



Manual
Starflow Termination Strip
Model 6103

Revision History

File name / Revision	Date	Authors
Previous version BX	2004	RS/ JH
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The Model 6103K STARFLOW Termination Strip is designed to simplify installation of a STARFLOW system. It provides:

- Screw terminations for the STARFLOW Instrument Cable.

- Screw terminations for battery, solar panel and external power.

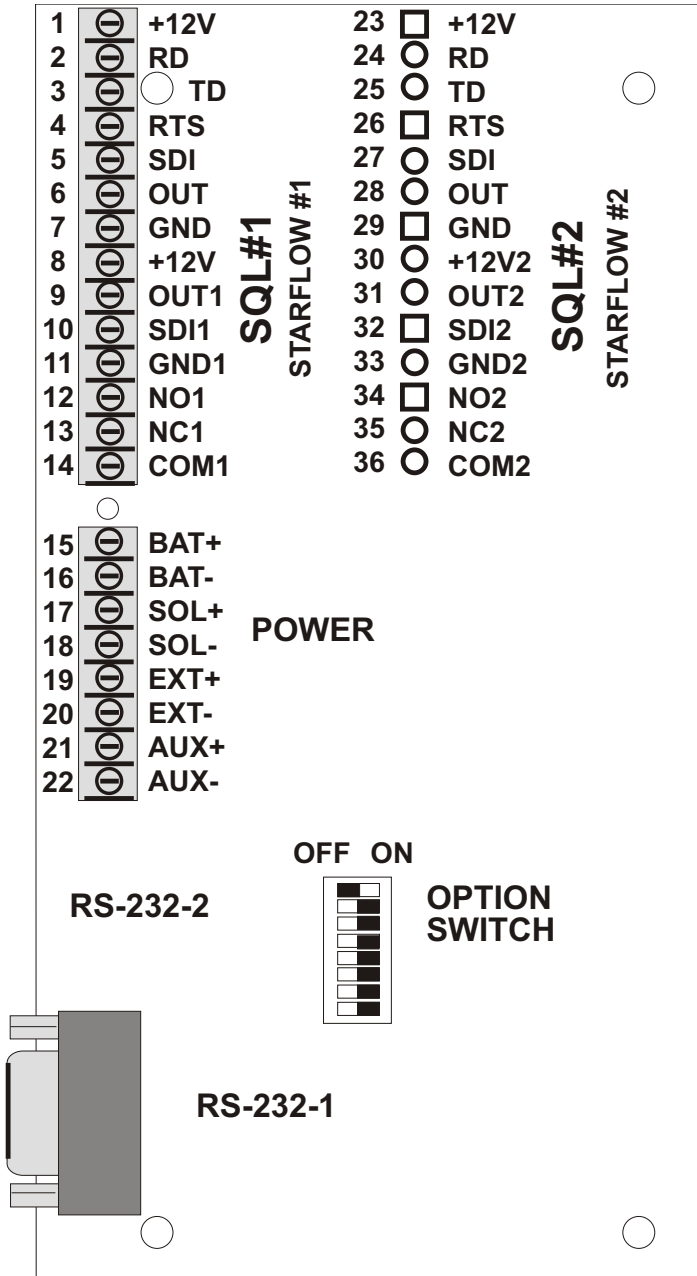
- A control relay for pump sampler or other external equipment such as a cellular telephone.

- Screw terminations for interconnection with SDI-12 sensors or recorders.

- An RS-232 9-pin socket for connection to portable computer or data modem.

- An (optional) facility to connect a second STARFLOW unit.

The 6103K Termination Strip can be used with the Model 6103C Mounting Frame and Model 6701 Weatherproof Enclosure.



Model 6103K STARFLOW Termination Strip - Layout

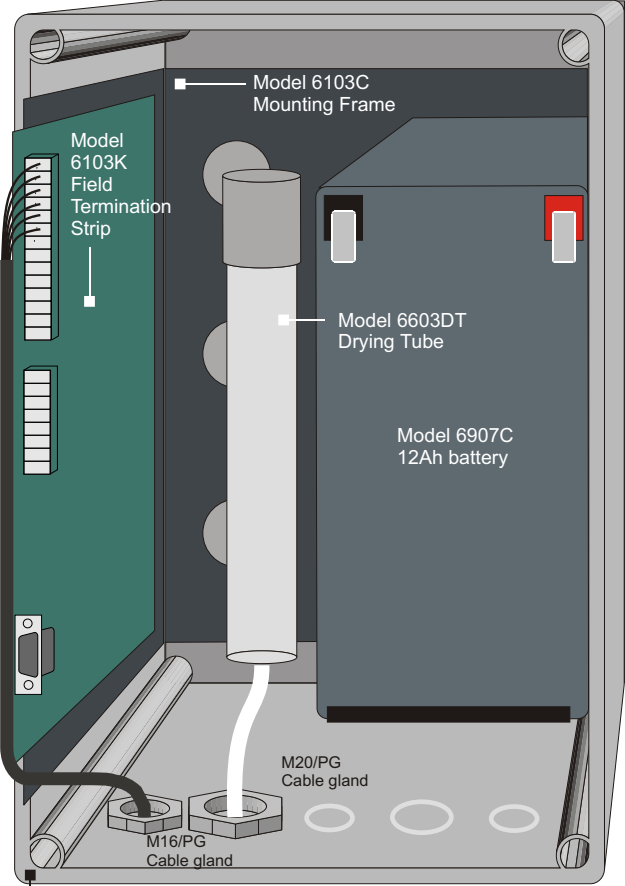
6.1. Terminations and Connections

Optional

Device	Term#	Description			Term#	Device
STAR FLOW #1	1	+12V	Red/Orange	9 wire vented cable from STARFLOW unit (s)	23	STAR FLOW #2
	2	RD	Yellow		24	
	3	TD	Black		25	
	4	RTS	White		26	
	5	SDI	Purple		27	
	6	OUT	Blue		28	
	7	GND	Green/Brown		29	
SDI-12 #1			SDI-12	MicroWire		SDI-12 #2
	8	+12V	PWR	PWR	30	
	9	OUT	unused	DATA	31	
	10	SDI	SDI-12	CLOCK	32	
	11	GND	GND	GND	33	
RELAY #1	12	NO	Normally Open Relay Contact		34	RELAY #2
	13	NC	Normally Closed Relay Contact		35	
	14	Common	250VAC 1A Rating		36	
POWER	15	+ve	12V Battery Power Input			
	16	-ve				
	17	+ve	Solar Panel Input			
	18	-ve				
	19	+ve	External Power Input			
	20	-ve				
	21	+ve	Power to Auxiliary Equipment (Data Modem / Cellular Phone)			
	22	-ve				

OUT CONTROL	SW #	Option Switch Settings
	1*	STARFLOW #1 controls RELAY #1
	2*	STARFLOW #2 controls RELAY #1
	3*	STARFLOW #1 controls RELAY #2
	4*	STARFLOW #2 controls RELAY #2
	5	Connect STARFLOW #1 SDI-12 to STARFLOW #2
	6	unused
7		

*Switch-on only one of each pair.



Model 6701 Weatherproof Enclosure

All five cable glands are supplied with the Model 6701 Weatherproof Enclosure

6.2. Recommended Installation - Direct Termination

This installation arrangement allows direct connection of the STARFLOW system to the 6103K Strip plus the housing ancillary items such as the drying tube and battery.

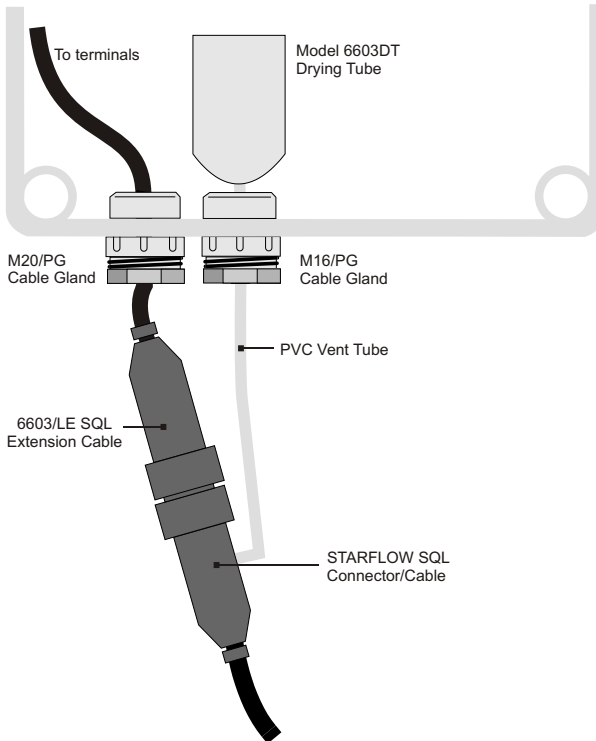
1. Mount the Model 6103K Strip inside a Model 6701 Weatherproof Enclosure using a Model 6103 Mounting Frame.
2. Drill holes in the base of the 6701 enclosure for M16 and M20 cable glands.
3. Remove the SQL 7-pin connector from the STARFLOW instrument cable. Pass cable through M16 cable gland and terminate to Terminals #1...7 (see Termination List). Ensure that vent tube is free inside enclosure.
4. Position Model 6603DT Drying Tube inside enclosure and pass flexible tube through M16 gland (trim off excess tube outside enclosure). Finger tighten gland so that it grips Drying Tube spigot and holds tube upright inside enclosure.

Ensure that the Drying Tube is opened so that the enclosure is vented through the drying tube. This provides proper venting of the STARFLOW instrument (for depth measurement) as well as enclosure venting recommended for the battery.

5. Install Battery on Mounting Frame shelf and connect to power terminals along with Solar Panel or other recharge facility.

6.3. Alternative Installation - SQL Connection

This installation is similar to the previous arrangement except that the SQL 7-pin connector is not removed from the STARFLOW cable, but instead a 6603/LE extension is passed through the M16 gland and terminated to the 6103K Strip. This enables the STARFLOW instrument to be disconnected at the connector.



The Vent Tube from the STARFLOW Cable/Connector must be left connected to the Drying Tube or passed into the 6701 enclosure via an M20 cable gland (the Drying Tube in this case being installed as indicated previously).

WARNING: To reduce voltage loss, the 6103K Termination Strip IS NOT REVERSE POLARITY PROTECTED. Please observe correct polarity when connecting battery and solar panel. The STARFLOW instrument and most ancillary equipment ARE reverse polarity protected.