

# Product Bulletin

GEOSPATIAL  
25<sup>th</sup> SEPTEMBER 2017

## TRIMBLE SX10 SCANNING TOTAL STATION

### Target Illumination light

Faster target identification in dark or harsh environments is achieved by combining the SX10 Target Illumination Light (TIL) with the video feed in Trimble Access on the controller.

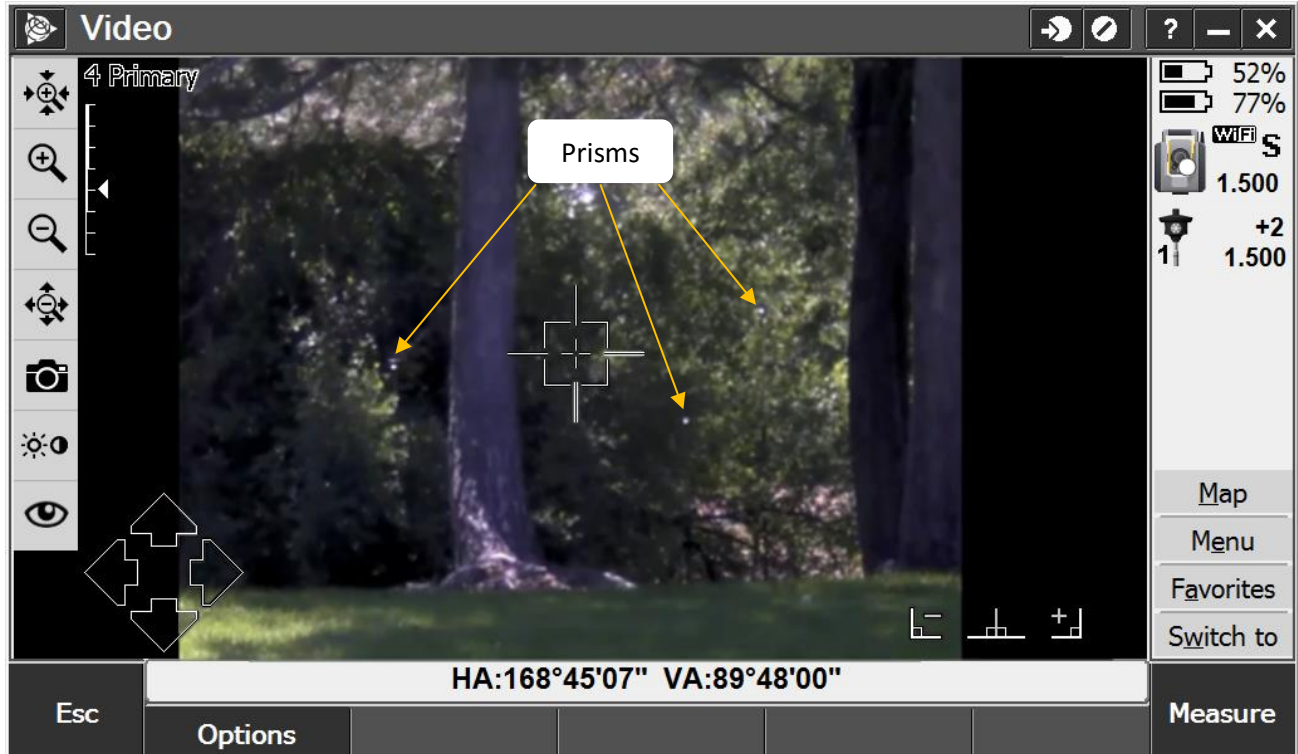
### Availability and Requirements

- TIL functionality is available on all SX10 instruments.
- Firmware version S1.86.2 or newer is required to enable the TIL in the SX10.
- Trimble Access version 2017.10 or newer is required for operating the TIL.



### Overview

When turned on the reflection from the TIL can be seen in the video screen on the controller. This helps you to identify where the target is when working in dark or harsh environments. In the following still image you can see where 3 prisms are significantly easier to spot in the wooded area with the TIL on, and even more so when you see a flashing return in the live video stream.



[www.trimble.com](http://www.trimble.com)

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## Targets and Range

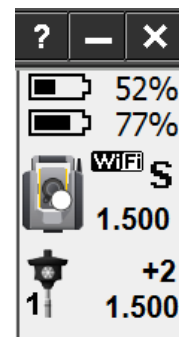
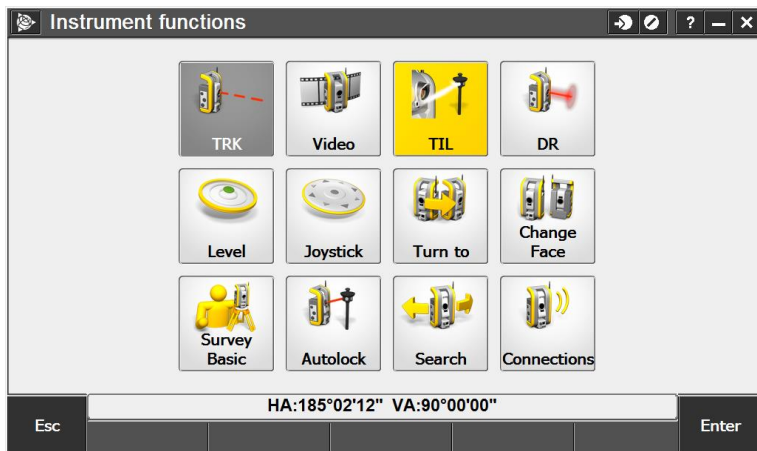
The working range for the TIL can vary significantly depending on environmental influences and predominantly the ambient light conditions. TIL works predominantly with the Primary camera due to the location of the TIL on the instrument and the retroreflective nature of prisms. Both prisms and reflective foils will work with the TIL, however, reflective foils are more susceptible to observation angle, target quality and distance due to the way they diffuse light. The Overview camera is often able to see the flashing from a reflective foil in addition to the Primary camera. When working robotically and using TIL in flashing mode the Wi-Fi bandwidth provides a much better experience than Long Range Radio so robotically the range is effectively equal to the Wi-Fi range.

## TIL for Orientation Indication

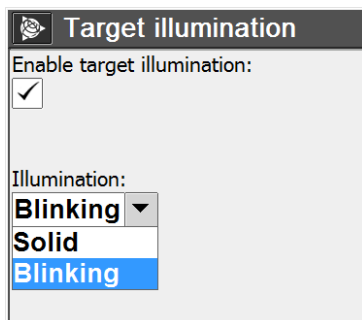
The field of view for the TIL is around 30°, which means while the TIL can be used to help orientate the instrument towards you when working robotically it should be used in conjunction with the video feed from the instrument for final accurate pointing.

## TIL Controls in Trimble Access

The TIL can be turned off and on via Instrument functions in General Survey. Tap on the TIL button to turn off/on. When TIL is on there is a white light indicator on the SX10 instrument icon in the status bar.



The TIL mode can be set either blinking or solid, which is configured in General Survey in the Target illumination form. Accessible via the Instrument menu or by a tap and hold on the TIL button in Instrument functions.



There is also a new drop down setting available when capturing a panorama with the SX10. This appears in the Panorama form as well as the panorama section of the Scanning form. Target illumination can be set to Off or Solid and enables you to have targets highlighted in panoramas captured with the Primary camera. This drop down will only appear if the Camera is set to Primary.

Framing:  
**Rectangle** ▼

At distance:  
 **100.000m** ▶...

Camera:  
**Primary** ▼

Target illumination:  
**Off** ▼  
**Off** ure:  
**Solid**

**No Change to Battery Life**

There is no perceptible effect on battery life from using the TIL, so there is no need to toggle the TIL off and on in an effort to prolong battery life.

**Regulations**

For photo biological classification TIL is class 2. This means that it is not dangerous as the eye will avert when looking into the light and no special certification is necessary.

**TIL Location Relative to Cameras**



**For More Information**

For more information, contact your local Trimble Distribution Partner.