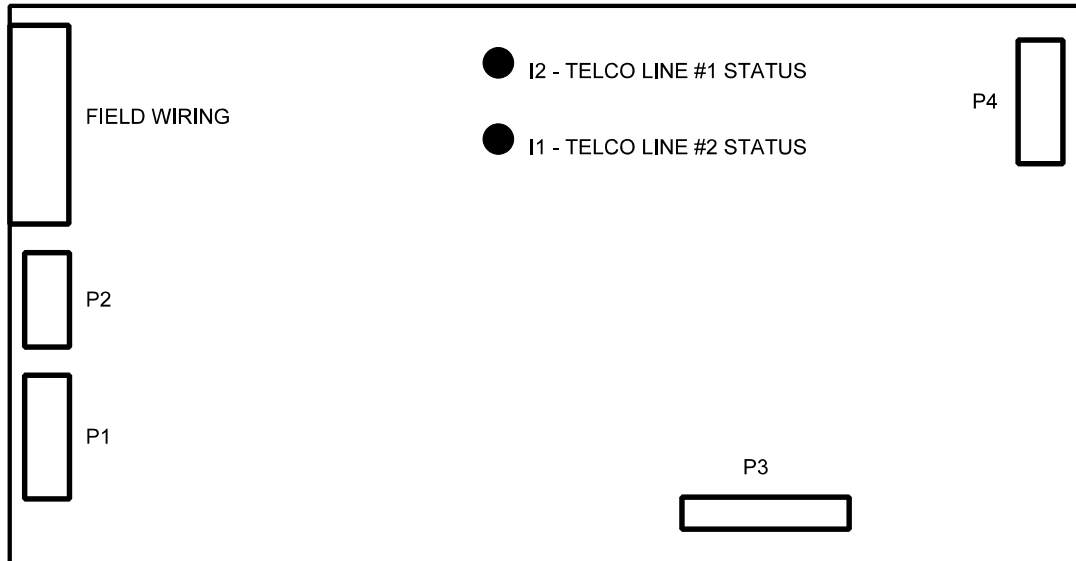




UDACT-100A

Digital Communicators

INSTALLATION and OPERATION MANUAL



NOTICE

All information, documentation, and specifications contained in this manual are subject to change without prior notice by the manufacturer.

TABLE OF CONTENTS

INTRODUCTION AND FEATURES	Page 1
Notice for all UDACT-100A Sold in Canada	Page 2
Notice for all UDACT-100A Sold in the U.S.A.	Page 2
MECHANICAL INSTALLATION and DIMENSIONS	Page 3
CONNECTIONS AND SETTINGS	Page 3
FIELD WIRING	Page 4
POWER UP PROCEDURES	Page 5
SYSTEM CONFIGURATION & OPERATION	Page 8
REPORTING FORMATS	Page 10
COMPATIBLE FIRE ALARM CONTROL PANELS	Page 13
COMPATIBLE RECEIVERS	Page 13
SPECIFICATIONS	Page 13
BATTERY CALCULATIONS	Page 13
WARRANTY	Page 14
WORKSHEET	W1
UDACT-100A INFORMATION FORM	BACK PAGE

INTRODUCTION AND FEATURES

UDACT-100A: A single board Digital Communicator that can connect via an RS-485 Data Link on a single ribbon cable to a Mircom Fire Alarm Control Panel (FACP) such as the FA-1000 Series or FX-2000. It can transmit **Zoned** Alarm, Supervisory, and Trouble information on two telephone lines.

- ✓ Communicates to a FACP via **RS-485 Data Link** (UDACT-100A with applicable Mircom FACP's).
- ✓ User Configurable with **CFG-100 Configuration Tool**. This includes a 4-Line LCD Display and Keypad in a rugged metal enclosure, with a ribbon cable to connect to the Communicator.
- ✓ Communicates to a **Central Monitoring Station** using **Ademco Contact ID** or **SIA DCS** Protocols.
- ✓ The **UDACT-100A** can transmit **Zoned** Alarm, Supervisory, and Trouble information on two telephone lines, when connected to a Mircom Fire Alarm Control Panel (FACP) such as the FA-1000 Series and FX-2000.

The **UDACT-100A** continuously supervises the state of each of two connected Telco Lines (at approximately 1 minute intervals) by a Line-DC level measurement. If supervision fails, a Line #1 or Line #2 Trouble event will be reported. Once a Line has been restored, a Line Trouble Restored event will be reported. The product will *always* report events sorted in the order in which they are received / recognized. The **UDACT-100A** is capable of reporting multiple events to a single Account number, within a single call session. Up to 3 retries, for a single message not yet reported, will be made within a single call-attempt. A failure to communicate to either or both Accounts will generate a corresponding event which will be queued for reporting.

Notice for all UDACT-100A Sold in Canada:

Mircom's **UDACT-100A Digital Communicator** described in this manual are listed by Underwriters Laboratories Canada (ULC) for use in slave application in conjunction with a Listed Fire Alarm Control Panel under Standard ULC-S527 (Standard for Control Units for Fire Alarm Systems) and ULC/ORD-C693-1994 (Central Station Fire Protective Signalling Systems and Services). These Communicators should be installed in accordance with this manual; the Canadian / Provincial / Local Electrical Code; and/or the local Authority Having Jurisdiction (AHJ).

Industry Canada Notice:

The Industry Canada label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational and safety requirements. Industry Canada does not guarantee the equipment will operate to the user's satisfaction. Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunication company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradations of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alteration made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment. Users should ensure for their own protection that the **Earth Ground** connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This is necessary both for proper operation and for protection.

CAUTION: *Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.*

NOTICE: *The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5.*

Notice for all UDACT-100A Sold in the U.S.A.:

Mircom's **UDACT-100A Digital Communicators** described in this manual are listed by Underwriters Laboratories Inc. (ULI) for use in slave application in conjunction with a Listed Fire Alarm Control Panel under Standard 864 (Control Units for Fire Protective Signalling Systems). These Communicators comply with the National Fire Protection Association (NFPA) performance requirements for DACTs and should be installed in accordance with NFPA 72 Chapter 4 (Supervising Station Fire Alarm System). These Communicators should be installed in accordance with this manual; the National Electrical Code (NFPA 70); and/or the local Authority Having Jurisdiction (AHJ).

FCC Notice:

Type of Service: The **Communicator** is designed to be used on standard device telephone lines. It connects to the telephone line by means of a standard jack called the USOC RJ-11C (or USOC FJ45S). Connection to telephone company provided coin service (central office implemented systems) is prohibited. Connection to party lines service is subject to state tariffs.

Telephone Company Procedures: The goal of the telephone company is to provide you with the best service it can. In order to do this, it may occasionally be necessary for them to make changes in their equipment, operations or procedures. If these changes might affect your service or the operation of your equipment, the telephone company will give you notice, in writing, to allow you to make any changes necessary to maintain uninterrupted service.

In certain circumstances, it may be necessary for the telephone company to request information from you concerning the equipment which you have connected to your telephone line. Upon request of the telephone company, provide the FCC registration number and the ringer equivalence number (REN); both of these items are listed on the equipment label. The sum of all of the REN's on your telephone lines should be less than five in order to assure proper service from the telephone company. In some cases, a sum of five may not be useable on a given line.

If Problems Arise: If any of your telephone equipment is not operating properly, you should immediately remove it from your telephone line, as it may cause harm to the telephone network. If the telephone company notes a problem, they may temporarily discontinue service. When practical, they will notify you in advance of this disconnection. If advance notice is not feasible, you will be notified as soon as possible. When you are notified, you will be given the opportunity to correct the problem and informed of your right to file a complaint with the FCC. Contact your telephone company if you have any questions about your phone line. In the event repairs are ever needed on the Communicator, they should be performed by Mircom Technologies Ltd. or an authorized representative of Mircom Technologies Ltd. . For information contact Mircom Technologies Ltd. at the address and phone numbers shown on the first page of this document.

MECHANICAL INSTALLATION AND DIMENSIONS

The **UDACT-100A** board is a single PCB assembly 7-11/16" by 4-7/16". It's mechanical installation is determined by the Fire Alarm Control Panel (FACP) they are being installed in, and is described in the appropriate FACP Installation Manual. Be sure to connect a solid Earth Ground (from building system ground / to a cold water pipe) to the Chassis Earth Ground Mounting Lug, and to connect the Earth Ground Wire Lugs from the Main Chassis to the ground screw on the Backbox.

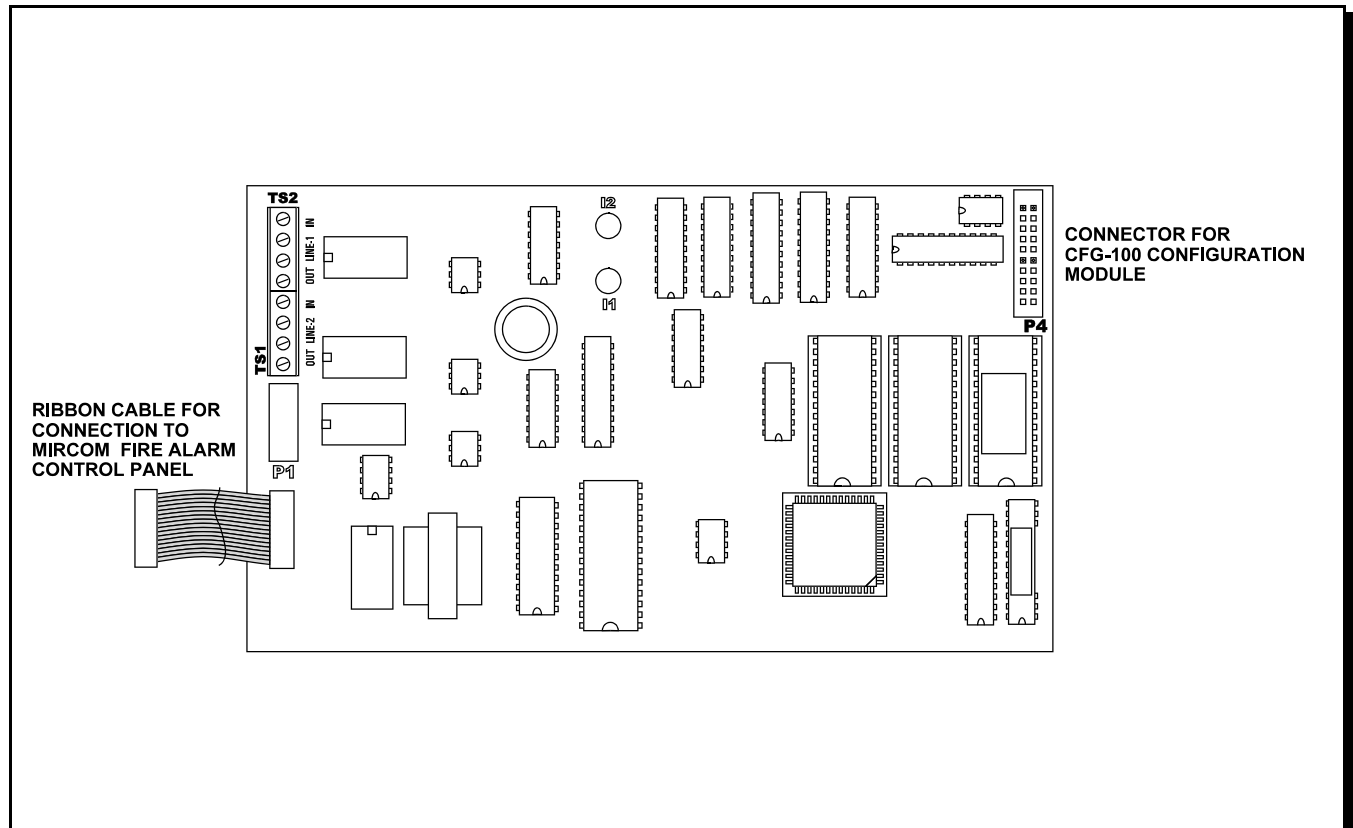
CONNECTIONS AND SETTINGS

UDACT-100A MAIN BOARD:

There are no user configurable jumpers on these Communicators.

- P1** Ribbon Cable for connecting to Mircom Fire Alarm Control Panel (FACP).
- P2** RS-485 Connection for future expansion.
- P3** Not used.
- P4** Connector for CFG-100 Configuration Module.
- I2** Status Indicator LED for Telco Line #1; Red when the line is in use, Amber when there is a line fault.
- I1** Status Indicator LED for Telco Line #2; Red when the line is in use, Amber when there is a line fault.

UDACT-100A Main Board



FIELD WIRING

UDACT-100A MAIN BOARD TERMINAL CONNECTIONS:

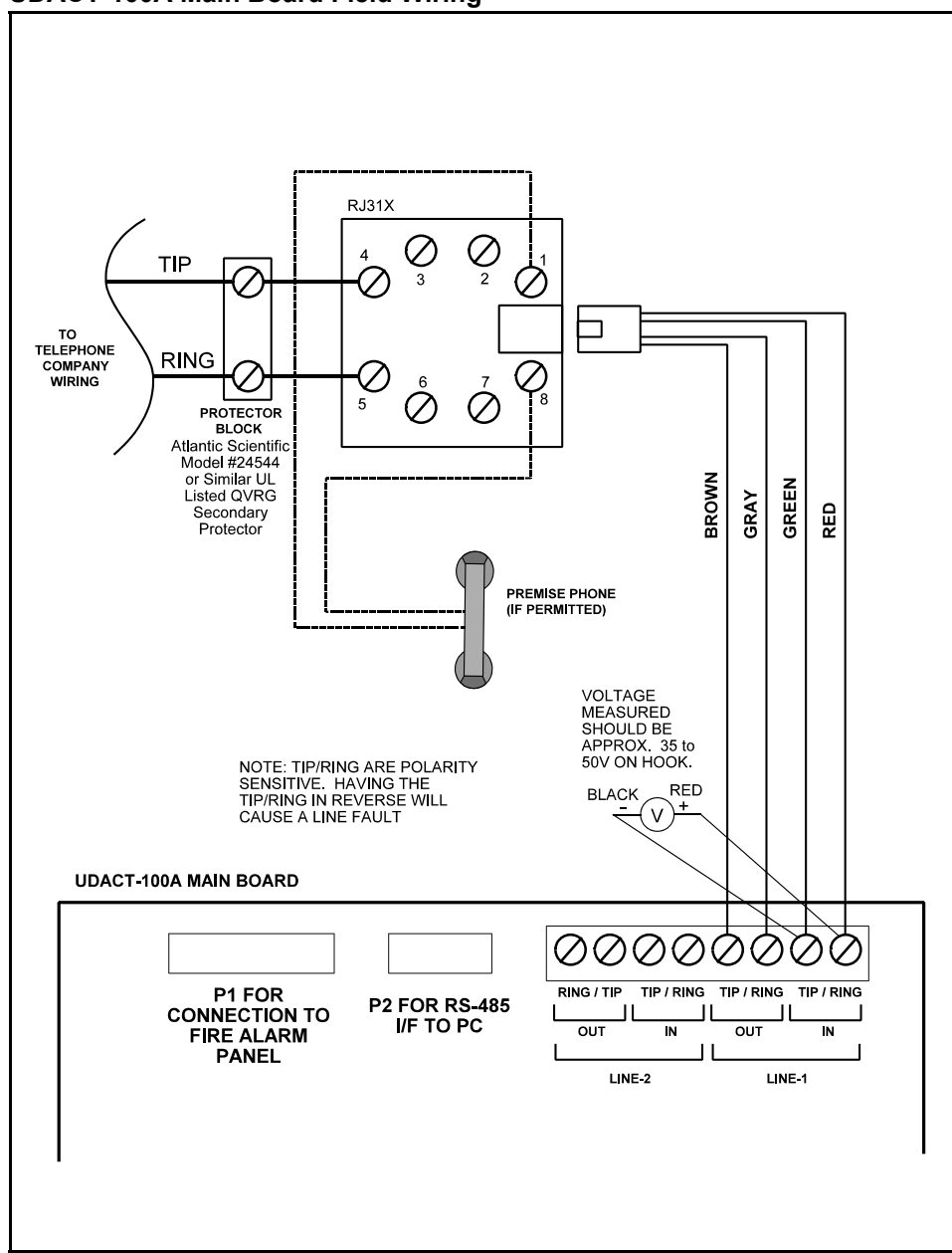
Wire the two telephone lines devices to terminals as shown.

- Line 1 Input (Tip/Ring):** To the first Telephone Line via the required RJ31X Connector.
- Line 1 Output (Tip/Ring):** To an optional Premise Telephone on the first Telephone Line via the required RJ31X Connector.
- Line 2 Input (Tip/Ring):** To the second Telephone Line via the required RJ31X Connector.
- Line 3 Output (Tip/Ring):** To an optional Premise Telephone on the second Telephone Line via the required RJ31X Connector.

Note that most Authorities Having Jurisdiction do not allow the connection of Premise Telephones. See wiring tables and specifications for more information.

Note: *The Terminal Blocks are "depluggable" for ease of wiring.*

UDACT-100A Main Board Field Wiring



POWER UP PROCEDURES

1. Unplug Fire Alarm Panel.
2. Connect cable from P2 on the UDACT-100A board to the Fire Alarm Panel. Check the Fire Alarm manual for the UDACT-100A cable location.
3. Hook up the CFG-100 Configuration Tool to P4 on the UDACT-100A.
4. Hook up the telephone lines and telephone as shown on page 4.
For test purposes only you may tie the output of telephone line 1 into the input of telephone line 2.
5. Power up the Fire alarm and the message of the CFG-100 Configuration Tool should be:

Digital Communicator
[DACT(1) is idle. . .] for FA-1000 or
[DACT(2) is idle. . .] for FX-2000
Press any key to start login procedure . . .

6. Press any key to start the login procedure. The CFG-100 display will show the following screen:

Enter Passcode now
Passcode: _ _ _ _ _
Press <#> when done
or <*> to cancel.

7. Enter the passcode, 2222222 for installer.

Enter 2-digit ITEM
number to configure.
To scroll down list of items, press <#> or <*> to scroll up . . .

8. When you try to enter a 2-digit number, the following screen will appear,

Please enter ITEM #
ITEM Number: _ _
Press <#> when done
or <*> to cancel.

9. Set the DATE by entering 20, the following screens will appear,

Enter Date (dd/mm/yy)
Day of Month: _ _
Press <#> when done
or <*> to cancel.

Enter Date (dd/mm/yy)
Month of Year: _ _
Press <#> when done
or <*> to cancel.

Enter Date (dd/mm/yy)
Year of Century: _ _
Press <#> when done
or <*> to cancel.

10. Set the TIME by entering 21(Item number), the following screens will appear,

Enter Time (HH/MM/SS)
Seconds (00-59): _ _
Press <#> when done
or <*> to cancel.

Enter Time (HH/MM/SS)
Minutes (00-59): _ _
Press <#> when done
or <*> to cancel.

Time (HH/MM/SS)
Hours (00-23): _ _
Press <#> when done
or <*> to cancel.

11. Enter 30 and then the monitoring station account numbers and telephone numbers of the telephone lines being used. The following screens for telephone Line 1 will appear,

Enter 4-6 digit ID#
Account ID: _ _ _ _ _
Press <#> when done
or <*> to cancel.

Enter 31 to input the area code (prefix code) of telephone line 1. The following screen will appear,

First digits to dial
Prefix Code: _ _ _
Press <#> when done
or <*> to cancel.

Enter 32 to input the telephone number of line 1. The following screen will appear,

Local number to dial
Telephone #: _ _ _ _ _
Press <#> when done
or <*> to cancel.

Repeat step 11 for the second telephone line by entering Item numbers 40 and 41.

12. Set the Format to be generated by the UDACT when reporting to the monitoring station for both telephone lines.

Enter 33 for Telephone Line 1

Enter 43 for Telephone Line 2

1=SIA, 2=Contact ID
Format is: _
Press <#> when done
or <*> to cancel.

1=SIA, 2=Contact ID
Format is: _
Press <#> when done
or <*> to cancel.

13. Select the Fire Alarm Protocol by entering 54 (Item number), the following screen will appear,

1=FA type, 2=FX type
UDACT type: _
Press <#> when done
or <*> to cancel.

Select FA by typing 1, if the Fire Alarm used is an FA-1000. Select FX by typing 2, if the Fire Alarm used is an FX-2000.

14. Enter 11 to initiate the test report, the screen will go through the following sequences:

Digital Communicator
[Testing Line DC]
Date Time
Press any key to start login procedure (scrolls horizontally)

If it stays in the testing line DC screen, then the polarity of the phone line may be reversed, the phone line is not operating properly or the UDACT-100A is not the first piece of equipment on the telephone line. If the telephone line is good, the next screen should be,

Digital Communicator
[Wait for DIALtone]
Date Time

Note: It will wait for dial tone if selected as such, see Item 63 in System Configuration & Operation section.

If the screen stays in the Wait for Dialtone mode, then there is a telephone line failure, otherwise the next screen is,

Digital Communicator
[Dialling Station . . .]
Date Time

If the screen stays in the Dialling Station mode, then the telephone number of the receiving station may have been inputted incorrectly, otherwise the next screen is,

Digital Communicator
[Wait for rcvr ACK]
Date Time

If the screen stays in the Wait for receiver acknowledge mode, then the receiver may not be compatible, otherwise the next screen is,

Digital Communicator
[Reporting event . . .]
Date Time

The next screen is,

Digital Communicator
[Waiting for KISS]
Date Time

If the screen stays in the Waiting for KISS mode, then you should contact our Tech Support, otherwise when the test is complete the CFG-100 this screen will appear,

Digital Communicator
[DACT is idle . . .]
Date Time
Press any key to start login procedure . . .

The above sequence should occur only once for a successful report. If the "Reporting Event" fails the UDACT-100A will try 3 more times within the same phone call. If this fails the UDACT-100A will hang up and redial and try again.

SYSTEM CONFIGURATION & OPERATION

The Mircom Digital Communicator is configured by connecting the **CFG-100 Configuration Tool** to P4 of the UDACT-100A Main Board. Once connected, if no text appears immediately on the LCD screen, hit any key on the numeric keypad.

The UDACT product supports two levels of restricted access to the **Configuration Mode** which allows for parameter configuration and control of operation. Each level is associated with a separate **Passcode** (up to 8-digit numeric code) and may be individually modified. Once a user gains access to the Configuration Mode, they are presented with a menu of selections according to the level of access granted. The **factory default** Passcodes are:

Level I	- OPERATOR	“11111111”
Level II	- INSTALLER	“22222222”

A **Restore-to-Factory-Defaults** can be initiated from the CFG-100 *without having to first access program mode*, by using the special Passcode ...

Restore-to-Factory-Defaults “12345678” (Do Not use this passcode as a Level I or Level II passcode)

NOTE: When reviewing the configuration (account numbers, etc.) DO NOT hit the # key, use the * key to exit. Hitting the # key when reviewing the configuration will delete the existing data. This “deleting” feature is required when entries need to be removed; example 1-800 number changed to a local number.

Items accessible to Level(s) I and II

ITEM Number	Access Level	Menu Category	Menu Label	Description
00	I, II	Access Control	Logout of UDACT	Exit from PROGRAM mode on LCD/Keypad.
01	I, II	Access Control	About UDACT	Display copyright (company and date) and firmware version information on LCD.
02	I, II	Access Control	Change Passcode	Support modification to specific passcode associated with individual level (I=OPERATOR and II=INSTALLER).
10	I, II	Event Logging	Flush all events	Terminate any in-progress event reporting. Remove “report pending” trigger (i.e. cancel attempts to report queued events) and Force event queue (FIFO) to empty state (i.e. erase any queued event history).
11	I, II	Event Logging	Send Test-Report	Immediately initiate test-report generated to Account #1.
12	I, II	Event Logging	Abort-Reporting	Terminate any in-progress event reporting. Remove “report pending” trigger (i.e. cancel attempts to report queued events). NOTE: Unreported events are still resident within FIFO. Any future events logged will restart attempts at reporting ALL queued (unreported) event items. This action will also add a “Line (x) Trouble” event to the event queue.
13	I, II	Event Logging	AC-Power Loss (delay) Default is 6 Hours	Specify an (optional) delay time (in hours), from 00 (no delay) to 20 (maximum delay). A report of the “AC-Power Loss” event will be delayed by this value, and then only sent after the period has expired with the signal still present. A “restoral” event of this signal will be reported immediately, but only if a prior “off-normal” event was successfully reported earlier.
14	II	Zone Mapping	View	View zone mapping.
15	II	Zone Mapping	Edit Mapping	Edit zone mapping.
16	II	Zone Mapping	Mapping Enable	1=DISABLE (default), 2= ENABLE
20	I, II	RTC Parameters	Set System DATE	Assign local DATE (dd/mm/yy) to UDACT Real-Time-Clock device. The Year field will be presented in 4-digit format on LCD status line, with automatic 20/21 century adjustment for Y2K compliance.
21	I, II	RTC Parameters	Set System TIME	Assign local TIME (ss/mm/hh) to UDACT Real-Time-Clock device. The Hour field will be presented in 24-hour (military) format on LCD status line.
22	I, II	RTC Parameters	Auto-Report Time	Assign time (mm/hh) for UDACT to perform periodic (24 hr intervals) Test-report generation to monitoring station. Must set real time clock (Item 21) to ensure 24 hr test will initialize.

Items accessible to Level II only

ITEM Number	Access Level	Menu Category	Menu Label	Description
30	II	Account (#1)	Account ID #1	Assign 4-6 numeric Account ID to be identified with Account #1 monitoring station receiver.
31	II	Account (#1)	Dial-Prefix #1	(OPTIONAL) Set up-to-8-digits to be first dialed by UDACT when attempting to call Account #1 monitoring station receiver.
32	II	Account (#1)	Local Number #1	Set up-to-8-digits to be dialed (after Dial-Prefix #1 digits) by UDACT when attempting to call Account #1 monitoring station receiver.
33	II	Account (#1)	Report Format #1 Default Contact ID	Choose report format (Contact ID or SIA) to be generated by UDACT when reporting with Account #1 monitoring station receiver.
40	II	Account (#2)	Account ID #2	Assign 4-6 numeric Account ID to be identified with Account #1 monitoring station receiver
41	II	Account (#2)	Dial-Prefix #2	(OPTIONAL) Set up-to-8-digits to be first dialed by UDACT when attempting to call Account #2 monitoring station receiver.
42	II	Account (#2)	Local Number #2	Set up-to-8-digits to be dialed (after Dial-Prefix #2 digits) by UDACT when attempting to call Account #2 monitoring station receiver.
43	II	Account (#2)	Report Format #2 Default Contact ID	Choose report format (Contact ID or SIA) to be generated by UDACT when reporting with Account #2 monitoring station receiver.
50	II	Report Priority	<ALARM> Events Default is Account 1	Choose which Account # (1 or 2) will be the <i>first</i> to be <i>attempted</i> to be reached by the UDACT, when an ALARM event is to be reported. This is designated as the "primary" account and the other will become the "secondary". If the UDACT cannot report to the primary, it will then <i>attempt</i> to report to the secondary. This cycle will <i>normally</i> continue until the event is eventually sent or the <MAXIMUM Attempts> has been achieved.
51	II	Report Priority	<TROUBLE> Events Default is Account 1	Choose which Account # (1 or 2) will be the <i>first</i> to be <i>attempted</i> to be reached by the UDACT, when a TROUBLE event is to be reported. (See ITEM 50 for a description of the UDACT report-attempt operation).
52	II	Report Priority	<SUPVSRY> Events Default is Account 1	Choose which Account # (1 or 2) will be the <i>first</i> to be <i>attempted</i> to be reached by the UDACT, when a SUPERVISORY event is to be reported. (See ITEM 50 for a description of the UDACT report-attempt operation).
53	II	Event Logging	Ignore <SUPVSRY> Events Default is Non-Addressable Panel	This selection allows the overriding of the "normal" reporting of the supervisory events when set to 1. The UDACT will report supervisory events when set to 2.
54	II	Event Logging	Fire Alarm Protocol Selection	Select FA for CONVENTIONAL Fire Alarm or FX for ADDRESSABLE Fire Alarm.
55	II	Report Priority	Max. Attempts Range is 5 to 10, Default is 6 Attempts	Set the "normal" upper limit for UDACT attempts (<u>call-attempt pairs</u>) to report to monitoring station receivers. One attempt is registered when the UDACT tries to access <i>both</i> (i.e. <i>the pair of</i>) "primary" and "secondary" Accounts #'s. (See ITEM 50 for a description of the UDACT report-attempt operation). After this count has been exceed, the UDACT will assert the TROUBLE-SEND signal (and BUZZER) to the connected Fire-Panel. Only a UDACT power reset will remove this condition.
60	II	Phone Line (1/2)	Dial-type Line 1	Configure Line 1 for DTMF (Tone) or Rotary (Pulse) dialling.
61	II	Phone Line (1/2)	Dial-type Line 2	Configure Line 2 for DTMF (Tone) or Rotary (Pulse) dialling.
62	II	Configuration	Reboot UDACT	Reset entire UDACT (configuration is not affected).
63	II	Phone Line(1&2)	Deaf Dialling Default dial tone(1)	To wait and listen for dial tone select 1 (default) or Ignore Dial Tone for use with "Cellular Telephone" select 2
64	II	Phone Line 2	Set Testing Date	Default testing date for Phone Line 2 is the 1 st day of the month. Selection can be made from 1 st to 28 th day of the month. Whenever Line 2 is used for a cellular phone, then the Deaf Dialling should be set to 2 (63 set to Ignore Dial Tone).

NOTE: All configurable items have default values assigned by the "Restore-to-Default" operation. All items must have a (non-zero) value assigned unless specifically identified as OPTIONAL within the table(s) above.

REPORTING FORMATS

The UDACT-100A works by eavesdropping on status communication messages within either the FA-1000 or the FX-2000 fire alarm system. As a consequence of this method of operation, the UDACT-100A reports events slightly differently depending upon whether it is eavesdropping on an FA-1000 or an FX-2000. Use command Item Number 54 to select between FA-1000 reporting and FX-2000 reporting. The following sections explain the individual reports generated by the UDACT-100A when connected to either an FA-1000 or an FX-2000.

FA-1000 Reporting Format

Zone Mapping Disabled (Default) (ITEM 16): For Central Station reports, the events are recorded as explained in this example when the zone mapping is disabled. Suppose zones 1 to 3 are alarm zones, zones 4 and 5 are supervisory zones, zone 6 is a waterflow and zones 7 and 8 are alarm zones. If all the zones activated in order, that is zones 1 to 8, the events are reported as such:

Zone 1 - Alarm - Reports as →	1 110 001
Zone 2 - Alarm - Reports as →	1 110 002
Zone 3 - Alarm - Reports as →	1 110 003
Zone 4 - Supvr. - Reports as →	1 200 001
Zone 5 - Supvr. - Reports as →	1 200 002
Zone 6 - Waterflow - Reports as →	1 113 001
Zone 7 - Alarm - Reports as →	1 110 004
Zone 8 - Alarm - Reports as →	1 110 005

The first digit is the Qualifier (1 is a new event and 3 is restored), the next 3 digits give the type of zone and the last 3 digits give the zone identification as in the order of those zone types. So that when Zone 4 supervisory went into alarm, the zone identification is 1 since that is the first supervisory zone. When zone 7 went into alarm, then the zone identification is 4 since it is the fourth alarm zone. When viewing events all six digits should be recorded for appropriate zone type, not just the last 3 digits which display the zone.

If reporting as explained above is not sufficient (that is unique zone numbers are required), then refer to the following section Zone Mapping Enabled, otherwise ignore the following section.

Zone Mapping Enabled (ITEM 16) AND CONVENTIONAL PROTOCOL ONLY (ITEM 54): Zone mapping is required if the receiving station expects sequential zone reporting as shown in the table below. If zone mapping is enabled (by selecting 2 at Item 16 and the FA System Protocol at Item 54), the internal numbering of devices will be mapped to the physical zone and type. This mapping must be entered. For example, the same scenario as above can be mapped as such: the installer would configure physical zones 1 through 3 as ALARM circuits with circuit numbers 0 through 2, followed by physical zones 4 and 5 as SUPERVISORY NON-LATCHING with circuit numbers 3 and 4, followed by physical zone 6 as WATERFLOW circuit zone 5 and followed by physical zones 7 and 8 as ALARM circuits 6 and 7. Use the following table for physical zone and circuit correlation. The table continues, in the same manner beyond zone 24 shown here.

PHYSICAL ZONE	CIRCUIT CORRELATION	PHYSICAL ZONE	CIRCUIT CORRELATION	PHYSICAL ZONE	CIRCUIT CORRELATION
Zone 1	Circuit 0	Zone 9	Circuit 8	Zone 17	Circuit 16
Zone 2	Circuit 1	Zone 10	Circuit 9	Zone 18	Circuit 17
Zone 3	Circuit 2	Zone 11	Circuit 10	Zone 19	Circuit 18
Zone 4	Circuit 3	Zone 12	Circuit 11	Zone 20	Circuit 19
Zone 5	Circuit 4	Zone 13	Circuit 12	Zone 21	Circuit 20
Zone 6	Circuit 5	Zone 14	Circuit 13	Zone 22	Circuit 21
Zone 7	Circuit 6	Zone 15	Circuit 14	Zone 23	Circuit 22
Zone 8	Circuit 7	Zone 16	Circuit 15	Zone 24	Circuit 23

When this mapping is complete, if all the zones are activated in order, that is zones 1 to 8, the events are reported as such:

ZONE MAPPING ENABLED	
Zone 1 - Alarm - Reports as →	1 110 001
Zone 2 - Alarm - Reports as →	1 110 002
Zone 3 - Alarm - Reports as →	1 110 003
Zone 4 - Supvr. - Reports as →	1 200 004
Zone 5 - Supvr. - Reports as →	1 200 005
Zone 6 - Waterflow - Reports as →	1 113 006
Zone 7 - Alarm - Reports as →	1 110 007
Zone 8 - Alarm - Reports as →	1 110 008

FX-2000 Reporting Format

Addressable Protocol Only:

For UDACT-100A use with an FX-2000 Addressable Fire Alarm Panel make sure that the Addressable Protocol (FX) is selected by Item 54.

To view circuits and their internal circuit numbers, open the FX-2000 Configurator program. Select the File menu and then Print Reports. Select the job and double click. The menu will include UDACT MAPIP for inputs and UDACT MAPOP for outputs. Selecting UDACT MAPIP or UDACT MAPOP will show Circuit Number (CktNo), Loop Number (LoopNo) and Device Address (DevAddr).

When connected to an FX-2000, the UDACT-100A reports all input circuits regardless of type by their respective internal input circuit number. These input circuit numbers are unique and within the fire panel are automatically numbered sequentially from 0 to N [where (N+1) is the total number of conventional input circuits plus addressable devices (since each addressable device is assigned one address) configured for the panel]. Similarly, output circuits regardless of type are reported by their respective internal output circuit number. Output circuit numbers are unique and within the panel are automatically numbered sequentially from 0 to N (where (N+1) is the total number of output circuits plus output addressable devices configured for the panel). Since common troubles for which no zone identifier is meaningful use zone 0, the UDACT-100A translates all internal circuit numbers by adding 1. Therefore, if for example, an alarm is received on internal input circuit number 3 the UDACT-100A will report at the central station as an alarm on zone 4. Similarly, an alarm received on internal input circuit number 4 will be reported at the central station as an alarm on zone 5. Additionally, for the same FX-2000 fire panel, if there is a trouble on internal output circuit 6, the UDACT-100A will report a trouble on output zone 7 at the central station.

ADEMCO CONTACT-ID

UDACT-100A Internal Events :

Event Description	Event Family	Qualifier	Code	Group #	Contact #
Phone Line #1 trouble detected	Trouble	New event	1 351	00	000
Phone Line #2 trouble detected	Trouble	New event	1 352	00	000
Phone Line #1 trouble restored	Trouble	Restore	3 351	00	000
Phone Line #2 trouble restored	Trouble	Restore	3 352	00	000
Failure to report to an Account	Trouble	New event	1 354	Acct #	Acct #
Report to an Account successful	Trouble	Restore	3 354	Acct #	Acct #
Periodic (24 hr) Test Event (NORMAL)	Test	New event	1 602	00	000
Periodic (24 hr) Test Event (OFF NORMAL)	Test	New event	1 608	0	0
Manually initiated dialer test	Test	New event	1 601	00	0

UDACT-100A External Events:

Event Description	Event Family	Qualifier	Code	Group #	Contact #
Zone Fire Alarm	Alarm	New event	1 110	0	NNN
Zone Fire Alarm restored	Alarm	Restore	3 110	0	NNN
Zone Trouble detected	Trouble	New event	1 300	0	NNN
Zone Trouble restored	Trouble	Restore	3 300	0	NNN
Zone Supervisory condition	Supervisory	New event	1 200	0	NNN
Zone Supervisory restored	Supervisory	Restore	3 200	0	NNN
Waterflow	Alarm	New event	1 113	0	NNN
Waterflow restored	Alarm	Restore	3 113	0	NNN
Indicating Zone Trouble	Trouble	New event	1 320	0	NNN
Indicating Zone Trouble restored	Trouble	Restore	3 320	0	NNN
General Alarm	Alarm	New event	1 140	0	NNN
General Alarm restored	Alarm	Restore	3 140	0	NNN
AC power lost	Trouble	New event	1 301	0	0
AC power restored	Trouble	Restore	3 301	0	0
Battery Low	Trouble	New event	1 302	0	0
Battery Low restored	Trouble	Restore	3 302	0	0
Ground Fault	Trouble	New event	1 310	0	0
Ground Fault restored	Trouble	Restore	3 310	0	0

NNN-Refers to Sensor number for zone causing event.

SECURITY INDUSTRIES ASSOC. SIA-DCS

UDACT-100A Internal Events :

Event Description	Event Family	Qualifier	SIA Event Code	Parameter
Phone Line #1 trouble detected	Trouble	New event	LT	0
Phone Line #2 trouble detected	Trouble	New event	LT	0
Phone Line #1 trouble restored	Trouble	Restore	LR	0
Phone Line #2 trouble restored	Trouble	Restore	LR	0
Failure to report to an Account	Trouble	New event	RT	Acct #
Report to an Account successful	Trouble	Restore	YK	Acct #
Periodic (24 hr) Test Event	Test	New event	RP	00
Manually initiated dialer test	Test	New event	RX	0

UDACT-100A External Events:

Event Description	Event Family	Qualifier	SIA Event Code	Parameter
Zone Fire Alarm	Alarm	New event	FA	NN
Zone Fire Alarm restored	Alarm	Restore	FH	NN
Zone Trouble detected	Trouble	New event	FT	NN
Zone Trouble restored	Trouble	Restore	FJ	NN
Zone Supervisory condition	Supervisory	New event	FS	NN
Zone Supervisory restored	Supervisory	Restore	FR	NN
Waterflow alarm	Alarm	New event	WA	NN
Waterflow alarm restored	Alarm	Restore	WH	NN
General Alarm	Alarm	New event	QA	NN

General Alarm restored	Alarm	Restore	QH	NN
Indicating Zone Trouble (*)	Trouble	New event	UT	NN
Indicating Zone Trouble restored (*)	Trouble	Restore	UR	NN
AC power lost	Trouble	New event	AT	0
AC power restored	Trouble	Restore	AR	0
Battery Low	Trouble	New event	YT	0
Battery Low restored	Trouble	Restore	YR	0
Ground Fault	Trouble	New event	YP	0
Ground Fault restored	Trouble	Restore	YQ	0

* SIA protocol does not define indicating zone troubles, but lists it as Untyped Zone Trouble/Restore.

COMPATIBLE FIRE ALARM CONTROL PANELS

Mircom UDACT-100A: Compatible with **Mircom FA-1000 Series and FX-2000 Series** Fire Alarm Control Panels.

COMPATIBLE RECEIVERS

The **Mircom UDACT-100A** is compatible with the following **Digital Alarm Communicator Receivers (DACR)** ...

<u>DACR Receiver Model</u>	<u>Protocols</u>
SurGard MLR2 Multi-Line Receiver (ULC, ULI Approved)	SIA-DCS and Ademco Contact ID
SurGard SLR Single-Line Receiver (ULC, ULI Approved)	SIA-DCS and Ademco Contact ID
Osborne-Hoffman Quickalert! II Receiver (ULI Approved)	SIA-DCS and Ademco Contact ID
Osborne-Hoffman OH-2000 Receiver (ULI Approved)	SIA-DCS and Ademco Contact ID
Silent Knight Model 9500 Receiver (ULI Approved)	SIA-DCS and Ademco Contact ID

SPECIFICATIONS

All Circuits are Power Limited

UDACT-100A Digital Communicator:

- Connects to two Telephone Lines and performs DC Supervision.
- Connects to a Mircom FACP via a ribbon cable. This connection provides DC power, RS-485 Data Link, and all other signalling between the Communicator and the FACP.
- Transmits user-configurable Zoned Alarm, Supervisory, and Trouble status to a Central Monitoring Station, using either Ademco Contact ID or SIA DCS Protocols.
- User configurable using the CFG-100 Configuration Tool with two levels of Password control.
- Current Consumption: Standby: 120 mA, Alarm: 300 mA

BATTERY CALCULATIONS

UDACT-100A:

The UDACT-100A Battery Calculations are performed as part of the calculations for the Fire Alarm Control Panel it will be used in. See the appropriate Mircom Installation and Operation Manual.

WARRANTY

MIRCOM Technologies Ltd., manufactured equipment is guaranteed to be free of defects in material and workmanship for a period of one (1) year from the date of original shipment. MIRCOM will repair or replace, at its option, any equipment which it determines to contain defective material or workmanship. Said equipment must be shipped to MIRCOM prepaid. Return freight will be prepaid by MIRCOM. We shall not be responsible to repair or replace equipment which has been repaired by others, abused, improperly installed, altered or otherwise misused or damaged in any way. Unless previously contracted by MIRCOM, MIRCOM will assume no responsibility for determining the defective or operative status at the point of installation, and will accept no liability beyond the repair or replacement of the product at our factory authorized service depot.

Head Office:

**MIRCOM Technologies Ltd.
8111 Jane Street - Unit #1
Vaughan, Ontario
Canada L4K 4L7**

U.S.A. Distribution Centre:

**MIRCOM Technologies Inc.
170 Cooper Avenue, Unit #114
Tonawanda, New York
U.S.A. 14150**

**Phone Toll Free: (888) 660-4655
FAX Toll Free: (888) 660-4113
Web Page: <http://www.mircomtech.com>
eMail: mail@mircomtech.com**

MAPPING WORKSHEET

PHYSICAL ZONE NUMBER	ASSIGNED CIRCUIT TYPE	ASSIGNED CIRCUIT NUMBER

INPUT CIRCUIT TYPE:	EQUIVALENT CODE
ALARM	1
SUPERVISORY LATCHING	2
SUPERVISORY NON-LATCHING	3
WATERFLOW	4
GENERAL ALARM	5
TROUBLE	6
OUTPUT CIRCUIT TYPE:	
SILENCEABLE SIGNAL CIRCUIT	8
NONSILENCEABLE SIGNAL CIRCUIT	9
SILENCEABLE STROBE CIRCUIT	10
NONSILENCEABLE STROBE CIRCUIT	11
RELAY CIRCUIT	12

UDACT-100A INFORMATION FORM

Account #1 Identification (max. 6 digits): _____

Account #1 Telephone number (including area code): _____

Telephone number of receiving station (including area code) : _____

Reporting Format: Contact ID

SIA

Account #2 Identification (max. 6 digits): _____

Account #2 Telephone number (including area code): _____

Telephone number of receiving station (including area code): _____

Reporting Format: Contact ID

SIA