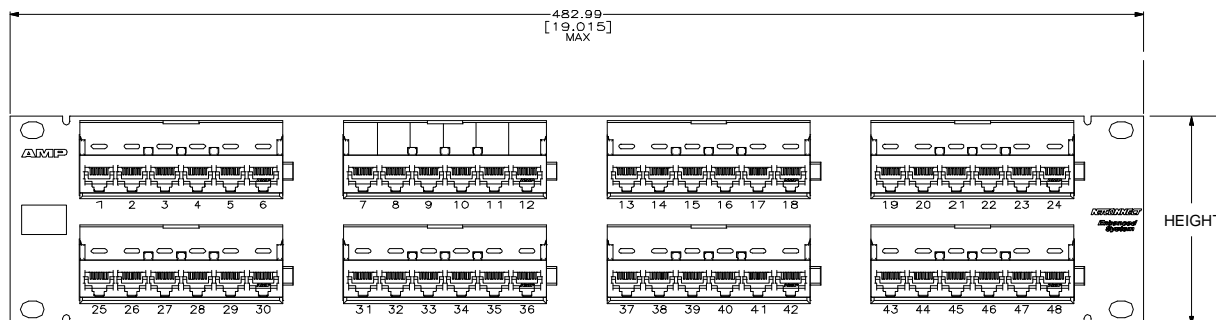


# 110Connect Enhanced Category 5 Patch Panels

406330-1, 406331-1, 406332-1, 406390-1, 406981-1



## Description

AMP Enhanced Category 5 110Connect Patch Panels exceed the proposed TIA requirements for Category 5e performance. They comply with all of the performance requirements for current and proposed applications such as 100BASE-Tx, 155 Mbps ATM and Gigabit Ethernet. The universal wiring label permits field installation to either T568A or T568B wiring while simplifying ordering and inventory. The 110Connect punchdown blocks are compatible with both 110 (single-wire and 5-pair) and Krone single-wire tools. The "6-pack" modules accept both 9mm and 12mm labels (included) as well as color-coded icons. The modules may be individually replaced if necessary.

## Specification (Text in brackets [ ] requires a choice.)

Patch panels shall be [insert height] high and provide [insert number of ports] modular jack ports, wired to [T568A or T568B]. Patch panel modular jacks shall be configured as 6-port, replaceable modules. The front of each module shall be capable of accepting 9mm to 12mm labels. Each port shall be capable of accepting an icon to indicate its function. Patch panels shall terminate the building cabling on 110-style insulation displacement connectors. Patch panels shall comply with the performance characteristics listed in the following table [insert table from back page] in addition to all other standard Category 5 requirements. Patch panels must be UL Listed under file number E81956. Patch panels shall be AMP part number [insert AMP part number] or an approved equivalent.

Part Number	Number of Ports	Height, in.	Width, in.
406390-1	12	10.015*	2.328
406981-1	12	1.75	19
406330-1	24	1.75	
406331-1	48	3.50	
406332-1	96	7.00	

\* Panel dimensions. Panel mounts vertically on 89D bracket (included).

# 110Connect Enhanced Category 5 Patch Panels

406330-1, 406331-1, 406332-1, 406390-1, 406981-1

## Typical Worst-Case Performance Characteristics (exceed TIA Category 5e, TIA/EIA-568-A-5)

Frequency, MHz	Attenuation, dB		NEXT, dB		PS NEXT, dB		FEXT, dB		Return Loss, dB	
	Spec	AMP	Spec	AMP	Spec	AMP	Spec	AMP	Spec	AMP
1	0.1	0.05	65.0	85.9	–	83.9	65.0	83.5	35.0	54.2
4	0.1	0.05	65.0	72.7	–	70.9	63.1	73.1	35.0	47.8
8	0.1	0.05	64.9	66.9	–	65.0	57.0	67.5	35.0	42.8
10	0.1	0.05	63.0	64.9	–	63.0	55.1	65.5	35.0	41.0
16	0.2	0.10	58.9	60.7	–	58.9	51.0	61.5	35.0	37.2
20	0.2	0.10	57.0	58.9	–	57.1	49.1	59.8	34.0	35.5
25	0.2	0.10	55.0	56.9	–	55.1	47.1	57.8	32.0	33.7
31.25	0.2	0.10	53.1	54.9	–	53.0	45.2	55.8	30.1	31.8
62.5	0.3	0.15	47.1	49.0	–	46.7	39.2	50.2	24.1	26.2
100	0.4	0.20	43.0	44.5	–	41.9	35.1	45.9	20.0	22.6

### Durability:

Modular jack - 750 mating cycles  
110 Block - 200 termination cycles

### Materials:

Panel - black anodized aluminum (406390 and 406332)  
black powder-coated steel (all others)

Jack housing - polyphethylene oxide, 94V-0 rated.

110 Blocks - polycarbonate, 94V-0 rated.

Jack contacts - phosphorous bronze, plated with 1.27  $\mu\text{m}$  [.000050] thick gold in localized area and 3.81  $\mu\text{m}$  [.000150] minimum thick tin-lead in solder area over 1.27  $\mu\text{m}$  [.000050] minimum thick nickel underplate.

### Packaging:

406330-1 1 per box/ 5 boxes per carton, 9 lbs.  
406331-1 1 per box/ 5 boxes per carton, 13 lbs.  
406332-1 1 per box, 4.26 lbs.  
406390-1 1 per box, 1 lbs.  
406981-1 1 per box/ 5 boxes per carton, 8 lbs.

Specifications subject to change without notice.

Revised 3/00.

In the U.S. 1-800-553-0938

Canada 905-475-6222

Mexico 525-729-0400

South and Central Americas 54-11-4733-2200

[www.amp.com/networking](http://www.amp.com/networking)

e-mail: [networking.help@tycoelectronics.com](mailto:networking.help@tycoelectronics.com)

**tyco**

Electronics



### NOTE

Although a 22–26 AWG wire size is recommended, some types of insulation (due to outer diameter measurement or material) may not terminate properly. Outside diameters of 1.27 mm [.050 in.] or larger are not typically recommended. Although, depending on the type of insulation, larger diameters may make acceptable terminations. Some wire types falling below 1.27 mm [.050 in.] diameter may not terminate properly because of a tougher insulation type. Qualification testing was conducted using 22–26 AWG wire with an outside diameter of 0.91 mm [.036 in.].

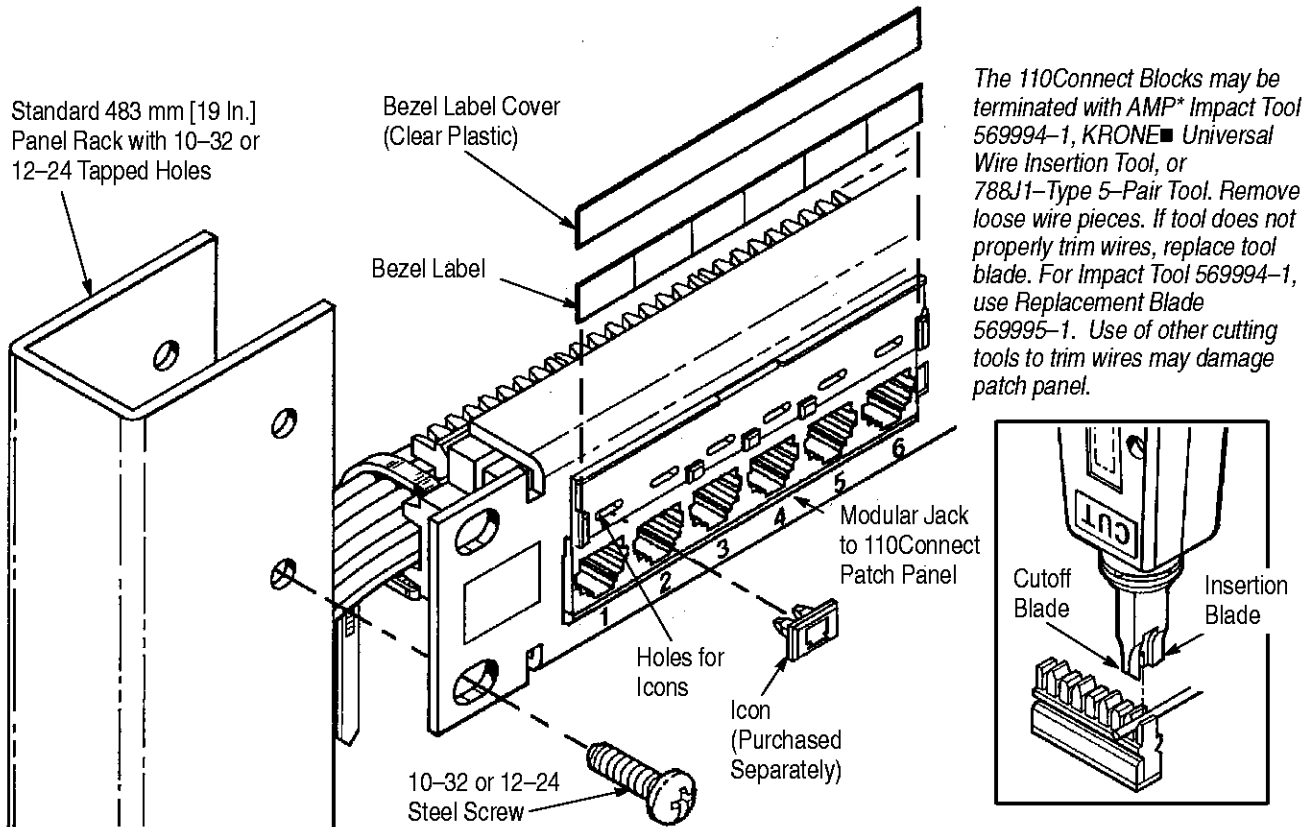


Figure 1

## 1. INTRODUCTION

This instruction sheet covers the installation procedures for AMP 110Connect Category 5 Enhanced Modular Universal Wiring Patch Panels. The panels can be mounted on any standard 483 mm [19 in.] equipment rack or communication cabinet as shown in Figure 1.

### NOTE

All dimensions are in millimeters [with inches in brackets]. Figures are for reference only and are not drawn to scale.

Reasons for reissue of this sheet are provided in Section 4, REVISION SUMMARY.

## 2. DESCRIPTION

Each panel includes the necessary mounting hardware, universal T568A/T568B wiring labels, bezel labels, bezel label covers, and cable management cable ties. See Figures 1 and 2.

## 3. INSTALLATION PROCEDURES (Figure 2)

### 3.1. General Instructions

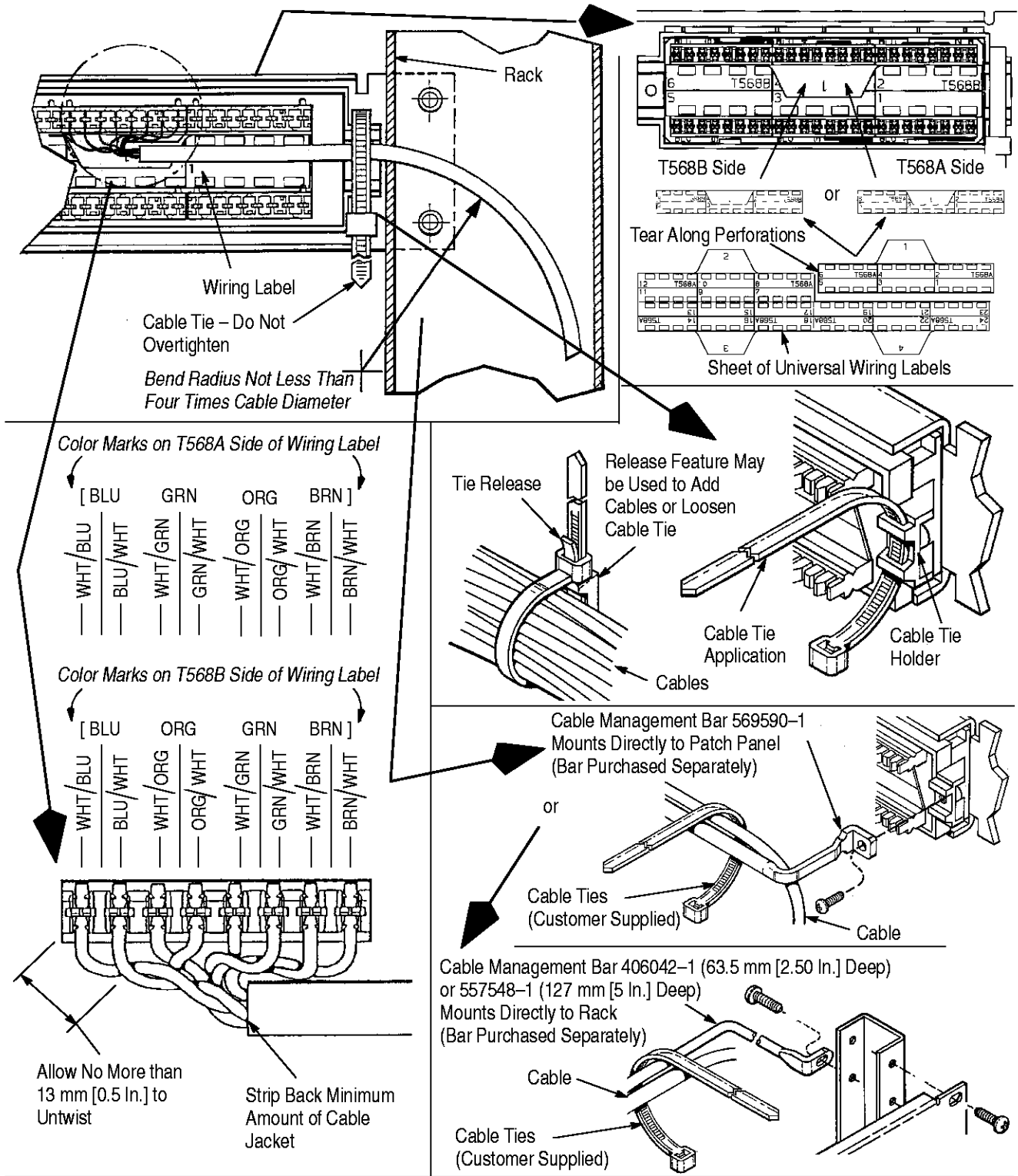
Unpack assembly and install universal wiring labels, with the T568A or T568B side facing up, to match the wiring pattern being used at the outlet. Match label port numbers to port numbers on front of panel. Assemble cable ties or cable management bar(s).

### 3.2. Special Instructions for Category 5 Enhanced Applications

### NOTE

At all times, the wiring practices must comply with practices of ANSI/TIA/EIA-568-A Specification.

Guidelines covered in the above specification and shown in Figure 2 must be followed.



**4. REVISION SUMMARY**

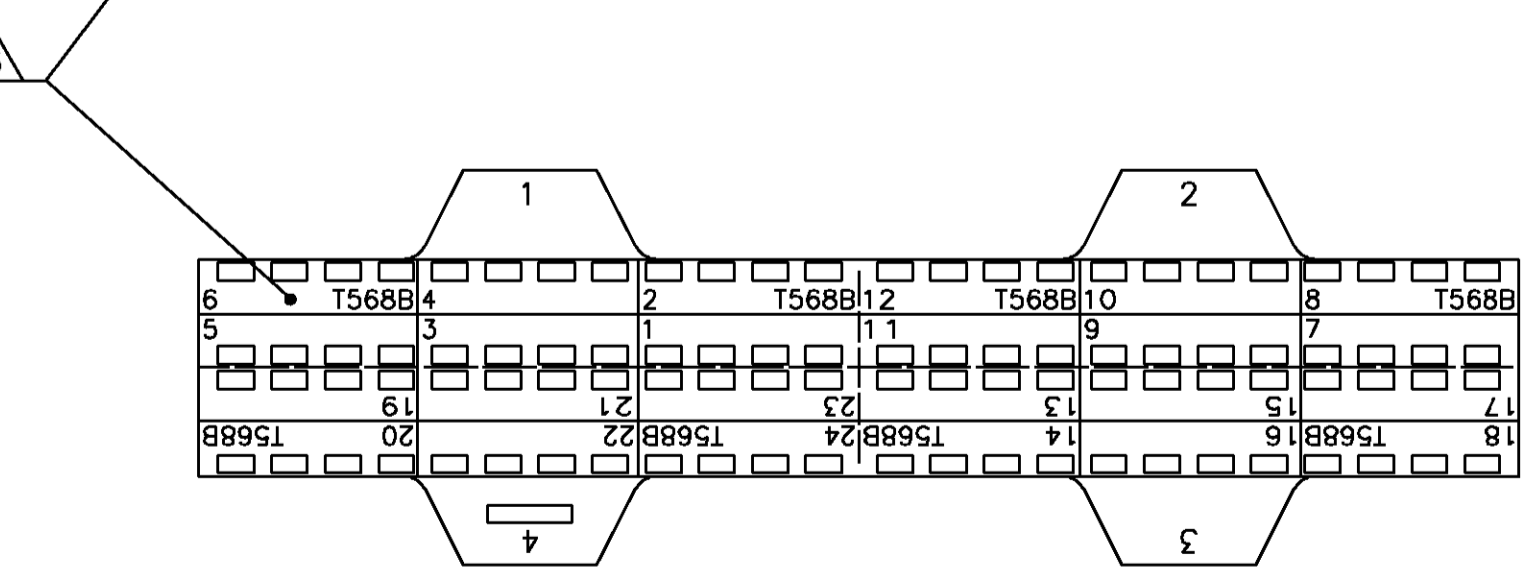
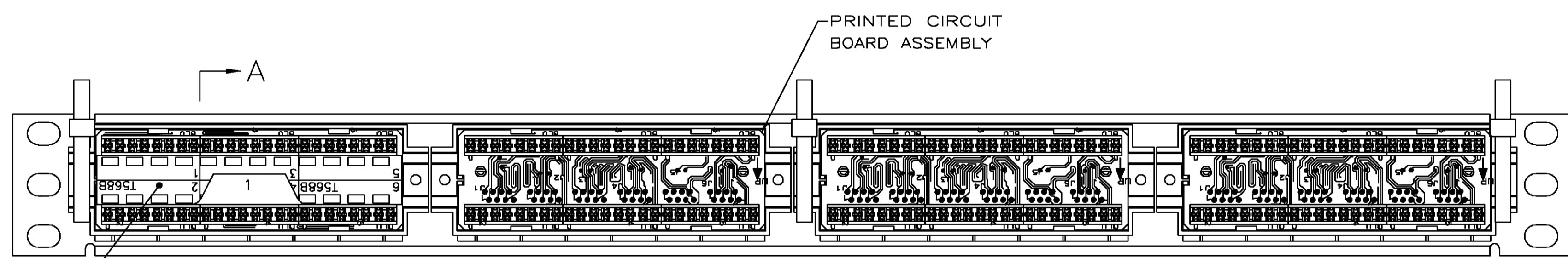
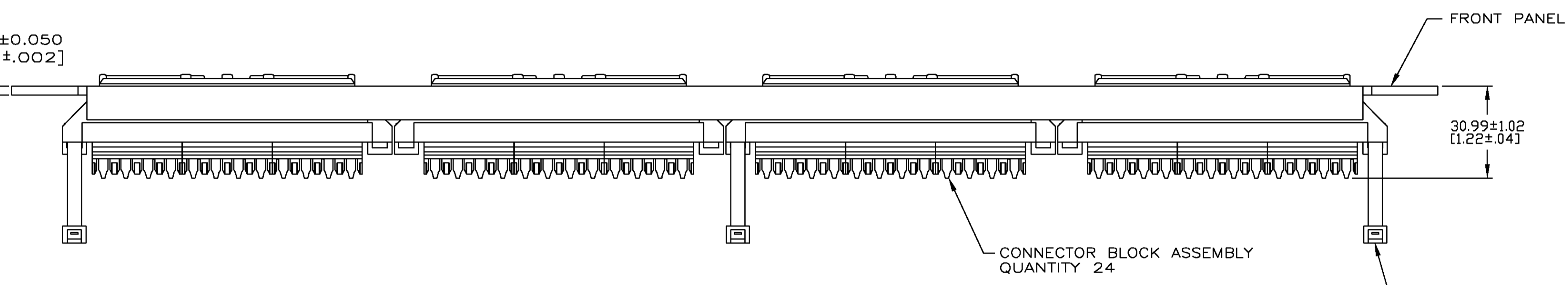
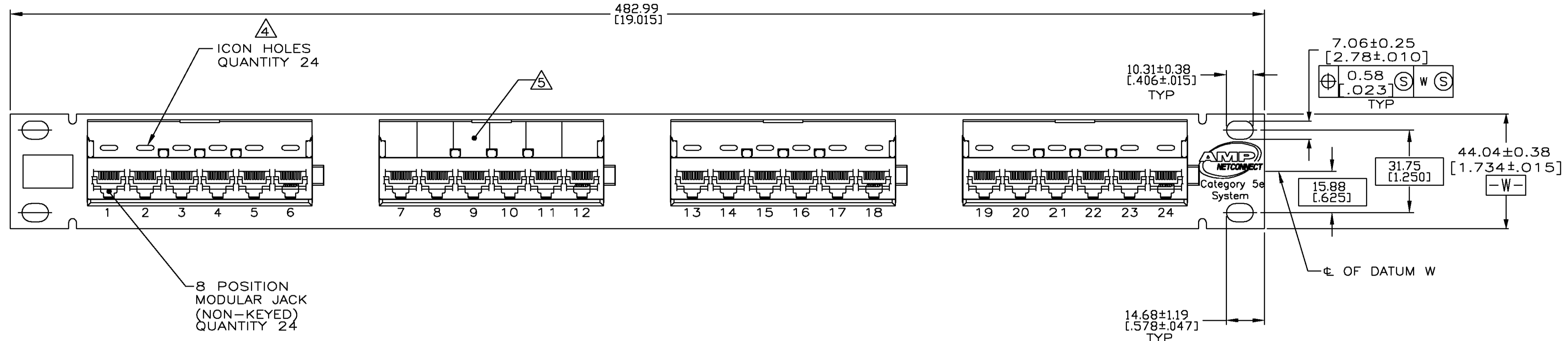
Revisions to this document include:

Per EC 0990-0208-99:

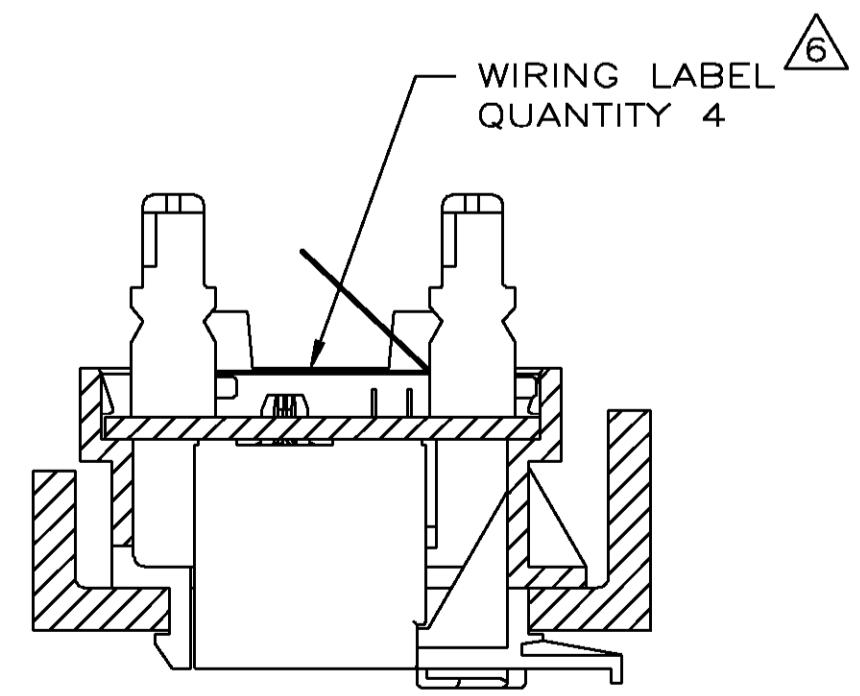
- Added note in Figure 1

REVISONS		DATE	BY	APPD
AA	28	14AUG00	LH	SH
D	REDWN & REV; EC 0B40-0178-00			

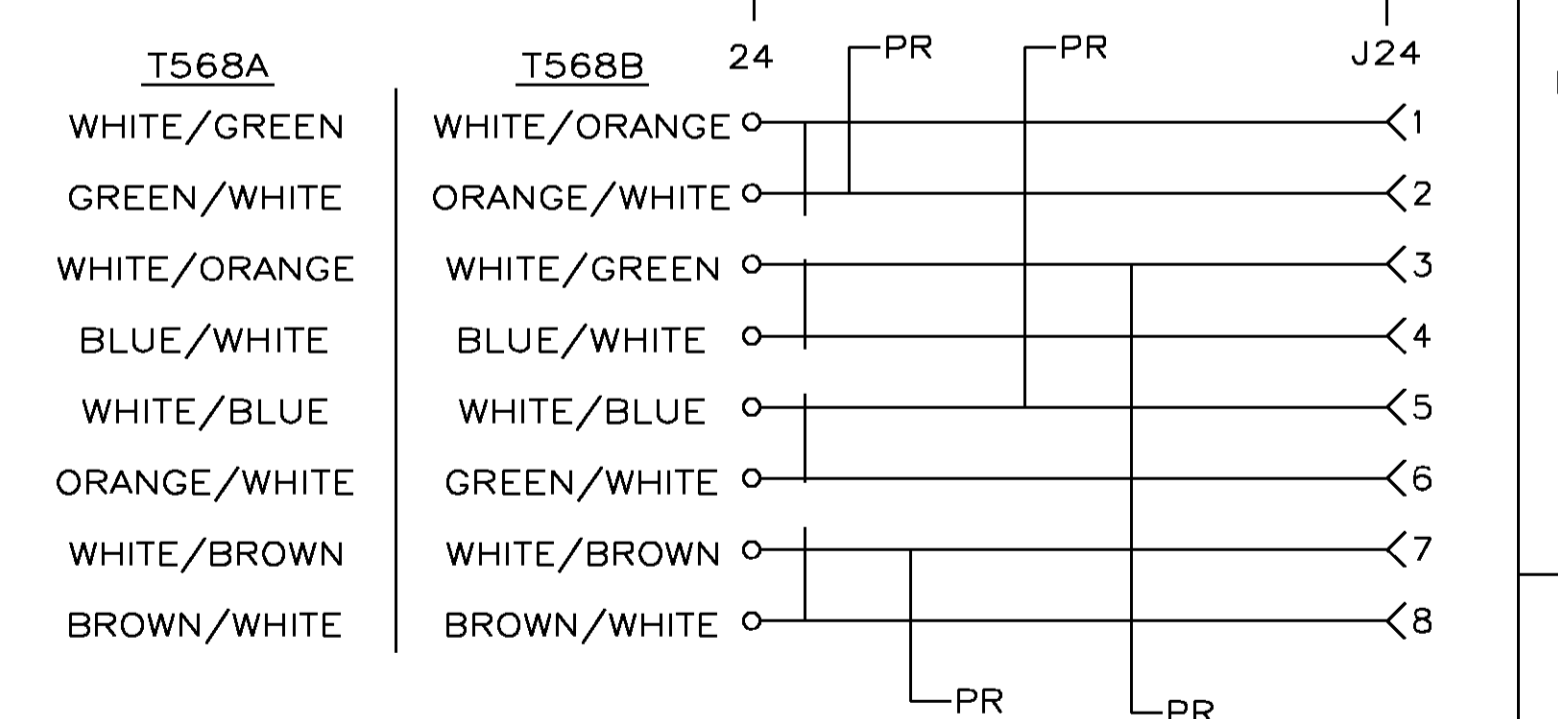
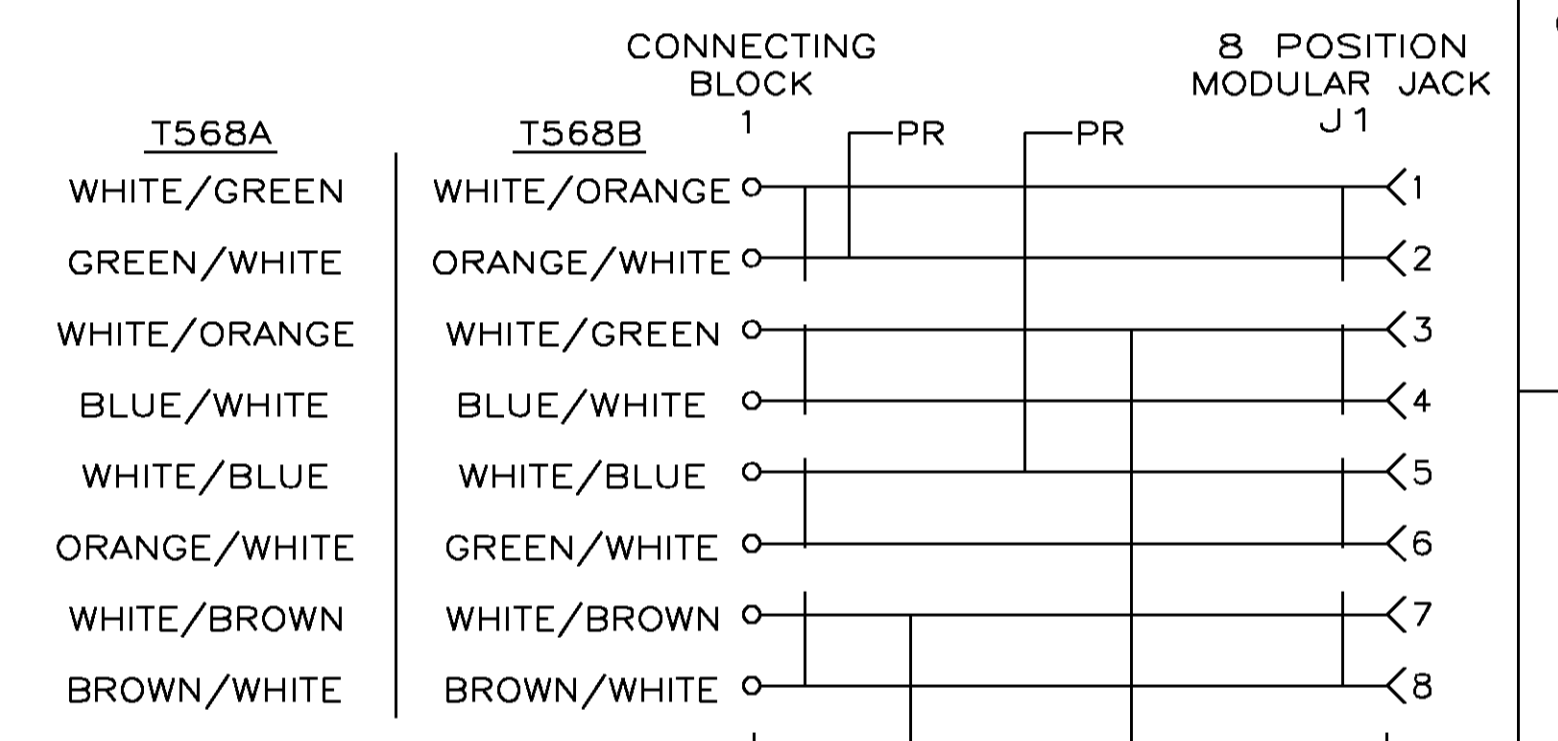
- 1 MATERIAL: PANEL - BLACK POWDER COAT STEEL WITH WHITE MARKINGS. PRINTED CIRCUIT BOARD - LAMINATED PLASTIC SUBSTRATE, 1.57[.062] THICK.
- 2 FOUR BLACK 12-24 X 12.7[.500] LONG AND FOUR 10-32 X 12.7[.500] LONG CARBON STEEL CROSS RECESSED SCREWS FOR MOUNTING OF PANEL SHIPPED LOOSE. NOT SHOWN ON DRAWING.
- 3 THREE RELEASEABLE CABLE TIES, SHOWN ASSEMBLED, USED FOR CABLE ORGANIZATION/ROUTING ARE SHIPPED LOOSE.
- 4 ICONS MAY BE PURCHASED SEPARATELY.
- 5 ONE SHEET OF BEZEL LABELS AND ONE SHEET OF CLEAR LABEL COVERS ARE SHIPPED LOOSE. ONE LABEL SHOWN INSTALLED AT LOCATION INDICATED.
- 6 ONE SHEET OF FOUR 110 CONNECTOR UNIVERSAL WIRING LABELS ARE SHIPPED LOOSE. ONE SIDE IS FOR T568A WIRING AND THE OPPOSITE SIDE FOR T568B WIRING. ONE LABEL SHOWN INSTALLED AT LOCATION INDICATED.



T568B SIDE  
110 CONNECTOR UNIVERSAL  
WIRING LABELS



SECTION A-A  
ROTATED 90° CCW  
SCALE 2:1



ELECTRICAL SCHEMATIC  
T568A OR T568B

406330-1  
PART NUMBER

THIS DRAWING IS A CONTROLLED DOCUMENT.		DATE	14AUG00	AMP AMP Incorporated Harrisburg, PA 17105-3608
DIMENSIONS: MM [INCHES]		CHK	S. HERNDON	
TOLERANCES UNLESS OTHERWISE SPECIFIED:		APPD	S. HERNDON	NAME PANEL ASSEMBLY, 24 PORT, RJ45, UNIVERSAL WIRING, CATEGORY 5, ENHANCED
0 PLC ±		PRODUCT SPEC		
1 PLC ±		APPLICATION SPEC		SIZE CAGE CODE DRAWING NO RESTRICTED TO
2 PLC ±		WEIGHT	A1 00779 406330	
3 PLC ±		CUSTOMER DRAWING		SCALE 1:1 SHEET 1 OF 1 REV D
4 PLC ±				
ANGLES ±				
FINISH				