

“SpreadNet” Comms Task Format

The Model 3000 / Access 4000 can be connected directly to a C&K SpreadNet receiver via a simple three wire serial interface from a UART port. This allows all zone information from C&K SpreadNet transmitters to be interpreted as Model 3000 / Access 4000 zones. The SpreadNet system is viewed by the 3000/4000 as a **virtual** LAN Module called a Wireless Network Module (Nxx).
(Known as a SpreadNet Module from V2 to V3.5x)
Each group of 16 zones is allocated a virtual Wireless Network Module number and can share 4 System Inputs. There can be a maximum of 13 of these virtual Wireless Network Modules, allowing up to 208 SpreadNet transmitters to be individually monitored (13x16=208 Zones).

The following events can be actioned via inputs allocated to areas:

- Each transmitter “zone” (Nxx:Z01 to Nxx:Z16) can report seal, alarm or tamper individually.
- Separate Low Battery system alarm for each group of 16 transmitters.
- Separate No Poll system alarm for each group of 16 transmitters

Optional review of the following items can aid in debugging:

- Review of individual transmitter no poll timeouts.
- Review of individual transmitter low battery.
- Review of individual transmitter signal and noise levels.
- Review of communication problems with SpreadNet receiver.

All zone transmitters can be named continuing the Model 3000/4000 tradition of “user friendly” operation.

Zone Mapping

Each Wireless Network Module handles 16 SpreadNet transmitters and uses the prefix “N”. The SpreadNet Device # corresponds to a Wireless Network module number. e.g. A SpreadNet transmitter programmed to device #3, zone #12 would be referred to as “N03:Z12” within the 3000/4000 system. These inputs can now be used in any context where 3000/4000 inputs can be specified such as Areas, Function Zones etc.

There are 4 System Inputs per module:

S01	Timeout	This input is put into alarm whenever any one of the 16 zone transmitters for this module fails to report in the nominated time. The input will only be re-sealed at the low priority time check (every 40 minutes) if all modules have reported in, or by re-starting the Comms Task.
S02	Low Battery	This input is put into alarm whenever any one of the 16 zone transmitters for this module reports a low battery condition. The input can only be re-sealed by restarting the Comms Task.
S03	Spare	Spare for future development. Set to “n”.
S04	Spare	Spare for future development. Set to “n”.

Some communication formats are unable to report individual SpreadNet Zones or are limited as to what they can report on each Zone. See the Tables section at the rear of this manual for Zone mapping details.

Poll Times

The Model 3000/4000 system allows either 30 second or 300 second polls to be programmed for each C&K SpreadNet transmitter. The high priority flag is set in Comms Task programming for any module that is set to 30 second polling. Every 4 minutes the 3000/4000 system will check that all high priority modules have reported in the last 4 minute period. Similarly, low priority modules are checked every 40 minutes. If a module has not reported in, the "Timeout" system input is set to the alarm condition for that virtual module containing 16 zones.

SpreadNet Options

**CT001 Idle ->
SpreadNet**

Options are reached by pressing HELP, "9" at the Active/Idle screen. Options are divided into common options and less common or Special options. For the SpreadNet Comms Task, both the Common and Special options will have to be programmed.

Special options are reached by pressing HELP, "9" *twice* at the Active/Idle screen.

**CT001 Port ->
to use: 0**

This screen allows the Installer to define the UART Port to which the SpreadNet Receiver will be connected. Depending on the version of UART Expander fitted to the Control Module, a Port number from 1 to 4 may be used. The Port number is selected by scrolling through the available options using the right arrow key.

**CT001 Baud ->
Rate: 9600**

This screen allows selection of the Baud Rate (Data speed) at which the UART will communicate with the SpreadNet receiver. The Baud Rate is selected by scrolling through the available options using the right arrow key. **A setting of 9600 Baud is mandatory for SpreadNet.**

See "Comms Task Baud Rates" in Comms Task Programming [MENU 7,3,1] for further details.

SpreadNet - Special Options

Special options are reached by pressing HELP, "9" *twice* at the Active/Idle screen or by pressing HELP, "9" from any common options screen. HELP "0" will take you back to the common options when special options is complete.

**CT001 Property
Code : 00000**

This screen sets the Property Code to be used for this SpreadNet installation. It may be set from 0001 to 4048. See the C&K SpreadNet literature for more information. If the Property Code is set to 0, transmitters will be received regardless of their programmed Property Code.

**CT001 Channel
No : 0**

This screen sets the Channel Number to be used for this site. It may be set to 01 or 02. See C&K SpreadNet literature for more information.

CT001 LTEC.... Opts -> nnnnnnnnn		This screen allows review options to be selected:
L	Levels	This option allows all transmitter activity to be saved to review, including transmitter signal and noise level figures.
T	Timeouts	Timeouts allows all transmitters which exceed the poll timeout to be saved to review to allow individual transmitter identification.
E	Errors	This option allows all error attempts with the receiver to be saved to review.
C	Changes	This option allows transmitter activity to only be saved when a change in input status has occurred.
.	Spare	Spare for future development. Set to "n".

CT001 N01Poll	12345678 nnnnnnnn	These screens allow the Installer to specify which transmitters will be checked to ensure that a poll has occurred within the correct time.
CT001 N01Poll	90123456 nnnnnnnn	
CT001 N13Poll	12345678 nnnnnnnn	
CT001 N13Poll	90123456 nnnnnnnn	

CT001	12345678	These screens allow the Installer to nominate from which transmitters a poll will be expected at the high priority rate of once every 4 minutes. If transmitters are not nominated as high priority, they will be checked every 40 minutes.
N01High	nnnnnnnnn	
CT001	90123456	
N01High	nnnnnnnnn	
CT001	12345678	
N13High	nnnnnnnnn	
CT001	90123456	
N13High	nnnnnnnnn	

Diagnostics

CT001 . . R.
Status -> nnnn

Pressing the ON Key whilst the Active/Idle screen is displayed will display the UART Port status screen. This screen can be cleared when desired by pressing the OFF Key. The following table explains the flags:

.	Spare	Spare for future development.
R	Retry	A "Y" under this flag means the receive fifo (16 bytes) has overflowed and at least one character has been lost. This will normally cause a retry of some kind.
.	Spare	Spare for future development.
.	Spare	Spare for future development. The "R" flag may be monitored after communications via this port. In the event that the system places a "Y" flag under the "R", the Status screen should be reset and monitored further. Should a "Y" flag appear under the "R" with some regularity, a potential cause would be the baud rate at which the port is attempting to communicate.

Multiple Receivers

Although multiple receivers may be connected, only 13 groups of 16 Zones may ever be received. If multiple receivers are used, transmitters must be specific to one receiver only. If a transmitter reports to multiple receivers, multiple activations will occur for every transmission and a comms fail will be generated if the transmitter goes out of range of any one receiver.

eg. A separate property code must be used for each receiver and the transmitter must be programmed accordingly.