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KEY

⚠️ DANGER
indicates a hazardous situation that, if not avoided, will result in death or serious injury.

⚠️ WARNING
indicates a hazardous situation that, if not avoided, could result in death or serious injury.

⚠️ CAUTION
indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.
Taking the Unexpected Out of SCSR Use

This section of the CSE SCSR Manual is intended primarily for trainers, but miners and safety personnel will find it useful, too. These pages will help you understand and explain:

▸ How the SCSR and the CSE training devices work
▸ What it’s like to use them
▸ Why it’s important to follow the SCSR user instructions exactly, every time

We’ve included suggestions for getting your class organized, conducting it effectively, and cleaning and storing training devices when the class is over. All of this information is based on experience in the field. We hope it will make your training duties easier.
Preparing to Train

Teaching Miners to Use the SCSR

Showing the people you work with how to practice with CSE training devices may be the most serious assignment you’ll ever get. Information and preparation are the keys to completing that assignment safely and successfully.

Your personal experience, backed up by this manual and CSE’s Self-Contained Self-Rescuer Training Program DVD, will supply the information you need.

But preparation is a job in itself — and it takes time and effort. Since every company has its own needs, and every trainer develops an individual approach, there’s no universal set of best practices. The CSE training team has, however, collected a series of tips and techniques that work well under mining-industry conditions. We hope you’ll find the next few pages useful — especially if, for you, training is a new experience.

Sight, Hearing, and Touch

Research shows that three days after they’ve undergone training, people remember only about 10 percent of what they’ve heard, and 20 percent of what they’ve seen. But they remember 60 percent of what they’ve both heard and seen. And when they’ve not only heard and seen that material, but also done some physical practice, retention is even higher.

TIPS

CLASSROOM SETUP

- Make sure there’s enough light and cool, fresh air to keep your trainees awake.
- Take time to organize and unclutter the part of the room that will be your base during your class.
- Provide a video monitor and DVD player, and test the setup before your class.
- Arrange for a flipchart, blackboard, or marker board, with markers or chalk.
How to Get Started

In the days before the class, you’ll have a few administrative issues to take care of, supplies and support to arrange, and a little homework to do.

Administrative Issues

Decide as soon as possible where you’re going to do your training.

▸ If you need a classroom, find a space that’s large enough and quiet enough for effective learning. Make sure there’s seating, at least one table, a video monitor, and a DVD player. A marker board or flip chart will help you show or spell out what you’re talking about.

▸ If in-the-mine or tailgate training makes more sense, coordinate with foremen or supervisors to avoid conflicts and traffic problems.

Schedule your class for the start of a shift or right after a break.

▸ Allow enough time to cover what you need to teach without rushing it.

▸ If you haven’t taught the material before, estimate the length of your class by timing yourself while you rehearse. Add time for trainee practice and Q & A.

Let your trainees and their foremen know about the class a few days ahead of time. Follow up with a reminder a day or two before the class. You may want to post copies of the poster supplied on Page 44, or ask your foremen to make pre-shift announcements.

If yours is a big operation, schedule more than one class, so every miner on every shift can make it.

▸ A dozen trainees per class is a practical average size.

▸ Larger classes make it hard for everyone to participate, and for you to make sure that everyone understands and practices.

Assign each trainee or work team to a specific session, but announce the dates and times of other classes so there’s a fallback plan if some can’t make the assigned time slots.

TIPS

MATERIALS FOR TRAINEES

▸ Prepare handouts that relate to your training topic (see Page 5). Distribute them at the end of the class, to keep attention focused on training activities.

▸ Give each trainee a small note pad and pencil to encourage note-taking and emphasize the value of the class.
Supplies and Support

Make sure you have enough training devices, including interchangeable parts such as mouthpieces and nose clamps.

- One SR-D or SR-T training device for every two trainees is a minimum for saving time and keeping trainees focused. Provide one SR-MP per trainee.
- If you need additional training devices or parts, check with your company or your local CSE representative, or see the CSE Products Guide.

Call for backup.

- A CSE trainer may be available to work with you before or during your class.
- Check with your local CSE representative a few days before your class.

Prepare training handouts.

- Copies of pages from this manual (either photocopied or downloaded from csecorporation.com) will help your trainees understand and remember what you teach.
- You may want to add safety information specific to your company, or copies of trade magazine articles or news stories.

Homework

Refresh your knowledge.

- Review the appropriate pages in this manual.
- Watch the relevant segment or segments on the CSE Self-Contained Self-Rescuer Training Program DVD. It shows how the lessons in this manual apply in real life, and it will help you prepare for questions.

Rehearse your class.

- First, find a quiet place and read all the material you’re going to cover (pages from this manual, for instance) out loud. That will give you some practice, plus a rough idea of the time your class will take.
- Outline the points you’re going to present. On the day of the class, you’ll want to work informally from your outline, instead of reading the manual. That way you can hold everyone’s attention and be sure that your message is getting through.
- Practice acting out your class until you’re comfortable covering all the material. Ask a friend or family member to stand in for your audience, raise questions, and give you feedback.
**TIPS**

**ANSWERING QUESTIONS**
- Invite questions all during the class, and again at the end. Training is more effective when everyone participates.
- Listen carefully, then restate the question to be sure that you understand it and that the whole class has heard it.

**IF YOU’RE STUCK FOR AN ANSWER**
- Don’t fake it. If you don’t have an answer, just say something like, “That’s a good question—glad you brought it up. I’ll find out and get you all an answer right away.”
- Later on, you can refer to this manual or ask your local CSE representative.

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**It Pays to Be Prepared**

On the day of the class, your preparation will pay off. You’ll be able to concentrate on presenting an orderly, effective, low-stress training session, especially if you follow an agenda like this one:

**Take Charge**

1. Start on time. Your students won’t take your training seriously unless you do.
2. Begin by introducing yourself, outlining what you’re going to cover, and telling your trainees what your company expects them to get out of the class.
3. Call the roll. Your company will want you to keep track of which miners have been trained on which devices. You may want to use a copy of the training roster on Page 45.

**First Watch, Then Practice**

1. Show the relevant segments of the *CSE Self-Contained Self-Rescuer Training Program* DVD before you begin hands-on training.
2. Demonstrate a training device for the whole class by choosing one volunteer and coaching him or her in performing the hands-on training steps described later in this manual.
3. After your one-on-one demonstration, break the class into teams of three or four. Distribute the training devices and have them coach each other as they practice. Make sure that you see every trainee performing the training steps correctly at least once. Correct them firmly when they make mistakes or fail to follow procedures.
TIPS

ASKING QUESTIONS

1. When you put a question to the whole class, wait a few seconds before asking it again or answering it yourself. In that time, you may spot a trainee who’s on the verge of answering.

2. Try not to answer too many of your own questions.

3. If the trainees aren’t eager to speak up, get them off dead center by asking someone you know a specific question, such as, “[Name], where do you find the manufacturing date on an SCSR?”

4. Spread the attention. Ask everyone in the class at least one specific question, such as, “[Name], which comes first—removing the mouthpiece plug or pulling the starter tag?” or “On the SRDL, what does a blue moisture indicator mean?”

5. Encourage quiet trainees to speak up—if you think they might have answers—like this: “You know all about that, [Name]. Tell us …”

Wrap It Up

1. When everyone has mastered the hands-on practice, ask your trainees what they thought of the class. Don’t feel bad if they’re critical, and don’t get drawn into a debate. Note their comments and use them to improve your next class.

2. Give your trainees a verbal pat on the back for participating. Positive reinforcement makes training more memorable, and encourages better participation next time.

3. Finish on time. Running late won’t win you any friends among miners, foremen, or supervisors.

You Always Have Backup

If you need more information, just ask the CSE team. Call 800-245-2224 or 412-856-9200, or contact us at csecorporation.com/contact-us. We’ll be glad to hear from you, and we’ll get you the facts as quickly as possible.

Good luck!
The CSE SCSR System

Concentrating on Escape

Remember your first day on the job? The darkness, the noise, the tight spaces? You ran into some surprises, but you had time to get over them.

Now picture yourself as a beginner once again. But this time you’re really under pressure: You have to don your SCSR and find your way to safety while the air around you is full of smoke or toxic gases.

You’ll be wearing your SCSR for a while, so forget about breathing through your nose; it’s clamped shut. Your teeth are gripping a rubber mouthpiece. Breathing is more work than you’re used to. And the oxygen you inhale is starting to warm up.

You can’t let these sensations distract you from your main job: escaping to safety. That’s why the CSE team has developed a family of training devices that will help you understand just what using an SCSR is like — before you have to depend on it.

Knowing What to Expect

CSE offers three hands-on training devices. Each will help you practice an important part of the SCSR experience. This section of the CSE SCSR Manual will show you how to practice with:

- The SR-MP, which will help trainees get used to the SCSR mouthpiece and the breathing resistance and heat they would feel when using an SCSR toward the end of its operating duration.
- The SR-T, which will help trainees find out how it feels to use an SCSR in general, and how to start an SCSR manually in an emergency.
- The SR-D, which will help trainees learn how to don, start, and move around with an SCSR.

These instructions apply to both of the CSE SCSR models you might see on the job: the black SRLD and the orange SR-100.
SCSR Basics

Skills for Survival
When an emergency surrounds you with smoke or toxic gases, you have to be ready to don your self-contained self-rescuer (SCSR) correctly. This section will show you how to:

▸ Don and use the CSE SCSR under ordinary conditions
▸ Change over from one SCSR to another if you need more than one unit to reach safety
▸ Perform a manual start if your SCSR’s starter oxygen supply escapes through your mouthpiece while you are donning the unit

How an SCSR Works
All SCSR models manufactured by CSE operate the same way. They recycle the user’s exhaled breath by chemically removing carbon dioxide and adding oxygen. Unlike oxygen tanks and SCUBA-type equipment, this system is simple to operate, and it makes possible devices so lightweight and compact that you can conveniently carry one on your belt.

From the moment you don an SCSR, you must isolate your airway—keep all of your breath inside the system—by:

▸ Maintaining an airtight fit between your lips and your mouthpiece
▸ Clamping your nose shut

The idea is to let no breathable air out, and no smoke or toxic gases in. Your exhaled air should go only into the SCSR’s chemical bed, activating it to produce the oxygen you need. If you remove your mouthpiece, your oxygen will escape. Never take your mouthpiece out to talk or for any other reason unless you are changing over to another SCSR, are performing a manual start, or have made your way to clean air and safety. Follow the same rules with the SCSR nose clamp.
Donning

1 Open Your SCSR

IN AN EMERGENCY

1 Pull SCSR from pouch.
2 Set SCSR on solid, dry surface.
3 Remove hard hat and shine light on SCSR.
4 Pull open steel security band:
   ▶ Locate fabric loop on SCSR top.
   ▶ Unclip fabric loop.
   ▶ Hook finger thru loop.
   ▶ Hold SCSR down while pulling loop up.
5 Remove steel top and bottom covers:
   ▶ Top: Pull cover off.
   ▶ Bottom: Pull cover off.

With covers off, you will see breathing bag and other parts.

Model SRLD shown above; instructions apply to both SRLD and SR-100. Wear Model SR-100 with blue CSE logo facing away from you.
2 Put It on and Start It

**OXGEN FIRST**

1. Loop neck strap around neck to free hands.  
   **CAUTION** Keep plug in mouthpiece.
2. Grab starter tag hanging under SCSR.
3. Pull down once and let go. Breathing bag will fill.

**MOUTHPIECE SECOND**

1. Spit out gum or chewing tobacco.
2. Inhale one deep breath.
4. Insert mouthpiece. Grip with teeth.
5. Exhale into mouthpiece to activate oxygen.  
   *Breathing will take some work. You will feel resistance.*
6. Just keep breathing!

If oxygen escapes thru mouthpiece:
   ▶ Grab another SCSR.
   ▶ If no other SCSR is handy, begin manual start  
     (see Manual Start, Page 16).

**NOSE CLAMP THIRD**

1. Pull clamp apart.
2. Clamp nose shut.

Model SRLD shown above; instructions apply to both  
SRLD and SR-100. Wear Model SR-100 with blue CSE logo  
facing away from you.
3 Get Ready to Move

EYES FIRST
1. Put SCSR goggles on.
   - CAUTION: Use only standard SCSR goggles.
2. Need eyeglasses? Wear them over goggles.
3. Tuck eyeglass side pieces under goggles strap.

STRAPS SECOND
1. Tighten neck strap to take weight off mouthpiece and breathing hose.
2. Pass chest strap around your back and clip to chest strap hook.
3. Tighten chest strap so SCSR is snug against chest.

MOVE OUT THIRD
1. Put hard hat back on.
2. Drop excess gear.
3. Walk, don’t run, to next air cache or mine exit.
   - CAUTION: Don’t remove mouthpiece, don’t talk.

Model SRLD shown above; instructions apply to both SRLD and SR-100. Wear Model SR-100 with blue CSE logo facing away from you.
Changeover

Plan Ahead

- You may need more than one SCSR to reach safety.
- Grab another SCSR as soon as possible.

Know When to Change Over to a Second SCSR

- When breathing gets uncomfortable: Change over!
- When breathing bag gets hard to fill: Change over!

How to Change Over

1. Open second SCSR.
2. Hang second SCSR around neck.
3. Pull second SCSR’s starter tag.
4. Take deep breath from first SCSR. Hold breath.
5. Pull second SCSR’s mouthpiece plug.
9. Drop first SCSR after second one is working.

Model SRLD shown above; instructions apply to both SRLD and SR-100. Wear Model SR-100 with blue CSE logo facing away from you.
Manual Start

If Starter Oxygen Escapes Through Mouthpiece
Go to backup plan!

▸ Grab another SCSR.
▸ No other SCSR handy? Do manual start.

How to Do Manual Start

FILL BREATHING BAG

1. Clamp nose shut with nose clamp.
2. Take mouthpiece out of mouth.
3. Inhale one deep breath.
4. Put mouthpiece back in mouth.
5. Exhale into mouthpiece to activate oxygen.
6. Repeat (Mouthpiece out. Inhale. Mouthpiece in. Exhale.) 3 to 6 times, until bag fills.

Breathing will take some work. You will feel resistance.

7. Keep mouthpiece in mouth and just keep breathing!

Model SRLD shown above; instructions apply to both SRLD and SR-100. Wear Model SR-100 with blue CSE logo facing away from you.
Get Ready to Move

EYES FIRST
1. Put SCSR goggles on.
2. Need eyeglasses? Wear them over goggles.
3. Tuck eyeglass side pieces under goggles strap.

STRAPS SECOND
1. Tighten neck strap to take weight off mouthpiece and breathing hose.
2. Pass chest strap around your back and clip to chest strap hook.
3. Tighten chest strap so SCSR is snug against chest.

MOVE OUT THIRD
1. Put hard hat back on.
2. Drop excess gear.
3. Walk, don’t run, to next air cache or mine exit.
4. Remember to move and work slowly until breathing bag stays inflated.

⚠️ CAUTION ⚠️ Don’t try to start an abandoned SCSR.

⚠️ WARNING ⚠️ After manual start, SCSR will take several minutes to reach full oxygen production. Move and work slowly until breathing bag stays inflated. This procedure does not conform to CFR42 part 84 requirements.
Making SCSR Last Longer

Go Slow and Steady

▸ Walk whenever you can.
▸ Drop excess gear.

*Speed, heavy loads, and hard work use up oxygen faster.*

Don’t Panic

▸ Breathe deep and slow to stay calm.
▸ Head for escapeways as trained.

*Rapid heartbeat and heavy breathing use up oxygen faster.*

Size Matters

▸ Out of shape? Change over sooner than your buddies.
▸ Just big? Change over sooner than your buddies.

*Out-of-shape bodies use up oxygen faster.*

*Big bodies use up oxygen faster.*

Inspect your SCSR before every shift. For inspection procedures, see the CSE inspection manual, the *CSE Self-Contained Self-Rescuer Training Program* DVD, or the SRLD User Instructions. Note that the visual inspection details vary slightly for Models SRLD and SR-100.

You will find a pocket-sized copy of these instructions in your SRLD pouch. For more copies, contact your CSE representative, or call 412-856-9200.
Safety Guidelines

Make It a Habit

⚠️ WARNING Do read these instructions.
⚠️ WARNING Do inspect SCSR daily.
⚠️ CAUTION Do store and carry SCSR in standard pouch.
⚠️ WARNING Do practice donning.
⚠️ WARNING Do know escapeways.
⚠️ WARNING Do know where air caches are.
⚠️ WARNING Do take training seriously.
⚠️ DANGER Don’t store SRLD at temperatures warmer than 150° F.
⚠️ DANGER Don’t store SR-100 at temperatures warmer than 130° F.
⚠️ DANGER Don’t store or use SCSR near gas, fuel, flame, heat, or water.
⚠️ DANGER Don’t use frozen (colder than 32° F) SCSR. Grab another SCSR.
⚠️ DANGER Don’t use damaged SCSR. Not sure? Ask your foreman!

When There’s Trouble

⚠️ DANGER Do put on SCSR as soon as you see or hear trouble.
⚠️ DANGER Don’t wait for odors. Danger has no smell.
⚠️ WARNING Do spit out gum or chewing tobacco.
⚠️ WARNING Don’t twist breathing hose when putting on SCSR.
⚠️ DANGER Don’t remove mouthpiece except to change over.
⚠️ DANGER Don’t talk. Use hand signals.
⚠️ WARNING Do climb, lift, and step slowly.
⚠️ WARNING Don’t run. Speed uses up oxygen faster.
⚠️ CAUTION Don’t carry gear you don’t need — only another SCSR.
⚠️ WARNING Do change over to another SCSR when breathing gets uncomfortable.

No Matter What Happens

⚠️ DANGER Don’t use SCSR in firefighting. Will cause death or serious injury.
⚠️ DANGER Don’t use SCSR in rescue work. Will cause death or serious injury.
Training with the SR-MP

About the SR-MP
This session will show you how to practice with the SR-MP, which demonstrates the experience of using both of the self-contained self-rescuer (SCSR) models you might see on the job: the black SRLD and the orange SR-100. You will feel the fit of the mouthpiece and nose clamp, and the breathing resistance and heat that build up toward the end of an SCSR’s operating duration.

What you learn here will help you work with greater comfort and safety during an escape.

SR-MP Components
The SR-MP has two main components:

- Mouthpiece assembly: Includes mouthpiece and nose clamp similar to those on the SCSR
- Canister: Contains chemical granules that simulate the heat and resistance you will feel when using your SCSR

The SR-MP is not an escape device and will not protect you from smoke or toxic gases. While using it, you will be breathing the air around you. Use the SR-MP only in a classroom setting.

TIP
LEARN TO SURVIVE
Pay close attention when your training officer demonstrates the SR-MP. Try it out according to instructions, and spend as much time as you can getting used to the experience. If you have any questions about the SR-MP or your SCSR, ask your trainer or foreman. If you do have to use your SCSR, this training will help you focus on your escape without worrying about how it feels or how it works.
About This Training Session
In a five-minute exercise, this session will show you what it feels like to use an SCSR toward the end of its operating duration, when heat and breathing resistance reach their peak.

How to Practice with the SR-MP
Your trainer will supply you with an SR-MP. If you have to assemble it before practicing, see instructions on Page 23.

1. Empty your mouth of chewing gum, tobacco, or anything else that could block your mouthpiece or cause you to choke.
2. Hold the SR-MP at face level and clamp your nostrils shut with the nose clamp.
3. Take a deep breath through your mouth, and hold it.
4. Slip the mouthpiece inside your lips and outside your teeth. Still holding your breath, grip the rubber bite lugs on the inside of the mouthpiece with your teeth.
5. Exhale into the mouthpiece, hard enough to force your breath into and through the canister.
6. Breathe normally. Don’t let any air leak between the mouthpiece and your lips. You want to keep smoke and toxic gases out of your lungs.

While you’re using the SR-MP, try to look ahead, not down. Saliva that drips into the canister can cause extra heat and resistance to build up.

The SCSR Experience with the SR-MP
This is what it’s like to use an SCSR:

- You breathe only through your mouth. You do not remove your mouthpiece. No talking — if you have to communicate, do it in writing or with gestures.
- You’ll notice some resistance — breathing will take a little extra work.
- You’ll also notice that the air you breathe gets warmer than the air around you.

Both resistance and heat are part of the process and no cause for concern, either in training or in an SCSR-assisted escape.

These are the basics of SCSR practice with the SR-MP.

After Practice
The SR-MP is designed to operate for about five minutes. Your trainer will tell you when to remove your mouthpiece.
Before Training

What You Will Need
For each trainee:

▸ One SR-MP mouthpiece assembly (mouthpiece, nose clamp, and plastic snapper clamp)
▸ One SR-MP chemical canister

For the training area:

▸ A DVD player, monitor, and copy of the CSE Self-Contained Self-Rescuer Training Program DVD
▸ Your copy of this manual, or copies of the pages covering the SR-MP

Assemble

1. Remove the canister from its plastic storage bag. Remove the plastic top and bottom caps. Save the caps for resealing the canister after use.
2. Inspect the top and bottom canister filters to confirm that they are intact and that no chemical granules have escaped. Do not use the canister if the chemical bed is exposed. Firmly but gently slide the mouthpiece over the top opening. Make sure the mouthpiece is firmly seated on the canister.
3. Secure it with the snapper clamp.

The SR-MP is assembled and ready for training.

During Training

Your job will be easier if you begin this session by showing your trainees the CSE Self-Contained Self-Rescuer Training Program DVD segment, “Training Devices: SR-MP.”

Make sure that trainees are actually breathing through their SR-MPs, with their noses clamped shut and their mouthpieces in the correct position.

Pay close attention to the way each trainee uses the mouthpiece.

▸ It must fit inside the lips and outside the teeth.
▸ The teeth should grip the rubber bite lugs on the inside of the mouthpiece.
▸ No air should leak between the mouthpiece and the lips.

This is the only safe position for the mouthpiece.

Be sure to tell trainees that they shortly will feel resistance and heat like those they would feel when using an SCSR toward the end of its operating duration. Both resistance and heat are part of the process and no cause for concern, either in training or in an SCSR-assisted escape.
**After Training**

Any component that’s been handled, or that’s touched a user’s nose, mouth, breath, or saliva, can spread disease. Protect yourself and your co-workers by carefully disinfecting reusable components and disposing of expendable components.

Don’t handle used components with your bare hands. Wear disposable gloves, and discard used gloves safely along with used expendable components.

To avoid cross-contamination, always handle and store new, used, and disinfected components separately.

**Disassemble**

1. Open the snapper clamps.
2. Pull the mouthpieces off the canisters.

**Dispose**

1. Reseal the canisters with the plastic top and bottom caps.
2. Place the sealed canisters in an airtight container such as a transparent zip-lock bag. Mark the container, “Used SR-MP Components for Disposal.”
3. Dispose of the container according to federal, state, and local laws and regulations. Contact your CSE representative or distributor, or your licensed hazardous material handler, for disposal assistance.

**Disinfect**

1. Disinfect the mouthpieces, nose clamps, and snapper clamps using Airkem A-33 or equivalent disinfectant.
2. Mix the disinfectant with warm water (no hotter than 110°F), according to the manufacturer’s recommendations, in a clean container.
3. Soak the components (mouthpieces, nose clamps, and snapper clamps) in the disinfectant solution for at least 10 minutes.
4. Rinse the components in clean, warm (no hotter than 110°F) water to remove all traces of disinfectant.
5. If you plan to reuse the components immediately, remove excess water and hand-dry them.
6. If you plan to store the components, air-dry them before placing them in storage. Store them in sealed transparent bags or containers, marked with the words “Used and Disinfected” and the date they were placed in storage.
Safety Guidelines

⚠️ **CAUTION** Do not submerge the SR-MP canister in water or any liquid before or after use. Dispose of the SR-MP canister according to your local laws and regulations.

⚠️ **CAUTION** Never use theatrical (“special effects”) smoke or fog in SR-MP training. The SR-MP will not protect the user from theatrical smoke or fog. Flammable substances in theatrical smoke may present a fire hazard.

⚠️ **WARNING** Do not bring flammable liquids into contact with the SR-MP. The chemical used in the canister reaches high temperatures and can ignite flammable liquids, including those used to produce theatrical smoke or fog.

⚠️ **WARNING** The SR-MP is not a self-contained breathing apparatus and should not be used for escape, fire fighting, or underwater breathing. Never use it outside a classroom.

⚠️ **WARNING** The SR-MP is a training unit designed only to enable the user to experience the sensations of using the CSE emergency escape apparatus. It is not to be used for escape from atmospheres immediately dangerous to life and health.

⚠️ **WARNING** Before donning the SR-MP, empty your mouth of chewing gum, tobacco, or anything else that could block your mouthpiece or cause you to choke.

⚠️ **CAUTION** Breathing through the SR-MP differs from normal breathing; temperature and resistance will be slightly higher.

⚠️ **WARNING** Do not attempt to talk while wearing the SR-MP. Maintain a tight seal on the mouthpiece and nose clamp. Communicate via hand signals or writing.

⚠️ **WARNING** Never attempt to use a damaged SR-MP.

⚠️ **WARNING** Never use an SR-MP canister that’s been used.

⚠️ **WARNING** Never use SR-MP components that have been used but not disinfected.

⚠️ **WARNING** The SR-MP chemical canister is a one-time-use product. Once opened, it is considered spent and should be disposed of according to your local laws and regulations.
**Training with the SR-T**

**About the SR-T**

This session will show you how to practice with the SR-T, which demonstrates the experience of using both of the SCSR models you might see on the job: the black SRLD and the orange SR-100. You will feel how the mouthpiece, nose clamp, and neck strap fit; what it’s like to move around while wearing an SCSR; and how breathing resistance and heat build up during an SCSR’s operation.

**SR-T Components**

The SR-T has five main components:

- Breathing hose assembly: Includes mouthpiece, mouthpiece plug, breathing hose, snapper clamp, and nose clamp like those on the SCSR.
- Canister assembly: Contains a chemical that generates oxygen when your breath activates it. Your SCSR contains a longer-lasting bed of the same chemical.
- Breathing bag: Stores the oxygen until you need it. Operates in the same way as the SCSR breathing bag. The SR-T breathing bag features a relief valve that is not found on the SCSR breathing bag.
- Neck strap
- Insulated case: Protects you from heat produced inside the canister. Provides attachments for the neck strap. In your SCSR, the chemical bed and other components are sealed in protective steel covers until you need them.

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**TIP**

**LEARN TO SURVIVE**

Pay close attention when your training officer demonstrates the SR-T. Try it out according to instructions, and spend as much time as you can getting used to the experience. If you have any questions about the SR-T, or your SCSR, ask your trainer or foreman. If you do have to use your SCSR, this training will help you focus on your escape without worrying about how it feels or how it works.

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**SR-T Components Diagram**

- Neck strap
- Breathing hose
- Snapper clamp
- Canister assembly with insulated case
- Breathing bag
- Mouthpiece
- Mouthpiece plug
- Nose clamp
- Starter tag
About This Training Session
In about 20 minutes, this session will help you learn two important lessons:

▸ How to don and manually start your SCSR
▸ What it feels like to use your SCSR for an extended period

How to Practice with the SR-T
Your trainer will supply you with an SR-T. Ordinarily, you would start your SCSR by pulling the orange starter tag, causing the breathing bag to inflate automatically. You will start the SR-T by filling your breathing bag with lung power alone. Here’s how:

1 Put on the SR-T

1 Empty your mouth of chewing gum, tobacco, or anything else that could block your mouthpiece or cause you to choke.
2 Loop the neck strap over your head. Make sure that the CSE logo on the case is facing away from you, and that the orange starter tag is next to your right hand.
3 Pull the starter tag, just as you would on your SCSR. Your breathing bag will not inflate.

2 Start It

1 Grab the nose clamp attached to the mouthpiece, and clamp your nose shut.
2 With the mouthpiece out of your mouth ...
3 Inhale a deep breath.
4 Put the mouthpiece in your mouth.
5 Exhale into the mouthpiece to activate the oxygen-producing chemical bed. Exhale hard enough to push air into the breathing bag.
6 Repeat the cycle (Mouthpiece out. Inhale. Mouthpiece in. Exhale.) three to six times, until the breathing bag fills.
7 Breathe normally. Don’t let any air leak between the mouthpiece and your lips. You want to keep smoke and toxic gases out of your lungs.
8 Tighten the neck strap to take the SR-T’s weight off the mouthpiece and breathing hose. Not too tight — you’ll still need to be able to raise your head.
The SCSR Experience with the SR-T

This is what it’s like to use an SCSR:

▸ You breathe only through your mouth. You do not remove your mouthpiece. No talking — if you have to communicate, do it in writing or with gestures.

▸ You’ll notice some resistance — breathing will take a little extra work.

▸ You’ll also notice that the air you’re breathing gets warmer than the air around you.

Both resistance and heat are part of the process and no cause for concern, either in training or in an SCSR-assisted escape.

After Practice

When breathing resistance becomes uncomfortably high, or the breathing bag is no longer inflated, the training exercise is complete. You can remove the mouthpiece.

The air you’ve been breathing was only about as warm as the air inside a closed vehicle on a hot day, but the canister inside the insulated case will become very hot. Don’t touch it or remove it from the insulated case until it cools off. Protect your hands if you must handle it. And don’t set a hot canister on anything that could be damaged by heat.

Those are the basics of donning practice with SR-T.

Before Training

What You Will Need

For each trainee:

▸ One SR-T breathing bag

▸ One SR-T breathing hose assembly (mouthpiece, mouthpiece plug, breathing hose, snapper clamp, threaded hose connector with silicone gasket, and nose clamp)

▸ One SR-T breathing canister (comes packed in metal shipping container)

▸ One insulated case

▸ One neck strap

For the training area:

▸ A safe cool-down area, such as a metal sheet or metal desk top, for hot canisters

▸ A DVD player, monitor, and copy of the CSE Self-Contained Self-Rescuer Training Program DVD

▸ A clean, flat table or other work surface

▸ Your copy of this manual, or copies of the pages covering the SR-T
Assemble

1. Inspect components for damage. Replace damaged components.

2. Lay the breathing bag out on a clean, flat work surface. Position it with the long dimension running left-to-right, the grommet facing up, and the relief valve on your left.

3. Pull the ring on top of the shipping container and peel back the lid. Handle the lid carefully; its edge may be sharp.

4. Remove the breathing canister from the container.

5. Remove the plastic top and bottom caps from the breathing canister. Save the caps for resealing the canister after use.

6. Stretch the breathing bag grommet around the wide end of the breathing canister, then press the canister down firmly against the work surface. Make sure the canister is firmly seated inside the grommet.

7. Place the insulated case over the breathing canister and press it down until the threaded canister neck protrudes from the top of the case. Holding the breathing bag in place, rotate the case to position the D-rings left-to-right, with the safety plug on your left, the orange starter tag on your right, and the CSE logo in front. Make sure the breathing hose is clean, dry, and free of foreign objects.

8. Screw the threaded hose connector to the breathing canister by pressing down and turning the connector clockwise. Turn the connector until it is hand tight. Pull the hose onto the connector, rotating the hose until the rubber bite lugs inside the mouthpiece are positioned left-to-right.

9. Fasten the hose to the connector with the snapper clamp.

10. Insert the safety plug into the mouthpiece. Make sure it is seated firmly for an airtight seal.

11. Clip the neck strap to the D-rings on the insulated case.

The SR-T is assembled and ready for training.
During Training

Your job will be easier if you begin this session by showing your trainees the *CSE Self-Contained Self-Rescuer Training Program* DVD segment, “Training Devices: SR-T.”

Encourage trainees to move around while breathing with their SR-Ts. The experience is much more realistic when breathing and heart rates increase.

Make sure that trainees are actually breathing through their SR-Ts, with noses clamped shut and mouthpieces properly inserted.

Pay close attention to the way each trainee uses the mouthpiece.

- It must fit inside the lips and outside the teeth.
- The teeth should grip the rubber bite lugs on the inside of the mouthpiece.
- No air should leak between the mouthpiece and the lips.

This is the only safe position for the mouthpiece.

Be sure to tell trainees that after a few minutes they will feel resistance and heat like those they would feel when using an SCSR toward the end of its operating duration. Both resistance and heat are part of the process and no cause for concern, either in training or in an SCSR-assisted escape.
**After Training**

Any component that’s been handled, or that’s touched a user’s nose, mouth, breath, or saliva, can spread disease. Protect yourself and your co-workers by carefully disinfecting reusable components and disposing of expendable components.

Don’t handle used components with your bare hands. Wear disposable gloves, and discard used gloves safely along with used expendable components.

To avoid cross-contamination, always handle and store new, used, and disinfected components separately.

**Disassemble**

1. To prolong the life of the breathing bags, detach them from the canisters immediately after each use.
2. Unscrew the hose connectors from the canisters. Open the snapper clamps and remove the breathing hoses from the connectors.
3. Allow the canisters to cool down, then remove the insulated cases. The canisters may become uncomfortably hot. If you must handle a hot canister, protect your hand with a glove or dry cotton towel. Do not set a hot canister on any surface that could be damaged by heat.

**Dispose**

1. Reseal the canisters with the plastic top and bottom caps.
2. Place the sealed canisters in an airtight container such as a transparent zip-lock bag. Mark the container, “Used SR-T Components for Disposal.”
3. Dispose of the container according to federal, state, and local laws and regulations. Contact your CSE representative or distributor, or your licensed hazardous material handler, for disposal assistance.
Disinfect

1. Disinfect the breathing bags, mouthpieces, mouthpiece plugs, breathing hoses, snapper clamps, threaded hose connectors with gaskets, and nose clamps using Airkem A-33 or an equivalent disinfectant.

2. Mix the disinfectant with warm water (no hotter than 110° F), according to the manufacturer’s recommendations, in a clean container.

3. Soak the components (breathing bags, mouthpieces, mouthpiece plugs, breathing hoses, snapper clamps, threaded hose connectors with gaskets, and nose clamps) in the disinfectant solution for at least 10 minutes.

4. Rinse the components in clean, warm (no hotter than 110° F) water to remove all traces of disinfectant.

5. If you plan to reuse the components immediately, remove the excess water and hand-dry them.

6. If you plan to store the components, air-dry them before placing them in storage. Store them in sealed transparent bags or containers, marked with the words “Used and Disinfected” and the date they were placed in storage.
Safety Guidelines

⚠️ **WARNING** The SR-T is a training device and should not be used for escape, fire fighting, or underwater breathing.

⚠️ **CAUTION** Do not submerge the SR-T canister in water or any liquid before or after use. Dispose of the SR-T canister according to your local laws and regulations.

⚠️ **WARNING** The SR-T is a training unit designed only to enable the user to experience the sensations of using CSE emergency escape apparatus. It is not to be used for escape from atmospheres immediately dangerous to life and health.

⚠️ **WARNING** Before donning the SR-T, empty your mouth of chewing gum, tobacco, or anything else that could block your mouthpiece or cause you to choke.

⚠️ **WARNING** Do not attempt to talk while wearing the SR-T. Maintain a tight seal on the mouthpiece and nose clamp. Communicate via hand signals or writing.

⚠️ **WARNING** Never attempt to use a damaged SR-T.

⚠️ **WARNING** Never use an SR-T or SR-T components that have been used but not disinfected.

⚠️ **WARNING** The SR-T breathing canister is a one-time-use product. Once opened, it is considered spent and should be disposed of according to your local laws and regulations.

⚠️ **WARNING** Do not bring flammable liquids into contact with the SR-T. The chemical used in the canister reaches high temperatures and can ignite flammable liquids.
Training with the SR-D

About the SR-D
This session will show you how to practice with the SR-D, which demonstrates the experience of donning and using both of the self-contained self-rescuer (SCSR) models you might see on the job: the black SRLD and the orange SR-100.

You will feel the fit of the rubber mouthpiece, the size and shape of the SCSR after you have donned and started it, and a breathing resistance similar to what you would feel when using an SCSR.

SR-D Components
The SR-D has seven main components:

- Security band: Similar to the one on the SCSR, it fastens the top and bottom covers to the plastic canister
- Top and bottom covers: Similar to those on the SCSR, they enclose the mouthpiece assembly and breathing bag
- Plastic canister: Features a starter tag similar to the one on the SCSR. Simulates the SCSR’s dust shield
- Mouthpiece assembly: Includes mouthpiece, mouthpiece plug, breathing hose, and nose clamp like those on the SCSR
- Breathing bag: Unfolds like the one on the SCSR
- Neck and chest straps: Function similar to the ones on the SCSR
- Goggles: Similar to those used with the SCSR
About This Training Session
In this exercise, you will improve your SCSR donning skills without consuming a functional SCSR or using a disabled SCSR. Never use a disabled SCSR as a training device.

How to Practice with the SR-D
Your trainer will supply you with an SR-D.

1 Open the SR-D
   1 Set the SR-D on a solid, dry surface.
   2 Pull open the security band by unsnapping the top latch.
   3 Remove the steel top and bottom covers.
      With the covers off, you’ll see the breathing hose and mouthpiece packed on top, and the breathing bag packed underneath. You’ll also see the orange starter tag. Hold the SR-D so that the starter tag hangs by your right hand.

2 Put It On and Practice-Start It

   OXYGEN FIRST
      1 Loop the neck strap over your head.
      2 Empty your mouth of chewing gum, tobacco, or anything else that could block your mouthpiece or cause you to choke.
      3 Take a deep breath. Do not pull the plug from the mouthpiece yet.
      4 Pull the starter tag down and let it go. With a functional SCSR, the breathing bag would inflate. The SR-D’s breathing bag will not inflate, but your trainer will call out, “Breathing bag is inflated.”

   MOUTHPIECE SECOND
      1 Pull the plug out of the mouthpiece. In training, never pull the plug before you hear, “Breathing bag is inflated.” In an emergency, you would see the breathing bag inflate, then pull the plug. Never pull the plug before the breathing bag inflates. If you pulled the plug too soon, you would lose your starter oxygen and have to grab another SCSR or do a manual start (see Manual Start, Page 16).

The SR-D is not an escape device and will not protect you from smoke or toxic gases. While using it, you will be breathing the air around you.
2 After you pull the plug, quickly check the breathing hose to make sure it isn’t kinked or twisted. Then put the mouthpiece inside your lips and outside your teeth. Grip the rubber bite lugs on the inside of the mouthpiece with your teeth. This is the only safe position for your mouthpiece. Don’t let any air leak between the mouthpiece and your lips. You want to keep smoke and gases out and the oxygen in.

3 All tight? All right. Now exhale deeply into the mouthpiece. With a functional SCSR, your breath would start the chemical reaction that would give you all the oxygen you need. With the SR-D, you will breathe the air around you through the perforated mouthpiece. Your breathing bag will not inflate.

4 Take slow, deep breaths, and stay calm. With a functional SCSR, breathing would take extra work, and the temperature of the air in your mouthpiece would slowly rise.

From now on, don’t remove your mouthpiece for any reason. No talking — if you have to communicate, do it in writing or with hand signals.

**NOSE CLAMP THIRD**

1 To make sure smoke and gases stay out of your lungs, and oxygen stays in, seal your nose tightly with the nose clamp attached to the mouthpiece. Pull the clamp apart by pinching the rubber cones on each side, pulling the spring apart.

2 Press the rubber pads against the sides of your nostrils to clamp your nose shut.

**GET READY TO MOVE**

1 Put the SCSR goggles on. Need eyeglasses? Wear them over the goggles. Tuck your eyeglass side pieces under the goggles strap.

2 Tighten the neck strap to take the weight off the mouthpiece and breathing hose.

3 Pass the chest strap around your back and clip it to the chest strap hook. Tighten the strap so that the SR-D is snug against your chest.

4 Put your hard hat back on.

Those are the basics of SCSR donning practice with the SR-D.
Before Training

What You Will Need

For each trainee:

- One SR-D plastic canister assembly (plastic canister, top and bottom covers, security band, breathing bag, and waist and neck straps)
- One SR-D breathing hose assembly (mouthpiece, mouthpiece plug, breathing hose, plastic fastener, and nose clamp)

For the training area:

- A DVD player, monitor, and copy of the CSE Self-Contained Self-Rescuer Training Program DVD
- A clean, flat table or other work surface
- Your copy of this manual, or copies of the pages covering the SR-D

Assemble

CSE supplies the SR-D pre-assembled, so you won’t need to perform these steps with new units. For used units:

1. Install a breathing hose by slipping its lower end over the flange on top of the plastic canister. Do not remove the plastic fastener that secures the mouthpiece to the breathing hose. Orient the hose so that the mouthpiece’s long axis is parallel with the long axis of the plastic canister. Secure the hose to the canister with a plastic fastener.
2. Fold the breathing bag and hold it flat against the underside of the canister. Fold the waist strap, goggles, and starter tag neatly against the breathing bag.
3. Fit the steel bottom cover over the breathing bag, waist strap, and starter tag.
4. Stand the SR-D upright, with the bottom cover resting against the work surface and the two halves of the steel security band spread apart.
5. Disinfect the mouthpiece plug with a medical alcohol wipe and replace it in the mouthpiece.
6. Neatly fold the mouthpiece assembly and neck strap on top of the SR-D.
7. Fit the steel top cover over the folded mouthpiece assembly and neck strap.
8. Join the two ends of the steel security band in the center of the top cover and snap them shut.

The SR-D is assembled and ready for training.
**During Training**

Your job will be easier if you begin this session by showing your trainees the *CSE Self-Contained Self-Rescuer Training Program* DVD segment, “Training Devices: SR-D.”

Make sure that trainees are actually breathing through their SR-Ds, with their noses clamped shut and their mouthpieces properly inserted.

Pay close attention to the way each trainee uses the mouthpiece.

- It must fit inside the lips and outside the teeth.
- The teeth should grip the rubber bite lugs on the inside of the mouthpiece.
- No air should leak between the mouthpiece and the lips.

This is the only safe position for the mouthpiece.

**After Training**

Any component that’s been handled, or that’s touched a user’s nose, mouth, breath, or saliva, can spread disease. Protect yourself and your co-workers by carefully disinfecting reusable components, and disposing of expendable components.

Don’t handle used components with your bare hands. Wear disposable gloves, and discard used gloves safely along with used expendable components.

To avoid cross-contamination, always handle and store new, used, and disinfected components separately.

**Disassemble**

Remove breathing hose assembly (breathing hose, mouthpiece, and nose clamp). Mouthpiece plug will remain attached to canister.
Disinfect

1. Disinfect the mouthpieces, nose clamps, and breathing hoses using Airkem A-33 or an equivalent disinfectant.

2. Mix the disinfectant with warm (no hotter than 110° F) water, according to the manufacturer’s recommendations, in a clean container.

3. Soak the components (mouthpieces, nose clamps, and breathing hoses) in the disinfectant solution for at least 10 minutes.

4. Rinse the components in clean, warm (no hotter than 110° F) water to remove all traces of disinfectant.

5. If you plan to reuse the components immediately, remove excess water and hand-dry them.

6. Disinfect the mouthpiece plugs with medical alcohol wipes.

7. If you plan to store the components, air-dry them before placing them in storage. Store them in sealed transparent bags or containers, marked with the words “Used and Disinfected” and the date they were placed in storage.

Reassemble

Follow “Assemble” instructions, Page 40.
Safety Guidelines

⚠️ **WARNING** The SR-D is not a self-contained breathing apparatus and should not be used for escape, fire fighting, or underwater breathing. Never use it outside a training situation.

⚠️ **CAUTION** Never use theatrical (“special effects”) smoke or fog in SR-D training. The SR-D will not protect the user from theatrical smoke or fog.

⚠️ **WARNING** The SR-D is a training unit designed only to enable the user to experience the sensations of using the CSE emergency escape apparatus. It is not to be used for escape from atmospheres immediately dangerous to life and health.

⚠️ **WARNING** Before donning the SR-D, empty your mouth of chewing gum, tobacco, or anything else that could block your mouthpiece or cause you to choke.

⚠️ **WARNING** Do not attempt to talk while wearing the SR-D. Maintain a tight seal on the mouthpiece and nose clamp. Communicate via hand signals or writing.

⚠️ **WARNING** Never attempt to use a damaged SR-D.

⚠️ **WARNING** Never use an SR-D or SR-D components that have been previously used but not disinfected.
LEARN TO SURVIVE!

SCSR (SELF-CONTAINED SELF-RESCUER):
UNDERSTAND IT BEFORE YOU HAVE TO USE IT.

TRAINING CLASS

Topic / Equipment (Donning, Changeover, Manual Start, SR-MP, SR-T, SR-D, etc.)

Who must attend

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**TRAINING ROSTER**

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TRAINER: Photocopy this page and return the original to the CSE binder. Keep a copy of this page in your training file for at least one year after the training date. Federal and state regulations may require you to keep additional training records.
You Always Have Backup

If you need more information, just ask the CSE team. Call 800-245-2224 or 412-856-9200, or contact us at csecorporation.com/contact-us. We’ll be glad to hear from you, and we’ll get you the facts as quickly as possible.