

“IRfast” Comms Task Format**Dialer Operation - IRfast**

The Model 3000 and Access 4000 panels can communicate in IRfast dialer format to a suitably equipped Central Station. IRfast can be used to report Area opens/closes and Zones/Input isolations, tampers, alarms and restores to a Central Station equipped with a FE100 digital receiver. No input or user mapping is required because **all** Model 3000 and Access 4000 alarm reports and events can be reported uniquely, including optional review text if desired.

IRfast format features include:

- Very fast reporting
- Compatible with all other formats
- Unique reporting of all events
- Optional Review text for alarm clarification
- Optional Contact ID Interpretation
- Optional Panel system information
- Up to 65000 users
- Up to 250 Areas
- Encrypted Communications
- Supports panel remote control

Dialer Options

Options are reached by pressing HELP, “9” at the Active / Idle screen. Options are divided into common options and less common or Special options. Usually only the common options need to be programmed.

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

**CT001 Client
Code: 0000**

This screen sets the client code to be used for this Comms Task. The client code is programmable in decimal from 0001 to 9999. (Client codes of 0000 and 9999 should be avoided). If the “Multiple Area Client Code” is set, it is possible for a different client code to be used.

**CT001 PABX No. ->
None**

These screens allow the installer to define an optional PABX access number. Telephone Numbers are chosen from a pre-programmed list of Telephone Numbers, selected alphabetically by name or by number. See Telephone Number programming.

**CT001 PABX No. ->
TN000**

**CT001 1st No. ->
None**

These screens allow the installer to define the main Telephone Number to be used to contact the Central Station. Attempts will begin with the 1st number which **must** be present.

**CT001 2nd No. ->
None**

If subsequent attempts are needed with different telephone numbers, numbers are tried in the order 2nd, 3rd, 1st and so on. If a number is not present, it is skipped and the next number in the above sequence is tried. Telephone Numbers are chosen from a pre-programmed list of Telephone Numbers, selected alphabetically by name or by number. See Telephone Number Programming.

CT001 Dial PpDFTM.6 Options-> nnnnnnnn

This screen sets various dialling options:

P	Pulse Dial (Tel)	Selects Pulse ("decadic") dial when dialling the main Telephone Number.
p	Pulse Dial (PABX)	Selects Pulse ("decadic") dial when dialling the PABX phone number if present.
D	Dumb Dialling	Selects Dumb dialling. If "n" then Smart dialling is selected (default). <i>See "Introduction to Dialer Formats" at the end of this chapter.</i>
F	Forces 300 Baud	Forces all communications to 300 Baud instead of the default 1200 Baud. This need only be set if there are communication difficulties at 1200 Baud. (Relevant to IRfast format only).
T	Test Mode	This enables Test Mode which causes changes to the dial sequence to suit the Victorian Schools Tester. These changes are: -Do not dial the Telephone Number -Do not wait for initial handshake -Do not require an acknowledgement -Shorten inter-round time from 500ms to 300ms
M	Maximum Count	This enables the Maximum Count option. This option allows the maximum call time in Contact ID to be based on valid acknowledgements received, rather than time. If this option is set, the maximum call time is based upon the number of packets sent (1 to 255) programmed in the "Online Time" screen, under Special Options.
.	Spare (S in V1 & 2)	Formerly Single Hit in V1 & V2. This option now in Process Groups. Currently, this option has been left spare for future development.
6	60 sec Redial	This option forces the Comms Task to wait 60 seconds between any redial attempt. This option must be set to comply with Singapore Telecom regulations.

CT001 MLGPN... Ropts -> nnnnnnnn

This screen sets various reporting options:

M	Multiple Area Codes	If Multiple Area client codes are selected, whenever a report from an Area is performed (open/close/alarms/tampers/isolations/restores) the client code defined in Area Programming will be used if it is not "0000". If the Area Client code is "0000", the Comms Task client code will be used. If this option is set to "n" then the Comms Task client code will always be used. (See Area Programming for more details of this application)
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L	Look Ahead	Normally all reportable events will be sent in the order that they occur; one at a time until no more reports are required. The Comms Task will ensure the order will not alter, even if the dialer takes a long time to get through to the Central Station or if reports are being generated faster than they can be sent. If this option is set to "Y", Look Ahead operation is selected. With Look Ahead selected, a sequence of multi-breaks on a single Zone/Input will be ignored if a restore report has already been sent for that Zone/Input and there are new alarms from a different Zone/Input that have not been sent yet. Open/Close reports do not follow this logic and are always reported. This option is useful to track intruder movement through a larger installation and ignore multibreaking detectors.
G	General O/C	This option selects general open and close reporting. Whenever all Areas are turned ON a general Area close is reported. As soon as the first Area is turned OFF, a general Area open is reported. In Area programming, some Areas can be nominated as "Not General Area" and are ignored in the general Area calculation. Open/Close will not be reported on these Areas in any Comms Task with this "General Open/Close" option set to YES. Another Comms Task with this option set to NO may be used to allow these Areas to trigger individual Open/Close reports. See Area Programming "Not General Area" option for details.
P	Prevents Restores	This option prevents restores from being reported via this Comms Task.
N	No Area Still Open	In Area programming, it is possible to enable reporting of "Area Still Open" and "Area 24Hour Offs". Not all reporting formats can handle these reports. Setting this option to "Y" will disable these reports for this Comms Task. Both of these reports are sent without any loss of information in IRfast format.
CT001 Area List Filter: AL002		This screen allows an optional Area List filter to be defined for this Comms Task. If a non-zero Area List is chosen, only information from Areas in the specified Area List will be sent using this Comms Task.
CT001 EOA..... Efilt-> nnnnnnnn		The "Extra Filter" screen option allows a Comms Task to only respond to certain types of events.
E	Extra Filter	This option enables Extra Filter options. If left at "n", no extra filtering is used. ie. normal operation.
O	Opens/Closes	This option enables Opens/Closes reports to be sent via this Comms Task. This option only applies if the "E" option above is set to "Yes".
A	Alarms	This option allows Alarms/Tampers/Isolations to be sent via this Comms Task. This option only applies if the "E" option above is set to "Yes".
.	Spare	Spare options for future filters. Leave set to "n".
For example: To configure a Model 3000 system so that all openings and closings are sent via Securitel and all alarms/tampers/isolates go via Contact ID, set the Securitel Comms Task with the "E" and "O" Extra Filter options and the Contact ID Comms Task with the "E" and "A" Extra Filter options.		

**CT001 Mapping ->
Standard**

This screen determines the input mapping for this Comms Task.

This is only relevant if sending Contact ID messages via the IRfast format. The (C)ontact ID option must be set to "Yes" under Special Options for this feature to operate correctly.

In order to cater for different types of system configurations within the limitation of the number of points available in the Contact ID format, several input mapping options have been provided as follows:

- Standard
- MAP-1
- School 30
- School 19
- SIMS II
- Access-1 (V3 or later)
- Pacom (V3 or later)
- Standard-2 (V3.5 or later)
- School 19B (V3.5 or later)

For more details of Mapping options refer to "Comms Task Formats" at the beginning of this section and to the tables at the rear of this manual.

Because IRfast format doesn't require mapping, this mapping selection is used to determine the Contact ID mapping to be used when Contact ID information is to be sent in addition to native IRfast information.

Dialer formats - 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 programming of special options is complete.

**CT001 Maximum
Attempts: 008**

This screen sets the maximum dial attempts this task will use to attempt to contact the Central Station. If left at zero then the default of 8 attempts will be used. Telecommunication regulatory authorities may limit this number. (In Australia, Austel specify a maximum of 10 attempts).

**CT001 Backup
Attempts: 003**

This screen sets the number of dial attempts before the backup input will be triggered (C01:S20). If left at 000 the default value of 4 will be used.

**CT001 Backup
Task: CT000**

This screen allows an optional backup task to be specified that will be triggered if this Comms Task fails to communicate within its maximum attempts. Leaving the task at CT000 specifies no backup task will be triggered.

**CT001 Seize Aux
C01:X08**

This screen allows an Auxiliary output to be specified. This Auxiliary will turn on whenever the dialer line is seized and will turn off whenever the dialer line is released.

**CT001 Pass Aux
C01:X08**

This screen allows the installer to specify an Auxiliary output to turn on whenever the dialer successfully sends a report to the Central Station. It must be turned off by some other mechanism such as a timer.

**CT001 PABX Dial
Wait: 030/10 sec**

This screen sets the time the task will wait to sense dial-tone before dialling the PABX number. The time is programmable from 1/10 sec to 255/10 sec (25.5 seconds). If this option is left at 000/10 then the default time of 3 seconds will be used.

**CT001 Main Dial
Wait: 030/10 sec**

This screen sets the time the task will wait to sense dial-tone before dialling the Main number. The time is programmable from 1/10 sec to 255/10 sec (25.5 seconds). If this option is left at 000/10 then the default time of 3 seconds will be used.

**CT001 Handshake
Wait: 030**

This screen sets the time the task will wait for an initial handshake after dialling the Central Station. The time is programmable from 1 second to 255 seconds. If this option is left at 000 then the default time of 30 seconds will be used.

**CT001 Max.Online
Time: 010 min**

This screen sets the maximum time the task will stay on-line before hanging up and re-dialling. The time is programmable from 1 minute to 255 minutes. If this option is left at 000 then the default time of 10 minutes will be used.

**CT001 Line Test
Count: 000**

This screen sets the parameters associated with line testing and should be left at 000 unless advised by the manufacturer.

IRfast Special Options

If IRfast format has been chosen, the previous special options will be followed by two more special option screens only relevant to the IRfast format. These screens will not appear if other dialer formats are selected.

CT001 RCT..LIU
Sopts-> nnnnnnnn

This screen specifies a number of send options:

R	Review Text	Setting this option to "Y" will cause the Model 3000 panel to send review text for each event reported.
C	Contact ID	Setting this option to "Y" will cause the Model 3000 panel to send an equivalent Contact ID string for each event reported, using the mapping option selected above. This is useful when the FE100 is being used to receive IRfast format but the automation system cannot understand native IRfast information.
T	Time/Date	Setting this option to "Y" will cause the Model 3000 to send a text string of the Time/Date the event was recorded into review on the Model 3000 panel.
L	Link to PC	Setting this option to "Y" will cause the FE100 to hand on to the line for a short period to allow the Automation to send commands back to the panel. Only set this option after consultation with the Central Station.
I	Information	Setting this option to "Y" will cause the Model 3000 panel to send miscellaneous panel information before hanging up, including panel serial number, software version and security option settings.
U	Update	Setting this option to "Y" will cause the FE100 to Update the Model 3000 panel time and date from the FE100 system clock prior to hanging up.
.	Spare	This option has been reserved for future developments and must be set to "n".

NOTE: An FE100 can set any of the above options to Yes on a per receiver basis. The above options should only be enabled upon instruction from the Central Station.

CT001 IU...DXA
Eopts-> nnnnnnnn

This screen configures various panel remote control options.

Remote Control options are only relevant where the appropriate facilities exist at the Central Monitoring Station.

I	Installer	This option causes the system to consider the Central Station as the Installer as far as panel control is concerned.
U	User	This option causes the system to consider the Central Station as a normal User as far as panel control is concerned.
D	Doors	Setting this option to "Y" will allow Doors to be unlocked and locked by the Central Station. (Not yet implemented)
X	Auxiliaries	Setting this option to "Y" will allow Auxiliaries to be turned on and off by the Central Station. (Not yet implemented)
A	Areas	Setting this option to "Y" will allow Areas and Area Lists to be turned on and off by the Central Station.
.	Spare	This option has been reserved for future developments and must be set to "n".

Introduction to Dialer Formats

When activated, a Comms Task set to a Dialer format (Contact ID, IRfast, or SIA) will continually look for any reports to be sent. When a reportable event is found, the dialer line will be used to attempt a connection to the Central Station. If the dialer line is being used, the attempt will be deferred until whatever is using the dialer line is finished. When finished, this Comms Task will “take-over” the dialer line and will not release it until it is finished. The connection attempt works in one of two ways:

- ◆ **Smart Dial** This is the default setting. The task will monitor the line for line faults, dial-tone, busy etc. and make dialling decisions based on results of attempts to connect to the Central Station as quickly as possible. All activity will be recorded to review.
- ◆ **Dumb Dial** This setting does not make “smart” decisions based on sensed tones, although all tones sensed and dialer progress are recorded to review.

The operation of these two modes is described in more detail in the section headed “Attempting Dialer Connection”.

Once connected, the task will report all alarms until either there are no more alarms, or the on-line timer expires (default is 10 minutes). Alternatively, if the “Look Ahead” option is set, old alarms will be skipped in favour of new alarms.

Attempting Dialer Connections

Most Comms Tasks formats which need to dial a number to report information follow the logic below. Either smart dial or dumb dial can be selected on a per Comms Task basis.

Smart Dial

1. Seize Line and wait 3 seconds to see if phone is ringing. If phone is ringing wait till it stops ringing.
2. Test Line for DC voltage. If no line then unloop line, wait variable time then try again to same Telephone Number up to maximum attempts.
3. If got PABX number then loop line and wait for dial tone. If get dial tone then begin dialling. If get busy then unloop line, wait variable time then try again up to maximum attempts. If don't get dial tone then dial PABX number anyway.
4. Now wait for main dial tone. If get dial tone then begin dialling. If get busy or don't decode dial-tone then unloop line, wait variable time then try again to same Telephone Number up to maximum attempts.
5. Wait for Central Station required handshake for this format. If get dial-tone or busy then unloop line, wait variable time then try again to a new Telephone Number up to maximum attempts. If get time out then unloop line, wait variable time then try again to a new Telephone Number up to maximum attempts. If get required handshake then start on-line timer.

6. Proceed with communications for this format. If redial is required due to errors then unloop line, wait minimum time then try again to the same Telephone Number up to maximum attempts.

Dumb Dial

1. Seize Line and wait 3 seconds to see if phone is ringing. If phone is ringing wait until it stops ringing.
2. Test Line for DC voltage. If no line, save review message and continue.
3. If got PABX number then loop line and wait for dial tone. If get dial tone, begin dialling. If get busy, save review message and continue. If do not get dial tone, dial PABX number anyway.
4. Wait for main dial tone. If get dial tone, begin dialling. If get time-out or any other tone, save to review and continue.
5. Wait for Central Station required handshake for this format. If get time-out, unloop line, wait variable time then try again to a new Telephone Number up to maximum attempts. If get required handshake, start on-line timer.
6. Proceed with communications for this format. If redial is required due to errors, unloop line, wait minimum time then try again to the same Telephone Number up to maximum attempts.

NOTE:

Many telephone lines in Australia and New Zealand have a Message Bank or similar service connected. The differential dial tones used as indicators for such services can impede communication by the panel.

To avoid possible communication problems either disable the connected service or set the (D)umb Dialling option in Comms Task Programming.