
TECHNICAL INFORMATION

Cyanowand® and Accessories

Catalog Nos. CW100, CW200, CW300, CW400, CW4001

Background

Cyanoacrylate (superglue) is a proven method for developing latent fingerprints on most non-porous surfaces. In traditional applications, liquid glue is sublimated into a gaseous form within a closed chamber with evidence, and reacts with moisture present in regions where latent fingerprints are present. This reaction causes the cyanoacrylate to polymerize and form visible ridges and detail on latent fingerprints.

In some situations, it is impossible to place an item in a closed chamber for fuming. Examples of these situations are: outside windows on buildings, remote outdoor locations, and large objects like the interior/exterior of vehicles. The Cyanowand® uses direct heat via a butane torch to quickly vaporize cyanoacrylate in a convenient cartridge. The fumes that are projected can be used to develop latent prints by simply passing the wand over the surface in a controlled manner.



The Cyanowand® can also be used with the Cyanoacrylate Laboratory Fuming Chamber (FR100) or the Cyanoacrylate Fuming Chambers (FR200 and FR600) as an alternate fuming source.

Set-up

Fueling the Cyanowand:

Warning: Butane gas is highly flammable. Do not perform refueling operation near a heat source, electrical source, or open flame.

1. Ensure the Cyanowand switch is OFF.
2. Hold the unit vertically with the bottom-end up.
3. Place the tip of the butane container onto the brass valve at the base and press down to engage.
4. Refill should take approximately 10 seconds. Unit is full when gas starts to vent from bypass.

Safety Precautions

- Caution! Cyanowand barrel and tip become hot during operation. Do not touch.
- Only use in a well ventilated area or wear a dust/mist respirator to protect from inhaling fumes.
- When using the cyanowand, it is recommended to wear gloves and safety goggles to avoid contact with fumes.
- Do not wear contacts when using the Cyanowand®
- Do not store instrument or butane canister near an open flame, heat source, or any area that might exceed 120°F (49°C).



Figure 1: Fill Cyanowand

Controls/Operation

1. Cyanowand Cartridge (installed)
2. Lock button
3. Ignition switch
4. Vent port
5. Fuel port
6. Flame adjustment
7. Torch lock

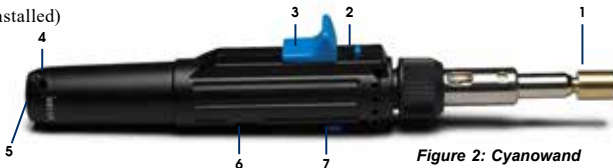


Figure 2: Cyanowand

Operation:

1. Attach Cyanowand® cartridge (CW200, CW300, CW400, CW4001) to end until finger tight (do not attempt to tighten further).
2. Set Flame Adjustment (6) halfway between 1 and 4.
3. Press the Lock Button (2) and slide the Ignition Switch (3) down away from the burner and hold down.
4. Torch should light. If not, release Ignition Switch (3) and repeat step 3 until lit.
5. Once lit, slide Torch Lock (7) to “CONT” position
6. Release Ignition Switch (3)
7. Allow 10-15 seconds for cartridge to heat. Once heated, visible fumes should appear.
8. Fume by holding wand perpendicular and 2-3 inches above the surface.
9. Continuously fume by making small circular motions over the area being fumed (approximate fuming time for each cartridge is in Table A)
10. When complete, slide Torch Lock (7) to OFF to extinguish flame.
11. Carefully set torch on non-flammable surface; allow to cool for several minutes before touching or storing.

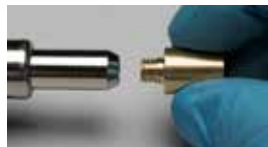


Figure 3: Attach cartridge

TABLE A: Approx. Fuming Times

CW200	90 sec.
CW300	3 minutes
CW400	50 minutes

12. For additional fuming, remove the cartridge by unscrewing and replace with a new cartridge. Repeat steps 2-11.

CAUTION! When cartridge is exhausted it is VERY HOT. Remove cartridge with enclosed tweezers (Figure 3) or wait until it completely cools down before touching.

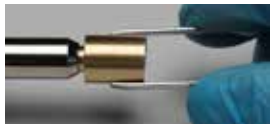


Figure 4: Remove cartridge

After Development

After fuming, developed prints should appear like prints processed with standard cyanoacrylate methods, whitish build-up showing ridge detail. After prints are discovered, they should be photographed. If developed on a light or patterned background, an after-treatment stain along with an alternate light source and filter may be used to build contrast for imaging. Please refer to information on RAM (LV650), RAY (LV660), Ardrox (LVS600 and LVS700), Basic Yellow (LV705, LVS500) and Rhodamine 6G (LV505).

Other methods for preserving cyanoacrylate prints are:

- Viewing and capturing with the Krimesite Imager (KSS60)
- Application of fingerprint powder (101L Black or similar) and lifting with lifting tape (144L, 144L2) or hinge lifters (134LW). Refer to Developing Latent Prints with Powders Guide.

Maintenance

Always remove used cartridges from the Cyanowand and dispose before storage. If using the HULK cartridge (SCW400), store cartridge separate from kit. Used cartridges contain residual cyanoacrylate and can form on the igniter of the wand and cause it to stop working.

Reorder Information

CW101	Cyanowand replacement	CW4001	HULK cartridge, ea
CW200	Standard Cartridge, Set of 10	SCW103	Butane Fuel, 42g
CW300	MEGA-cartridge, Set of 10	SCW1035	Butane Fuel, 165g
CW400	HULK cartridge, 4 pack		