

RESTREPO AMENDMENT

Doubled. Coiled. Future-Proof.

Keypad Pre-Wire Amendment v1.0

Two Cat6A Home-Runs at Every Keypad

Two Cat6A home-runs minimum at every keypad — the Restrepo library-wide standard.

01 SCOPE AND EFFECTIVE DATE

This amendment is a cross-volume directive issued by Restrepo Innovations and applies retroactively to every volume of the Restrepo Field Standards Library that specifies a keypad location. Where any prior volume conflicts with this amendment, this amendment governs. Effective date: 2026-05-15.

Retroactive Application

This amendment supersedes any single-Cat6A or four-conductor-only keypad pre-wire specification in any prior Restrepo volume. Any project with a pre-drywall walk scheduled on or after 2026-05-15 is governed by this amendment regardless of the project start date. Projects already past the pre-drywall QC gate are subject to this amendment on their next keypad-related change order.

Volumes Covered

Vol 03 Lighting Control Keypads, Vol 07 Window Shade Keypads, Vol 11 Access Control, Vol 12 Intercom, Vol 16 AI Conference Room, Vol 18 Wellness Room Touchscreens, Vol 23 Whole-House Audio Keypads, and all future keypad-bearing volumes. Any volume not listed above that specifies an in-wall device drawing control data or power from a rack over structured cabling is treated as keypad-class and governed by this amendment.

Scope of the Rule

The amendment governs pre-wire only: cable type, quantity, service loop, termination, and labeling at every keypad backbox and at the rack. It does not govern device selection, controller programming, or network switch configuration. Those remain subject to the originating volume standard.

NOTE · AMENDMENT AUTHORITY

This amendment is issued under the authority of the Restrepo Innovations Field Standards Library governance process. It does not require re-issuance of individual volumes; each volume is considered amended by incorporation as of 2026-05-15. The amendment reference number is KPA-v1.0 and is cited in all future keypad pre-wire scope documents.

SCOPE AND EFFECTIVE DATE NOTES

- A keypad location is any in-wall or in-ceiling device that receives a structured-cable home run from the rack, regardless of whether the device is currently specified as low-voltage, PoE, or network-connected.
- Questions about whether a specific device class triggers this amendment should be directed to the Restrepo principal in writing before pre-wire commences.

02 THE RULE

Two Cat6A home-run cables minimum at every keypad location, terminated to the rack, even when the keypad itself only needs four-conductor low-voltage. This is the Restrepo library-wide standard effective 2026-05-15.

Cat A — Active Run

Cat A is the working run. It is terminated at the rack patch panel, tested to Cat6A, and patched live to the controller, PoE switch, or processor serving the keypad. Cat A carries all current operational traffic for the device at that location.

Cat B — Spare Run, Coiled

Cat B is pulled, terminated at the rack patch panel, and tested to Cat6A. At the backbox end, Cat B is coiled in an 18-inch service loop, secured with a cable tie to the backbox mounting hardware, and left undressed. Cat B is not connected to any device at initial installation. It is labeled SPARE at both ends per Section 05.

No Exceptions Without Written Direction

A single-Cat run at any keypad location, for any reason, requires written direction from the Restrepo principal before the pre-wire walk. Verbal direction does not satisfy this requirement. The written direction must identify the specific location, the technical reason a second Cat is impractical, and the mitigation plan for future device upgrades.

FIELD · THE CORE RULE

Two Cat6A home-runs minimum at every keypad location, terminated to the rack, even when the keypad itself only needs four-conductor low-voltage. Cat A is active. Cat B is coiled in the backbox and labeled SPARE. No exceptions without written direction from the Restrepo principal.

THE RULE NOTES

- The second Cat costs approximately 15 minutes of labor and 40 feet of cable per location at rough-in. It eliminates the need to open a finished wall for any keypad upgrade for the service life of the installation.
- Both Cat runs must be pulled in the same rough-in pass. Returning to add a second Cat after drywall defeats the entire purpose of this amendment.

03 RATIONALE

The second Cat is the difference between opening the wall and swapping the faceplate. Every keypad location in luxury residential work is a candidate for upgrade over a 10-to-20-year service horizon.

Touchscreen Conversion

Any button keypad may be replaced by a touchscreen controller at the owner's direction. Crestron TSW-770, Control4 T4, and Savant Pro touchscreens require PoE+ (802.3at, 30W) over Cat6A. A keypad originally wired with four-conductor low-voltage cannot be converted without opening the wall. With two Cat6A runs, Cat B becomes the touchscreen run on the day the upgrade is ordered.

IP-Based Device Upgrade

The residential control market is migrating from RS-485 and proprietary serial buses to IP-native device architectures. Lutron RadioRA 3, Crestron Horizon, Savant Pro, and Control4 all now support or require Ethernet home-runs. A second Cat ensures the location is ready for any IP-native device that enters the market after the building is closed.

Intercom Add and Video Doorbell Mirror

A shade keypad location near an entry may be repurposed as an intercom station or a video doorbell display panel. Both require a second Cat for the video stream. Vol 12 (Intercom) and Vol 11 (Access Control) both specify Cat6A for video; the second Cat at every keypad location aligns all volumes to a common baseline.

Voice Node and Future Protocol Shift

Far-field microphone arrays (Amazon Alexa, Apple, Google) used as integrated control nodes require a PoE Cat6A run. A second Cat at every keypad location allows a voice node to be added at any keypad position without wall work. Future protocol shifts such as Matter-over-Thread bridging or Wi-Fi 7 backhaul nodes similarly benefit from a resident spare Cat run.

BEST · THE ECONOMICS OF THE SECOND CAT

The second Cat at rough-in costs 15 minutes of labor and 40 feet of cable. Opening a finished wall in a luxury residence costs 4 to 8 hours of wall repair, paint, and trade coordination, plus owner disruption. The second Cat is not a luxury option; it is the minimum responsible practice for any keypad location that may be upgraded in the next 10 to 20 years. In luxury residential work, that is every keypad location.

RATIONALE NOTES

- The cost calculus is asymmetric. The second Cat at rough-in adds 15 minutes of labor. Opening a finished wall in a luxury residence to add a Cat6A run costs 4-8 hours of wall repair, paint, and trade coordination, plus owner disruption.
- No known device upgrade path for any keypad class in the Restrepo library requires fewer cables than two Cat6A home-runs. Specifying two at rough-in is a permanent floor.

04 CABLE SPECIFICATION

Both Cat runs at every keypad location are identical in specification. No performance downgrade on Cat B. Both runs are built to the same Cat6A standard and must pass the same certification test.

Cable Type

Cat6A solid-conductor, 23 AWG, unshielded twisted pair (UTP) or shielded twisted pair (STP/F/UTP) as required by the project noise environment. For luxury residential applications in standard wood-frame construction, UTP Cat6A is the default. Specify F/UTP where the keypad backbox is within 12 inches of a 120VAC circuit in the same stud bay without a listed separator.

Plenum or Riser Rating

Cable jacket must be rated for the installation environment per NEC Article 800. In plenum return-air ceiling spaces: CMP-rated Cat6A is required. In wall cavities and non-plenum ceiling spaces: CMR-rated Cat6A is the minimum. Confirm plenum boundaries with the HVAC subcontractor before procurement. Do not install non-plenum cable in a confirmed return-air ceiling space.

Approved Cable

Belden 10GX Cat6A (10GXS12 CMR or 10GXE13 CMP) is the Restrepo standard. Equivalent approved cables: Commscope GigaSPEED X10D, West Penn 4506B (CMR), West Penn 4506PB (CMP). Substitutions require written approval from the Restrepo principal. Do not use Cat6 (non-A) for either run; Cat6A at 500 MHz is the minimum for all keypad locations.

Jacket Color: Black on Both Runs

Both Cat6A home-runs at every keypad location are pulled in black jacket, per the Restrepo Innovations single-color cable standard: black jacket on every low-voltage run, every trade, every home. Color-by-function conventions are rejected. Black bundles read smaller, disappear in the wall and rack, and service in year five never hunts a mismatched re-pull.

Service Loop at Keypad

Minimum 18-inch service loop at the keypad backbox end for Cat A. Minimum 18-inch service loop at the keypad backbox end for Cat B, coiled and secured inside the backbox. The loop allows the device to be pulled from the wall for termination, replacement, and future upgrades without stressing the cable.

Service Loop at Rack

Minimum 36-inch service loop at the rack end for each Cat run, coiled and secured in the rack enclosure before termination. The 36-inch loop allows the patch panel to be repositioned within the rack without re-pulling cable.

SPEC · CAT6A MINIMUM, BLACK JACKET, NO SUBSTITUTION

Both runs at every keypad location are Cat6A solid-conductor, black jacket, plenum or riser as required by local jurisdiction and NEC Article 800. Belden 10GX or approved equivalent. Service loop 18 inches at the keypad backbox, 36 inches at the rack. Do not substitute Cat6 (non-A) for either run. Do not use Cat5e. Black jacket only per the Restrepo single-color cable standard. Cat6A at 500 MHz is the floor for all keypad locations in the Restrepo library.

CABLE SPECIFICATION NOTES

- Both Cat runs must be terminated with Cat6A-rated keystone jacks or Cat6A patch panel ports. Terminating a Cat6A cable to a Cat6 jack degrades the channel to Cat6 performance and fails Cat6A certification.
- Minimum bend radius for Cat6A: 4x cable diameter (approximately 1 inch for standard Cat6A). Do not pull through a 90-degree conduit elbow with a radius below 1 inch.
- Pull tension: maximum 25 lbf for Cat6A UTP per TIA-568.2-D. Exceeding pull tension permanently degrades alien crosstalk performance and may fail channel certification.

05 TERMINATION AND LABELING

Both Cat runs land on the rack patch panel and are certified before drywall. Cat A is patched live. Cat B is dressed, labeled, and left spare.

Patch Panel Termination

Both Cat A and Cat B for every keypad location are terminated to the rack patch panel before the pre-drywall QC gate. No Cat run is left loose in the rack. All terminations are made with Cat6A-rated 110 punch-down or tool-less keystone jacks per manufacturer instructions. Both runs are in adjacent ports on the patch panel, labeled in sequence.

Cat6A Certification

Both Cat A and Cat B are tested and certified to TIA-568.2-D Cat6A channel or permanent link performance before drywall application. Acceptable certifiers: Fluke Networks DSX-600 or DSX-8000 with Cat6A adapter, or equivalent TIA-approved field tester. A printed or PDF test report for every port is archived to the project record. Any failed run is remediated before QC gate sign-off.

Cat A Patching

Cat A at each keypad location is patched to the controller, PoE switch port, or processor assigned to that zone in the rack build documentation. The patch cord is labeled to match the port label on the patch panel. Cat A is confirmed live and communicating with its assigned device before the QC gate checklist is signed.

Cat B Label at Backbox

The Cat B service loop inside the backbox is labeled with a durable, UV-resistant wrap label reading: SPARE -- KEYPAD [ROOM] [POSITION]. Room and position designations follow the Restrepo zone format (e.g., SPARE -- KEYPAD MBA-SW for master bath, south wall). The label is applied before drywall and must remain legible behind the faceplate for the life of the installation.

Cat B Label at Patch Panel

The Cat B patch panel port is labeled: SPARE -- KEYPAD [ROOM] [POSITION] using the same designation as the backbox label. The port is left unplugged. A blank port dust cover is installed to protect the termination. The label color for spare ports uses a contrasting label stock (white label on black background) to distinguish spare ports from active ports at a glance.

INSPECT · LABEL COMPLIANCE INSPECTION

At every keypad location, verify before drywall: (1) Cat A patch panel port labeled [ZONE]-[ROOM]-KP-A; (2) Cat B patch panel port labeled SPARE -- KEYPAD [ROOM] [POSITION]; (3) Cat B backbox service loop labeled with same designation; (4) Cat B port dust cover installed; (5) test reports on file for both runs. Any non-compliant label or missing test report holds the drywall schedule at that location.

TERMINATION AND LABELING NOTES

- Both Cat runs are certified regardless of current device assignment. Cat B certification before drywall is the only opportunity to confirm the run is usable. A failed Cat B discovered at upgrade time requires opening a finished wall.
- Sleeve schedule entry for each keypad location includes two rows: one for Cat A and one for Cat B, with port number, test result, test date, and technician initials for each.

06 VOLUMES AFFECTED

The following Restrepo Field Standards Library volumes are amended by this directive. The keypad pre-wire specification in each volume is superseded by this amendment wherever the two conflict.

Vol 03 — Lighting Control Keypads

Lutron RadioRA 3 and HomeWorks QSX keypad locations. Previously: single Cat6A or four-conductor LV per the Lutron pre-wire guide. Amended: two Cat6A home-runs at every Lutron keypad location, Cat B coiled in backbox and labeled SPARE.

Vol 07 — Window Shade Keypads

Lutron shade keypad and Sivoia QS Wireless control locations. Previously: four-conductor LV or single Cat6A. Amended: two Cat6A at every shade keypad location regardless of current device protocol.

Vol 11 — Access Control

Keypad readers, PIN pads, and credential reader locations at doors and gates. Previously: manufacturer-specified single cable run. Amended: two Cat6A home-runs at every access keypad location, enabling future IP-reader upgrade and video intercom integration without wall work.

Vol 12 — Intercom

Door station, indoor master station, and sub-station locations. Previously: two-conductor or Cat5e per intercom manufacturer spec. Amended: two Cat6A at every intercom station location. Vol 12 already specifies Cat6A for video; this amendment adds the mandatory second run.

Vol 16 — AI Conference Room

Control keypads, in-wall touch panels, and collaboration interface locations. Previously: single Cat6A per device. Amended: two Cat6A at every in-wall control location in conference room installations.

Vol 18 — Wellness Room Touchscreens

In-wall control touchscreens at spa, gym, yoga, and wellness room entrances. Previously: single Cat6A PoE run. Amended: two Cat6A; Cat B enables a future second touchscreen or sensor integration at the same backbox.

Vol 23 — Whole-House Audio Keypads

Crestron Horizon, Control4, and Savant keypad locations for distributed audio zones. Previously: single Cat6A. Amended: two Cat6A at every audio keypad location per this amendment.

Future Keypad-Bearing Volumes

Any future Restrepo Field Standards Library volume that specifies an in-wall or in-ceiling device drawing control data or power from a rack over structured cabling must incorporate this amendment's two-Cat6A minimum at draft stage. No future volume is published with a single-Cat keypad specification.

NOTE · FUTURE VOLUME COMPLIANCE

Any Restrepo Field Standards Library volume drafted after 2026-05-15 that specifies a keypad or in-wall control device must incorporate this amendment at draft stage. The two-Cat6A minimum is the library baseline; no future volume is published with a single-Cat keypad specification. The library editor confirms compliance at peer review before publication.

VOLUMES AFFECTED NOTES

- Vol 03, 07, 11, 12, 16, 18, and 23 are the currently published keypad-bearing volumes as of 2026-05-15. This list will be updated in the next annual review of the Field Standards Library.
- Where a volume specifies a device that communicates over a protocol not requiring Cat6A today (such as RS-485 or Z-Wave), the second Cat6A run is still required per this amendment. Protocol migration may occur during the service life of the installation.

07 WITHOUT WRITTEN DIRECTION

The following field conditions require explicit written direction from the Restrepo principal before implementation. Verbal direction does not satisfy this requirement. Any field technician asked to implement one of these conditions without a written direction document on file must stop work and contact the Restrepo principal.

Single-Cat Run at Any Keypad Location

Pulling only one Cat6A home-run at any keypad location requires written direction from the Restrepo principal. Written direction must identify the specific location, the technical reason a second run is impractical (e.g., conduit fill constraint, existing finished wall), and the mitigation plan for future device upgrades. Space constraints in a backbox are not a sufficient reason; backbox size is confirmed before framing per the coordination requirement in Section 09.

Four-Conductor LV Only, No Cat6A

Stubbing a keypad location with four-conductor low-voltage cable and no Cat6A home-run is not consistent with this standard or any prior Restrepo volume that references this amendment. This condition requires written direction. Four-conductor LV may be pulled in addition to two Cat6A runs where the current device requires it, but cannot replace the Cat6A requirement.

Daisy-Chained Cat Runs Between Keypads

Running a Cat6A cable from keypad A to keypad B in series (daisy-chain) rather than as independent home-runs from the rack is not consistent with this standard. Daisy-chained runs cannot be independently certified to Cat6A, cannot support independent PoE device assignment, and cannot be individually replaced without affecting adjacent locations. Written direction required.

Untested Cat Runs Not Certified to Cat6A

Pulling Cat cable to a keypad location and leaving it untested before drywall is not permitted. Any run not certified to TIA-568.2-D Cat6A before the QC gate holds the drywall schedule for that location. Certification of Cat B is as mandatory as certification of Cat A.

DONOT · SINGLE-CAT AND LV-ONLY STUBS

Keypad locations stubbed with only four-conductor low-voltage and no Cat6A, single-Cat runs at any keypad location, daisy-chained Cat runs between keypads, and untested Cat runs not certified to Cat6A are not consistent with this amendment. Each of these conditions requires written direction from the Restrepo principal before field implementation.

WITHOUT WRITTEN DIRECTION NOTES

- BX/MC cable used for any keypad pre-wire run requires written direction from the Restrepo principal and documentation of the shielding and grounding plan before the first run is pulled.
- Repurposing an existing single-Cat run as Cat A and claiming a future second run satisfies this amendment is not acceptable. Both runs must be new, in-standard Cat6A pulled in the same rough-in pass.
- Any field substitution of cable type, gauge, or rating from the approved specification requires written change-order documentation signed by the Restrepo project manager before implementation.

08 PRE-DRYWALL QC GATE

Every item below is confirmed before drywall application proceeds. An unchecked item holds the schedule at that keypad location until remediated. The project lead signs this checklist before any board is placed.

- ☐ Both Cat6A home-runs pulled at every keypad location before drywall application proceeds
- ☐ Cat A labeled [ZONE]-[ROOM]-KP-A at both backbox end and rack patch panel port
- ☐ Cat B labeled SPARE -- KEYPAD [ROOM] [POSITION] at both backbox end and rack patch panel port
- ☐ Cat B service loop 18 inches minimum, coiled and cable-tied inside backbox at each keypad location
- ☐ Cat A service loop 18 inches minimum at backbox; 36-inch service loop at rack end for both runs
- ☐ Both Cat A and Cat B terminated to Cat6A-rated keystone jacks or patch panel ports
- ☐ Both Cat A and Cat B certified to TIA-568.2-D Cat6A; test reports archived to project record
- ☐ Cat A patched live to assigned controller, PoE switch port, or processor; communication confirmed
- ☐ Cat B patch panel port dressed, dust cover installed, left unplugged
- ☐ Sleeve schedule updated with two rows per keypad location (Cat A and Cat B); port number, test result, test date, and technician initials recorded for each run
- ☐ No single-Cat keypad location on the project without a written direction document on file
- ☐ No four-conductor-LV-only keypad stub without a written direction document on file
- ☐ All Cat6A cable CMP-rated in confirmed plenum return-air spaces; CMR minimum in all other locations
- ☐ Framing confirmed: both Cat runs enter backbox without exceeding minimum bend radius (1 inch for Cat6A UTP)
- ☐ QC gate checklist signed by Restrepo project lead and GC representative before drywall application proceeds

QC QC GATE · 6-ITEM PRE-DRYWALL PASS/FAIL

All 6 items must pass before drywall application proceeds. Any failed item holds the schedule until resolved and re-inspected. Project lead signature required.

#	QC GATE ITEM	PASS	FAIL
1	Both Cat runs pulled and labeled at every keypad location Visual confirmation: two Cat6A cables exiting every keypad backbox, each labeled at the backbox end. Rack end: two adjacent ports on patch panel, both labeled. Single Cat at any location, or unlabeled run. Hold drywall at that location until remediated.	PASS / SIGN	FAIL / HOLD
2	Both Cat runs certified to Cat6A before drywall Test reports on file for Cat A and Cat B at every keypad location. Fluke DSX-600 or equivalent. Pass criteria: TIA-568.2-D Cat6A channel or permanent link. Any failed or untested run. Hold drywall at that location until re-pulled and certified.	PASS / SIGN	FAIL / HOLD
3	Cat B coiled, labeled SPARE, dust cover installed at rack Cat B service loop 18-inch minimum in backbox, cable-tied. Rack port labeled SPARE -- KEYPAD [ROOM] [POSITION], dust cover installed, left unplugged. Cat B not coiled, not labeled, or not terminated. Hold until remediated.	PASS / SIGN	FAIL / HOLD
4	Cat A patched live and communicating Cat A patch cord installed, device communicating with controller or processor. Zone confirmed active in system test prior to QC gate sign-off. Cat A not communicating. Diagnose before drywall proceeds at that location.	PASS / SIGN	FAIL / HOLD
5	Sleeve schedule complete with two rows per keypad location Two rows per keypad: Cat A and Cat B. Port number, test result, test date, technician initials. No blank rows for any keypad location. Incomplete sleeve schedule. Complete all rows before QC gate sign-off.	PASS / SIGN	FAIL / HOLD
6	No location missing written direction for single-Cat exception Any keypad location with only one Cat on file has a written direction document signed by the Restrepo principal identifying the location and mitigation plan. Single-Cat location without written direction. Hold drywall until written direction is obtained or second Cat is pulled.	PASS / SIGN	FAIL / HOLD

PROJECT LEAD SIGN-OFF

Signature / printed name

DATEMM/DD/YYYY

PROJECT

09 COORDINATION WITH OTHER TRADES

The two-Cat rule depends on framing, conduit, and backbox conditions established by other trades. Confirm these conditions before the pre-wire walk.

Framing: Mark Both Backboxes

The framer marks both single-gang or two-gang backbox locations at every keypad position per the keypad pre-wire drawing before framing inspection. For locations where a single backbox currently houses one device, confirm that the box depth and width accommodate two Cat6A cables with 18-inch service loops. A standard 3.5-inch deep single-gang old-work box accommodates two Cat6A service loops; shallower boxes may require a deeper specification.

Low-Voltage Installer: Pull Both Cats in One Pass

The low-voltage installer pulls Cat A and Cat B for every keypad location in the same rough-in pass. No return visit to add Cat B. The pull sheet issued to the low-voltage installer identifies both runs for each keypad location explicitly. The installer confirms both runs at each location before moving to the next location.

Drywall Finisher: Protect Both Service Loops

The drywall finisher protects both Cat service loops at every keypad location during boarding, taping, and finishing. Both loops must be accessible and undamaged at the trim-out walk. A standard low-voltage ring or mud ring cover is installed at every keypad backbox to protect the loops during finish trades.

Painter: Mask Both Faceplates

The painter masks every keypad faceplate or mud ring cover during paint application to prevent paint from entering the backbox or contacting the Cat B service loop. Both the active-device faceplate and any blank cover over the Cat B loop are masked.

BEST · PRE-WIRE WALK SCHEDULING

Schedule the joint pre-wire walk with the GC, low-voltage installer, and Restrepo project lead a minimum of 5 business days before the planned rough-in date. Distribute the two-Cat requirement and the backbox size confirmation to all parties 48 hours before the walk. Any conflict identified at the walk that cannot be resolved the same day holds the rough-in schedule until written resolution is confirmed.

COORDINATION WITH OTHER TRADES NOTES

- Distribute the two-Cat requirement to the low-voltage installer in the scope-of-work document before the first pull day. Discovering the requirement on the job site adds a return visit.
- Confirm backbox depth with the framer before framing begins. A shallow backbox discovered after drywall requires a box extender and finish repair.
- Schedule a joint pre-wire walk with the GC, low-voltage installer, and Restrepo project lead before the first pull day to confirm all keypad locations, backbox sizes, and conduit routes.

REF CITATIONS AND PRIMARY SOURCES

1

TIA-568.2-D · Cat6A Standard · TIA

Transmission performance for Cat6A 4-pair balanced twisted-pair cabling. 500 MHz channel spec. Alien crosstalk requirements.

<https://tiaonline.org/product/568-2-d/>

2

NEC Article 800 · Communications Circuits · NFPA

Plenum cable CMP requirement for return-air spaces. CMR for riser. Governs Cat6A jacket ratings at every keypad pre-wire location.

<https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-...>

3

CEDIA RP-22 v1.2 · Residential Systems Design · CEDIA

Residential systems design recommended practice. Cable infrastructure and home-run topology for control and AV systems.

https://cedia.org/site/assets/files/6057/cedia-cta_rp22_v1_2_sept_2023.pdf

4

NJ UCC NJAC 5:23 · Electrical Subcode · Cornell Law

NJAC 5:23-3.16: NJ UCC adopts NEC by reference. Low-voltage contractor licensing requirement for residential communications cable.

<https://www.law.cornell.edu/regulations/new-jersey/N-J-A-C-5-23-3-16>

5

Lutron RA3 Pre-Wire Guide · Lutron

RadioRA 3 cable requirements: Cat5e or Cat6 to each keypad. This amendment supersedes to Cat6A minimum at every location.

<https://www.lutron.com/TechnicalDocumentLibrary/367-988.pdf>

6

Lutron HWQSX Pre-Wire Guide · Lutron

HomeWorks QSX cable requirements and keypad rough-in specifications.

<https://www.lutron.com/TechnicalDocumentLibrary/367-834.pdf>

7

Crestron Horizon Keypad Pre-Wire · Crestron

Horizon series keypad installation: PoE Cat6A, 802.3af, single backbox. This amendment mandates a second Cat at every Horizon location.

<https://www.crestron.com/getmedia/a2d2f79b-5b2a-4e46-b0e2-f47ea9b8d...>

8

Savant Pro Keypad Pre-Wire · Savant

Savant Pro keypad and touchscreen Cat6A home-run requirements.

<https://www.savant.com/support>

9

Control4 T4 In-Wall Touchscreen · Control4

Control4 T4: PoE+ (802.3at, 30W), Cat6A, 4-gang backbox. Second Cat required per this amendment.

<https://www.control4.com/docs/product/t4-in-wall-touchscreen/installation-g...>

10

Belden 10GX Cat6A · Belden

10GXS12 CMR and 10GXE13 CMP Cat6A solid-conductor. Restrepo approved standard cable for all keypad pre-wire runs.

<https://www.belden.com/products/infrastructure/copper-cable/cat6a-cable>