Integration Note

Manufacturer:	Elan
Model Number(s):	**SC1**
Module Firmware Tested	**1.00.03.08**
Minimum Core Module Version	**g! 7.0.178**
Document Revision Date:	4/14/2014

OVERVIEW AND SUPPORTED FEATURES

The Elan SC1 is an RS-232 <-> ViaNet adapter which can be used to add ViaNet Support to an SC controller.

The SC1 must be updated to firmware 1.00.03.08 through g!Tools prior to use on an SC controller.

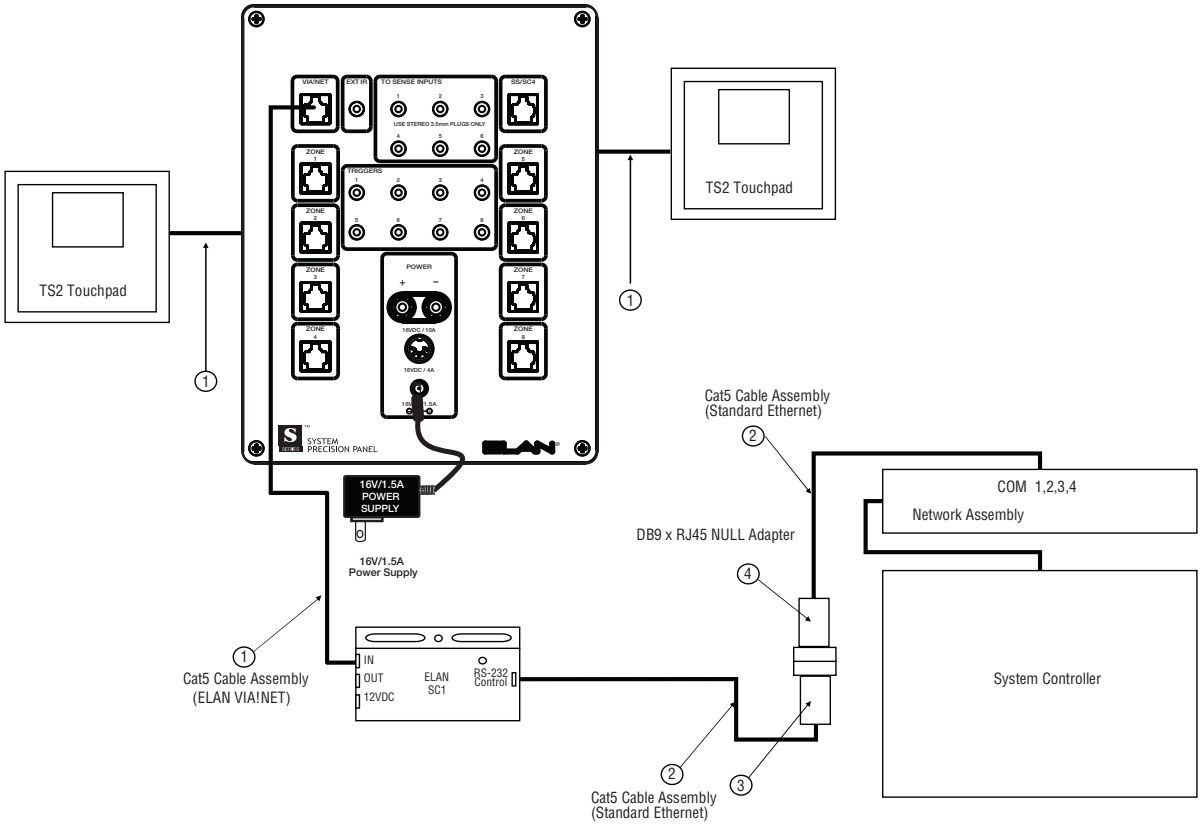
THE SC1 SUPORTS THE FOLLOWING FEATURE:

RS-232 to ViaNet: The SC1 can be used on an SC controller to add ViaNet support to the SC controller. SC Controllers do not have a native ViaNet port, but may be required to connect to and control Elan devices which only support the ViaNet protocol..

INSTALLATION OVERVIEW (SC CONTROLLERS) RS-232 -> VIANET

1. Connect the RS-232 port of the SC1 to an available RS-232 port on the SC using the included NULL Modem cable
2. Cable and configure your Via!Net controlled device per its integration note.

CONNECTION DIAGRAMS (SC1 & SPP PRECISION PANEL, USING TS2 AS EXAMPLE)

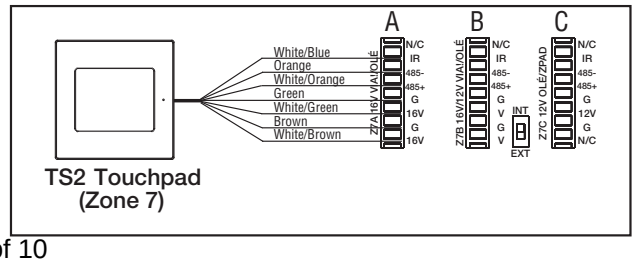


1 – ELAN Standard Cat5 Cable	3 – SC1 DB9M to RJ45 Adapter
2 – Ethernet Standard Cat5 Cable	4 – HA-CB-328 DB9F to RJ45 NULL Adapter

REAR PANEL CONNECTIONS AND SWITCHES

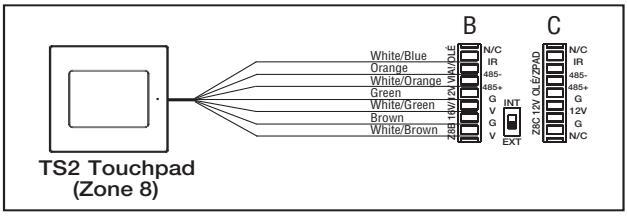
Punch-downs

The SPP Precision Panel has eight "zone" punch-down locations on the reverse side. Each location has "A," "B," and "C" 110 punch-downs. For the purpose of integrating TS2s the "C" 110 punch-downs are NOT used. A MAXIMUM of 16 TS2s can be connected to one SPP by using the "A" and "B" punch-downs in each zone location. "Double-



punching" multiple wire runs to one 110 block is NOT recommended.

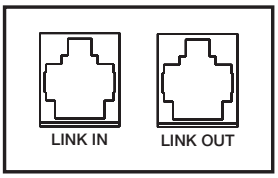
NOTE: When using the "B" punch-downs it is necessary to flip the "INT/EXT" switch to the EXT position to provide power to the TS2. (The "A" 110 punch-down block has been removed from the picture for clarity.)



REAR PANEL CONNECTIONS AND SWITCHES (CONTINUED)

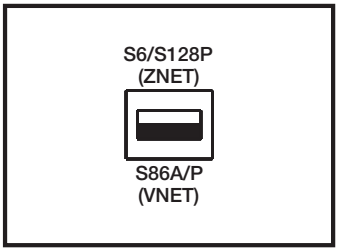
Linking SPPs

Multiple SPPs may be linked together using the "LINK" connections on the reverse side. This link carries V-Net information only. This connection uses the ELAN standard color code.



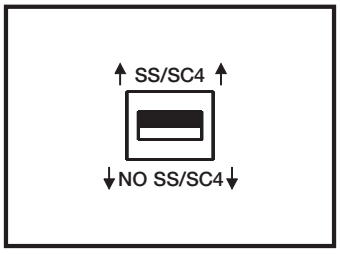
ZNET/VNET Switch

When integrating TS2s with a ZNET based system (S128P) this switch must be in the up (ZNET) position. When used with a VNET based system (S86A/P) this switch must be in the down (VNET) position.



SS/SC4 Switch

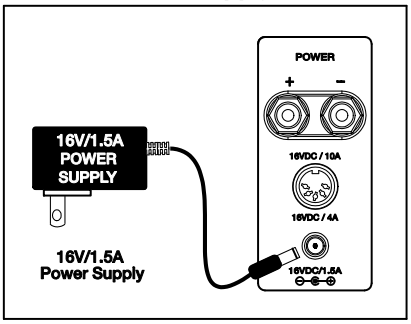
This switch **MUST** be set to the up (SS/SC4) position.



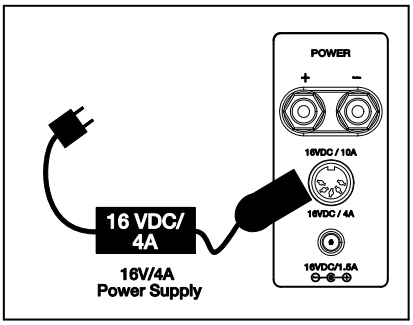
FRONT PANEL CONNECTIONS

When using an SPP it is necessary to connect a 16VDC power supply to the front of the panel. This will provide power for the TS2s and the SC1.

16V/1.5A Power Supply Connections



16V/4A Power Supply Connections



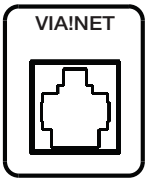
You can connect up to nine TS2s using the 1.5 amp 16VDC power supply. If adding more than nine TS2s the 4 amp 16VDC power supply is required. A MAXIMUM of 23 TS2s (plus the SC1) can be powered by one 4 amp power supply.

When using multiple SPPs it is recommended to power each SPP panel with a dedicated power supply.

FRONT PANEL CONNECTIONS (CONTINUED)

SC1 Connections

The SC1 connects to the front of the SPP at the RJ-45 connection labeled “VIA!NET” using a cat5 jumper pinned out to the ELAN standard color code. You can connect up to two SPPs directly to the SC1 by using the “IN” connection to one SPP and the “OUT” connection to the other SPP.



IR Connections

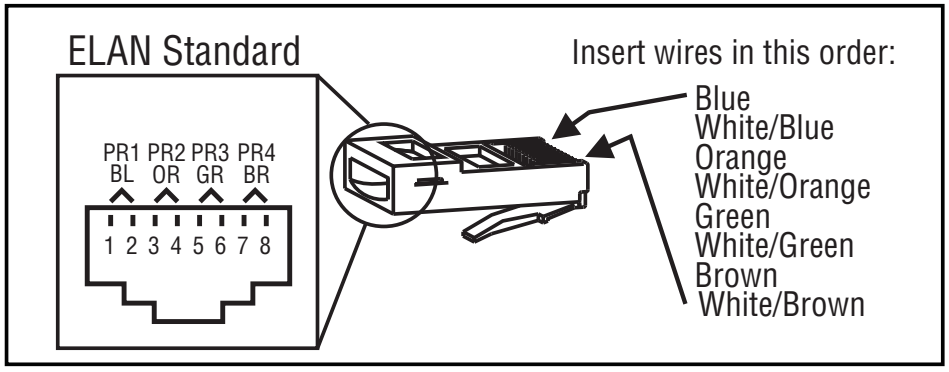
If you are not using the IR receivers built into the TS2s it is NOT necessary to connect cat5 jumpers from the front of the SPP to the A/V Controller (S12P, S86A/P, etc.) keypad inputs. If you will be using the IR receivers then cat5 jumpers will be needed.

Be sure to connect the Zone One connection from the SPP to the Zone One keypad input on the A/V Controller, Zone Two’s connection from the SPP to Zone Two’s keypad input of the A/V Controller and so on to maintain proper IR routing.

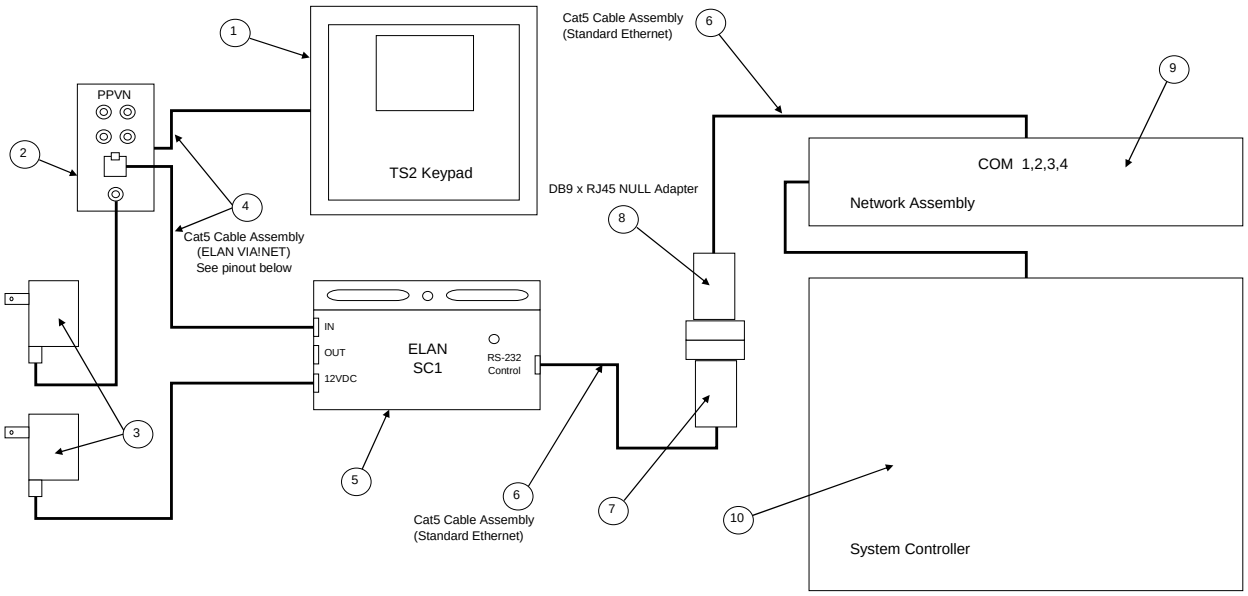
The cat5 jumpers from the SPP to the keypad inputs should follow the ELAN standard color code.

WIRING STANDARD – ELAN CAT5 STANDARD CODE

The color code for the TS2 wiring follows the ELAN standard code as follows.



CONNECTION DIAGRAMS (VIA SC1 & PPVN PRECISION PANEL)



Notes:

1. Standard serial connection method shown above. Alternatively a single Cat5 can be terminated per the optional pin-out diagram below to connect directly between a COM port and the SC1.
2. Up to 4 TS2 keypads can be connected to each PPVN panel for power and VIA!NET communication.
3. Up to 8 PPVN panels can be daisy chained on a single SC1 converter for a total of 32 TS2 keypads maximum on the VIA!NET bus. Each PPVN will require its own power supply, item #3 above.

BILL OF MATERIALS

#	Device	Manufacturer	Part Number	Protocol	Connector Type	Notes
1	TS2 Keypad	ELAN	TS2	VIA!NET	RJ-45F	
2	PPVN Precision Panel	ELAN	PPVN	VIA!NET	RJ-45F x Punch Down	
3	16VDC x 1.5A Power Supply	ELAN	PWR1	N/A	Plug	Use 1 for SC1 & 1 for each PPVN
4	Cat5 Cable Assy. (**ELAN**)	Installer	N/A	VIA!NET	RJ-45 Male X RJ-45 Male	Use ELAN Color Code
5	Serial Controller	ELAN	SC1	VIA!NET x RS-232	RJ-45F x RJ45F	
6	Cat5 Cable Assy. (**Ethernet**)	Installer	N/A	RS-232	RJ-45 Male X RJ-45 Male	Must terminate all 8 conductors
7	DB9M to RJ45 Adapter	ELAN	SC1 Adapter	RS-232	DB-9 Male X RJ-45 Female	Alternatively use HA-CB-307
8	DB9M to RJ45 NULL Adapter	ELAN	HA-CB-328	RS-232	DB-9 Female X RJ-45 Female	
9	Network Assembly	ELAN	HW-NA-18X4	RS-232	RJ-45 Female X DB-9 Female / USB	
10	HomeBrick	ELAN	HW-HB-1080	RS-232	DB9 Male / USB	

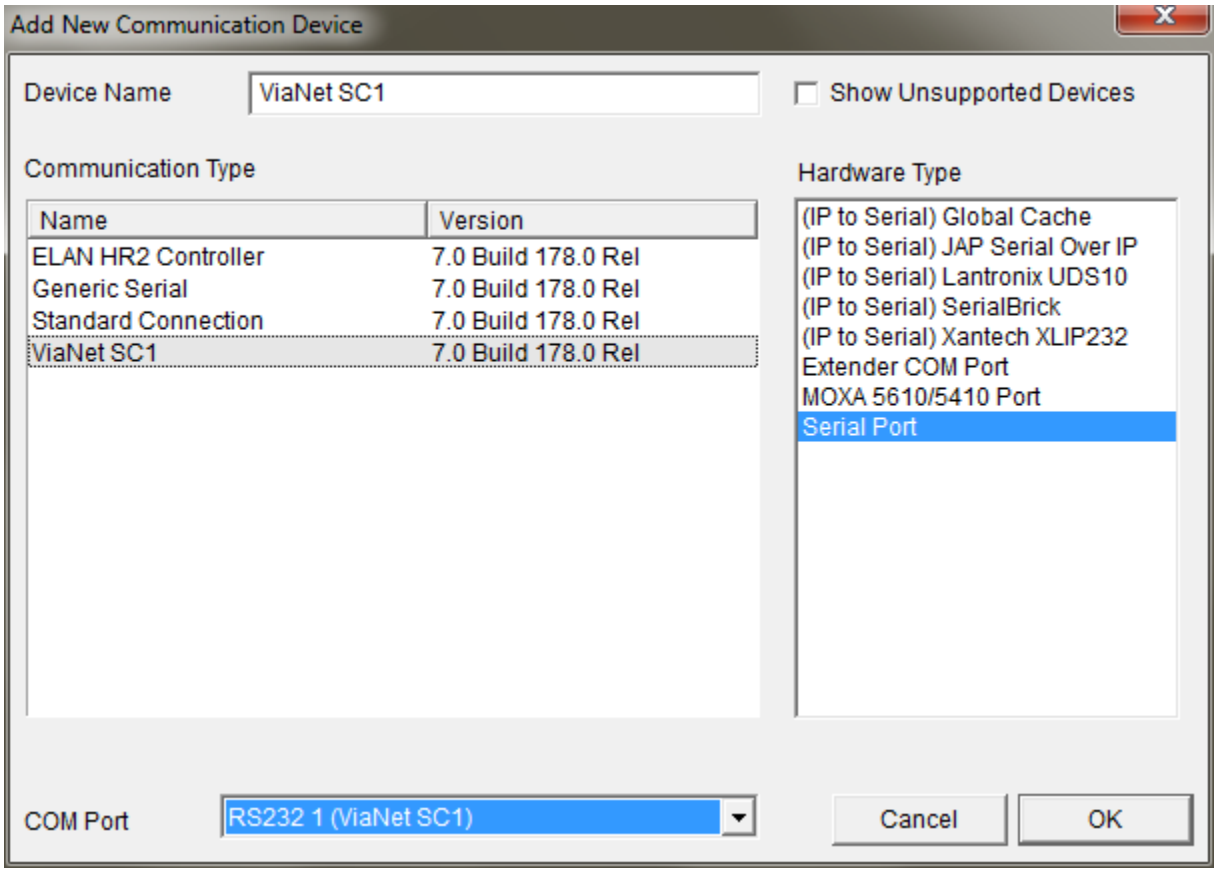
CABLE PIN-OUTS

ELAN VIA!NET Cable		
Blue	1	Blue
White/Blue	2	White/Blue
Orange	3	Orange
White/Orange	4	White/Orange
Green	5	Green
White/Green	6	White/Green
Brown	7	Brown
White/Brown	8	White/Brown

Optional Single Cat5 Serial Cable Method COM port to SC1		
RJ45	**Position**	**RJ45**
White/Orange	1	White/Orange
Orange	2	No Connection
White/Green	3	No Connection
Blue	4	Blue
White/Blue	5	Green
Green	6	White/Blue
White/Brown	7	Brown
Brown	8	White/Brown

G! CONFIGURATION

1. Connect the RS-232 port of the SC1 to an available RS-232 port on the SC using the included NULL
2. Connect and configure your ViaNet-controlled device per its integration note.



HOMELOGIC CONFIGURATION DETAILS

The following table provides settings used in the HomeLogic Configurator. Please refer to the Configurator Reference Guide for more details.

- o "<Select>" Select the appropriate item from the list (or drop-down) in the Configurator.
- o "<User Defined>", etc. Type in the desired name for the item.
- o "<Auto>" This field will automatically populate during configuration

Devices	Variable Name	Setting	Comments
Communication Devices	**Name**	<User Defined> (Example: **ELAN SC1**)	
	Type	**Serial Port**	
	Communication Type	**ViaNet SC1**	
	Location	<User Defined> (Not Required)	
	COM Port	<Select>	
Interface Devices<Auto Discover>	**Name**	<User Defined> (Default: **TS2 ViaNet XX**)	See Note#1
	Device Type	**ELAN TS2**	
	COM Device	<Auto> (Default: **ELAN SC**)	See Note #2
	VIA!NET ID	<Auto>	See Note #3
	Enable Weather Page	<Select>	See Note #4
	Enable Forecast Page	<Select>	See Note #4
	Enable Sys Mode Page	<Select>	See Note #4
	Media Zone	<Select>	See Note #5
	Security Partition	<Select>	See Note #5
	Lighting Keypad	<Select>	See Note #5
	Thermostat	<Select>	See Note #5
	Backlight Timeout	<Select>	See Note #5

Notes:

1. The TS2 keypads are automatically discovered, refer to Initial Keypad Configuration Notes above
2. If not already chosen, select the COM device that refers the TS2 to the proper SC1 and COM port.
3. The TS2 keypad IDs will be addressed automatically as they are imported into the system.
4. Select <Yes> to enable the optional page
5. Select the desired zone, partition, or behavior for each keypad

COMMON MISTAKES

1. Not using a null-modem connection between the controller and the SC1.
2. Not updating the SC1 g!Tools. The SC1 needs to be running 1.0.3.8 or newer.