



# CITY OF LODI

# COUNCIL COMMUNICATION

**AGENDA TITLK:** Discuss City-mitored Silent Alarm Service  
**MEETING DATE:** August 5, 1992  
**PREPARED BY:** City Manager

**RECOMMENDED ACTION:** That the City Council direct staff to discontinue the City-monitored silent alarm service.

**BACKGROUND INFORMATION:** At its regular meeting of Wednesday, March 4, 1992 the City Council received a report from staff requesting that the Council concur in the action of staff to discontinue the silent alarm service monitored by the Police Department. Attached (Exhibit A) is a copy of the Council Communication of that date which addresses this matter. Nothing has occurred since then to alter the information and position presented in that report.

At the March 4 meeting, following a lengthy discussion, the city council directed staff to survey the business community to determine the level of interest. The survey form was developed with the assistance of Mr. David Rice, owner of Bitterman's Jewelers, 10 N. School Street. Mr. Rice has been the leading proponent of the City of Lodi remaining in the business of monitoring a silent alarm service. The survey form was mailed, with a self addressed return envelope, to 228 businesses. Of this number, only 25 indicated an interest in subscribing to such a service, although at this time we do not know the costs to individual businesses. It is interesting to note that not a single bank or savings and loan institution expressed an interest in such a service. Bitterman's Jewelers was the only jewelry store in the City expressing interest. Police Captain Larry Hansen coordinated the survey and a copy of his compilation of the results is also attached (Exhibit B). He will be in attendance at Wednesday night's meeting to answer any questions Councilmembers may have.

It is the staff's position that the City's remaining alarms can be adequately served by a private alarm company or by an alternate method thereby eliminating the need for the alarm panel as it presently exists or its replacement.

**FUNDING:** None required

Respectfully submitted,

Thomas A. Peterson  
 City Manager

TAP:br

Attachments

CCCOM561/TXTA.07A

APPROVED \_\_\_\_\_

THOMAS A. PETERSON  
 City Manager



recycled paper



# CITY OF LODI

## COUNCIL COMMUNICATION

AGENDA TITLE: Discontinue Silent Alarm Service Monitored by Police Department  
 MEETING DATE: March 4 1992  
 PREPARED BY: City Manager

**RECOMMENDED ACTION:** That the City Council concur in the action of staff to discontinue the silent alarm service monitored by the Police Department.

**BACKGROUND INFORMATION:** Last summer the City Council was advised via a memorandum that it was the City's intention to terminate the silent alarm service monitored by the Police Department. That memo advised that "unless I (City Manager) hear from Councilmembers to the contrary, we will move ahead with this effort...." A second memo was sent to the City Council last November referencing the earlier memo and stating that "we are now ready to do so (terminate) and will proceed as planned."

The Police Department, in a letter dated January 3, 1992, advised the 28 subscribers to this service that the department would no longer maintain the silent alarm board. The letter gave a disconnect deadline of February 6, 1992, with a provision for a 30-day extension from that date if the time frame created a hardship. This deadline was subsequently extended an additional 30 days to April 6, 1992. Two months have elapsed since the notification letter was mailed and as of this writing the Police Department has received just two calls of complaint. One complainant was unhappy initially, but understood the reasons for the action. He was granted a 30-day extension and advised the Police Department that he was moving ahead with addressing his silent alarm needs. The only other complaint was received from Mr. David Rice, owner of Bitterman's Jewelry, 10 N. School Street, who appeared before the City Council at its regular meeting of Wednesday, January 15, 1992, to present his protest in person.

There are a small number of City and County work stations and equipment rooms connected to the system and the dispatchers will continue to monitor those until the system completely "crashes." Over half of these are located in the Public Safety Building (Police Department) itself. These alarms are almost never activated and thus pose little, if any, additional load on the dispatchers. Upon the complete failure of the existing alarm system, the City will evaluate alarm system technologies at that time and recommend action as deemed appropriate.

APPROVED \_\_\_\_\_

THOMAS A. PETERSON  
City Manager



AGENDA TITLE: Discontinue Silent Alarm Service Monitored by Police Department  
MEETING DATE: March 4 1992  
Page Two

The reasons for the decision to terminate this service were enumerated in the original memo distributed to the City Council. They bear repeating:

- . It has been determined that this silent alarm board operation is obsolete.
- . The system has become periodically unreliable. and we are experiencing problems and an increasing difficulty in locating parts.
- . We have created a false sense of security for those businesses currently tied into the system.
- . There exists the potential of City liability and as a result, the majority of California cities no longer provide this service.
- . There are a number of local alarm companies available to provide this service.

AS a direct result of Mr. Rice's requests for additional information, proposals to install a replacement system were solicited from four private alarm companies. Two were Lodi firms; one in Stockton; and one in the Bay Area (San Mateo). The bids ranged widely from a low of \$14,800 to a high of \$44,649. The range would lead one to logically conclude that the various equipment proposed also varied widely in capabilities.

The issue here is not whether a silent alarm system can be installed at a cost of \$14,000 or \$44,000. The issue is: should the City of Lodi remain in the silent alarm business? It is the recommendation of staff that the City should not. The Dispatch Center is already crowded with calls for service, many of which are of an emergency nature, and some of which bear directly on the life safety of the officers involved. In the midst of this activity, the City's dispatchers should not be saddled with the additional burden of having to prioritize responses to silent alarms. The department has always, and will continue to respond to silent alarms. But the screening of these alarms should be the responsibility of private alarm companies who are in the business of providing this kind of service. The fact that approximately 90%-95% of the silent alarm calls the Police Department receives are "false alarms" lends further support to the City's termination of this service. It is important to note that there remains in San Joaquin County not a single other law enforcement agency :till in the silent alarm business.

AGENDA TITLE: Discontinue Silent Alarm Service Monitored by Polite Department  
MEETING DATE: March 4 1992  
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Finally, there are significant numbers of previous subscribers to the service who have already made arrangements to convert their alarm systems to private alarm companies. They have done so at no small expense. It has cost them money. For example, all of the banks and savings and loan institutions are no longer connected to the City's silent alarm board. With the exception of Mr. Rice, the City has not heard from any of the remaining handful of businesses and residents who had previously subscribed to this service. Having received no inquiries from these individuals in the two months since the original contact regarding the termination of service was made, we can only assume that they have either made other arrangements or have concluded they have no continued need for alarm services.

To now renege on the City's prior announcement that it would be terminating this service would be most unfair to those businesses and residents who have taken the City at its word.

FUNDING: None required

Respectfully submitted,



Thomas A. Peterson  
City Manager

TAP:br

L O D I P O L I C E D E P A R T M E N T

M e m o r a n d u m

EXHIBIT B

To: Thomas Peterson  
City Manager

From: Captain Larry D. Hansen  
Patrol Division Commander

Date: July 27, 1992

Subject: BUSINESS ALARM SURVEY

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On June 24, 1992 the alarm monitoring survey was mailed to 228 city businesses. The following results were noted:

1. 37 surveys were returned (unopened) with no forwarding address
2. 191 surveys were assumed to be delivered
3. 57 (of 191) responses were completed and returned to Lodi Police Department
- A. This is a survey return rate of 30%
5. Of the 191 businesses who received the survey, 25 (or 13%) indicated they would like to be connected to Lodi Police Department

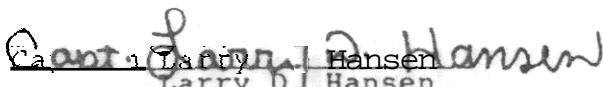
Included with this memo are the business alarm survey results, with the following attachments:

- A. Businesses interested in connecting to the alarm system
- B. Businesses not interested in connecting to the alarm system
- C. Current alarm subscribers (a total of 9)
- D. City alarms

Based on the results of this survey, it is my recommendation that the City of Lodi discontinue the alarm monitoring service. I have consulted with a private alarm company and they have determined they could monitor all city alarms, thus relieving us of the alarm monitoring business. However, Lodi Police Department Dispatch could continue to monitor our existing "panic buttons".

I believe the results of the survey offer an interesting profile of the businesses in our community. I would refer you to the summary of the survey results for any further analysis.

Respectfully submitted,

  
Larry D. Hansen  
Patrol Division Commander

LDH: jh

**A**  
**BUSINESS ALARM SURVEY RESULTS**

1. Business name: (Addresses listed on Attachments A & B):

<u>Interested in System (A)</u>	<u>Not Interested in System' (B)</u>
Poser's TV and Radio	King Videocable
Apache Armory	Longs Drug Stores #48
Bitterman's Jewelers	Danz Jewelers
Nick's Gun Works	Burtons Shoes
Al's Wheel & Brake	Valley Ind.
Lodi Coin & Precious Metals	Plaza Liquors #2
Midas Muffler and Brake	Newman & Ramsey Insurance
Lodi Sporting Goods	Country Kitchen
Sak's TV and Home Furnishings	Lodi Video Station
Lodi Funeral Home	Doors Plus, Inc.
Robinsons Western Store	Christensens Fashions
Baumbach and Piazza	Cherokee Auto Body
Star Market #1	Lodi Fab Industries
Air Pacific Compressors, Inc.	Bello Cabinets
VariPro System	Lodi Fisco
Gannon Trucking	Stan's Business Machines
M & R Company	E & L Market
Radio Plus	Farmers 6 Merchants Bank
Jack in the Box	Dobler's Ski Cottage
Dependable Precision	Wright Insurance Agency
Lodi Warehouse Distributors	Michele's Antiques
Ag Industrial Mfg., Inc.	Hollywood Cafe
Guarantee Repair Service	Lodi Metal Tech., Inc.
Star Market #12	The Toggery
Ehler's Auto	Wallace Computer Services
	San Joaquin Vet. Clinic
	Allied Disc Grinding
	Ming's Smorgi Restaurant
	Radio Shack
	Great Adventures
	Lodi Tent & Awning
	Bank of Lodi

2. Type of business:

(See Attachments A and B)

3. Identify your risk concern:

High Risk:		
Expensive inventory - easily carried away	17	30%
Moderate Risk:		
Moderate to expensive inventory - easy to difficult to carry away	27	47%
Low Risk:		
Low to medium price inventory - easy to difficult to carry away	13	23%
	57	100%

4. Describe your concerns for employee safety:

Four respondents expressed concern about employee safety.  
 Eleven respondents expressed concern about robbery.

5. Type of your existing alarm system:

A. Silent	3	5%
B. Audible	10	18%
C. Silent & Audible	43	75%
D. None	1	2%
	<hr/>	
	57	100%

6. Does anyone monitor your alarm system?

YES	53	93%
NO	4	7%
	<hr/>	
	57	100%

7. Please identify who monitors your system.

Bay Alarm	16	28%
American Alarm Electronics	12	21%
Alamo	5	9%
Lodi Police Dept.	4	7%
Sonitrol	3	5%
No Response	3	5%
Lodi Security System	3	5%
Valley Alarm	2	3%
ADT	2	3%
None	1	2%
The neighbors do	1	2%
Honeywell Protection	1	2%
Tandy Security System	1	2%
Centurion Alarm	1	2%
The System Alarm Co.	1	2%
Advanced Alarm Technology	1	2%
	<hr/>	
	57	100%

8. Do you own your alarm system?

YES	33	58%
NO	22	38%
NO RESPONSE	2	4%
	<hr/>	
	57	100%

3. Is your system serviced by an alarm company?

YES	50	88%
NO	6	10%
NO RESPONSE	1	2%
<hr/>		
	57	100%

10. Do you have an alarm service contract with your alarm company?

YES	43	75%
NO	13	23%
NO RESPONSE	1	2%
<hr/>		
	57	100%

11. Do you have a current monitoring/maintenance agreement with your alarm company?

YES	47	82%
NO	10	18%
NO RESPONSE	0	0%
<hr/>		
	57	100%

12. Do you have a current agreement for response time?

YES	14	24%
NO	42	74%
NO RESPONSE	1	2%
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	57	100%

13. Do you have an agreement with your alarm company to call you before the Lodi Police Department is called?

YES	21	37%
NO	32	56%
NO RESPONSE	2	3.5%
YES AND NG	2	3.5%
<hr/>		
	57	100%

**Comments:**

1. Police called first
2. We have good reason on several occasions
3. Call police first
4. They call both depending on extent of break in
5. When select zones are activated and during normal working hours



14. What is your estimate of how many "employee error" type alarms you have on a monthly basis?

a. None	32	560
b. .5 a month	6	100
c. 1 a month	6	10%
d. 1-2 per year	10	180
e. 5 a month	1	2%
f. No Response	2	40
<hr/>		
	57	1000

15. What is your estimate of how many "equipment malfunction" type alarms you have on a monthly basis?

a. None	33	580
b. .5 a month	5	90
c. 1 a month	4	7%
d. 1-2 per year	11	19%
e. 5 a month	1	20
f. No Response	3	50
<hr/>		
	57	1000

16. How many burglaries, unauthorized entries, and vandalisms have you had in the past year?

a. None	41	72%
b. 1 Per Year	6	11%
c. 2-4	3	50
d. 5-8	4	7%
e. 12-15	2	3%
f. No Response	1	20
<hr/>		
	57	1000

17. Do you use special pass codes with your alarm company?

YES	43	760
NO	11	19%
NO RESPONSE	3	5%
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	57	100%

18. Do you have an alarm permit issued by the City?

YES	40	70%
NO	10	18%
NC RESPONSE	7	12%
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	57	100%

19. Would you be interested in connecting to an alarm system monitored by the Lodi Police Department at a cost to be determined?

YES	25	<b>440</b>
NO	29	51%
NO RESPONSE	<b>3</b>	<b>5%</b>
	<hr/>	
	<b>57</b>	100%

Comments:

- 1) Mildly interested
- 2) If no other service is needed
- 3) If cost is reasonable
- 4) Perhaps, if more prompt response could be assured
- 5) Corporation would not sanction
- 6) Possibly, we're fairly happy with our current setup.
- 7) Low cost = interest.
- 8) Not if I have to maintain a secondary system
- 9) Unless the cost is less than I pay now
- 10) Too many business costs now
- 11) Would be too much money
- 12) I feel that the private companies can and are doing a great job
- 13) I do not feel that our police department should have to service private businesses when other means are available

20. If it were possible for you to connect to an alarm system monitored by the Lodi Police Department, would you be willing to establish a system that is also simultaneously monitored by a private alarm company?

YES	24	42%
NO	<b>24</b>	42%
NO RESPONSE	<b>8</b>	14%
MAYBE	1	<b>2%</b>
	<hr/>	
	<b>57</b>	<b>100%</b>

**NOTE:** Of the 25 respondents who said they would like to be connected to LPD, 3 said they were not willing to establish a separate system and 1 said maybe. Of the 29 respondents who said they would not like to be connected to LPD, 3 said they were willing to establish a separate system.

Comments:

- 1) Not unless you think it is necessary
- 2) Perhaps, if a more prompt response time could be assured
- 3) Already done
- 4) We currently have such a system

- 5) If confusion as to responsibility was eliminated between the two services
- 6) Maybe
- 7) If the cost was not too high, and the city police department recommended them as a reliable service
- 8) In existence at our business now
- 9) Possibly, depends on cost involve?.
- 10) Already monitored by private alarm company
- 11) Depends on cost
- 12) Perhaps, if it were a free service
- 13) I would not be willing to pay the additional cost involved as my private system has been adequate for 9 years
- 14) If no charges were incurred

21. Are you currently satisfied with your present alarm company?

YES	47	<b>82%</b>
NO	<b>6</b>	11%
NO RESPONSE	4	<b>7%</b>
<hr/>		
	57	100%

Comments :

- 1) Not completely - the time taken to notify police of alarm is not consistently fast enough
- 2) Lodi Police Department is solely responsible for our alarm monitoring
- 3) Not applicable, Lodi Police Department only monitors alarm
- 4) I would feel safer if we were monitored by our police department
- 5) Since I got rid of my other alarm company, I haven't had any problems, with the other company, I was robbed 3 times

22. **Does** your present alarm company offer guards or contract service personnel to secure your premises in the event of window smash/burglary at your business?

YES	7	12%
NO	<b>40</b>	70%
NO RESPONSE	10	<b>18%</b>
<hr/>		
	57	100%

Comments :

- 1) They will arrange to provide **this** service at additional cost
- 2) Not sure
- 3) Not sure
- 4) Not that I know of
- 5) **Very interested in direct police monitoring**

Survey Results  
Page 7

- 6) Not applicable
- 7) Not sure
- 8) Unknown
- 9) Not applicable
- 10) Damage is covered and repaired, and employees guard store
- 11) Unknown
- 12) Unknown
- 13) Unknown
- 14) Unknown
- 15) We are required to secure alarm after each alarm condition

BUSINESSES INTERESTED IN CONNECTING  
TO AN ALARM SYSTEM MONITORED BY LPD  
(Page 1 of 2)

Poser's TV and Radio  
208 S. School Street

Apache Armory  
920 S. Cherokee Lane #F

Bitterman's Jewelers  
10 N. School Street

Nick's Gun Works  
440 E. Lodi Avenue

Al's Wheel & Brake  
334 E. Lockeford Street

Lodi Coin & Precious Metals  
105 W. Walnut Street

Midas Muffler and Brake  
325 E. Kettleman Lane

Lodi Sporting Goods  
858 W. Kettleman Lane

Sak's TV and Home Furnishings  
200 N. Sacramento - Service Dept.

Sak's TV and Home Furnishings  
210 W. Pine Street - Sales Dept.

Lodi Funeral Home  
725 S. Fairmont Avenue

Robinsons Western Store  
101 E. Lodi Avenue

Baumbach and Piazza  
323 W. Elm Street

Star Market #1  
741 S. Cherokee Lane

Air Pacific Compressors, Inc.  
826 N. Sacramento Street

VariPro System  
711 N. Sacramento Street

BUSINESSES INTERESTED IN CONNECTING  
TO AN ALARM SYSTEM MONITORED BY LPD  
{Page 2 of 2}

Gannon Trucking  
1123 E. Vine Street

M & R Company  
33 E. Tokay Street

Radio Plus  
335 E. Kettleman Lane

Jack in the Box  
419 W. Lodi Avenue

Dependable Precision  
1111 S. Stockton Street

Lodi Warehouse Distributors  
320 E. Lockeford Street

Ag Industrial Manufacturing, Inc.  
110 S. Beckman Road

Guarantee Repair Service  
101 Commerce Street

Star Market #2  
2525 S. Hutchins Street

Ehler's Auto  
217 N. Sacramento Street

ATTACHMENT B

**BUSINESSES NOT INTERESTED IN CONNECTING  
TO AN ALARM SYSTEM MONITORED BY LPD  
(Page 1 of 2)**

King Videocable  
1521 S. Stockton Street

Longs Drug Stores #48  
100 W. Lodi Avenue

Danz Jewelers  
220 S. School Street

Burtons Shoes  
17 W. Pine Street

Valley Ind.  
1313 S. Stockton Street

Plaza Liquors #2  
2420 W. Turner Road

Newman & Ramsey Insurance  
402 W. Pine Street

Country Kitchen  
1327 W. Lockeford Street

Lodi Video Station  
550 S. Cherokee Lane #A

Doors Plus, Inc.  
314 N. Main Street

Christensens Fashions  
5 N. School Street

Cherokee Auto Body  
314 N. Cherokee Lane

Lodi Fab Industries  
1029 S. Sacramento Street

Bello Cabinets  
1109 Black Diamond Way

Lodi Fisco  
1150 Victor Road

Stan's Quality Business Machines  
469 Hurray

BUSINESSES NOT INTERESTED IN CONNECTING  
TO AN ALARM SYSTEM MONITORED BY LPD  
(Page 2 of 2)

E & L Market  
844 S. Central Avenue

Farmers & Merchants Bank  
121 W. Pine Street

Dobler's Ski Cottage  
545 W. Lockeford Street

Wright Insurance Agency  
2100 W. Kettleman Lane

Michele's Antiques  
15 N. Cherokee Lane

Hollywood Cafe  
315 S. Cherokee Lane

Lodi Metal Tech., Inc.  
213 S. Kelly Street

The Toggery  
28 S. School Street

Wallace Computer Services  
1831 S. Stockton Street

San Joaquin Veterinary Clinic  
523 W. Harney Lane

Allied Disc Grinding, Inc.  
1003 E. Vine Street

Ming's Smorgi Restaurant  
1040 W. Kettleman Lane

Radio Shack  
230 W. Kettleman Lane

Great Adventures Travel  
605 W. Kettleman Lane

Lodi Tent & Awning Co., Inc.  
1617 Ackerman

Bank of Lodi  
701 S. Ham Lane

ATTACHMENT C

CURRENT ALARM SUBSCRIBERS

09        Posers TV and Radio  
          208 S. School Street

10        Apache Gun Works  
          920 S. Cherokee Lane

21        Bitterman's Jewelers  
          10 N. School Street

36        Nick's Gun Shop  
          440 E. Lodi Avenue

51        Al's Wheel & Brake  
          334 E. Lockeford Street

          Lodi Coin & Precious Metals  
          105 W. Walnut Street

13        Ehlers Garage  
          217 N. Sacramento Street

28        Beckman Residence  
          107 N. Avena

31        Big O Tires  
          302 N. Cherokee Lane

38        Borelli Jewelers  
          9 N. School Street

## CITY ALARMS

ZONE#	ALARM/LOCATION
01	Water Flow Alarm Police Basement
02	Smoke Alarm/Phone Computer Area
05	Heat Alarm Generator Room
07	Criminal Court
12	Boiler Room Diesel Police Department
14	Sewer Pit Pump Police Basement
15	Computer Room Alarm City Hall
22	Panic Alarm Carnegie Forum
24	Judge - LMC Department 1
26	City Hall Finance
27	City Manager Panic Button
40	Jail Smoke Alarm
48	Gasoline Sump Generator Room
52	Court - Department 2
54	Burglar Alarm Carnegie Forum
75	District Attorney Lodi Office

**BITTERMAN'S**  
10 North School Street  
Lodi, CA 95240 / 369-4593 *Fine Jewelry*

Diamonds • Genuine Gems • Custom Design • Watch & Jewelry Repair

cc-6  
cc-16

April 10, 1992

The Honorable James W. Pinkerton  
Mayor of the City of Lodi  
221 West Pine Street  
Lodi, California 95240

Dear Mr. Mayor:

At the City Council meeting of March 4, 1992 the Council moved that a survey should be undertaken to determine what interest there may be in continuing the direct monitoring of alarms by the city's police department dispatch center. It was further determined that the concerned merchants, City Council and City Staff should work together to phrase the survey questions and that there should be some indication of costs involved in continuing the system.

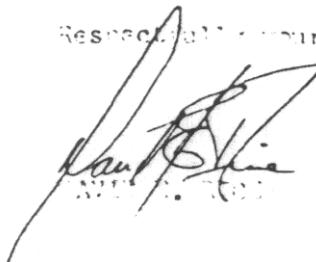
The merchants committee has now completed a rough draft of the survey which is enclosed. Also please find enclosed copies of three alarm monitoring systems specifications which we would ask be made available to your data processing department (Mr. Martin Jones) as costs can be reduced by having a system directly attached to the police department's new computer system. In talking to Capt. Hansen, he saw no apparent objection to a tie-in with the new C.A.D. system but this needs further investigation to insure compatibility, etc.

To briefly address the matter of liability, I have contacted Lt. Maskins of the South San Francisco Police Department, Bill Habbkirk of the Santa Rosa Police Department and the National Emergency Number Association (NENA) regarding this issue. South San Francisco and Santa Rosa consider the monitoring of alarms to pose no more serious threat of liability than most other police functions. NENA, which is concerned solely with the 9-1-1 emergency system feels that while this is not their area of expertise, there should be no increased liability except in the instance of criminal negligence whereupon the City would not be immune no matter what the circumstances.

Finally, it is our understanding that the survey should be a co-operative project involving the merchant's committee, the City Council and City Staff. Naturally, we would appreciate being able to review the final draft prior to survey to insure that all parties are aware of the exact wording, etc.

Thank you again for the opportunity to pursue this matter.

Respectfully yours,



Paul A. Jones  
April 10, 1992

cc: Councilman: Anderson  
                  Perrino  
                  Hickson  
                  Junker  
                  City Manager Anderson  
                  Capt. M. Hansen

Enclosures

The City of Lodi, in association with a group of Lodi Merchants, is surveying all current commercial alarm permit holders to determine the feasibility of continuing the direct monitoring of burglar alarms by the Lodi Police Department.

The system being considered would be in addition to your current alarm system and is not meant to replace your current alarm arrangements.

The benefit of a direct system include:

1. Faster police response to an alarm at your location.
2. Increased reliability due to having a second connection, i.e. one to your current central station and one to the police department dispatch center.
3. Lower insurance rates by having a direct police department hook-up. (In some cases, your insurance company representative can advise if you qualify for reduced rates.)

Costs of a direct system include:

1. Increased annual fees for city hook-up (to be determined after completion of survey as these costs will be affected by the number of subscribers on the direct monitoring.)
2. Possible increased telephone company costs depending upon the level of line security you need.
3. Increased cost of transmission equipment needed at your business. Your current alarm equipment can probably be adapted at minimal cost. Check with your alarm company representative for specific information.

Please complete and return the following survey form to assist us in determining the feasibility of a direct system.

SURVEY

NAME OF BUSINESS \_\_\_\_\_

TYPE OF BUSINESS \_\_\_\_\_

NUMBER OF LOCATIONS NEEDING PROTECTION IE., MAIN OFFICE, WAREHOUSE, 2nd LOCATION

DO YOU CONSIDER YOUR BUSINESS HIGH RISK \_\_\_\_\_ MEDIUM RISK \_\_\_\_\_ LOW RISK \_\_\_\_\_

WOULD YOU CONSIDER SUBSCRIBING TO A DIRECT HOOK-UP TO THE LODI POLICE DEPARTMENT

IF IT WAS AVAILAEBLE TO YOU?      YES \_\_\_\_\_      NO \_\_\_\_\_

COMMENTS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

PLEASE SEE ATTACHED SHEET FOR SAMPLE COST INFORMATION.

DIRECT POLICE ALARM HOOK-UP

Cost of system is approximately \$18,000.00

Telephone company costs: Maximum of \$718.00 installation of high security line plus monthly costs.  
Medium security line cost of approximately \$120.00 one-time charge plus monthly cost of \$9.00.  
Or possibly no additional cost depending upon phone service now installed at your location.

Cost from your existing alarm company:

Estimates range from \$70.00 one-time charge to \$320.00 one-time charge depending upon your specific equipment.

Cost of subscribing to city system:

Figures discussed have been: One-time charge of \$100.00 for initial hook-up and establishing of data base.  
Annual fee of \$120.00 (Double current rate of \$60.00 yearly)

Example :

50 subscribers at \$100.00 Hook-up	\$5,000.00
50 subscribers at \$120.00 yearly	<u>\$6,000.00</u>
City's first year receipts	\$11,000.00
City's second year receipts	5,000.00
City's third year receipts	<u>5,000.00</u>
System paid for by subscribers	<u><u>\$22,000.00</u></u>

In the event more than 50 subscribers sign-up, the annual fees could be reduced.



DIGITIZE, INC.  
158 Edison Road  
Lake Hopatcong, New Jersey 07849  
U.S.A.  
Telephone: (201) 663-1011  
Fax: (201) 663-4333

FAX TRANSMITTAL TO FAX # 209 334 1938

DATE: March 27

FROM: Shirley Tuttle

TO: Dave Rice

SUBJECT: System 3000

NUMBER OF PAGES 16 (INCLUDING THIS PAGE)

NOTES: Your distributor is

Associated Electronics 510-447-1226

John Skipper

If you have questions please call.

Thank You

# ASSOCIATED ELECTRONICS COMPANY

233 JUNCTION AVE. LIVERMORE, CALIFORNIA 94550 (415) 447-1226

Mr. David Rice  
Bittermans Fine Jewelry  
10 North School Street  
Lodi, CA 95240

April 1, 1992

Dear David.

1. Based on our phone conversation and subsequent letter, the following is my recommendation: The existing system is a digitize DPM 2000 with HPI and DDI interface. The digital receiver is an Ademco model 660.
2. My recommendation is to upgrade to a digitize system 3000 with integral digital dialer receiver DOI-7, and use your existing RPI interface and input card assemblies.
3. The system 3000 has available a standard ASCII output either RS-232 or RS-422 available for CAD. Either digitize can configure the data string to be accepted by your CAD, or your CAD software can be programmed to accept this digitize data string if necessary. We would need to know your CAD software and firmware manufacture to further advise.
4. A few highlights on the system 3000: (1) Longer paper printout display, (2) Individual tones for alarm, trouble and secure. (3) Pass code number protection, (4) Optional negative dialer program - for automatic test reports used on digital communicators and, (5) displayed telephone line failure on dialer receiver line. Many additional features which can be referenced in the enclosed catalogue sheets.
5. Pricing information as requested:

Quantity	Part #	Description	Price
1	425100-001	System 3000-UL	\$9942.00
		(with 150 pages/screen memory 6 keyboard)	
1	400422-001	DDI-7 Dialer Receiver	\$1895.00
		(cards and software)	
		Terms: Net 30 FOB N.J. plus applicable tax	\$11,837.00
		-OPTIONAL-	
1	010001-0029	Negative Dialer Report	\$ 985.00
		(program)	
1	450423-0002	Additional Memory	\$ 400.00
		(if necessary, can be added any time	
		600 screens)	
1	900134-0001	Thermal paper 2 1/4 x 165'	\$ 111.00
		(special thermal paper for 3000)	
1	450113-000	EBB Standby Battery	\$ 675.00
		(possibly you have this or are on a	
		BPS building system)	

Complete Electronic Service

# ASSOCIATED ELECTRONICS COMPANY

233 JUNCTION AVE. LIVERMORE, CALIFORNIA 94550 (415) 447-1226

5. (continued)

Quantity	Part #	Description	Price
1	000001-0024	CAPS Option + or - (Program for CAD response - simplest is 1 way data, more costly is 2 way data. Maximum would be with handshake and acknowledgement etc., generally maximum + or - \$4000.00)	51500.00

6. Installation includes programming, instruction on system use, technical manuals, equipment and labor warranty on equipment provided by us for a period of 12 months following completion.

Installation + or - 52400.00

7. Redundant systems can be anywhere from 2 each fully working units, linked through networking options. (2 unit cost + \$4000.00 - #010001-002 network). A spare unit sitting cold on a shelf (basic system cost). A spare part-card kit #45001-001 at \$4428.75. Associated maintains complete spare parts and/or complete system; less your custom (if any) program - such as CAPS option. Our factory trained technicians are available 24 hours daily for repairs. A service/maintenance/preventative maintenance/ 24 hour annual contract is available.

8. If you have any questions or would like to meet with me and/or see this unit. please call 510-447-1226.

Regards,

  
John Skipper

Complete Electronic Service

RADIO • TELEVISION • INDUSTRIAL ELECTRONICS • INTERCOM - PA SYSTEMS • BURGLAR - FIRE ALARMS • MOBILE RADIO COMMUNICATIONS

**IMPORTANT NOTICE** DIGITIZE, INC. products should be tested every month (under no circumstances less than every three months) to insure complete and proper operation and proper input and output connections.

#### **STATEMENT OF LIMITED WARRANTY**

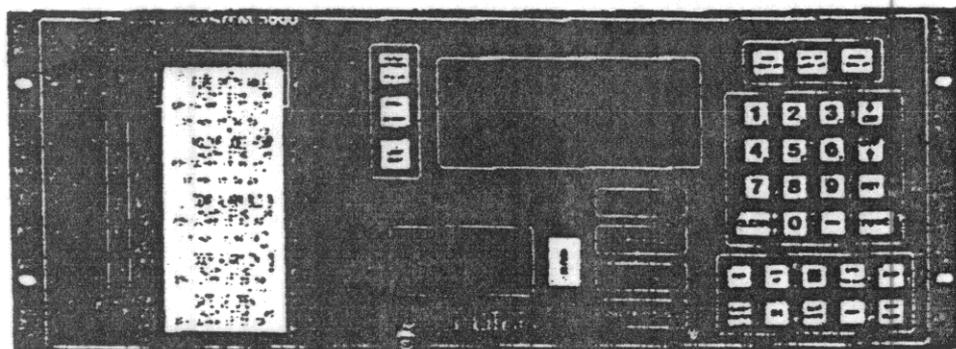
Digitize, Inc. ("Digitize") warrants to its distributors, systems houses, end users, and OEMs ("Buyer"), that products manufactured by Digitize are free from defects in materials and workmanship. Digitize's obligations under this warranty are limited to repairing or replacing, at Digitize's option, the part or parts of the products which prove defective in material or workmanship for 12 months within 15 months after shipment by Digitize. Buyer must pass along to its initial customer or user ("Customer") a minimum of 12 months' coverage within the 15-month warranty period, provided the Buyer gives Digitize prompt notice of any defect and satisfactory proof thereof. Products may be returned by Buyer only after a Return Material Authorization number ("RMA") has been obtained from Digitize by telephone or in writing. Buyer will prepay all freight charges to return any products to the repair facility designated by Digitize and include the RMA number on the shipping container. Digitize will, at its option, either repair the defective products or parts or deliver replacements for defective products or parts on an exchange basis to Buyer, freight prepaid to the Buyer. Products returned to Digitize under this warranty will become the property of Digitize. With respect to any products or part thereof not manufactured by Digitize, only the warranty, if any, given by the manufacturer thereof, applies.

#### **EXCLUSIONS**

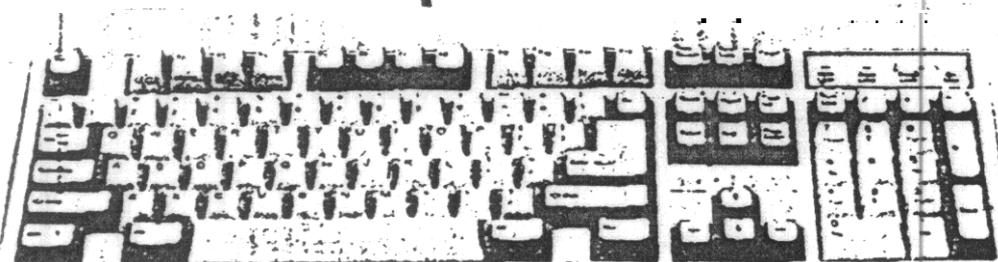
This limited warranty does not cover losses or damage which occurs in shipment to or from Buyer, or are due to, (1) improper installation or maintenance, misuse, neglect, or any cause other than ordinary commercial or industrial application, or (2) adjustment, repair, or modifications by other than Digitize-authorized personnel, or (3) improper environment, excessive or inadequate heating or air conditioning and electrical power failures, surges, or other irregularities, or (4) any statements made about Digitize's products by salesmen, dealers, distributors or agents, unless confirmed in writing by a Digitize officer. If the firmware or hardware is altered or modified by the Buyer, this firmware and hardware is not covered within this limited warranty and the Buyer bears sole responsibility and liability for that firmware and hardware.

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# When people are depending on your system, what system are you depending on?



Keyboard required only for input of initial text.



## You can depend on our System 3000

System 3000 is Digitize's most advanced monitoring system. It will monitor end-of-line, reverse polarity, dry contact, telegraph/McCulloch, digital dialer, multiplex, polling radio, ISODressable™ and custom serial input of data. The output capabilities include radio, point output, coded (telegraph), networking and serial communications to drive such options as remote line printer, remote display, PDD-1840 programmable CRT display, auxiliary CRT and other System 3000's. The serial output can also be used to interface to CGRMS, a full computer graphics response and management system.

The modern appearance and dark color of the unit matches many console decors. Back lighting as well as programmable sound generator will allow your operator to distinguish alarms more accurately.

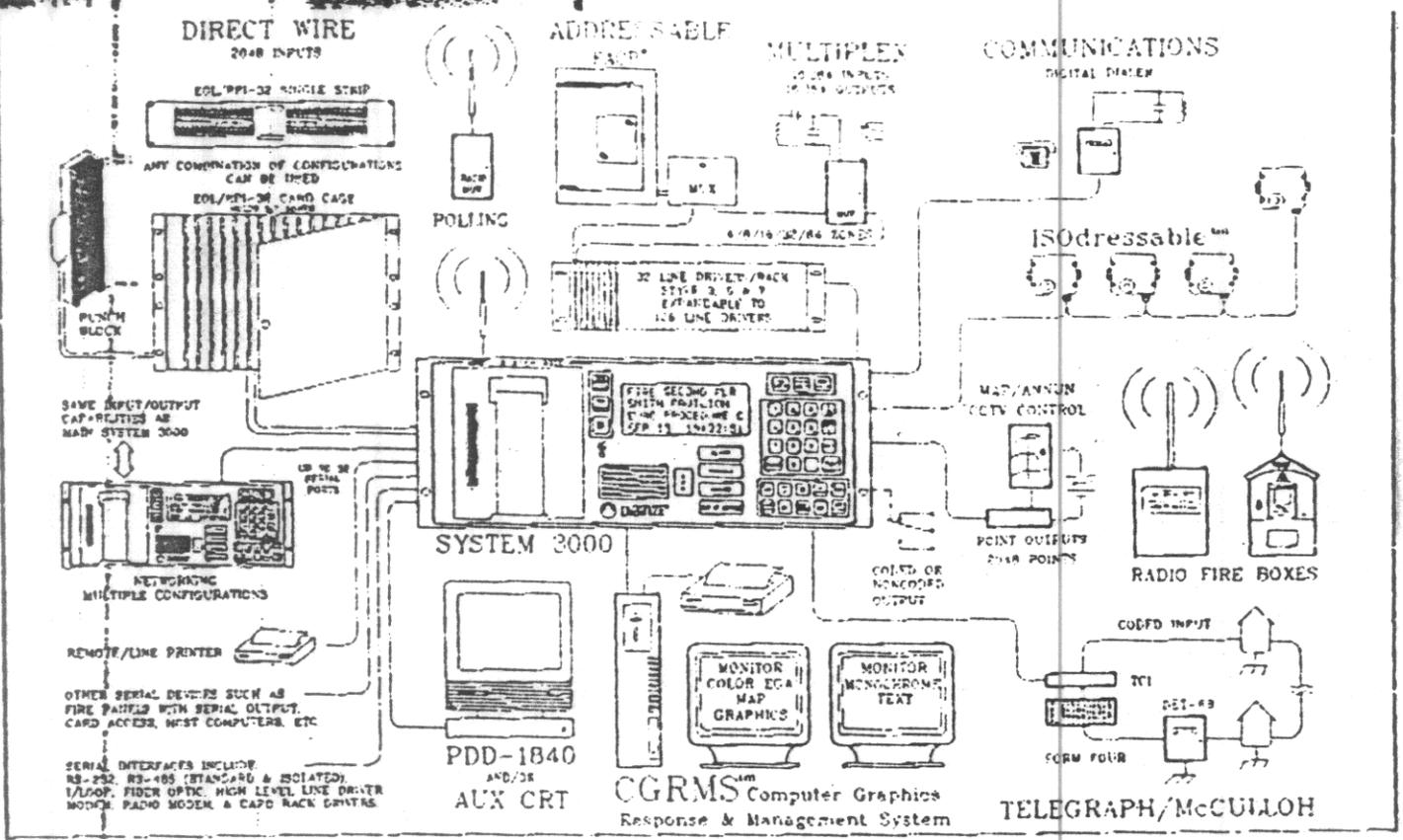
System 3000 uses multi-processor control to maintain the highest throughput of alarms. The System can monitor fire, security and proprietary alarms in addition to process control, temperature and factory office security.

First... when seconds count.™



6 366 560 6/6

# SYSTEM 3000



## FEATURES

### MIX/MATCH OPTIONS

Will allow any single or combination of Inputs and outputs shown. Custom interfaces are available on request.

### MODULAR DESIGN

Allows for growth in your monitoring system. Start with features that are required and add other features as needs change.

### "PLAIN ENGLISH"

Messages are fully field programmable and provide an alphanumeric display and hard copy printout of all incidents. The messages, tailored to the specific monitoring requirements by the user, provide vital information in assisting the operator with response procedure

### FIELD PROGRAMMABLE

Messages can be programmed for each zone, dialer, telegraph, radio or multiplex input. Each input can use up to nine 48 character screens of information and/or one CRT screen of up to 1840 characters. Memory is non-volatile and is in-circuit programmable.

### PRIORITY LEVELS

Eight levels of user programmable input alarm priority: all are field changeable.

### TIME LOG

All changes are logged with date and time.

### PROGRAMS

Various programs allow for customization to fit a particular application, or pick from standard programs such as:

*Day/Night Mode* - Provides user with capability to assign zone, dialer or box to any one or more DAY/NIGHT groups. Up to 512 items can be assigned to any of 8 groups. Fire priority cannot be included in any group.

*Guard Tour* - Allows for different guard loops based on user requirements. Reports an alarm if the guard fails to make a location

*Negative Radio/Dialer Report* - Two separate programs used in conjunction with radio or digital dialer to daily indicate which boxes or dialers failed to report in

*Custom* - Digitize will quote on adding option... tailored to specific needs

## KEY FEATURES

- **Receives and decodes the following:**
  - Direct **wire** EOL, RPI, DCI
  - Digital dialers
  - Multiplex
  - Radio (**polling**)
  - Serial input
  - ISO addressable <sup>TM</sup>
- **Receives alarm up to 9 digits** in length.
- Has 8 levels of alarm priority • **user changeable.**
- **Supports up to 2 MEG** of user **EEPROM** memory.
- **50 field programmable** user screens of memory are standard. Programmable with the use of the external 101-key, **AT** Style keyboard. (Supplied)
- **Built-in thermal printer** for a permanent record of all alarms.
- **Back lit indicators** for a clean appearance in any decor.
- **Over 1 billion sounds/volumes** available for alarm indication.
- **Printer slides and swings out** for easy access to the large roll of thermal paper.
- **BAUD rates** for communications options are programmable from the front keypad.

## OPTIONAL FEATURES

- **Solid state transmitter** to **pulse out** a code for any given input.
- **End of line input** available for one or two alarms based on type of EOL card.
- **Multiplex available** over two or four wire loops.
- **Various digital formats** available for reception.
- **Supports up to 6 radio receiver** interfaces. AM and FM available in 72-76 MHz and military band.
- **Memory available** in chips with 600 screens or as a board with 4800 screens.
- **PDD-1840 programmable dispatchers** display gives a 14" **CRT** readout for all alarm points.
- **Remote line printer** for use with the PDD-1840 or **as** a stand-alone remote printer for the **System 3000.**
- **Point output option** for use with any annunciator or point-driven source. The System can handle a total of 2048 points locally or remote over 1 **wire** pair. The multiplex option expands the point **output** capability by an **additional 16,384 points.**
- **Network option** allows one unit to report changes to one or more remote units.
- **AUX CRT** displays System 3000 user text information on 14" CRT.

## SPECIFICATIONS

### DIMENSIONS

Rack mounted. 7"H x 19"W x 14.5"D.

### POWER

120/220 VAC switch selectable and/or 24 VDC 1 AMP draw at 24 VDC.

### NET WEIGHT

Main unit is 22 lbs.

### MEMORY

150 screens supplied. Memory is available in groups: 600 screens on 32K chips or 4800 screens on 256K boards.

### INPUT

**Direct Wire** - 2048 Input points EOL, RPI and/or dry contact.

**Multiplex Input** - 16,384 Mux Input points.

**Digital Input** - Various formats available: 3/1 slow speed, FSK, DTMF, 4/2 high speed. up to 10,000 accounts.

**Telegraphic Input** - Single circuit, or up to 6 circuit input or groups of 20 circuit inputs to a maximum 240 circuits.

**Network** - Up to 99 System 3000 units can share and select alarm information.

### OUTPUT

**Coded** - Various coded output options: retransmit, transmit different number, compare for transmit, radio transmit.

**Non-Coded** - Code to point, point to point, dialer to point.

**Serial** - Remote line printer, remote display, computer data input and custom serial output.

**PDD-1840** - 14" CRT with up to 1840 characters per event.

**Remote Line Printer** - 80 column Impact printer with 120 character/sec print speed, bi-directional print.

### CONNECTIONS

**Input** - Direct wire and telegraphic interface connected to main unit via 26 pin ribbon cable from external rack mount equipment. Mux Input via style 3.6 or 7. Up to 128 loops are available with line driver racks.

**Output** - Point output interface via 26 pin ribbon cable. Serial output, remote line printer, PDD-1840, CGRMS and custom output are via data cable selected for the option.

### INSTALLATION

All equipment installs in rack mount or free standing cabinet with an opening of 19 inches.

Listed UL 1076 (APOU)

UL 854 (UOJZ, UDTZ & QVAZ)

UL 916 (PAZX)

Suitable for use under NFPA 72 B, C & D

\* FACP available through FCI™

Trademark Acknowledgments

First... when seconds count, ISODressable and CGRMS are trademarks of Digitize Inc.

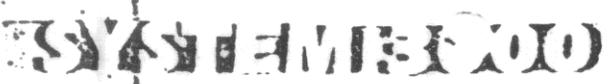
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*Digitize, Inc. designs, develops, manufactures and markets high technology alarm receiving equipment in addition to radio, multiplex and telegraphic sending equipment. There is a variety of optional interfaces from standard to completely custom. Programs such as the event log option can retain 2,048 alarm events to enhance overall operations. All of the products are UL, FM or Pending Approval.*

*Digitize, Inc. was incorporated in 1977. It has been the answer for many private, military and governmental organizations. The company has been recognized by INC magazine as one of the fastest growing private companies in the United States. There are over 3,000 Digitize alarm systems worldwide. All systems are manufactured in the United States and comply with the Buy America Act.*



## CAPABILITIES

The System 3000 operates on 110/220 VAC 50/60 Hz and/or 24 VDC. The front panel has been designed with niemhrane switches for long life and reliable operation. The printer carriage accommodates large rolls of thermal paper for maximum alarm usage. There are four standard TTL input/output serial ports. These can be used with separate configurators for I LOOP, RS-232, RS-442, FSK and fiber optics. The ports can drive such options as the remote printer, remote display, PDD-1840 CKT, CGRMS and other communication devices. Changes to desired port, BAUD rate and parity are field programmable via the front panel keypad.

The System's memory is expandable to a total of 2 MEC of EEPROM for a total of 38,080 screens. Each memory board handles a total of 256K (1/4 MEC). The unit is delivered with 150 screens installed.

The System accommodates direct wire, digital, radio, multiplex and telegraph. Up to 500 monitored devices can be in a non-secure mode at any one time. Any of the input types can be taken out of service on an Individual basis and may or may not be displayed. If power is removed, all out of service information will be saved and restored on power-up.

The System 3000 has the ability to receive up to 2,648 direct wire alarms from reverse polarity, end-of-line, end-of-line dud and/or dry contact of the open or closed type. This input option is available in groups of 32 zones.

Using Multiplex, the System can receive alarms from up to 16,384 end-of-line input points from data gathering modules via style 3, 6 or 7 data links.

The System handles up to six radio receivers, allowing for reception from radio alarm boxes on different frequencies and types and/or manufacture. Receivers are mounted externally and connected by cable to the rear of the unit.

The System receives coded telegraph from any of the following sources: 100mA, 24 VDC, normally open or normally closed. This option is available for a single circuit or up to 6 circuits or in groups of 20 to 240 circuits. Circuit options consist of an alarm monitor, input panel assembly and line cards to configure for the type of input signal.

Using a separate digital dialer receiver, the System can display up to 9999 accounts. It can handle the 10 to 40 PPS formats.

The System 3000's printer Intensity, alarm sounds, alarm volume, BAUD rates and date/time are controlled via the front keypad and can be pass protected. Its alert indicator is a speaker with over 1 billion combinations of sounds and volumes. The unit has 16 alert sound levels for alarms 1 to 8, trouble, secure, keyclick and system errors. It has a separate 'watch dog' buzzer for system failure.

The System 3000's external keyboard is a 101-key, AT style keyboard. The messages for the different alarms are programmed using this keyboard. The dialer and radio alarms allow messages to be field programmed based on customer or radio box number, or optionally by individual zone number. The received number can be up to nine digits in length, permitting multiple hyphens for various dialer length/styles.

The System Indicators are all back lit. When there is a change of status, the section will blink. When acknowledged, the Indicator will be On constantly. The unit also monitors the AC power. Failure of AC power is logged when the System switches to 24 VDC backup.

The SST-3000 Solid State Transmitter allows the unit to pulse out a code for any given input. The make break, ratio and speed of these two output sections are field selectable and are fully programmable.



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\* SPECIFICATIONS  
FOR THE  
DIGITIZE **SYSTEM 3000**

DIGITIZE, INC.  
158 Edison Road  
Lake Hopatcong, NJ 07849  
Tel: (201) 663-1011  
FAX: (201) 663-4333

Part Number: 750180  
Issue Revision: A  
Issue Date: 5/91

INTENT

It is the intent of these specifications to provide the end user with an Alarm Monitoring System that shall, upon receipt of an alarm, instantly indicate to the dispatcher the name, address, type of alarm, identification number of the alarm, plus, date and time of receipt, on a screen sufficiently large enough to enable the dispatcher to read and immediately broadcast, without going to a Rolodex or numerical list of names, or retransmit information to a remote location. The message shall be in Plain English language and be visible to the naked eye from a distance of 15 to 20 feet.

A hardcopy printout shall simultaneously be created on a thermal printer, indicating in Plain English; the type of alarm, identification number, exact time and date of receipt of alarm.

GENERAL TERMS AND CONDITIONS

The equipment to be supplied must comply with the limits set for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of the FCC Rules and Regulations which are designed to minimize radio frequency interference in residential installations.

Sufficient detail and system description shall be furnished with each bid for proper evaluation.

Each bid shall be accompanied by detailed drawing of the proposed Alarm Monitoring System.

Each bid shall contain accurate statements regarding all dimensions, ventilation requirements, input power requirements, wiring requirements as well as all other specifications required.

Bidder shall provide a full explanation of all deviations from the specifications contained within this document.

Bidder shall be the qualified representative of the manufacturer of the equipment specified. Bidder shall submit technical knowledge of the proposed equipment.

Delivery shall be within 90 days, bidder shall state best delivery schedule in their proposal.

### GENERAL TERMS AND CONDITIONS (con't)

Equipment shall be guaranteed against defects in both materials and workmanship for one year from date of delivery.

### SYSTEM EQUIPMENT

The system shall consist of a Control Console with printer and Alpha Numeric display screen - maximum size: nineteen inches (19") wide by seven inches (7") high by thirteen inches (13") deep, rack mounted. Additional equipment that need not be accessible to operating personnel shall be located remotely within the console or in the iraae room.

Equipment and mechanical arrangement should be similar and equal to model System 3000 as manufactured by DIGITIZE, INC. - Lake Hopatcong, New Jersey.

### SYSTEM DESCRIPTION

The system shall be capable of monitoring up to 2,048 alarm circuits received by direct wire or telephone leased lines.

The system shall be capable of receiving alarms from Dry Contacts and/or, End of Line Resistor and/or, Polarity Reversal alarm receiving modes.

The system shall be capable of receiving the dorrect alarm Information from polarity reversal circuits with currents as low as two (2) mA per circuit.

✓ The system shall be capable of receiving signals from digital dialer via non-dedicated telephone lines. The system can display up to 9,999 accounts.

The system shall be capable of receiving signals from digital communicators which produce 10 to 40pps signal formats such as 3-1, 3-1 extended, 4-1, 4-1 extended, and 4-2 formats.

The system shall have the capability of receiving either 100 mA, 24 VDC, or McCullough Loop.

The system shall be able to decode telegraphic type signals such as Gamewell (1/8 to 4 sec. speed), McCullough (1/8 to 2 sec. speed), etc., with any incoming speed from 1/8 to 4 seconds range, without any need for adjustments.

**SYSTEM DESCRIPTION (CON'T)**

The system shall be able to transmit coded signals in an open or closed index format, with in system user programmable non-volatile memory, for programing **Box** timing for number of rounds and the make/break ratio.

The system shall have the capability of receiving multiplex. Using multiplex expands the alarm receiving capability up to 16,384 inputs.

The system shall provide four (4) serial **ports** standard and capability to expand to 32 ports. These serial ports shall be activated with proper program options. Such options shall **include:** printout of zone, dialer, mux or coded alarms, to an 80 column printer as well as multiplex, computer output, networking, programmable CRT, etc. User shall be able to purchase configurator modules with built in lightning protection to configure the ports for RS-232, current loop, RS-422, fiber optic, etc.

The system shall **provide a** three (3) line forty eight (48) character Alpha Numeric message (henceforth called a page) in any combination of letters or numbers as required by the user. The minimum size of display characters shall be at least point thirty three inches (.33") high. Visibility of the message shall be unaffected by lighting conditions or glare **and** shall not fade or wash out.

The system shall have the capability to display Up to eight (8) additional pages of information pertaining to the event received.

The system shall have the capability to provide up to nine (9) additional pages of information per root address, per device (such as an alarm control panel, **data** gathering panel, master box, dialer, mux **pad**, etc).

The system shall have the capability to provide a programmable CRT display **terminal** connected to it. Each CRT **screen** shall provide as a minimum 1840 characters. The memory for the CRT option **shall** be non-volatile without the use of any moving parts such as **disks**.

The system shall be able to password protect: priority FIRE, printer intensity, alarm sounds, alarm volume (independently for each selected sound), communications **PAUSE** rate, number of bits, parity as well as date and time.

SYSTEM DESCRIPTION (con't)

Upon receipt of an alarm, the system shall automatically display a free formatted, Plain English message of any forty eight (48) characters, including the number of digits required to indicate the circuit number. A separate message shall be displayed for each circuit.

The system shall be capable of manually checking the status of any alarm condition at any time and also recall any individual display message upon demand.

The system shall provide multiple levels of priority so that a dispatcher would be shown changes in circuit status in the following order:

- a) FIRE alarms
- b) Seven (7) other alarm priority levels (programmable)
- c) Trouble.
- d) Secure
- e) All circuits not in secure condition that are acknowledged.

Programmability through the keypad of the system to change the rate of alternation of alarm displays from one (1) second, to seven (7) seconds, in one (1) second increments.

Access to additional screens of information pertaining to the subscriber account being displayed are provided by pressing the corresponding lookup button.

The system shall include as a minimum, but not necessarily limited to, the following visual indicators in addition to the Alpha Numeric display:

- a) A red LED for indication that the circuit on the display is in an "ALARM" condition.
- b) A yellow LED for indication that the circuit on the display has a line "TROUBLE".
- c) A green LED for indication that the circuit on the display has been made "SECURE"
- d) A yellow LED for indication that the circuit on the display has been taken "OUT OF SERVICE"

**SYSTEM DESCRIPTION (con't)**

e) A red indicator showing that a circuit has changed status and requires acknowledgment.

f) The continuous display of time and date.

The appropriate ALARM, TROUBLE, SECURE indicators shall blink until the condition is acknowledged.

Back lighting of the visual indicator.

The system shall be furnished with, as a minimum, the following audible indicators:

A sound generator which shall provide programmable combinations of sounds. The sounds shall be programmable so the user can change the sound associated with the priority levels chosen for incoming alarms. This requirement is needed to distinguish a fire alarm from any other type of alarm and to help differentiate this product alarm from other devices in the same room. THIS REQUIREMENT IS ESSENTIAL, NO ALTERNATE WILL BE ACCEPTABLE.

An independent trouble signal (WATCHDOG TINDER) to indicate the loss of the electronic supervisory signal.

Changes in circuit status shall cause the built in speaker to produce alerting sounds of various pitches and duration as programmed by the user.

An Acknowledge Control shall be provided. Activations shall perform the following functions as a minimum:

a) Silence the audible signal which indicates changes in circuit status.

b) Extinguish the red lamp which indicates changes in Circuit status.

c) Log on the printer the time and date of activation including the Circuit number being acknowledged.

d) Activation of the Acknowledge button shall not remove the information from the display for an alarm or trouble indication.

The unit shall contain as a minimum a twenty (20) column thermal printer. The printer intensity shall be programmable from the front panel keypad of the system.

SYSTEM DESCRIPTION (cont)

The printer shall slide out **and** swing open for **accessibility** to the paper. The paper roll shall have the capacity to record approximately one thousand (1000) circuit status changes per roll. **As** a minimum the paper roll shall be 2 1/4 inches wide by 2 3/4 inches in diameter.

The expended paper shall be automatically **rewound** on a take up spool located behind the front panel.

The information recorded by the logging printer shall contain as a minimum, the following data in Plain English format for ease of intelligibility:

- a) The Alpha Numeric data and Circuit number which appear on the first line of the display screen as a minimum. This print shall be in Double Height characters or equivalent means to differentiate the logging of Status, changes from (all other conditions.
- b) New ALARMS shall cause the Circuit number to be printed (on the far right side of the tape.
- c) NEW TROUBLES or SECURES shall cause the Circuit number, to be printed on the far left side of the tape and shall clearly print TROUBLE or SECURE respectively.
- d) All activations of the dispatchers acknowledge control including Time, Dated, and Circuit number being acknowledged.
- e) An automatic permanent record of **all** manual changes made to the Time or Date set controls shall be made.
- f) A record shall be made of all Circuits that are take OUT OF SERVICE or restored to SERVICE: including the time and date of occurrence, Circuit number and condition circuit was changed to. A high priority level password is required to effect these events under priority FIRE.

The unit shall include an operator control to allow for the testing of the print function.

The unit shall automatically store in memory, information which is necessary to be printed, during the time required for the operator to change or make any adjustment to the paper roll. Stored data shall automatically be printed upon restoration of printer to normal operation.

SYSTEM DESCRIPTION (con't)

The operator control panel shall be furnished with touch sensitive keys with audio feedback, properly identified to provide as a minimum:

- a) The inputting of time, date or circuit number
- b) Acknowledging incoming Alarms
- c) Clearing of an acknowledged and logged Alarm from the display screen
- d) The ability to manually look up circuit locations data
- e) Testing of all lamps and sounds
- f) Paper advance on logging printer

Controls for setting time and date shall be limited to authorized personnel by the use of up to a 9 digit password. User shall be able to select from three levels of passwords or allow setting of date and time without a password.

The unit shall contain a real time quartz crystal clock with a variation for not more than plus(+) or minus (-) one and a half (1.5) minutes per year. The unit shall also maintain the correct time and date even in the event of complete system power failure.

Quartz clock shall provide a readout and display of time in either a twelve (12) or twenty four (24) hour format. Time of day shall be indicated in hours, minutes and seconds.

The system shall automatically advance the time and date at the correct intervals so that no adjustment shall be necessary including February 29th in each year which is not a leap year.

In the event of an interruption of power the system shall automatically transfer to a standby power source. Transfer to or from standby power shall occur without any, loss of circuit information, memory or time indication. The system shall record any changes to or from any primary power along with date stamp. The operator shall acknowledge these changes in status of power.

The system shall be of a "supervised" configuration so that an electronic malfunction shall cause an audible ALARM to alert operator of condition.

### SYSTEM DESCRIPTION (CONT)

The system shall be of modular plug-in printed circuit type employing .06 inch thick G10 epoxy laminated board, 2 oz/ copper plated as minimum. Contact fingers shall be gold electroplated.

The system shall contain provisions to accept an internal module which will provide "serial" or "Parallel" data outputs for compatibility with Computer Aided Dispatching Systems.

The system shall be Underwriters Laboratories listed.

The system shall have a detachable keyboard for the purpose of entry, modification, or removal of data from the alarm message display.

In addition to the standard alpha Numeric typewriter style keyboard, the keyboard shall have the capability for editing information through the use of the cursor movement controls of up, down, left and right.

While entering data on the screen the user shall have the capability to **move** the cursor anywhere in the screen area without disturbing any existing data, this will allow the operator to modify the information contained on the screen without the need to re-key the entire screen.

The system shall be password protected so that in order to add, modify, or remove any information, up to a nine (9) character alpha/numeric password shall be required. The password, when entered via the keyboard shall not appear on the screen for reasons of security.

The system shall provide authorized personnel with the ability to create a new password.

Through use of the keyboard, authorized personnel shall have the following capabilities;

- a) The ability to add a new subscriber's alarm information
- b) The ability to modify one (1) or all characters of the alarm message for an existing subscriber's alarm message.
- c) The ability to remove an existing subscribers alarm message.

**SYSTEM DESCRIPTION (CONT)**

The system shall have the ability to provide variable length files for each subscriber. so that any number of pages from (1) through nine (9) may be assigned to that subscriber.

These levels of alarm priority shall be preset as per the requirements of Underwriters Laboratories (Fire first) but so arranged that authorized personnel may modify the levels of priority below fire according to the needs and requirements of the user.

All changes, additions or deletions of information, from the system shall be permanently logged on the logging printer to indicate the subscriber number, the page that was accessed and what functions were performed.

A change of status being received by the system, during the period that information is being added, modified, or deleted, shall cause the system to suspend that operation and display the change of status (new ALARM TROUBLE OR SECURE) to the operator.

upon acknowledgment of the zone status changes, which caused the system to suspend the operation needed to enter new data, the system shall provide a single control which will allow the operator to return to the exact spot of operation that the operator was engaged in prior to the change in status.

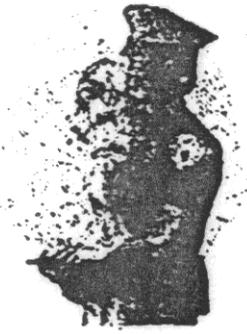
The system shall incorporate non-volatile memory so that a loss of both AC power as well as battery backup power shall not cause the system to lose any data, regardless of the time interval of power loss. Memory shall be system erasable and programmable. The memory shall be expandable to at least 2 Megabytes.

The memory system shall be modular so that additional memory capacity may be added as the requirements grow.

LODI POLICE DEPARTMENT

Floyd A. Williams  
Chief of Police

Thomas A. Peterson  
City Manager



230 WEST ELM STREET  
LODI, CALIFORNIA 95240  
(209) 333-6727

January 3, 1992

Bitterman's Jewelers  
10 N. School Street  
Lodi, CA 95240

Dear Subscriber:

The purpose of this letter is to inform you that the Lodi Police Department will no longer maintain a silent alarm board. The digitized alarm board that we now maintain has become obsolete and we are experiencing increased difficulty in locating parts.

*this item has been replaced with system 3000. Replacement parts are available*

Through the years a number of private businesses have converted to private alarm systems. We regret to inform you that this will now be necessary for the remaining businesses that are still connected to our alarm board.

Therefore, this letter serves as official notice that you have until February 6, 1992 to disconnect and transfer your silent alarm system to a private company. If this time frame creates a hardship, we can arrange for an additional thirty days.

However by March 6, 1992 your system will be disconnected from our alarm board. We cannot recommend a private alarm company for your business.

If you have any questions. please feel free to contact me at 333-6726.

Sincerely,

*Capt. Larry D. Hansen*  
Captain Larry D. Hansen  
Patrol Division Commander

LDH:jh  
cc: Tom Peterson

An Honor to Serve . . . A Duty to Protect

Speed Letter.

To Dave Rice

From Steve Sargent

Subject Telecon with Bill Bliss

NO FOLD

MESSAGE

Bill has given me a rough outline of your need for an alarm monitoring system. Please call me at your convenience to

Date

Signed

REPLY

Discuss the details. We are sending you standard information

NO FOLD

NO FOLD

and a form letter.

Date

3/24/92

Signed

Steve Sargent





SIGNAL OUTPUTS

1. Relay Outputs - The system shall have the capability of outputting up to 96 normally open relay contacts. The relays shall be mounted 16 to a plug-in circuit board, and be accessed through the rear panel of the operator's control unit. Relay operation is to be completely programmable through the plug-in keyboard, with the provisions of up to four (4) relays being energized by one zone input. Relays are to be programmed by zone number, and condition code. The relays shall have a rating of 400ma at 100VDC. The output connections are to be made by means of a 25 pair standard telephone connector for ease of installation.

2. Transistor Outputs - The system shall have the capability of outputting 288 open collector transistor (O.C.T.'s). The O.C.T.'s shall be mounted 40 to a plug-in circuit board, and be accessed through the rear panel of the operator's control unit. O.C.T. Operation is to be completely programmable through the plug-in keyboard, with provisions for up to four (4) O.C.T.'s to be energized by one zone input. O.C.T.'s are to be programmed by zone number, and condition code. The O.C.T.'s are to be able to output 100ma at 48VDC. The output connections are to be made by means of a 25 pair standard telephone connector for ease of installation.

3. Auto/Manual Transmitter Output - The system shall have the ability to either automatically or manually transmit a coded signal. There shall be two output relays, and each relay may be set to any one of sixteen (16) speeds. These coded output relays can be set by an internal switch to operate in either Type "A" or Type "B" Mode, with Type "B" mode being defined for positive non-interfering operation. The transmission shall be accomplished by either accessing the touch screen for manual output, or by preprogramming individual zone and condition codes through the keyboard for automatic output. The transmitter shall be a plug-in circuit board that is accessed from the rear of the operator's control unit.

4. RS232C Output - RS232C ports are available which will dump data upon receipt of an alarm in two modes. Mode 1 will echo the first 4 lines of the message printed on the internal Dot Matrix Printer. Mode 2 will dump the entire message from the edited data base. Mode 3 will output the RS232C data in 95M2818 format to interface to a SIRS or a computer.



A. PRINTER

The printer shall:

1. Provide a permanent record of an **event**, including the time and date of an event for recall purposes.
2. Allow the dispatcher to have available printed messages or sets of instructions.
3. Allow others to remove the message or **instructions** from the printer to carry with them to the site of the **event** for reference purposes.

The printer shall have a minimum width of **32** columns to allow the instructions to be presented in an efficient manner.

At the user's discretion, it shall be possible to print all or part of the message in red or black for special emphasis.

For ready availability and low cost, the printer shall be able to **use** commercially-available plain paper.

If desired, fanfold paper should be usable to allow collection in a fanfold catch tray.

To assure the permanence of the record, the printout must not fade with time as is the case with thermally sensitive paper.

The paper shall be able to store a minimum of 1500 lines of print **per** package.

B. DISPLAY

The display is used to present messages or instructions when an event occurs. The display shall be a cathode ray tube at least seven (7) inches in size to allow major details of messages to be presented in a single display.

Character size should allow the operator to read the display from a distance of ten feet. An orange or green phosphor shall be used for lower operator fatigue, and direct etch for glare-free viewing.

The display shall have the capability to accentuate parts of the message by control of the video attributes, namely all or any part of the display can have increased intensity, be made to blink, or be presented in reverse video, i.e., black on orange instead of orange on black. These attributes shall be available singly or in combination, programmed via the keyboard by the end user.



Message capability shall be up to 32 characters per line and ten lines per page or screen.

The display shall have "touch screen" operating controls to provide the operator with detailed instructions for each operator function and maintenance-free operation.

C. CLOCK/CALENDAR

The clock portion shall provide military time (24 hour) in hours, minutes and seconds. The calendar shall provide month, day and year. Once set, the calendar shall run automatically with no need to be reset at any time including leap years. A printout shall be made each time the clock/calendar has been changed showing that a change was made.

The clock/calendar shall run on 60Hz as available from the power line with its attendant accuracy, averaging less than one second per month deviation. When placed on battery operation, the unit shall switch to a crystal-controlled time base, internally generated.,

D. MESSAGE CAPABILITY AND EDITING

Messages can be of various sizes. If an average message size is 150 characters, a minimum of 500 messages shall be provided with the unit with expansion to 1200 messages possible. Each message shall use space in memory according to its size to allow for efficient use of memory space.

Editing shall be accomplished via a full typewriter-style keyboard. The keyboard can be disconnected without disturbing normal alarm monitoring. When connected, editing can be disallowed by activation of a lockswitch.

The color of the printout shall be selectable on a line-by-line basis.

Highlighting of parts of the display message (reverse video, high intensity, blinking) shall be selectable on a word-by-word basis.

It shall be possible to edit both an alarm message and a completely independent acknowledge message. This shall be possible on any individual alarm at the discretion of the editor.



It shall be possible to include general information in the system such as directories of tow trucks, doctors, hospitals, etc. The message stored would contain only that information with no fixed format. That is, alarm code or zone number need not be part of this message. The edit process must allow up to 32 characters per line for up to ten lines of information to be displayed at one time with the ability to call up additional pages or screens of information. The edit process shall also allow the same or slightly different or totally different messages to be printed. The display or printout message shall be capable of recall as needed on a mutually exclusive basis.

### SYSTEM OPERATION

When a change in any of the in-service inputs occurs, the system shall sound the audible alert, display the appropriate display message and print the appropriate printout message. In order to silence the audible, the operator must touch the ACK control. Touching this shall cause the audible to silence, and the ACK message to be printed. At this point, the operator shall have the option to put a zone out-of-service, or to view the message. This message shall remain displayed until CLEAR is touched, whereupon, the system returns to its regular standby operation. If the operator does not touch ACK, the audible shall continue to sound, but no further printing shall occur for that event.

Inputs which are in a non-secure condition shall become part of a display sequence. Every two seconds, one of the inputs which are in an abnormal state shall be displayed. Touching FAST SCAN shall speed this to once every 0.4 seconds. In addition to non-secure zones, the sequential display will include out-of-service zones,

Zones shall be put out-of-service by touching the I/O SER control. This shall cause a two-line printout as follows:

- (1) (First line of printout message)
- (2) OUT OF SERVICE - DATE - TIME

Also, the phrase OUT OF SERVICE shall be displayed in the lower right quadrant of the screen. It shall be displayed in reverse video for ease of recognition.

Touching I/O SER for a zone that is out-of-service puts it back in-service. This will cause a two-line printout as follows:

- (1) (First line of printout message)
- (2) IN SERVICE - DATE - TIME

If the zone thus put back in service is not secure, it will be treated as a new change in state and the operator alerted.



## OPERATIONAL CHARACTERISTICS

All controls used in the normal operation of the system shall be long life and non-mechanical.

The controls shall be presented on the face of the CRT. Intersecting that area of the CRT screen displayed as a control, either by touching or by placing a finger or similar object just in front of the screen, shall cause activation of that control. The result of touching that control shall allow multiple use of the controls area with up to 16 controls displayed simultaneously. Some indication of control activation shall be provided; either an obvious system action will take place or audible feedback will be provided:

When no changes are being processed, the operator shall be presented with the following controls.

### **FEED**

This shall cause the paper to advance.

### **FAST SCAN**

Inputs in abnormal are displayed sequentially on the CRT screen with a two second period. Touching FAST SCAN shall cause this period to be 0.4 seconds.

### **STOP**

This shall stop the display for examination. Also, this shall cause the touch area beneath the displayed message to change to include:

**I/O SER** - Touching this shall put a zone in or out of service. Out of service means that the operator will not be alerted to any changes in state for this zone. The status of this zone is included in the rotating display.

**SYSTEM RESET** - This causes the system to reset or restart.

**CLEAR** - This returns the display to the normal sequencing.

When a change of state occurs, the audible alert sounds and the appropriate messages are printed and displayed. In the lower quadrant of the screen, just below the message, a form shall appear as follows:

**ACK** - Touching this shall cause the Acknowledge message to be printed and displayed and the audible to be silenced.



**FAST SCAN** - This operates as explained previously. however, when an alarm needs to be acknowledged, it also shall be possible to **put** a zone out-of-service by touching this simultaneously with the ACK area.

**FEED** - As before.

**STOP** - Ineffective at this time.

#### SOFTWARE OPTIONS - DMP704

##### **BLOCK ZONE CONTROL - IN/OUT OF SERVICE IN/OUT OF SCAN**

This allows blocks of zones if edited into the block to be put out of service or out of scan with a single button activation. Once edited, it is accessible from the front panel touch screen display.

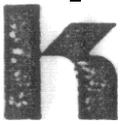
**HISTORY** - A battery backed RAM storage facility for all operations performed by the DMP704/703. Accessibility is menu driven from the touch screen.

#### PHYSICAL DETAILS

The Direct line inputs shall be connected to the rear panel of the operator's unit. Connections from the lines to the equipment shall be made via standard 25 pair telephone cables. A standard telephone connection shall be used at the system, and optionally used at the telephone company end.

1. The panel operator's unit shall be inclusive to all alarm inputs, and functions without any remote equipment cabinets, or other remote devices. The panel operator's unit shall run on 24VDC, filtered, in order to supply battery backup. The power supply may be mounted remotely from the panel operator's unit, and shall be powered by 115VAC, 60Hz, and provide terminals to float-charge the 12V solid cell batteries. If AC input power fails, the panel operator's unit shall run on batteries without interruption, and an audible alert shall sound indicating battery operation.

2. Auxiliary Functions - When the paper supply becomes low, the screen shall so indicate by displaying PAPER LOW in the lower right hand quadrant. In addition, the audible alert shall be sounded briefly once per minute.



When the paper supply is exhausted, PAPER OUT shall be indicated, and the alert will be sounded as for PAPER LOW. In this case, no further hard copy record will be available until paper is replenished.

Should the printer become jammed, the words HEAD JAM will be indicated, and the alert will be sounded as in the case of PAPER LOW.

#### SOFTWARE

Several software packages are available for special requirements whether proprietary or municipality. Please call with your special requirements.



Fire and Security Systems Division  
**KELTRON CORPORATION**

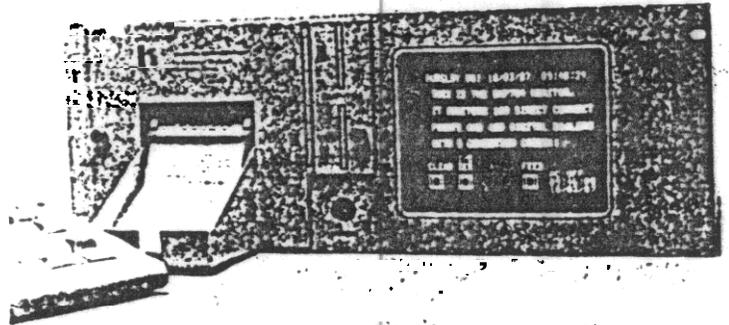
## DMP704 COMPACT ALARM MONITOR

# New Versatile Powerful DMP704

The popular DMP701 in a compact package

### FEATURES

- Self-contained 7" rack-mounted instrument unit with separate power source.
- **Powerful** control processor extends expansion capabilities.
- Modular plug-in construction for easy expansion within unit.
- Instant nonvolatile RAM memory for speed and accuracy.
- Field programmable messages.
- Troublefree touch screen controls.
- Computer interface capability.
- All features of **DMP701 / VDM-P**.



### DMP704

Keltron's versatile **DMP701** has provided 1000 zone monitoring for the Police, Fire and Security industries for over a decade. The VDM-P option adds a video display with English language message capability. Now Keltron has made another revolutionary improvement.

The **DMP704 Compact Alarm Monitor** enhances the capability of the 701 / VDM-P by using a **powerful** control processor. To meet frequently limited space constraints, Keltron has slightly reduced the DMP704's capacity in order to provide a **completely self-contained** unit. The single rack-mount instrument case is 7" high x 19" x 19". It includes all input boards, a 32 column printer, and a 7" touch screen video message display. Only the power source is separate.

The DMP704 is designed to receive up to 100 direct inputs such as reverse polarity, or end-of-line resistor types. An additional 400 zones of digital communicator

capacity, traditional coded or McCullough signals, and derived channel inputs may be added. Multiplexed inputs for remote monitoring are also available.

The powerful microcomputer heart of the **DMP704** supports a host of options. These include: RS232/RS422 I/O for computer interfacing, remote CRT displays, control via relays/transistors for remote displays and equipment, and coded signal outputs to communicate with audible and visible signaling devices. Keltron's recently introduced History Software **adds** a totally new dimension to the compact 704 instrument. Other expanded options are possible.

Like the 701/VDM-P, the DMP704 features audio alert signals, a hard copy impact printer, CRT display, and Touch Screen operation for speed and reliability. A plug-in PC keyboard permits full field message programming. Printer message may be independent of display message.

## DIRECT INPUT SIGNALS

(Select one)

### Polarity Reversal

3V, 2mA sensitivity Capacity: 100 inputs - 2 alarm levels: e.g. FIRE or BURGLAR indications Order one 95M2880-1 per 25 inputs

### Multi-Level Direct-Wire

Up to 3 End-of-Line resistors - 2 alarm levels plus opens and shorts are line fault; e.g. FIRE, BURGLAR and TROUBLE. Capacity: 100 inputs Order one 95M2876 per 25 inputs.

## OPTIONS

Digital, Derived Channel, or

Radio Receiver Inputs:

Use **RS232/RS422** option with the SI/07 for 400 subscriber capacity and up to 9 condition codes per subscriber. (See SI/07 data sheet.)

History **Software**:

With this option, the **DMP704** will store a one line record of each event: e.g. alarms, restorals, etc., and operator events such as zone edits **IN/OUT**

service actions, etc. Memory capacity ranges from 1,000 to 12,000 events, depending on number of other options Present in the system. Retrieval can be by zone, time and date, and type of event or any combination.

Coded Signal Input:

4-10-25 or 4-8-16 or 1 both between digits: 1/8 to 4 second period; 1 to 5 digit. Capacity and choice of input style depend on other system requirements.

Coded Signal Output:

Allows communications with bells line departments or similar Communication systems

Relay Outputs:

Up to 16 relays or 48 open collector outputs possible for external annunciation or control-by-event.

**RS232 / RS422:**

Input/Output for communication with remote equipment such as computers or the SI/07.

Remote Video:

Allows whole system display to be duplicated on remote monitor. Connection is via 75 ohm cable.

## MAJOR FEATURES

DISPLAY:	Fully field programmable messages on a 7" CRT
Attributes:	Flashing, reverse or highlighted in any combination
Capacity:	12 lines/screen; 32 characters/line
Screen:	Green phosphor with direct etch for low fatigue glare-free viewing
PRINTER:	Fully field programmable independent of display
Type:	Dot matrix impact, 3 wide plain paper, fan-fold or roll
Capacity:	32 columns/line
Color:	Red and/or black ink programmable
Speed:	0.4 seconds/line
CONTROLS:	Touch Screen operation Security lock and reset are only mechanical switches.
Functions	<ul style="list-style-type: none"><li>• Up to 16</li><li>• Vary with each menu. Include alarm acknowledge, manual paper feed, manual entry for message review etc.</li></ul>
AUDIBLE SIGNAL	Announces code received or error condition
MEMORY	Nonvolatile RAM based
POWER IN	24VDC input at 1.5A average

TIME/DATE:

Military time (0-24 hours) and Gregorian calendar displayed in lower right corner of screen. Automatic crystal back-up for AC power loss. Crystal accuracy is 2 seconds/day, 4 seconds/week. Automatic adjustment for length of months and leap year.

## MESSAGE FEATURES

Capacity:	64K characters per card; maximum 4 cards per system.
Messages:	Up to 512 characters per message. May be changed at time of order.
Editing:	Full field programmability via plug-in keyboard protected by security lock
Self-check:	Error messages displayed: e.g. Paper Low/Out; Head Jam.
Reference	Unused code numbers can be used to store lists such as doctors, tow trucks, hydrant locations, etc.



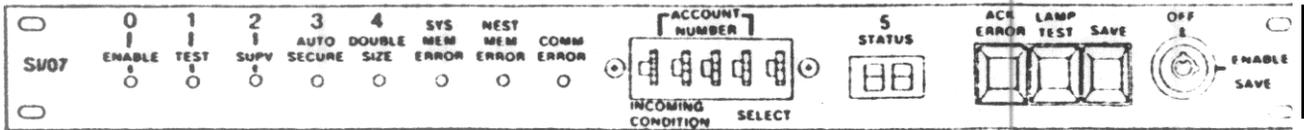
Fire and Security Systems Division

**KELTRON CORPORATION**

225 Crescent Street, Waltham, MA 02154  
(617) 894-8700, TELEEX 948197, FAX (617) 899-9602

NEW

# SI/07 UNIVERSAL DIGITAL INTERFACE



The SI/07 provides another versatile input for Keltron's DMP700 /series of Systems. The DMP700 central processor monitors alarm inputs, and reports their condition via various displays and printers. The architecture of our system allows for various alarm inputs through "nests" which can bring different styles of inputs, such as reverse polarity, several end-of-line resistors, multiplex, coded signals, etc., and displays them all on a variety of simple operator's consoles.

## IT'S VERSATILE

There are two major basic models of the SI/07. The base unit SI/07 accepts RS232 serial inputs from any computer oriented transmitting device. It then processes the data, and converts these RS232 signals to the "nest" format compatible with the DMP700 series systems. When used with DMP701 systems, a single SI/07 can be interlaced to a maximum of 1000 alarm inputs or accounts. With the DMP704, 400 inputs may be accepted. Currently, the DMP701 systems provide up to 16 condition codes, while DMP704 systems can provide up to 9 condition codes per account. The SI/07 microcomputer is designed to handle up to 16 condition codes;

## BUILT-IN DIGITAL RECEIVER

In addition, the SI/07 can be supplied with companion digital receiver, through each

## The Keltron SI/07

Interfaces  
with digital  
transmitters,  
derived channel,  
radio receivers  
and computers



Security Systems Division

**KELTRON  
CORPORATION**

225 Crescent Street  
Waltham, MA 02154  
(617) 894-8700

SI/07 RS232 input/output is compatible with virtually any digital dialer receiver, the SI/07-D1 has one Linear/Sesco receiver module built into the base unit. The SI/07-D2 has two Linear/Sesco receivers—one internal, and the second added with a slight expansion to the compact packaging, depending upon details of the application. The models with receiver modules can receive signals from most digital communicators (Transmitters). The SI/07 is also compatible with most radio receiver outputs, and works with Derived Channel providing fully redundant operation if required.

## IN ADDITION . . .

Other standard features in the SI/07 include internal timers for 24 hour supervisory monitoring with a separate time for each account or input. Automatic timed restoral for transmitters not transmitting on restore is available as well. Further, these and other features are programmable in groups of 100 which allows each group to be programmed differently, if required. An automatic self-test is performed on power up to assist in installation. Supervisory end-of-line, reverse polarity outs, and sonalert are provided to alert the operator of SI/07 power or internal failure. Incoming condition code and account number translations are supported to accommodate expansion or upgrade of existing systems without re-programmed communicators. The Enable/Disable feature allows each incoming account to be either monitored or ignored.

# SI/07 SERIAL INTERFACE

## FEATURES

- INTERFACES WITH VIRTUALLY ANY RS232-I/O DEVICE-DIGITAL OR RADIO RECEIVERS, COMPUTERS, ETC
- DUAL INDEPENDENT CHANNELS ALLOW EITHER TWO DIFFERENT INPUTS, OR REDUNDANCY AS REQUIRED FOR DERIVED CHANNEL
- MAY INPUT 1000 SUBSCRIBERS
- USER FRIENDLY FRONT PANEL SIMPLIFIES DATA INPUT AND OPERATIONAL CONTROLS
- COMPACT 19" EIA RACK CONSTRUCTION ONLY 1 3/4" HIGH
- OPTIONS PROVIDE BUILT-IN DIGITAL RECEIVER OR PACKAGE WITH TWO DIGITAL RECEIVERS
- CAPABLE OF HANDLING ALL COMMON FORMATS OF DIGITAL TRANSMITTERS
- TEN YEAR LIFE BATTERY BACKED STORAGE FOR FIELD PROGRAMMED INFORMATION
- EASY ACCOUNT ENABLE/DISABLE PROGRAMMING
- UP TO 16 CONDITION CODES

## FRONT PANEL

- THUMBWHEEL SWITCHES - Assigns for a particular zone number (middle three), 1 of 9 designations (right most) to 1 of 16 input codes (left most)
- SAVE PUSHBUTTON - For entering into memory new data selected via front panel
- ENABLE SAVE KEYSWITCH - Only key operator can change nest or account data
- LED 0 - Indicates Enable state of account in the ACCOUNT switch. To change pul SELECT at 0 and press SAVE
- LED 1 - For SELECTed nest the INCOMING CONDITION Number will be treated as a TEST code
- LED 2 - Indicates that SELECTed nest will have 24 hour supervisory timers for each account
- LED 3 - Indicates automatic restore for SELECTed nest's/accounts
- LED 4 - Each account in SELECTed nest will use the space of two zones' Condition codes.
- STATUS DISPLAY - (SELECT at 5) shows INCOMING CONDITION switch contents.
- SYSTEM MEMORY ERROR LED - Indicates system problems which must be cleared by the Operator.
- NEST MEMORY ERROR LED - Helps the operator clear the SYSTEM errors by lighting when the improperly programmed nest is selected by the A C COUNT MSD.
- COMMUNICATION ERROR - Indicates existence of a communication error
- ACK ERROR SWITCH - switches sonalert (see Manual)
- LAMP TEST SWITCH - Lights all LED's; checks SI/07 functionality

## REAR PANEL

- BARRIER STRIP (4 position) POWER (24V, 5A) COMMON, EOL OR RP out
- RS232 Connectors (2) - DB25-F Female Connectors for each RS232 Channel
- RJ11 JACK - TELCO input for internally mounted receiver
- FLAT CABLE CONNECTORS (2) - For DMP-20 Systems, Nest Data and Nest Select Cables

### SWITCH PACK ASSIGNMENTS

- SWITCH PACK 1 - Select Communication Parameters for Channel 1
- SWITCH PACK 2 - Select Communication Parameters for Channel 2
- SWITCH PACK 3 - Select Nest Designation 4 thru 7
- SWITCH PACK 4 - Select Nest Designation 8 and 9 and Select TELEPHONE Designated Nest Parameters



Versus Technology, Inc. One Electronics Drive P.O. Box 3429 Trenton NJ 08619

April 1, 1992

Dave Rice  
Bitterman Jewelry  
10 North School Street  
Lodi, CA 95240

Dear Dave:

Thank you for your interest in Derived Channel multiplex (DCX) as your choice for UL M protection. I am sure you will find the enclosed data sheets will reinforce the ideas we discussed during our recent conversation.

I look forward to meeting with you April. I have enclosed my business card for your future **reference.**

Sincerely,

A handwritten signature in cursive script that reads 'Ed W. Solt'.

Edward W. Solt  
Western Regional Sales Manager



11/01/91

## WHAT IS DERIVED CHANNEL MULTIPLEX (DCX) ?

Versus is pleased to present common questions with no nonsense answers...

What is Derived Channel *multiplex*?

Simply stated, it is the addition of an extra service on a standard telephone line. This service may take the form of alarm transport or metering reading, etc. In essence, this information flows through a data channel that is derived from an existing communications path. By combining voice transmission with data signalling, greater use is given to a ubiquitous service... the telephone line.

Why is it called multiplex?

Many subscribers can be combined together and routed to their respective destinations. Putting multiple signals on a single or redundant path. Versus has trademarked the term with a capital "X" to denote it's version of the network.

Does **this** work everywhere?

DCX is available in a growing number of geographic locations throughout the United States (and several other Countries). However, it is not offered everywhere and it is important to investigate it's availability before assuming that it can be used. Even within a served city, there may be locations that for whatever reason, are not eligible.

What does Versus do?

Versus Technology Incorporated, manufactures and license's others to manufacture our patented Subscriber Terminal Units, also known as STUs. The STU is installed at the subscriber's premises and is scanned and/or polled with an encrypted message (a minimum of 700 times a day!) We also produce and maintain the software and hardware to run the entire DCX network.

Who is most likely to use DCX?

Alarm companies use Derived Channel multiplex to monitor their customers for alarm and cut phone lines, utilities use it to read their meters. There are hundreds of other productive applications, just waiting to be explored.

Continued...



***Does DCX affect my phone service?***

In most installations, the STU connects directly to the telephone line that you would normally talk on. Depending on the level of security selected, you will hear a bird-like "chirp" on your phone, while you speak, every two minutes or so. This does not preclude conversations, think of it more as the "sound of security."

***Will other things interfere with Derived Channel multiplex?***

In a few rare cases, some older answering machines are not compatible with DCX, where another line is not available... replacement of the answering machine (or choosing no DCX service) may be advised. Computer modems are another area to watch, although our STU may not be affected by the modem, when a "chirp" occurs, there may be some corruption of the computer's data during that transmission.

***What special approvals or recognition does DCX have?***

Since its inception in the late 1970's, Derived Channel multiplex has earned the respect of regulatory agencies world-wide. In the United States, Underwriters Laboratories has Listed the product/service in providing the highest level of security signalling possible... that of Grade AA, typically reserved for high risk financial institutions, jewelry stores and the like.

Additionally, the Versus offering has been Listed for fire alarm transmission, substantially reducing the normally high cost of telephone line circuits & their supervision. Other regulatory agencies around the globe have also followed suit.

***Why would a business or homeowner want DCX?***

The bottom-line would be increased security and peace of mind. Even with a standard alarm system, most are vulnerable to attacks on the phone lines they use to communicate to the central monitoring stations. Derived Channel multiplex offers cost-effective detection of line breaks, and let's someone know about them before it's too late.

Call us today, if you'd like to know more. 1-800-368-2629



# ATU-6000

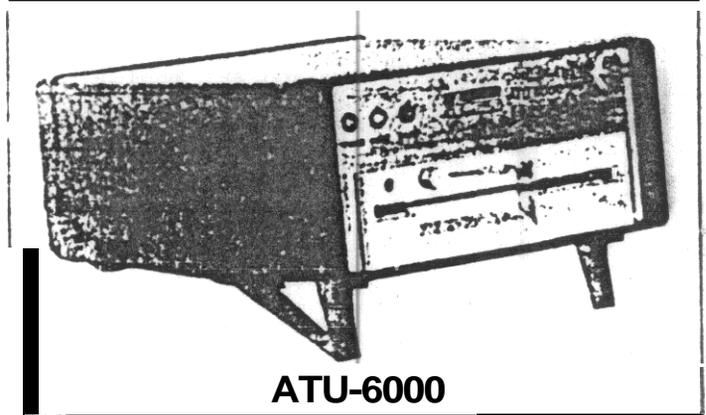
## Agency Terminal Unit\*

### Applications

The ATU-6000 is an Agency Terminal Unit\* (ATU\*) to be used in conjunction with the VerSuS® Derived Channel multipleX™ (DCX™) network. A network consists of Subscriber Terminal Units\* (STUs\*), Scanners, Host computers and ATUs. Networks are offered throughout the world by various public and private telephone service providers, as well as, within proprietary telephone systems.

An ATU device can be used stand-alone, or more typically may be used in UL Listed central station applications with a compatibly Listed digital receiver. The ATU acts as a receiving and protocol convening access point to the DCX network. Signals for both alarm and supervisory events are routed to the ATU via a dedicated data circuit connected to the centralized Host computer. Two ATUs, each connected to their respective data circuits provides for redundant central station operation and monitoring.

Acting upon information relayed through the DCX network and passed on to the digital receiver, an ATU can monitor STU events, alert the central monitoring station to a possible cut or disabled subscriber phone line and provide network operational information. Additionally,



ATU-6000

tionally, the ATU can be used to send commands to the Host or Subscriber Terminal Unit for remote control applications.

When appropriately configured the DCX network offers Underwriters Laboratories (UL) Listing for Grade AA Burglary, Police Connect, and NFPA 71 Central Station Service and Factory Mutual (FM) approval for fire communications. DCX provides one of the most affordable methods for reliable and Secure alarm signalling, with the added benefit of telephone line monitoring.

### Standard Features

- Small footprint reduces space required for equipment
- Separate connections for Host modem, printer, terminal and automation/receiver.
- Fail-safe external alarm relay for remote notification.
- Switch guard on power source reduces operator error
- Audible and visual trouble alerting.
- Computer terminal and printer for network command, software configuration and hardcopy audit trail
- Message Watch traps ASCII character strings and triggers alert.
- Interfaces with existing STU devices
- Locally stored database for STUs provides easy subscriber look-up and increases central station performance
- User-friendly menus and macro-generated management reports
- Receiver-style outputs allow direct connection to central station automation packages
- Automatic OFF-Hook polling enabled with STU closing report\*
- Selectable on-off audible for non-responding STUs\*

\*Certain options not UL Listed

### Ordering Information

Model Number	Ordering Part Number	Description
ATU-6000	20002-0002	Central station unit, two are required for redundancy, includes: transformer, data disk, cables and manual; UL Listed product
	84007-0001	Modem, 202T, one required per ATU
	84008-0001	Printer, one required per site
	84009-0001	Terminal, one required per ATU

Specifications are subject to change without notice

Versus Technology Incorporated

10000 West 10th Avenue  
Denver, Colorado 80231  
Phone: (303) 751-1000  
Fax: (303) 751-1001

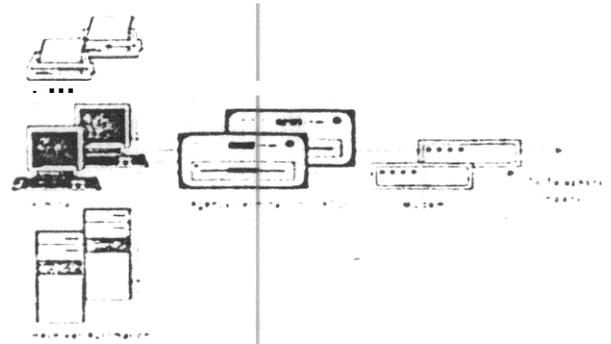


Versus Technology Limited  
10000 West 10th Avenue  
Denver, Colorado 80231  
Phone: (303) 751-1000  
Fax: (303) 751-1001

# Product Specifications

<b>Primary Power:</b>	16VAC 40 VA Class 2 plug in transformer
<b>Power Switch:</b>	Toggle switch with finger guard
<b>Power L.E.D.:</b>	Front faceplate, green
<b>Host Normal L.E.D</b>	Front faceplate, yellow
<b>Fault L.E.D.:</b>	Front faceplate, red
<b>Audible Fault Indicator</b>	Internal buzzer
<b>ATU Reset:</b>	Front faceplate, momentary push button
<b>Fault Output Relay:</b>	N.O., Normally energized, 30 VDC @ 3 Amps
<b>Relay Connections:</b>	Two barrier post terminals
<b>Cables:</b>	9 pin D-sub to 25 pin D-sub, 10' Long
<b>Connectors:</b>	9 pin D-sub for: Host modem terminal, printer and automation/receiver
<b>Preprogrammed Macros:</b>	AUTO. extracts Host STU database POLLSTU. polls all STU subscribers
<b>MessageWatch:</b>	14 text strings maximum, can with up to 16 alphanumeric characters Up to eight characters
<b>Password</b>	2048 (standard)
<b>Subscriber Capacity:</b>	Accepts pre-formatted 5 25" disk, 360K
<b>Floppy Disk Drive:</b>	VerSuS® Derived Channel multipleX™ (DCX™)
<b>Network Compatibility:</b>	32° F (0° C) to 86° F (32° C)
<b>Operating Temperatures</b>	8 00" (20.32 cm) Long x 7 26" (18.44 cm)
<b>Dimensions:</b>	Wide x 3.50" (8.89 cm) High with rubber feet
<b>Weight:</b>	7.00 lb (3.2 Kg)
<b>Listing/Approvals:</b>	Refer to the Versus Compliance Guide document part number #30001-0590

## CENTRAL STATION DIAGRAM



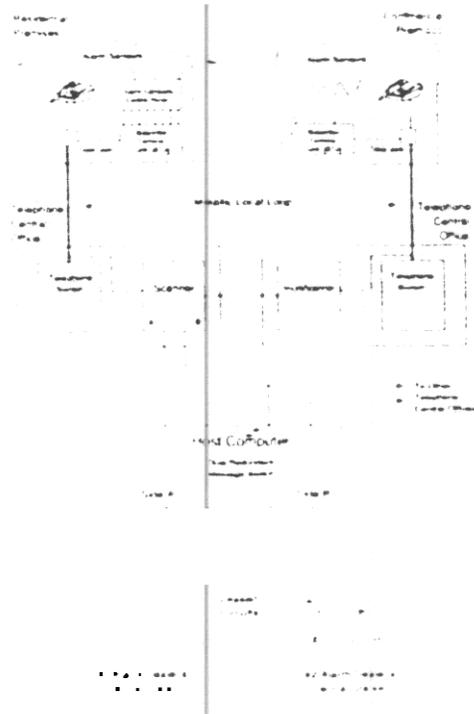
# General Engineering Specifications

A Subscriber Terminal Unit® (STU®) shall be provided to supervise the local metallic local loop of the switched telephone network. The unit shall be constantly supervised by remotely situated network apparatus, and said unit shall transmit various alarm and/or status events without precluding normal voice communications, through to a monitoring station properly equipped to receive those signals with redundant Agency Terminal Units (ATUs). The STU unit shall communicate in a format compatible with a VerSuS® Derived Channel multipleX™ (DCX) network. The unit shall have the capability to perform self-diagnostics, poll response, tone generation and announce specific degradations in performance to the service provider, user and/or remote central monitoring station ATU.

The STU unit provided shall allow two-way communication with the central monitoring station ATU, and upon activation shall output locally. STU unit shall be stand-alone, mounted within its own enclosure and properly accessorized to meet Underwriters Laboratories' Grade AA, Burglary or Police Connect. Additionally, where required, STU shall be properly accessorized and installed to meet NFPA 71 Central Station Service for fire, as defined under Active Multiplex

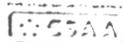
DCX network shall be configured so as to provide a diverse number of central monitoring station ATUs with the ability to monitor and supervise a diverse number of STU type units. Communications shall be switched transparently between monitoring centers and remote STU locations, each monitoring center shall be able to view only those STU units assigned to them. The signal paths, transmission hardware and system software shall be redundant where applicable. The primary signal paths which transport the combined communication protocols shall operate over metallic, fiber, microwave, satellite and/or other telephonic means.

## NETWORK



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# STU-2Z

## Subscriber Terminal Unit"

### Applications

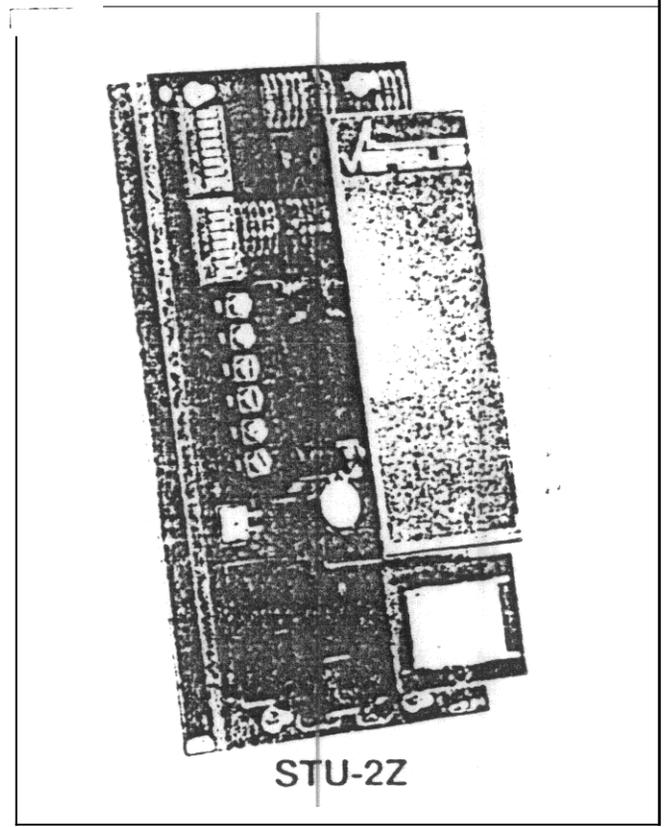
The STU-2Z is a Subscriber Terminal Unit\* (STU\*) to be used in conjunction with the VerSuS\* Derived Channel multipleX™ (DCX™) network. Networks are offered throughout the world by various public and private telephone service providers, as well as, within proprietary telephone systems.

A STU device can be used standalone, or more typically may be used along with an alarm control panel (digital dialer), within a protective security system. The STU unit provides back-up local telephone line integrity information as well as summary alarm and event activity to a remote central monitoring station. This is accomplished without the need for dedicated phone lines and thereby substantially reduces on-going costs. DCX operates on the subscriber's existing voice grade phone line, without precluding normal conversations.

When appropriately configured the DCX network offers Underwriters Laboratories (UL) Listing for Grade AA Burglary service, NFPA 71 Central Station Service and Factory Mutual (FM) approval for fire communications. DCX provides one of the most affordable methods for reliable and secure alarm transmission

### Standard Features

- Detects cut phone lines
- No need for expensive leased phone lines
- DCX™ network meets UL AA Burglary, NFPA 71 and FM standards.
- DCX eliminates dual phone lines for fire signalling
- Telephone line integrity continuously monitored at central station.
- Backs-up dialers, long range radio, cellular and satellite
- Transmits 2 zones of supervised alarm information
- Communicates power trouble and self-diagnostic failure.
- Low power consumption from standard control panels



- On-line L.E.D. provides visual microprocessor status.
- Provides high level of security on standard voice line
- Works on local loop metallic pair, within telephone network.
- Two-way communication allows local output for manual ringback
- Easily installed within control panel with Clip-On mounting bracket (included).
- Interfaces with most fire and burglar alarm systems.
- Use with all forms of event monitoring: medical alert, industrial, etc.
- Multi-level lightning and transient protected inputs

### Ordering Information

Model Number	Ordering Part Number	Description
STU-2Z	22007-0001	STU 2Z, Two zone Subscriber Terminal Unit, 12VDC, clip mount, 2 end of line resistors
	96052-0001	Modular RJ-31X Phone Cord, double ended with connectors
	96043-0001	Modular RJ-31X Phone Cord, with flying leads

Specifications are subject to change without notice

Versus Technology Incorporated

Versus Technology Limited

Phone  
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Fax

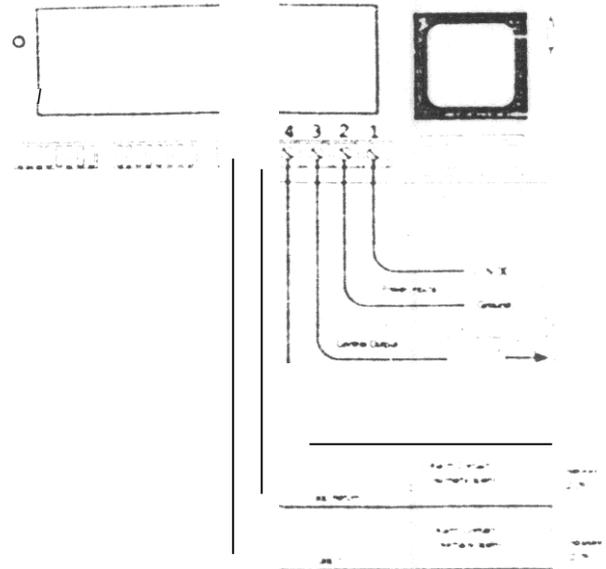


# Product Specifications

<b>Primary Power:</b>	Nominal 12VDC, max ripple peak to peak, 50mvAC
<b>Current Draw:</b>	Nominal 75 milliamps @ 12VDC Controlled Output ports:
<b>Low Power Report:</b>	When power is less than 10VDC for 90 seconds or more
<b>Controlled Output:</b>	Open collector, max. 40VDC @ 50 milliamps
<b>Operating Temperatures:</b>	30° F (-1° C) to 120° F (49° C)
<b>Account number programming:</b>	Dip switches
<b>Account number parameters:</b>	4 hexadecimal characters: 65,000 possible
<b>Low Tone Amplitude Adj:</b>	Jumper selectable
<b>Input Zones:</b>	Two (2) End-of-Line 2.2K Ohm circuits
<b>Zone Activation:</b>	Short the normally open circuit
<b>Zone Events Auto Reported:</b>	Zone alarm, restoral, fault
<b>STU Events Auto Reported:</b>	Low power, Self-test failure
<b>Requestable Status:</b>	Zone normal, outstanding, alarm, etc.
<b>Information reported:</b>	Zone number, account number, event
<b>Report Styles:</b>	Long and/or Short
<b>Loss of Communication:</b>	STU No Response, STU Was Reset
<b>Network Compatibility:</b>	VerSuS® Derived Channel multipleX™ (DCX™)
<b>Pinger Equivalence:</b>	1.7B
<b>FCC Part 68 Compliance:</b>	FMMUSA-18676-AL-N
<b>STU to Teleco Line:</b>	Double-ended 8 pin RJ31X modular cord
<b>Control Panel to STU:</b>	Double-ended 8 pin RJ31X modular cord
<b>Encrypted Audible Poll:</b>	Timed FSK tones (chirp) for UL AA Service
<b>Mounting Hardware:</b>	Metal "clip-on" bracket
<b>Wiring Terminals:</b>	Self-clamping style, 18-22 gauge
<b>Unit Size:</b>	7.00" (17.78 cm) Long x 3.25" (8.255 cm) Wide x 1.50" (3.81 cm) High
<b>UL Applications:</b>	Use enclosure-mounted version, STU-2Z UL or STU-2Z with UL compatible control* STU-2Z is a UL recognized component

\*Consult Versus for up-to-date compatibility list.

## WIRING DIAGRAM



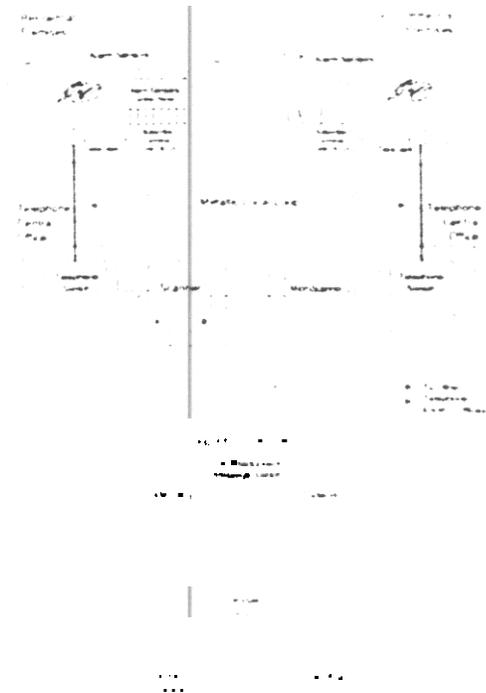
## General Engineering Specifications

A Subscriber Terminal Unit\* (STU\*) shall be provided to supervise the local metallic loop of the switched telephone network. The unit shall be constantly supervised by remotely situated network apparatus, and such unit shall allow the transmission of various alarm and/or status events without precluding normal voice communications, through to a properly equipped remote central monitoring station. The unit shall communicate in a format, compatible with a VerSuS® Derived Channel multipleX™ (DCX™) network. The unit shall have the capability to perform self-diagnostics, poll response, tone generation and annunciate specific degradations in performance to the service provider, user and/or central monitoring station.

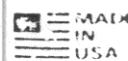
The unit provided shall allow two-way communication from the central monitoring station, and upon manual activation shall output locally. Unit shall be standalone, mounted within its own enclosure and properly accessorized to meet Underwriters Laboratories' AA, BB, CC Burglary service or Police Connect or where applicable, unit shall mount directly within an existing and compatible enclosure by use of a clip-on metal bracket. Additionally, where required, unit shall be properly accessorized and installed to meet NFPA 71 Central Station Service or Factory Mutual for fire, as defined under Active Multiplex

DCX network shall be configured so as to provide a diverse number of central monitoring stations with the ability to monitor and supervise a diverse number of STU type units. Communications shall be switched transparently between monitoring center and remote STU location, each monitoring center shall be able to view only those STU units assigned to them. The signal paths, transmission hardware and system software shall be redundant where applicable. The primary signal paths which transport the combined communication protocols shall operate over metallic, fiber, microwave, satellite and/or other telephonic means.

## NETWORK



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# STU-2Z-UL

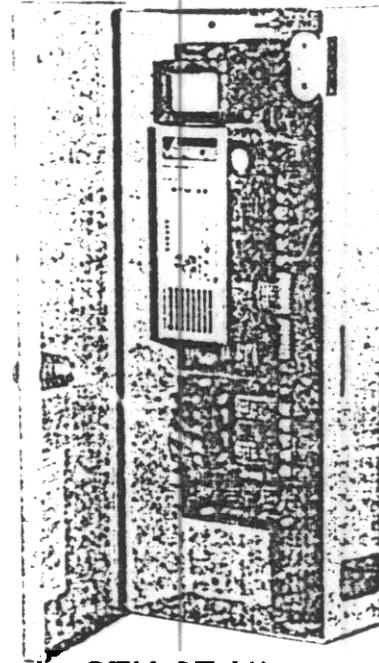
## Subscriber Terminal Unit\*

### Applications

The STU-2Z-UL is a Subscriber Terminal Unit\* (STU\*) to be used in conjunction with the VerSuS\* Derived Channel multipleX™ (DCX™) network. A network consists of STUs, Scanners, Host computers and Agency Terminal Units™ (ATU™). Networks are offered throughout the world by various public and private telephone service providers, as well as, within proprietary telephone systems.

A STU device can be used stand-alone, or more typically may be used along with an alarm control panel (digital dialer, etc.) within a protective security system. The STU unit provides back-up local telephone line integrity information as well as alarm and event activity to a remote central monitoring station ATU. This is accomplished without the need for dedicated phone lines and thereby substantially reduces on-going costs. DCX operates on the subscriber's existing voice grade phone line, without precluding normal conversations.

When appropriately configured the DCA network offers Underwriters Laboratories (UL) Listing for Grade AA Burglary, Police Connect, and NFPA 71 Central Station Service and Factory Mutual (FM) approval for fire communications. DCX provides one of the most affordable methods for reliable and secure alarm signalling, with the added benefit of detecting disabled or cut telephone lines



STU-2Z-UL

### Standard Features

- Transmits 2 zones of alarm information.
- Communicates power trouble and self-diagnostic failure
- Low power consumption from standard control panels
- Compatible with 12 or 24VDC power supplies.
- Two-way communication allows local output remotely controlled.
- Sturdy, slim-style steel cabinet with tamper switch.
- On-line L.E.D. provides visual microprocessor status
- Interface module provides voltage selection, optional zone transmission delay and voltage triggers
- DCX eliminates dual phone lines for fire signalling
- Backs-up dialers, long range radio, cellular and satellite.
- Works on local loop metallic pair, within telephone network.
- Interfaces with most fire and burglar alarm systems
- Telephone line integrity continuously monitored at central station.
- Use with all forms of event monitoring: medical alert, industrial processes, environmental, etc.
- Multi-level lightning and transient protected inputs

### Ordering Information

Model Number	Ordering Part Number	Description
STU-2Z-UL	22008-0001	2 zones, 12 or 24VDC, voltage triggered inputs, dip switch programming, includes case, keys, enclosure, tamper, UL listed product
	96052-0001	3 RJ-31X phone cord double ended
	96043-0001	3 RJ-31X phone cord with leads

Specifications are subject to change without notice.

Versus Technology Incorporated

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Houston, TX 77036

Phone: 281-461-1111  
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Versus Technology Limited

10000 Versus Drive  
Houston, TX 77036

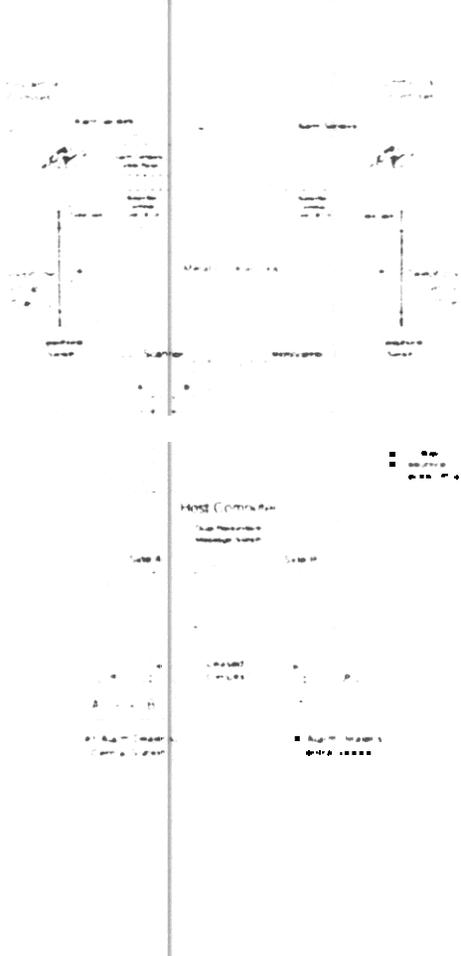
Phone: 281-461-1111  
Fax: 281-461-1112



### Product Specifications

<b>Primary Power:</b>	Nominal 12 or 24 VDC, max ripple peak to peak 50 mvAC
<b>Current Draw</b>	Nominal 75 milliamps @ 12 - 24VDC, without Controlled Output active
<b>Low Power Report:</b>	When power is less than 90% of rated voltage for 90 seconds or more
<b>Controlled Output:</b>	Open collector, max. 28VDC @ 50 milliamps
<b>Operating Temperatures:</b>	30° F (-1° C) to 120° F (49° C)
<b>Account number programming:</b>	Dip switches
<b>Account number parameters:</b>	4 hexadecimal characters: 65,000 possible
<b>Low Tone Amplitude Adj:</b>	Jumper selectable, normal or reduced
<b>Zone Inputs</b>	Two (2)
<b>Zone Activation:</b>	Voltage trigger between 4 - 40 VDC
<b>Zone Transmission Delay:</b>	Jumper selectable, none or 16 seconds
<b>Zone Events Auto Reported:</b>	Zone alarm and restoral
<b>STU Events Auto Reported:</b>	Low power, Self-test failure
<b>Requestable Status:</b>	Zone normal, outstanding, alarm, etc.
<b>Information reported:</b>	Zone number, account number, event
<b>Report Styles</b>	Long and/or Short
<b>Loss of Communication:</b>	STU No Response, STU Was Reset
<b>Network Compatibility:</b>	VerSus® Derived Channel multipleX™ (DCX™)
<b>Ringer Equivalence:</b>	1.7B
<b>FCC Part 68 Compliance:</b>	FMMUSA-18676-1L-N
<b>STU Telephone Line In:</b>	On-board 8 pin RJ31X modular connector
<b>STU Telephone Line Out:</b>	On-board 8 pin RJ31X modular connector
<b>Encrypted Audible Poll</b>	Timed FSK tones (chirp)
<b>Mounting Hardware:</b>	STU and module pre-mounted in cabinet
<b>Wiring Terminals</b>	Self-clamping style, 18-22 gauge
<b>Cabinet Dimensions:</b>	13.25' Long x 5.25' Wide x 2.25' Deep
<b>Listing/Approvals:</b>	Refer to the Versus Compliance Guide, document part number #30001-0590
<b>CPE Compatibility:</b>	Refer to the Versus Compatibility Guide to Modems, Fax and Answering Machines document part number #30001-0591

### NETWORK DIAGRAM



### General Engineering Specifications

A Subscriber Terminal Unit\* (STU\*) shall be provided to supervise the local metallic loop of the switched telephone network. The unit shall be constantly supervised by remotely situated network apparatus, and said unit shall transmit various alarm and/or status events without precluding normal voice communications, through to a monitoring station properly equipped to receive those signals with redundant Agency Terminal Units (ATUs). The STU unit shall communicate in a format, compatible with a VerSus® Derived Channel multipleX™ (DCX)™ network. The unit shall have the capability to perform self-diagnostics, poll response, tone generation and annunciate specific degradations in performance to the service provider, user and/or central monitoring station.

The unit provided shall allow two-way communication with the central monitoring station, and upon activation shall output locally. Unit shall be stand-alone, mounted within its own enclosure and properly accessorized to meet Underwriters

Laboratories Grade AA Burglary or Police Connect. Additionally, where required, transformer shall be covered or enclosed and STU unit shall be further accessorized and installed to meet NFPA 71 Central Station Service for fire, as defined under Active Multiplex.

DCX network shall be configured so as to provide a diverse number of central monitoring station ATUs with the ability to monitor and supervise a diverse number of STU type units. Communications shall be switched transparently between monitoring centers and remote STU locations, each monitoring center shall be able to view only those STU units assigned to them. The signal paths, transmission hardware and system software shall be redundant where applicable. The primary signal paths which transport the combined communication protocols shall operate over metallic, fiber, microwave, satellite and/or other telephonic means.



# STU-11Z-UL

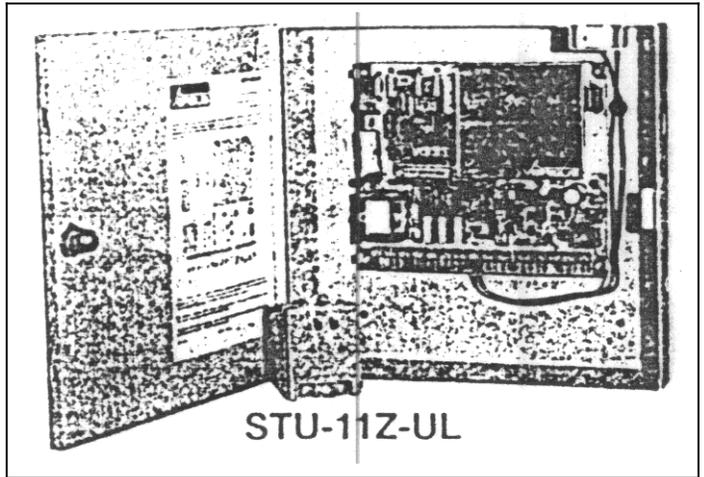
## Subscriber Terminal Unit"

### Applications

The STU-11Z-UL is a Subscriber Terminal Unit' (STU) to be used in conjunction with the VerSuS<sup>®</sup> Derived Channel multipleX™ (DCX™) network. A network consists of STUs, Scanners, Host computers and Agency Terminal Units™ (ATU™). Networks are offered throughout the world by various public and private telephone service providers, as well as, within proprietary telephone systems.

A STU device can be used stand-alone, or more typically may be used along with an alarm control panel (digital dialer, etc.) within a protective security system. The STU unit provides back-up local telephone line integrity information as well as alarm and event activity to a remote central monitoring station ATU. This is accomplished without the need for dedicated phone lines and thereby substantially reduces on-going costs. DCX operates on the subscriber's existing voice grade phone line, without precluding normal conversations.

When appropriately configured the DCX network offers Underwriters Laboratories (UL) Listing for Grade AA Burglary, Police Connect, and NFPA 71 Central Station



Service and Factory Mutual (FM) approval for fire communications. DCX provides one of the most affordable methods for reliable and secure alarm signalling, with the added benefit of detecting disabled or cut telephone lines

### Standard Features

- Transmits 11 zones of supervised alarm information.
- Closing report through STU generates automatic ringback.
- Communicates power trouble and self-diagnostic failure
- Built-in battery charger with plug-in transformer
- Two-way communication allows local output remotely controlled
- On-line L.E.D. provides visual microprocessor status.
- Large, sturdy steel cabinet with tamper switch
- STU can signal Loss of Communications (LOC) with DCX network.
- DCX eliminates dual phone lines for fire signalling
- Backs-up dialers, long range radio, cellular and satellite
- Works on local loop metallic pair, within telephone network.
- Interfaces with most fire and burglar alarm systems.
- Telephone line integrity continuously monitored at central station.
- use with various forms of event monitoring: medical alert, industrial processes, environmental, etc.
- Multi-level lightning and transient protected inputs

### Ordering Information

22004-0001	11 zones, 12 VAC, N.O. inputs, PROM programming, includes: lock, keys, enclosure, tamper, resistors, battery charging circuit, transformer, PROM chip; UL Listed product
22004-0002	Same as 22004-0001 except with RED enclosure for local fire code compliance
22004-0003	Printed circuit board ONLY, for STU assembly 22004-0001 and 22004-0003, UL Recognized Component
22004-0005	6VDC 5AMPHR lead acid battery
98043-0001	3 RJ-31X phone cord with leads

#### Description

11 zones, 12 VAC, N.O. inputs, PROM programming, includes: lock, keys, enclosure, tamper, resistors, battery charging circuit, transformer, PROM chip; UL Listed product

Same as 22004-0001 except with RED enclosure for local fire code compliance

Printed circuit board ONLY, for STU assembly 22004-0001 and 22004-0003, UL Recognized Component

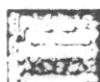
6VDC 5AMPHR lead acid battery

3 RJ-31X phone cord with leads

Specifications are subject to change without notice

Versus Technology Incorporated

Phone: 313-277-1100  
Fax: 313-277-1101



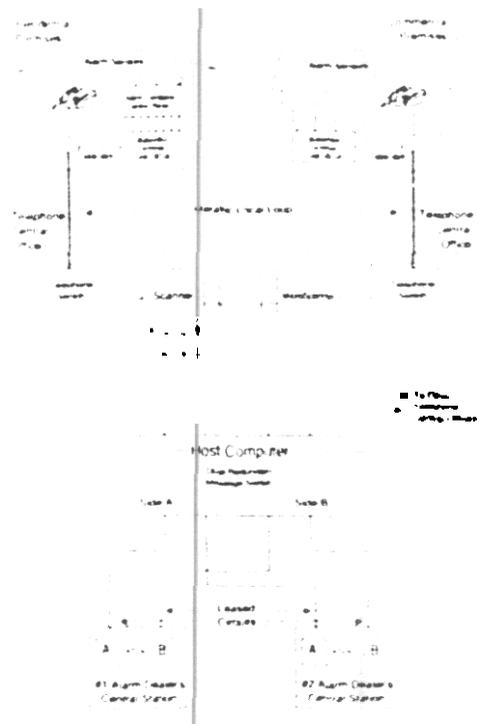
Versus Technology Limited

Phone: 01-277-1100  
Fax: 01-277-1101

# Product Specifications

Primary Power:	12VAC 20VA plug-in Class 2 transformer
Back-up Power:	6VDC 4AMPHR lead acid battery
Stand by Time	Minimum of 24 hours
Current Draw	Nominal 150 milliamps @ 6VDC, without Controlled Output active
Low Power Report	When battery voltage is less than 5VDC or AC fails for 480 seconds or more
Controlled Output	Open collector, max. 30VDC @ 10 milliamps
Local LOC Output	Normal 5 VDC @ 10 ma, active at 0VDC
Operating Temperatures:	30° F (-1° C) to 131° F (55° C)
Programming:	PROM chip, use Ademco 690 Programmer
Account number parameters	4 hexadecimal characters, 65,000 possible
Zone Inputs	11 End-of-Line 22K Ohm circuits
Zone Activation:	Short the normally open circuit
Zone Events Auto Reported:	Zone alarm, restoral, fault, own. dose, normal and outstanding
STU Events Auto Reported:	LOW power, Self-test failure
Requestable Status:	Zone normal, outstanding, alarm, etc
Information reported:	Zone number, account number, event
Report Styles:	Long and/or Short
Loss of Communication:	STU No Response, STU Was Reset
Network Compatibility:	VerSuS® Derived Channel multipleX™ (DCX™)
Ringer Equivalence:	1.68
FCC Part 68 Compliance:	CKH78V-70802-XT-N
STU Telephone Line In/Out	On-board terminals for tip and ring
Encrypted Audible Poll	Timed FSK tones (chirp)
Wiring Terminals:	Mini self-clamping style, 18-22gauge
PCB Dimensions:	7.75" Long x 6.875" Wide x 1.50" Deep
Cabinet Dimensions:	11" Long x 11" Wide x 3" Deep
Listing / Approvals	Refer to the Versus Compliance Guide, document part number #30001-0590
CPE Compatibility:	Refer to the Versus Compatibility Guide to Modems, Fax and Answering Machines document part number #30001-0591

# NETWORK DIAGRAM



# General Engineering Specifications

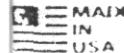
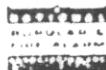
A Subscriber Terminal Unit\* (STU\*) shall be provided to supervise the local metallic loop of the switched telephone network. The unit shall be constantly supervised by remotely situated network apparatus, and said unit shall transmit various alarm and/or status events without precluding normal voice communications, through to a monitoring station properly equipped to receive those signals with redundant Agency Terminal Units (ATUs). The STU unit shall communicate in a format, compatible with a VerSuS® Derived Channel multipleX™ (DCX)™ network. The unit shall have the capability to perform self-diagnostics, poll response, tone generation and announce specific degradations in performance to the service provider, user and/or central monitoring station.

The unit provided shall allow two-way communication with the central monitoring station, and upon activation shall output locally. Unit shall be stand-alone, mounted within its own enclosure and properly accessorized to meet Underwriters

Laboratories Grade AA Burglary or Police Connect. Additionally, where required, transformer shall be covered or enclosed and STU unit shall be further accessorized and installed to meet NFPA 71 Central Station Service for fire, as defined under Active Multiplex.

DCX network shall be configured so as to provide a diverse number of central monitoring station ATUs with the ability to monitor and supervise a diverse number of STU type units. Communications shall be switched transparently between monitoring centers and remote STU locations, each monitoring center shall be able to view only those STU units assigned to them. The signal paths, transmission hardware and system software shall be redundant where applicable. The primary signal paths which transport the combined communication protocols shall operate over metallic, fiber, microwave, satellite and/or other telephonic means.

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Marketing Model #	Ordering Part #	Product Description
<b>Subscriber Terminal Units</b>		
STU-2Z	22007-0001	Two zones, 12VDC, N.O. inputs, dip switch programming, includes: clip mount, resistors; UL Recognized Component
STU-2Z-UL	22008-0001	Two zones, 12 or 24VDC, voltage triggered inputs, dip switch programming; includes: lock, keys, enclosure, tamper; UL Listed product
STU-11Z-UL	22004-0001	11 zones, 12VAC, N.O. inputs, PROM programming; includes: lock, keys, enclosure, tamper, resistors, battery charging circuit, transformer, PROM chip; UL Listed product
	22004-0003	Same as 22004-0001 except with RED enclosure for local fire code compliance
STU-11Z-CSA	22010-0001	11 zones, 12VAC, N.O. inputs, PROM programming; Includes: plastic enclosure, tamper, resistors, battery charging circuit, transformer, PROM chip; CSA Certified product
	22004-0002	Printed circuit board ONLY, for STU assembly 22004-0001 and 22004-0003; UL Recognized Component
	152014501	Portable Test STU
<b>STU 11Z Program Chips</b>		
	74001-0001	Blank program PROM chip
	74001-0002	Standard program PROM chip
	74001-0003	Custom program PROM chip
<b>Telephone Jack Cords</b>		
	96043-0001	3 foot RJ-31X phone cord with leads
	96052-0001	3 foot RJ 31X Phone cord double ended
<b>Transformers</b>		
	72708-0001	STU-11Z-UL 12VAC 20VA plug-in transformer
	72708-0002	STU-11Z-CSA 12VAC 20VA plug-in transformer, requires cover
	89042-0001	CSA cover for 72708-0002
	72709-0001	ATU-6000 16VAC 40VA plug-in transformer
<b>Batteries</b>		
	70915-0006	6VDC 4AMP/HR battery for STU-11Z-UL
	75002-0001	6VDC 2.8AMP/HR battery for STU-11Z-CSA
<b>Annunciators</b>		
	70903-0001	Remote Annunciator for Alarm Capture
	70904-0003	Alarm Capture Unit, traps ASCII text strings on RS232 communication ports
<b>Agency Terminal Units</b>		
ATU	14977-0009	Central station unit, two required for UL compliance; UL Listed product
	14977-0010	Same as 14977-0009 with modem added
ATU-6000	20902-0002	Central station unit, two are required for redundancy; includes: transformer, data disk, cables and manual; UL Listed product
	84007-0001	Modem, 20.1, one required per ATU
	84008-0001	Printer, one required per site
	84009-0001	Terminal, one required per ATU
	84010-0001	Backup battery for the site; (1) ATU requires one backup battery; (2) printer and (5) terminal units require one

#### HOW TO ORDER

Call our toll free number at 1-800-388-2828. Press 2 on a touch-tone telephone or wait for an operator. Fax orders are accepted by dialing our fax number (609-890-0784).

All orders will be shipped COD via ground United Parcel Service (UPS) unless otherwise requested. Open accounts may be applied for through our credit department. Processing takes three to four weeks. FOB, Trenton, New Jersey USA.

Customer Service and Order Processing hours are from 8:30 a.m. until 5:30 p.m. (E.S.T.), Monday through Friday.

Versus Technology, Inc  
One Electronics Drive  
Trenton, New Jersey 08619  
USA  
609-586-4091

#### MINIMUM PURCHASES

Versus will process all orders placed equaling or in excess of twenty dollars (\$20.00 U.S.I. excluding taxes, shipping and handling. All pricing is based on a single ship to address.

#### CUSTOMER ASSISTANCE

Versus will be glad to assist our customers in the support of goods sold. So that we may best serve you, please contact our Customer Service Group (1-800-388-2828) during business hours, but first, please take the necessary steps to isolate any problems that you might be encountering and be ready to meter, exchange or test the equipment in question.

#### REPAIRS

Our customer is expected to carry an inventory of goods for service calls and the like. If, however, in the unlikely event we determine that the equipment should be returned to us for repair, Versus will immediately issue a Return Merchandise Authorization number (RMA), and the customer shall be required to return the goods to us via prepaid carrier. The RMA number should appear on the exterior and interior of the shipping box.

Normal factory turnaround time from receipt by Versus of the material to the subsequent return shipment to our customer is 21 days.

#### WARRANTY

Versus Technology, Inc. warrants that all products of its manufacture supplied to the purchaser shall be in accordance with applicable specifications and shall be free from defects in materials and workmanship for a period of one year from initial delivery by Versus Technology, Inc. (with the exception of consumables). Versus Technology, Inc. will repair or replace defective units at the factory, at its option, within the warranty period at no charge to the purchaser. Shipping charges for returned units must be prepaid by the purchaser. Versus Technology, Inc. will pay charges for shipment of repaired units to the purchaser during the warranty period. This warranty does not apply to defects caused by misuse or neglect by the purchaser or his representative, nor to defects caused by improper assembly, installation, or operating practices on the part of the purchaser. Equipment used with the products, but not manufactured by Versus Technology, Inc. carry only such warranty as given by the manufacturer thereof, and such warranty is assigned to the purchaser unless otherwise negotiated. No other warranties are given, expressed, or implied for the products, and such warranties may be modified only by Versus Technology, Inc. in writing.



DEALER PRICE LIST

1/1/92

Ordering Part #	Description	Quantities				
		1 to 9	10 to 24	25 to 49	50 to 99	100 +
14977-0009	ATU	\$3,595	-	-	-	-
14977-0010	ATU w/modem	4109	-	-	-	-
15201-0501	Test STU	1,053	-	-	-	-
20002-0002	ATU-6000	2,600	-	-	-	-
22004-0001	STU-11Z-UL	315	\$310	\$300	\$250	\$240
22004-0002	STU-11Z PCB	275	265	255	245	235
22004-0003	STU-11Z-UL RED	345	340	325	280	275
22007-0001	STU-2Z	150	140	130	120	110
22008-0001	STU-2Z-UL	235	225	215	185	175
22010-0001	STU-11Z-CSA	385	350	325	300	285
70903-0001	Annunciator	100	-	-	-	-
70904-0001	Alarm Capture	400	-	-	-	-
70915-0006	UL Battery	25	22	20	18	16
72708-0001	UL Transformer	15	15	15	15	15
72708-0002	CSA Transformer	15	15	15	12	12
72709-0001	ATU Transformer	15	15	15	12	12
74001-0001	Blank PROM	10	10	10	7	7
74001-0002	Standard PROM	10	10	10	7	7
74001-0003	Custom PROM	25	25	25	20	20
75002-0001	CSA Battery	20	20	20	20	20
84007-0001	Modem	500	-	-	-	-
84008-0001	Printer	550	-	-	-	-
84009-0001	Terminal	750				
89042-0001	CSA Cover	5	5	5	5	5
96043-0001	RJ-31X Cord Leads	4	4	4	3	3
96052-0001	RJ-31X Cord	5	5	5	4	4
98001-0005	JL Dealer Package	R 250				

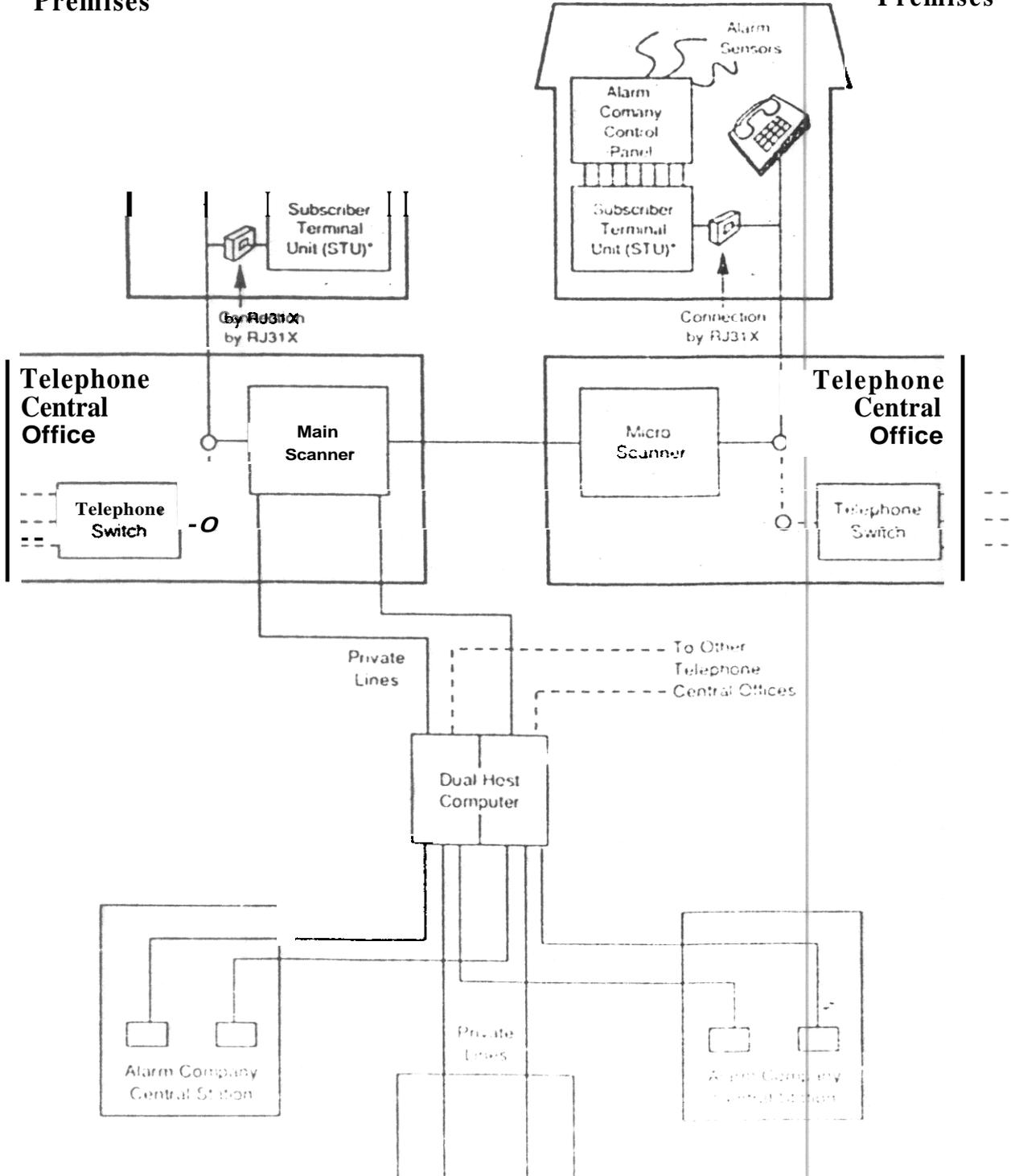
Effective January 1, 1992

30001-0503D

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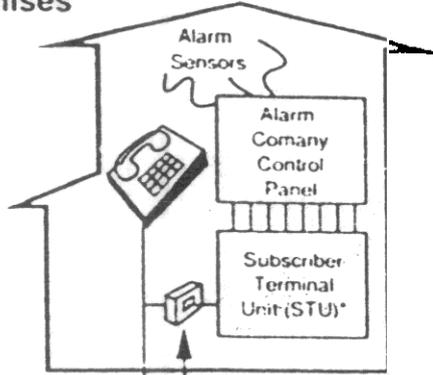
Customer's  
Premises

Customer's  
Premises



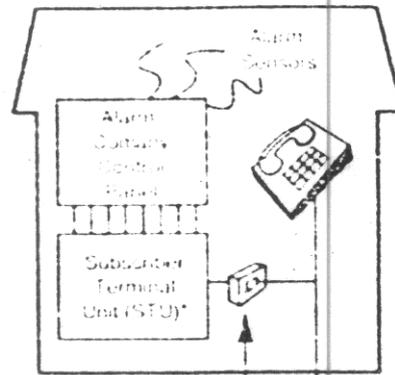
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Customer's Premises



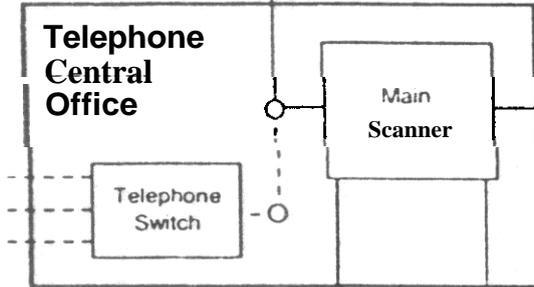
Connection by RJ31X

Customer's Premises

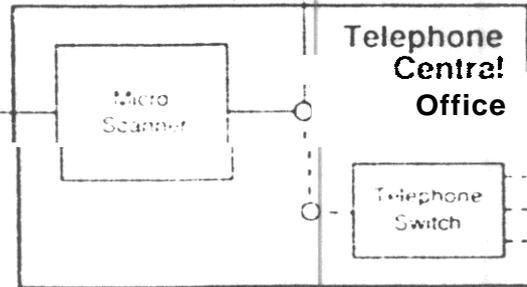


Connection by RJ31X

Telephone Central Office



Telephone Central Office



Private Lines

To Other Telephone Central Offices

Dual Host Computer

Private Lines

