PANEL 1856

STORAGE 6
SW-MTG

708991B

HT-1054

BRADY®

Everything you need to know about complying
with the latest TIA-606-C labelling standard

CONTENTS

Why use the latest labelling standards?

Effective cable labelling helps you add value to your operations with organised installations that you can take pride in. Keeping up with best practices can benefit your company and your customers with increased efficiency, profitability and customer satisfaction. Properly labelled systems benefit all of us - installers and contractors, IT technicians, owners and businesses.

The data explosion - Labelling has become far more important in recent years with the rise in data center growth and implementation of TIA labelling standards, including the latest TIA-606-C standard.

Here today, gone tomorrow -
Network structure is never static and is always changing to keep up with new technology and increased bandwidth requirements. Cables placed today will be replaced tomorrow.

The wireless world needs to be wired - As we move to a "wireless" world, the amount of cabling in facilities will increase as more devices are connected and dated systems are upgraded.

An investment worth making - While labelling is only one part of a successful structured cabling or data center installation, it plays an important role in ensuring maximum uptime and audit compliance for your customers.
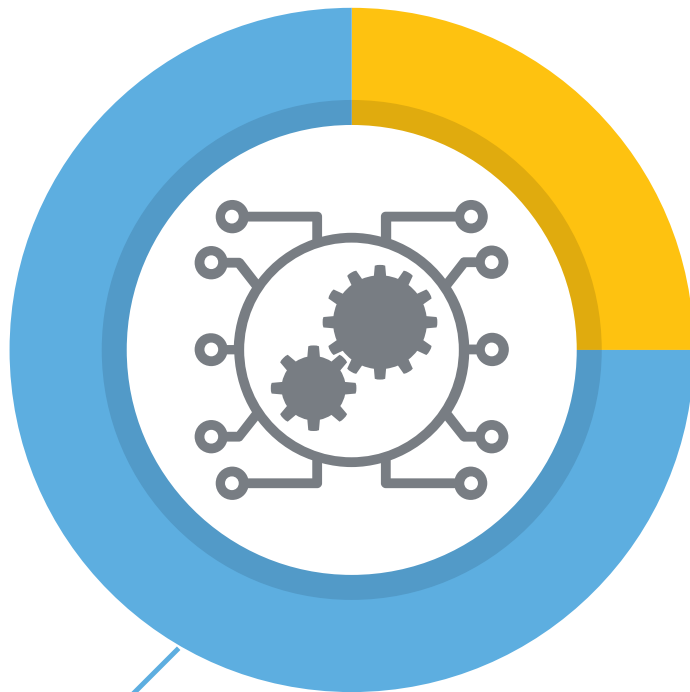
75%

of data moving right now is generated by machines and building automation.

A brief history of the TIA-606 labelling standard

In 2002, the Telecommunications Industry Association (TIA), which develops standards for the information and communications technology industry, set the first voluntary TIA-606-A standard.

This established a minimum level of information that should be included on cable labels. It defined a labelling standard that maps a cable precisely to the floor, telecom room, and patch panel position or block position on which it's terminated. It included both colour-coded and alphanumeric guidelines for all networking and structured cabling components, which set it apart as a logical and sensible solution.

The move to TIA-606-B. In 2012, the TIA updated the standard to TIA-606-B, which included specifications for labelling and administrative best practices across all networked systems classes. It covered more facility classes of every size and type, from small office buildings to large commercial enterprises, corporate campuses and data centers, and added more granularity to identification locations within each of these facilities.

In July 2017, the standard was updated to its current "C" revision.

The latest standard: TIA-606-C

The TIA-606-C Standard specifies administration systems for telecommunications infrastructure within buildings (including commercial, industrial, residential, and data center premises) and between buildings. This infrastructure may range in size from a building requiring a single telecommunication space (TS) and associated elements, to many TSs and associated elements in multiple campus locations. The standard applies to administration of telecommunications infrastructure in existing, renovated, and new buildings.

Colour coding

Colour coding labels is recommended, but not required. Compliant coding may be accomplished using colour labels or colour bands.

COLOR CODING

What's new in TIA-606-C?

Much of the TIA-606-B standard still applies within the TIA-606-C standard, but there are some new additions and updates.

Annex D: Annex D provides additional guidelines for the administration of cabling supporting remote powering, including a cable bundle identifier scheme. It's an important development because it allows automatic infrastructure management systems from different manufacturers to work together.

Changes to the identifier scheme for telecommunications grounding and bonding system elements: These changes specify the use of terms compatible with ISO/IEC 30129. Legacy terms used in versions of the TIA-607 standard earlier than revision C also will be allowed.

It's an important development because it allows automatic infrastructure management systems from different manufacturers to work together.

Identifier schemes for telecommunications bonding and grounding system elements changed to align with TIA-607-C:

- BCT (bonding conductor for telecommunications) changed to TBC (telecommunications bonding conductor)

- RGB (rack grounding busbar) changed to RBB (rack bonding busbar)

- GE (grounding equalizer) changed to BBC (backbone bonding conductor)

- TGB (telecommunications grounding busbar) changed to SBB (secondary bonding busbar)

- TMGB (telecommunications main grounding busbar) changed to PBB (primary bonding busbar)

Additional updates:

- TIA-606-B-1 content replaced with a reference to TIA-5048 (adaption of ISO/IEC 18598)

- The preference for an ISO/IEC TR 14763-2-1 compatible format for new administration systems was removed

- Table summarising variables used in identifier formats added

Why follow TIA-606-C?

Makes your job easier - Following the standard takes the guesswork out of creating labels in the office or on the fly.

Improves your efficiency - Reduce time spent creating labels to streamline your entire installation and labelling process.

Best practice - TIA-606-C is the industry standard, making the network easier to follow for your customer's current and future team members.

The mark of professionalism - Clear, durable labelling according to TIA-606-C standards is a sure sign of your experience and expertise.

Ensures compliance with warranties - Some cable warranties are dependent upon successful labelling and documentation being turned in directly to the cable manufacturer as proof of system installation. Since cable warranties are a key factor in many buyers' purchasing decisions, successfully certifying a system by supplying this type of information to the manufacturer is extremely important.

Improves record keeping - The standard requires you to link a record for each identifier that is printed on a label, allowing your customer to have a well-documented infrastructure that can be understood and managed by anyone responsible for making moves, adds or changes.

Following the standard takes the guesswork out of creating labels in the office or on the fly.

Increases customer satisfaction - Customers appreciate that their projects, whether large or small, are installed in full compliance with all applicable standards. From the building owner's perspective, a non-labeled plant becomes a liability because they can't get competent maintenance work done cost-effectively. It also reduces the time and cost associated with identifying and tracing a cable when problems occur or when a move, add or change is required.

Creates new business opportunities - Installers sometimes turn down repair and maintenance bids because cable tracing is labour-intensive and time-consuming. Adopting TIA-606-C standards makes it easier for you to bid competitively on future jobs when expansion occurs or maintenance is needed.

Reduces liability - Future maintenance workers can perform repairs, installation updates and upgrades in a safer, more secure way, with a reduced risk of human error.

Faster troubleshooting - Being able to identify information about cables quickly makes it faster and easier to troubleshoot issues.
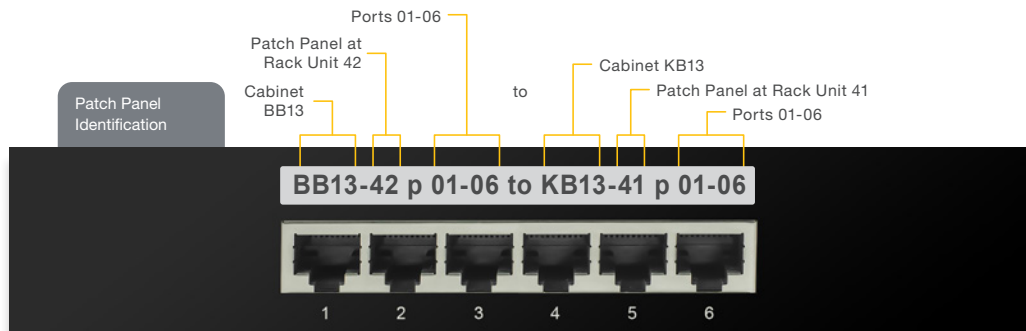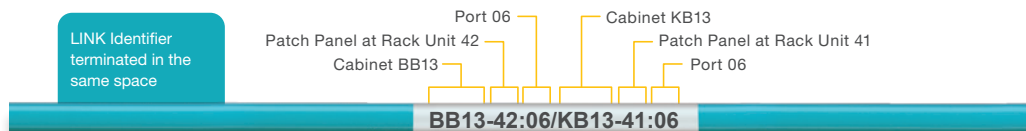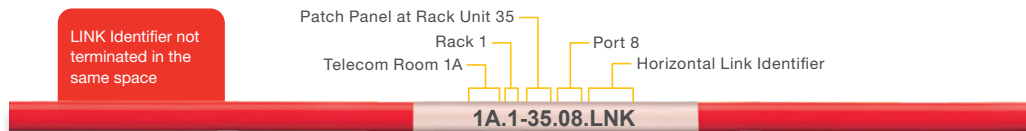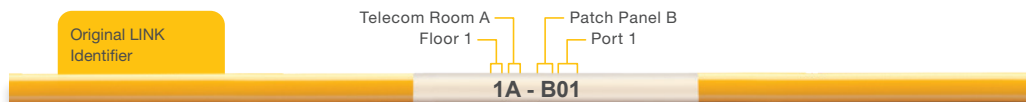
Brady can support you with any of your identification challenges. **Just contact us**

How to properly identify cables according to TIA-606-C

Each of the following components must be clearly labelled with the appropriate identifiers:

- Telecommunications space
- Data center room grid
- Racks and cabinets
- Patch panels
- Ports
- Cabling
- Pathways
- Work area outlets
- Grounding busbars
- Firestop locations

Original LINK Identifier

Telecom Room A
Floor 1
Patch Panel B
Port 1

1A - B01

LINK Identifier not terminated in the same space

Patch Panel at Rack Unit 35
Rack 1
Telecom Room 1A
Port 8
Horizontal Link Identifier

1A.1-35.08.LNK

LINK Identifier terminated in the same space

Port 06
Patch Panel at Rack Unit 42
Cabinet BB13
Cabinet KB13
Patch Panel at Rack Unit 41
Port 06

BB13-42:06/KB13-41:06

Patch Panel Identification

Ports 01-06
Patch Panel at Rack Unit 42
Cabinet BB13
to
Cabinet KB13
Patch Panel at Rack Unit 41
Ports 01-06

BB13-42 p 01-06 to KB13-41 p 01-06

1   2   3   4   5   6

How to make it easier to follow TIA-606-C

Choosing the right handheld printer, labels and software can make it easy to create labels that follow TIA-606-C guidelines.

6 features your portable printer should have:

1. **Wireless + Bluetooth connectivity -** These capabilities allow you to set up and print labels from any location. You can create your own network, connect a laptop or tablet to your printer, and access data from file sets to print accurate labels in the field.

2. **300 DPI high-resolution printing -** When you're printing 11-12 characters per line on a 2" label (51mm), you need high-resolution printing to make it legible. Look for a high DPI that will print labels with clear text, UPC codes, industry symbols and graphics.

3. **USB port -** Import structured text data sets (such as .CSV files), lists and graphics from your laptop or tablet, which also reduces keying mistakes. You can also use it to plug in a full-size keyboard for bigger jobs.

4. **Built-in sequencers -** Look for built-in macros so you can download and print custom or preformatted label templates, as well as run and print alphanumeric sequences.

5. **Barcoding capabilities -** Make sure this functionality is built into your printer's firmware so you can print bar codes and enable RFID tracking of assets and materials.

6. **Cooperation with benchtop printers -** Make sure your portables collaborate with your benchtop units so you can easily share data and files, and print on the go.

Other features to look for:

- A large and well-lit screen for quick viewing and selection of labels

- Formatted label designs

- Easy-to-navigate menus

- Storage allowance and PC connectivity for downloading data

- Smart application keys with preformatted templates, for the types of labels needed for electrical, telecom, datacom, audio/video and security system work.

- The capability to make both continuous labels and die-cut labels and automatic label setup, allowing the printer to automatically recognise the label part installed and default to the correct rotation, format, size and font when it is turned on

- Rechargeable NiMH batteries that allow printing more than 2,000 labels on a single charge

- Rugged construction

- Automatic smart font-sizing technology

- The ability to accept a variety of interchangeable tape cartridges to create different types of labels

Want all this and more? Discover our mobile printers for efficient wire, cable and component identification.

Top 3 properties to look for in labels:

1. **Durability -** Labels should be waterproof, tear resistant and scratch resistant, and stay attached over time. Ink should be just as rugged – to remain legible over time, even in challenging conditions.

2. **The right stock -** It's important to select a material that's made for your specific application and environment.

3. **Easy to read -** Choose the right sizes and colours so labels are easy to read on the wires you're installing.

Discover professional and reliable labels for cable & component identification
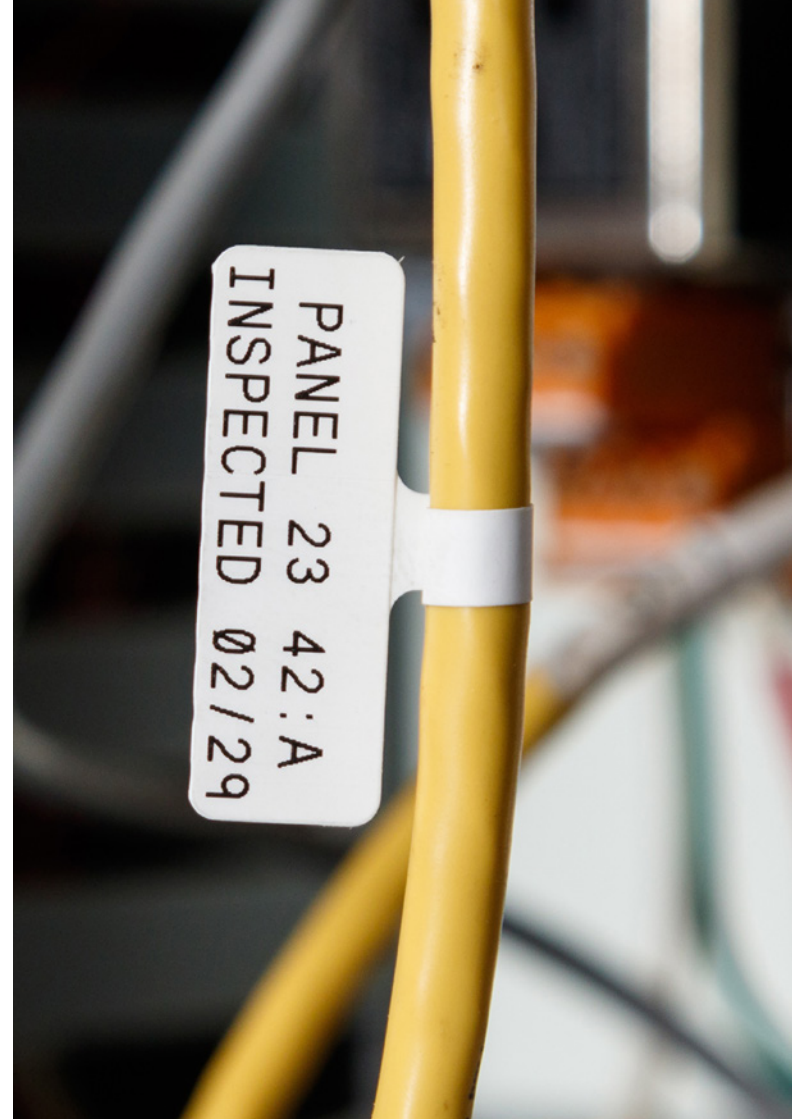
TIA/EIA-606 cable colour codes

Using colour-coded labels gives visual clues as to what the cables are used for and how they're connected to the panel or grid. Coloured labels are versatile, and they're easier to install or change than a wire jacket.

Pantone	Indication	Description
Orange 150c	Demarcation point	Demarcation point (central office termination)
Green 353c	Network connection	Termination of network connections on the customer side of the demarcation point
Purple 264c	Common equipment	Termination of cables originating from common equipment (pbx's, computers, lan's and multiplexers) white/silver in Canada.
White	First level backbone	First level backbone telecommunications media termination in the building containing the main cross-connect (main cross-connect to tr or main cross-connect to local intermediate cross-connect). Purple in Canada.
Grey 422c	Second level backbone	Second level backbone telecommunications media termination in the building containing the main cross-connect (local intermediate cross-connect to tr). Purple (USA) or white (Canada) to identify second level backbone terminations in buildings not containing the main cross-connect.
Blue 291c	Horizontal cabling	Termination of station telecommunications media required only at the tr and equipment room end of the cable not at the telecommunications outlet.
Brown 465c	Interbuilding backbone	Interbuilding backbone cable terminations (main cross-connect to remote intermediate cross-connect)
Yellow 101c	Auxiliary & miscellaneous circuits	Termination of key telephone systems
Red 184c	Key telephone systems	Areas that may expose employees to special physical or health hazards, risk of colliding with obstacles, of falling or of objects falling.

Top 5 functions to look for in label software:

1. **Import/export -** Automatically extract and import data from other programs such as CAD packages, spreadsheets and databases, saving you time and money.

2. **Label selection -** This function allows you to automatically select the optimum label for a particular application, simplifying and speeding up your label creation.

3. **Text and legends -** Generate text, numbers and legends that are compliant with industry standards, including UL, ANSI, TIA/EIA.

4. **Built-in app-specific sequencers -** This built-in tool can handle multiple alphanumeric sequences and sequence multiple areas within the facility, simplifying your labelling duties.

5. **Mirror print -** Print to both sides of the label to improve readability no matter how the wire is positioned in the network or on the panel.

See how Brady Workstation label design apps cover all of the above functionalities!

What now?

Make sure you're using the printers, labels and software that will make it easy to follow the latest TIA-606-C standard.

Explore professional labelling solutions:

Software:
Try every label design app 30 days for free!
Brady Workstation

Software:
Easily design any label with your smartphone.
Express Labels app

Labels:
Discover our complete range of labels to identify every cable and component or request samples for your labelling application.

Printers:
Discover our professional, easy-to-use portable printers to create the label you need, when you need it.

We can support you with any of your identification challenges. Just contact us.

17

BRADY

Belgium & Luxembourg
Tel: +32 (0)52 45 78 11
benelux@bradycorp.com

Czech Republic
Tel: +420 776 302 229
czechrepublic@bradycorp.com

Denmark
Tel. +45 66 14 44 00
denmark@bradycorp.com

France
Tel. +33 (0) 3 20 76 94 48
france@bradycorp.com

Germany, Austria & Switzerland
Tel. +49 (0) 6103 7598 660
germany@bradycorp.com

Hungary
Tel. +36 23 500 275
hungary@bradycorp.com

Italy
Tel: +39 02 26 00 00 22
italy@bradycorp.com

Netherlands
Tel: +31 (0)70 323 62 98
benelux@bradycorp.com

Norway
Tel. +47 70 13 40 00
norway@bradycorp.com

Poland
Tel: +48 22 104 6262
poland@bradycorp.com

Qatar, Saudi Arabia & UAE
Tel. +971 4881 2524
me@bradycorp.com

Slovakia
Tel: +421 902 939 406
slovakia@bradycorp.com

South Africa
Tel: +27 11 704 3295
africa@bradycorp.com

Spain & Portugal
Tel. +34 900 902 993
spain@bradycorp.com
portugal@bradycorp.com

Sweden, Finland, Estonia, Latvia, Lithuania
Tel. +46 (0) 8 590 057 30
sweden@bradycorp.com

Turkey
Tel. +90 212 264 02 20
turkey@bradycorp.com

UK & Ireland
Tel. +44 (0) 1295 228 288
uk@bradycorp.com

We identify and protect people, products and premises.

www.bradyeurope.com