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Proposal for:

Camp Dodge (Iowa Army National Guard)

Johnston, IA

Mass Notification Giant Voice System

Project No: 19080517

August 23, 2011

Submitted by:

Acoustic Technology, Inc. (ATI Systems)
30 Jeffries St.
East Boston, MA 02128
617-567-4969

ATI Systems

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August 23, 2011

Iowa Army National Guard
Camp Dodge
Construction and Facilities Management Office

Dear Mr. Rogers:

ATI Systems is pleased to have an opportunity to provide a detailed proposal for the Camp Dodge Mass Notification System.

Both before and after the pre-bid conference/site visit on the morning of August 17th, we spent many hours discussing this project and have reviewed all of the information, details, drawings, answers to questions, notes, etc. to identify the best technical solution at the least possible cost to Camp Dodge and the Iowa Army National Guard.

Per the requirements, we recommend the following:

(6) ATI HPSS16 High Powered Speaker Stations (HPSS)
(1) ATI Indoor Speaker Unit (ISU)
(2) ATI Control Stations (CS)
   Please see pages 4-5 ("Proposed System and Solution") for additional system details

ATI's equipment is field proven with nearly 30 years of experience manufacturing and installing emergency alert systems. Other major advantages of our systems include:

- Re-entrant, exponential speaker horn designs that create a directional sound pattern--a superior design for accurately reproducing highly-intelligible voice and tone signals (when compared to the stack/cell speaker assemblies)
- Easy expansion and interface/integration capability, in case future additional emergency alert system needs arise

ATI Systems has designed, manufactured and supervised thousands of mass notification system installations worldwide. We are confident that our proposed solution meets your requirements and will provide superior system performance, reliability and economic value. Our professional in-house and field staffs will manage, supervise and support all phases of the installation, startup and training.

I would like to thank you for the opportunity to bid on this important project. We have applied our best people to it and have worked hard to understand Camp Dodge's needs and to prepare this proposal in a sincere and thoughtful effort to earn your business.

ATI Systems looks forward to working with Camp Dodge and the Iowa Army National Guard.

Brian J. Berg
Regional Sales Manager
Tel: 617-567-4969 x219
Fax: 617-569-2964
Email: bberg@atisystem.com

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2.   **Proposed System and Solution**

Below is a summary of the equipment and services for the MNS project.

Outdoor High Powered Speaker Stations (total quantity 6):
- Electronic directional speaker stations (one, two, or three speakers per pole--400, 800, and 1200 watts).
- Mounting brackets and mounting hardware.
- NEMA4X stainless steel siren control unit enclosures with unique, compact and highly-efficient class D amplifiers.
- Singlemode fiber optic converters.
- Digitized pre-recorded voice message boards.
- Capability for at least 60 minutes of continuous activation via battery system.
- 60' steel poles.
    - o Existing Tower 5 pole to be reused.
- Lightning arrestors for protection.
- Two sealed, maintenance-free 12V 100AH AGM batteries per unit.
- Proposed system has built-in voice capability, which allows for use of live PA and pre-recorded messages.

Indoor Speaker Unit (total quantity 1):
- NEMA3R enclosure houses the system electronics and highly-efficient class D amplifier.
- Digitized pre-recorded voice message board.
- Singlemode fiber optic converter.
- Mounting bracket and mounting hardware.
- 25 volt and 70 volt audio output line for running long speaker wire runs with minimal loss.
- Seven exterior wall-mounted 15-watt horn speakers.
- Two 12V 18AH batteries per unit.
- At least 60 minutes of continuous activation.

Control Stations (total quantity 2):
- Provides over 64 configurable actions, which include pre-recorded messages and automatic activations.
- Each CS includes MassAlert™ software (for owner-provided workstation computer), RS232 cable, multi-strip power outlet, REACT-4000 CCU desktop cabinet, controller, front panel push buttons, alarm screen display, handheld microphone, advanced communication board, singlemode fiber converter, 12V 7AH internal battery, uninterrupted power supply (UPS), power supply and power cord.
- Two-way communication alarm and alerting screen for control and monitoring of all outdoor speaker stations.
- Remote access/activation via telephone or Web/VPN can be included for an additional fee.
- Includes built-in direct two-way interface to Desktop Alert's network notification system for simultaneous activations of both Giant Voice and NAS systems--playing the exact same pre-recorded message or pre-configured NAS message. Includes a dedicated computer station with server software, updated software (for both ATI & Desktop Alert), engineering, integration and system testing.

NOTE: Please see below regarding the specification mentioned in section 2.3.B.1 of the "Basic Communications Systems Requirements" document: "Dedicated amplifiers are required for

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each speaker such that upon failure of one amplifier, the other speakers for that pole are still operational."
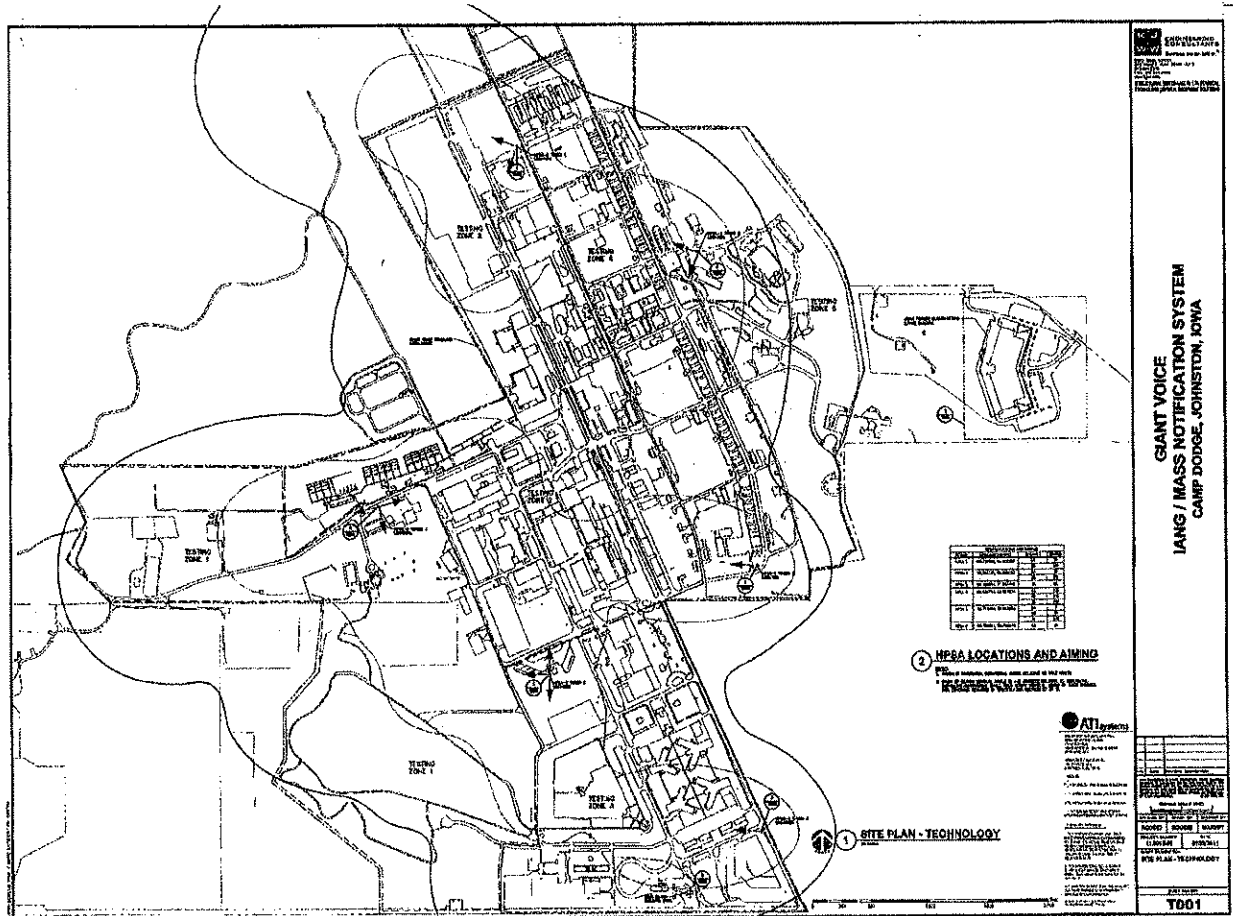
ATI's architecture involves a single amplifier per speaker array for a superior design, as this provides a higher mean time between failures (MTBF), for better reliability. Also note that, because of its exposure to the elements, the speaker array itself is better served with redundancy (versus the amplifier or amplifier board). ATI utilizes a design with four 100-watt drivers per speaker horn, which means that if a single driver were to fail, there would be a very minimal overall drop in SPL and it would only be in one direction. Some of our competitors use a single 400-watt omni-directional driver in each speaker cell, meaning if that driver fails, there is a significant drop in SPL in all directions.

Additionally, this requirement is manufacturer specific architecture and has no real bearing on the system's actual functionality or ability to perform.

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3.   Maps of Outdoor Siren/Speaker Coverage

Camp Dodge:

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JFHQ Building (First Floor):

JFHQ FIRST FLOOR PLAN - TECHNOLOGY

GIANT VOICE
IANG / MASS NOTIFICATION SYSTEM
CAMP DODGE, JOHNSTON, IOWA

T101

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JFHQ Building (Second Floor):

JFHQ SECOND FLOOR PLAN - TECHNOLOGY

GIANT VOICE
IANG / MASS NOTIFICATION SYSTEM
CAMP DODGE, JOHNSTON, IOWA

T102
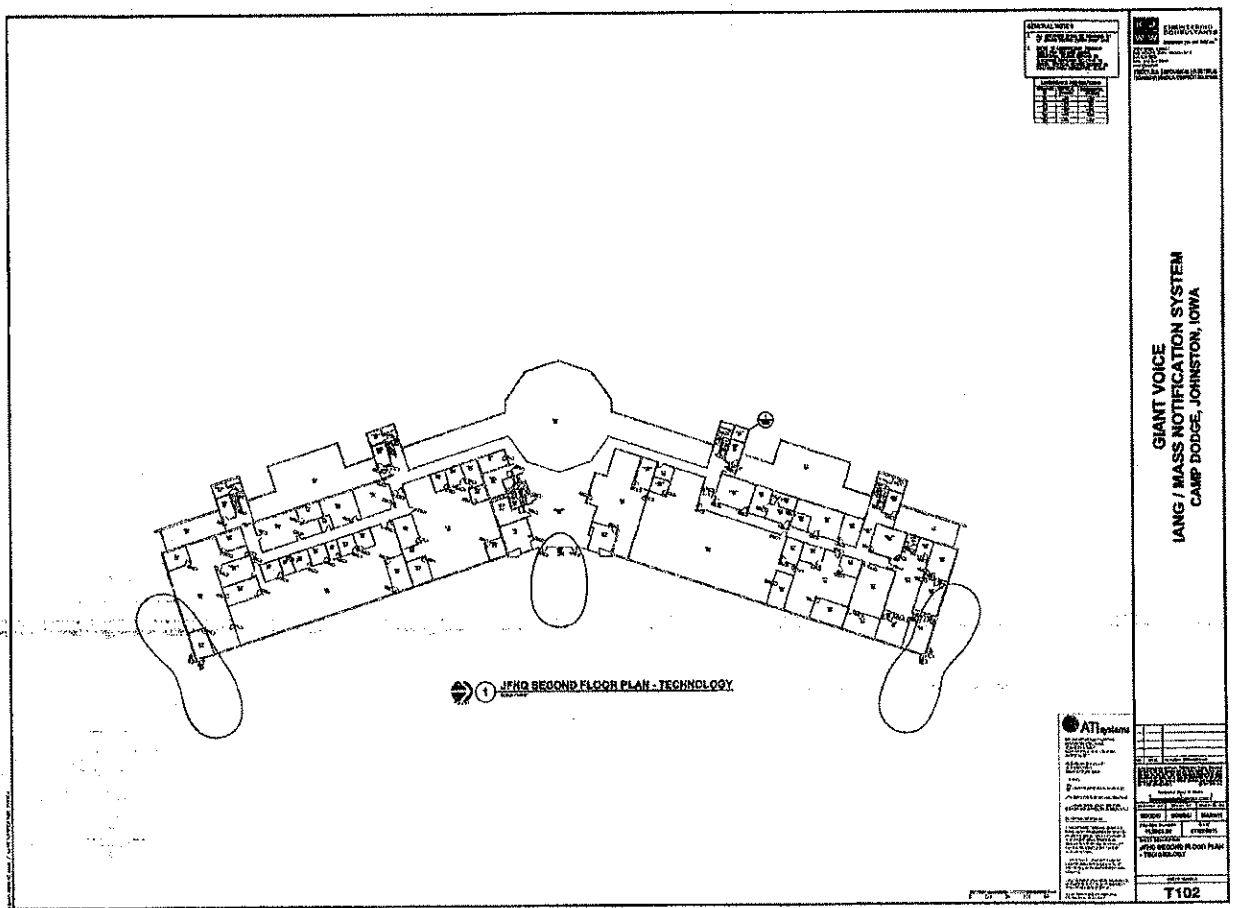
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4.   Cost Sheet

	Camp Dodge (Iowa Army National Guard)			Brian Berg	
	Johnston, Iowa **Mass Notification System** 18-Aug-11			Acoustic Technology, Inc. 30 Jeffries St. East Boston, MA 02128 (617) 567-4969 x219	
www.atisystem.com	Pricing is valid for 90 days.			bberg@atisystem.com	
Model #	**DESCRIPTION**	**QTY**	**UNIT PRICE**	**EXTENDED PRICE**	
I	**System Controllers**				
CS	Control Station - Communication Control Unit (CCU) includes: ATI REACT 4000 controller, hand-held microphone, sealed 12V 7AH battery, advanced communication board, singlemode fiber converter, power cable, MassAlert™ software for owner-provided workstation computer, serial cable and multi-strip power outlet.	2	$5,799.50	$11,599.00	
UPS-240	Uninterrupted Power Supply - provides minimum 4 hours of AC power backup for the workstation computer equipment.	2	$2,240.00	$4,480.00	
ATI-DTA	ATI's Desktop Alert mass notification system interface - Provides direct two-way interface to Desktop Alert's network notification system for simultaneous activations of both Giant Voice and NAS systems, playing the exact same pre-recorded message or pre-configured NAS message. This includes software integration and system testing. The price does not include purchasing or modification of Desktop Alert's NNS.	1	$19,906.96	$19,906.96	
DTA	Desktop Alert network notification system updated software and engineering. Includes complete computer station with server software.	1	$14,300.00	$14,300.00	
Sub	Subtotal			$50,285.96	
II	**Outdoor High Powered Speaker Stations**				
HPSS-1600(1)	400 Watt High Power Speaker Station includes: NEMA4X stainless steel siren control enclosure with ventilated battery compartment, intrusion switch and enclosure mounting bracket. Enclosure contains: class D amplifier integrated with controller, advanced communication board, singlemode fiber converter, power ON/OFF circuit breaker. Also includes: (2) 12V 100AH AGM batteries. Stationary speaker head includes: (1) 400 watt speaker horn with driver, speaker mounting hardware, pole mounting bracket and 50 ft. speaker cable.	2	$7,056.50	$14,113.00	
HPSS-1600(2)	800 Watt High Power Speaker Station includes: NEMA4X stainless steel siren control enclosure with ventilated battery compartment, intrusion switch and enclosure mounting bracket. Enclosure contains: class D amplifier integrated with controller, advanced communication board, singlemode fiber converter, power ON/OFF circuit breaker. Also includes: (2) 12V 100AH AGM batteries. Stationary speaker head includes: (2) 400 watt speaker horns with drivers, speaker mounting hardware, pole mounting bracket and 50 ft. speaker cable.	2	$7,456.50	$14,913.00	
HPSS-1600(3)	1200 Watt High Power Speaker Station includes: NEMA4X stainless steel siren control enclosure with ventilated battery compartment, intrusion switch and enclosure mounting bracket. Enclosure contains: class D amplifier integrated with controller, advanced communication board, singlemode fiber converter, power ON/OFF circuit breaker. Also includes: (2) 12V 100AH AGM batteries. Stationary speaker head includes: (3) 400 watt speaker horns with drivers, speaker mounting hardware, pole mounting bracket and 50 ft. speaker cable.	2	$7,856.50	$15,713.00	
DMB	Digitized Pre-Recorded Voice Message Board - includes Digital Message Board with ribbon cable. Does not include messages or recording time.	6	$403.00	$2,418.00	
LIGHTNING	Lightning arrestor for protection. Includes bracket and hardware.	6	$150.00	$900.00	
POLE	60 ft. steel pole - engineered and rated for mounting up to 4 speakers with wind loads of 100 MPH.	5	$2,727.00	$13,635.00	
Sub	Subtotal			$61,692.00	
III	**Indoor/Outdoor Speaker Unit**				
ISU-1	Indoor Speaker Unit - Includes powder coated steel control enclosure with ventilated battery compartment, intrusion switch, enclosure mounting bracket and hardware. 400 watt class-D amplifier integrated with controller, advanced communication board, singlemode fiber converter, temperature compensated battery charger and power ON/OFF circuit breaker. Also includes: (2) 12V 18AH batteries. Speaker cable to be provided by Baker Electric.	1	$3,196.50	$3,196.50	
HS-15	Exterior Wall Mount Horn Speaker - Multi-tap up to 15 watts (weather resistant).	7	$104.30	$730.10	
DMB	Digitized Pre-Recorded Voice Message Board - includes Digital Message Board with ribbon cable. Does not include messages or recording time.	1	$403.00	$403.00	
Sub	Subtotal			$4,329.60	
IV	**Other**				
DESENG	Design engineering - The system configuration, optimization and firmware development item is a charge that covers initial configuration, optimization and firmware development issues for each systems specific needs. Work performed by a ATI Certified Design Engineer with a minimum of 3 years experience.		LOT	$2,500.00	
JOBSTART	Start up assistance and training services - ATI certified technician to perform startup assistance, commissioning and training for on-site support. Includes an additional day of training each quarter for the 12-month project warranty period. NOTE: Travel expenses additional and will be billed to Camp Dodge at actual cost.	6	$800.00	$4,800.00	
SHIPPING	Equipment shipping to site.		LOT	$1,686.00	
INSTALLATION	Installation of (2) Control Stations/CCUs, (5) Outdoor HPSS mounted on new 60' steel poles, (1) Outdoor HPSS mounted on existing pole (Tower 5), (1) ISU and (7) outdoor horn speakers.		LOT	$96,118.00	
Sub	Subtotal			$105,104.00	
V	**TOTAL (Equipment, Delivery and Installation)**			$221,411.56	

Notes:	TERMS: Net 30 days from receipt of invoice. Invoices are submitted upon delivery of materials/equipment, and every 30-days for services performed.

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5. Client Responsibilities

a) The tones and messages need to be provided by the client at the time of the PO. Please note that if there is a delay in providing this information to ATI Systems, schedules and deadlines will be affected

b) Suitable desktop location for CCU and control station equipment with local 120 VAC outlets (within 6 feet) is required.

c) Final site approval / architectural approval for siren sites is required. Evaluations, studies, and approvals by professional engineers of siren structures and roof or pole structures, if required to satisfy inspection requirements, are not included.

d) Local or utility AC power 120 VAC, 15 ampere service (if applicable) brought to electrical disconnects at outdoor ATI Systems equipment cabinet

e) Owner to spot all underground obstructions prior to digging

f) Obstruction clause - 2: ATI Systems is not responsible for any damage to underground wiring identified by local hotline service or to structures not installed properly or to code

g) Accessibility clause – ATI Systems is not responsible for right of way conditions that would prevent construction or require permitting or for any resulting costs.

h) Storage fees may be incurred due to client delays once the system has been manufactured and tested. Adequate notice will be provided by the project manager.

See email dated 8/26/11 (attached)

From:	Brian Berg [bberg@atisystem.com]
Sent:	Friday, August 26, 2011 8:00 AM
To:	Rogers, Daniel K. (IA)
Cc:	Neil J. Smeenk; Richard A. Vedvik
Subject:	Camp Dodge Mass Notification System (project #19080517)

Importance: High

Hi Daniel,

I've included our responses to each of the "Client Responsibilities" bullets included in our proposal. See below (bold red type):

a)   Final site approval / architectural approval for siren sites is required. Evaluations, studies, and approvals by professional engineers of siren structures and roof or pole structures, if required to satisfy inspection requirements, are included.—ATI to provide.

b)   Local or utility AC power 120 VAC, 15 ampere service (if applicable) brought to electrical disconnects at outdoor ATI Systems equipment cabinet.—Baker to provide.

c)   Owner has spotted and indicated all underground obstructions prior to digging.— Baker to provide.

d)   Obstruction clause - 2: ATI Systems is not responsible for any damage to underground wiring identified by local hotline service or to structures not installed properly or to code.—Baker will be responsible for any damage to underground wiring/structures that were identified by Camp Dodge or utility companies.

e)   Accessibility clause – ATI Systems is not responsible for right of way conditions that would prevent construction or require permitting or for any resulting costs.— Remove/strike this clause, as our understanding is that all installation sites are within the property of Camp Dodge & will not have this requirement.

Let me know if you have any questions. We look forward to working with Camp Dodge & KJWW!

Regards,

Brian

Brian J. Berg

Regional Sales Manager

ATI Systems, Inc.

30 Jeffries St.

East Boston, MA 02128

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Cell: 617-388-5940

Fax: 617-569-2964

www.atisystem.com

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6. Installation, Start-up, and Technical Support

- **Installation**

  The installation of ATI Systems equipment will be provided by Baker Electric, Inc., in coordination with ATI Systems engineers and technicians.

- **Startup**

  After the installation of all equipment is complete, a trained ATI Systems specialist will perform the startup activities. ATI will inspect, test, and approve all equipment installations following written checkout procedures designed to thoroughly test individual units and the complete system. Also, they will interface with your authorized facility personnel for final system testing and commissioning. Final inspection, sound tests, and system test will be scheduled and approved by your designated representatives.

- **Technical Support**

  ATI Systems specialists are always available by telephone during regular business hours to resolve issues and explain system operation as needed.

![ATI Systems logo]

7. Project Schedule for Delivery and Completion

The project is estimated to take approximately 10 weeks from start to finish. An estimated timeframe of the project schedule is outlined below.
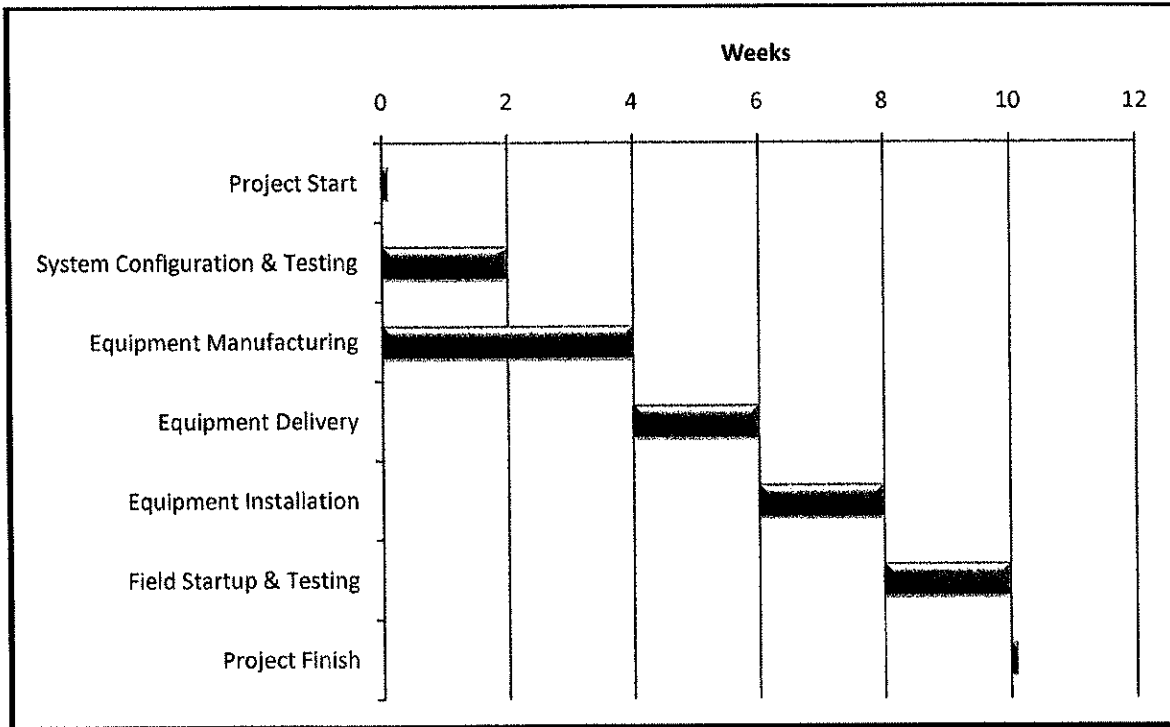
ATI Systems and Baker Electric agree to meet the the timeframe schedule that Camp Dodge provides. Above is an example of a normal scheduled timeframe for an outdoor siren/speaker project.

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8.   Warranty

ATI Systems (Acoustic Technology, Inc.) warrants the products of its manufacturer to be free from defective material and workmanship for one year from the date of delivery of the user. All original equipment manufacturer (OEM) items will be covered by their respective warranties. This includes items such as sirens, siren control units, antennae, etc.

This warranty does not include service to repair damage to the system resulting from accident, disaster, lack of maintenance or any act of God, such as storm, flood, hurricane, etc. ATI Systems will repair or replace at its option, without charge to user, any of its products or parts thereof which ATI Systems shall determine, in its sole discretion, to be defective in material or workmanship provided the following conditions are met and steps are taken. Cost for labor replacement is included in startup assistance and training price.

I.   Conditions to be met:

      a.   Products are returned to ATI Systems, East Boston, Massachusetts within (1) year of delivery to user. One year warranty on all electronic component parts.
      b.   Products have been properly installed and maintained in accordance with the design specifications.
      c.   Products have not been subject to mishandling, physical damage or customer alteration.
      d.   Products or any part thereof have not been repaired by anyone other than ATI Systems employees.

II.   Steps to be taken by customer:

      a.   Please call ATI Systems for Return Part Authorization.
      b.   Products must then be shipped prepaid to:

ATI Systems, Inc.
30 Jeffries Street
East Boston, MA 02128

Any item received damaged or imperfect in any way and/or found to be unsatisfactory for site use will be considered as acceptable returns and ATI Systems will have replacements sent out within (10) days at no charge or expense to Camp Dodge

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9. References

Customer name: Fort Rucker
Project location: Alabama
Completion date: 2010
Equipment: 1 CCU, 26 HPSS
Contact person: Willie Worsham, Project Manager
Contact phone #:   334-255-9778

Customer name: Tyndall Air Force Base
Project location: Florida
Completion date: 2008
Equipment: 3 CCU, 34 HPSS
Contact person: Brian Timpe, Project Manager
Contact phone #:   850-283-3802

Customer name: Goodfellow Air Force Base
Project location: Texas
Completion date: 2006
Equipment: 2 CCU, 6 HPSS, 6 ISU, 1 PA Unit
Contact person: MSgt. Gabriel Valdez, Project Manager
Contact phone #:   325-654-3558

Customer name: Fort Jackson
Project location: South Carolina
Completion date: 2004
Equipment: 3 CCU, 18 HPSS
Contact person: John Coynor, Force Protection Officer
Contact phone #:   803-751-6268

Customer name: Whiteman Air Force Base
Project location: Missouri
Completion date: 2004
Equipment: 4 CCU, 1 Mobile CCU, 13 HPSS, 2 ISU, 1 Trailer
Contact person: SSgt. Matthew Ruggiero, Project Manager
Contact phone #:   660-687-7068

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About Us

Acoustic Technology, Inc. (ATI Systems) designs, manufactures and installs reliable emergency warning and notification systems for the Campus, Community, Industrial and Military markets. Incorporated in Massachusetts in 1981, ATI Systems developed an innovative wireless system that provides audible and visual warnings via a simple and compact hardware design, user-friendly software and the latest advances in communication methods, including radio frequency, IP Ethernet and satellite technology. Through acoustic design and modeling, ATI Systems provides proper sound coverage and superior voice intelligibility in both outdoor and indoor areas to ensure the safety of communities worldwide. To learn more about ATI Systems, visit www.atisystem.com.

Key Markets:

CAMPUS – College campuses need to be prepared for any severe weather or emergency situation affecting their communities. The ATI warning system is the only tried and true solution for reaching everyone immediately by providing an integrated, multi-layered notification system.

COMMUNITY – Compliant with FEMA regulations, ATI notification systems allow communities to get the right message out immediately and clearly in the case of severe weather, homeland security threats or man-made disasters.

INDUSTRIAL – Ideal for high noise environments, the ATI system is designed for plant-wide alerting in case of emergencies. From accidents to chemical spills, the system provides audible and visual warnings through indoor and outdoor speaker systems, strobe lights and LED signage.

MILITARY – ATI Systems provides complete, integrated warning systems for the military including Giant Voice capabilities both outdoors and inside of base buildings. The mass notification system delivers clear and intelligible tone and voice commands in mission-critical situations.
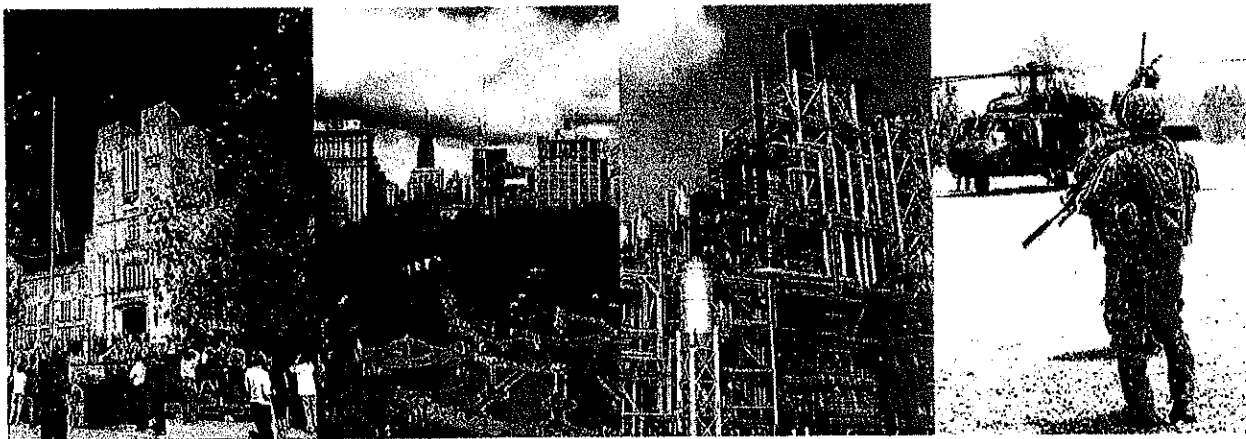
Why Choose ATI Systems

Expertise: We rely on our expertise in acoustic design to effectively position our system in the field. We offer a full analysis of existing emergency systems, a prediction of background noise levels and other factors that could influence sound propagation, a determination of acoustic requirements for performance, and new designs for full acoustic coverage to ensure the reliability and effectiveness of our system.

Direct Link to Manufacturer: We manufacture our own products in our Boston, Massachusetts, USA headquarters and are able to customize each system with a broad range of communication and control capabilities. Our expertise in redundant system design, wireless communication, backup power systems, existing system integration and diagnostic monitoring produces a reliable, field-tested final product.

Flexibility: We recognize that in an emergency, multiple methods of notification can save lives. We can seamlessly integrate with other existing notification systems, including emergency text messages, telephone alerts, email and desktop alerts.

Reputation: For over 20 years, ATI Systems has been known for its reliability and quality assurance, its industry-leading voice intelligibility and message storage ability, and its competitive pricing. Notable clients include North Carolina State University, Washington State University, the Port Authority of New York and New Jersey, the City of San Francisco, the Chevron Products Refinery, Indian Point Energy Center, Eglin Air Force Base and Groton Naval Base.

Simplicity: Our ATI Equipment modular design is easy to use, operate and maintain which will provide the customer with great saving during the life expectancy of the system.

Expandability: ATI builds the system with the future in mind. The system is a modular design and the software is expandable and can be changed by the end user to accommodate more equipment into the system.

Compliance: ATI equipment is built to meet the applicable government requirements and industry standards in a cost effective manner.

Communication: ATI Systems are designed to utilize the existing radio network infrastructure. We interface to an unlimited numbers of radio systems, conventional and trunked, from many manufacturers such as Motorola, TAIT, Ericsson/GE, etc... Also, ATI uses several methods for digital communication such as Ethernet, Fiber Optics, Cellular modems, Wireless mesh, Microwave and Satellite.
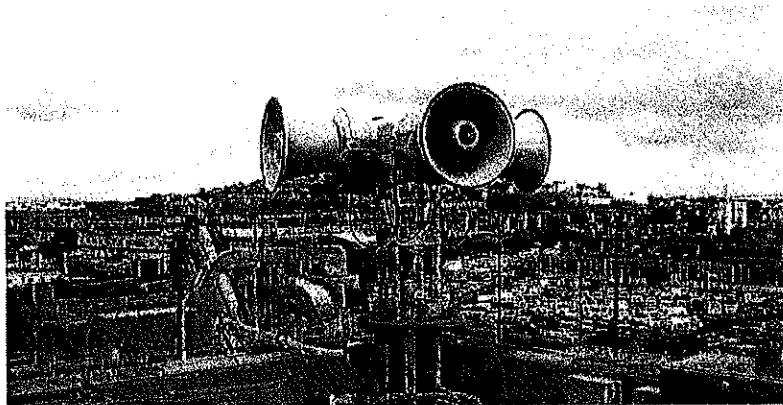
All information and specifications are subject to change without notice, and may contain typographical or other errors.

Acoustic Technology, Inc.
30 Jeffries Street, East Boston, MA 02128
Tel: 617-567-4969 ext.222   Fax: 617-569-2964

www.atisystem.com
Info@atisystem.com
06/09

High Powered Speaker Station

Our most popular unit, the HPSS16 provides 1600 Watts of continuous audio power for reliable outdoor alert tone notification and intelligible voice instructions in emergency situations. The ATI HPSS16 can also be utilized for live public address.

Standard Equipment

- Stainless steel enclosure with NEMA-4/3R electronic housing and NEMA-4/3R ventilated battery compartment
- Enclosure mounting bracket and mounting hardware
- Class D Amplifier integrated with a high-performance controller board
- Conventional VHF or UHF radio and mounting hardware
- Intrusion switch
- Temperature-compensated battery charger
- Power On/Off circuit breakers
- Four 400 Watt speaker assemblies with mounting bracket
- Sixty feet of speaker cable and a speaker pole mounting kit
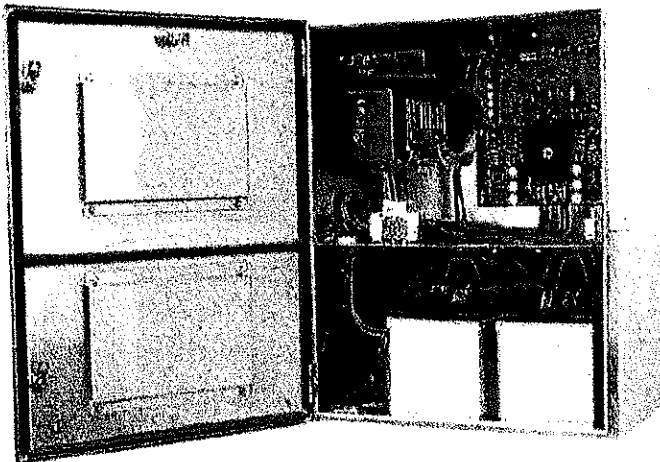
Key Features

- Simple and compact hardware design
- Field-proven reliability
- Exceptional acoustic performance and intelligibility
- Unique, compact and highly-efficient Class D amplifier
- 1600 Watts of continuous audio output power (four 400 Watt speakers)
- 30 minutes of continuous activation
- Built-in tone generator providing for eight standard, pre-configured tones
- 127 pre-recorded voice messages, up to 30 minutes of recording time
- Local and remote testing and reporting including silent test feature
- Standard VHF and UHF radio receives and transmits FSK, DTMF and Two Tone Sequential (TTS) data signals
- Automatic gain control for consistent output volume
- Very low standby power requirements
- Temperature-compensated battery charger ensures batteries are at full capacity
- Very High MTBF (Mean Time Between Failures)
- Message encryption and security coding prevent unauthorized system activations
- Stainless steel enclosure with NEMA-4/3R electronic housing and NEMA-4/3R battery compartment
- Conformal-coated printed circuit boards for operating in harsh environments
- Meets UFC and FEMA requirements

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Optional Features

ATI Systems offers fully customizable solutions, including the following features:

- Digital message board provides up to 127 pre-recorded messages, including 30 minutes of recording time
- Custom alert tones and digital messages specific to the application
- Advanced Communication Board upgrade to MP3/WAV digital voice messaging and Mini-SD flash memory card for easy message replacement, supports 255 messages and over 100 hours of recording time
- Local control panel upgrade with microphone, LCD display and controls, allows local activation and PA
- Trunked radio upgrade
- Flexible, redundant communication options including IP, Ethernet, twisted pair/phone line, cellular, satellite
- Antenna surge protector option
- Solar power option
- Strobe light and LED sign output options
- Choice of speaker type and configuration

Specifications for Model # HPSS16

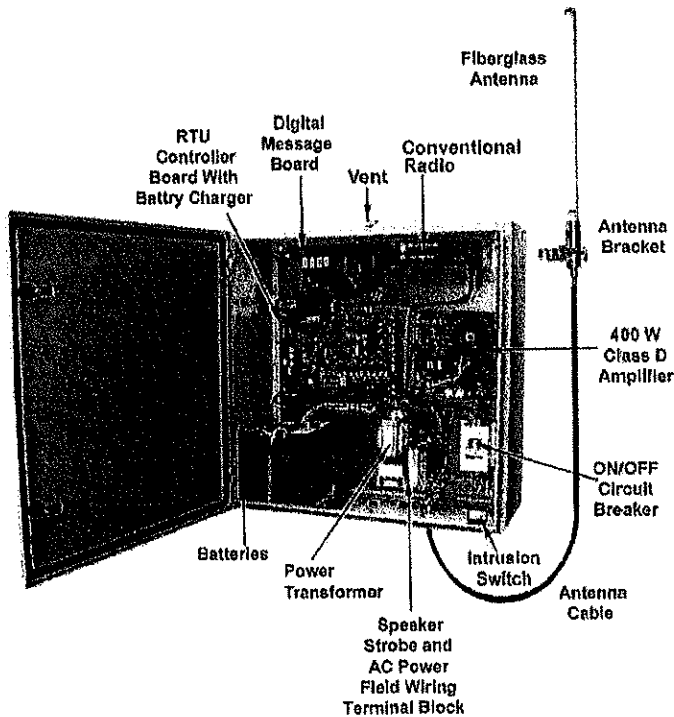|	
Operation	Tested and proven in harsh environments
Humidity	0 to 95%, non-condensing
Standby without AC	5 days (2 batteries with 100 AH (Amp-Hour) capacity)
Maximum Alarm Duration	30 minutes
Enclosure Weight	90 lbs (without batteries)
400W Speaker Weight (total of 4)	50 lbs each
Enclosure Size	28"H x 22"W x 14"D
AC Input Voltage	120 VAC or 240 VAC 50/60 Hz
Maximum Operating Current	3.5 Amps at 120 VAC or 2 Amps at 240 VAC
Signaling Method	FSK, DTMF, TTS
Radio Output Power	1 to 25 Watts
Audio Output Power	1600 watts RMS Continous per Amplifier
Audio Bandwidth	250 Hz – 5 kHz
Class of Operation	Class D
Output Regulation	1 dB or better, no load to full load
Operating Voltage Range	21 to 32 VDC
Protection	Protected against primary over current, output over current or shorts and output voltage spikes
Local Activation	Six pushbuttons for local testing
Radio Interface	Universal radio interface and power connectors
Expansion Ports	RS485, RS232 and a second 1600 Watt amplifier expansion port
Other Ports	Interface port for up to two Digital Message Boards
Other Features	Built-in AGC circuit, tone generator and digital adjustable audio gain
Standby Power without radio	< 200 milliamperes
Recommended Battery type: Two 100 AH batteries	

Indoor Speaker Unit

The Indoor Speaker Unit (ISU) is an integral part of the ATI system. The ISU provides 400 Watts of continuous audio output power for reliable indoor alert tone notification, voice instruction and public address in emergency situations. The ISU is monitored, controlled and activated by the ATI Central Control Unit (CCU).

Standard Equipment

- NEMA-4/3R enclosure
- Remote Terminal Unit (RTU) controller board
- Temperature-compensated battery charger
- Power on/off circuit breakers and intrusion switch
- 400 Watt Class D Amplifier
- Conventional VHF or UHF radio and mounting hardware
- 25 volt and 70 volt audio output line for driving long speaker wire runs with minimum losses

RTU Controller Board With Battry Charger
Digital Message Board
Vent
Conventional Radio
Fiberglass Antenna
Antenna Bracket
400 W Class D Amplifier
ON/OFF Circuit Breaker
Batteries
Power Transformer
Intrusion Switch
Antenna Cable
Speaker Strobe and AC Power Field Wiring Terminal Block

Key Features

- Simple and compact hardware design

- Field-proven reliability

- Exceptional acoustic performance and intelligibility

- Unique, compact and highly-efficient Class D amplifier

- 400 Watts of continuous audio output power

- Supports 30 minutes of continuous activation

- Built-in tone generator providing for eight standard, pre-configured tones

- 127 pre-recorded voice messages, up to 30 minutes of recording time

- Local and remote testing and reporting with silent test option

- Standard VHF and UHF radio receives and transmits FSK, DTMF and Two Tone Sequential (TTS) data signals

- Automatic gain control for consistent output volume

- Very low standby power requirements

- Message encryption and security coding prevent unauthorized system activations

- Conformal-coated printed circuit boards for operating in harsh environments

- Temperature-compensated battery charger ensures batteries are at full capacity

- Meets UFC and FEMA requirements

Optional Features

ATI Systems offers fully customizable solutions, including the following features:

- Custom alert tones and digital messages
- Advanced Communication Board upgrade to MP3/WAV digital voice messaging and Mini-SD flash memory card for easy message replacement, supports 255 messages and over 100 hours of recording time
- Local control panel upgrade with microphone, LCD display and controls
- Trunked radio upgrade
- Flexible, redundant communication options including IP, Ethernet, twisted pair/phone line, cellular, satellite
- Antenna surge protector option
- Strobe light and LED sign output options
- Choice of speaker type and configuration
- NEMA-4/3R stainless steel enclosure upgrade

Specifications for Model # ISU

General	
Operation	Tested and proven in harsh environments
Humidity	0 to 95%, non-condensing
Standby without AC	3 days
Maximum Alarm Duration	30 minutes
Enclosure Weight	96 lbs (without batteries)
Enclosure Size	23"H x 23"W x 10"D
Electrical	
AC Input Voltage	120 VAC or 240 VAC 50/60 Hz
Maximum Operating Current	3.5 Amps at 120 VAC or 2 Amps at 240 VAC
Communication	
Signaling Method	FSK, DTMF, TTS
Radio Output Power	1 to 25 Watts
Amplifier	
Audio Output Power	400 Watts RMS
Audio Bandwidth	250 Hz – 5 kHz
Class of Operation	Class D
Output Regulation	< 1 dB, no load to full load
Operating Voltage Range	21 to 32 VDC
Protection	Protected against primary over current, output over current or shorts and output voltage spikes
Controller	
Local Testing	Six pushbuttons for local testing
Radio Interface	Universal radio interface and power connectors
Expansion Ports	RS485, RS232
Other Ports	Interface port for up to two Digital Message Boards
Other Features	Built-in AGC circuit, tone generator and digital adjustable audio gain
Standby Power without Radio	< 200 milliamperes
Batteries	
Requires two 12VDC, 17 Amp-Hour batteries	

All information and specifications are subject to change without notice, and may contain typographical or other errors.
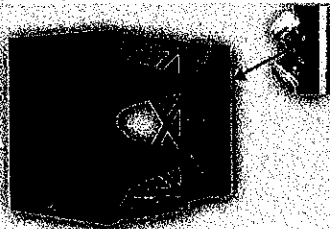
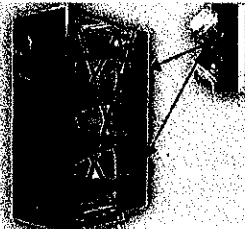# Available Speakers & Strobe Lights
Speakers
High Powered Outdoor Speakers
• Low-impedance speakers with different power output options and configurations (100 Watt, 200 Watt and 400 Watt options) for outdoor use
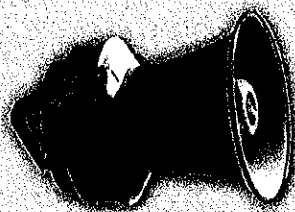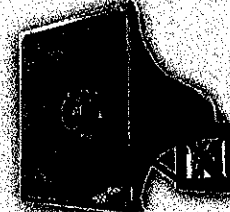

1600 Watt
Directional Speaker

3200 Watt
Directional Speaker

Planar Speakers Power Range
Recommendations 20 - 400 Watts

200 or 400 Watt Round
Directional Re-entrant Speaker

400 Watt Square Directional
Re-entrant Speaker

Speakers and Horns for Indoor Applications
• 25/70 volt low power speakers and horns for indoor and outdoor applications, ceiling and wall mount, strobe combinations available.

Indoor Horns

15 Watt Horn

30 Watt Horn

30 Watt Explosion-Proof
Speakers
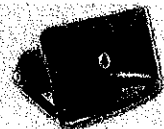
100 Watt Directional
Re-entrant Speaker

Ceiling or Wall Mounted Speakers

Power Setting:
¼, ½, 1, 2 watts *
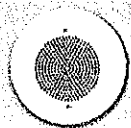
Power Setting: ⅛,
¼, ½, 1, 2, 4 watts

Drop-in ceiling speaker
Power Setting: ¼, ½,
1, 2, 4 watts
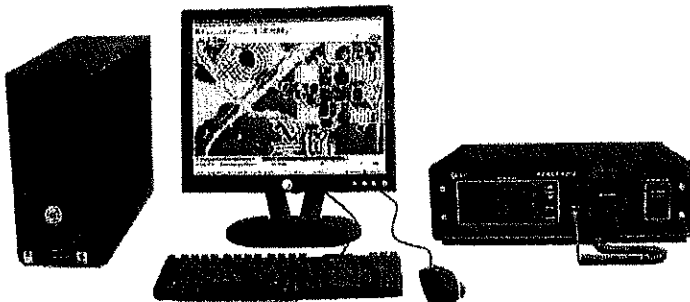
Amplified
1 Watt Speaker

Power Setting:
¼, ½, 1, 2 watts*

Power Setting: ⅛,
¼, ½, 1, 2, 4 watts

ATI Systems

dATI Systems

CS

Control Station

The Control Station (CS) provides a centralized location for activating, controlling and monitoring all system equipment. The CS also has the ability to broadcast live public address, pre-recorded messages and siren tones. Each CS consists of a PC with the ATI Systems' Windows-based software and the REACT 4000 Communication Control Unit (CCU). The software provides an extremely user-friendly, graphics-based interface to display a detailed map of the county, facility, base or campus with color-coded icons to visually indicate the location and status of the sirens and remote units.

Standard Equipment

- Central Control Unit
- Microprocessor controller
- Conventional VHF or UHF radio
- Front panel control
- LCD display
- Internal power supply
- Antenna connector
- Hand-held microphone for live PA broadcasts
- Desktop computer station
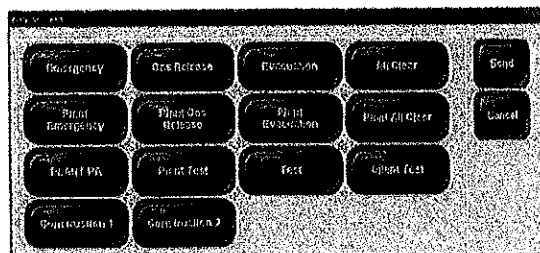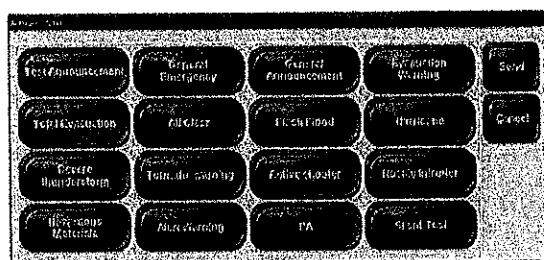- ATI Systems' customized software

Key Features

- Simple and compact design with user-friendly interface

- Minimal training required

- Manual and automatic tone alert, voice message or live PA activation, cancellation, testing and reporting of all system activities

- Manual and automatic silent testing

- Operates both outdoor and indoor alerting units

- Activates single, group or system-wide tone alerts, voice messages or live PA

- Configures the alert tone or voice message type, duration and number of cycles

- Archive and print system activity reports

- Monitors and displays unsolicited alert messages from remote sites

- Standard VHF or UHF radio receives and transmits FSK data signals

- Message encryption and security coding prevent unauthorized system activations

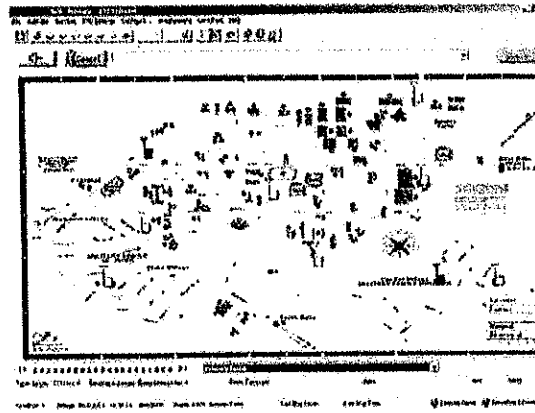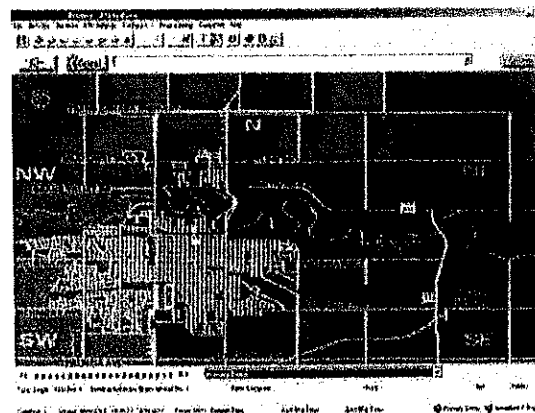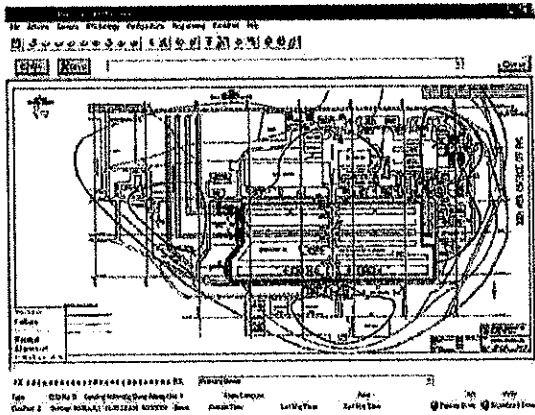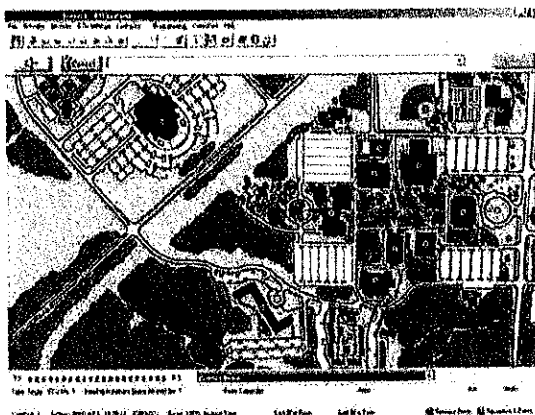- Supervises communication with additional CCUs for redundant activation points

Optional Features

ATI Systems offers fully customizable solutions, including the following features:

- Touch screen or flat screen monitor upgrade
- Laser jet printer upgrade
- Rack mount station upgrade
- Customized maps within ATI Systems' software
- Trunked radio upgrade
- Flexible, redundant communication options including IP, Ethernet, twisted pair/phone line, cellular and satellite
- Antenna surge protector
- LED message sign or strobe light
- Interfaces to pagers, weather stations, network and telephone alerting systems

Campus Software Screenshot

Industrial Software Screenshot

Community Software Screenshot

Military Software Screenshot

Sample Activation

Sample Activation

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06/09

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CCU

Communication Control Unit

The ATI Communication Control Unit (CCU) is used to activate, monitor and control all system activities. It can be used as part of the ATI Control Station configuration or as a stand-alone unit. Initiating an activation, checking the systems status and conducting live PA broadcasts is simple through the front panel display.

Standard Equipment

- Desktop cabinet
- Microprocessor controller
- Conventional VHF or UHF radio
- Front panel controls
- LCD display
- Internal power supply and battery backup
- Antenna connector
- Hand-held microphone for live PA broadcasts
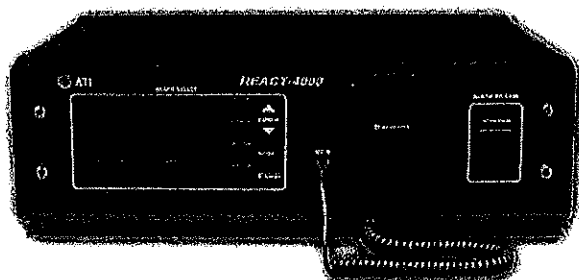
Key Features

- Simple and compact design provides a convenient, fully functional two-way stand alone unit

- Simple front panel controls allow the user to select the activation type and address (Total, Group or Individual)

- LCD display guides the user through the necessary steps to activate the system and then displays the system status

- Cancel function halts an alarm that is already in progress

- Activates tone alerting, voice messaging and live PA

- Standard VHF and UHF radio receives and transmits FSK, DTMF and Two Tone Sequential (TTS) data signals

- Monitors and displays unsolicited alert messages from remote terminal units and sirens

- Supports eight SPST relays and eight opto-coupler inputs to interface with external devices and four analog inputs

- Message encryption and security coding prevent unauthorized system activations

Optional Features

ATI Systems offers fully customizable solutions, including the following features:
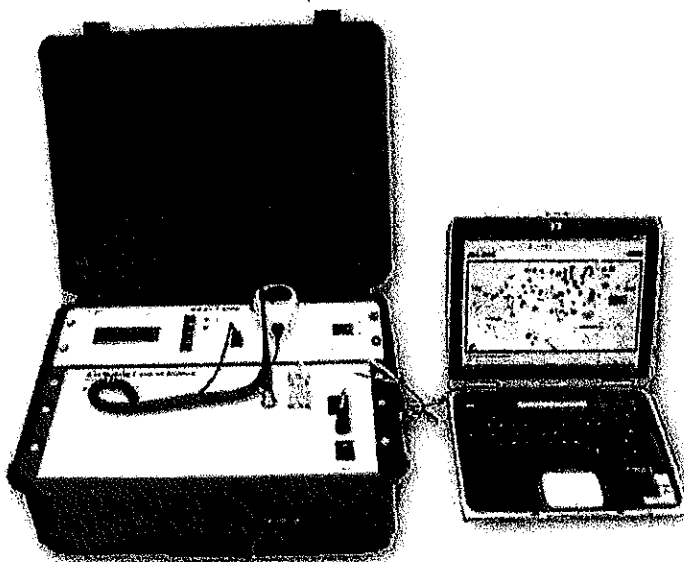
- Ability to interface to a conventional or trunking radio system, base station or leased line circuit
- Multiple communication methods including Ethernet, fiber, wireless IP, twisted pair/phone line, cellular and satellite
- Antenna surge protector
- LED message sign interface
- Mobile CCU upgrade
- Supports up to eight external push buttons for one button activations

Specifications for Model # CCU

Electrical	
AC Input Voltage	120 VAC or 240 VAC 50/60 Hz
Communication	
Signaling Method	FSK, DTMF, TTS
Radio	VHF, UHF or trunk
Radio Output Power	1 to 25 Watts
Mechanical	
Size	6"H x 21"W x 16"D
Weight	35 lbs
LCD Display Size	20 characters x 4 lines
Operation	Tested and proven in harsh environments
Standard Programmable Configuration	
Alert Activation Capacity	40
Group or Zone Capacity	100
Individual Alerting Unit Capacity	1,000
Batteries	
Requires one 12VDC, 7 Amp-Hour battery	

Mobile CCU Option

The ATI Mobile Control Station provides a lightweight, portable alternative to the desktop control station.

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