

R A D I O N I C S

READYKEY® K6100 Readykey for Windows™

Serial Interface Output Module Datasheet

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Radionics,
Technical Writing Department
1800 Abbott Street
Salinas, California 93901

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Introduction

This datasheet describes how to use the Readykey for Windows Serial Interface Module for Radio Paging. Radio Paging allows people who are not near a Readykey for Windows workstation to be notified of certain events/transactions when they occur. For example, it could be used to inform patrolling guards when an alarm event was generated (e.g. Unauthorized Entry).

Note: The Pager Encoder needs a permanent connection to your PC serial port. Ensure that you have a spare serial port available for this purpose. If you do not then contact your computer supplier and have one installed.

The Serial Interface Module is an extra-cost feature to Readykey for Windows which must be enabled on the dongle before it can be used.

The Serial Interface has been tested with the Blick Aquarius Paging Encoder, type AEN1, which uses the Ackerman protocol. It can receive text messages up to 40 characters in length and forward them to a pager in five blocks, each 8 characters in length.

Note: Other systems which use the Ackerman protocol may also work with the Serial Interface, however, this has not been tested and is not guaranteed.

Installation

Before using the facility you must:

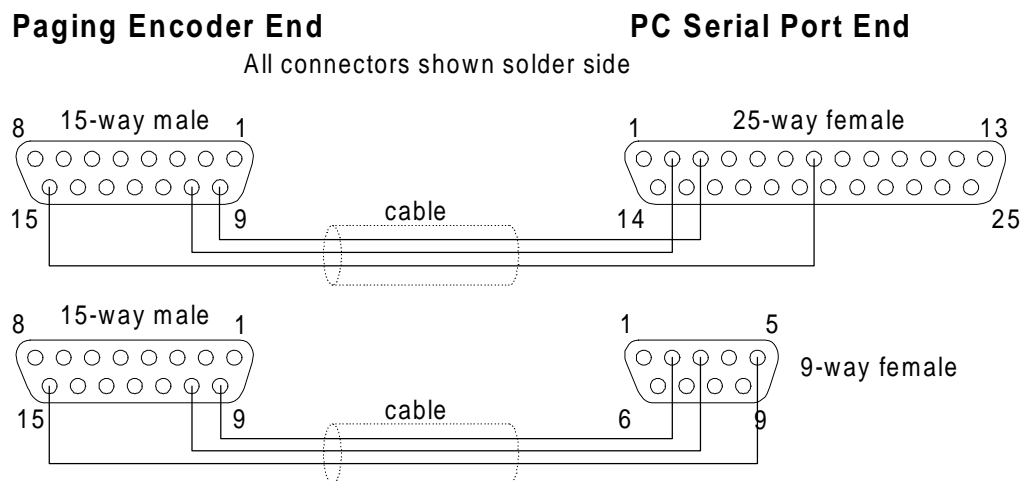
1. Connect the Paging Encoder to a Readykey for Windows Workstation which is running the Alarm application.
2. Set up Readykey for Windows to enable it to talk to the Paging Encoder.
3. Set up the Pagers and Paging Encoder to transmit the messages.

These steps are described in the following sections.

Connecting the Paging Encoder to a Workstation

To connect the paging encoder to your workstation you will need to make a cable. The illustration shows the wiring and the table gives the pin connections.

A female PC connector is shown because your PC should have either a 9-way or a 25-way male serial port (male = pins rather than holes). If your PC has a female serial port then you will need to wire the connector according to the table. Pin numbering is always shown in tiny characters on the connectors.



Paging Encoder		PC Serial Port	
Pin No	Label	Pin No	Label
15-way to 25-way			
9	TXD from encoder	3	RD Receive data
10	RXD to encoder	2	TD Transmit data
15	0 Volts	1	FG Frame ground
15-way to 9-way			
9	TXD from encoder	2	RD Receive data
10	RXD to encoder	3	SD Send data
15	0 Volts	5	SG Signal ground

Connect the cable between the Pager Encoder and your PC as follows:

- Connect the 15-way D-type connector to the RS232 serial port located at the back of the encoder.
- Connect the 9-way/25-way D-type connector to a free serial port on your PC.

Setting Up Readykey for Windows

When the Alarm application is started for the first time a serial section is automatically added to the Alarm.ini file. This contains the basic serial output information and has a heading [Pager]. You must edit the [Pager] section of the Alarm.ini file to include your system settings. To do this follow these instructions:

1. Run the Windows Notepad text editor program as follows:
If you are using Windows for Workgroups 3.11, in the **Accessories** group of the **Program Manager** double click on the **Notepad** icon.
If you are using Windows 95 or Windows NT4, from the **Start** menu select **Programs, Accessories, Notepad**.
2. From the **File** menu in Notepad select **Open**. From the RKEYWIN\BIN directory select the file Alarm.ini and click on **Open** or **OK** to edit it.
3. Once the file is open find the section headed [pager] and put your cursor at the end of the Port=1 line.
4. Press the Enter key on your keyboard and type the following:

Type=AEN1

Note: this is the only pager type supported at the time of going to press. If you have a different pager which uses the Ackerman protocol then still use the Type=AEN1 setting.

5. The port=1 line tells Readykey for Windows that the pager is connected to the COM1 serial port. If your Paging Encoder is connected to another serial port (e.g. COM2) then set the port address by deleting the 1 and typing the correct port number.

Note: The port number is often marked on the back of your PC next to the port.

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6. The **CallAddress=12000** line sets the Call Address. The pager encoder broadcasts each Readykey for Windows message using the code specified here as an address. The pagers each contain a 5-digit code (Call Address) which you can program at another time using the Pager Encoder. If the code attached to the message matches the code in a particular pager it accepts and displays the message. In this way the message can be received by a single pager or a group of pagers. Refer to the Pager documentation for details.
 7. The line **BleepCode=1** specifies the Bleep Code. This determines how the pager indicates that a message has been received from the Encoder - refer to the Pager documentation for details.
 8. To save the changes you have made: In Notepad, from the **File** menu select **Save** and then close notepad.

The Alarm.ini file should now look something like this:

```
[Pager]
Port=1
Type=AEN1
BaudRate=2400
DataBits=7
StopBits=1
Parity=ODD
CallAddress=12000
BleepCode=1
TransmitAttempts=3
MessageDelay=20
MaxAckTime=20
```

Caution: Do not modify the last three lines of this section. They are for engineering use only.

Setting up the Pagers and Paging Encoder

Refer to the documentation provided with the paging equipment for details on how to set up and operate the Paging Encoder and pagers.

Selecting Pager Events

Once you have set up the Serial Interface you can specify which events are forwarded to the pager(s). This is done in the **Admin** application under **Transaction Routing** by selecting the required events in the Serial Output column of the Routing Frame. To do this:

1. Start Readykey for Windows.
2. Double-click on the **Admin** application.
3. In the **Admin** application double-click on **Transaction Routing**.
4. Check that you are in the correct division (in the title bar). If not then select **Divisions...** from the menu bar and select the correct division.
5. Click on the Workstation field to display a list of all workstations. Select the workstation to which the Paging Encoder is attached.
6. Scroll down the list of events and, in the Serial Output column, check those events which you want to be reported to the pager(s).
7. Click on **Change** to acknowledge the changes.

The dialog box below shows the events *Door Controller Not Responding* and *Door Left Open* selected in a Transaction Routing frame. A report will be sent to the pager(s) whenever either of these events occurs.

Trans Routing : DIVISION ONE

Report Division...

Name : Last Edited on :

Workstation : Description :

Time Profile : Enable Routing Frame

	Display	Printer	Alarm	Requires Acc	Auto Acc	Serial Output	DDE Output
D/C Not Responding	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Dial Back Fail	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Door Closed	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Door Left Open	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Duress Acknowledged	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Editor Off (Panel)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Editor Off	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Editor On (Panel)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Editor On	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Emergency Override Off	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Add Change Delete Clear Close Help

This Record Can Be Modified

Pager Message Formats

Once you have set up the Transaction Routing Frame, the selected events will be forwarded to the paging encoder. Additional information relevant to the event is also sent, for example, the Door Location, Keyholder name etc.

The information is sent in two different formats; one is standard the other is for Personnel Trace events. Personnel Trace can be switched on for each member of personnel in the **Personnel** application. The two formats are described below with examples.

Standard Format

Each paged message comprises five blocks of data, each 8 characters in length, which contain three distinct "fields" as detailed in the following table.

Block	Field	Length	Field Description
1	Event ID	8	This identifies what has occurred. A full list of Event IDs and the associated event types are provided at the end of this datasheet.
2	Location	24	This identifies where the event occurred
3			
4			
5	Personnel ID	8	This identifies who triggered the event (if known)

If a word is too long to be displayed in a block then only the first eight characters will be displayed. Words are **not** split across blocks. Unused blocks are left empty.

Example 1 - No Entry Passback

If an alarm is generated by Joe Smith's ID device when, due to passback being active, it is prevented from unlocking door 3 into Development (NO ENTRY PASSBACK) then, the following message would be displayed:

Block 1	Block2	Block 3	Block 4	Block 5
NOEN PAS	DEVELOPM	DOOR 3		SMITH_J

Example 2 - Unauthorized Access

If an alarm is generated by somebody trying to force the front door (UNAUTHORISED ACCESS) then the following message would be displayed:

Block 1	Block2	Block 3	Block 4	Block 5
UNAUTHAC	FRONT	DOOR		

Personnel Trace Format

If the person responsible for generating the alarm is on **Trace** then the structure of the message is slightly different as shown in the following table.

Block	Field	Length	Field Description
1	Trace	8	Indicates that Trace is on.
2	Personnel ID	8	This identifies who triggered the event.
3	Event ID	8	This identifies what has occurred. A full list of Event IDs and the associated event types are provided at the end of this datasheet.
4	Location	16	This identifies where the event occurred.
5			

Example 3 - Personnel Trace

If the Joe Smith in example 1 had been on trace then the following message would be displayed:

Block 1	Block2	Block 3	Block 4	Block 5
TRACE	SMITH_J	NOEN PAS	DEVELOPM	DOOR 3

Notes:

1. The Alarm Application **must** be running before any events can be reported.
 2. A time profile can be applied to the Routing Frame. If this is the case then the selected events will only be forwarded to the Pager(s) during the specified times.
 3. The output to the pager can be suspended by selecting the **Serial/Disable Serial Output** menu option in the Alarm application.
(**Note:** To continue receiving alarms you should ensure that a separate routing frame covers the period when the pager is not active.)
 4. In the case of an Unauthorized Access the **Personnel ID** field is empty as the name is not known.
-

Readykey for Windows Event List

The following table lists **all** the possible Pager Displays together with the associated events. The actual list of possible pager messages will be a subset of this list and determined by those events selected in the Routing Frame.

Pager Display	Event	Description
A RLY RE	Auto Relay Reset	Event has cleared and relay automatically reset
A RLY SE	Auto Relay Set	Event not cleared - relay set
ACC AUTH	Access Authorized	Valid ID Device, access authorized
ALM ACKN	Alarm Acknowledged	Alarm has been acknowledged
ALM ACTV	Alarm Activated	Input on Alarm Event Manager activated
ALM CLRD	Alarm Cleared	Input on Alarm Event Manager cleared
ALM DIS	Alarm Disarmed	Not used
ALM F AR	Alarm Full Armed	Alarm panel armed
ALPER AR	Alarm Perimeter Armed	Alarm panel - perimeter armed
ATMP ALM	Anti Tamper	Tamper activated
AUTOENGA	Automatic Engage	Zone (sensor) armed by Time Profile
AUTOISOL	Automatic Isolate	Zone (sensor) disarmed by Time Profile
AUTOLOCK	Automatic Lock	Door locked on Time Profile
AUTOUNLK	Automatic Unlock	Door unlocked on Time Profile
BAD CABL	Comms Unreliable	Easikey Network only
COM END	Comms End	End of communication between CNC and site
COM ABRT	Comms Aborted	Communication aborted - too many errors
COM ER 1	Comms Error 1	No reply from door controller when polled
COM ER 2	Comms Error 2	Incorrect reply received in response to command
COM ER 3	Comms Error 3	Reply from door controller not received/garbled
COM REST	Comms Restored	Communication restored after being lost
COM STRT	Comms Start	Start of communication with CNC
COM TIME	Comms Timeout	Communication not established within set period
COM VIOL	Comms Violation	2100 Password not entered/entered incorrectly
DC NO RE	DC Not Responding	Door controller not responding to CNC
DOORCLOS	Door Closed	Door closed
DOOROPEN	Door Left Open	Door left open
DUR ACKN	Duress Acknowledged	Duress alarm acknowledged
ED OF PA	Editor Off Panel	Standalone system - leave editor
ED ON PA	Editor On Panel	Standalone system - enter editor
EDITR ON	Editor On	Readykey for Windows Editor On
EDTR OFF	Editor Off	Readykey for Windows Editor Off
EM OV OF	Emergency Override Off	Breakglass clear/fix
EM OV ON	Emergency Override On	Breakglass broken
ENTRAUTH	Entry Authorized	Valid Device ID - entry authorized
EX O HRS	Exit Out of Hours	Exit only allowed outside Time Profile
EXITAUTH	Exit Authorized	Valid Device ID - exit authorized
FRE-EXIT	Free Exit	Pushbar to exit - doesn't trigger door forced

Pager Display	Event	Description
L ALM AC	Local Alarm Accept	Alarm accepted at door controller
L DUR AC	Local Duress Accepted	Duress alarm accepted at door controller
LOGN FAI	Login Incorrect	Invalid Operator Login
LINEFAIL	Line Unobtainable	CNC cannot make connection
M RLY RE	Manual Relay Reset	Not used
M RLY SE	Manual Relay Set	Not used
MAN ENGA	Manual Engage	Manually turn on an alarm input
MAN ISOL	Manual Isolate	Manually turn off an alarm input
MAN LOCK	Manual Lock	Manually lock door, overriding Time Profiles
MAN UNLK	Manual Unlock	Manually unlock door, overriding Time Profiles
NO CNCDB	Dialback Failed CNC	Dialback fail reported at CNC
NO DC DB	Dialback Failed DC	Dialback fail reported at door controller
NO MODEM	Modem Not Responding	Modem not responding
NOAC ALM	No Access Alarm armed	Access denied as alarm is set
NOAC DAT	No Access Date	Access period expired
NOAC HOL	No Access Holiday	Keyholder on holiday - no access
NOAC ID?	No Access Unknown ID	ID not recognized - access denied
NOAC LEV	No Access Level	Access not allowed at current door
NOAC LOK	No Access Locked Out	Access not allowed at any door
NOAC TIM	No Access Time	Access not allowed due to Time Profile
NOEN PAS	No Entry Passback	Entry not allowed - passback in operation
NOEX PAS	No Exit Passback	Exit not allowed - passback in operation
OVRD ACC	Override Alarm Accepted	Fire Alarm accepted
OVRD ALM	Override Alarm	Fireman switch triggered
OVRD RES	Override Reset	Reset Fireman switch
PIN DURE	PIN Reader Duress	Duress alarm
POWR ON	Power On	Power on
POWR OFF	Power Off	Power off
REDIAL	Re-dialing	Connection failed - re-dialing
REM RLSE	Remote RTE	Remote RTE activated
REPT KEY	Repeated Key	Key held against reader
REQ ENTR	Request Entry	Request to Enter
REQ EXIT	Request Exit	Request to Exit
RTE DOWN	RTE Held Down	RTE switch held down
TRACE	Personnel Trace	'Trace' Personnel ID Device
UNAUTHAC	Unauthorized Access	Unauthorized access - e.g. door forced
WRNG PIN	Incorrect PIN	Wrong PIN entered
ZN RE-DI	Zone Restored Disarmed	Zone disarmed if triggered too many times
ZN TM AC	Zone Tamper Accepted	Sensor tamper (cable shorted) alarm accepted
ZN TM CL	Zone Tamper Cleared	Sensor tamper (cable shorted) cleared (fixed)

Pager Display	Event	Description
ZN TR AC	Zone Trouble Accepted	Sensor trouble (cable cut) accepted
ZN TR CL	Zone Trouble Cleared	Sensor trouble (cable cut) cleared (fixed)
ZON TAMP	Zone Tamper Alarm	Sensor tamper (cable shorted) alarm
ZON TRBL	Zone Trouble Alarm	Sensor trouble (cable cut) alarm

