

GENERAL INFORMATION

The DC20 cable is used in conjunction with a laptop to change units (Pulse Output, Rate, and Total) on a Seametrics Flanged Magmeter in the field. Because the procedure requires opening up the display unit (which may violate regulatory requirements for some customers), only Seametrics suppliers have access to the DC20 cable and software to perform these procedures.

INSTALLING THE DC20 SOFTWARE ON YOUR LAPTOP

- Insert CD in drive
- Double-click on "Install Seametrics DC20.exe".
- In Welcome to Setup Wizard Window, click "Next".
- Read and accept user license agreement, click "Next".
- Select Destination Location (default is C:\Program Files\Seametrics, or change to preferred location), click "Next".
- Select Start Menu Folder (default is "Seametrics", or change to preferred location), click "Next".
- Select Additional Tasks (default will "Create a desktop icon" for ease of future use), click "Next".
- Ready to Install (review your selections, click "Back" to change any selections), click "Install" to proceed. Installation is complete within seconds.
- Completing the Setup Wizard (default will Launch the DC20 software, or unclick box to complete installation without launching), click "Finish".

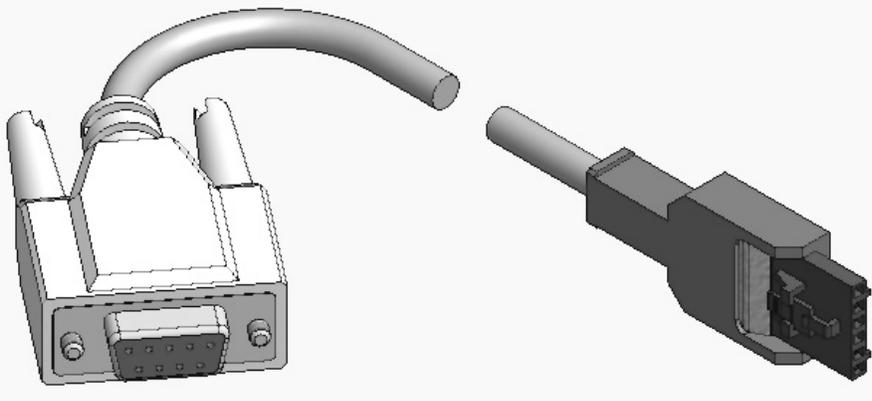
USING THE DC20 SOFTWARE & CABLE



CAUTION: When the magmeter is used for custody transfer purposes, ensure that regulatory requirements are met **before** cutting the security wire-and-seal. Replace wire-and-seal according to regulatory requirements when finished re-setting the meter.

Connecting the Cable

- Cut the security wire on the magmeter display in accordance with regulatory requirements.
- Remove the four screws.
- Gently lift off the face of the display, being very careful not to stress the cable that connects the upper housing to the lower housing.
- Remove foam battery restraint, noting orientation of notched corner.
- Locate the control connector inside the housing, and plug the DC20 cable in to it.
- Plug the other end of the DC20 cable into your laptop's serial port. Use a serial/USB converter if necessary (cable #GUC232A from www.iogear.com or equivalent).



NOTE: If the magmeter has previously been fitted with the optional input/output cable, it must be disconnected first so that the DC20 cable can be connected to that same control connector.

Running the Software Program

1 Doubleclick the DC20 desktop icon on your laptop to display the "Settings" screen shown below. The properties of the connected meter (type, size and firmware revision) are automatically detected.

Device Properties (Autodetected by the program)

Type: AG2000
Size: 8
Rev: 13827L

Options

Pulse Output: [Dropdown]

Rate Units: [Dropdown]

Total Units: [Dropdown]

Program [Button]

DC20 Version: CP-13606-L

2 Choose Pulse Output from drop-down list (see charts below for unit options). Note: K-factor for High frequency (100Hz) pulse varies with meter size as explained below.

Pulse Output: [Dropdown menu open showing options: 1000G/P, 10L/P, 100Hz, 100G/P, 100L/P, 10G/P, 1000L/P]

Menu Selection	Pulse Output
1000G/P	1000 Gallons per Pulse
10L/P	10 Liters per Pulse
100Hz	Variable (see below)
100G/P	100 Gallons per Pulse
100L/P	100 Liters per Pulse
10G/P	10 Gallons per Pulse
1000L/P	1000 Liters per Pulse

K-factor for High frequency (100Hz) pulse output varies with meter size as follows:

Meter Size	Pulses Per Gallon	Pulses Per Liter	Full Scale Flow in GPM	Frequency @ Full Scale Flow
4"	16.362	4.323	500	136.350
6"	6.307	1.666	1200	126.140
8"	3.344	0.883	2200	122.613
10"	2.150	0.568	3500	125.417

3 Choose Rate units from drop-down list (see chart below for unit options).

Rate Units: [Dropdown menu open showing options: GPM, CMM, CFM, CMH, LPS, MI, LPM, CFS, GPS]

Menu Selection	Rate Units
GPM	Gallons per Minute
CMM	Cubic Meters per Minute
CFM	Cubic Feet per Minute
CMH	Cubic Meters per Hour
LPS	Liters per Second
MI	Miner's Inches
LPM	Liters per Minute
CFS	Cubic Feet per Second
GPS	Gallons per Second

4 Choose Total units from drop-down list (see chart below for unit options).

Total Units: [Dropdown menu open showing options: MG, GT, CM, G, AF, AI, ML, L, CF, LT, CFT, CMT, MID]

Menu Selection	Total Units
MG	MegaGallons
GT	Gallons x 1000
CM	Cubic Meters
G	Gallons
AF	Acre Feet
AI	Acre Inches
ML	MegaLiters
L	Liters
CF	Cubic Feet
LT	Liters x 1000
CFT	Cubic Feet x 1000
CMT	Cubic Meters x 1000
MID	Miner's Inch Days

Running the Software Program (continued)

5 Click “Program”.

The program will run for about 30 seconds.

When reprogramming is complete this message will appear: “Connection closed. Program was successful.”

NOTE: If the program encounters an error, click “OK” and wait for one minute to allow the program to reset. Then click “Program” to try again. If you encounter another error, make a note of your DC20 software Version number (on Status Bar at bottom of screen), and contact the factory for assistance.

6 Final Steps

- Remove DC20 cable from magnetometer and reconnect input/output cable if applicable.
- Replace foam battery restraint with notched corner aligned with the flat cable connecting upper and lower housings.
- Gently replace display, being careful not to pinch flat cable between upper and lower housings, and tighten screws.
- Apply new security wire and seal in accordance with regulatory requirements.



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