MAXSYS®

INTEGRATED SYSTEMS TECHNOLOGY

System Overview
PC4020 v3.3

The MAXSYS® system meets today's challenges with the seamless integration of security, access control, fire alarm, automation, and intercom features that single function systems cannot match.

Hardwired input/output expansion over a 4-wire Combus, wireless input expansion, 2-way voice intercom, TCP/IP communication support, and 2-wire addressable input expansion all combine for installation simplicity, flexibility, and economy.

Tomorrow's challenges are solved today because access control, fire alarm, Escort audio-assist and automation features are designed into the MAXSYS security panel, ready to be implemented when you need them.

Up to 16 Keypads
- LCD4500 & LCD4501 series plain language keypads
- LCD4520 & LCD4521 series plain language keypads with red bezels

Expand Up to 128 Zones

Hardwired Expansion
- **Up to 128 zones using…**
  - PC4108A 8-zone expansion modules
  - PC4116 16-zone expansion modules

Addressable Expansion
- **Up to 128 addressable zones using…** DSC addressable devices on 2 addressable loops

Wireless Expansion
- **Up to 64 wireless zones using…** up to 8 PC4164 wireless receivers and DSC wireless detectors

8 Partitions......   1,500 User Codes

3,000-Event Buffer

Local & Remote Upload/Download

Advanced Communications
- Supports SIA, Contact ID, 10bps and 20bps formats
- SKYROUTE MAX™ Cellemetry† communication
- SURE SIGNAL™ packet data radio communication
- DVACS†† communication using PC4401 module
- T-Link™ TCP/IP communications
- Central station talk/listen-in
- Event-initiated personal paging

† Cellemetry is a registered trademark of Numerex Corp.
†† DVACS is a trademark of Electro Arts Limited
‡ CE Bus is a trademark of CEBus Industry Council Inc. (CIC)

Ease of Installation
- **Addressable loop expansion**
  - integral 2-wire addressable loops expand the system to full zone capacity without the added cost of system expansion modules
  - addressable devices use less current thereby reducing standby power requirements
- **Combus hardwired expansion**
  - simple hardwired system expansion using standard, non-shielded, 4-conductor station wire to connect hardwired keypads and modules up to 1,000 ft (305 m) from the main control panel
  - Combus regenerator using PC4204CX extends wire runs

Output Expansion
- **Maximum of 144 low current outputs using…** up to 9 PC4216 16-output modules
- **Maximum of 64 relay outputs using…** up to 16 PC4204, PC4204CF, or PC4204CX power supply/4-relay output modules

Annunciation
- **Point/graphic annunciation using…**
  - PC4632 32-zone annunciator
  - PC4664 64-zone annunciator
- **Fire zone annunciation using…** PC4612 and PC4612A 12-zone fire annunciators
- **System printer using…** PC4401 serial output module

Integrated Access Control
- **32 doors using…** 16 PC4820 2-reader access control modules
- **1,500 access cards**
- **Multiple reader technologies…** IoProx proximity, 26 bit standard Wiegand, Kantech XSF, Polaris, mag. stripe

Integrated Voice-Assisted Security & Building Automation
- **Escort4580…** operates in conjunction with any DTMF (tone) telephone to provide voice-assisted security and automation control for up to 32 CEBus‡ or X-10 devices

UL/ULC Central Station Fire Alarm
- **All the features of the standard security versions *plus* special fire system modules…**
  - PC4701 fire module with supervised smoke zone, waterflow zone, and dual supervised communicator outputs
  - PC4612 and PC4612A 12-zone fire annunciators
  - PS4350R fire system external battery charger
  - PC4204CF power supply/4-relay output panel
  - LCD4520 & LCD4521 series plain language keypads with red bezels

ADDRESSABLE EXPANSION

Benefits:

Use 2-wire addressable loops to easily expand to full system capacity without the added cost of system expansion modules.

- Reduces standby battery requirement due to lower current draw of AML devices
- Installer-selectable device lockout

- Simple device test of glassbreak and smoke detectors
- Each device is fully supervised

AMA-100… Acuity Glassbreak Detector

- Exceptional microphone frequency range provides excellent sound capture at low sound levels and distances up to 25 ft (7.6 m)
- Detects breakage of all common types of glass, including plate, float, wired, tempered, and laminated
- Built-in tamper switch
- AFT-100 glassbreak tester available

AMS-220 Series… Photoelectric Smoke Detectors

AMS-220… 2-wire smoke detector

AMS-220T… includes 135°F (57°C) fixed temperature heat sensor

- Red solid-state LED indicator light
- Continuous self-test for low sensitivity
- Manual and programmable scheduled tests for low sensitivity and alarm operation
- Locking/non-locking mounting plate

AMB-300… Passive Infrared Motion Detector

- Multi-level signal processing (MLSP)
- Dual-element low noise sensor
- High level static and transient protection
- High white light and RF immunity
- Temperature compensation
- Tamper switch
- Up to 50'L x 60'W (15.2 x 18.3m) coverage
- 4 lenses available

AMX-400… Addressable Loop Regenerator

- Module extends the allowable wiring distance on the addressable loop
- Isolates addressable devices which limits the effect of short circuiting
- Can be powered from the auxiliary power of the control panel or an independent power supply

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AMB-500… Ceiling-Mount 360° PIR

- Ceiling-mount
- Quad-element low noise PIR
- High white light & RF immunity
- Multi-level signal processing (MLSP)
- Temperature compensation
- Up to 40' diameter (12.2m) coverage

AMP-700 Series… Contact Modules

AMP-700… magnetic door / window contact with built-in tamper switch

AMP-701… 3 inputs to monitor external NC alarm, tamper, and trouble contacts

AMP-702… fire point module with 5600 Ω EOL supervised loop that monitors N/O contacts

AMB-600… Dual Element Pet-Immune PIR

- Multi-level signal processing (MLSP)
- Two dual-element low noise sensors
- High static and transient protection
- High white light and RF immunity
- Temperature compensation
- Tamper switch
- 40'L x 50'W (12.2 x 15.2m) coverage
- For a single pet weighing up to 85 lbs (38 kg)

AML-770… Loop Isolator

- Provides short circuit isolation for devices connected on the addressable loop
- Self resets upon removal of short circuit condition
- Local LED indication of normal and isolation operating status

FIRE ALARM

PC4020CF Fire Alarm Control Panels

All the security features of the PC4020 plus added fire features…

- **Red cabinet**
- **PC4701 fire module includes…**
  - built-in transformer
  - one 2-wire Class B/Style B supervised smoke zone
  - one Class B/Style B waterflow zone
  - dual supervised digital alarm communicator outputs
  - common fire alarm & fire trouble relays, form 'C', 2 A, 30 Vdc contacts
- **All panel and expansion zones are configurable for waterflow or fire supervisory**
- **UL/ULC Listed for Central Station Fire Alarm**

AUTOMATION

Escort4580 Voice-Assisted Security & Building Automation Module

The Escort4580* module allows the telephone to be used as a keypad while providing the user with plain language operational and programming voice prompts, and system status reports.

In addition, the Escort module acts as an interface to CEBus or X-10 automation control devices and provides voice-assisted operation and programming of these devices.

System Status & Control - Voice Prompt-Assisted…

- **Control system or check the system status from any local or remote DTMF (tone) telephone**
- **Global or partition access**
- **180 word standard library and 241 word user-programmable library**
- **Up to 6 words per voice prompt**

Automation Control…

- **Built-in power line interface for up to 32 CEBus or X-10 control devices**
- **Programmable event activation using 16 event timers and 8 schedules**
- **Control outputs via local or remote DTMF (tone) telephone keypad**

* The Communiqué VPM4580 can be used in place of the Escort4580 when a Communiqué telephone system is used in conjunction with the MAXSYS system

LCD4520/4521 Plain Language Keypads

LCD4520   LCD4521

- **Identical to the standard security keypads but with red bezels.**

PS4350R Fire System External Battery Charger

External battery charger c/w…
- **PC4055CR cabinet, red**
- **PS4085 multi-rate charger module**
- **PT1012 transformer…**12 Vac
- **Space for 65 Ah lead-acid battery**

INTERCOM

PC4936 Audio Interface Module
PC4937 Expansion Audio Module
PC5921 Intercom Stations
PC5904 2-Way Listen-In Station

- **PC4936 audio interface module (7 ports) with PC4937 expansion module (8 ports)…** provides 15 output ports for connection of up to 15 PC5921 series intercom stations
- **Local intercom functions…**
  - page/answer
  - do not disturb
  - doorbell function
  - door strike release
- **Listen-in broadcast…** allows any station to be programmed as a 'broadcast station' to which all other internal stations in the system can listen in

- **Answer telephone calls received on a regular voice line…**
  - ringing programmable by station
  - supports call waiting
  - allows call transfer to in-house phones
- **Use as sounder for fire/burglar alarms**
- **Audio user help… plus verbal alarms & verbal door chime**
  - provides plain language system status reports including verbal alarms and door chime annunciation, as well as voice prompts for system operation when installed with Escort4580 Voice Prompt Module and keypads mounted with PC5921 intercom stations
- **PC5904 central station 2-way listen-in station…**
  - control tones programmable from central station
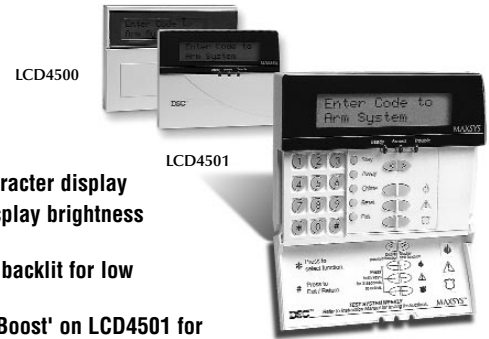 - select zone, listen/talk, extend on-line time, hang up

SECURITY

PC4020 Security Control Panel

- **16-zone main panel**
- **Expandable to 128 zones**
- **2 addressable loops for up to 128 addressable devices**
- **up to 16 LCD keypads per system**
- **8 partitions**
- **1,500 user codes (4 or 6 digit)**
- **3,000-event buffer**
- **9 account and 3 phone numbers**
- **1 supervised bell zone**

- **PC-Link™ for local upload/download**
- **Remote upload/download with DLS-3 software**
- **Supervised digital alarm communicator**
- **Optional attack-resistant cabinet**
- **Space for two 7Ah rechargeable batteries**
- **Fully networkable using the T-Link module**

LCD4500/4501 Plain Language Keypads

LCD4500

LCD4501

- **2-line, 32-character display**
- **Adjustable display brightness and contrast**
- **LCD and keys backlit for low light viewing**
- **'Backlighting Boost' on LCD4501 for low light conditions**
- **Display zone and system status, trouble conditions, event buffer, and system instructions**
- **Piezo buzzer provides audible feedback for correct/incorrect key entries, entry/exit alert, and system trouble conditions**
- **Global or partition operation**
- **4 keypad-activated alarms… panic, auxiliary, fire, and duress**
- **5 programmable keypad functions**
- **Separate function keys on LCD4501**
- **Trouble and Armed LEDs on LCD4500**
- **Trouble, Armed, and Ready LEDs on LCD4501**
- **Trouble buzzer**
- **Tamper versions available**

ACCESS CONTROL

PC4820 Two Reader Access Control Module

- **16 modules per system**
- **32 readers total**
- **1,500 access cards**

- **Distributed processing, for full off-line operation**
- **Arm/disarm partitions and postpone auto-arm by access card or access card and code from outside the protected space**
- **2 low current outputs per door**
- **4 inputs per door…** door contact, request-to-exit input, arm, and postpone auto-arm
- **64 access levels**
- **99 seven-day schedules**
- **4 holiday groups, 730 holidays**
- **Individual door unlock schedules**
- **Fully supervised**
- **Program from keypad, or from computer with DLS-3 downloading software**
- **1.5A regulated power supply**

- **Multiple reader types supported**
- **Power available per door…**
  reader… 125mA max. @ 5Vdc or 250mA max. @ 12Vdc
  lock…… 250mA max. @ 12Vdc
- **Auxiliary power…** 125mA @ 12Vdc
- **Battery req'd…** 12Vdc, 7.0Ah
- **Transformer req'd…** 16.5Vac, 40VA

PC4850 Telephone Entry Module

- integrates access control with building telephone entry
- up to 16 PC4850s to control up to 32 doors
- 1,500-name, fast scrolling, electronic directory
- 12-digit phone numbers
- PC4851 no telephone bill option

Multiple Reader Technologies

Polaris… Mag-Stripe Readers/Cards, 26-bit standard Wiegand

IoProx… Proximity Readers/Cards and Kantech XSF Reader

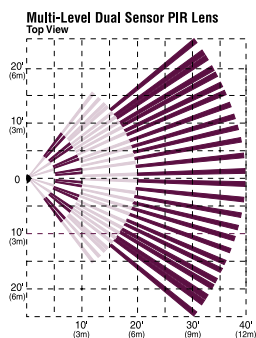**IoProx… Proximity Reader with keypad and Kantech XSF version**

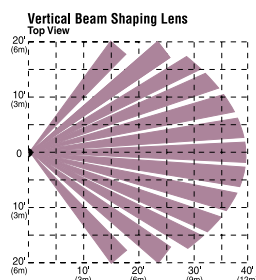# WIRELESS DEVICES & DETECTORS

Wireless Pet-Immune PIRs

WLS914-433…
DUAL ELEMENT PET-IMMUNE PIR
- PIR with Multi-Level Signal Processing (MLSP)
- Coverage up to: 40'L x 50'W (12.2 x 15.2m)
- Two dual-element low noise sensors
- For one pet weighing up to 85 lbs (38kg)
- Excellent false alarm immunity and catch performance
- Temperature compensation
- 4 AA batteries (supplied)

Multi-Level Dual Sensor PIR Lens
Top View

WLS904PL-433 PIR WITH PET IMMUNITY
- Vertical beam shaping lens*
- Coverage up to 40'L x 40'W (12.2 x 12.2m)
- Immunity for multiple pets - 60lbs (27.3kg) total
- Good false alarm immunity and catch performance
- High traffic shutdown to preserve battery life
- 2 lithium batteries (supplied)

Vertical Beam Shaping Lens
Top View

WLS906… Photoelectric Smoke Detector

WLS906-433** PHOTOELECTRIC SMOKE DETECTOR
- UL/ULC Listed/ CE0560!
- Exclusive (patented) smoke chamber design provides:
  - maximum smoke detection
  - exceptional resistance to dust, insects and air turbulence, thereby reducing false alarms
- 90° smoke detection pattern
- Red solid-state LED indicator
- Loud 85dB alarm horn
- Automatic self-test once every 40 seconds with visible and audible trouble indication for low smoke sensitivity and low battery
- Manual user sensitivity test button with local indication of test result
- Installer test mode allows test locally or by transmission to central station
- 6 AA batteries (supplied)

WLS912…Glassbreak Detector

WLS912L-433 GLASSBREAK DETECTOR
- Exceptional microphone frequency range provides excellent sound capture at low sound levels and distances up to 25ft (7.6m)
- Detects breakage of all common types of framed glass including plate, float, wired, tempered, and laminated
- 2 lithium batteries (supplied)

PC4164…Wireless Receiver

- Distributed wireless reception…
  - install up to 8 wireless receivers to allow wide area roaming with wireless keys
- Capacity … 64 wireless zones (PC4020)
  … 16 wireless keys

Wireless Transmitters & Contacts

WLS907T-433 LOW TEMPERATURE SENSOR***
- Sends an alarm when a pre-defined low temperature is reached
- The pre-defined temperature points at which an alarm and restoral condition are sent are:
  - Alarm: 43°F ± 3°F (6°C ± 2°C)
  - Restoral: 48°F ± 3°F (9°C ± 2°C)
- Fully supervised
- 3 AAA batteries (supplied)

WLS925L-433 MINI DOOR/WINDOW CONTACT***
- A magnetic door or window contact
- Complete with surface-mount magnet
- Terminal connection for an external contact
- 1 lithium battery (supplied)
- Available with a wall tamper switch (WLS935L-433)

WLS919…Wireless Key

WLS909-433 & 919-433 WIRELESS KEYS

WLS919

WLS909

- WLS919-433 features a slide cover, preventing accidental activation
- 4 programmable function buttons…
  - Preprogrammed for 'STAY' arm, 'AWAY' arm, Disarm, and Panic
- Supervised for low battery
- Water-resistant (WLS919 only)
- 2 long-life lithium batteries (supplied with WLS919)
- 3 x A76 batteries (supplied with WLS909)
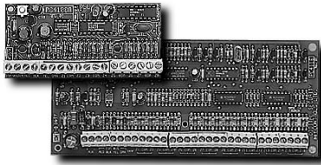
   *   Patent Pending
  **   For residential applications only
*** Supervised for tamper, device fault, low battery

HARDWIRED EXPANSION
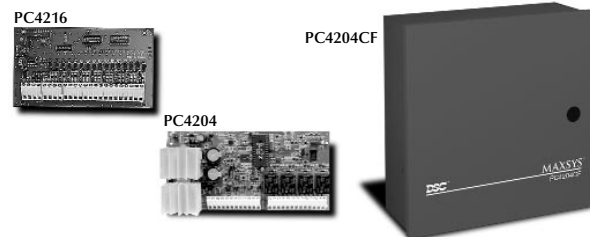
INPUT

PC4108A/4116… 8/16-Zone Expansion Modules

- **PC4108A…** 8-zone input module
- **PC4116…** 16-zone input module
- **30 programmable zone types…**
  - all zones programmable as NC, EOL, and DEOL
- **250 mA, 12 VDC auxiliary power for local devices**
- **Add up to 112 zones on PC4020/4020CF**

OUTPUT

PC4216… 16-Zone Low Current Output Module

PC4216

PC4204CF

PC4204

- **16 programmable outputs**
- **Outputs rated for 50 mA @ 12 VDC**
- **59 programmable output options**
- **Up to 9 modules/system for 144 total outputs on all systems**

PC4204 Power Supply/4-Relay Output Module/ Combus Regenerator

- **Up to 2.2A @ 12 VDC power for…**
  - Combus power   - local input devices   - local output signals
- **PC4204CX Combus Regenerator extends wiring distance up to 4000'** (1220m)
- **4 form 'C' programmable relays**
  - contacts rated for 2A @ 30 VDC
- **59 programmable output options**
- **Supervised for…**
  - AC power fail   - aux. supply fault   - low/disconnected battery
- **PC4020…** up to 16 modules per system for 64 relays total
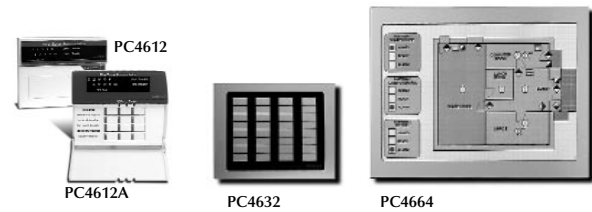
PC4204CF Power Supply/4-Relay Output Module

Packaged version of PC4204 for UL Listed commercial fire systems…
- **Up to 550 mA @ 12 VDC power for…**
  - Combus power   - local input devices   - local output signals
- **PT1016 transformer…16 VAC, 40 VA** (supplied)
- **PC4052CR cabinet, red**
- **Space for one additional PC4108A module**
- **Space for two 7Ah rechargeable lead acid batteries**

…all other specs the same as the PC4204

ANNUNCIATORS

PC4632/4664… Point/Graphic Annunciators

PC4612

PC4612A

PC4632

PC4664

Remote system annunciators for point or graphic display of zone, partition, and system status information…
- **Display up to 144 points per system with multiple annunciators**
- **Connect anywhere on the Combus**
- **Egg-crate backplane for flexible indicator location**
- **Red, yellow, and green LED assemblies**
- **Clear transparencies (2) for custom graphics**
  - **PC4632…**   32 point - 8.5" x 11" (21.6 x 27.9 cm) display area
  - **PC4664…**   64 point - 11" x 17" (27.9 x 43.2 cm) display area
- **PC4612 & PC4612A point annunciation of up to 10 fire zones and 2 supervisory zones**
  - **PC4612…**   matches LCD4500 style keypads
  - **PC4612A…** matches LCD4501 style keypads

COMMUNICATIONS

Alternate Alarm Communications…

- **T-Link™… TCP/IP Communications Module**
  - uses the TCP/IP protocol to transmit alarm signals
  - compatible with 10BaseT networks
  - allows control panel to maintain telephone backup connection
  - DLS communication over LAN/WAN
- **SKYROUTE MAX™**
  - Cellemetry receiver snaps into MAXSYS enclosure and connects to the Combus
  - no additional power supply or cellular account required
- **SURE SIGNAL™**
  - Packet radio supervised wireless communication
- **DVACS high security communications interface**

PC4401… Serial Interface Module…

- **DLS-3 SA System Administrator Software**
  - User-friendly Windows®-based software
  - Program user cards, codes and schedules
  - Sort and print system event buffer
  - View system status
  - Remote keypad commands available
- **DataLink™ data port**
  - RS-232 serial interface
  - allows integrators real-time access to system events and the ability to send control commands to MAXSYS®
- **Printer interface**
  - print time and date - stamped reports of system events
  - supports 300, 1200, 2400, and 4800 bps serial printers

Represented by :