General

In stand-alone or network configurations, the IFC2-640 meets virtually every application requirement.

Designed with modularity and for ease of system planning, the IFC2-640 can be configured with just a few devices for small building applications, or for a large campus or high-rise application. Simply add additional peripheral equipment to suit the application.

The FireWatch Series internet monitoring modules IPDACT-2 and IPDACT-2UD permit monitoring of alarm signals over the Internet, saving the monthly cost of two dedicated business telephone lines. Although not required, the secondary telephone line may be retained providing backup communication over the public switched telephone line.

Note: Unless called out with a version-specific “E” at the end of the part number, “IFC2-640” refers to models IFC2-640 and IFC2-640E; similarly, “JCPU2-640” refers to models JCPU2-640 and JCPU2-640E.

Features

- One, expandable to two, isolated intelligent Signaling Line Circuit (SLC) Style 4, 6 or 7.
- Up to 159 detectors (any mix of ion, photo, thermal, or multi-sensor) and 159 modules (Addressable pull stations, normally open contact devices, two-wire smoke, notification, or relay) per SLC: 318 devices per loop/636 per FACP or network node.
- Standard 80-character display, 640-character large display, or display-less (a node on a network).
- Network options:
  - High-speed network for up to 200 nodes (IFC2-3030, IFC2-640, IFC-320, JNCA-2, JDVC, IFI, IFW, IFC-3030, IFC-640, and JNCA).
  - Standard network for up to 103 nodes (IFC-640, IFC2-640, IFC-3030, IFC2-3030, IFC-200, IFC-300/400, IFC-1010, IFC-2020, JDVC-EM, IFI, IFW, JNCA or JNCA-2 Network Annunciators). Up to 54 nodes when DVC is used in network paging.
- 6.0 amp switch mode power supply with four Class A/B built-in Notification Appliance Circuits (NAC). Selectable System Sensor, Wheelock, or Gentex strobe synchronization.
- VeriFire® Tools online or offline programming utility. Upload/Download, save, store, check, compare, and simulate panel databases. Upgrade panel firmware.
- Autoprogramming and Walk Test reports.
- Optional universal 636-point DACT.
- 80-character remote annunciators (up to 32).
- EIA-485 annunciators, including custom graphics.
- Printer interface (80-column and 40-column printers).
- History file with 800-event capacity in nonvolatile memory, plus separate 200-event alarm-only file.
- Alarm Verification selection per point, with tally.
- Autoprogramming and Walk Test reports.
- Presignal/Positive Alarm Sequence (PAS).
- Silence inhibit and Auto Silence timer options.
- March time/temporal/California two-stage coding/strobe synchronization.
- Field-programmable on panel or on PC, with VeriFire Tools program check, compare, simulate.
- Full QWERTY keypad.
- Battery charger supports 18 – 200 amp hour batteries.
- Non-alarm points for lower priority functions.
- Automatic time control functions, with holiday exceptions.
- Surface Mount Technology (SMT) electronics.
- Extensive, built-in transient protection.
- Powerful Boolean logic equations.
- Support for SCS Series smoke control system in HVAC mode.

JNCA-2 AS PRIMARY DISPLAY

- Backlit, 640-character display.
- Supports SCS Series smoke control system in FSCS mode when SCS is connected to the JNCA-2 used as primary display.
- Printer and CRT EIA-232 ports.
- EIA-485 annunciator and terminal mode ports.

FLASHSCAN® INTELLIGENT FEATURES

- Poll up to 318 devices in less than two seconds.
- Activate up to 159 outputs in less than five seconds.
- Multicolor LEDs blink device address during Walk Test.
- Fully digital, high-precision protocol (U.S. Patent 5,539,389).
- Manual sensitivity adjustment — nine levels.
- Pre-alarm intelligent sensing — nine levels.
Day/Night automatic sensitivity adjustment.
Sensitivity windows:
- Ion – 0.5 to 2.5%/foot obscuration.
- Laser (VIEW®) – 0.02 to 2.0%/foot obscuration.
- Acclimate – 0.5 to 4.0%/foot obscuration.
- COPTIR™ – 1.0 to 4.0%/foot obscuration.
- Drift compensation (U.S. Patent 5,764,142).
- Degraded mode — in the unlikely event that the JCPU2-640 microprocessor fails, FlashScan detectors revert to degraded operation and can activate the JCPU2-640 NAC circuits and alarm relay. Each of the four built-in panel circuits includes a Disable/Enable switch for this feature.
- Multi-detector algorithm involves nearby detectors in alarm decision (U.S. Patent 5,627,515).
- Automatic detector sensitivity testing (NFPA-72 compliant).
- Maintenance alert (two levels).
- Self-optimizing pre-alarm.

**2951J-COPTIR COPTIR**
**ADVANCED MULTI-CRITERIA DETECTOR**
- Detects all four major elements of a fire (smoke, heat, CO, and flame).
- Automatic drift compensation of smoke sensor and CO cell.
- High nuisance-alarm immunity.
- Six sensitivity levels.

**7351J VIEW (VERY INTELLIGENT EARLY WARNING)**
**SMOKE DETECTION TECHNOLOGY**
- Revolutionary spot laser design.
- Advanced intelligent sensing algorithms differentiate between smoke and non-smoke signals (U.S. Patent 5,831,524).
- Addressable operation pinpoints the fire location.
- No moving parts to fail or filters to change.
- Early warning performance comparable to the best aspiration systems at a fraction of the lifetime cost.

**2951TMJ ACCLIMATE**
**LOW-PROFILE INTELLIGENT MULTI-SENSOR**
- Detector automatically adjusts sensitivity levels without operator intervention or programming. Sensitivity increases with heat.
- Microprocessor-based technology; combination photo and thermal technology.
- FlashScan or classic mode compatible.
- Low-temperature warning signal at 40°F ± 5°F (4.44°C ± 2.77°C).

**RELEASING FEATURES**
- Ten independent hazards.
- Sophisticated cross-zone (three options).
- Delay timer and Discharge timers (adjustable).
- Abort (four options).
- Low-pressure CO2 listed.
**Intelligent Sensing**

Intelligent sensing is a set of software algorithms that provides the IFC2-640 with industry-leading smoke detection capability. These complex algorithms require many calculations on each reading of each detector, and are made possible by the high-speed microcomputer used by the IFC2-640.

**Drift Compensation and Smoothing:** Drift compensation allows the detector to retain its original ability to detect actual smoke, and resist false alarms, even as dirt accumulates. It reduces maintenance requirements by allowing the system to automatically perform the periodic sensitivity measurements required by NFPA 72. Smoothing filters are also provided by software to remove transient noise signals, such as those caused by electrical interference.

**Maintenance Warnings:** When the drift compensation performed for a detector reaches a certain level, the performance of the detector may be compromised, and special warnings are given. There are three warning levels: (1) Low Chamber value; (2) Maintenance Alert, indicative of dust accumulation that is near but below the allowed limit; (3) Maintenance Urgent, indicative of dust accumulation above the allowed limit.

**Sensitivity Adjust:** Nine sensitivity levels are provided for alarm detection. These levels can be set manually, or can change automatically between day and night. Nine levels of pre-alarm sensitivity can also be selected, based on predetermined levels of alarm. Pre-alarm operation can be latching or self-restoring, and can be used to activate special control functions.

**Self-Optimizing Pre-Alarm:** Each detector may be set for “Self-Optimizing” pre-alarm. In this special mode, the detector “learns” its normal environment, measuring the peak analog readings over a long period of time, and setting the pre-alarm level just above these normal peaks.

**Cooperating Multi-Detector Sensing:** A patented feature of intelligent sensing is the ability of a smoke sensor to consider readings from nearby sensors in making alarm or pre-alarm decisions. Without statistical sacrifice in the ability to resist false alarms, it allows a sensor to increase its sensitivity to actual smoke by a factor of almost two to one.

### Field Programming Options

**Autoprogam.** This timesaving feature is a special software routine. The FACP “learns” what devices are physically connected and automatically loads them in the program with default values for all parameters. Requiring less than one minute to run, this routine allows the user to have almost immediate fire protection in a new installation, even if only a portion of the detectors are installed.

**Keypad Program Edit (with KDM-R2)** The IFC2-640 has the exclusive feature of the product line of program creation and editing capability from the front panel keypad, **while continuing to provide fire protection**. The architecture of the IFC2-640 software is such that each point entry carries its own program, including control-by-event links to other points. This allows the program to be entered with independent per-point segments, while the IFC2-640 simultaneously monitors other (already installed) points for alarm conditions.

**VeriFire Tools** is an offline programming and test utility that can greatly reduce installation programming time, and increase confidence in the site-specific software. It is Windows®-based and provides technologically advanced capabilities to aid the installer. The installer may create the entire program for the IFC2-640 in the comfort of the office, test it, store a backup file, then bring it to the site and download from a laptop into the panel.

### Placement of Equipment in Chassis and Cabinet

The following guidelines outline the IFC2-640’s flexible system design.

**Rows:** The first row of equipment in the cabinet mounts in the chassis shipped with the CPU. Mount the second, third, or fourth rows of equipment in a CHS4 series chassis or, for Digital Voice Command products, in CA-1 or CA-2. (For JDVC and DAA2 components see JDVC Manual; for DVC-AO applications, see AA Series Installation Manual).

**Wiring:** When designing the cabinet layout, consider separation of power-limited and non-power-limited wiring as discussed in the IFC2-640 Installation Manual.

**Positions:** A chassis offers four basic side-by-side positions for components; the number of modules that can be mounted in each position depends on the chassis model and the size of the individual module. There are a variety of standoffs and hardware items available for different combinations and configurations of components.

It is critical that all mounting holes of the IFC2-640 are secured with a screw or standoff to ensure continuity of Earth Ground.

**Layers:** The CPU’s chassis accepts four layers of equipment, including the control panel. The JCPU2-640 fills three positions (left to right) in the first-installed layer (the back of the chassis); its integral power supply occupies the center two positions in the next two layers; the optional display occupies (the left) two positions at the front, flush with the door. Some equipment, such as the JNCA-2, may be mounted in the dress chassis shipped with the CPU. Mount the second, third, or fourth rows of equipment in a CHS4 series chassis or, for Digital Voice Command products, in CA-1 or CA-2. (For JDVC and DAA2 components see JDVC Manual; for DVC-AO applications, see AA Series Installation Manual).

**Expansion:** Installing an LEM-320 Loop Expander Module fills three positions in the next two layers, while the IFC2-640 simultaneously monitors other (already installed) points for alarm conditions.

**Expansion:** Installing an LEM-320 Loop Expander Module fills three positions in the next two layers, while the IFC2-640 simultaneously monitors other (already installed) points for alarm conditions.

**Drift Compensation**

Equipment, such as the JDVC, may be mounted in the dress chassis shipped with the CPU. Mount the second, third, or fourth rows of equipment in a CHS4 series chassis or, for Digital Voice Command products, in CA-1 or CA-2. (For JDVC and DAA2 components see JDVC Manual; for DVC-AO applications, see AA Series Installation Manual).
mounted onto the JCPU2-640, occupying the middle-right, second (back) slot on the chassis.

Networking: If networking two or more control panels, each unit requires a Network Control Module or High-Speed Network Control Module (see “Network Options” on page 6). These modules can be installed in any option board position (see manual), and additional option boards can be mounted in front of the network control modules.

KDM-R2 Controls and Indicators

Program Keypad: QWERTY type (keyboard layout, see figure).

12 LED indicators: Power; Fire Alarm; Pre-Alarm; Security; Supervisory; System Trouble; Signals Silenced; Points Disabled; Control Active; Abort; Pre-Discharge; Discharge.

Keypad Switch Controls: Acknowledge/Scroll Display; Signal Silence; Drill; System Reset; Lamp Test.

LCD Display: 80 characters (2 x 40) with long-life LED backlight.

Configuration Guidelines

Stand-alone and network systems require a main display. On single-CPU systems (one JCPU2-640/-640E), display options are the KDM-R2 or the JNCA-2. On network systems (two or more networked fire panel nodes), at least one JNCA-2, IFW, or IFI annumciera is required. Other options listed as follows:

KDM-R2: 80-character backlit LCD display with QWERTY programming and control keypad. Order two BMP-1 blank modules and DP-DISP2 mounting plate separately. Requires top row of a cabinet. Required for each stand-alone 80-character display system. The KDM-R2 may mount in network nodes to display “local” node information as long as at least one JNCA-2 or IFW network display is on the system to display network information.

JCPU2-640: Central processing unit with integral 3.0 amp (6.0 A in alarm) power supply for an IFC2-640 system. Includes CPU factory-mounted on a chassis; one Signaling Line Circuit expandable to two; installation, programming and operating manuals. Order one per system or as necessary (up to 103 network nodes) on a network system.

JCPU2-640E: Same as JCPU2-640 but requires 240 VAC, 1.5 amp, (3.0 A in alarm).

NCA/640-2-KIT: Bracket installation kit required to mount JNCA-2 to the JCPU2-640/-640E’s standard chassis.

DP-DISP2: Dress panel for top row in cabinet with JCPU2-640/640E installed.

ADP2-640: Dress panel for middle rows with JCPU2-640/640E.

BMP-1: Blank module for unused module positions.

JBP2-4: Battery plate, required.

AUDIO OPTIONS

JDVC-EM: Digital Voice Command, digital audio processor with message storage for up to 32 minutes of standard quality (4 minutes at high quality) digital audio. Capable of playing up to eight simultaneous messages when used with DAL devices. See JCI-7045.

DVC-KD: Keypad for local annunciation and controls; status LEDs and 24 user-programmable buttons. See JCI-7045.

DVC-AO: DVC Analog Output board provides four analog output circuits for use with AA Series amplifiers. Four-channel operation supported. See JCI-7045.

DAA2-5025: 50W, 25 Vrms Digital Audio Amplifier assembly with power supply; includes chassis. See JCI-60557.

DAA2-5070: 50W, 70.7 Vrms Digital Audio Amplifier assembly with power supply; includes chassis. See JCI-60557.

DAA2-7525: 75W, 25 Vrms digital audio amplifier assembly with power supply; includes chassis. See JCI-60557.

DAX-3525: 35W, 25 Vrms Digital Audio Amplifier assembly with power supply, includes chassis. See JCI-60562.

DAX-3570: 35W, 70.7 Vrms Digital Audio Amplifier assembly with power supply, includes chassis. See JCI-60562.

CA-1: Chassis, occupies one tier of a CAB-4 Series enclosure. The left side accommodates one JDVC and a DVC-KD (optional); and the right side houses a CMIC-1 microphone and its well (optional). See JCI-7045.

JNCA-2: Network Control Annunciator, 640 characters. On single-CPU systems (one JCPU2-640/640E systems, the optional JNCA-2 can be used as the Primary Display for the panel and connects directly to the JCPU2-640/640E. On network systems (two or more networked fire panel nodes), one network display (either JNCA-2 or IFI) is required for every system. On network systems, the JNCA connects to (and requires) a standard Network Control Module or High-Speed Network Control Module. Mounts in a row of FACP node or in two annunciator positions. Mounting options include the DP-DISP2, ADP-4B, or in an annunciator box, such as the JABS-2D. In CAB-4 top-row applications, a DP-DISP2 and two BMP-1 blank modules are required for mounting. Required for IFC2-640 applications employing the JDVC-EM with DAL devices. See JCI-7047.
TELH-1: Firefighter's Telephone Handset for use with the JDVC-EM when mounted in the CA-2 chassis. See JCI-7045.

JADDR-B4: Two-tier-sized door designed for use with the CA-2 chassis configuration. JADDR Series doors are similar to CA-4 Series “DR” doors, but a clear window space exposes the top two tiers of the CAB-4 enclosure. Use an SBB-B4 backbox with the JADDR-B4. See JCI-7045, JCI-6857.

JADDR-C4: Three-tier-sized door, designed for use with the CA-2 chassis configuration. JADDR Series doors are similar to CA-4 Series “DR” doors, but a clear window space exposes the top two tiers of the CAB-4 enclosure. Use an SBB-C4 backbox with the JADDR-C4. See JCI-7045, JCI-6857.

JADDR-D4: Four-tier-sized door designed for use with the CA-2 chassis configuration. JADDR Series doors are similar to CA-4 Series “DR” doors, but a clear window space exposes the top two tiers of the CAB-4 enclosure. Use an SBB-D4 backbox with the JADDR-D4. See JCI-7045, JCI-6857.

NOTE: Use JADDR-B4/C4/D4 when CA-2 chassis is installed in top two rows with JNCA-2 or BP-CA2. Use standard door when CA-2 is not installed in top two rows. Please see the JDVC application guide for additional configuration information.

DPA-2B: Dress panel used with CA-2 chassis assembly. It can be located up to 6,000 ft. (1828.8 m) from panel. Up to 32 per FACP. Includes amplifier and audio input supervision, backup input, and automatic switchover, power supply, cables.

NOTE: DPA-1: One穴位 microphone and audio input supervision used with the CA-1 chassis. Remote microphone assemblies, mount on ADP-4 (RM-1) dress panel or CAB-RM/RMR (RM-1SA) stand-alone cabinets. See JCI-6728.

M500FPJ: Firephone Control Module connects a remote firefighter telephone to a centralized telephone console. Reports status to panel. Wiring to jacks and handsets is supervised.

AA-30: Audio Amplifier, 30 watts. Switch-mode power. Includes amplifier and audio input supervision, backup input, and automatic switchover, power supply, cables. See JCI-60038.

AA-120/AA-100: Audio Amplifier provides up to 120 watts of 25 Vrms audio power. The amplifier contains an integral chassis for mounting to a CAB-B4, -C4, or -D4 backbox (consumes one row). Switch-mode power. Includes audio input and amplified output supervision, backup input, and automatic switchover to backup tone. Order the AA-100 for 70.7 Vrms systems and 100 watts of power. See JCI-60038.

POWER SUPPLIES, STANDARD CABINETS

ACPS-610: 6.0 or 10 Amp addressable charging power supply. See JCI-60260.

APS2-6R: Auxiliary Power Supply. Provides up to 6.0 amperes of power for peripheral devices. Includes battery input and transfer relay, and overcurrent protection. Mounts on two of four positions on a CHS-4L or CHS-4 chassis. See JCI-60061.

FCPS-2456/S8: Remote six-amp and eight-amp power supplies with battery charger. See JCI-6927.

CHS-4: Chassis for mounting up to four APS-6Rs.

CHS-4L: Low-profile four-position Chassis. Mounts two AA-30 amplifiers or one AMQ-E and one AA-30.

DP-1B: Blank dress panel. Provides dead-front panel for unused tiers; covers DA2-series or AA-series amplifier.

CAB-4 Series Enclosure: IFC2-640 mounts in a standard CAB-4 Series enclosure (available in four sizes, “A” through “D”). Backbox and door ordered separately; requires JBP2-4 battery plate. A trim ring option is available for semi-flush mounting. See JCI-6857.

EQ Series Cabinets: EQ series cabinets will house amplifiers, power supplies, battery chargers and control modules. EQ cabinets are available in three sizes, “B” through “D”. See JCI-60263.

COMPATIBLE DEVICES, EIA-232 PORTS

JPRN-6: 80-column printer. See JCI-6956.

VS4095/5: Printer, 40-column, 24V. Mounted in external backbox.

COMPATIBLE DEVICES, EIA-485 PORTS

ACS: Annunciator Control Modules ACM/AEM-24AT and ACM/AEM-48A; remote serial annunciator/control systems. See JCI-6862.

AMC-24AT: ACS annunciator – up to 96 points of annunciation with Alarm or Active LED, Trouble LED, and switch per circuit. Active/Alarm LEDs can be programmed (by powered-up switch selection) by point to be red, green, or yellow; the Trouble LED is always yellow. See JCI-6862.

AEM-24AT: Same LED and switch capabilities as AMC-24AT, expands the AMC-24AT to 48, 72, or 96 points. See JCI-6862.

AEM-48A: ACS annunciator – up to 96 points of annunciation with Alarm or Active LED per circuit. Active/Alarm LEDs can be programmed (by powered-up switch selection) in groups of 24 to be red, green, or yellow. Expandable to 96 points with a single AEM-48A. See JCI-6862.

AEM-48A: Same LED capabilities as ACM-48A, expands the ACM-48A to 96 points. See JCI-6862.

LCD-80/FGU-80G: 80-character, backlit LCD display. Mounts up to 6,000 ft. (1828.8 m) from panel. Up to 32 per FACP. See JCI-60044.


TM-4: Transmitter Module. Includes three reverse-polarity circuits and one municipal box circuit. Mounts in panel module position (single-address-style) or in CHS2-M2 position.

UDACT: Universal Digital Alarm Communicator Transmitter, 636 channel.

UZC-256: Programmable Universal Zone Coder provides positive non-interfering successive zone coding. Microprocessor-controlled, field-programmable from IBM®-compatible PCs (requires optional programming kit). Up to 256 programmable codes. Mounts in BB-UZC or other compatible chassis (purchased separately). See JCI-6040.
**BEAMLRK**: Long-range accessory kit, FSB-200(S) below. See JCI-60189.

**BEAMMRK**: Multi-mount kit, FSB-200(S) below. See JCI-60189.

**BEAMEMKR**: Surface-mount kit, FSB-200(S) below. See JCI-60189.

**FSB-200**: Intelligent beam smoke detector. See JCI-60189.

**FSB-200S**: Intelligent beam smoke detector with integral sensitivity test. See JCI-60189.

**2951J-COPTIR**: FlashScan COPTIR Advanced Multi-Criteria Detector. See JCI-60472.

**1951J**: Low-profile FlashScan ionization detector. See JCI-6934.

**2951J**: Low-profile FlashScan photoelectric detector. See JCI-6935.

**2951TJ**: 2951J plus dual electronic thermistors that add 135°F (57°C) fixed-temperature thermal sensing. See JCI-6936.

**2951JR**: 2951J, remote-test capable. For use with DNR(W). See JCI-6935.

**5951J**: FlashScan thermal detector 135°F (57°C). See JCI-6936.

**5951JR**: FlashScan thermal detector 135°F (57°C) with rate-of-rise. See JCI-6936.

**2951HJ**: FlashScan 190°F (88°C) high-temperature thermal detector. See JCI-6936.

**DNR**: InnovairFlex low-flow non-relay duct-detector housing (order 2951JR separately). Replaces DH300PL/DH300RPL. See JCI-60432.

**DNWR**: Same as above with NEMA-4 rating, watertight. See JCI-60432.

**2951TMJ**: FlashScan Acclimate low-profile multi-sensor detector. See JCI-68937.

**7351J**: FlashScan VIEW laser photo detector. See JCI-60081.

**B224RB**: Low-profile relay base. See JCI-60056.

**B224BI**: Isolator base for low-profile detectors. See JCI-60056.


**B501J**: European-style, 4" (10.16 cm) base. See JCI-60056.

**B200S**: Intelligent addressable sonder base, capable of producing a variety of tone patterns including ANSI Temporal 3. Compatible with sychronization protocol. See JCI-60056.

**B200SR**: Intelligent sonder base, Temporal 3 or Continuous tone. See JCI-60056.

**M300MJ**: FlashScan monitor module. See JCI-6720.

**M300DJ**: FlashScan dual monitor module. See JCI-6720.

**M300MJ**: FlashScan two-wire detector monitor module. See JCI-6720.

**M301MJ**: FlashScan miniature monitor module. See JCI-6720.

**M300CJ-REL**: FlashScan releasing control module. See JCI-60471.

**M300CJ**: FlashScan NAC control module. See JCI-6724.

**M300RI**: FlashScan relay module. See JCI-6724.

**JBG-12LX**: Manual pull station, addressable. See JCI-60079.

**M500JPJ**: FlashScan firephone control module.

**XP6-C**: FlashScan six-circuit supervised control module. See JCI-6924.

**XP6-MA**: FlashScan six-zone interface module; connects intelligent alarm system to two-wire conventional detection zone. See JCI-6925.

**XP6-R**: FlashScan six-relay (Form-C) control module. See JCI-6926.

**XP10-M**: FlashScan ten-input monitor module. See JCI-6923.

**M500FPJ**: FlashScan firephone control module.

**NETWORK OPTIONS**

**NCM-W, NCM-F**: Network Communications Modules. Wire and multi-mode fiber versions available. See JCI-6861.

**HS-NCM-WMF/SF/WMF/WSF/MFSF**: High-speed network communications modules. Wire, single-mode fiber, multi-mode fiber, and media conversion models are available. See JCI-60482.

**RPT-W, RPT-F, RPT-WF**: Network repeater board with wire connection (RPT-W), fiber connection (RPT-F), or allowing a change in media type between wire and fiber (RPT-WF). See JCI-6861.

**Intelligent Fire Integrator**: UL-listed graphics PC workstation and computer hardware. See JCI-60422 for specific part numbers.

**JNFN-GW-EM, JNFN-GW-EM-3**: NFN Gateway, embedded. See JCI-60510.

**IPDACT-2/2UD Internet Monitoring Module**: Mounts in IPENC enclosure. Connects to primary and secondary DACT telephone output ports for internet communications over customer-provided ethernet connection. Requires compatible Teldat VisorALARM Central Station Receiver. Can use DHCP or static IP. See DN-60408.

**IPCHSKIT**: IP Communicator Chassis Mounting Kit. For mounting an IPDACT-2/2UD onto the panel chassis or CHS-4 series chassis. Use IPENC for external mounting applications.

**IPENC**: External enclosure for IPDACT, includes IPBRKT mounting bracket; Red. For Black order IPENC-B.

**IPSLPT**: Y-adapter option allow connection of both panel dialer outputs to one IPDACT-2/2UD cable input.

**DPI-232**: Direct Panel Interface, specialized modem for extending serial data links to remotely located FACPs and/or peripherals.

**LEM-320**: Loop Expander Module. Expands each IFC2-640 to two Signaling Line Circuits.

**BAT Series**: Batteries. IFC2-640 utilizes two 12 volt, 18 to 200 AH batteries. This series of products replaces the previous PS Series.

**JCI-LBB**: Battery Box (required for batteries larger than 25 AH).

**JCI-LBBR**: Same as above but red.

**411**: Slave digital alarm communicator. See JCI-60155.

**411UDAC**: Digital alarm communicator. See JCI-60205.

**BB-UZC**: Backbox for housing the UZC-256 in applications where the UZC-256 will not fit in panel enclosure. Black; for red, order BB-UZC-R.
System Capacity

- Intelligent Signaling Line Circuits ............1 expandable to 2
- Intelligent detectors ................................. 159 per loop
- Addressable monitor/control modules ............. 159 per loop
- Programmable software zones ......................... 99
- Special programming zones ............................. 14
- LCD annunciators per JCPU2-640/-640E and JNCA-2 (observe power) .......... 32
- ACS annunciators per JCPU2-640/-640E .......... 32 addresses x 64 points
- ACS annunciators per JNCA-2 .................. 32 addresses x 64 or 96 points

NOTE: The JNCA-2 supports up to 96 annunciator address points per ACM-24/48.

Specifications

- Primary input power, JCPU2-640 board: 120 VAC, 50/60 Hz, 3.0 A.
- JCPU2-640E board: 220/240 VAC, 50/60 Hz, 1.5 A.
- Total output 24 V power: 6.0 A in alarm.

NOTE: The power supply has a total of 6.0 Amps of available power. This is shared by all internal circuits.
- Standard notification circuits (4): 1.5 A each.
- Resettable regulated 24V power: 1.25 A.
- Two non-resettable regulated 24V power outputs:
  - 1.25 A
  - 0.50 A.
- Non-resettable 5V power: 0.15 A.
- Battery charger range: 18 AH – 200 AH. Use separate cabinet for batteries over 25 AH.
- Float rate: 27.6 V.

Cabinet Specifications

Systems can be installed in CAB-4 Series cabinets (four sizes with various door options, see JCI-6857). Requires JBP2-4 Battery Plate.

Temperature and Humidity Ranges

This system meets NFPA requirements for operation at 0 – 49°C/32 – 120°F and at a relative humidity 93% ± 2% RH (noncondensing) at 32°C ± 2°C (90°F ± 3°F). However, the useful life of the system's standby batteries and the electronic components may be adversely affected by extreme temperature ranges and humidity. Therefore, it is recommended that this system and its peripherals be installed in an environment with a normal room temperature of 15 – 27°C/60 – 80°F.

Agency Listings and Approvals

The listings and approvals below apply to the basic IFC2-640 control panel. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.
- UL Listed: S1570
- ULC Listed: S1570
- FM Approved
- MEA: 128-07-E Vol. 4
- FDNY: COA#6036
- CSFM: 7165-0554:0153
- City of Chicago

Standards

The IFC2-640 complies with the following UL Standards and NFPA 72 Fire Alarm Systems requirements:
- UL 864, 9th Edition (Fire).
- UL 1076 (Burglary).
- PROPRIETARY (Automatic, Manual and Waterflow). Not applicable for FM.
- EMERGENCY VOICE/ALARM.
- OT, PSDN (Other Technologies, Packet-switched Data Network)