

Model T8000-UDACT

Universal DACT

for FireSpy® Tracker Control Panels

SAFETY MESSAGE TO INSTALLERS

People's lives depend on your safe installation of our products. It is important to read, understand and follow all instructions shipped with this product. Listed below are some other important safety instructions and precautions you should follow.

- This unit must be installed and maintained by a qualified electrician in accordance with NFPA 72 and National and local Electrical and fire codes, under the direction of the authority having jurisdiction.
- Do not connect this unit to system wiring when circuits are energized.
- After installation and completion of initial system test, provide a copy of this instruction sheet to all personnel responsible for operation, periodic testing and maintenance of this equipment.
- Failure to follow all safety precautions and instructions may result in property damage, serious injury, or death to you and others.

GENERAL

The Model T8000-UDACT Digital Alarm Communicator Transmitter (DACT) is used for off-site communications to a compatible DACR (receiver). The UDACT sends alarm, supervisory, and trouble conditions from the fire panel to a Central Station using SIA communication format. The UDACT is compatible with the Tracker 8000 and Tracker 2000 fire panels. The DACT can be programmed entirely from the FACP, if the default test time is used. The Tracker PC Programmer can also be used to program DACT parameters into the FACP using a serial port. HyperTerminal or other serial communications program can be used to

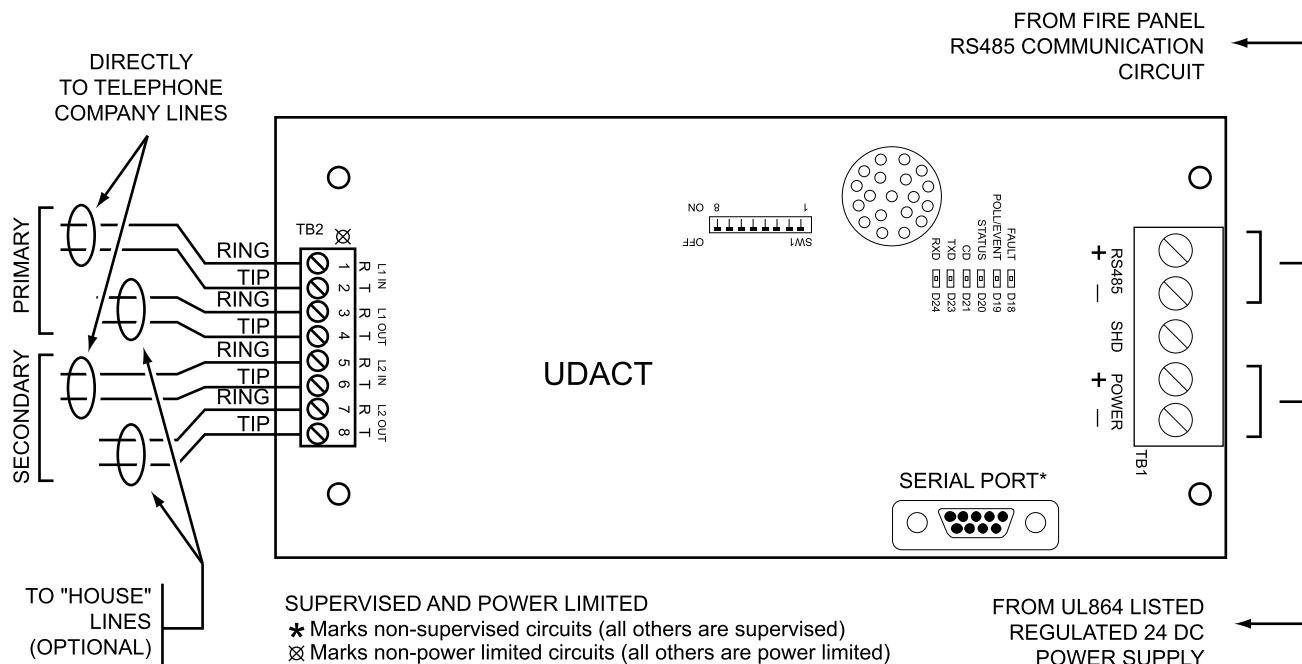
Specification	Rating
Listed	ETL, Standard UL864
Use / Environment	Commercial / Indoor, dry
Temperature range	32 to 120° F
Maximum relative humidity	95%
FCC registered	8QMAL02BUDACT
Communication formats	SIA Level 1, Contact ID
Operating voltage	Regulated 24 DC
Operating current	32mA
* The maximum current draw available to the total system.	

Table 1: Specifications

program the DACT's phone line test time.

The UDACT has the following features.

- Supports all alarm, supervisory, and trouble conditions on the fire panel with Contact ID information in SIA format
- Programmable through Tracker panel, annunciator, or Tracker PC Programmer
- Two telephone number dialing
- Two phone line connections
- Programmable phone line test time
- Flash-based non-volatile 1024 event buffer with date and time stamp
- Speaker for audible feedback



* The serial port is a temporary connection for programming.
Use a male-female straight through cable (HSI #T8000CA-CBL)

290-0129

Figure 1: Wire routing

Manufacturer	Model
Silent Knight	9500 with 9810 line card
Bosch	D6100
Decrypta	D3

Table 2: Compatible receivers

INSTALLATION

Refer to the Tracker 8000 or Tracker 2000 installation manuals for battery calculations and other additional requirements for installing the UDACT in the fire panel system.

Mounting

The UDACT mounts in a UL864 Listed enclosure. The installation location should be reasonably free of dust, vibration, and moisture. To avoid degradation of the operating circuitry, it is recommended that the printed circuit boards be removed during cabinet mounting, wire installation, and any other procedures that may introduce dust, metal shavings, grease or any other foreign matter into the area of the electronic circuitry.

Install the enclosure according to the manufacturer's installation

instructions.
Mount the UDACT inside the enclosure using four #4 screws.

Wiring

WARNING

To reduce the risk of electrical shock, make sure that all power has been turned off or disconnected prior to attempting to install wiring or connect power.

Connect wiring as shown in Figure 1 and Figure 2.

The UDACT must be the first device connected to the phone lines so it can properly seize the line when it need to report. RJ31X jacks are typically installed by the telephone company so that house lines are operable when the UDACT is not installed.

If the UDACT is the last device on the communication circuit, set both SW2 switches to ON. Otherwise, set both SW2 switches to OFF.

Programming

The DACT can be programmed from a PC with the Tracker PC Programmer connected to a Tracker panel's serial port. The test time can be changed by reprogramming it from a PC using HyperTerminal, otherwise the default test time is 1:00 AM.

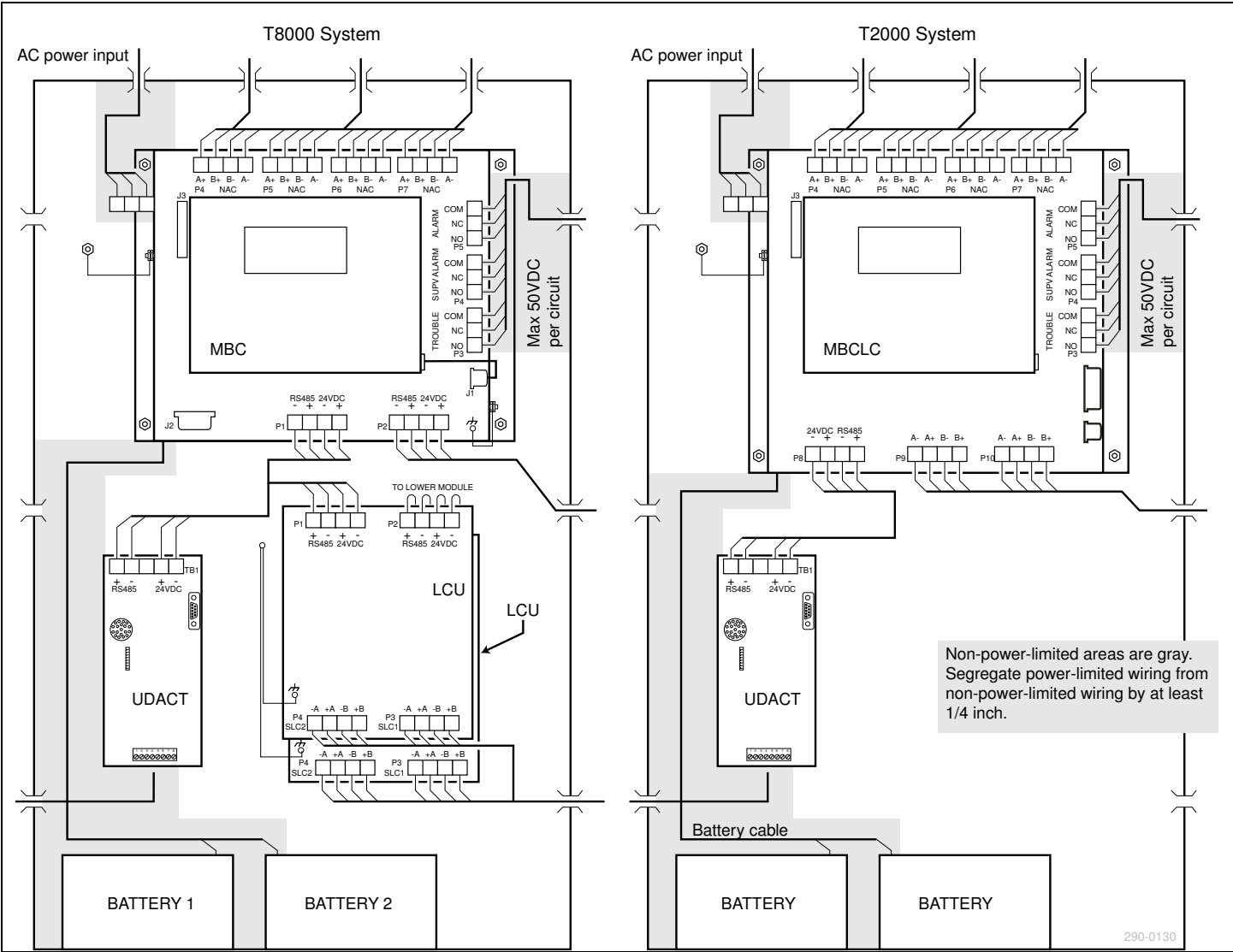
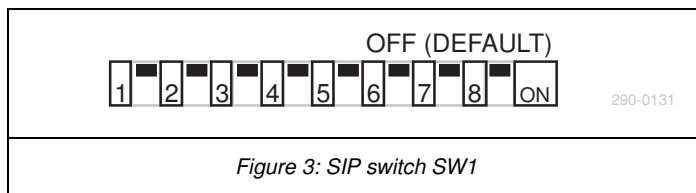


Figure 2: Wire routing



Switch number	Position	Programmed Mode
1 - 3		DACT format selection (see below)
4		(Reserved)
5	OFF	Normal mode
	ON	Clear UDACT message log of unsent events
6	OFF	Reserved for factory use -- do not change
7	OFF	Speaker is in silent mode (normal mode)
	ON	Speaker is on (for installation troubleshooting)
8	ON	Normal mode
	OFF	Serial programming mode (comm. with PC)

Format	Switch 1	Switch 2	Switch 3
Contact ID	OFF	OFF	OFF
SIA	ON	OFF	OFF

All other combinations are currently reserved.

Table 3: SIP switch settings (SW1)

If using the PC Programmer, refer to its manual.

If using a Tracker panel, enter programming mode and navigate to System Options. DACT settings are option 8. Continue as follows.

1. The screen will display DACT OPTION: N. Change the N to a Y to enable the DACT.
2. The screen will then show DACT options for changing the account number and phone numbers. Use the keys below to set the options.

Key	Action
down arrow	To move to an option
number keys	To enter digits
ENTER	To save and return to the previous menu when done programming these options
SILENCE	To return to the previous menu without saving
RESET	To exit programming mode.

Table 4: Tracker panel programming keys

To reprogram the test time, use a PC with Tracker PC Programmer version 4.0.16 or above. In System Setup, Communications tab, click the "Set Test Time" button, then follow the directions given by the program. Connection to the UDACT's serial port will be required (see Figure 1).

The SIP switch, SW1, can be used to program several settings. The default and normal setting for all switches on SW1 is the OFF position. See Figure 3 and Table 3 for settings.

OPERATION

Normal conditions

When the DACT is communicating normally with the fire panel, the Poll/Event LED flashes periodically. The Fault LED is off when the DACT has no faults. Other LEDs may be flashing if the DACT is reporting to the central station, but otherwise they are normally off. See Table 5 for a description of each LED.

Fault conditions

The DACT flashes the Fault LED when it recognizes a fault condition on itself. The following are the possible fault conditions.

- Loss of communication with the fire panel. The DACT will attempt to communicate a trouble condition to the central station.
- Low or missing phone line voltage (6VDC threshold)

Reports to the central station

When reporting to a central station, the DACT will attempt to complete the call until the communication is successful or the maximum number of attempts has been reached. It will attempt 5 times on the primary line, then 5 times on the secondary line before aborting. Both phone lines will be in trouble at this point. The periodic automatic report will still be attempted at the regular time. If another subsequent event occurs on the panel, the DACT will start the process over, and if it can communicate successfully, will send the events that were not transmitted before.

To clear the DACT's memory of any unsent events, do the following:

1. Move SIP switch #4 to ON
2. Move #5 to ON for at least 5 seconds
3. Move #5 to OFF
4. Move #4 to OFF

A periodic report tests each phone line every 24 hours.

Label	Color	State	Indication
Fault	Yellow	Flashing	The UDACT is in a fault condition. LED turns off when fault condition is restored.
Poll / Event	Red	Flashing	Flashes periodically when communicating with the panel.
		Steady	Indicates that one or more events are pending transmission to the central station.
Status	Yellow	Flashing	Indicates proper operation of UDACT processor and firmware.
CD (carrier detect)	Red	Flashing	Begins to flash after the DACT dials the phone line. Continues to flash until a valid handshake is received from the central station.
		Steady	The LED is on while the DACT has an active session with the central station. It turns off at the end of the phone call.
TXD (transmit)	Red	Flashing	Flashes while the DACT is transmitting data to the central station.
RXD (receive)	Red	Flashing	Flashes while the DACT is receiving data (acknowledgements) from the central station

Table 5: LED indicators

Event description	Event code
Fire restoral, status event	601
Fire alarm	110
Fire trouble	300
Fire prealarm	118
Fire supervisory	200
Fire return to normal	654
Periodic DACT report (begin / end)	602 / 611

Table 6: Contact ID event types.

Event description	Event code
Fire restoral, status event	FR
Fire alarm	FA
Fire trouble	FT
Fire prealarm	FP
Fire supervisory	FS
Fire return to normal	FJ
Periodic DACT report (begin / end)	TS / TE

Table 8: SIA event types

Tracker module	Circuit number (decimal)	Circuit number (hex)
System (misc device)	00 or 17	00 or 11
Group	00 or 17	00 or 11
T8000-LC	01 - 16	01 - 10
T8000-MBC/MCC (NACs, etc)	17	11
T8000-CM	18 - 23	12 - 17
UDACT	24	18
T8000-SRM	25 - 30	19 - 1E
T8000-LDV	31 - 34	1F - 22

Table 7: Tracker circuit numbers

Contact ID event format

The Contact ID message contains the following:

[Q] [MM] [EEE] [CC] [AAA]

Q = Event qualifier: 1 = new event, 3 = restoral, 6=resend

MM = Always 18

EEE = Event code: See Table 6

CC = Tracker circuit number (in decimal): see Table 7

AAA = Address

Example:

1 18 110 02 003

Some receivers may present this in the form Event=110 G=02 C=003

Panel has an alarm on loop (circuit) 2, point address 3.

SIA event format

The DACT sends the same information as the Contact ID format, plus some additional information. The SIA message event block consists of the following:

N[EE] [CC] [AA] ^ [MM/DD] ^ [TEXT]

N = New event block header

EE = SIA event code: see Table 7

CC = Tracker circuit number (in hex): see Table 7

AA = Address (in hex)

MM = Number of month

DD = Number of day of the month

TEXT = Text part of the message. The hex numbers in CC and AA are converted to decimal numbers in this part of the message.

Example:

NFA0203^01/31^10:00:00 02:003 Point Alarm

Panel has an alarm on loop (circuit) 2, point address 3 that occurred on January 31 at 10:00 AM.

ORDERING INFORMATION

Model	Stock No.
Universal DACT (T8000-UDACT)	T-UDACT
External enclosure	T8000-EXP
External enclosure	T8000-EXP5RC
Programming cable	T8000CA-CBL

SERVICE

To get help with problems or questions not covered in these instructions, contact:

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Harrington Signal Inc.
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Moline, IL 61265
(800) 577-5758

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