



# CaIMAN

# Setup Guide

TopCon BM-7A Colorimeter

TopCon SR-3AR Spectroradiometer

Rev. 1.1

## Introduction

The TopCon BM-7A colorimeter and the TopCon SR-3AR spectroradiometer can be connected to and controlled by CalMAN to perform display measurements.

### CalMAN Required Version

- Version 5.7.1 or later

### BM-7A Colorimeter Connection

- Straight-through 9-pin female-to-female serial cable (different than the SR-3AR spectroradiometer).

### SR-3AR Spectroradiometer Connection

- Null modem 9-pin female-to-female serial cable (different than the BM-7A colorimeter).

Notes:

The TopCon meter USB ports are not functional with CalMAN.

If a USB to serial adapter is required, the FTDI USB to Serial Adapter is recommended, as it includes a data buffer for superior data integrity at high communication rates.

[http://calman.spectracal.com/store/p49/CalMAN\\_Certified\\_USB\\_to\\_Serial\\_Adapter.html](http://calman.spectracal.com/store/p49/CalMAN_Certified_USB_to_Serial_Adapter.html)

If a USB to serial adapter is used, be sure that its proper USB driver is installed. If necessary, run the SpectraCal Device Driver Pack from the following link. It contains both FTDI and Prolific drivers.

<http://www.spectracal.com/download.php?id=3>

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## TopCon BM-7A Colorimeter

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### CalMAN Meter Connection Procedure

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1. For serial connection to CalMAN, set the configuration switches on the BM-7A colorimeter as follows:
  - Switches 1, 2 and 5 are down.
  - Switches 3, 4, 6, 7 and 8 are up.

(Baud rate = 38,400; Length = 7; Parity = Even; Stop Bits = 1; Delimiter = CR+LF)
2. Connect the BM-7A colorimeter to a serial port on the CalMAN computer or to a Serial to USB adapter, with a straight-through serial cable.
3. On the CalMAN Meter Settings tab, click *Find Meter*.
4. On the *Find Meters* popup dialog (Figure 1):
  - a. Leave Com Port set to *auto*, or, select the com port that was assigned to the meter or to the Serial to USB adapter (shown in Device Manager, under *Ports (com & LPT)*).

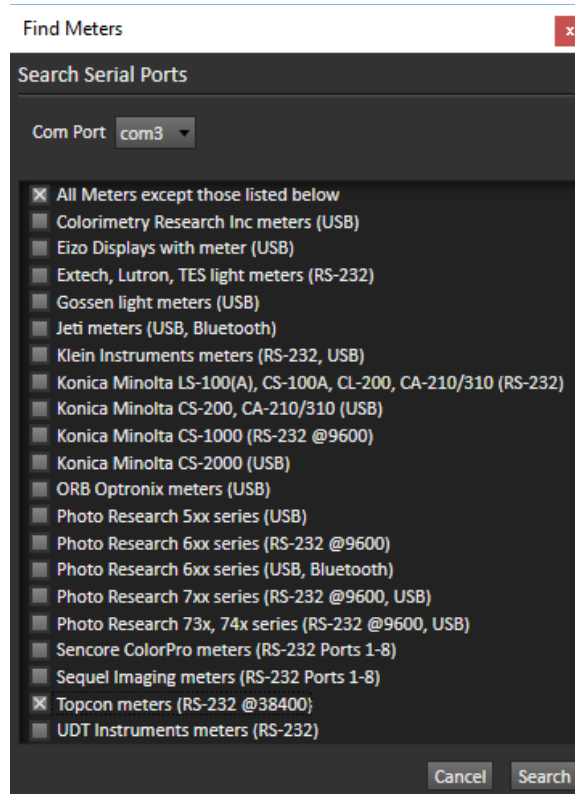


Figure 1. CalMAN Find Meters dialog for connecting the TopCon meter to CalMAN.

- b. Check the box for “TopCon Meters (RS-232 @38400).”
  - c. Click *Search*.
5. On the Meter Settings tab (Figure 2):
  - a. Under *Meter Mode (Target Display Type)* select either the factory correction factor or a user defined correction factor that corresponds to the display being measured.
    - Correction Factor 0 - Factory
    - Correction Factor 1 - User Defined
    - Correction Factor 2 - User Defined
    - Correction Factor 3 - User Defined
    - Correction Factor 4 - User Defined
    - Correction Factor 15 - User Defined

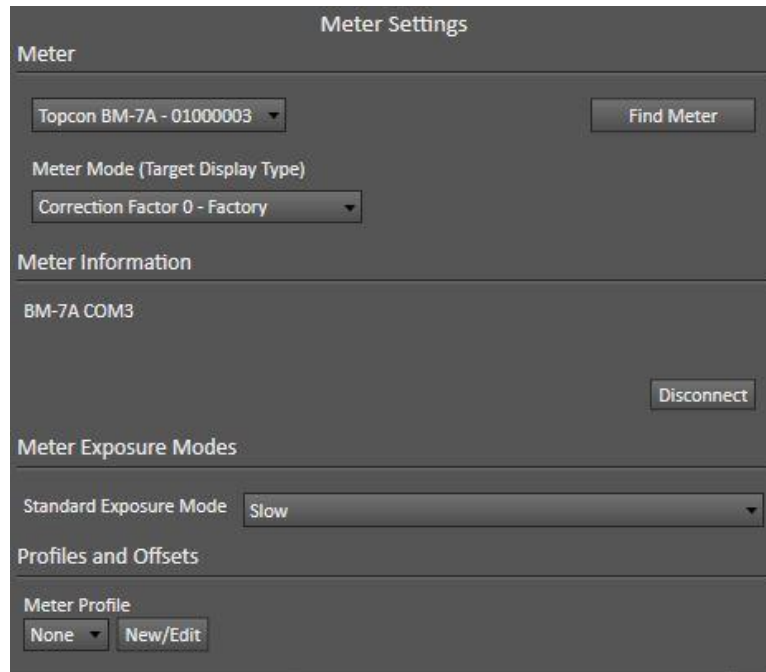


Figure 2. CalMAN Meter Settings dialog.

- b. Select a *Standard Exposure Mode* that yields stable measurements in the CalMAN Read Continuous mode.
  - Slow (default)
  - Fast

## TopCon SR-3AR Spectroradiometer

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### CalMAN Meter Connection Procedure

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1. For serial connection to CalMAN, set the SR-3AR spectroradiometer menu options as follows:
  - Baud rate = 38,400
  - Length = 7
  - Parity = Even
  - Stop Bits = 1
  - CS-900 On/Off = Normal Type
  - Delimiter = CR+LF
2. Connect the SR-3AR spectroradiometer to a serial port on the CalMAN computer or to a Serial to USB adapter, with a null modem serial cable.
3. On the CalMAN *Meter Settings* tab, click *Find Meter*.
4. On the *Find Meters* popup dialog (Figure 3):
  - a. Leave Com Port set to *auto*, or, select the com port that was assigned to the meter or to the Serial to USB adapter (shown in Device Manager, under *Ports (com & LPT)*).

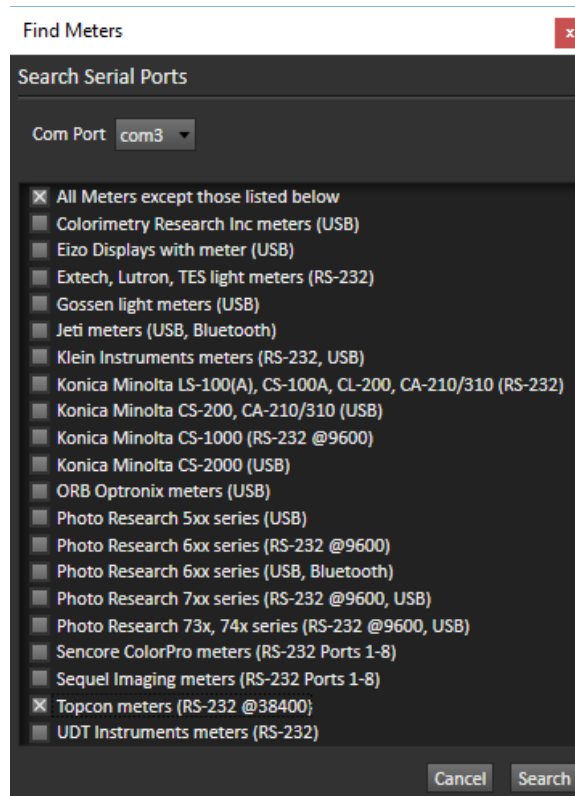


Figure 3. CalMAN Find Meters dialog for connecting the TopCon meter to CalMAN.

- b. Check the box for “TopCon Meters (RS-232 @38400).”
  - c. Click *Search*.
5. On the Meter Settings tab (Figure 4):
  - a. Under *Meter Mode (Target Display Type)* select “All Types.”

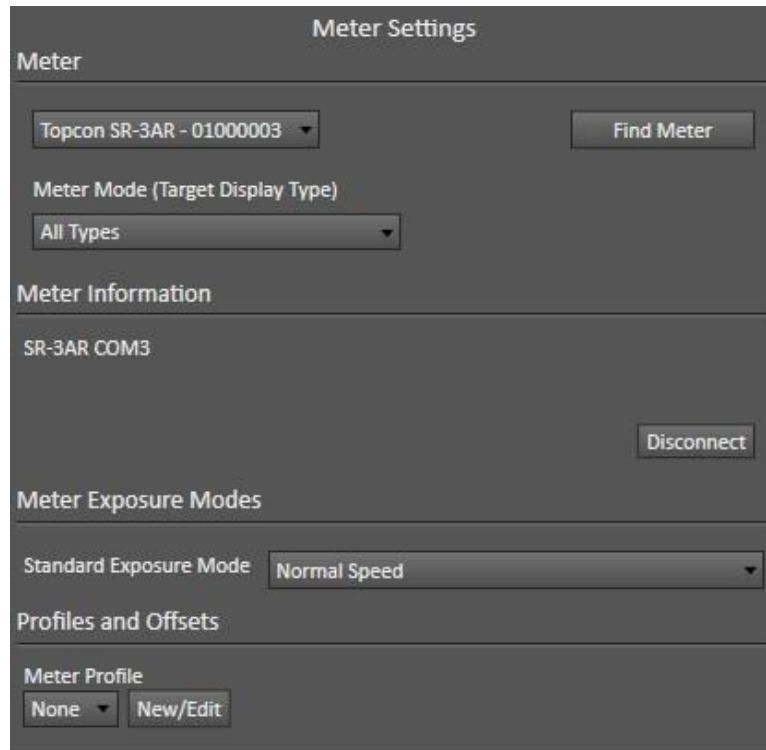


Figure 4. CalMAN Meter Settings dialog.

- b. Select a *Standard Exposure Mode* that yields stable measurements in the CalMAN Read Continuous mode.
  - Normal Speed (default)
  - High Speed

*Note: In CalMAN, under Settings\Application Measurement Options, if the “Use Software Color Matching Functions” option is checked, the SR-3AR spectroradiometer returns full spectral data on every reading.*



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