GEOMETRIC CORRECTION PARAMETER STRUCTURE

The geometric correction (gc) parameters include single-copy and multiple-copy parameters. These parameters are displayed on the diagnostic monitor screen as shown below.

```
PRM gc parameters:
Group           Parameter       Active          Default         Units
-------------------------------------------------------------------------
gc              Mscale                [1-2]                     ppm
gc              Mshift                [1-2]                     microns
gc              MshiftSlave     0               0               microns
gc              Scsale          0               0               ppm
gc              Sshift                [1-2]                     microns
gc              OrthoAdjust     0               0               uradians
gc              Rotation              [1-5]                     uradians
gc              TrackProfile          [1-30]                    microns
gc              PinLoc                [1-4]                     mm
gc              HeadSpacing     400000          400000          microns
gc              ScsanSizeMax          [1-2]                     mm
gc              DrumMidPoint    575             575             mm
```

The following sections describe the gc parameters for the *Trendsetter* TS8 (base, Autoloader, and Spectrum); *Trendsetter* NEWS 50, 70, 100, and 150; and the *Trendsetter* NEWS 200 (dual-head) output devices.

TS8 (Base, Autoloader, Spectrum)

Parameter	Default	Description
set gc Mscale 1	0	Mainscan scaling factor (in ppm)
set gc Mshift 1	4600	Mainscan shift required to make inch grid line up properly
set gc Sscale	0	Subscan scaling factor (in ppm)
set gc Sshift 1	2900	Subscan shift required to make inch grid line up properly (roughly equal to one swath)
set gc OrthoAdjust	0	Orthogonality adjustment
set gc Rotation 1	-3000	Rotation value for very small plates sitting on pins 1 and 2
set gc Rotation 2	-900	Rotation value for small plates sitting on pins 1 and 3
set gc Rotation 3	0	Rotation value for large plates sitting on pins 1 and 4
set gc TrackProfile 1	0	Track profile correction values in microns. The track length is divided into “bins” of 50.8 mm in length.
set gc PinLoc 1	323	Pin location of home pin(in mm)
set gc PinLoc 2	510	Pin location of second pin
set gc PinLoc 3	603	Pin location of third pin
set gc PinLoc 4	837	Pin location of fourth pin
set gc ScanSizeMax 1	330	Media smaller than this will sit on pins 1 and 2 (off-center by 163.5 mm)
set gc SscanSizeMax 2	559	Media smaller than this will sit on pins 1 and 3 (off-center by 117 mm)
set gc DrumMidPoint	575	[For Spectrum only] Defines center of drum in the subscan direction (not necessarily equal to center of carriage travel)

Any parameters missing from this table can be left at their default values. They will not be used.

Trendsetter NEWS 50, 70, 100, 150

Parameter	Default	Description
set gc Mscale 1	0	Mainscan scaling factor for home plate (in ppm)
set gc Mscale 2	0	Mainscan scaling factor for away plate (in ppm)
set gc Mshift 1	4600	Mainscan shift required to make inch grid on home plate line up properly
set gc Mshift 2	4600	Mainscan shift required to make inch grid on away plate line up properly
set gc Sscale	0	Subscan scaling factor (in ppm)
set gc Sshift 1	4600	Subscan shift required to make inch grid line up properly (roughly equal to one swath)
set gc OrthoAdjust	0	Orthogonality adjustment
set gc Rotation 1	-600	Rotation value for broadsheet plates sitting on pins 1 and 2
set gc Rotation 2	-350	Rotation value for panorama plates sitting on pins 1 and 3
set gc Rotation 3	0	Rotation value for panorama plates sitting on pins 1 and 4
set gc Rotation 5	850	Rotation value for broadsheet plates sitting on pins 3 and 4
set gc TrackProfile 1	0	Track profile correction values in microns. The track length is divided into “bins” of 50.8 mm in length.
set gc PinLoc 1	222	Pin location of home pin(in mm)
set gc PinLoc 2	496	Pin location of second pin
set gc PinLoc 3	664	Pin location of third pin
set gc PinLoc 4	938	Pin location of fourth pin
set gc ScanSizeMax 1	450	Media smaller than this will sit on pins 1 and 2 or on pins 3 and 4. It is not possible to load two plates side-by-side that are larger than this dimension.
set gc SscanSizeMax 2	750	Media smaller than this will sit on pins 1 and 3 (off-center by 137 mm).

Any parameters missing from this table can be left at their default values. They will not be used.

Trendsetter NEWS 200

Parameter	Default	Description
set gc Mscale 1	0	Mainscan scaling factor for home plate (in ppm)
set gc Mscale 2	0	Mainscan scaling factor for away plate (in ppm)
set gc Mshift 1	4600	Mainscan shift required to make inch grid on home plate line up properly
set gc Mshift 2	4600	Mainscan shift required to make inch grid on away plate line up properly
set gc MshiftSlave	0	Mainscan shift required to make an inch grid done with the home head line up with an inch grid done on the away head
set gc Sscale	0	Subscan scaling factor (in ppm)
set gc Sshift 1	4600	Subscan shift required to make inch grid line up properly (roughly equal to one swath)
set gc Sshift 2	4600	Subscan shift required to make inch grid on away plate imaged by away head line up properly
set gc OrthoAdjust	0	Orthogonality adjustment
set gc Rotation 1	-600	Rotation value for broadsheet plates sitting on pins 1 and 2
set gc Rotation 2	-350	Rotation value for panorama plates sitting on pins 1 and 3
set gc Rotation 3	0	Rotation value for panorama plates sitting on pins 1 and 4
set gc Rotation 4	0	Not used
set gc Rotation 5	850	Rotation value for broadsheet plates sitting on pins 3 and 4
set gc TrackProfile 1	0	Track profile correction values in microns. The track length is divided into “bins” of 50.8 mm in length.
set gc PinLoc 1	222	Pin location of home pin(in mm)
set gc PinLoc 2	496	Pin location of second pin
set gc PinLoc 3	664	Pin location of third pin
set gc PinLoc 4	938	Pin location of fourth pin
set gc HeadSpacing	442000	Distance between the master and slave head write lasers in the subscan direction (in microns)
set gc ScanSizeMax 1	450	Media smaller than this will sit on pins 1 and 2 or on pins 3 and 4. It is not possible to load two plates side-by-side that are larger than this dimension.
set gc SscanSizeMax 2	750	Media smaller than this will sit on pins 1 and 3 (off-center by 137 mm).

Any parameters missing from this table can be left at their default values. They will not be used.