

How to install a Wyatt Technology DAWN or miniDAWN with a Waters HPLC system

Part I: Waters Acquity:

Acquity UV (a.k.a. FLR/PDA) detector:

Locate a HELEOS or TREOS auxiliary cable. Refer to the table below for wire color assignments. (Note: Optilab T-rEX and/or ViscoStar aux channels also may be used. Please refer to the “Installation and Setup” section in the instrument’s user’s guide for wire assignments.)

Auxiliary Connector Wire Colors:

	aux1 (+)	aux1 (-)	aux2 (+)	aux 2 (-)
HELEOS or TREOS	White	Black	Red	Green

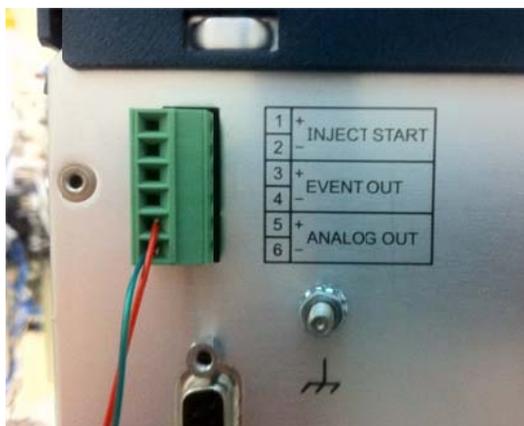


Fig. 1: Back Panel of Acquity UV

Refer to the table posted on the back panel of the Waters UV instrument to verify which wires connect to which terminals. The model shown uses:

- (+) wire to 5 ANALOG OUT +
- (-) wire to 6 ANALOG OUT -

Tape off any other wires with electrical tape – they are ground wires, and are not necessary for this connection.

The output range of this analog UV signal is 0 to 2.25 V. In Empower, the most common setting for the UV analog response is 1 AUFS. With this analog response, you’ll need to enter a UV response factor of 0.4444 AU/V into the ASTRA configuration. If you need to alter Empower’s analog response to accommodate your peaks, please note that you will need to also alter ASTRA’s UV response factor accordingly.

The other end of the AUX cable will have an RJ-12 connector. Connect that end into an “Aux In 1&2” port on the back panel of the instrument.



**Fig. 2: Wyatt RJ-12 cable
p/n P4045-19**



Fig. 3: HELEOS/TREOS back panel

Acquity Autosampler

Locate the remote contact closure signal terminal on the autosampler, and use an AUX cable to make the connection between the autosampler and the HELEOS or TREOS's back panel Auto Inject In port.

In Figure 8 below, the model shown uses:

- Red (+) wire to 2 Inject Start Out
- Green (-) wire to 1 Inject Start Out

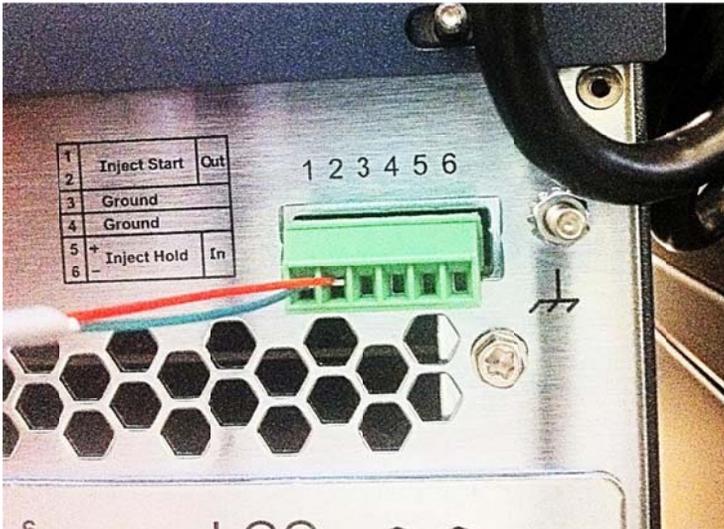


Fig. 4: Back Panel of Acquity Autosampler

Note: The autosampler is probably already configured to send an adequate electrical pulse (contact closure) to the HELEOS or TREOS upon injection; this pulse can be used to initiate ASTRA data collection if ASTRA is properly configured. There is no formal communication between the HPLC and ASTRA beyond this simple pulse, nor does ASTRA control the autosampler in any way.

Part II: Waters Legacy (eg. Waters 2690, 2695)

Waters Legacy UV (a.k.a. DAD / PDA) detectors:

Refer to the table above, as well as the table posted on the back panel of the Waters UV instrument to verify which wires connect to which terminals. The model shown uses the Waters “Analog Out +/-” labeled connection ports:

- (+) wire to B1 “ChA 2V”
- (-) wire to B3 “ChA Ground”

Tape off any other wires with electrical tape – they are ground wires, and are not necessary for this connection.



Fig. 5: Back Panel of Waters UV Detector

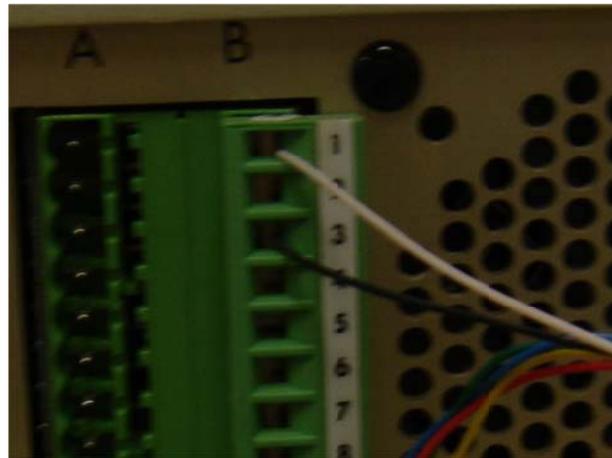


Fig. 6: AUX wire connections

Waters Legacy Autosampler

Locate the remote contact closure signal terminal on the autosampler, and use an AUX cable to make the connection between the autosampler and the HELEOS or TREOS' back panel "Auto Inject In" port.

The inject start ports are located on Panel "B" (the left panel) at positions 1 & 2, which are both labeled “Inject Start (Out).”



Fig. 7: Back of Waters Autosampler

Legacy Wyatt Instruments:

To connect to an older model Wyatt EOS or TriStar instrument, please use the guide below and a turck cable p/n **P4045-05** to create the connections mentioned above:

	aux1 (+)	aux1 (-)	aux2 (+)	aux 2 (-)
EOS or TriStar	Brown	Blue	Brown	Blue



*Fig. 8: Wyatt turck cable
p/n 4045-05*

For additional information, please refer to the DAWN or miniDAWN hardware manual or contact Wyatt Technology Support at support@wyatt.com