) and mastery of non-silt propulsion techniques and backwards kick.**

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals.

CAVE 1 (C1) PROGRAM

I. Purpose

This course is designed to safely train Students in the established procedures and protocols to dive in an overhead environment, without incurring any decompression obligations and within the course limits outlined below.

NOTE: Although Cave 1 is not a decompression course, RAID suggests that each dive concludes with a minimum three-minute safety stop between 6 metres / 20 feet and 3 metres / 10 feet, where practical.

II. Student Prerequisites

A Student taking this course must:

- Be a minimum of 18 years old.
- Be a certified Open Water 20 diver or equivalent for at least 3 months.
- Be certified as a RAID Nitrox Diver or equivalent.
- Must have logged 50 hours underwater or 75 dives using open circuit.
- Be certified RAID Sidemount or equivalent if using the Sidemount configuration.
- Be certified RAID Twinset or equivalent if using the Twinset configuration.

III. Course Requirements

To obtain certification, the Student must meet the following requirements:

1. Complete the online academic modules, quizzes, and exam successfully.

OVERHEAD PROGRAMS

2. All confined and Open Water skills are completed and signed off through the RAID Website by both the Instructor and Student.
3. The Student has logged all their training dives online in their personal eLogbook.
4. The RAID Dive Centre has confirmed certification online through the RAID website.

IV. Who can conduct the course (minimum level Instructor for the course)

RAID Cave 1 Instructor or higher.

V. Supervision

A certified RAID Cave 1 Instructor or higher.

A Cave Instructor wishing to teach Students in sidemount, must be a RAID Sidemount Instructor.

The Instructor must always be present and in direct supervision of all training segments during this course.

A Certified Assistant must be a RAID Divemaster or higher who is also certified as a RAID Cave 2 diver or higher, but this does not affect ratios.

VI. Instructor/Student Ratios

The maximum ratios are:

Confined Water or Pool Training

- Maximum ratio: 6:1 with a maximum depth of 6m.

Overhead Training:

- Maximum ratio: 3:1.

It is highly recommended that a RAID Certified Assistant be utilized. Using a RAID Certified Assistant does not affect ratios, but it is recommended as a contingency “buddy” in the cave environment.

VII. Depth Limitations During Training

Training dive depth limits are outlined in the Cave 1 training materials. Training dives must not exceed the maximum depth 6 metres / 20 feet in confined water and a maximum of 40 metres / 130 feet in open water.

- **VIIa. Visual Limitations During Training**

Training dives must be conducted in conditions where the starting visibility is at least 10 metres / 30 feet. Primary lights must have a manufacturer’s recommended burn time of at least 1 hour longer than the duration of the planned dives.

- **VIIb. Gas Limitations During Training**

The starting volume for all dives in an overhead environment must be at least 2800 litres / 100 cubic feet in primary cylinders (no stages).

Students may use a maximum of one-third of the starting pressure for penetration into the overhead. Calculation of thirds must allow a generous additional gas reserve.

Students may use air or nitrox for bottom mix, with a maximum PO₂ of 1.4 in the deepest cave passage. (N.B. Trimix may be used if Students (and Instructors) are certified. The END / EAD for trimix must not exceed 30 metres / 100 feet and deliver a maximum PO₂ of 1.4 bar.

OVERHEAD PROGRAMS

• VIIc. Penetration Limitations During Training

- Dives must follow the permanent mainline.
- Divers may run a single T-line from the permanent line.
- No passages or restrictions through which divers are required to swim in single file.
- No jumps allowed
- Maximum penetration of 300 metres/ 1000 feet from the surface.

VIII. Equipment Requirements

Twinset Configuration

- Refer to Twinset Equipment Configuration in the Equipment section.

Sidemount configuration

- Refer to the Sidemount Equipment Configuration in the Equipment section.

Additional required cave-specific equipment per Student (unless noted):

- Two cutting devices.
- Primary dive light (with burn time at least one hour longer than planned dive time).
- Two fully charged backup lights, each with a manufacturer's burn time of at least one hour.
- A minimum of 5 Personalized Directional markers (Arrows), two marked for the lost buddy scenario.
- A minimum of 5 personalized non-directional markers (Cookies or REMs).
- One personal safety spool (to be carried by each Student at all times).
- One jump spool or cavern reel per Student.
- One primary reel per Student team.
- Spare mask.
- Various cable ties (zip-ties), spare regulator mouthpiece, O-rings and scuba tool.
- Cave helmet (where appropriate).

IX. In-Water Training

Dive times for the DIVER course are a minimum of:

Confined Water Training

- Adequate time to show mastery of all skills.

Overhead Training

- A minimum of 8 hours (480 minutes) in the overhead environment.
- A total of at least ten dives in the overhead environment.
- A minimum of 20 hours of land drills, dryland instruction, kit configuration and dive debriefing.

OVERHEAD PROGRAMS

X. Certification

This certification allows divers to safely and efficiently conduct dives with a similarly certified buddy within the limits of their core-level certification and experience in an overhead-cave environment, to a maximum penetration of 300 metres / 1000 feet from the surface.

XI. Special standards for this certification

No Student may be allowed to enter the overhead until they have demonstrated control of buoyancy (hover within plus or minus 20 centimetres / 8 inches) and mastery of non-silt propulsion techniques and backwards kick.

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals.

CAVE 2 (C2) PROGRAM

I. Purpose

This course is designed to safely train Students in the established complex navigation procedures and protocols to dive in an overhead environment, with no restrictions on lineal penetration – other than gas limits. Students certified as Advanced Decompression / Deco 50 may use one stage cylinder to extend gas limits or for decompression.

II. Student Prerequisites

A Student taking this course must:

- Be a minimum of 18 years old.
- Must have logged 50 hours underwater or 75 dives using open circuit.
- Be certified as Advanced Decompression / Deco 50 and have a minimum of 12 logged dives using a stage cylinder if using a stage bottle for extended penetration or decompression.
- Be certified as a RAID Cave 1 Diver or equivalent.
- Be a certified RAID Sidemount or equivalent if using Sidemount configuration.
- Be a certified RAID Twinset or equivalent if using Twinset configuration.
- Have logged at least 10 Cave 1 dives outside of training dives. (N.B. RAID C1 and C2 classes may only be run concurrently in exceptional circumstances and only with written permission from the RAID Training Department).

III. Course Requirements

To obtain certification, the Student must meet the following requirements.

1. Complete the online academic modules, quizzes, and exam successfully.
2. All confined and Open Water skills are completed and signed off through the RAID Website by both the Instructor and Student.
3. The Student has logged all their training dives online in their personal E-logbook.
4. The RAID Dive Centre has confirmed certification online through the RAID Website.

IV. Who can conduct the course (minimum level Instructor for the course)

RAID Cave 2 Instructor or higher.

OVERHEAD PROGRAMS

V. Supervision

A certified RAID Cave 2 Instructor or higher.

An Instructor wishing to teach Cave 2 divers to Sidemount Students must be a RAID Sidemount Instructor and a RAID Cave 2 Instructor.

The Instructor must always be present and in direct supervision of ALL training segments during this course.

A RAID Certified Assistant must be a RAID Divemaster or higher who is also certified as RAID Cave 2 or higher, but this does not affect ratios.

VI. Instructor/Student Ratios

The maximum ratios are:

Confined Water or Pool Training

- Maximum ratio: 6:1 with a maximum depth of 6m.

Overhead Training

- Maximum ratio: 3:1.
- It is highly recommended that a RAID Certified Assistant be utilized, but doing so does NOT affect ratios.

VII. Depth Limitations During Training

Training dive depth limits are outlined in the Cave Two training materials. Training dives must not exceed the maximum depth 6 metres / 20 feet in confined water and a maximum of 40 metres / 130 feet in open water.

- **VIIa. Visual Limitations During Training**

Training dives must be conducted in conditions where the starting visibility is at least 10 metres / 30 feet. Primary lights must have a manufacturer's recommended burn time of at least 1 hour longer than the planned dive duration.

- **VIIb. Gas Limitations During Training**

- The starting volume for all dives in an overhead environment must be at least 2800 litres / 100 cubic feet in primary cylinders, and 2200 litres / 80 cubic feet in a stage bottle.
- Students may use a maximum of one-third of the starting pressure for penetration into the overhead environment. The calculation of thirds must allow for a generous additional gas reserve.
- Students may use air or nitrox for bottom mix calculated at a maximum of 1.4 PO₂ in the deepest cave passage. (N.B. Trimix may be used if Students (and Instructor) are certified. The END / EAD for trimix must not exceed 30 metres / 100 feet and deliver a maximum PO₂ of 1.4 bar.

- **VIIc. Penetration Limitations During Training**

- Unlimited penetration following established gas limits.
- Complex navigation allowed, including (where possible) a circuit, a traverse, and jumps, tees and gaps.
- Restrictions must be passable without removing gear.
- No time limit on dives, but decompression obligation of a maximum duration of 30 minutes.

OVERHEAD PROGRAMS

VIII. Equipment Requirements

In addition to the Cave 1 equipment requirements and only for Deco 50 or Advanced Decompression divers using a stage to extend penetration:

- Decompression or Stage Cylinder Configuration consisting of:
 - One Oxygen clean DIN regulator with SPG on an approximately 15 cm / 6-inch HP hose for optimized decompression mix.
 - One Stage Cylinder (minimum 5.6L / 40cf cylinder, but recommended 11L / 80cf).

IX. In-Water Training

Dive times for the DIVER course are a minimum of:

Confined Water Training

- Adequate time to show mastery of all skills.

Overhead Training

- A minimum of 8 hours (480 minutes) in the overhead environment.
- A total of at least eight dives in the overhead environment.
- At least two carrying and using a stage bottle, if certified as Deco 50 or Advanced Decompression divers.

X. Certification

This certification enables divers to safely and efficiently conduct dives with a similarly certified buddy within the limits of their core-level certification and experience in an overhead cave environment.

XI. Special standards for this certification

Certified Deco 50 or Advanced decompression divers may use a stage cylinder to extend penetration.

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals.

LEADERSHIP COURSES AND RATINGS (TECHNICAL OPEN CIRCUIT)

PRO SKILL CIRCUIT DEMONSTRATION AND EVALUATION

The objective of the Pro-Skill Circuit Evaluation is to improve diving skills to IT demonstration level. This means the skills need to be demonstrated at a level that new Instructors can easily see all the sub-steps to the skill.

NOTE: All skills must be completed neutrally buoyant in a pool or confined water.

Instructors and Instructor Trainers at this level must demonstrate and pass all skills listed below. Scores are awarded as per the standard RAID criteria on the evaluation slate.

- Deco cylinder remove and replace underwater.
- S-Drill.
- Neutral buoyancy and trim.

OVERHEAD PROGRAMS

- Frog kick.
- Reverse kick.
- Modified flutter.
- Helicopter turn.
- Proper gas switching procedures.
- Gas sharing swim, using a long hose.
- Gas sharing ascent, using a long hose.
- Lost mask procedures.
- Shutdown the right-hand side while hovering.
- Shutdown the left-hand side while hovering.
- Diagnostic shutdown while hovering.
- Unresponsive diver swim and ascent.
- Inflator failure.

In addition, Instructors using Sidemount will be required to demonstrate a:

- Free flow second stage – feathering.
- Shutdown the right-hand side while hovering.
- Shutdown the left-hand side while hovering.

In addition, Instructors using a twinset will be required to demonstrate a:

- Shutdown the right-hand side.
- Shutdown the left-hand side.
- Diagnostic shutdown.

In addition, candidates may be asked to demonstrate course-specific skills such as:

- Line laying procedures (overhead programs).
- Touch contact, blind exit line work (overhead programs).

DECOMPRESSION INSTRUCTOR PROGRAM

I. Purpose

This course is designed to safely train Instructors to teach and certify RAID Decompression or Limited Trimix Decompression Courses using either twinset or sidemount and one decompression gas.

II. Student Prerequisites

A candidate taking this program must:

- Be a minimum of 18 years old.
- Be certified and in status as a RAID Open Circuit Instructor.

OVERHEAD PROGRAMS

- Be certified as a RAID Nitrox and RAID Deep 40 Instructor.
 - Be certified as a RAID Deco 40 or Decompression Diver or equivalent.
- OR
- Be certified as a RAID Deco 50 or Limited Trimix diver to be certified for 45m / 145ft.
 - Have at least 20 dives logged over 30m/ 100ft with at least 10 decompression dives.
 - Be certified and current Rescue Breathing/CPR/BLS Training and Oxygen Administration Instructor.
 - Submit a dive medical passed by a licensed medical practitioner.
 - Submit proof of liability insurance where applicable.
 - Be able to complete the required swim and stamina tests.
 - Complete the registration process, including all mandatory online documentation.
 - The course may be conducted using a Sidemount configuration if the Instructor candidate is certified as a RAID Sidemount Instructor.
 - The course may be conducted using a twinset configuration if the Instructor candidate is a RAID Twinset or Deco 50 Instructor or higher.

NOTE: The Sidemount Instructor course may be combined with the Decompression Instructor course if the Instructor candidate is a sidemount-certified diver and meets the prerequisites for the Sidemount Instructor course.

- **Ila. Instructor Crossover Prerequisites**
 - As per the standards for Instructor Candidate Prerequisites above.
 - Crossover Instructors need to complete a RAID OC Instructor Crossover Program and then a RAID Decompression Instructor crossover.
 - Instructors must submit proof of equivalency and proof of logged dives.
 - RAID HQ must approve all crossover Instructor equivalent certifications.

III. Course Requirements

To earn certification, the candidate must fulfill the following requirements:

1. Complete the online academic modules, quizzes, and exam successfully.
2. Complete all the skill requirements for Confined Water Training and Open Water Training.
3. Instructor Candidates must pass the following presentations:
 - At least one Academic Teaching Presentation.
 - At least one Confined Water Presentation.
 - At least one Open Water Presentation.
 - Each in-water presentation will consist of two skills.
 - At least one practical application.

NOTE: These sessions can be role play or with actual new Students.

OVERHEAD PROGRAMS

IV. Who can conduct the course (minimum level Instructor for the Course)

RAID Decompression Instructor Trainer

V. Supervision

A certified RAID Decompression Instructor Trainer is defined as an in-status RAID Decompression or Deco 40 Instructor Trainer.

The Instructor Trainer must be a RAID Sidemount Instructor Trainer to teach the Decompression Instructor in a sidemount configuration.

The Instructor Trainer must be a RAID Deco 50 or Twinset Decompression Instructor Trainer to teach the course in twinset configuration.

An Instructor must conduct all training. The Instructor Trainer must be physically present and directly supervise all training segments.

NOTE: Instructor Trainers certified as OC Deco 40 / Decompression Instructor Trainers and CCR Limited Trimix Instructors may use the rebreather for which they are certified to teach while conducting Decompression Instructor training dives, where skills pertinent to open circuit diving will not be demonstrated. This standard ONLY applies to open-water dives.

VI. Instructor/Student Ratios

The maximum ratios are:

Confined Water Training

- 4 candidates: Instructor Trainer

Open Water Training

- 4 candidates: 1 Instructor Trainer

NOTE: It is highly recommended that a certified RAID assistant be utilized.

NOTE: When the water temperature is 6°C / 43°F or below, or the visibility is less than 5 metres / 15 feet, the ratio is reduced to 2:1 or 3:1 with a Certified RAID Assistant.

VII. Depth Limitations During Training

Training dive depth limits are outlined in the training materials. Training dives must not exceed the maximum depth of 5 metres / 15 feet in confined water and 40 metres / 130 feet in open water or 45 metres / 145 feet for Students completing that certification level.

VIII. Equipment Requirements

Refer to Equipment Requirements in this RGDS.

XI. In-Water Training

To be certified as a Decompression Instructor, the candidate must complete these requirements.

- Minimum of 1 confined water dives with no minimum time requirement.
- Minimum of 4 open water dives with at least 3 hours of underwater training.

X. Certification

The Decompression Instructor certification entitles the holder to teach divers to safely dive to a maximum depth of 40 metres / 140 feet in conditions similar to or better than those experienced during training, using air or nitrox, with one decompression cylinder, either in a sidemount or twinset configuration. Limited Trimix up to 45 metres / 145 feet is selectable at certification, provided the candidate meets prerequisites.

OVERHEAD PROGRAMS

XI. Special standards for this certification

To maintain current Instructor Status, Instructors must certify at least two Decompression divers per year.

Instructors who are unable to achieve this *may* have to do a refresher.

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals.

ADVANCED DECOMPRESSION INSTRUCTOR PROGRAM

I. Purpose

This course is designed to safely train Instructors to teach and certify RAID Advanced Decompression using either twinset or sidemount with up to 2 decompression gases, to a depth of 50m / 165ft.

II. Student Prerequisites

A candidate taking this program must:

- Be a minimum of 20 years old.
- Be certified and in status as a RAID Open Circuit Instructor.
- Be certified as a RAID Deco 50 or Advanced Decompression Diver or equivalent.
- Logged at least 25 decompression dives between 35 – 50 metres/115 -165 feet.
- 10 certified Nitrox Plus or Decompression courses or equivalent (a maximum of 3 Nitrox Plus divers may count towards the Prerequisite).
- Be a certified and current Rescue Breathing/CPR/BLS Training and Oxygen Administration Instructor.
- Submit a dive medical passed by a licensed medical practitioner.
- Submit proof of liability insurance where applicable.
- Be able to complete the required swim and stamina tests.
- Complete the registration process, including all mandatory online documentation.
- The course may be conducted using a Sidemount configuration if the Instructor candidate is certified as a RAID Sidemount Instructor.
- The course may be conducted using a twinset configuration if the Instructor candidate is a RAID Twinset Instructor.

Ila. Instructor Crossover Prerequisites

- As per the standards for Instructor Candidate Prerequisites above.
- Cross over Instructors need to complete a RAID OC Instructor Crossover Program and then a RAID Decompression Instructor Crossover.
- Instructors must submit proof of equivalency and proof of logged dives.
- RAID HQ must approve all crossover Instructor equivalent certifications.

III. Course Requirements

To earn certification, the candidate must fulfill the following requirements:

OVERHEAD PROGRAMS

1. Complete the online academic modules, quizzes, and exam successfully.
2. Complete all the skill requirements for Confined Water Training and Open Water Training.
3. Instructor Candidates must pass the following presentations:
 - At least one Academic Teaching Presentation.
 - At least one Confined Water Presentation.
 - At least one Open Water Presentation.
 - Each in-water presentation will consist of two skills.
 - At least one practical application.

NOTE: These sessions can be role play or with actual new Students.

IV. Who can conduct the course (minimum level Instructor for the Course)

RAID Advanced Decompression Instructor Trainer

V. Supervision

A certified RAID Advanced Decompression Instructor Trainer is defined as an in-status RAID Advanced Decompression or Deco 50 Instructor Trainer.

The Instructor Trainer must be a RAID Sidemount Instructor Trainer to teach the Advanced Decompression Instructor in a sidemount configuration.

The Instructor Trainer must be a RAID Deco 50 or Twinset Advanced Decompression Instructor Trainer to teach the course in twinset configuration.

An Instructor must conduct all training. The Instructor must be physically present and directly supervise all training segments.

VI. Instructor/Student Ratio

The maximum ratios are:

Confined Water Training

- 4 candidates :1 Instructor Trainer.

Open Water Training

- 4 candidates :1 Instructor Trainer.

NOTE: It is highly recommended that a RAID Certified Assistant be utilized.

NOTE: When the water temperature is 6°C / 43°F or below, or the visibility is less than 5 metres / 15 feet, the ratio is reduced to 2:1 or 3:1 with a RAID Certified Assistant.

VII. Depth Limitations During Training

Training dive depth limits are outlined in the training materials. Training dives must not exceed the maximum depth 5 metres / 15 feet in confined water and 50 metres / 165 feet in open water.

VIII. Equipment Requirements

Refer to Equipment Requirements in this RGDS.

IX. In Water Training

To be certified as an Advanced Decompression Instructor, the candidate must complete these requirements.

- Minimum of 1 confined water dives with no minimum time requirement.
- Minimum of 4 open water dives with at least 3 hours of underwater training.

X. Certification

The Advanced Decompression Instructor certification entitles the holder to teach divers to safely dive to a maximum depth of 50m/165 feet, in conditions similar to or better than those experienced during training, using air, nitrox, or trimix with up to 2 decompression cylinders, either using sidemount or twinset configurations. Trimix is selectable at certification, provided the candidate meets prerequisites.

XI. Special standards for this certification

Instructor Trainers certified as OC Deco 50 / Advanced Decompression Instructor Trainers and CCR Normoxic Trimix Instructors may use the rebreather for which they are certified to teach while conducting Decompression Instructor training dives, where skills pertinent to open circuit diving will not be demonstrated. This standard ONLY applies to open-water dives.

To maintain current Instructor Status, Instructors must certify at least two Decompression or Advanced Decompression divers per year. Instructors who are unable to achieve this may have to do a refresher.

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals.

EXTENDED DECOMPRESSION INSTRUCTOR PROGRAM

I. Purpose

This course is designed to safely train Instructors to teach and certify RAID Extended Decompression divers using either twinset or sidemount with up to 3 decompression gases up to 55m / 180ft.

II. Student Prerequisites

A candidate taking this program must:

- Be a minimum of 21 years old.
- Be certified and in status as a RAID Open Circuit Instructor.
- Be certified as RAID Deco 50, Advanced Decompression Instructor or equivalent.
- Logged 250 dives.
- Logged at least 50 decompression dives between 35 – 50 metres/115 -165 feet.
- 10 certified Decompression or Advanced Decompression divers or equivalent.
- Be certified and current Rescue Breathing/CPR/BLS Training and Oxygen Administration Instructor.
- Submit a dive medical passed by a licensed medical practitioner.
- Submit proof of liability insurance where applicable.
- Be able to complete the required swim and stamina tests.
- Complete the registration process, including all mandatory online documentation.

OVERHEAD PROGRAMS

- The course may be conducted using a sidemount configuration if the Instructor candidate is certified as a RAID Sidemount Instructor.
- The course may be conducted using a twinset configuration if the Instructor candidate is a RAID Twinset Instructor
- **Ila. Instructor Crossover Prerequisites**
 - As per the standards for Instructor candidate prerequisites above.
 - Crossover Instructors need to complete a RAID OC Instructor Crossover Program and then a RAID Decompression Instructor Crossover.
 - Instructors must submit proof of equivalency and proof of logged dives.
 - RAID HQ must approve all crossover Instructor equivalent certifications.

III. Course Requirements

To earn certification, the candidate must fulfill the following requirements:

1. Complete the online academic modules, quizzes, and exam successfully.
2. Complete all the skill requirements for Confined Water Training and Open Water Training.
3. Instructor Candidates must pass the following presentations:
 - At least one Academic Teaching Presentation.
 - At least one Confined Water Presentation.
 - At least one open water presentation.
 - Each in-water presentation will consist of two skills.
 - At least one practical application.

NOTE: These sessions can be role play or with actual new Students.

IV. Who can conduct the course (minimum level Instructor for the Course)

RAID Extended Decompression Instructor Trainer

V. Supervision

A certified RAID Extended Decompression Instructor Trainer is defined as an in-status RAID Extended Decompression or Deco 60 Instructor Trainer.

The Instructor Trainer must be a RAID Sidemount Instructor Trainer to teach an Extended Decompression Instructor in a sidemount configuration.

The Instructor Trainer must be a Twinset Extended Decompression Instructor Trainer to teach the course in twinset configuration.

An Instructor must conduct all training. The Instructor must be physically present and directly supervise all training segments.

NOTE: When the water temperature is 6°C / 43°F or below, or the visibility is less than 5 metres / 15 feet, the ratio is reduced to 2:1 or 3:1 with a Certified RAID Assistant.

VI. Instructor/Student Ratio

The maximum ratios are:

OVERHEAD PROGRAMS

Confined Water Training

- 4 candidates :1 Instructor Trainer

Open Water Training

- 3 candidates :1 Instructor Trainer

NOTE: It is highly recommended that a RAID Certified Assistant be utilized.

V. Depth Limitations During Training

Training dive depth limits are outlined in the training materials. Training dives must not exceed the maximum depth of 5 metres / 15 feet in confined water and 55 metres / 180 feet in open water.

VIII. Equipment Requirements

Refer to Equipment Requirements in this RGDS.

XI. In-Water Training

To be certified as an Extended Decompression Instructor, the candidate must complete these requirements.

- Minimum of 1 confined water dives with no minimum time requirement.
- Minimum of 4 open water dives with at least 3 hours of underwater training.

X. Certification

The Extended Decompression Instructor certification entitles the holder to teach divers to safely dive to a maximum depth of 55m/180 feet in conditions similar to or better than those experienced during training, using air, nitrox with up to 3 decompression cylinders, and either sidemount or twinset configurations.

XI. Special standards for this certification

Instructor Trainers who are certified as OC Deco 60 / Extended Decompression Instructor Trainers and CCR Normoxic Trimix Instructors may use the rebreather for which they are certified to teach while conducting Decompression Instructor training dives, provided that skills pertinent to open circuit diving are not demonstrated. This standard ONLY applies to open-water dives.

To maintain current Instructor Status, Instructors must certify at least two Decompression or above divers per year. Instructors who are unable to achieve this *may* have to do a refresher.

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals.

NORMOXIC DECOMPRESSION INSTRUCTOR PROGRAM

I. Purpose

This course is designed to safely train Instructors to teach and certify RAID Normoxic Decompression divers using either twinset or sidemount with up to 3 decompression gases up to 60m / 200ft.

II. Student Prerequisites

A candidate taking this program must:

- Be a minimum of 21 years old.
- Be certified and in status as a RAID Open Circuit Instructor.

OVERHEAD PROGRAMS

- Be certified as a RAID Deco 60 or Normoxic Decompression Diver or equivalent.
- Be certified as a RAID Deco 50 or Advanced Decompression Instructor or equivalent.
- Logged at least 50 decompression dives between 35 – 50 metres/115 -165 feet, with at least 10 trimix dives.
- 10 certified Decompression or Advanced Decompression divers or equivalent
- Be certified and current Rescue Breathing/CPR/BLS Training and Oxygen Administration Instructor
- Submit a dive medical passed by a licensed medical practitioner.
- Submit proof of liability insurance where applicable.
- Be able to complete the required swim and stamina tests.
- Complete the registration process, including all mandatory online documentation.
- The course may be conducted using a Sidemount configuration if the Instructor candidate is certified as a RAID Sidemount Instructor.
- The course may be conducted using a twinset configuration if the Instructor candidate is a RAID Twinset Instructor.

IIa. Instructor Crossover Prerequisites

- As per the standards for Instructor Candidate Prerequisites above.
- Crossover Instructors need to complete a RAID OC Instructor Crossover Program and then a RAID Decompression Instructor Crossover.
- Instructors must submit proof of equivalency and proof of logged dives.
- RAID HQ must approve all crossover Instructor equivalent certifications.

III. Course Requirements

To earn certification, the candidate must fulfill the following requirements:

1. Complete the online academic modules, quizzes, and exam successfully.
2. Complete all the skill requirements for Confined Water Training and Open Water Training.
3. Instructor Candidates must pass the following presentations:
 - At least one Academic Teaching Presentation.
 - At least one Confined Water Presentation.
 - At least one Open Water Presentation.
 - Each in-water presentation will consist of two skills.
 - At least one practical application.

NOTE: These sessions can be role play or with actual new Students.

IV. Who can conduct the course (minimum level Instructor for the Course)

RAID Normoxic Decompression Instructor Trainer

OVERHEAD PROGRAMS

V. Supervision

A certified RAID Normoxic Decompression Instructor Trainer is defined as an in-status RAID Normoxic Decompression or Deco 60 Instructor Trainer.

The Instructor Trainer must be a RAID Sidemount Instructor Trainer to teach a Normoxic Decompression Instructor in a sidemount configuration.

The Instructor Trainer must be a Twinset Instructor Trainer to teach the course in twinset configuration.

An Instructor must conduct all training. The Instructor must be physically present and in direct supervision of all training segments.

VI. Instructor/Student Ratio

The maximum ratios are:

Confined Water Training

- 4 candidates: 1 Instructor Trainer

Open Water Training

- 3 candidates: 1 Instructor Trainer

NOTE: It is highly recommended that a RAID Certified Assistant be utilized.

NOTE: When the water temperature is 6°C / 43°F or below, or the visibility is less than 5 metres / 15 feet, the ratio is reduced to 2:1 or 3:1 with a Certified RAID Assistant.

VII. Depth Limitations During Training

Training dive depth limits are outlined in the training materials. Training dives must not exceed the maximum depth of 5 metres / 15 feet in confined water and 60 metres / 200 feet in open water.

VIII. Equipment Requirements

Refer to Equipment Requirements in this RGDS.

IX. In Water Training

To be certified as a Normoxic Decompression Instructor, the candidate must complete these requirements.

- Minimum of 1 confined water dives with no minimum time requirement.
- Minimum of 4 open water dives with at least 3 hours of underwater training.

X. Certification

The Normoxic Decompression Instructor certification entitles the holder to teach divers to safely dive to a maximum depth of 60m/200 feet in conditions similar to or better than those experienced during training, using air, nitrox, or trimix with up to 3 decompression cylinders, either in sidemount or twinset configurations.

XI. Special standards for this certification

- Instructor Trainers who are certified as OC Deco 60/Extended Decompression Instructor Trainers and CCR Normoxic Decompression Instructors may use the rebreather for which they are certified to teach while conducting Decompression Instructor training dives, provided that skills pertinent to open circuit diving are not demonstrated. This standard ONLY applies to open-water dives.

OVERHEAD PROGRAMS

- To maintain current Instructor Status, Instructors must certify at least two divers as Decompression or higher level per year. Instructors who are unable to achieve this *may* have to do a refresher.

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals.

LIMITED HYPOXIC TRIMIX OPEN CIRCUIT INSTRUCTOR PROGRAM

I. Purpose

This course is designed to safely train Instructors to teach and certify Students to:

- Dive to a maximum depth of 80m/265 ft using open circuit scuba.
- Use air, nitrox, oxygen and trimix mixes as breathing gas.
- The END/EAD for all gases must not exceed 30m/100ft or a PO₂ of 1.4 for bottom mixes, 1.6 for decompression mixes.
- Use a “travel gas” when using hypoxic gas mixes.
- Complete optimized decompression dives within gas planning protocols, without any time limitations.
- Use up to four decompression gases of up to 100% oxygen for optimized decompression obligations.
- This program is an open circuit technical program for twinset and technical sidemount Instructor only.

II. Student Prerequisites

A candidate taking this course must:

- Be a minimum of 21 years old.
- RAID Limited Hypoxic or Hypoxic Trimix Diver or equivalent.
- Certified and in status as a RAID Open Circuit Instructor.
- Certified RAID Deco 60 Instructor or equivalent.
- Certified 10 Students at Deco 60 or Normoxic level or equivalent.
- At least 50 decompression dives between 35m/115ft and 50m/165ft.
- Be certified as RAID First Aid and CPR and RAID Oxygen Administration or equivalent.
- Submit a dive medical passed by a Licensed medical practitioner.
- Submit proof of liability insurance where applicable.
- Documented proof of prerequisite requirements must be presented to the Dive Centre for approval prior to any in water training.
- **Ila. Instructor Crossover Prerequisites**
 - As per the standards for INSTRUCTOR PREREQUISITES above.
 - Crossover Instructors need to complete a RAID Open Circuit Instructor crossover program and then a RAID Limited Hypoxic Trimix Instructor crossover.
 - Instructors must submit proof of an equivalent status acceptable to RAID.

III. Course Requirements

To earn certification, the Instructor Candidate must fulfil the following requirements:

1. Complete the online academic modules, quizzes, and exam successfully.
2. Complete all the skill requirements for Confined Water Training and Open Water Training.
3. Instructor Candidates must pass the following presentations:
 - At least one Academic Teaching Presentation.
 - At least one Confined Water Presentation.
 - At least one Open Water Presentation.
 - Each in-water presentation will consist of two skills.
 - At least one practical application.

NOTE: These sessions can be role play or with actual new Students.

Pro Skill Demonstration

In confined water or a pool, Instructors must demonstrate and pass the following skills from the Hypoxic Trimix Open Circuit program.

Scores are awarded as per the standard RAID evaluation criteria.

- S-Drill.
- Buoyancy control – Hover and trim.
- Gas sharing stationary.
- Gas sharing swimming.
- Gas sharing ascent.
- SMB deployment.
- Lost mask procedures.
- Team SMB deployment.
- Second emergency SMB deployment (Single Diver).
- Second emergency SMB deployment (Team).
- Deco stage, remove and replace both stage cylinders at the surface.
- Deco stage, remove and replace both stage cylinders underwater.
- Cylinder rotation.
- Stage exchange with teammate.
- Multiple gas switches.
- Travel Gas.

OVERHEAD PROGRAMS

- Stage Drop.

Twinset Specific Skills:

- Major Shutdown Right Hand Side.
- Major Shutdown Left Hand Side.
- Full Diagnostic Shutdown.

Sidemount Specific Skills:

- Free Flow Second Stage – Valve Feathering.
- Major Shutdown Right Hand Side.
- Major Shutdown Left Hand Side.
- **(N.B. Major shutdowns may be combined into shutdown cycle and reg. switch)**

NOTE: All Skills Must Be Completed Neutrally Buoyant.

IV. Who can conduct the course (minimum level Instructor for the Course)

RAID Limited Hypoxic Trimix Open Circuit Instructor Trainer

V. Supervision

A RAID Limited Hypoxic Trimix Open Circuit Instructor Trainer must conduct all training. The Instructor Trainer must be physically present and in direct supervision of all segments of training. An Instructor Trainer wishing to teach Limited Hypoxic Trimix Open Circuit to sidemount Instructor candidates must also be a RAID Sidemount Instructor Trainer.

Certified RAID Assistant

A Certified Assistant must be certified as a Limited Hypoxic Trimix Open Circuit Instructor or higher.

VI. Instructor/Student Ratio

Use your discretion as a RAID Instructor Trainer to determine whether the conditions warrant reducing the maximum ratios as stated below. Always consider group control and candidate safety.

Confined Water Training

- Maximum ratio: 6:1

Open Water Training

- Maximum ratio: 3:1 Instructor Trainer
- 4:1 with a Certified RAID Assistant

VII. Depth Limitations During Training

- Training dive depth limits are outlined in the Hypoxic Trimix Open Circuit Diver and Instructor training materials.
- Confined water training dives must not exceed the maximum depth of 10m /30ft.
- Open water training dives may not exceed a maximum depth of 80m/260ft.

OVERHEAD PROGRAMS

VIII. Equipment Requirements

Twinset Configuration

- Refer to Twinset Equipment Configuration in the Equipment section.

Sidemount Configuration

- Refer to the Sidemount Equipment Configuration in the Equipment section.

Dry Suit Inflation

- Dry suit divers are required to carry an independent dry suit inflation system.

IX. In Water Training

Confined Water Training

- There is no minimum time requirement for confined water, but ALL skills must be completed.

Open Water Training

- A minimum of 5 hours (300 minutes).

Minimum Dives:

- 1 confined water dive and 3 in open water.

X. Certification

The RAID Limited Hypoxic Trimix Open Circuit Instructor course certifies Instructors to teach divers to a maximum depth of 80m / 260ft. The certification allows the use of air, nitrox, oxygen, and hypoxic trimix as breathing gases. This program is an open circuit technical program for twinset and technical sidemount users only.

XI. Special standards for this certification

- To maintain teaching status for this level of certification/qualification, the following requirements must be met:
 - Be a current RAID Instructor.
 - Teach at their highest level at least once every two years from the date of the last course done at that level.
 - Complete a minimum of 6 decompression dives within the renewal period. These dives must be logged online in the member's E-logbook and any decompression diving completed in training may be counted.
- If any one of the above requirements has not been met, the member may not teach this level of certification. A waiver may be applied for in writing and sent to admin@diveraid.com, marked to the attention of the Standards Department.
- Instructor Trainers who are certified as a Limited Trimix Hypoxic Open Circuit Instructor as well as Rebreather Hypoxic Trimix Instructor, may use the rebreather they are certified to teach while conducting Limited Hypoxic Trimix training dives where skills pertinent to open circuit diving will not be demonstrated. This standard ONLY applies to open water dives.

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals.

LIMITED HYPOXIC TRIMIX OPEN CIRCUIT INSTRUCTOR TRAINER PROGRAM

I. Purpose

This course is designed to safely train Instructors Trainers to teach Instructor candidates to certify Students to:

OVERHEAD PROGRAMS

- Dive to a maximum depth of 80m / 260ft using open circuit scuba.
- The END/EAD for all gases must not exceed 30m / 100ft or a PO₂ of 1.4 for bottom mixes, 1.6 for decompression mixes.
- Use a “travel gas” when using hypoxic gas mixes.
- Complete optimized decompression dives within gas planning protocols, without any time limitations.
- Use up to four decompression gases of up to 100% oxygen for optimized decompression obligations.
- This program is an open circuit technical program for twinset and technical sidemount Instructors only.

II. Student Prerequisites

A candidate taking this program must:

- Be a minimum of 21 years old.
- Certified and in status as a RAID Open Circuit Instructor Trainer.
- Certified RAID Limited Hypoxic Trimix Instructor or equivalent.
- Certified as a RAID Deco 60 Instructor Trainer or equivalent.
- At least 100 decompression dives deeper than 45m / 145ft.
- Taught at least 30 divers using normoxic or hypoxic trimix gases. Deco 60 and above.
- Certified 10 Deco 60 or Normoxic Decompression Instructors.
- Be certified as a RAID First Aid & CPR and RAID Oxygen Provider Instructor or equivalent.
- Submit a dive medical passed by a licensed medical practitioner.
- Submit proof of liability insurance where applicable.
- Documented proof of prerequisite requirements must be presented to the Dive Centre for approval prior to any in water training.
- Documented proof of prerequisite requirements must be presented to the RRO and RAID HQ for approval prior to any in water training.

• IIa. Instructor Trainer Crossover Prerequisites

- As per the standards for Instructor Trainer prerequisites above.
- Crossover Instructor Trainers must complete a RAID Open Circuit Instructor Trainer Crossover Program and then the RAID Limited Hypoxic Trimix Open Circuit Instructor Crossover Programs.
- Instructor Trainers must submit proof of an equivalent status acceptable to RAID.

III. Course Requirements

To earn certification, the Instructor Trainer candidate must fulfil the following requirements:

1. Complete the online academic modules, quizzes, and exam successfully.
2. Complete all the skill requirements as outlined in the Hypoxic Trimix Open Circuit diver and Instructor manuals.
3. Complete all confined and open water dives.

OVERHEAD PROGRAMS

4. Present and pass at least one Academic Teaching Presentation.
5. Present and pass at least one Confined Water Presentation.
6. Present and pass at least one Open Water Presentation.
 - o Each in-water presentation will consist of two skills.
7. Present and pass at least one practical application.
8. Present a RISK Management profile on the dive site.
9. Complete the Pro Skill circuit as outlined below.

Instructor Trainer Candidates will be assessed on their evaluation of the topics listed below. Each evaluation needs to be within the control score set by the RAID HQ appointed RAID Instructor Trainer Trainer.

1. Evaluate at least two Academic Teaching Presentations.
2. Evaluate at least two Confined Water Presentations.
3. Evaluate at least two Open Water Presentations.
4. The in-water pro skill circuit evaluation. The skills are as per the Limited Hypoxic Trimix Open Circuit "Pro Skill Demonstration list.

IV. Who can conduct the course (minimum level instructor for the course)

RAID Limited Hypoxic Trimix Open Circuit Instructor Trainer Trainer

V. Supervision

A RAID Limited Hypoxic Trimix Open Circuit Instructor Trainer Trainer must conduct all training. The Instructor Trainer Trainer must be physically present and in direct supervision of all segments of training. An Instructor Trainer wishing to teach Limited Hypoxic Trimix Open Circuit to sidemount Instructor Trainer candidates must also be a RAID Sidemount Instructor Trainer Trainer.

Certified RAID Assistant

A Certified Assistant must be certified as a Limited Hypoxic Trimix Open Circuit Instructor or higher.

VI. Instructor Trainer Candidate to Tec Examiner Ratios

Use your discretion as a RAID Instructor Trainer to determine whether the conditions warrant reducing the maximum ratios as stated below. Always consider group control and candidate safety.

Confined Water Training

- Maximum ratio: 6:1 Instructor

Open Water Training

- Maximum ratio: 4:1 Instructor

VII. Depth Limitations During Training

Training dive depth limits are outlined in the Hypoxic Trimix Open Circuit Diver and Instructor training materials.

- Confined water training dives must not exceed the maximum depth of 10m / 30 ft.
- Open water training dives may not exceed a maximum depth of 80m / 260 ft.

OVERHEAD PROGRAMS

VIII. Equipment Requirements

Twinset Configuration

- Refer to Twinset Equipment Configuration in the Equipment section.

Sidemount Configuration

- Refer to the Sidemount Equipment Configuration in the Equipment section.

Dry Suit Inflation

- Dry suit divers are required to an independent dry suit inflation system.

IX. In-Water Training

Confined Water Training

- There is no minimum time requirement for confined water, but ALL skills must be completed.

Open Water Training

- A minimum of 5 hours (300 minutes).

Minimum Dives

- 1 dive in confined water.
- 3 dives in open water.

X. Certification

The RAID Limited Hypoxic Trimix Open Circuit Instructor Trainer course certifies Instructor Trainers to teach Instructors to teach to a maximum depth of 80m / 265 ft. The certification allows the use of air, nitrox, oxygen, and hypoxic trimix as breathing gases. This program is an open circuit technical program for twinset and technical sidemount users only.

XI. Special standards for this certification

- To maintain teaching status for this level of certification / qualification, the following requirements must be met:
 - Be a current RAID Instructor Trainer.
 - Teach at their highest level at least once every two years from the date of the last course done at that level.
 - Complete a minimum of 6 decompression dives within the renewal period. These dives must be logged online in the member's E-logbook, and any decompression diving completed in training may be counted.
- If any one of the above requirements has not been met, the member may not teach this level of certification. A waiver may be applied for in writing and sent to admin@diveraid.com marked to the attention of the Standards Department.
- Instructor Trainers who are certified as a Limited Trimix Hypoxic Open Circuit Instructor as well as Rebreather Hypoxic Trimix Instructor, may use the rebreather they are certified to teach while conducting Limited Hypoxic Trimix training dives where skills pertinent to open circuit diving will not be demonstrated. This standard ONLY applies to open water dives.

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals.

HYPOXIC TRIMIX OPEN CIRCUIT INSTRUCTOR PROGRAM

I. Purpose

This course is designed to train Instructors to teach and certify Students to safely:

- Dive to a maximum depth of 100m / 330ft using open circuit scuba.
- Use air, nitrox, oxygen, and trimix mixes as breathing gas.
- The END/EAD for all gases must not exceed 30m/100ft or a PO₂ of 1.4 for bottom mixes, 1.6 for decompression mixes.
- Use a “travel gas” when using hypoxic gas mixes.
- Complete optimized decompression dives within gas planning protocols, without any time limitations.
- Use up to four decompression gases of up to 100% oxygen for optimized decompression obligations.
- This program is an open circuit technical program for twinset and sidemount Instructors only.

II. Student Prerequisites

A candidate taking this program must:

- Be a minimum of 21 years old.
- Certified and in status as a RAID Open Circuit Instructor.
- Certified RAID Deco 60 Instructor or equivalent.
- Certified as Hypoxic Trimix Open Circuit Diver or equivalent.
- Certified 5 Students at Deco 60 / Normoxic Decompression or equivalent.
- At least 50 decompression dives between 35m / 115ft and 50m / 165ft.
- Be certified as a RAID First Aid & CPR and RAID Oxygen Administration or equivalent.
- Submit a dive medical passed by a Licensed medical practitioner.
- Submit proof of liability insurance where applicable.
- Documented proof of prerequisite requirements must be presented to the Dive Centre for approval before any in water training.
- **Ila. Instructor Crossover Prerequisites**
 - As per the standards for INSTRUCTOR PREREQUISITES above.
 - Crossover Instructors need to complete a RAID Open Circuit Instructor crossover program and then a RAID Hypoxic Trimix Open Circuit Instructor crossover.
 - Instructors must submit proof of an equivalent status acceptable to RAID.

III. Course Requirements

To earn certification, the Instructor candidate must fulfil the following requirements:

1. Complete the online academic modules, quizzes, and exam successfully.

OVERHEAD PROGRAMS

2. Complete all the skill requirements as outlined in the Hypoxic Trimix Course and Instructor manuals.
3. Complete all confined and open water dives.
4. Present and pass at least one Academic Teaching Presentation.
5. Present and pass at least one Confined Water Presentation.
6. Present and pass at least one Open Water Presentation.
 - a. Each in-water presentation will consist of two skills.
7. Present and pass at least one practical application.
8. Complete the Pro Skill circuit.

NOTE: Teaching presentations can be role-play or with actual new Deco 100 Students.

Pro Skill Demonstration

In confined water or a pool, Instructors must demonstrate and pass the following skills from the Hypoxic Trimix Open Circuit program. Scores are awarded as per the standard RAID evaluation criteria.

- S-Drill.
- Buoyancy control – Hover and trim.
- Gas sharing stationery.
- Gas sharing swimming.
- Gas sharing ascent.
- SMB deployment.
- Lost mask procedures.
- Team SMB deployment.
- Second emergency SMB deployment (Single Diver).
- Second emergency SMB deployment (Team).
- Deco stage, remove and replace both stage cylinders at the surface.
- Deco stage, remove and replace both stage cylinders underwater.
- Cylinder rotation.
- Stage exchange with teammate.
- Multiple gas switches.
- Travel Gas
- Stage Drop

Twinset Specific Skills

- Major Shutdown Right Hand Side.

OVERHEAD PROGRAMS

- Major Shutdown Left Hand Side.
- Full Diagnostic Shutdown.

Sidemount Specific Skills

- Free Flow Second Stage – Valve Feathering.
- Major Shutdown Right Hand Side.
- Major Shutdown Left Hand Side.
- **(N.B. Major shutdowns may be combined into shutdown cycle and reg. switch)**

NOTE: All Skills Must Be Completed Neutrally Buoyant.

IV. Who can conduct the course (minimum level Instructor for the Course)

RAID Hypoxic Trimix Open Circuit Instructor Trainer

V. Supervision

A RAID Hypoxic Trimix Open Circuit Instructor Trainer must conduct all training. The Instructor Trainer must be physically present and in direct supervision of all segments of training. An Instructor Trainer wishing to teach Hypoxic Open Circuit to sidemount Instructor candidates must also be a RAID Sidemount Instructor Trainer.

Certified RAID Assistant

A Certified Assistant must be certified as a Hypoxic Trimix Open Circuit Instructor or higher.

VI. Instructor/Student Ratio

Use your discretion as a RAID Instructor Trainer to determine whether the conditions warrant reducing the maximum ratios as stated below. Always consider group control and candidate safety.

Confined Water Training

- Maximum ratio: 6:1 Instructor

Open Water Training

- Maximum ratio: 3:1 Instructor
- 4:1 with a Certified RAID Assistant

VII. Depth Limitations During Training

- Training dive depth limits are outlined in the Hypoxic Trimix Open Circuit Diver and Instructor training materials.
- Confined water training dives must not exceed the maximum depth of 10m/30ft.
- Open water training dives may not exceed a maximum depth of 100m/330ft.

VIII. Equipment Requirements

Twinset Configuration

- Refer to Twinset Equipment Configuration in the Equipment section.

Sidemount Configuration

OVERHEAD PROGRAMS

- Refer to the Sidemount Equipment Configuration in the Equipment section.

Dry Suit Inflation

- Dry suit divers are required to have an independent dry suit inflation system.

IX. In-Water Training

Confined water

- There is no minimum time requirement for confined water, but ALL skills must be completed.

Open water

- A minimum of 5 hours (300 minutes).

Minimum Dives

- 1 confined water dive and 3 in open water.

X. Certification

The RAID Hypoxic Trimix Instructor course certifies Instructors to teach divers to a maximum depth of 100m/330ft. The certification allows the use of air, nitrox, oxygen, and hypoxic trimix as breathing gases. This program is an open circuit technical program for twinset and technical sidemount users only.

XI. Special standards for this certification

- To maintain teaching status for this level of certification/qualification, the following requirements must be met:
 - Be a current RAID Instructor.
 - Teach at their highest level at least once every two years from the date of the last course done at that level.
 - Complete a minimum of 6 decompression dives within the renewal period. These dives must be logged online in the member's E-logbook, and any decompression diving completed in training may be counted.
- If any one of the above requirements has not been met, the member may not teach this level of certification. A waiver may be applied for in writing and sent to admin@diveraid.com, marked to the attention of the Standards Department.
- Instructor Trainers who are certified as a Hypoxic Trimix Open Circuit Instructor as well as Rebreather Hypoxic Trimix Instructor, may use the rebreather they are certified to teach while conducting Hypoxic Trimix training dives, where skills pertinent to open circuit diving will not be demonstrated. This standard ONLY applies to open water dives.

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals.

HYPOXIC TRIMIX OPEN CIRCUIT INSTRUCTOR TRAINER PROGRAM

I. Purpose

This course is designed to safely train Instructor trainers to teach Instructor candidates to certify Students to:

- Dive to a maximum depth of 100m / 330 ft using open circuit scuba.
- The END/EAD for all gases must not exceed 30m/100ft or a PO₂ of 1.4 for bottom mixes, 1.6 for decompression mixes.

OVERHEAD PROGRAMS

- Use a “travel gas” when using hypoxic gas mixes.
- Complete optimized decompression dives within gas planning protocols, without any time limitations.
- Use up to four decompression gases of up to 100% oxygen for optimized decompression obligations.
- This program is an open circuit technical program for twinset and technical sidemount Instructors only.

II. Candidate Prerequisites

A candidate taking this program must:

- Be a minimum of 21 years old.
- Certified and in status as a RAID Open Circuit Instructor Trainer.
- Certified RAID Hypoxic Trimix Open Circuit Instructor or equivalent.
- Certified as a RAID Deco 60 Instructor Trainer or equivalent.
- At least 100 decompression dives deeper than 45m / 145ft.
- Taught at least 30 divers using normoxic or hypoxic trimix gases. Deco 60 and above.
- Certified 5 Deco 60 Instructors.
- Be certified as a RAID First Aid & CPR Instructor and Oxygen Administration Instructor or equivalent.
- Submit a dive medical passed by a licensed medical practitioner.
- Submit proof of liability insurance where applicable.
- Documented proof of prerequisite requirements must be presented to the Dive Centre for approval before any in water training.
- Documented proof of prerequisite requirements must be presented to the RRO and RAID HQ for approval before any in water training.
- **Ila. Instructor Trainer Crossover Prerequisites**
 - As per the standards for INSTRUCTOR TRAINER PREREQUISITES above.
 - Crossover Instructor Trainers must complete a RAID Open Circuit Instructor Trainer Crossover Program and then the RAID Hypoxic Trimix Open Circuit Instructor crossover programs.
 - Instructor Trainers must submit proof of an equivalent status acceptable to RAID.

III. Course Requirements

To earn certification, the Instructor candidate must fulfil the following requirements:

- 1) Complete the online academic modules, quizzes, and exam successfully.
- 2) Complete all the skill requirements as outlined in the Hypoxic Trimix diver and Instructor manuals.
- 3) Complete all confined and open water dives.
- 4) Present and pass at least one Academic Teaching Presentation.

OVERHEAD PROGRAMS

- 5) Present and pass at least one Confined Water Presentation.
- 6) Present and pass at least one Open Water Presentation.
 - a. Each in-water presentation will consist of two skills.
- 7) Present and pass at least one practical application.
- 8) Present a Risk Management profile on the dive site.
- 9) Complete the Pro Skill circuit as outlined below.

Instructor Trainer Candidates will be assessed on their evaluation of the topics listed below. Each evaluation needs to be within the control score set by the RAID HQ appointed RAID Instructor Trainer Trainer.

1. Evaluate at least two Academic Teaching Presentations.
2. Evaluate at least two Confined Water Presentations.
3. Evaluate at least two Open Water Presentations.
4. The in-water pro skill circuit evaluation. The skills are as per the Hypoxic Trimix Open Circuit "Pro Skill Demonstration list.

IV. Who can conduct the course (minimum level Instructor for the Course)

RAID Hypoxic Trimix Open Circuit Instructor Trainer Trainer

V. Supervision

A RAID Hypoxic Trimix Open Circuit Instructor Trainer Trainer must conduct all training. The Instructor Trainer trainer must be physically present and in direct supervision of all segments of training. An Instructor Trainer wishing to teach Hypoxic Trimix Open Circuit to sidemount Instructor Trainer candidates must also be a RAID Sidemount Instructor Trainer trainer.

RAID Certified Assistant

A RAID Certified Assistant must be certified as a Hypoxic Trimix Instructor or higher.

VI. Instructor Trainer Candidate to Tec Examiner Ratios

Use your discretion as a RAID Instructor Trainer to determine whether the conditions warrant reducing the maximum ratios as stated below. Always consider group control and candidate safety.

Confined Water Training

- Maximum ratio: 6:1 Instructor.

Open Water Training

- Maximum ratio: 4:1 Instructor.

VII. Depth Limitations During Training

- Training dive depth limits are outlined in the Hypoxic Trimix Open Circuit Diver and Instructor training materials.
- Confined water training dives must not exceed the maximum depth of 10m / 30ft.
- Open water training dives may not exceed a maximum depth of 100m / 330ft.

OVERHEAD PROGRAMS

VIII. Equipment Requirements

Twinset Configuration

- Refer to Twinset Equipment Configuration in the Equipment section.

Sidemount Configuration

- Refer to the Sidemount Equipment Configuration in the Equipment section.

Dry suit Inflation

- Dry suit divers are required to have an independent dry suit inflation system.

IX. In Water Training

Confined Water Training

- There is no minimum time requirement for confined water, but ALL skills must be completed.

Open Water Training

- A minimum of 5 hours (300 minutes).

Minimum Dives

- 1 confined water dive and 3 in open water.

X. Certification

The RAID Hypoxic Trimix Open Circuit Instructor Trainer course certifies Instructors to teach Instructors to a maximum depth of 100m / 330 ft. The certification allows the use of air, nitrox, oxygen, and hypoxic trimix as breathing gases. This program is an open circuit technical program for twinset and technical sidemount users only.

XI. Special standards for this certification

- To maintain teaching status for this level of certification/qualification, the following requirements must be met:
 - Be a current RAID Instructor Trainer.
 - Teach at their highest level at least once every two years from the date of the last course done at that level.
 - Complete a minimum of 6 decompression dives within the renewal period. These dives must be logged online in the member's E-logbook, and any decompression diving completed in training may be counted.
- If any one of the above requirements has not been met, the member may not teach this level of certification. A waiver may be applied for in writing and sent to admin@diveraid.com, marked to the attention of the Standards Department.
- Instructor Trainers who are certified as a Hypoxic Trimix Open Circuit Instructor as well as a Rebreather Hypoxic Trimix Instructor may use the rebreather they are certified to teach while conducting Hypoxic Trimix training dives, where skills pertinent to open circuit diving will not be demonstrated. This standard ONLY applies to open water dives.

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals.

CAVERN INSTRUCTOR PROGRAM

I. Purpose

OVERHEAD PROGRAMS

This course is designed to train Instructors to teach and certify RAID Cavern divers safely.

II. Student Prerequisites

A candidate taking this program must:

- Be a minimum of 18 years old.
- Be a certified diver for at least 12 months.
- RAID Open Circuit Instructor.
- Certified RAID Cave 2 diver or equivalent.
- Submit proof of at least 50 logged dives and hours in an overhead (cavern/cave).
- Certified and current RAID First Aid & CPR and RAID Oxygen Administration Instructor or equivalent.
- Submit a dive medical passed by a licensed medical practitioner.
- Submit proof of liability insurance where applicable.
- All crossover Instructor equivalent certifications must be emailed to RAID HQ for record keeping.
- Documented proof of prerequisites must be presented to the RRO and RAID HQ for approval before any in water training.

III. Course Requirements

To obtain certification, the Student must meet the following requirements.

- 1) Complete the online academic modules, quizzes, and exam successfully.
- 2) All confined and Open Water skills are completed and signed off through the RAID Website by both the Instructor Trainer and Student.
- 3) The Student has logged all their training dives online in their personal RAID E-logbook.
- 4) The RAID Dive Centre has confirmed certification online through the RAID Website.
- 5) Present and pass at least one Academic Teaching Presentation.
- 6) Present and pass at least one Confined Water presentation.
- 7) Present and pass at least one Open Water presentation.
 - Each in-water presentation will consist of two skills.

IV. Who can conduct the course (minimum level Instructor for the Course)

RAID Cave Instructor Trainer.

V. Supervision

- The Instructor must always be present and in direct supervision of ALL segments of training during this course.

VI. Instructor/Student Ratios

The maximum ratios are:

Confined Water or Pool Training

OVERHEAD PROGRAMS

- Maximum ratio: 6:1 with a maximum depth of 5m.

Overhead Training

- Maximum ratio: 4:1.

VII. Depth Limitations During Training

Training dive depth limits are outlined in the Cavern training materials. Training dives must not exceed the maximum depth of 6 metres / 20 feet in confined water and a maximum of 40 metres / 130 feet in open water.

- **IVa. Visual Limitations During Training**

Training dives must be conducted in conditions where the starting visibility is a minimum of 10 metres / 30 feet.

Primary lights must have a manufacturer's recommended burn time of at least 1 hour longer than the duration of the planned dives.

- **IVb. Gas Limitations During Training**

Cylinders must be filled to 200bar/3000psi and the minimum cylinder size is 11.1 litres/80 cubic feet.

Students may use up to one-third of the starting pressure of a single cylinder for penetration into the overhead. Calculation of thirds must allow a generous additional gas reserve. Students using twinset or sidemount configuration will be limited to 1/6 of their available gas supply.

Students may use air or nitrox for bottom mix, with a maximum PO₂ of 1.4 in the deepest cave passage. (N.B. Trimix may be used if the Students and the Instructor are certified. The END / EAD for trimix must not exceed 30 metres / 100 feet and deliver a maximum PO₂ of 1.4 bar.

- **IVc. Penetration Limitations During Training**

- Dives must follow the permanent mainline.
- No passages or restrictions through which divers are required to swim in single file.
- No jumps allowed.
- Maximum penetration of 60 linear metres / 200 feet from the surface.

VIII. Equipment Requirements

Single cylinder (with or without H or Y valve) of adequate capacity for the planned dive. A minimum of a 11.1 litres/80 cubic feet cylinder is highly recommended.

A DIN First stage with:

- 1) One primary regulator with approximately a 2m / 7ft hose, including a piston clip for clipping off the regulator.
- 2) One low-pressure inflator hose for the BCD, and an additional hose for the dry suit, if applicable.
- 3) One backup regulator with a standard hose fitted with a neck bungee.
- 4) One SPG with a piston clip for attaching to the D Ring when stowed.

OR

A standard recreational regulator setup:

OVERHEAD PROGRAMS

- 1) A long hose fitted to the primary regulator.
- 2) Buoyancy compensator.
- 3) Standard BCD or backplate and wing with harness with adequate lift for the environment.

Twinset Configuration

- Refer to Twinset Equipment Configuration in the Equipment section.

Sidemount configuration

- Refer to the Sidemount Equipment Configuration in the Equipment section.

Additional required cavern-specific equipment per Student (unless noted):

- One cutting device.
- Primary dive light (with burn time at least one hour longer than planned dive time).
- One fully charged backup light, each with a manufacturer's burn time of at least one hour.
- A minimum of 3 Personalized Directional markers (Arrows), two marked for the lost buddy scenario.
- A minimum of 3 personalized Non-directional markers (Cookies or REMs).
- One personal safety spool (to be carried by each Student at all times).
- One jump spool or cavern reel per Student.
- One primary reel per Student team.
- Spare mask.

IX. In-Water Training

Dive times for the Instructor course are a minimum of:

Confined Water Training

- Adequate time to show mastery of all skills.

Overhead Training

- A minimum of 4 hours (240 minutes) in the overhead environment.
- A minimum of 3 hours of land drills, dryland instruction, kit configuration and dive debriefing.

X. Certification

This certification allows Instructors to certify divers to conduct dives within the limits of their core level certification and experience in an overhead cavern environment within the light zone to a maximum penetration of 60 linear metres / 200 feet from the surface.

XI. Special standards for this certification

Students using twinset or sidemount configuration will be limited to 1/6 of their available gas supply.

XII. Outline of course (Theory and skills)

OVERHEAD PROGRAMS

See the online version of the Student and Instructor Manuals.

CAVE 1 (C1) INSTRUCTOR PROGRAM

I. Purpose

This course is designed to safely train Instructors to teach and certify RAID Cave 1 (C1) divers.

II. Student Prerequisites

A candidate taking this program must:

- Be a minimum of 18 years old.
- Submit current Rescue Breathing, CPR Training and Oxygen Administration certificates.
- Certified and in status as a RAID Open Circuit Instructor.
- Certified RAID Nitrox and RAID Deep 40 Instructor.
- Certified RAID Cave 2 diver or equivalent.
- Submit proof of at least 100 logged cave hours.
- Certified and current Rescue Breathing / CPR / BLS Training and Oxygen Administration Instructor.
- RAID Cave courses must be completed with a diver approved O₂ kit and field first aid on site.
- Submit a dive medical passed by a licensed medical practitioner.
- Submit proof of liability insurance where applicable.
- Where proof of prerequisite is documented, these must be presented to the Dive Centre for approval before any in-water training.
 - **Ila. Instructor crossover prerequisites**
 - The same as the Cave 1 Instructor (INSTRUCTOR PREREQUISITES) above.
 - Crossover Instructors must complete a RAID Open Circuit Instructor crossover program, followed by a RAID Cave Instructor Crossover (both academic and water-based) with a RAID Cave Instructor Trainer.
 - Instructors will need to submit proof of all equivalent status certifications.

III. Course Requirements

To earn certification, the Instructor Candidate must meet the following requirements:

- 1) Present and pass at least one Academic Teaching Presentation.
- 2) Present and pass at least one Confined Water Presentation.
- 3) Present and pass at least one Open Water Presentation.
 - a. Each in-water presentation will consist of two skills.
- 4) Present and pass at least one practical application.
- 5) Present a RISK Management profile on the Dive Site.

OVERHEAD PROGRAMS

NOTE: These sessions can be role-played or applied to actual new cave Students.

IV. Who can conduct the course (minimum level Instructor for the Course)

RAID Cave Instructor Trainer

V. Supervision

A certified RAID Cave Instructor Trainer is defined as a RAID Cave Instructor Trainer or higher.

The Instructor Trainer and Instructor Candidate must both be RAID Sidemount Instructors to teach RAID Cave in Sidemount configuration.

The Instructor Trainer must be present and in direct supervision for all segments of training.

Certified RAID Assistant

A RAID Divemaster or higher who is certified as a RAID Cave 2 diver or higher.

VI. Instructor/Student Ratio

The maximum ratios are:

Confined Water Training

- Maximum ratio: 6:1 with a maximum depth of 6m.

Overheard Training

- Ratio: 3:1.
- **N.B. When Student divers are used for the IT to access the Instructor candidate, the ratio of divers, including Instructor candidates, to the IT remains 3:1**

NOTE: When the water temperature is 6°C / 43°F and below or the visibility is less than 10 metres/ 30 feet, then the ratio is reduced to 2:1.

VII. Depth Limitations During Training

Training dive depth limits are outlined in the Cave One training materials. Training dives must not exceed the maximum depth 6 metres / 20 feet in confined water and a maximum of 40 metres / 130 feet in open water.

- **VII a. Visual Limitations During Training**

Training dives must be conducted in conditions where the starting visibility is a minimum of 10 metres / 30 feet. Primary lights must have a manufacturer's recommended burn time of a minimum of one hour more than the duration of planned dives.

VII. Equipment Requirements

As per Cave 2 Diver standards.

IX. In-Water Training

Dive times for the Instructor course are a minimum of:

Confined Water Training

- Provide enough time to show competency in completing all skills.

OVERHEAD PROGRAMS

Overhead Training

- 5 hours underwater.
- See Sidemount Training.

Sidemount Training

- A RAID Sidemount Instructor program may be combined with the Cave Instructor course if the Instructor candidate is a certified Sidemount diver and meets the Sidemount Instructor prerequisites.
- Instructor Trainers wishing to combine Sidemount and Cave Instructor must hold the Instructor Trainer level in both. Instructor candidates wanting to participate in the combined training program **MUST** meet all prerequisites.
- When combining these programs, the combined required hours and dives for both programs need to be completed.

X. Certification

Will be awarded once the following minimum criteria have been met.

- 1) Complete the online academic modules, quizzes, and exam successfully.
- 2) All confined and Open Water skills are completed and signed off through the RAID Website by both the Instructor Trainer and the Instructor candidate.
- 3) All their training dives are logged online in their personal E-logbook.
- 4) The RAID Dive Centre has confirmed certification online through the RAID Website.

XI. Special standards for this certification

- To maintain current Instructor Status, Instructors must teach at least two cave divers per year at their highest level. Instructors who are unable to achieve this may have to do a refresher.
- RAID requires all Cave 1 Instructors to complete 10 cave dives outside of training per year.

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals.

CAVE 2 (C2) INSTRUCTOR PROGRAM

I. Purpose

This course is designed to safely train Instructors to teach and certify RAID Cave 2 divers.

II. Student Prerequisites

A candidate taking this program must:

- Be a minimum of 21 years old.
- Submit current Rescue Breathing, CPR Training and Oxygen Administration certificates.
- Certified and in status as a RAID Open Circuit Instructor.
- Certified RAID Nitrox and RAID Deco 50 Instructor or higher.

OVERHEAD PROGRAMS

- Certified RAID Cave 2 diver or equivalent.
- Submit proof of at least 150 logged cave dive hours.
- Have certified at least 10 Cave 1 divers or equivalent.
- Certified and current in Rescue Breathing / CPR / BLS Training and Oxygen Administration Instructor.
- Submit a dive medical passed by a Licensed medical practitioner.
- Submit proof of liability insurance where applicable.
- Documented proof of prerequisites must be presented to the Dive Centre for approval before any in-water training.
- **II a Instructor Crossover Prerequisites**
 - The same as in the Cave 2 Instructor standards (INSTRUCTOR PREREQUISITES) above.
 - Crossover Instructors need to complete a RAID OC Instructor Crossover Program and then a RAID Cave Instructor Crossover.
 - Instructors will need to submit proof of all equivalent status qualifications.

III. Course Requirements

To earn certification, the Instructor candidate must fulfil the following requirements:

Presentations:

Instructor Candidates must:

- 1) Present and pass at least one Academic Teaching Presentation.
- 2) Present and pass at least one Confined Water Presentation.
- 3) Present and pass at least one Open Water Presentation.
 - a. Each in-water presentation will consist of two skills.
- 4) Present and pass at least one practical application.
- 5) Present a RISK Management profile on the Dive Site.

NOTE: These sessions can be role play or with actual new cave Students.

Stamina Exercises

In water, too deep to stand up in, all Instructor Candidates must:

- 1) Swim 600 metres / 660 yards without stopping, using any swim stroke or combination of strokes, without the use of swimming aids, within 20 minutes. This exercise must be completed in a bathing suit and without the use of buoyancy aids. However, if the environment does not permit this, Students may wear exposure protection, provided it is weighted to be neutrally buoyant.
- 2) Swim 800 metres / 880 yards without stopping, using only mask, snorkel and fins (no other swimming or buoyancy aids) within 15 minutes. If the environment does not permit this, Students may wear exposure protection, but it must be weighted to be neutrally buoyant.

OVERHEAD PROGRAMS

- 3) Swim underwater for 25 metres / 27 yards without surfacing, using only mask, snorkel and fins - no diving in or pushing off from the side.
- 4) In only a bathing suit and without the use of buoyancy or swimming aids, tread water without allowing the face or mouth to go underwater at any time for 15 minutes. During the final 3 minutes, the swimmer's hands must be out of the water.
- 5) If the environment does not permit this, Students may wear exposure protection, but it must be weighted to be neutrally buoyant.
- 6) In complete open circuit SCUBA equipment, as worn for the discipline and for the environment in which they will be diving, tow an inert diver who is also equipped with complete SCUBA equipment, for 150 metres / 165 yards.
- 7) Following exhalation, do not remove the second stage mouthpiece and swim horizontally for 10 metres / 30 feet to a dive buddy who is facing the opposite direction. While signalling out of air, retrieve the buddy's regulator, clear it, and breathe from it. After three full "sanity" breaths, signal OK and swim 50 metres / 65 yards within 4 minutes. Divers may not surface at any time.
- 8) Repeat as per exercise 6, but with the out-of-air diver not wearing a mask.

NOTE: All swim tests must be passed before the end of the program. If any swim is failed, it can be redone at any time before certification. Any swims that may have been completed within the last three (3) months may be credited.

Pro Skill Circuit Demonstration And Evaluation

Instructors must demonstrate and pass the following skills from the Cave 1 and 2 programs. Scores are awarded as per the standard RAID evaluation criteria.

- Deco cylinders remove and replace underwater.
- S-Drill
- Neutral buoyancy and trim.
- Frog Kick
- Reverse Kick
- Modified Flutter
- Helicopter Turn
- Proper gas switching procedures.
- Gas sharing swim, using a long hose.
- Gas sharing ascent, using a long hose.
- Stage cylinder exchange with teammate.
- Lost mask procedures.
- Shutdown the right-hand side while hovering.
- Shutdown the left-hand side while hovering.
- Diagnostic shutdown while hovering.
- Unresponsive diver swim and ascent.

OVERHEAD PROGRAMS

- Inflator failure.
- Line laying procedures.
- Touch contact, blind exit line work.

In addition, Instructors using Sidemount will be required to demonstrate a:

- Free flow second stage – feathering.
- Shutdown the right-hand side while hovering.
- Shutdown the left-hand side while hovering.

This circuit must be completed in confined water or a swimming pool.

Sidemount Training

- The Sidemount Instructor may be combined with the Cave Instructor course if the Instructor candidate is a certified Sidemount diver and meets the Sidemount Instructor prerequisites.
- Instructor Trainers wishing to combine Sidemount and Cave Instructor must hold the IT level in both. Instructor candidates wishing to participate in the combined training program **MUST** meet all prerequisites.

NOTE: When combining these programs, the combined required hours and dives must be completed.

IV. Who can conduct the course (minimum level Instructor for the Course)

RAID Cave Instructor Trainer

V. Supervision

- RAID Cave Instructor Trainer is defined as a RAID Cave Instructor or higher.
- Instructor must be a RAID Sidemount Instructor to teach Cave 1 and 2 in Sidemount configuration.
- Instructor must be a RAID Twinset Instructor to teach Cave 1 and 2 in Twinset configuration.
- The Instructor must be present and in direct supervision of all training.
- Certified RAID Assistant
- A RAID Divemaster or higher who is certified as a RAID Cave 2 diver or higher.

VI. Instructor/Student Ratio

The maximum ratios are:

Confined Water Training

- Maximum ratio: 6:1 with a maximum depth of 6m.

Overhead Training

- Maximum ratio: 3:1.
- When the water temperature is 6°C / 43°F and below or the visibility is less than 5 metres / 15 feet, then the ratio is reduced to 2:1.

OVERHEAD PROGRAMS

VII. Depth Limitations During Training

Maximum Depth of :

- 30 metres: no limit to penetration (within cave gas management practices)

VIII. Equipment Requirements

See C-1 Instructor

XI. In-Water Training

Dive times for the Instructor course are a minimum of:

Confined Water Training

- Adequate time to show mastery of all skills.

Overhead Training

- 5 hours underwater

X. Certification

To earn certification, the candidate must fulfil the following requirements:

- 1) Complete and pass the online academic modules, quizzes, and exam.
- 2) All confined and Open Water skills are completed and signed off through the RAID Website by both the Instructor Trainer and the Instructor candidate.
- 3) All their training dives are logged online in their personal E-logbook.
- 4) The RAID Dive Centre has confirmed certification online through the RAID website.

XI. Special standards for this certification

- To maintain current Instructor Status, Instructors must teach at least two cave divers per year at their highest level. Instructors who are unable to achieve this may have to do a refresher. A written application is required.
- RAID requires all Cave 2 Instructors to complete at least 10 cave dives outside of training per year.

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals.

CAVE INSTRUCTOR TRAINER PROGRAM

This level can only be earned by working with an HQ appointed examiner

I. Purpose

This course is designed to educate Instructors and Trainers to deliver the RAID Cave 1 and 2 Instructor-level programs.

NOTE: There are no separate IT levels for C1 and C2 Instructor training.

II. Student Prerequisites

A candidate taking this program must:

OVERHEAD PROGRAMS

- Be a minimum of 21 years old.
- Submit current Rescue Breathing, CPR Training and Oxygen Administration Instructor certificates.
- Certified and in status as a RAID Open Circuit Instructor Trainer.
- Certified RAID Nitrox Instructor Trainer.
- Certified RAID Deco 50 Instructor, Trainer or higher.
- Certified as a RAID Cave 2 Instructor.
- Taught at least 25 Cave divers or equivalent (at least 10 MUST be RAID Cave).
- Submit proof of at least 250 logged cave dive hours.
- Certified and current Rescue Breathing / CPR / BLS Training and Oxygen Administration Instructor.
- Submit a dive medical passed by a licensed medical practitioner.
- Submit proof of liability insurance where applicable.
- All crossover Instructor Trainer equivalent certifications must be emailed to RAID HQ for record keeping.
- Documented proof of prerequisites must be presented to the RRO and RAID HQ for approval before any in water training.
- **Ila. Instructor Trainer crossover prerequisites**
 - As per the standards for INSTRUCTOR TRAINER PREREQUISITES above.
 - Crossover Instructors Trainers need to complete a RAID IT crossover program and then a RAID Cave Instructor IT crossover.
 - Instructors will need to submit proof of equivalent status .

III. Course Requirements

To earn certification, the candidate must fulfil the following requirements:

Presentations:

Instructor Trainer Candidates must:

1. Present and pass at least one Academic Teaching Presentation.
2. Present and pass at least one Confined Water Presentation.
3. Present and pass at least one Open Water Presentation.
 - a. Each in-water presentation will consist of two skills.
4. Present and pass at least one practical application.
5. Present one Risk Management workshop / presentation.

The Instructor Trainer must then be assessed on their ability to evaluate presentations conducted by Instructor candidates. Each evaluation needs to be within the control score set by the RAID HQ appointed RAID IT Evaluator.

Instructor Trainer Candidates will be evaluated on the topics below:

OVERHEAD PROGRAMS

1. Pass the Technical in-water pro skill circuit evaluation.
2. At least two Academic Teaching Presentations.
3. At least two Confined Water presentations.
4. At least two Open Water presentations.

NOTE: These sessions can be role play or with actual Instructor candidates.

STAMINA EXERCISES

In water too deep to stand up in, all Instructor Trainer Candidates must:

- 1) Swim 600 metres / 660 yards without stopping, using any swim stroke or combination of strokes, without the use of swimming aids, within 20 minutes. This exercise must be completed in a bathing suit and without the use of buoyancy aids. However, if the environment does not permit this, Students may wear exposure protection, provided it is weighted to be neutrally buoyant.
- 2) Swim 800 metres / 880 yards without stopping, using only mask, snorkel and fins (no other swimming or buoyancy aids) within 15 minutes. If the environment does not permit this, Students may wear exposure protection, but it must be weighted to be neutrally buoyant.
- 3) Swim underwater for 25 metres / 27 yards without surfacing, using only mask, snorkel and fins - no diving in or pushing off from the side.
- 4) In only a bathing suit and without the use of buoyancy or swimming aids, tread water without allowing the face or mouth to go underwater at any time for 15 minutes. During the final 3 minutes, the swimmer's hands must be out of the water.
- 5) If the environment does not permit this, Students may wear exposure protection, but it must be weighted to be neutrally buoyant.
- 6) In full open circuit SCUBA equipment, as worn for the discipline and for the environment in which they will be diving, tow an inert diver who is also equipped with full SCUBA equipment, for 150 metres / 165 yards.
- 7) Following exhalation, do not remove the second stage mouthpiece and swim horizontally for 10 metres / 30 feet to a dive buddy who is facing the opposite direction. While signalling out of air, retrieve the buddy's regulator, clear it, and breathe from it. After three full "sanity" breaths, signal OK and swim 50 metres / 65 yards within 4 minutes. Divers may not surface at any time.
- 8) Repeat as per exercise 6, but with the out-of-air diver not wearing a mask.

NOTE: All swim tests must be passed before the end of the program. If any swim is failed, it can be redone at any time before certification. Any swims that may have been completed within the last three (3) months may be credited.

Pro-Skill Circuit Demonstration And Evaluation

The objective of the Pro-Skill Circuit Evaluation is to improve diving skills to IT demonstration level. This means the skills need to be demonstrated at a level that new Instructors can easily see all the sub-steps to the skill.

Instructor Trainers must demonstrate and pass the following skills from the Cave 1 and 2 programs. Scores are awarded as per the standard RAID evaluation criteria.

- These skills are as per the Cave 2 Instructor skill circuit.
- This circuit must be completed in confined water or a swimming pool.

OVERHEAD PROGRAMS

- The IT must evaluate the demonstration performance of other candidates per the criteria on the slate.

IV. Who can conduct the course (minimum level Instructor for the Course)

HQ appointed examiner

V. Supervision

- A certified RAID Cave Instructor Trainer is appointed by HQ.
- The Instructor Trainer must be a RAID Sidemount Instructor Trainer to teach a Cave Instructor program in Sidemount configuration.
- Cave IT must be present and in direct supervision of all segments of the training.
- Certified RAID Instructor Trainer Assistant.
 - A certified RAID Cave Instructor Trainer Assistant is defined as a RAID Cave Instructor Trainer, or an Instructor Trainer certified as a RAID Cave Instructor.

VI. Instructor/Student Ratio

The maximum ratios are:

Confined Water Training

- Maximum ratio:6:1 with a maximum depth of 6m.

Overhead Training

- Maximum ratio: 2:1.

NOTE: When the water temperature is 6°C / 43°F and below or the visibility is less than 5 metres / 15 feet, then the ratio is reduced to 2:1.

VII. Depth Limitations During Training

Maximum Depth of:

- 30 metres: no limit to penetration (within cave gas management practices).

VIII. Equipment Requirements

See C1 Instructor.

IX. In Water Training

Dive times for the Instructor course are a minimum of:

Confined water

- Adequate time to show mastery of all skills.

Overhead Training

- 5 hours underwater.

X. Certification

CCR TECHNICAL PROGRAM STANDARDS

A RAID Cave IT may teach RAID C1 and C2 Instructor and diver courses.

XI. Special standards for this certification

- To maintain current Instructor Status, Instructor Trainers must teach at least two cave Instructor candidates per year at their highest level. Instructor Trainers who are unable to achieve this may have to do a refresher.
- A written application must be submitted to obtain recognition of status.
- RAID requires all Cave Instructor Trainers to complete 15 cave dives outside of training per year.

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals.

CCR TECHNICAL PROGRAM STANDARDS

These standards apply to the following CCRs:

- AP Inspiration XPD, EVO, EVP.
- Liberty.
- Hollis Prism 2.
- KISS.
- Redbare.
- JJ-CCR.
- Lungfish.
- SF2.
- XCCR.

REBREATHER DIVING PROCEDURES

All training dives in confined or open water sites must include:

- An Equipment Assembly Checklist must be completed and signed every time equipment is assembled.
- Consumables are checked by the Students with an Instructor confirming that the consumables are adequate for the next in-water training session.

TEACHING SPECIALTIES WHILE USING A REBREATHER

A certified rebreather Instructor may use a rebreather while conducting open circuit open water training, with open circuit bailout, for the following recreational specialty programs:

- Nitrox.
- Boat Diver.
- Navigation.
- Photography.
- Basic Wreck.

CCR - REBREATHER PROGRAMS

- Shark Diver.

The Instructor must demonstrate all open circuit relevant skills using a standard recreational open circuit configuration and must confirm that all Students have fully understood all these skills. The Instructor must be able to perform all instructional duties.

DEPTH PROGRESSION BETWEEN DIVES

On some dives, the Instructor manual notes a minimum and maximum depth. As a rule, subsequent dives may not be more than 10m / 33ft deeper than the previous dive depth.

CCR BREATHING GAS

- The maximum gas density limit is 5.9 grams/litre. The recommended gas density limit is 5.2 grams/litre.
- The maximum END/EAD of the diluent must not exceed 30 metres / 100 feet.
- For CCR divers, both the primary and contingency dive plans must expose divers to no more than 80% CNS for a single dive, or 80% in 24 hours.
- Bailout gas must be calculated at 50 litres per minute.

CCR - REBREATHER PROGRAMS

CCR - TRY REBREATHER

Note: The Try Dive course is not a certification course. It is a simple introduction to scuba diving designed as a safe, fun, and enjoyable experience.

I. Purpose

The RAID Try Dive CCR experience program is designed to provide certified divers with a controlled dive experience as a general introduction to rebreather diving.

II. Student Prerequisites

A Student taking this course must:

- Be a minimum of 18 years old.
- Be certified as an Explorer 30 diver or equivalent.
- Complete the online registration process, including all mandatory online documentation, before any in-water activities.

III. Course Requirements

To obtain certification, the Student must meet the following requirements:

- 1) Complete the online academic modules, quizzes, and exam successfully.
- 2) Complete all the skill requirements as outlined in the relevant Instructor guide.
- 3) Complete all dives as outlined in section IX.

IV. Who can conduct the course (minimum level Instructor for the Course)

A RAID Instructor certified to teach on the specific unit being used.

V. Supervision

CCR - REBREATHER PROGRAMS

All training must be conducted by a RAID Instructor who is certified to teach on the unit the Student is using.

The Instructor must be physically present and in direct supervision of all segments of training. The Instructor and all Students must use the same unit (model) rebreather.

VI. Instructor/Student Ratios

The maximum Student-to-Instructor ratios are:

- 2 Students: 1 Instructor.

VII. Depth Limitations During Training

Confined Water Training

- 5m / 15ft Maximum.

Open Water Training

- Dives 1 and 2 must be conducted to a maximum depth of 12m / 40ft.

VIII. Equipment Requirements

Refer to "Equipment Requirements" in the RGDS.

IX. In Water Training

There is no minimum time requirement for this program; however, all skills must be mastered in a pool or confined water before progressing to open water.

X. Certification

Participation in this program does not result in certification.

XI. Special standards for this certification

This is not a certification program.

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals.

CCR - REBREATHER REBOOT

I. Purpose

The Rebreather Reboot course is designed to provide certified rebreather Students with a knowledge and skills refresh if they haven't dived on a rebreather for 6 months or longer.

Limitations:

This is not a certification program.

- The maximum planned loop PO₂ (setpoint) shall not exceed 1.3 bar.
- The maximum loop PO₂ shall not exceed 1.4 bar, except at depths of 6 m or less, and only for a maximum of two minutes.
- The inspired PO₂ of the open circuit bailout gas shall not exceed 1.6 bar.
- Diluent supply gas must contain a minimum of 21% oxygen.
- Use oxygen (100%) for life support.

CCR - REBREATHING PROGRAMS

- Diluent on-board gas must not have a PO₂ higher than 1.1 bar at the maximum depth.

II. Student Prerequisites

A Student taking this course must:

- Be a minimum of 18 years old.
- Be certified as a RAID Rebreather Diver or equivalent.
- Complete the online registration process, including all mandatory online documentation, before any in-water activities.
- Complete the medical questionnaire and submit a valid certificate signed by a licensed medical practitioner if required.

III. Course Requirements

To obtain certification, the Student must meet the following requirements.

- 1) Complete the online academic modules, quizzes, and exam successfully.
- 2) Complete all the skill requirements as outlined in the relevant Instructor guide.
- 3) Complete all dives as outlined in section IX.

IV. Who can conduct the course (minimum level Instructor for the Course)

A RAID Instructor certified to teach on the specific unit being used.

V. Supervision

- All training must be conducted by a RAID Instructor who is certified to teach on the unit the Student is using. The Instructor must be physically present and in direct supervision of all segments of training. The Instructor and all Students must use the same unit (model) rebreather.
- A Certified Assistant must be a RAID Divemaster or higher, qualified as a Rebreather Diver, on the rebreather unit being used by the Students. The Certified Assistant may use open circuit scuba or a rebreather. The Certified Assistant must have logged a minimum of 25 dives and 40 hours on CCR.

VI. Instructor/Student Ratios

The maximum Student-to-Instructor ratios are:

- 3 Students: 1 Instructor.
- 4 Students: 1 Instructor plus 1 Certified Assistant.

VII. Depth Limitations During Training

- Confined Water dive must not exceed 5m / 15ft.
- Optional open water dives may be conducted to a maximum depth of 30 metres / 100 feet.

VIII. Equipment Requirements

- Refer to "Equipment Requirements" in the RGDS.

Additional equipment required:

CCR - REBREATHER PROGRAMS

- One bailout cylinder with sufficient capacity for a safe bailout from depth based on a 50 litre/ 2 cubic feet per minute SAC rate.

IX. In Water Training

Confined Water Training

- A minimum of one confined water dive of at least 60 minutes.

Open Water Training

- An optional open water dive of at least may be completed.

X. Certification

The Student will receive an e-card to prove completion of their refresher, but this course does not result in certification.

XI. Special standards for this certification

This is not a certification program.

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals

CCR - SPORT

I. Purpose

The Sport Rebreather diver course is designed to provide Students with the knowledge and skills to safely and efficiently conduct rebreather dives to a maximum depth of 30m / 100ft with a certified dive buddy. This course is unit-specific.

This program applies to the following rebreathers:

- Poseidon MKVI
- Poseidon Se7en

Limitations:

- This is a no-decompression course.
- The maximum planned loop PO₂ (setpoint) shall be 1.3 bar.
- The maximum loop PO₂ shall not exceed 1.3 bar, except at depths of 6 m or less, and only for a maximum of two minutes.
- The inspired PO₂ of the open circuit bailout gas shall not exceed 1.6 bar.
- Diluent supply gas must contain a minimum of 21% oxygen.
- Divers shall not carry an on-board diluent gas with a PO₂ higher than 1.1 bar at the maximum depth.
- Helium may not be used during training.

II. Student Prerequisites

A Student taking this course must:

- Be a minimum of 18 years old
- Be certified as a RAID Explorer 30 diver or equivalent.
- Be certified as a RAID Nitrox diver or equivalent.

CCR - REBREATHING PROGRAMS

- Have logged 20 open water dives with at least 15 hours underwater using open circuit scuba.
- Complete the online registration process, including all mandatory online documentation, before any in-water activities.

III. Course Requirements

To obtain certification, the Student must meet the following requirements.

- 1) Complete the online academic modules, quizzes, and exam successfully.
- 2) Complete all the skill requirements as outlined in the relevant Instructor Guide.
- 3) Complete all dives as outlined in section IX.

IV. Who can conduct the course (minimum level Instructor for the Course)

A “CCR - Sport Instructor” is defined as an in-status Instructor who has been approved, accepted, and trained by RAID and the manufacturer to teach on the specified rebreather.

V. Supervision

- All training must be conducted by a RAID Instructor who is certified to teach on the unit the Student is using. The Instructor must be physically present and directly supervise all training segments. The Instructor and all Students must use the same unit (model) rebreather.
- A Certified Assistant must be a RAID Divemaster or higher, qualified as a Rebreather Diver, on the rebreather unit being used by the Students. The Certified Assistant may use open circuit scuba or a rebreather. The Certified Assistant must have logged a minimum of 25 dives and 40 hours on CCR.

VI. Instructor/Student Ratios

The maximum Student-to-Instructor ratios are:

- 3 Students: 1 Instructor.
- 4 Students: 1 Instructor plus 1 Certified Assistant.
- 4 Students, if one of the Students is already a certified CCR diver participating in a crossover course.
- 4 Students if one of the Students is participating in a CCR refresher program.

VII. Depth Limitations During Training

- Confined Water Session 5m/15ft Maximum.
- Two (2) open water dives must be conducted to a depth of at least 24 metres / 80 feet.

VIII. Equipment Requirements

Refer to “Equipment Requirements” in the RGDS.

IX. In Water Training

Confined Water Training

- A minimum of one confined water session of at least 60 minutes.

Open Water Training

CCR - REBREATHER PROGRAMS

- A minimum of 6 open water dives with at least 300 minutes of underwater training.
- **There must be at least 8 in-water sessions with a total minimum in-water time of 420 minutes.**

X. Certification

This certification enables divers to safely and efficiently conduct no-decompression rebreather dives with a certified buddy to a maximum of 30m / 100ft using 100% oxygen and a diluent of at least 21% oxygen with a maximum setpoint of 1.3 PO₂ on the specific unit being trained on.

XI. Special standards for this certification

Certification is unit-specific.

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals

CCR - KISS

I. Purpose

The CCR - KISS diver course is designed to provide Students with the knowledge and skills to safely and efficiently conduct rebreather dives using the KISS Sidewinder to a maximum depth of 30m / 100ft with a certified dive buddy. These standards are specifically for the KISS Sidewinder.

Limitations:

- This is a no-decompression course.
- The maximum planned loop PO₂ (setpoint) shall be 1.3 bar.
- The maximum loop PO₂ shall not exceed 1.3 bar, except at depths of 6 m or less, and only for a maximum of two minutes.
- The inspired PO₂ of the open circuit bailout gas shall not exceed 1.6 bar.
- Diluent supply gas must contain a minimum of 21% oxygen.
- Divers shall not carry an on-board diluent gas with a PO₂ higher than 1.1 bar at the maximum depth.
- Helium may not be used during training.

II. Student Prerequisites

A Student taking this course must:

- Be a minimum of 18 years old
- Be certified as a RAID Explorer 30 diver or equivalent.
- Be certified as a RAID Nitrox diver or equivalent.
- Have logged 30 open water dives with at least 15 hours underwater using open circuit scuba.
- Complete the online registration process, including all mandatory online documentation, before any in-water activities.

III. Course Requirements

To obtain certification, the Student must meet the following requirements.

- 4) Complete the online academic modules, quizzes, and exam successfully.

CCR - REBREATHER PROGRAMS

- 5) Complete all the skill requirements as outlined in the relevant Instructor Guide.
- 6) Complete all dives as outlined in section IX.

IV. Who can conduct the course (minimum level Instructor for the Course)

A “CCR - KISS Instructor” is defined as an in-status Instructor who has been approved, accepted, and trained by RAID and the manufacturer to teach on the specified rebreather.

V. Supervision

- All training must be conducted by a RAID Instructor who is certified to teach on the unit the Student is using. The Instructor must be physically present and in direct supervision of all segments of training. The Instructor and all Students must use the same unit (model) rebreather.
- A Certified Assistant must be a RAID Divemaster or higher, qualified as a CCR Diver, on the rebreather unit being used by the Students. The Certified Assistant may use open-circuit scuba or a rebreather. The Certified Assistant must have logged a minimum of 25 dives and 40 hours on CCR.

VI. Instructor/Student Ratios

The maximum Student-to-Instructor ratios are:

- 3 Students: 1 Instructor.
- 4 Students: 1 Instructor plus 1 Certified Assistant.
- 4 Students, if one of the Students is already a certified CCR diver participating in a crossover course.
- 4 Students if one of the Students is participating in a CCR refresher program.

VII. Depth Limitations During Training

- Confined Water Session 5m/15ft Maximum.

VIII. Equipment Requirements

In addition to equipment standards in the RGDS:

- KISS Sidewinder Rebreather unit.
- Two bailout cylinders with regulators.
- Oxygen analyzer.
- Dive computer compatible with CCR mode.
- DSMB and spool.
- Cutting tool, backup mask, and slate.
- Exposure suit suitable for a dive environment.

IX. In Water Training

Confined Water Training

- A minimum of one confined water session of at least 60 minutes.

Open Water Training

CCR - REBREATHER PROGRAMS

- A minimum of 6 open water dives with at least 540 minutes of underwater training.

X. Certification

This certification enables divers to safely and efficiently conduct no decompression rebreather dives with a certified buddy to a maximum of 30m / 100ft using 100% oxygen and a diluent of at least 21% oxygen with a maximum setpoint of 1.3 PO₂ on the specific unit being trained on.

XI. Special standards for this certification

Certification is unit specific

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals

CCR - DIVER (40M)

I. Purpose

The CCR Diver course is designed to provide Students with the knowledge and skills to safely and efficiently conduct no decompression rebreather dives to a maximum depth of 40m / 130ft. This course is unit specific.

Limitations:

- This program is a no decompression program.
- The maximum planned loop PO₂ (setpoint) shall not exceed 1.3 bar.
- The maximum loop PO₂ shall not exceed 1.4 bar, except at depths of 6 m or less, and only for a maximum of two minutes.
- The inspired PO₂ of the open circuit bailout gas shall not exceed 1.6 bar.
- Diluent supply gas must contain a minimum of 21% oxygen.
- Use oxygen for life support.
- Diluent on-board gas must not have a PO₂ higher than 1.1 bar at the maximum depth.
- Helium may not be used during training.

II. Student Prerequisites

A Student taking this course must:

For open circuit divers with no prior CCR certification:

- Be a minimum of 18 years old.
- Be certified as a RAID Nitrox Plus Diver or RAID Deco 40 Diver or equivalent or the Decompression diver course.
- Have logged 30 open water dives with at least 25 hours underwater and have logged at least 5 dives to a minimum of 30m/100ft.
- If the unit is a RAID-approved sidemount CCR, then the diver must hold the RAID Sidemount Diver or equivalent certification.
- Complete the online registration process, including all mandatory online documentation, before any in-water activities.

If already certified as a RAID Sport Rebreather diver or equivalent:

- Be a minimum of 18 years old.
- RAID Nitrox Plus Diver or RAID Deco 40 Diver or equivalent, or the Decompression diver course, or Equivalent.
- Have logged 20 open water dives with at least 20 hours underwater using a rebreather.
- If the unit is a RAID-approved sidemount CCR, then the diver must hold the RAID Sidemount Diver or equivalent certification.
- Complete the online registration process, including all mandatory online documentation, before any in-water activities.
- Complete the medical questionnaire and submit a valid certificate signed by a licensed medical practitioner if required.

III. Course Requirements

To obtain certification, the Student must meet the following requirements:

- 1) Complete the online academic modules, quizzes, and exam successfully.
- 2) Complete all the skill requirements as outlined in the relevant Instructor guide.
- 3) Complete all dives as outlined in section IX.

IV. Who can conduct the course (minimum level Instructor for the Course)

A “CCR Instructor” is defined as an in-status Instructor who has been approved, accepted, and trained by RAID and the manufacturer to teach on the specified rebreather.

V. Supervision

- All training must be conducted by a RAID Instructor who is certified to teach on the unit the Student is using. The Instructor must be physically present and directly supervise all training segments. The Instructor and all Students must use the same unit (model) rebreather.
- A Certified Assistant must be a RAID Divemaster or higher, qualified as a Rebreather Diver, on the rebreather unit being used by the Students. The Certified Assistant may use open circuit scuba or a rebreather. The Certified Assistant must have logged a minimum of 25 dives and 40 hours on CCR.

VI. Instructor/Student Ratios

The maximum Student-to-Instructor ratios are:

- 3 Students: 1 Instructor.
- 4 Students: 1 Instructor plus 1 Certified Assistant.
- 4 Students, if one of the Students is already a certified CCR diver participating in a crossover course.
- 4 Students if one of the Students is participating in a CCR refresher program.

VII. Depth Limitations During Training

- The confined water dive must not exceed 5m/15ft.

CCR - REBREATHER PROGRAMS

- At least two open water dives must be conducted to a depth of at least 27 metres / 90 feet.

VIII. Equipment Requirements

Refer to "Equipment Requirements" in the RGDS.

Additional equipment required:

- One bailout cylinder with sufficient capacity for a safe bailout from depth based on a 50 litre / 2 cubic feet per minute SAC rate.

IX. In Water Training

There must be at least 8 in-water sessions with a minimum in-water time of 480 minutes.

Students crossing over from another rebreather are required to do a minimum of 3 in-water sessions with a minimum time of 240 minutes.

Confined Water Training

- A minimum of one confined water dive of at least 60 minutes.

Open Water Training

- A minimum of 6 open water dives with at least 360 minutes of underwater training.

NOTE: If only one confined dive is completed, then 7 open-water dives must be conducted. If two confined dives are completed, then 6 open-water dives must be conducted.

In Water Training For Students Already Certified As CCR Divers On Other Units

Confined Water Training

- Adequate time to show competency of all skills.

Open Water Training

- 3 hours minimum.

Total in water time

- 4 hours minimum.

Dives

- 3 minimum.

X. Certification

This certification enables divers to safely and efficiently conduct no-decompression rebreather dives to a maximum of 40m / 130ft using 100% oxygen and a diluent of at least 21% oxygen on the specific unit being trained on.

XI. Special standards for this certification

The CCR Decompression Diver / Limited Trimix program may be bolted onto the CCR diver program for successful participants who meet the prerequisites. When completing this option, refer to the CCR - Decompression Diver / Limited Trimix Diver standards.

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals

CCR - DECOMPRESSION / LIMITED TRIMIX

I. Purpose

The Rebreather Diver / Limited Trimix course is designed to provide Students with the knowledge and skills to safely and efficiently conduct rebreather dives to a maximum depth of 40m / 130ft using air or nitrox as a breathing gas or to 45m / 145ft using trimix as a breathing gas. The maximum decompression obligation may not exceed 10 minutes. This course is unit-specific.

Limitations:

- This program has a maximum of 10 minutes of scheduled decompression.
- The maximum planned loop PO₂ (setpoint) shall not exceed 1.3 bar.
- The maximum loop PO₂ shall not exceed 1.3 bar, except at depths of 6 m or less, and only for a maximum of two minutes.
- The inspired PO₂ of the open circuit bailout gas shall not exceed 1.6 bar.
- When participating in the Decompression course, the diluent supply gas must contain a minimum of 21% oxygen.
- When participating in the Limited Trimix course, the diluent supply gas must contain a minimum of 20% oxygen, and the helium content must not exceed 35%.
- The maximum END/EAD of the diluent must not exceed 30 metres / 100 feet.
- Use oxygen for life support.
- Diluent on-board gas must not have a PO₂ higher than 1.1 bar at the maximum depth.

II. Student Prerequisites

A Student taking this course must:

For open circuit divers with no prior CCR certification:

- Be a minimum of 18 years old
- Be certified as a RAID Deco 40 Diver or the Decompression diver course or equivalent.
- Have logged 30 open water dives with at least 25 hours underwater and have logged at least 5 dives to a minimum of 30m/100ft.
- If the unit is a RAID-approved sidemount CCR, then the diver must hold the RAID Sidemount Diver or equivalent certification.
- Complete the registration process, including all mandatory online documentation.

If already certified as a CCR – Sport Rebreather Diver or equivalent:

- Be a minimum of 18 years old.
- Have logged 20 open water dives with at least 20 hours underwater using a rebreather.
- If the unit is a RAID-approved sidemount CCR, then the diver must hold the RAID sidemount diver or equivalent certification.
- Complete the registration process, including all mandatory online documentation.

CCR - REBREATHER PROGRAMS

- Complete the medical questionnaire and submit a valid certificate signed by a licensed medical practitioner if required.

III. Course Requirements

To obtain certification, the Student must meet the following requirements.

1. Complete the online academic modules, quizzes, and exam successfully.
2. Complete all the skill requirements as outlined in the relevant Instructor guide.
3. Complete all dives as outlined in section IX.

IV. Who can conduct the course (minimum level Instructor for the Course)

A “CCR - Decompression/ Limited Trimix Instructor” is defined as an in-status Instructor who has been approved, accepted, and trained by RAID and the manufacturer to teach on the specified rebreather.

V. Supervision

- All training must be conducted by a RAID Instructor who is certified to teach on the unit the Student is using. The Instructor must be physically present and in direct supervision of all segments of training. The Instructor and all Students must use the same unit (model) rebreather.
- A Certified Assistant must be a RAID Divemaster or higher, qualified as a Rebreather Diver, on the rebreather unit being used by the Students. The Certified Assistant may use open circuit scuba or a rebreather. The Certified Assistant must have logged a minimum of 25 dives and 40 hours on CCR.

VI. Instructor/Student Ratios

The maximum Student-to-Instructor ratios are:

- 3 Students: 1 Instructor.
- 4 Students: 1 Instructor plus 1 Certified Assistant.
- 4 Students, if one of the Students is already a certified CCR diver participating in a crossover course.
- 4 Students if one of the Students is participating in a CCR refresher program.

When the water temperature is 6°C / 43°F OR below, or the visibility is less than 5 metres / 15 feet, then the ratio for rebreather training can only be:

- **2 Students to 1 Instructor or 3 Students to 1 Instructor with a Certified RAID CCR Assistant.**

VII. Depth Limitations During Training

- The confined water dive must not exceed 5m / 15ft.
- For divers participating in the 40m / 130ft program, two open water dives must be conducted to a depth of at least 27 metres / 90 feet.
- For divers participating in the 45m / 145ft program, two open water dives must be conducted to a depth of at least 35 metres / 115 feet.

VIII. Equipment Requirements

Refer to “Equipment Requirements” in the RGDS.

CCR - REBREATHER PROGRAMS

Additional equipment required:

- One bailout cylinder with sufficient capacity for a safe bailout from depth based on a 50 litre/ 2 cubic feet per minute SAC rate.
- One optional decompression gas if required to maintain the 10-minute maximum decompression obligation.

IX. In Water Training

There must be at least 8 in-water sessions with a minimum in-water time of 480 minutes.

Students crossing over from another rebreather are required to complete all skills, but do a minimum of 3 in-water sessions with a minimum time of 240 minutes.

Confined Water

- A minimum of one confined water dive of at least 60 minutes.

Open Water

- A minimum of 6 open water dives with at least 360 minutes of underwater training.

NOTE: If only one confined dive is completed, then 7 open-water dives must be conducted. If two confined dives are completed, then 6 open-water dives must be conducted.

There can be no more than three in-water sessions per day and no more than two open water dives per day if any of those open water dives require mandatory decompression stops.

For divers combining CCR Diver and Decompression Diver or Limited Trimix Diver, all skills from both courses must be mastered, and at least one simulated decompression dive, one decompression dive, and one dive using open circuit bailout with simulated decompression not exceeding 10 minutes must be completed.

In Water Training For Students Already Certified As CCR Divers On Other Units

Confined Water Training

- Adequate time to show competency of all skills.

Open Water Training

- 3 hours minimum.

Total in water time

- 4 hours minimum.

Dives

- 3 minimum.

X. Certification

As this course can be combined with CCR Diver, the certification level awarded is at the Instructor's discretion. This unit specific certification enables divers to safely and efficiently conduct 10-minute decompression rebreather dives to a maximum of 40m / 130ft using an air or nitrox breathing gas, or to 45m/145ft using a trimix breathing gas on the specific unit being trained on.

XI. Special standards for this certification

Upgrading to Limited Trimix

CCR - REBREATHER PROGRAMS

If you have previously completed the CCR - Decompression course and wish to upgrade to the 45m CCR - Limited Trimix, you need to attend and complete with competence:

- 1 classroom session with your Instructor.
- 1 confined session with your Instructor covering the key skills of this course.
- 2 open water dives (dives 7 and 8 in the Open Water manual).

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals.

CCR - NORMOXIC TRIMIX

I. Purpose

This course is designed to train Tech CCR Students to safely:

- Plan and conduct decompression dives to a maximum depth of 60 metres / 200 feet using a normoxic trimix on a specific rebreather.
- The maximum planned loop PO₂ (setpoint) shall not exceed 1.3 bar.
- The maximum loop PO₂ shall not exceed 1.4 bar, except at depths of 6 m or less, and only for a maximum of two minutes.
- The inspired PO₂ of the open circuit bailout gas shall not exceed 1.6 bar.
- The diluent supply gas must contain a minimum of 16% oxygen.
- The maximum END/EAD of the diluent must not exceed 30 metres/ 100 feet.
- Diluent on-board gas must not have a PO₂ higher than 1.1 bar at the maximum depth.
- Use a minimum use of 3 stage cylinders.

II. Student Prerequisites

A Student taking this course must:

- Minimum age of 18 years at the start of training.
- CCR - Decompression / Limited Trimix diver or equivalent.
- Certified as RAID Master Rescue Diver or equivalent.
- Certified as a RAID First Aid and Oxygen Administration or equivalent.
- Minimum of 50 hours using a CCR with at least 25 dives and 25 hours on the specific unit to be used on this course.
- A minimum of 20 dives deeper than 30 metres / 100 feet and at least 10 dives that required staged decompression.
- Submit a dive medical passed by a licensed medical practitioner.
- Divers already certified as rebreather divers with at least 25 hours logged in the 12 months prior to training may participate in the CCR (Crossover) program, as they are already proficient in rebreather diving and only need specific knowledge, skills and time on the CCR.

CCR - REBREATHING PROGRAMS

- If the unit is a RAID approved sidemount CCR, then the diver must hold the RAID Sidemount Diver or equivalent certification.

VIII. Course Requirements

To obtain certification, the Student must meet the following requirements.

- 1) Complete the online academic modules, quizzes, and exam successfully.
- 2) Complete all the skill requirements as outlined in the relevant Instructor guide.
- 3) Complete all dives as outlined in section XI.
- 4) Pass the swim and stamina/stress tests as appropriate.

IV. Who can conduct the course (minimum level Instructor for the Course)

A “CCR Normoxic Trimix Instructor” is defined as an in-status Instructor who has been approved, accepted, and trained by RAID and the manufacturer to teach on the specified rebreather

V. Supervision

The Instructor must be present and in control of all training segments, using the same rebreather as the Student throughout the course.

A Certified Assistant is defined as:

- a CCR Normoxic Trimix Instructor.

OR

- a RAID Divemaster who is certified as a RAID Normoxic Trimix diver.

The Certified Assistant must have logged a minimum of 50 hours on CCR.

VI. Instructor/Student Ratios

The maximum Student-to-Instructor ratios are:

- 3 Students: 1 Instructor.
- 4 Students: 1 Instructor plus 1 Certified Assistant.

When the water temperature is 6°C / 43°F OR below, or the visibility is less than 5 metres/15 feet, then the ratio for rebreather training can only be:

- **2 Students to 1 Instructor or 3 Students to 1 Instructor with a Certified RAID CCR Assistant.**

VII. Depth Limitations During Training

- Training dive depth limits are outlined in the CCR training materials.
- Training dives must not exceed the maximum depth 6 metres / 20 feet in confined water and a maximum of 60 metres / 200 feet in open water.
- Two open water dives must be made to at least 45 metres /150 feet, and at least one open water dive must be made to at least 55 metres.
- Open water dives must be planned to have no more than 60 minutes of mandatory decompression stops on a single dive.

VIII. Equipment Requirements

Refer to "Equipment Requirements" in the RGDS.

In addition:

- 2 / 3 x Stage Cylinder Rigs fitted the following:
- One Regulator with 1m/3ft hose and SPG for bailout (Recommended DIN and SPG on a 6-inch hose).
- One BCD feed hose to be used for drysuit or manual addition valve feed.
- One side slung stage cylinder (minimum 7L cylinder, recommended 11,2L / 80cf).
- Accessories & Exposure Protection.
- Redundant backup CCR/OC computer.
- 1 x wetnotes.

OR

- 1 x wrist slate or finger slate.
- 1 x Orange SMB and reel/spool.
- 1 x Yellow SMB and reel/spool.
- 1 x knife / cutting device.
- 1 x primary mask.
- 1 x backup mask.
- 1 x torch / light / underwater lamp where appropriate.
- 1 x backup torch / light / underwater lamp.
- 1 x exposure suit – a dry suit must have an interchangeable inflator system with an inflator LP hose.
- Smartphone, tablet or laptop with decompression software.
- Access to an oxygen-helium analyzer where needed.

IX. In Water Training

There must be at least 6 in-water sessions with a minimum in-water time of 360 minutes.

Students crossing over from another rebreather are required to do all skills, but a minimum of 3 in-water sessions with a minimum time of 180 minutes.

Confined Water Training

- A minimum of one confined water dive.

Open Water Training

- A minimum of 5 open water dives with at least 300 minutes of underwater training.

CCR - REBREATHER PROGRAMS

- There can be no more than three in-water sessions per day and no more than two open water dives per day if any of those open water dives require mandatory decompression stops.

In Water Training For Students Already Certified As Deco 60 CCR Divers On Other Units

Confined Water Training

- Adequate time to show competency of all skills.

Open Water Training

- 2 hours minimum.

Total in water time

- 3 hours minimum.

Open Water dives

- 4 minimum.

There can be no more than three in-water sessions per day and no more than two open water dives per day if any of those open water dives require mandatory decompression stops.

X. Certification

This certification enables divers to safely and efficiently conduct decompression rebreather dives to a maximum of 60m/200ft using a normoxic trimix breathing gas.

XI. Special standards for this certification

This certification is unit-specific.

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals

CCR - HYPOXIC TRIMIX

I. Purpose

This course is designed to train Tech CCR Students to safely:

- Plan and conduct decompression dives to a maximum depth of 100 metres / 330 feet using hypoxic trimix.
- 80m/260ft certification option available (CCR - Limited Hypoxic Trimix Diver).
- The maximum planned loop PO₂ (setpoint) shall not exceed 1.3 bar.
- The maximum loop PO₂ shall not exceed 1.4 bar, except at depths of 6 metres or less.
- The inspired PO₂ of the open circuit bailout gas shall not exceed 1.6 bar.
- The diluent supply gas must contain a minimum of 10% oxygen.
- The maximum END/EAD of the diluent must not exceed 30 metres / 100 feet.
- Diluent on-board gas must not have a PO₂ higher than 1.1 bar at the maximum depth.

CCR - REBREATHER PROGRAMS

- Minimum use of 4-stage cylinders.

II. Student Prerequisites

A Student taking this course must:

- Minimum age of 18 years at the start of training.
- CCR - Normoxic Trimix diver.
- Certified and current in RAID First Aid, CPR, and Oxygen Administration.
- Minimum 100 hours of CCR diving.
- Minimum of 50 hours using the specific CCR being trained on, with 30 dives deeper than 30 metres / 100 feet, 10 dives deeper than 50 metres / 165 feet and at least 20 dives that required staged decompression.
- If the unit is a RAID-approved sidemount CCR, then the diver must hold the RAID Sidemount Diver or equivalent certification.
- Submit a dive medical passed by a licensed medical practitioner.

III. Course Requirements

To obtain certification, the Student must fulfil the following requirements.

- 1) Complete the online academic modules, quizzes, and exam successfully.
- 2) Complete all the skill requirements as outlined in the relevant Instructor Guide.
- 3) Complete all dives as outlined in section XI.
- 4) Pass the swim and stamina/stress tests as appropriate.

IV. Who can conduct the course (minimum level Instructor for the Course)

A “CCR - Hypoxic Trimix Instructor” is defined as an in-status Instructor who has been approved, accepted, and trained by RAID and the manufacturer to teach on the specified rebreather.

V. Supervision

The Instructor must be present and in control of all training segments, using the same rebreather as the Student throughout the course.

A Certified Assistant is defined as:

- a CCR - Hypoxic Trimix Instructor.

OR

- a Divemaster who is certified as a CCR - Hypoxic Trimix diver.

VI. Instructor/Student Ratio

The maximum Student-to-Instructor ratios are:

- 3 Students: 1 Instructor.
- Use of a Certified Assistant is recommended, but does not increase ratios.

CCR - REBREATHER PROGRAMS

When the water temperature is 6°C / 43°F OR below, or the visibility is less than 5 metres / 15 feet, then the ratio for rebreather training can only be:

- 2 Students to 1 Instructor or 3 Students to 1 Instructor with a Certified RAID CCR Assistant.

VII. Depth Limitations During Training

Training dive depth limits are outlined in the CCR training materials. Training dives must not exceed the maximum depth of 100 metres / 330 feet (80m / 260ft for 80m / 260ft certification) in open water. All mixed gas dives must be deeper than 40 metres / 130 feet.

VIII. Equipment Requirements

For this course, the Instructor and Students will be required to have use of the following as a minimum:

- A complete CCR with wing, plate and harness.
- 4 x Stage Cylinder Rigs fitted the following:
 - One Regulator with 1m/3ft hose and SPG for bailout (DIN and SPG on a 6-inch hose).
 - One BCD feed hose to be used for drysuit or manual addition valve feed.
- Accessories & Exposure Protection:
 - Redundant backup CCR/OC computer.
 - 1 x Wetnotes.
 - 1 x Wrist slate or finger slate.
 - 1 x Orange SMB and reel/spool.
 - 1 x Yellow SMB and reel/spool.
 - 2 x Knife / cutting device.
 - 1 x Primary Mask.
 - 1 x Backup Mask.
 - 1 x Torch / light / underwater lamp where appropriate.
 - 1 x Backup torch / light / underwater lamp.
 - 1 x Exposure suit – a dry suit must have an interchangeable inflator system with an inflator LP hose.
 - 1 x Offboard suit inflation system.
 - Urination system.
 - Smartphone, tablet or laptop with decompression software.
 - Access to an oxygen helium analyzer.

IX. In Water Training

There must be at least 7 in-water sessions with a minimum in-water time of 420 minutes.

CCR - REBREATHER PROGRAMS

Students who cross over from another rebreather are required to complete all skills, with a minimum of 3 in-water sessions totalling 180 minutes.

Confined Water Training

- At least 1 dive must be done in confined water or in open water to a maximum depth of 40m/130ft as a skills refresher and skills update dive.

Open Water Training

- A minimum of 6 open water dives with at least 340 minutes of underwater training.
- All dives deeper than 40m / 130ft must be conducted using an appropriate trimix diluent.
- Depths for all dives should be increased incrementally.
- At least 2 dives must be deeper than 75 metres / 245 feet (65m / 213ft for CCR - Limited Hypoxic Trimix certification), of which at least one open water dive shall be made to at least 90m / 300ft (70m / 230ft for the CCR - Limited Hypoxic Trimix certification).

There can be no more than two in-water sessions per day and no more than one open water dive per day if any of those open water dives require more than 45 minutes of mandatory decompression stops.

In Water Training For Students Already Certified As Hypoxic CCR Divers On Other Units.

Confined Water Training

- Adequate time to show competency of all skills.

Open Water Training

- 2 hours minimum.

Total in water time

- 3 hours minimum.

Open Water Dives

- 3 minimum.

Upgrade Procedure For Students Certified As Hypoxic 80m / 260ft To 100m / 330ft.

Confined Water Training

- If required.

Open Water Training

- 2 hours minimum.

Total in water time

- 2 hours minimum.

Open Water Dives

- 2 minimum (a checkout dive is recommended in addition to dives 6 and 7).

LEADERSHIP COURSES AND RATINGS (TECHNICAL CLOSED CIRCUIT)

X. Certification

This course is designed to safely train CCR Students to conduct decompression dives to a maximum depth of 100m / 330ft using a hypoxic trimix diluent with a minimum of 10% oxygen. Students may opt to be certified to 80m / 260ft (CCR - Limited Hypoxic Trimix) if they choose and upgrade when they feel they have adequate experience.

XI. Special standards for this certification

To upgrade from CCR - Limited Hypoxic to CCR – Hypoxic Trimix, Students are required to do a minimum of 2 dives with a CCR - Hypoxic Instructor with at least 1 dive over 90m / 300ft.

This course is unit specific.

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals

LEADERSHIP COURSES AND RATINGS (TECHNICAL CLOSED CIRCUIT)

These standards apply to the following CCRs:

- AP Inspiration XPD, EVO, EVP
- Liberty
- Hollis Prism 2
- KISS
- Redbare
- Lungfish
- X-CCR
- JJ-CCR
- SF2

Becoming a RAID Rebreather Instructor requires proof of meeting RAID standards, satisfactory completion of the Instructor training course with an approved RAID Instructor Trainer, and manufacturer approval.

All leadership level candidates must complete the following:

Stamina exercises

In water too deep to stand up in, Instructor Candidates must:

- 1) Swim 600 metres / 600 yards without stopping, using any swim stroke or combination of strokes, without the use of swimming aids, within 20 minutes. This exercise should be completed in a bathing suit and without the use of buoyancy aids. However, if the environment does not permit this, Students may wear exposure protection, but it must be weighted neutrally buoyant.
- 2) Swim 800 metres / 800 yards without stopping, using only mask, snorkel and fins (no other swimming or buoyancy aids) within 15 minutes. If the environment does not permit this, Students may wear exposure protection, but it must be weighted neutrally buoyant.

LEADERSHIP COURSES AND RATINGS (TECHNICAL CLOSED CIRCUIT)

- 3) In only a bathing suit and without the use of buoyancy or swimming aids, tread water without allowing the face or mouth to go underwater at any time for 15 minutes. During the final 3 minutes, the swimmer's hands must be out of the water. If the environment does not permit this, Students may wear exposure protection, but it must be weighted neutrally buoyant.
- 4) In full closed circuit scuba equipment, as worn for the particular discipline and for the environment in which they will be diving, tow an inert diver who is also equipped with full scuba equipment, for 150 metres / 150 yards.

NOTE: All swim tests must be passed before the end of the program. If any swim is failed, it can be redone at any time prior to certification. Any swims completed within the last 3 months may be credited.

Pro Skill Circuit Demonstration

In a pool or confined water, Instructors must demonstrate and pass the following skills from the RAID CCR Tech CCR program. Scores are awarded as per the standard RAID evaluation criteria.

- S-Drill.
- Optimum loop volume.
- High O₂.
- Low O₂.
- Diluent flush.
- Manual addition of O₂ to maintain PO₂.
- Neutral buoyancy and trim.
- Open circuit bailout swim.
- Stage remove and replace underwater.
- SMB deployment while hovering.
- Lost mask procedures.
- Open circuit bailout ascent.

NOTE: All skills must be completed neutrally buoyant.

Maintaining Instructor Status

To maintain current Tech CCR Instructor Status, Instructors must:

- Maintain registered ownership of the specific CCR.
- Conduct at least one RAID Rebreather Diver course or participate in one CCR Instructor course every 2 years. Instructors who are unable to achieve this *may* have to do a refresher.
- Log a minimum of 25 hours underwater using the specific CCR per year (12 months).
- Attend and satisfactorily complete an Instructor Trainer Update Workshop if required.
- Maintain up-to-date Instructor registration with the manufacturer.
- Attend and satisfactorily complete a specific CCR factory update when requested.

CCR - KISS INSTRUCTOR

I. Purpose

This Instructor course is designed to provide instructors with the knowledge and skills to safely and efficiently train rebreather divers using the KISS Sidewinder to a maximum depth of 30m/100ft. This course is unit-specific.

Limitations:

- This is a no-decompression course.
- The maximum planned loop PO₂ (setpoint) shall be 1.3 bar.
- The maximum loop PO₂ shall not exceed 1.4 bar, except at depths of 6 m or less, and only for a maximum of two minutes.
- The inspired PO₂ of the open circuit bailout gas shall not exceed 1.6 bar.
- Diluent supply gas must contain a minimum of 21% oxygen.
- Divers shall not carry an on-board diluent gas with a PO₂ higher than 1.1 bar at the maximum depth.
- Helium may not be used during training.

II. Student Prerequisites

A student taking this course must:

- Be a minimum of 18 years old
- Be certified as a RAID KISS Sidewinder Diver.
- Be certified as a RAID Decompression Instructor or equivalent.
- Have logged 100 open water dives with at least 25 using Nitrox.
- Logged 100 hours on the unit.
- Own or have unrestricted access to a unit.
- Candidates must have written approval from KISS Rebreathers.
- Complete the online registration process, including all mandatory online documentation, before any in-water activities.

III. Course Requirements

To obtain certification, the student must meet the following requirements.

1. Complete the online academic modules, quizzes, and exam successfully.
2. Complete all the skill requirements as outlined in the relevant Instructor guide.
3. Complete all dives as outlined in section IX.

IV. Who can conduct the course (minimum level Instructor for the Course)

A "CCR – KISS Sidewinder Instructor" is defined as an in-status Instructor Trainer who has been approved, accepted, and trained by RAID and the manufacturer to teach on the specified rebreather.

LEADERSHIP COURSES AND RATINGS (TECHNICAL CLOSED CIRCUIT)

V. Supervision

A RAID CCR - KISS Instructor Trainer must conduct all training. The instructor trainer must be physically present and directly supervise all training segments, using the same rebreather as the instructor candidate throughout the course.

VI. Instructor/Student Ratios

Confined Water Training

- Maximum ratio: 4 Students: 1 Instructor.

Open Water Training

- Maximum ratio: 4 Students: 1 Instructor.
4 Students: 1 Instructor with a Certified Assistant.

When the water temperature is 6°C / 43°F OR below, or the visibility is less than 5 metres /15 feet, then the ratio for rebreather training can only be:

- 2 Students to 1 Instructor.

VII. Depth Limitations During Training

- Confined Water Session – 6m / 20ft Maximum.
- Two (2) open water dives must be conducted to a depth of at least 20 metres / 65 feet.

VIII. Equipment Requirements

In addition to equipment standards in the RGDS:

- KISS Sidewinder Rebreather unit.
- Two bailout cylinders with regulators.
- Oxygen analyzer.
- Dive computer compatible with CCR mode.
- DSMB and spool.
- Cutting tool, backup mask, and slate.
- Exposure suit suitable for the dive environment.

IX. In Water Training

Confined Water Training

- Adequate time to show competency of all skills.

Open Water Training

- A minimum of 6 open water dives with at least 540 minutes of underwater training.

X. Certification

This Instructor course is designed to provide instructors with the knowledge and skills to safely and efficiently train rebreather divers using the KISS Sidewinder to a maximum depth of 30m/100ft.

XI. Special standards for this certification

This course is unit-specific.

CCR - LIMITED TRIMIX INSTRUCTOR PROGRAM

I. Purpose

This course is designed to safely train Instructors to teach and certify RAID Rebreather Divers, CCR - Decompression Divers and Limited Trimix Divers on specific rebreather units.

II. Student Prerequisites

A candidate taking this program must:

- Minimum 21 years old.
- RAID Deco 50 OC or Advanced Decompression Instructor or equivalent.
- Certified and in status as a RAID Rebreather Instructor on another unit.

OR

- Complete the unit's specific Rebreather Instructor Development Program with a factory-approved Instructor Trainer.
- Certified RAID Limited Trimix Diver for a minimum of 12 months.
- Must provide proof of 200 hours logged underwater.
- Must provide proof of a minimum of 100 logged hours underwater on the specific Rebreather.
- Must own the CCR that they have been trained on.
- Certified as a RAID First Aid and Oxygen Administration Instructor or equivalent.
- Submit a dive medical passed by a licensed medical practitioner.
- Submit proof of liability insurance where applicable.
- If the unit is a RAID-approved sidemount CCR, then the diver must hold the RAID sidemount Instructor or equivalent certification.
- Must be approved by the rebreather factory **before** enrolment in the Instructor program.
- **Ila. Instructor Crossover Prerequisites**
 - CCR Rebreather Instructors from recognized training agencies may complete a crossover program subject to the RAID General Diving Standards.

In Addition To The Standards For Instructor Prerequisites Above.

- Crossover Instructors need to have completed a RAID Open Circuit Instructor crossover program before completing a RAID Rebreather Instructor crossover program for the specific rebreather.
- Must be approved by the rebreather manufacturer.

LEADERSHIP COURSES AND RATINGS (TECHNICAL CLOSED CIRCUIT)

- Be in good standing with no outstanding Quality Assurance queries with any agency.
- Must provide proof of equivalency rebreather Instructor status.
- At the discretion of RAID HQ or the RAID Dive Centre and Instructor Trainer:
- Assist a RAID CCR Instructor with a complete RAID CCR Course, after which the RAID CCR IT and Dive Centre may sign off on the in-water skills and certification

OR

- Complete a practical crossover with a RAID CCR Instructor Trainer.

III. Course Requirements

To earn certification, the candidate must fulfil the following requirements:

1. Complete and pass the online academic modules, quizzes, and exam.
2. Present and pass at least one Academic Teaching Presentation.
3. Present and pass at least one confined water presentation.
4. Each in-water presentation will consist of 2 skills.
5. Present and pass at least one open water presentation
6. Each in-water presentation will consist of 2 skills.
7. Present and pass at least one practical application.
8. Pass the CCR skill circuit.
9. Assist a RAID CCR Specialty Instructor with a complete RAID CCR Course, after which the RAID CCR IT and Dive Centre may sign off on the in-water skills and certification.

OR

10. Complete a practical crossover with a RAID CCR Instructor Trainer.
11. Pass the swim and stamina/stress tests as appropriate.
12. Complete all the skill requirements as outlined in the Instructor Guidelines for confined water training and open water training.
13. All confined and open water skills are completed and signed off through the RAID Website by both the Instructor and Student.
14. The Student has logged all their training dives online in their personal "E-logbook."
15. The RAID Dive Centre has confirmed certification online through the RAID website and uploaded any relevant documentation.

NOTE: These sessions can be role play or with actual new RAID CCR Students.

IV. Who can conduct the course (minimum level Instructor for the Course)

LEADERSHIP COURSES AND RATINGS (TECHNICAL CLOSED CIRCUIT)

A “CCR – Instructor Trainer” is defined as an in-status Instructor Trainer who has been approved, accepted, and trained by RAID and the manufacturer to teach on the specified rebreather at this depth.

V. Supervision

The Instructor Trainer must be present and in control of all training segments and use the same rebreather as the Student for all segments of the course.

Certified RAID Assistant

- A certified Instructor Assistant may be another CCR Instructor or Instructor Trainer.

VI. Instructor/Student Ratio

Use your discretion as a RAID Instructor to determine whether the conditions warrant reducing the maximum ratios as stated below. Always consider group control and Student safety.

Confined Water Training

- Maximum ratio: 4 Students: 1 Instructor.

Open Water Training

- Maximum ratio: 3 Students: 1 Instructor.

4 Students: 1 Instructor with a Certified Assistant.

When the water temperature is 6°C / 43°F OR below, or the visibility is less than 5 metres /15 feet, then the ratio for rebreather training can only be:

- 2 Students to 1 Instructor.

VII. Depth Limitations During Training

Training dive depth limits are outlined in the CCR training materials. Training dives must not exceed the maximum depth of 5 metres / 15 feet in confined water and a maximum of 40 metres / 130 feet in open water.

VIII. Equipment Requirements

As per rebreather diver standards.

IX. In Water Training

To be able to incorporate all the skills required in this program, the total minimum dive time is:

Confined Water Training

- Adequate time to show competency of all skills.

Open Water Training

- 5 hours minimum.

Total in water time

- 6 hours minimum.

Open Water Dives

- 6 minimum.

In Water Training For Instructors Already Certified As Tech CCR Instructors With An Approved Agency

Confined Water Training

- Adequate time to show competency of all skills.

Open Water Training

- 3 hours minimum.

Total in water time

- 3 hours minimum.

Open Water Dives

- 4 minimum.

X. Certification

Successful candidates may certify RAID Rebreather Divers, CCR Decompression and Limited Trimix divers on specific rebreather units.

XI. Special standards for this certification

The IT must be using the same unit as the candidate for the duration of the course.

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals

CCR - NORMOXIC TRIMIX INSTRUCTOR PROGRAM

I. Purpose

This course is designed to safely train Instructors to teach and certify CCR - Normoxic Trimix divers to plan and conduct decompression dives to a maximum depth of 60 metres / 200 feet using a trimix diluent with a minimum of 16% oxygen on a specific CCR.

II. Student Prerequisites

A candidate taking this program must:

- Minimum 21 years old.
- Be a certified and in-date CCR Limited Trimix Instructor for a minimum of 12 months.
- RAID Deco 60 Instructor for a minimum of 12 months.
- Minimum of 15 Students, CCR Diver, Decompress, Limited Trimix Diver or Open Circuit Deco 60/ Normoxic
- Must own the CCR they have been trained on.
- Logged a minimum of 25 dives in excess of 45 metres / 145 feet using trimix with the rebreather to be used during this program.
- Certified and current RAID First Aid and Oxygen Administration Instructor or equivalent.
- Submit a dive medical passed by a certified licensed medical practitioner.

LEADERSHIP COURSES AND RATINGS (TECHNICAL CLOSED CIRCUIT)

- Submit proof of liability insurance where applicable.
- If the unit is a RAID-approved sidemount CCR, then the diver must hold the RAID Sidemount Instructor or equivalent certification.
- Must be approved by the CCR factory before enrolling in the Instructor program.
 - **Ila. Instructor Crossover Prerequisites**
 - CCR Rebreather Instructors from recognized training agencies may complete a crossover program subject to the RAID General Diving Standards.

In Addition To The Standards For Instructor Prerequisites Above.

- Crossover Instructors need to complete a RAID CCR Instructor crossover program specific to the unit they are crossing over.
- Be in good standing with no outstanding Quality Assurance queries with any agency.
- Must provide proof of equivalency Technical CCR Instructor status on a specified rebreather.
- At the discretion of RAID HQ or the RAID Dive Centre and Instructor Trainer:
 - Assist a RAID CCR Instructor with a complete RAID CCR Course, after which the RAID CCR Instructor Trainer and Dive Centre may sign off on the in-water skills and certification.

OR

- Complete a practical cross over with a RAID CCR Instructor Trainer.

III. Course Requirements

To earn certification, the candidate must fulfil the following requirements:

- 1) Complete and pass all online academic modules, quizzes, and exams.
- 2) Present and pass at least one Academic Teaching Presentation.
- 3) Present and pass at least one Confined Water Presentation.
- 4) Present and pass at least one Open Water Presentation
 - a) Each in-water presentation will consist of 2 skills.
- 5) Present and pass at least one practical application.
- 6) Pass the skill circuit.
- 7) Assist a RAID CCR Specialty Instructor with a complete RAID CCR Course, after which the RAID CCR IT and Dive Centre may sign off on the in-water skills and certification.

OR

- 8) Complete a practical crossover with a RAID CCR Instructor Trainer.
- 9) Pass the swim and stamina/stress tests as appropriate.

LEADERSHIP COURSES AND RATINGS (TECHNICAL CLOSED CIRCUIT)

- 10) Complete all the skill requirements as outlined in the Instructor Guidelines for confined water training and open water training.
- 11) All confined and open water skills are completed and signed off through the RAID Website by both the Instructor and Student.
- 12) The Student has logged all their training dives online in their personal "E-logbook".
- 13) The RAID Dive Centre has confirmed certification online through the RAID website and uploaded any relevant documentation.

NOTE: These sessions can be role play or with actual new RAID CCR Students.

IV. Who can conduct the course (minimum level Instructor for the Course)

A "CCR Normoxic – Instructor Trainer" is defined as an in-status Instructor Trainer who has been approved, accepted, and trained by RAID and the manufacturer to teach on the specified rebreather at this depth.

V. Supervision

The Instructor Trainer must be present and in control of all segments of training and use the same rebreather as the Student for all segments of the course.

Certified RAID Assistant

- A certified Instructor assistant may be another RAID Normoxic Trimix Instructor or Instructor Trainer.

VI. Instructor/Student Ratio

Use your discretion as a RAID Instructor to determine whether the conditions warrant reducing the maximum ratios as stated below. Always consider group control and Student safety.

Confined Water Training

- Maximum ratio: 4 Students: 1 Instructor.

Open Water Training

- Maximum ratio: 3 Students: 1 Instructor.

4 Students: 1 Instructor with a Certified Assistant.

When the water temperature is 6°C / 43°F OR below, or the visibility is less than 5 metres /15 feet, then the ratio for rebreather training can only be:

- 2 Students to 1 Instructor.

VII. Depth Limitations During Training

Training dive depth limits are outlined in the CCR training materials.

Training dives must not exceed the maximum depth of 6 metres / 20 feet in confined water and a maximum of 60 metres / 200 feet in open water.

VIII. Equipment Requirements

As per Normoxic Trimix Diver standards.

LEADERSHIP COURSES AND RATINGS (TECHNICAL CLOSED CIRCUIT)

IX. In Water Training

To be able to incorporate all the skills required in this program, the total minimum dive time is:

Confined Water Training

- Adequate time to show competency of all skills.

Open Water Training

- 4 hours minimum.

Total in water time

- 5 hours minimum.

Open Water Dives

- Minimum of 4.

In Water Training For Instructors Already Certified As CCR Instructors With An Approved Agency

Confined Water Training

- Adequate time to show competency of all skills.

Open Water Training

- 3 hours minimum.

Total in water time

- 3 hours minimum.

Open Water Dive

- Minimum of 3.

X. Certification

This course is designed to safely train Instructors to teach and certify CCR - Normoxic Trimix divers to plan and conduct decompression dives to a maximum depth of 60 metres / 200 feet using a trimix diluent with a minimum of 16% oxygen on a specific CCR.

XI. Special standards for this certification

This certification is unit-specific.

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals

CCR - HYPOXIC TRIMIX INSTRUCTOR PROGRAM

I. Purpose

This course is designed to train Instructors to teach and certify CCR safely - Hypoxic Trimix divers to plan and conduct decompression dives to a maximum depth of 100m / 330ft with a hypoxic trimix diluent with a minimum of 10% oxygen on a specific unit. Instructors may certify divers for 80m / 260ft (CCR - Limited Hypoxic Trimix). There is no 80m/260ft Instructor certification.

II. Student Prerequisites

An Instructor candidate taking this program must:

- Be a minimum of 21 years old.
- Be a RAID Deco 60 Open Circuit Diver.
- Be a RAID Hypoxic Trimix Rebreather Diver.
- Be a certified and in status as a RAID Normoxic Instructor on the specific unit.
- Be a RAID Instructor on the specific unit for a minimum of 12 months.
- Certified a minimum of 10 CCR - Normoxic Trimix students.
- Must own the CCR they have been trained on.
- Have logged a minimum of 30 dives using trimix with the rebreather to be used during this program, 15 dives deeper than 65 metres / 215 feet.
- Be a certified and current RAID First Aid and Oxygen Administration Instructor or equivalent.
- Submit a dive medical passed by a licensed medical practitioner.
- Submit proof of liability insurance where applicable.
- If the unit is a RAID-approved sidemount CCR, then the diver must hold the RAID sidemount Instructor or equivalent certification.
- Be approved by the CCR factory before enrolling in the Instructor program.
- **Ila. Instructor Crossover Prerequisites**

- Rebreather Instructors from recognized training agencies may complete a crossover program subject to the RAID General Diving Standards.

In Addition To The Standards For Instructor Prerequisites Above.

- Crossover Instructors need to complete a RAID CCR Instructor crossover program specific to the unit they are crossing over.
- Be in good standing with no outstanding Quality Assurance queries with any agency.
- Must provide proof of equivalency CCR Instructor status.
- At the discretion of RAID HQ or the RAID Dive Centre and Instructor Trainer:
 - Assist a RAID CCR Instructor with a complete RAID CCR Course, after which the RAID CCR IT and Dive Centre may sign off on the in-water skills and certification.

OR

- Complete a practical crossover with a RAID CCR Instructor Trainer.

III. Course Requirements

To earn certification, the candidate must fulfil the following requirements:

- 1) Complete and pass all online academic modules, quizzes, and exams.
- 2) Present and pass at least one Academic Teaching Presentation
- 3) Present and pass at least one Confined Water Presentation
 - a) Each in-water presentation will consist of 2 skills.
- 4) Present and pass at least one Open Water Presentation
 - b) Each in-water presentation will consist of 2 skills.
- 5) Present and pass at least one practical application.
- 6) Pass the skill circuit.
- 7) Complete a practical crossover with a RAID CCR Instructor Trainer.
- 8) Pass the swim and stamina/stress tests as appropriate.
- 9) Complete all the skill requirements as outlined in the Instructor Guidelines for Confined Water Training and Open Water Training.
- 10) All confined and open water skills are completed and signed off through the RAID Website by both the Instructor and Student.
- 11) The Student has logged all their training dives online in their personal "E-logbook".
- 12) The RAID Dive Centre has confirmed certification online through the RAID Website and uploaded any relevant documentation.

NOTE: These sessions can be role play or with actual new RAID CCR Students.

IV. Who can conduct the course (minimum level Instructor for the Course)

A "CCR – Hypoxic Instructor Trainer" is defined as an in-status Instructor Trainer who has been approved, accepted, and trained by RAID and the manufacturer to teach on the specified rebreather at this depth.

V. Supervision

The Instructor must be present and in control of all training segments, using the same rebreather as the Student throughout the course.

Certified RAID Assistant

- A certified Instructor assistant may be another CCR - Hypoxic Trimix Instructor or Instructor Trainer.

VI. Instructor/Student Ratio

Use your discretion as a RAID Instructor to determine whether the conditions warrant reducing the maximum ratios as stated below.

Always consider group control and Student safety.

LEADERSHIP COURSES AND RATINGS (TECHNICAL CLOSED CIRCUIT)

Confined Water Training

- Maximum ratio: 3 Students: 1 Instructor.

Open Water Training

- Maximum ratio: 3 Students: 1 Instructor.

When the water temperature is 6°C / 43°F OR below, or the visibility is less than 5 metres / 15 feet, then the ratio for rebreather training can only be:

- 2 Students to 1 Instructor.

VII. Depth Limitations During Training

Training dive depth limits are outlined in the CCR training materials.

Training dives must not exceed the maximum depth of 40 metres / 130 feet in confined water and a maximum of 100 metres / 330 feet in open water.

VIII. Equipment Requirements

As per CCR - Hypoxic Trimix diver standards

IX. In Water Training

To be able to incorporate all the skills required in this program, the total minimum dive time is:

Confined Water Training

- Adequate time to show competency of all skills.

Open Water Training

- 4 hours minimum.

Total in water time

- 5 hours minimum.

Open Water Dives

- Minimum of 4.

In Water Training For Instructors Already Certified As Tech CCR Instructors With An Approved Agency

Confined Water Training

- Adequate time to show competency of all skills.

Open Water Training

- 3 hours minimum.

Total in water time

- 3 hours minimum.

Open Water Dives

- 3 minimum.

INSTRUCTOR TRAINER

X. Certification

This course is designed to train Instructors to teach and certify CCR safely - Hypoxic Trimix divers to plan and conduct decompression dives to a maximum depth of 100 metres / 330 feet, using a hypoxic trimix diluent with a minimum of 10% oxygen on a specific unit.

XI. Special standards for this certification

This certification is unit-specific.

XII. Outline of course (Theory and skills)

See the online version of the Student and Instructor Manuals

INSTRUCTOR TRAINER

TECHNICAL INSTRUCTOR TRAINER OC & CCR

I. Purpose

Once a candidate has successfully completed the RAID Instructor Trainer Program, they may apply to become Instructor Trainers for various open circuit and rebreather courses, provided they meet the minimum prerequisites detailed below.

II. Instructor Prerequisites

An Instructor candidate taking this program must:

- Be a minimum of 21 years old.
- Be a certified and current RAID First Aid and Oxygen Administration Instructor or equivalent.
- Submit a dive medical passed by a licensed medical practitioner.
- Submit proof of liability insurance where applicable.
- When applying for CCR Instructor Trainer, the candidate must be approved by the CCR factory before applying.
- Have taught the minimum number of students at each level as detailed in the table below and completed the minimum number of dives at each of those levels.

Course	Number of Students	Number of dives
Nitrox Plus IT	10 (Legacy Deco 40 students accepted)	20
Decompression IT – 40m / Limited Deco IT – 45m Open Circuit	10 (Legacy Deco 40 students accepted)	25
Advanced Decompression IT OC – 50m / Advanced Decompression Trimix	10 (Legacy Deco 50 students accepted)	25

Extended Decompression IT OC – 55m	10 (Legacy Deco 60 students accepted)	25
Normoxic Decompression OC – 60m	20	25
Hypoxic Decompression OC – 100m	30 Trimix students (50, 60 and 80/100)	100
Tech CCR	15	200 hours
Limited Trimix Rebreather	10	200 hours
Normoxic Rebreather	15	300 hours
Hypoxic Rebreather	10	350 hours
Cavern	10 (+Certified as Cave 2 Diver)	100
Cave 1	HQ Approval	250
Cave 2	HQ Approval	250

LICENSE AGREEMENT

End User License Agreement (Non-transferable) and Limited Warranty. Read carefully before using the License Agreement and Limited Warranty.

Your use of this product must be in strict accordance with the License Agreement. This means you may not copy this program for any purposes other than to maintain a backup copy for your own personal use. It is against the License Agreement to sell, give, or lend this program, or a copy of it, to a third party.

© Copyright 2025. This document is the property of Dive RAID International Limited. All rights reserved.

ACKNOWLEDGEMENTS

Compiled by: DRI Training Department

Version: 60.0

DISCLAIMER

Dive RAID International is a registered company based in the United Kingdom of Great Britain and Northern Ireland (UK) and conducts business worldwide.

Governing Law: This document shall be governed by and construed according to the Laws of England and Wales, and any disputes in relation hereto shall be determined by the Courts of England and Wales.

Our day-to-day business is conducted in British English. Our manuals and supporting materials are written in Standard British English and in English that follows the Canadian Press Style, and either may be considered Dive RAID International's official language. The company and its subsidiaries provide translations of its published materials—such as this manual—to enhance public access to the information it contains. This service is continually under development, and DRI, its Regional Offices, Dive Centres, and dive professionals certifying through the agency make every effort to keep non-English materials current and to correct errors brought to our attention in the non-English versions.

However, translations of any sort relating to DRI and its business, including but not limited to diver training, training protocols, and course standards, into languages other than English are intended solely as a convenience to the non-English-reading public and are not legally binding. We have attempted to provide an accurate translation of the original, official material from English, but due to nuances in translation into a foreign language, slight differences may occur. References identifying the original and official document in English are available upon request or directly from our head office or website (LINKS).

In addition, RAID documents and website(s) contain links to information created and maintained by other public and private organizations. Please be aware that we do not control or guarantee the accuracy, relevance, timeliness, or completeness of this outside information. Further, the inclusion of links to particular items is not intended to reflect their importance, nor is it intended to endorse any views expressed or products or services offered by the author of the reference or the organization operating the site on which the reference is maintained.

Furthermore, the information contained in this manual is for background educational purposes only. It is intended to be part of a full RAID instructional program conducted under the auspices of a suitably qualified and sanctioned RAID Instructor. It is not intended to substitute for or replace that instructional program.

E&OE. COPYRIGHT DIVE RAID INTERNATIONAL August 2025