



DASHR 2.0 TIMING SYSTEMS USER MANUAL

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Congratulations on purchasing your new Dashr 2.0 Timing System. You are now able to offer your athletes professional level timing during your training regimen. Measuring performance and tracking results is vital to understanding how each individual can train and perform better.

This user manual provides you with basic set-up and operation instructions. Please refer to our website www.dashrsystems.com for instructional videos and examples of the Dashr system in operation.

Before using your Dashr laser timing system, please read the **Important Safety Instructions** found on the last page of this user manual.



Results You Can Trust

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Compliant with

- (1) USA, FCC Part 15.209
- (2) Canada, RSS-Gen, Issue 4
- (3) Japan: VCCI, V-3
- (4) AS/NZS CISPR 32:2015



Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

This device complies with Industry Canada's license-exempt RSSs. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil est conforme aux flux RSS exempts de licence d'Industrie Canada. Le fonctionnement est soumis aux deux conditions suivantes: (1) cet appareil ne doit pas causer d'interférence, et (2) cet appareil doit accepter toute interférence, y compris les interférences susceptibles de Provoquer un fonctionnement indésirable de l'appareil."

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Kit contents:

Your Dashr 2.0 Timing System may contain the following items:

- Phone and charger
- Laser module(s)
- Regular tripod(s)
- Mini tripod(s)
- Reflector(s)
- Batteries
- Briefcase
- Quick start guide
- Weight system
- Phone holder
- AutoID technology products

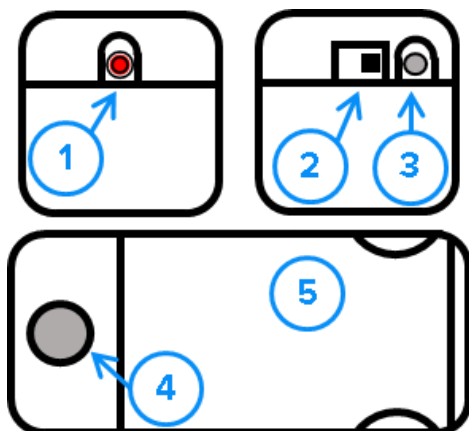
Quick start instructions:

1. Download the Dashr app
2. Install / open app
3. Install batteries in lasers
4. Select an event in the app
5. Connect the lasers
6. Align laser and reflector tripods
7. Perform trial run to verify setup
8. Begin testing

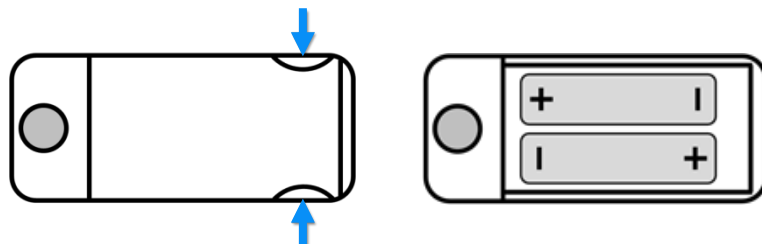
Hardware overview:

LASER MODULE:

1. Laser diode
2. On/Off switch
3. LED indicator light. **GREEN** indicates that the laser gate is not broken, **RED** indicates that the laser gate is broken.
4. 1/4-20 female thread
5. Battery cover



BATTERY COMPARTMENT: The bottom of the laser module has a battery cover that snaps in and out. To remove the cover, gently squeeze the battery cover on the laser side of the module. This will release the clips and allow you to pull to cover off.



BATTERIES: Each Dashr laser module requires two AA batteries. Make sure you put the batteries in correctly and have the silk ribbon under the batteries for removal. Look for the + sign in the battery compartment to properly align your battery. Failing to put the batteries in correctly may damage the laser.

BATTERY INDICATOR: When the laser module is first turned on the LED will be green, yellow, or red. **GREEN** indicates a good, fresh battery. **YELLOW** indicates the battery voltage is getting low. **RED** means that you should change the batteries. The Dashr laser modules are a low power electronic device. **Always store the system in a climate controlled environment and do not get the modules wet.** Failure to do so may cause device malfunction.

REGULAR SIZED TRIPOD:

1. 1/4-20 thread for mounting
2. Handle for directing the laser or reflector
3. Height adjustable neck
4. Height adjustable legs



MINI TRIPOD:

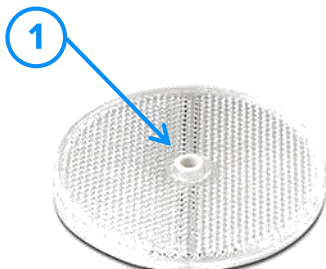
1. 1/4-20 thread for mounting
2. Angle adjustability
3. Rigid legs fold out for consistent placement



REFLECTOR:

1. 1/4-20 thread for mounting

NOTE: Reflector has retro-reflective properties but may require careful alignment with the laser module in certain conditions.



MOBILE APP: Dashr uses a mobile application to control the laser modules and display testing times. The free Dashr app can be downloaded from both the Google Play Store and the Apple App Store.

MOBILE DEVICE: If multiple drills are run simultaneously, each drill requires it's own mobile device to run the Dashr app. Inexpensive Android smartphones can be locally purchased to have dedicated Dashr devices if desired. Make sure your device is able to receive app updates necessary for additional features and improvements.

NOTE: It is required that your phone has Bluetooth® turned on to connect to the laser modules. Make sure that your device is properly charged before using the Dashr system.

BRIEFCASE: Your Dashr briefcase has designated spaces for up to six laser modules and two cell phones. There is also room for up to eight regular sized tripods as well as multiple mini tripods, reflectors, cell phone chargers, weight systems, phone holders, and batteries.



Set-up and operation:

LASER MODULE AND TRIPOD:

Use the 1/4-20 female threads on the laser modules to attach to a mini or regular sized tripod.



REFLECTOR AND TRIPOD:

Use the 1/4-20 female threads on the laser modules to attach to a mini or regular sized tripod.



NOTE: WHEN OPERATING OUTDOORS WHEN THE SUN IS LOW ORIENT THE LASER TOWARDS THE SUN OR OTHER SOURCE OF LIGHT. Having the laser hit the shaded side of the user reduces the amount of ambient light directed back towards the laser.

MOBILE APP OPERATION:

See in-app instructions for operation of the Dashr mobile app. There are also instructional videos online at www.dashrsystems.com. Use the app to select events, connect to laser modules (and RFID modules if applicable), and to view live times.

TIMING GATE SETUP:

Turn on the laser module when prompted by the mobile app. Orient the laser at the reflector and wait 20 sec for the laser to calibrate to the environment, if the light on the back of the laser is **GREEN** then the laser gate is setup. When the gate is broken (something blocking the laser) the light will be **RED**.

Do not attempt to connect more than one device to a laser. Doing so may interfere with signal transfer and compromise the system's accuracy.

Laser and reflector should not be set-up more than 10 feet apart.

For maximum range, the smartphone should be positioned between the lasers. Not doing so may result in missed laser trips.

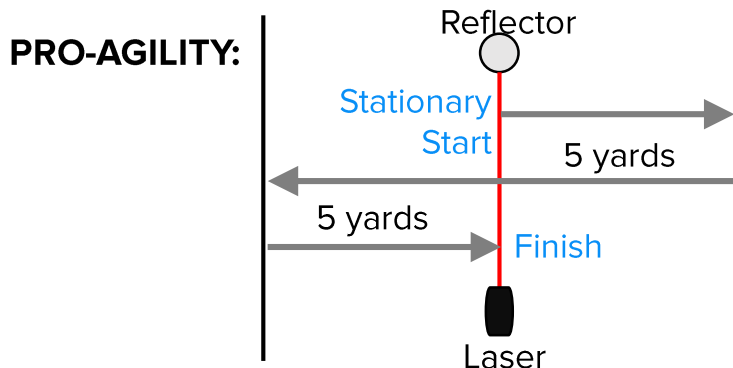
Follow in-app instructions for connecting the laser to the app. Press the lightning bolt on the app, then **QUICKLY** (within 2 sec) turn on the laser. If the laser does not connect within 5-6 sec, turn the laser off and repeat.

If you are experiencing trouble with the timing gate not tripping properly, try slightly lowering the reflector on the tripod and angling the laser downward. This may reduce the amount of ambient light directed towards the laser.

Event set-up:

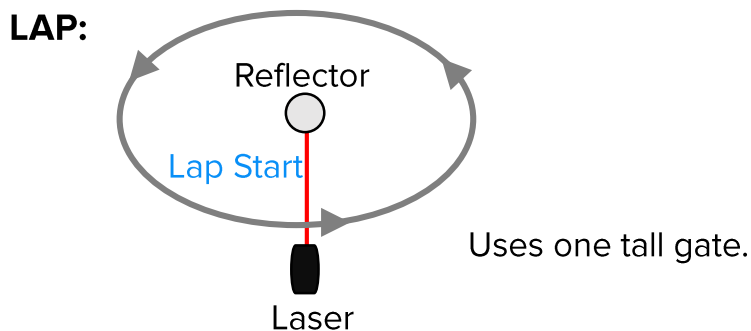
STATIC GATE: Laser must be blocked until the app notifies you that the user can leave the gate (approximately 3 sec). This is used for events that start with a stationary user.

DYNAMIC GATE: Laser trip is recorded as soon as the user crosses (aka breaks) the laser beam. This is typically used for the split or end gates of events.

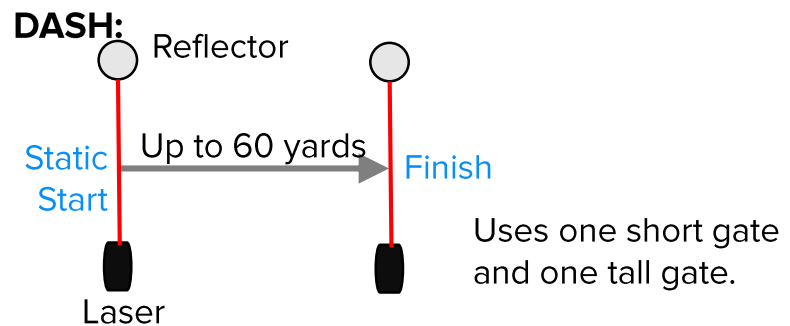


Orient athlete so that they face the reflector. This will minimize the chance of eye exposure to the laser. Uses one tall gate.

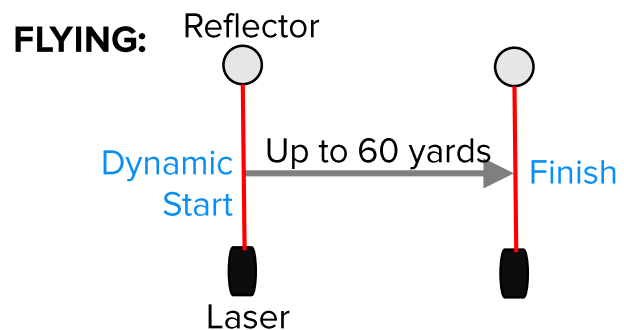
Pro-agility starts with a static gate, has a split with a dynamic gate, and a finish with a dynamic gate. Requires one laser, one reflector, and two regular tripods.



Lap starts with a static gate. Once the event begins, the laser becomes a dynamic gate which records a split each time it is crossed. The lap event will run until it is manually stopped on the app. Requires one laser, one reflector, and two regular tripods.

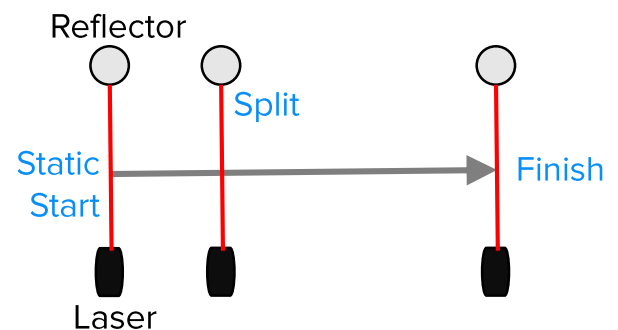


Dash starts with a static gate and ends with a dynamic gate. Requires two lasers, two reflectors, two regular tripods, and two mini tripods. Use mini tripods for start gate and regular tripods for end gate.



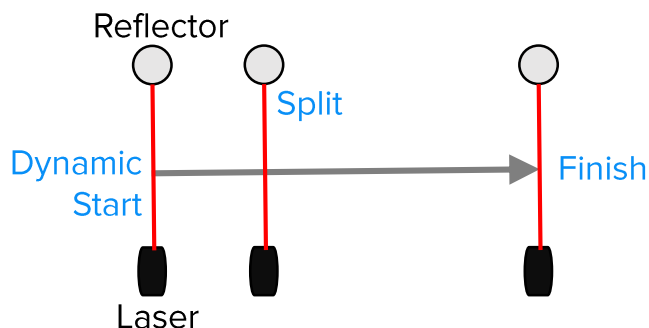
Flying starts and ends with dynamic gates. Uses two tall gates. Requires two lasers, two reflectors, and four regular tripods.

DASH WITH SPLIT(S):



This event starts with a static gate, has dynamic gate(s) for the split(s), and ends with a dynamic gate. Requires two lasers, two reflectors, two regular tripods, two mini tripods, and an additional one laser, one reflector, and two regular tripods for each split. Typically mini tripods are used for start gate and regular tripods for the split and end gates.

FLYING WITH SPLIT(S):




NOTE: Custom events can also be performed- please contact us for guidance in setting up any additional drills.

Events with quantified distances are example set-ups, not how the systems must be set-up.

This event starts with a dynamic gate, has dynamic gate(s) for the split(s), and ends with a dynamic gate. Requires two lasers, two reflectors, four regular tripods, and an additional one laser, one reflector, and two regular tripods for each split. Uses 3+ tall gates.

Troubleshooting:

Symptom	Actions
T1: Laser is not tripping on the module (Red/Green Light on module)	<p>T1.1 - If you are testing in the sun, make sure that the laser is oriented towards the sun so that the laser hits the shaded side of the athlete.</p> <p>T1.2 - Turn the laser on next to reflector (while pointing the laser at the reflector) and slowly back up, up to 10 feet.</p> <p>T1.3 - Orient the laser downward at the reflector.</p>  <p>T1.4 - Change the batteries.</p>
T2: Laser trip is not registering in the Dashr app.	<p>T2.1 - Make sure that you are positioned between the START and STOP laser. Being 40+ yards away from any timing gate may result in occasionally missing a laser trip. See T5.</p> <p>T2.2 - When in doubt, restart Bluetooth on the phone, restart the Dashr app, and re-connect the lasers.</p>
T3: Laser is tripping for most but not all athletes.	<p>T3.1 - Reflective clothing, such as white baseball pants, can cause difficulties. Reposition the lasers to sense the athlete on their chest where possible.</p>
T4: Laser is not connecting to the mobile device.	<p>T4.1 - Press the “⚡” button then QUICKLY turn on the laser.</p> <p>T4.2 - Restart Bluetooth on the phone, restart the Dashr app, and re-connect the lasers.</p>
T5: Laser is not responding at distance.	<p>T5.1 – Dashr 2.0 hardware is tested to work reliably at 40 yards. For distances beyond that (we suggest no more than 60 yards), removing the phone case, placing the phone on a tripod, and reducing the number of other Bluetooth devices in the area have been shown to improve success rates at longer distances.</p>

SAFETY INSTRUCTIONS



Dashr laser modules contain a Class 3R intermediate powered laser. This means that they are similar to a laser pointer and can only be hazardous through prolonged direct viewing.

Therefore, during any event in which the user could be oriented towards the laser it is suggested that they instead face a reflector so that the laser is at their back.

