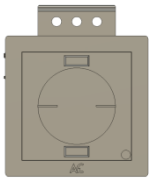

AVCLIGHT USAGE MANUAL V1.3

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In the Box

Thank you for purchasing your AvCLight match timing system! It can simulate timings for many ISSF pistol events. Consistent training with it can make you more comfortable to shooting on light signal based electronic targets used at most modern ranges across the world.

The AvCLight is the perfect training partner for your daily training routine, at your range to do live fire match simulations, and small enough to be easily taken to any competition for some dry fire preparations before match start.

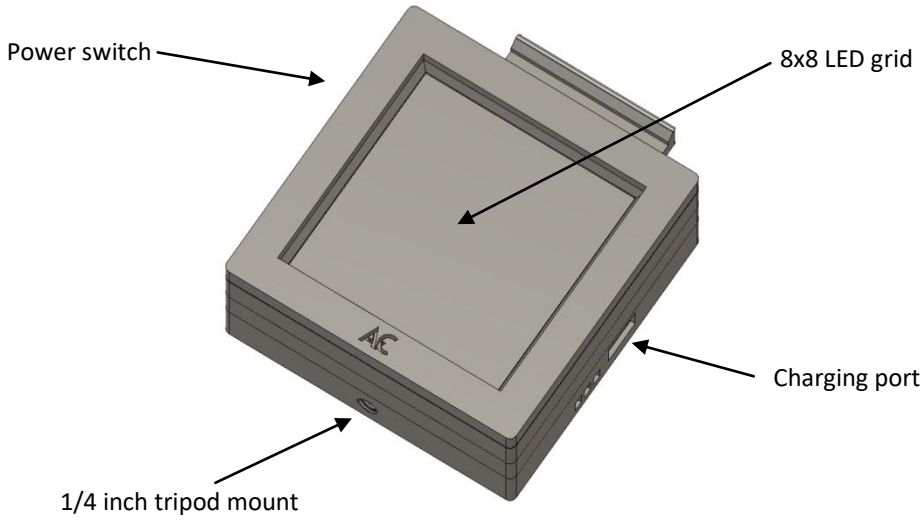
In the box you will find:

1. AvCLight system
2. USB micro charging cable with magnetic tip
3. 1x 25m Precision dry fire target face
4. 1x 25m Rapid Fire dry fire target face

Olympic Rapid Fire dry fire system (Optional):

1. Rapid Fire dry fire target mount
2. 5x 25m Rapid Fire dry fire target faces

Main Parts



Quick Start

CHARGE IT UP

Make sure the AvCLight is switched off (down position, switch towards the "-" sign), plug the included USB cable into any USB charger/power adapter/computer (not included), and attach the magnetic tip of the cable to the right hand side of your AvCLight. You will see a faint glow of red indicating the system is charging.

You should give it a few hours until the light inside the charging port turns green. See Charging section for more details. Simply put, when you see a red light inside the port, it's still charging. When it is green, it's done!

TURN IT ON

Flip the power switch on the left side of the AvCLight **up** (towards the "+" sign) to turn on the system.

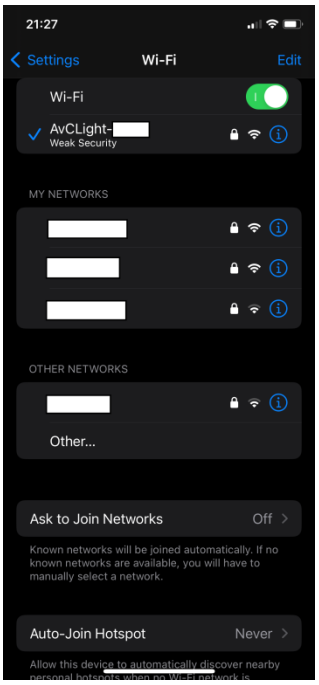
You should see an intro message "**AvCLight vn.n**" scroll by, followed by two green blinks.

The two green blinks tells you the system is ready to use.

CONNECT TO ITS WIFI

Your AvCLight has its own Wifi hotspot. You need to connect to it to control it.

On your Phone or Tablet, or computer's Wifi, search for a Wifi connection with the name "**AvCLight-xxxx**" where xxxx is the identifier of your specific light (so if there are multiple systems in the room, each person can control their own!)



When you see this Wifi connection available, connect to it. It will prompt you for the password.

The Wifi password is **"seethelight".** All letters in lower case, no quotes.

It takes a few seconds to connect, once connected; you should see the normal Wifi connected indicator icon on your device.

If you have trouble connecting, see the Troubleshooting section.

CONTROL IT

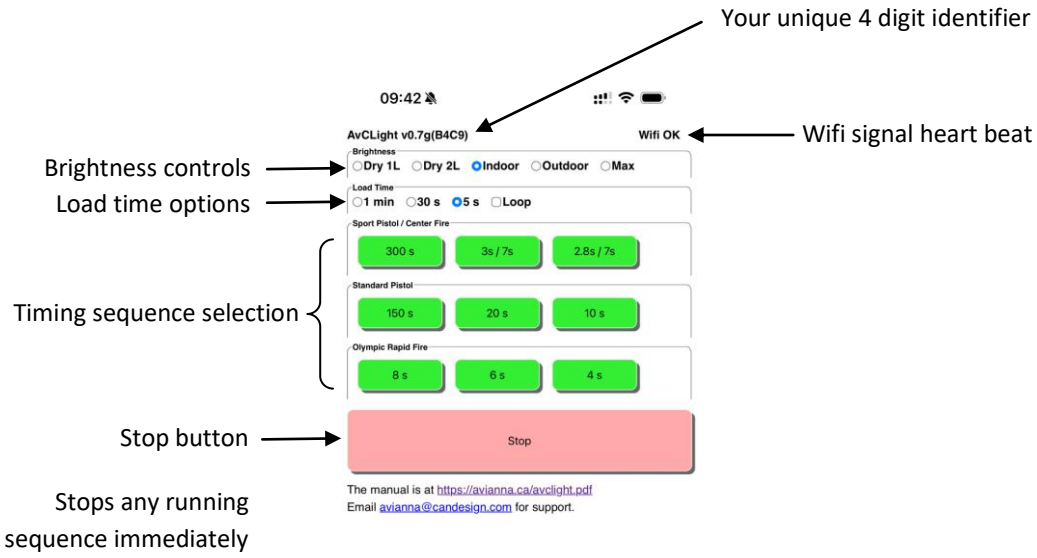
Now you've connected to your AvCLight. Open your web browser to take control of your AvCLight.

You can use Safari, Chrome, or Firefox, any modern browser should work.

Go to the URL: **http://avclight.local** directly. Do not try to go to Google first. This is a local website running on the AvCLight system.

Pro tip: You probably want to save this URL as a bookmark, maybe even add it to your mobile device's home screen. That way you can easily access it without having to remember the web site address.

You will see the AvCLight control screen.



The words "**Wifi OK**" in the upper right hand corner of the screen indicate that everything is working fine and you can now use your AvCLight. See the Troubleshooting section if you have problems or if you see "**Check Wifi**" at any time.

USE IT AND DO SOME TRAINING!

INDOOR DRY FIRE MODE

To use your AvCLight indoors:

1. Attach one of the dry fire face plates. Press it in on top of the transparent cover for the 8x8 LED grid, it is loosely friction held.
2. Set the "Brightness" mode to "Dry 1L" or "Dry 2L".
    a. "Dry 1L" means dry fire mode with 1 light, mimicking the latest generation of electronic targets that only have a single light on top.
    b. "Dry 2L" means dry fire mode with 2 lights, mimicking the older generation of electronic targets with red light on top and green light below.
3. Select a "Load time" option.
4. Press one of the green timing sequence buttons to start the load time.

LIVE SHOOTING MODES

To use your AvCLight with live firing, remove any dry fire face in front of the 8x8 LED grid.

Set the “Brightness” mode to “Indoor” when shooting in an indoor range.

Use the “Outdoor” brightness setting when you are outside and need the light to be brighter.

Use the “Max” brightness setting sparingly, since it consumes the most power.

You may use any load time and timing sequence in both indoors and live shooting settings.

Now go and shoot some tens!

Detailed Usage Guide

Brightness Modes

Dry Fire Mode

In “Dry 1L” or “Dry 2L” brightness modes, utilizing one of the dry fire target faces, you can simulate many timed matches in the ISSF pistol program.

The dry fire target faces are set up for an optimal distance of **2.3 meters**.[i]

In this mode, two led lights at the top will simulate the red light, and two led lights at the bottom will simulate the green light. These lights will shine through the dry fire target face.

In this mode, the system can run timing sequences continuously for approximately 17 hours on one full battery charge.

Indoor Brightness Mode

The “Indoor” brightness mode is suitable for use in indoor ranges.

In this mode, the system can run timing sequences continuously for approximately 7 hours on one full battery charge.

Outdoor Brightness Mode

The “Outdoor” brightness mode is suitable for use when outdoors in sun shine when the “Indoor” mode is no longer sufficiently bright.

In this mode, the system can run timing sequences continuously for approximately 4.5 hours on one full battery charge.

Pro tip: Always try the “Indoor” mode to see if it is bright enough. It saves power and generates less heat!

Maximum Brightness Mode

The “Max” brightness mode is reserved for the brightest days. Only use it when all other brightness levels are insufficient.

In this mode, the system can run timing sequences continuously for approximately 3 hours on one full battery charge.

Caution: Do not use this mode in continuously without pause. It generates a significant amount of heat and may cause system malfunction.

LOAD TIME OPTIONS

LOAD TIME – 1 MIN

The light will turn red and commence the chosen timed sequence after 60 seconds.

LOAD TIME – 30 S

The light will turn red and commence the chosen timed sequence after 30 seconds. Suitable for volume training sessions when the full load time is not required.

LOAD TIME – 5 S

The light will turn red and commence the chosen timed sequence after 5 seconds. Suitable for dry fire sessions when you just want to work on timing.

LOAD TIME OPTION – LOOP

If you check off the “Loop” option in the “Load time” section, your AvCLight will loop the last timed program over and over, forever.

The loop does NOT contain the load time.

For example, if you selected “30 s” for load time, checked off the “Loop” option, and selected the “3 s/7 s” Sport Pistol/Center Fire timing sequence, your AvCLight will run as follows:

1. 30 seconds load.
2. Red light will show for 7 seconds.
3. Green light will show for 3 seconds.
4. Steps 1 and 2 will repeat four more times.
5. Red light will show for 7 seconds. Completing one cycle of the “3/7” sequence of fire.
6. System will now go to step 2.

OPTIONS SAVING

Your “Brightness”, “Load time”, and “Load time options” will be saved after you run a timing sequence with it. These same options will be saved to your browser’s cookie, and will be loaded automatically the next time you use the same device/browser to control your AvCLight.

TIMING SEQUENCE SELECTION

300 S

This is the 5 minutes (300 seconds) match commonly used for 25m Pistol (Sport Pistol) or Center Fire.

After load time passes, the red light will show for 7 seconds, then the light will remain green for 300 seconds, after which the red light will show once again for 7 seconds before turning off.

3 S/7 S

This is the rapid fire portion of the 25m Pistol (Sport Pistol) or Center Fire match.

After load time passes, the red light will show for 7 seconds, then the light will turn green for 3 seconds. This will repeat 4 more times making a total of 5 red/green sequences. After the final green, the red light will show again for 7 seconds before turning off.

2.8 S/7 S

This is a non-ISSF standard, more challenging, variant of the rapid fire portion of the 25m Pistol (Sport Pistol) or Center Fire match.

After load time passes, the red light will show for 7 seconds, then the light will turn green for 2.8 seconds. This will repeat 4 more times making a total of 5 red/green sequences. After the final green, the red light will show again for 7 seconds before turning off.

150 S

This is the 2.5 minutes (150 seconds) match commonly used for 25m Standard Pistol.

After load time passes, the red light will show for 7 seconds, then the light will remain green for 150 seconds, after which the red light will show once again for 7 seconds before turning off.

20 S

This is the 20 seconds or “Timed fire” portion of the 25m Standard Pistol match.

After load time passes, the red light will show for 7 seconds, then the light will remain green for 20 seconds, after which the red light will show once again for 7 seconds before turning off.

10 S

This is the 10 seconds or “Rapid fire” portion of the 25m Standard Pistol match.

After load time passes, the red light will show for 7 seconds, then the light will remain green for 10 seconds, after which the red light will show once again for 7 seconds before turning off.

8 S

This is the 8 seconds of the 25m Olympic Rapid Fire match.

After load time passes, the red light will show for 7 seconds, then the light will remain green for 8 seconds, after which the red light will show once again for 7 seconds before turning off.

6 S

This is the 6 seconds of the 25m Olympic Rapid Fire match.

After load time passes, the red light will show for 7 seconds, then the light will remain green for 6 seconds, after which the red light will show once again for 7 seconds before turning off.

4 S

This is the 4 seconds of the 25m Olympic Rapid Fire match.

After load time passes, the red light will show for 7 seconds, then the light will remain green for 4 seconds, after which the red light will show once again for 7 seconds before turning off.

Mounting Options

HANG FROM NAIL

Your AvCLight has 3 nail mount holes at the top. You may use any of them, or all of them, to hang your AvCLight at the required and height.

CLIP ON COROPLAST

You can use a large metal clip (not included) to clip your AvCLight to the top of a coroplast target, frequently used in ranges.

TRIPOD MOUNT

Your AvCLight comes with a standard 1/4" tripod thread at the bottom. Simply screw on a tripod mount to it, and place it where you need the light. **Do not over tighten!**

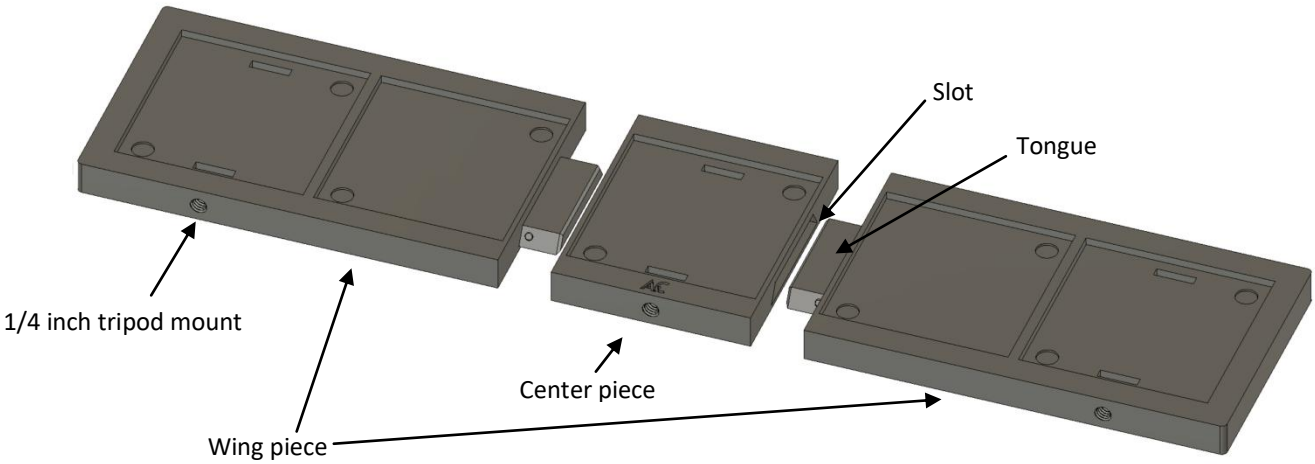
INCLIMATE USE – IT'S NOT WATER PROOF!

Your AvCLight is NOT water proof. If you need to use your AvCLight in the rain or snow, put it inside a Ziplock bag or similarly water proof container.

RAPID FIRE DRY FIRE ATTACHMENT (OPTIONAL)

The Rapid Fire dry fire attachment has 3 pieces, a center piece with the AvC logo at the bottom center, and two side wings. The center piece can hold one target face, and the two side wings each hold two target faces.

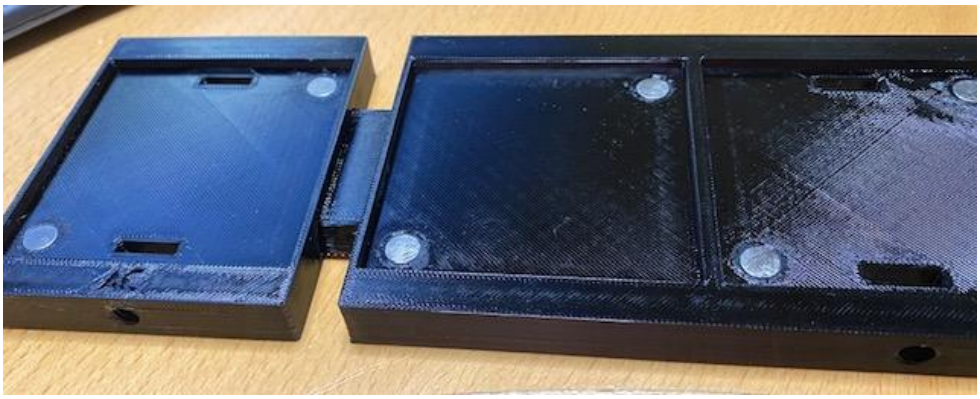
The Rapid Fire dry fire set up is for use optimally at **2.3 meters**.



ASSEMBLY

Rest all the pieces on a flat surface (like a table), then line up the slot with the tongue, and push them together. Make sure you push the side piece straight towards the center piece.

Do the same with the other wing. Remember the 1/4" tripod mount goes on the bottom, so don't get the left and right pieces mixed up.



Simply place the included 5x Rapid Fire target faces into each retaining slot. You will feel a slight pull of the magnets holding the faces in place.

DISASSEMBLY

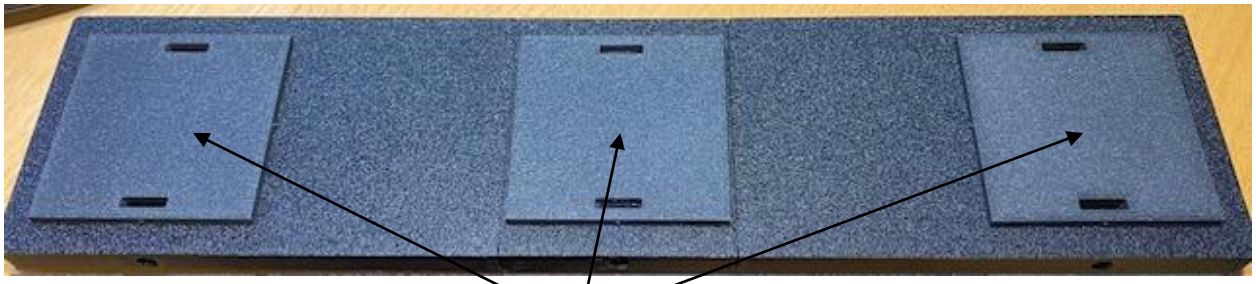
Rest your Rapid Fire attachment on a flat surface, holding the middle piece in one hand; wiggle the wing piece to loosen it, then pull straight out once loosened.

The slotted wings are designed for ease of transport and not designed to be assembled and disassembled for each training session. Repeated disassembly may cause the slot to become loose.

MOUNTING

You can place your AvCLight behind the center face of your Rapid Fire attachment, or either of the end faces.

Once assembled, simply press the retainer piece into the face of your AvCLight, just like you do with any target face. It is friction held.



There are also 1/4" tripod mounts at the bottom of the center piece and the two end pieces. You may use them, or the main tripod mount on the bottom of your AvCLight, or you can hang the AvCLight and your Rapid Fire attachment together. Use whatever works for your particular needs!

Left side mount

Center mount (recommended for best weight balance)

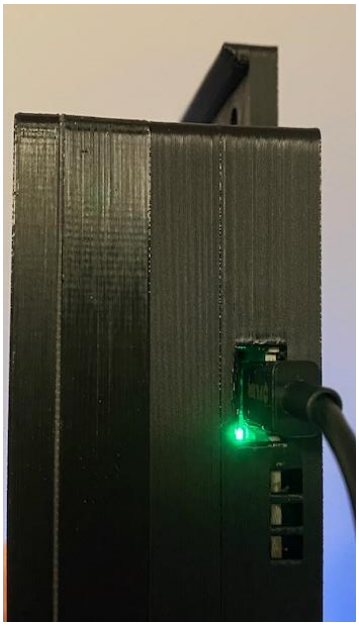
Right side mount

Charging

Turn off your AvCLight, attach the magnetic tip of the included micro-USB cable to the AvCLight, and plug the other side into a USB power adapter (or computer USB port).

Your AvCLight can take up to 6 hours to fully charge.

When the red light in the charging port is red (as in the photo below), it is still charging.



When it is green (right photo), then it is fully charged!

Do not put your AvCLight on top of a heater or radiator. Charging already creates heat; excessive heat can damage the system!

TROUBLESHOOTING

AVCLIGHT IS NOT RESPONDING TO COMMANDS

If the “Check Wifi” red text is visible, then you are either not connected to your AvCLight, or it is not responding.

Check your device’s Wifi setting, make sure it is actually still connected to your AvCLight.

If that doesn’t help, try turning your device’s Wifi off and on, and try connecting to your AvCLighta gain.

If all fails, try turning your AvCLight off and on to start from the beginning. You should see the AvCLight start up sequence where it says “AvCLight vx.x”, followed by two green blinks indicating the system is ready for use.

YOUR AVCLIGHT WORKS IN DRY FIRE MODE, BUT USING ANY OTHER MODE AND THE WIFI CONNECTION DISAPPEARS.

Your device may be running low on battery. Recharge it with the supplied USB cable until the charge indicator light on the right side of the system shows green.

YOUR AVCLIGHT IS TAKING FOREVER TO CHARGE, AND IT’S STILL NOT SHOWING GREEN ON THE CHARGE PORT

Is your device turned on? If it is on, it is using power and trying to charge the

battery at the same time. This will significantly increase the amount of time it takes to fully recharge the battery.

Make sure the device is turned off, then plug it into a USB power adapter to charge.

YOU CONNECT TO YOUR AVCLIGHT, GET TO THE CONTROL SCREEN, BUT THEN SHORTLY AFTER IT SAYS “CHECK WIFI” AND THE SYSTEM IS NOT RESPONDING.

Your device may have decided that because your AvCLight’s Wifi connection does not provide internet service, it is of no use, and switched away from it.

When this happens, check your device’s Wifi connection settings, and make sure you are still in fact connected to your AvCLight.

You may need to set your primary Wifi network to use “Auto-Join” to prevent this from happening.

YOUR AVCLIGHT WIFI WAS VISIBLE WHEN IT WAS NEXT TO YOU, BUT DOWN RANGE, YOU CAN’T SEE ITS WIFI HOTSPOT.

Make sure you are not too far from your AvCLight. It is optimal distance is 25 meters.

If you are having Wifi connectivity issues, try taking your device out of any protective case. Phone cases can affect Wifi signal reception.

Also, turning your device’s Wifi off and back on may force a rescan of all available Wifi hotspots. Sometimes when a Wifi signal is weak, and there are other Wifi hotspots near with higher strength, your device may filter out the weaker connections.

YOUR AVCLIGHT WAS WORKING AT MAXIMUM BRIGHTNESS, BUT NOW IT IS UNRESPONSIVE, AND NO LONGER APPEARING AVAILABLE ON THE WIFI HOTSPOTS SCAN.

You may need to turn your AvCLight off and back on to force it to reset.

When it is responsive again, try using a lower brightness setting.

YOUR AVCLIGHT FAILS TO TURN ON.

Make sure the system is fully charged. If you plug in the USB charging cable, does it turn red? If so, it is recharging.

Try turning on the system again when the charge indicator light shows green.

General Care

1. Do not shoot it! **It is not bullet proof!** There is a lithium ion battery inside (just like your phone or laptop). Shooting it may cause a fire.
2. Do not expose it to excessive heat such as on a radiator, heater, etc.
3. Do not use it in the rain without cover. **It is NOT waterproof!** Put it into a ziplock bag if you want to use it in the rain or snow.
4. Do not drop your AvCLight. It may crack the box or damage the system internals.

Support

You can reach me, Avianna Chao, at avianna@candesign.com, if you need help with your AvCLight.

Enjoy and thank you!

[i] There is an optional Dry fire face pack suitable for use at 1.1 m. It is available at https://avianna.ca