

9000472

FRONT SIGN 24X200 SPLIT YELLOW 9"

PARTS MANUAL

**Axion Ref. No.: 3041990
(Revision A)**

Electronic Destination Sign Systems

9000472

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**Axion Ref. No.3041990
(Revision A)**

2013

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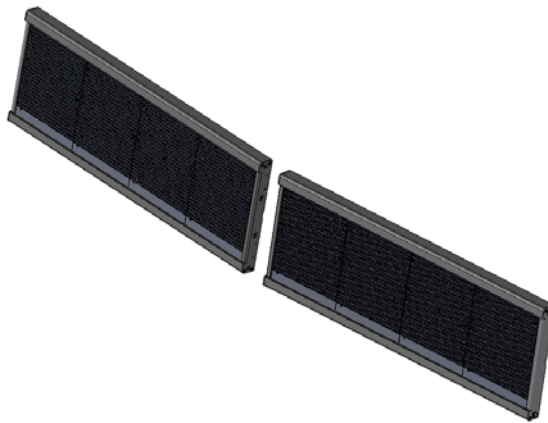
List of revisions

| REVISION | DATE | DESCRIPTION OF CHANGES |
|----------|------------|------------------------|
| -- | 2013-02-26 | Original |
| A | 2013-03-15 | Added A-1 appendix |

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1. TECHNICAL DESCRIPTION



DISPLAY

| | |
|-------------------------------|---|
| Resolution: | 24 x 200 pixels (Split – left and right) |
| Viewing area: | 21.45 cm x 83.97 cm (8.45 in x 33.06 in) (each section) |
| Number of lines of display: | Up to three lines |
| Types of display: | Alphanumeric (multiple font selection) & pictograms |
| Font for alphanumeric digits: | Proportional |
| Modes of message display: | Fixed, multiline or scrolling |

OPTICAL FEATURES

| | |
|-----------------------------|--|
| Viewing angle (horizontal): | 160° |
| Viewing angle (vertical): | 90° |
| Number of intensity levels: | Up to 10 |
| Intensity: | Automatic, according to ambient light conditions |
| Variation of intensity: | From 8% (night) to 100% (sun) |

ELECTRICAL FEATURES

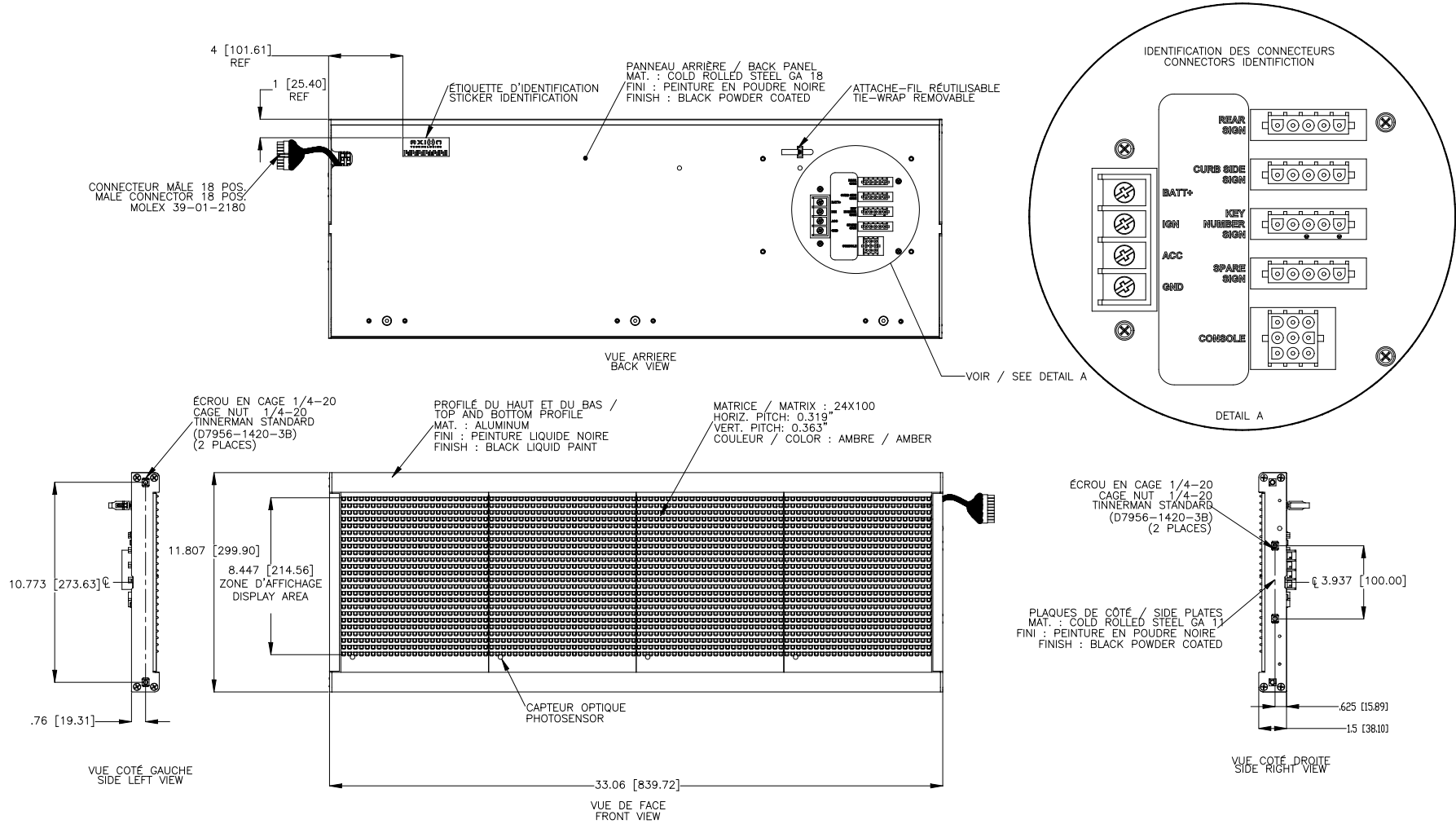
| | |
|------------------------------|---------------------------------|
| Voltage range: | 9 – 36 Vdc |
| Nominal current: | 6.7 A @ 12 Vdc (3.4 A @ 24 Vdc) |
| Maximum current: | 10.8 A @ 9 Vdc (5.3 A @ 18 Vdc) |
| Operating temperature range: | -30°C to 65°C (-22°F to 149°F) |

MECHANICAL FEATURES

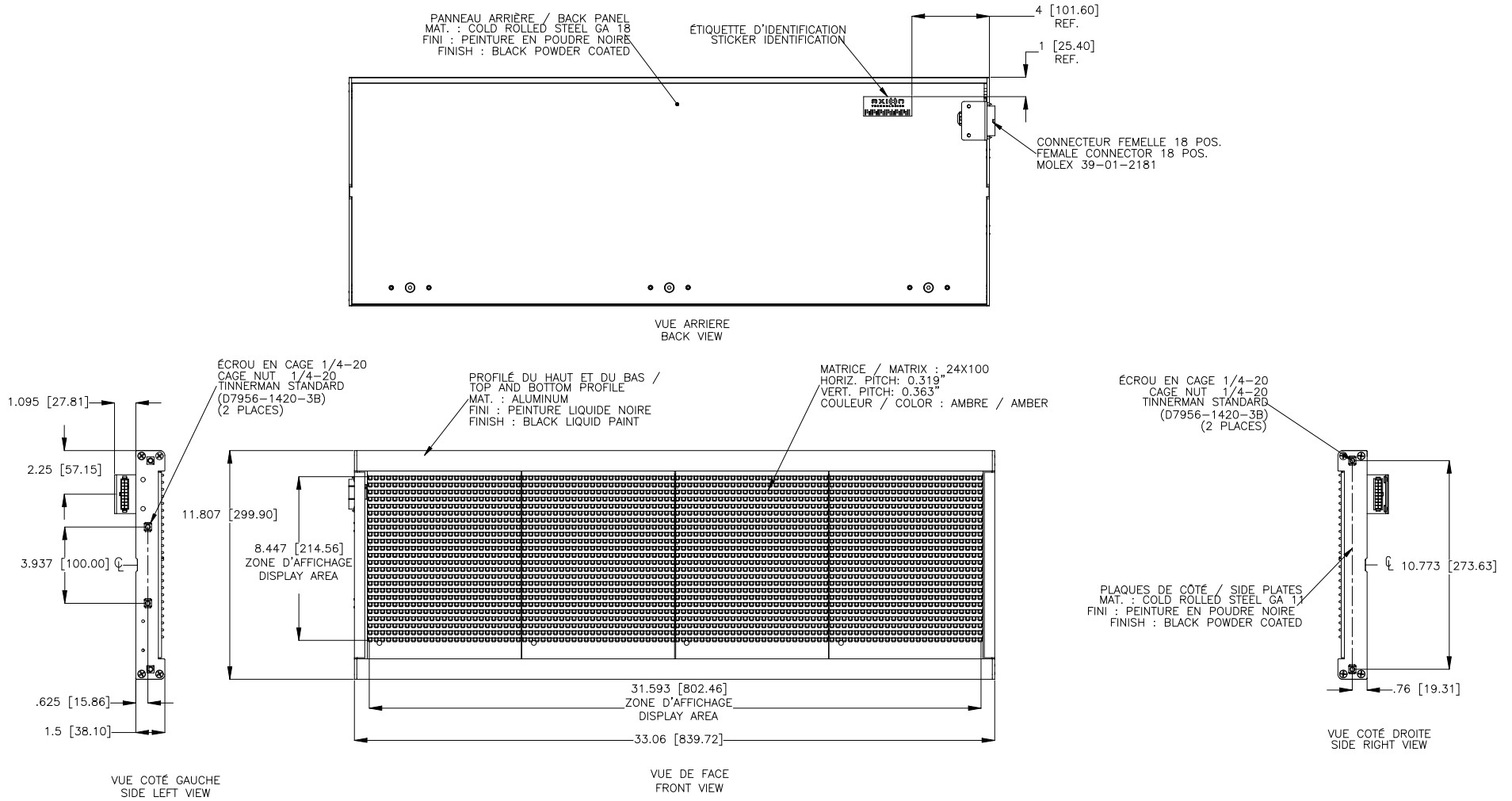
| | |
|----------------|-------------------------------------|
| Case material: | Aluminum & cold rolled steel, black |
| Length: | 83.97 cm (33.06 in) each section |
| Height: | 29.99 cm (11.80 in) each section |
| Thickness: | 3.81 cm (1.5 in) |
| Weight: | 13.18 kg (29 lb) |

2. SIGN DESCRIPTION

2.1 DIMENSIONS – Right Side Sign

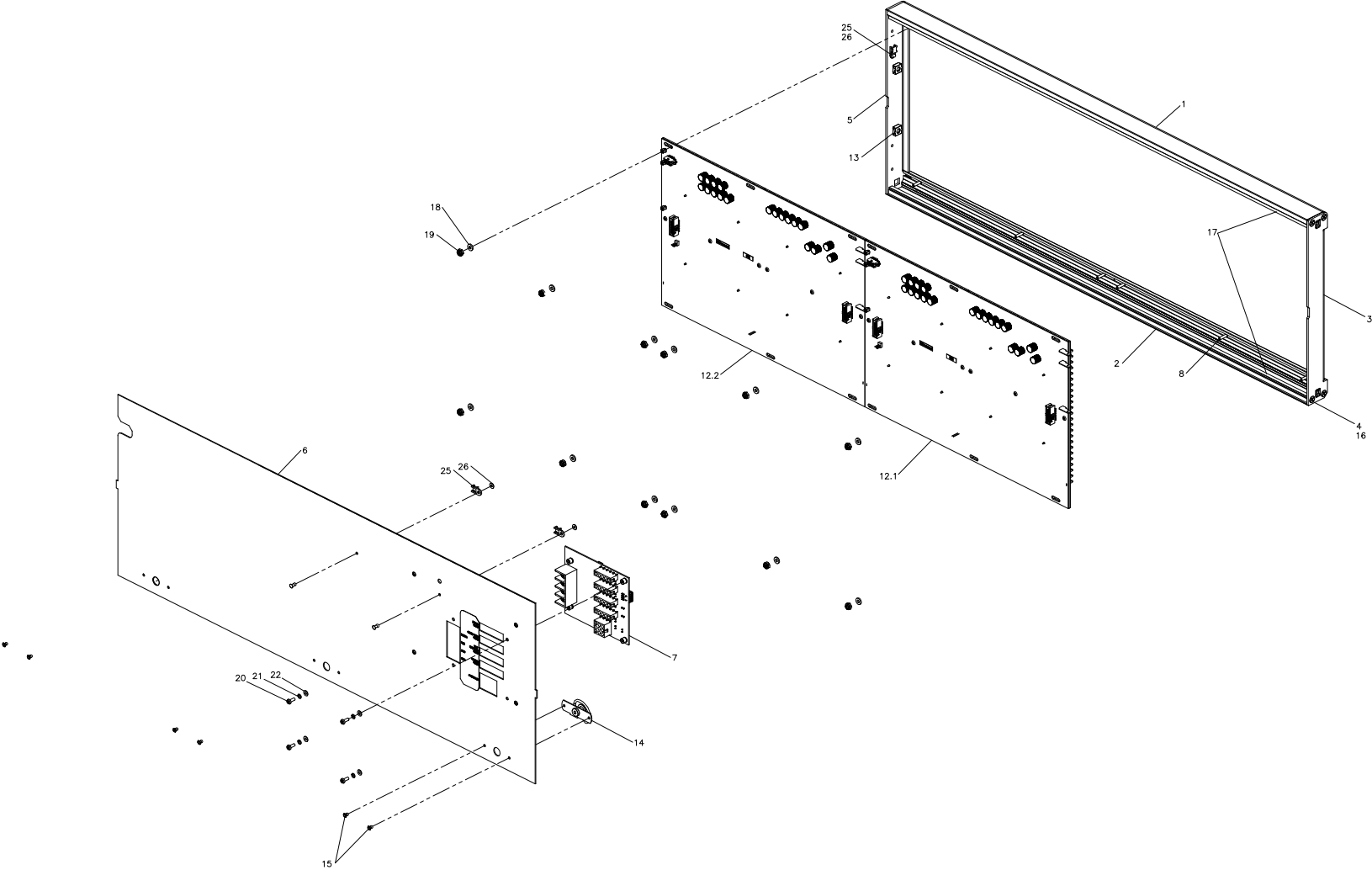


2.2 DIMENSIONS – Left Side Sign

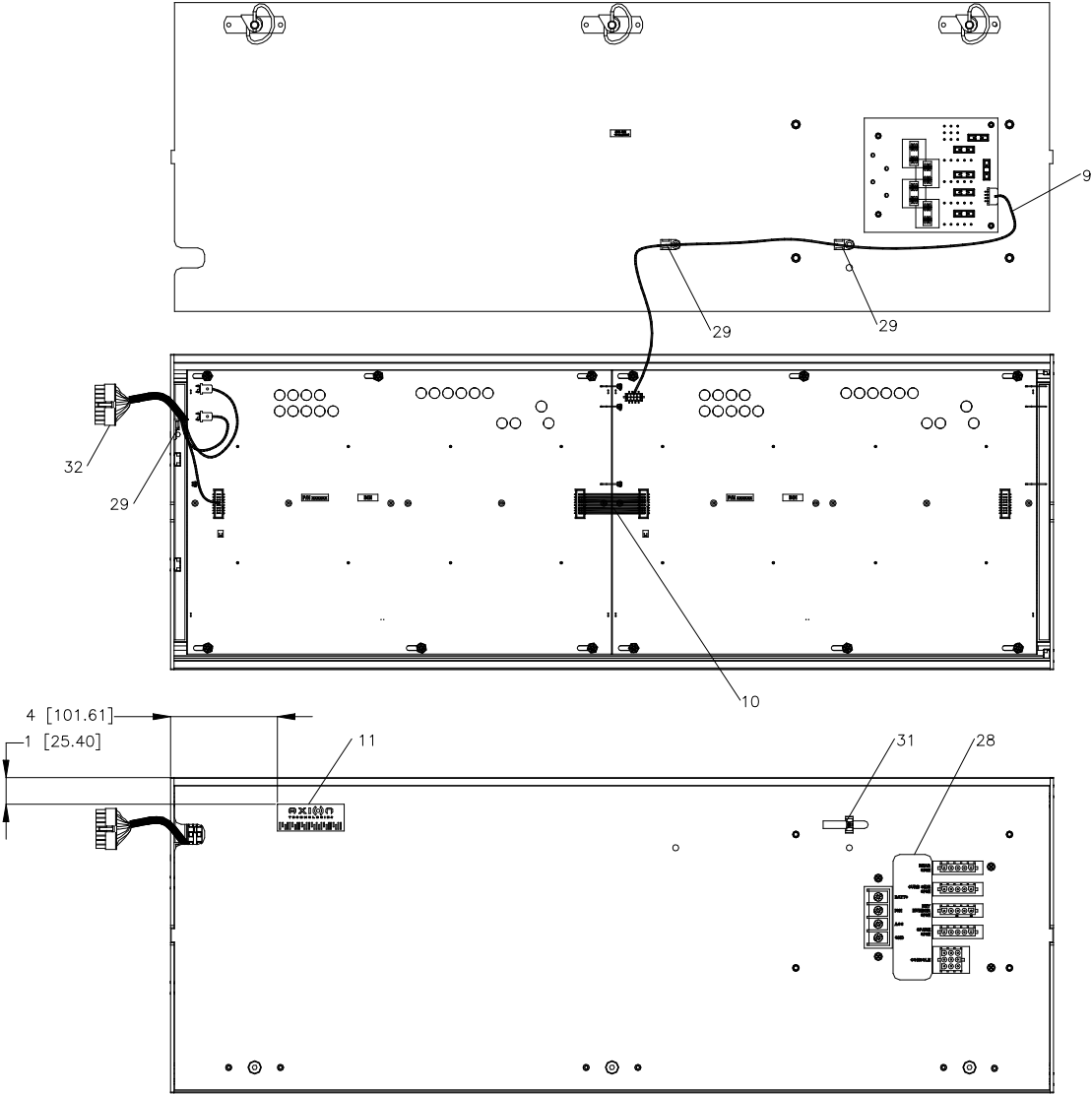


2.3 ASSEMBLY

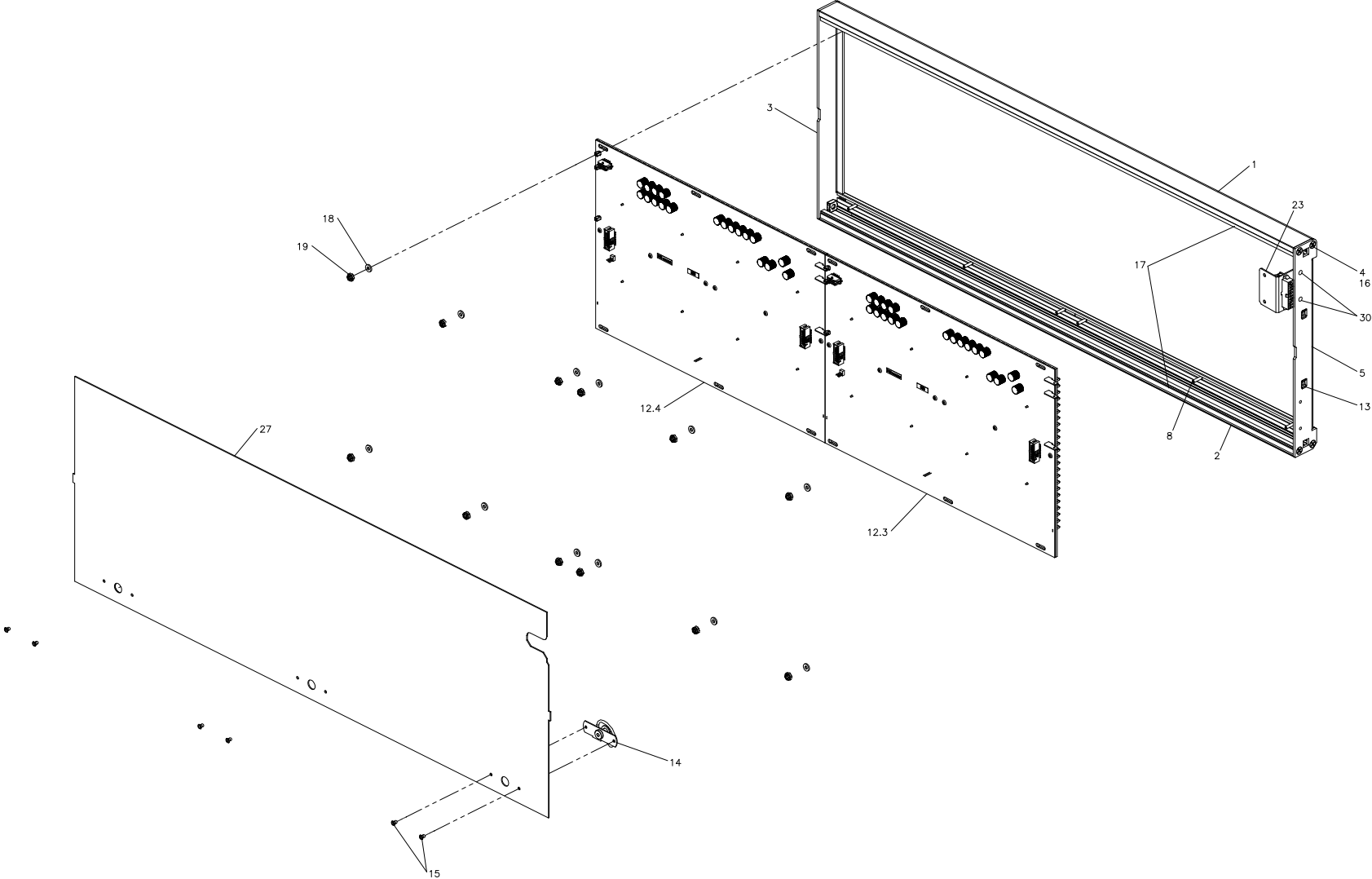
2.3.1. Exploded View – Right Side Sign



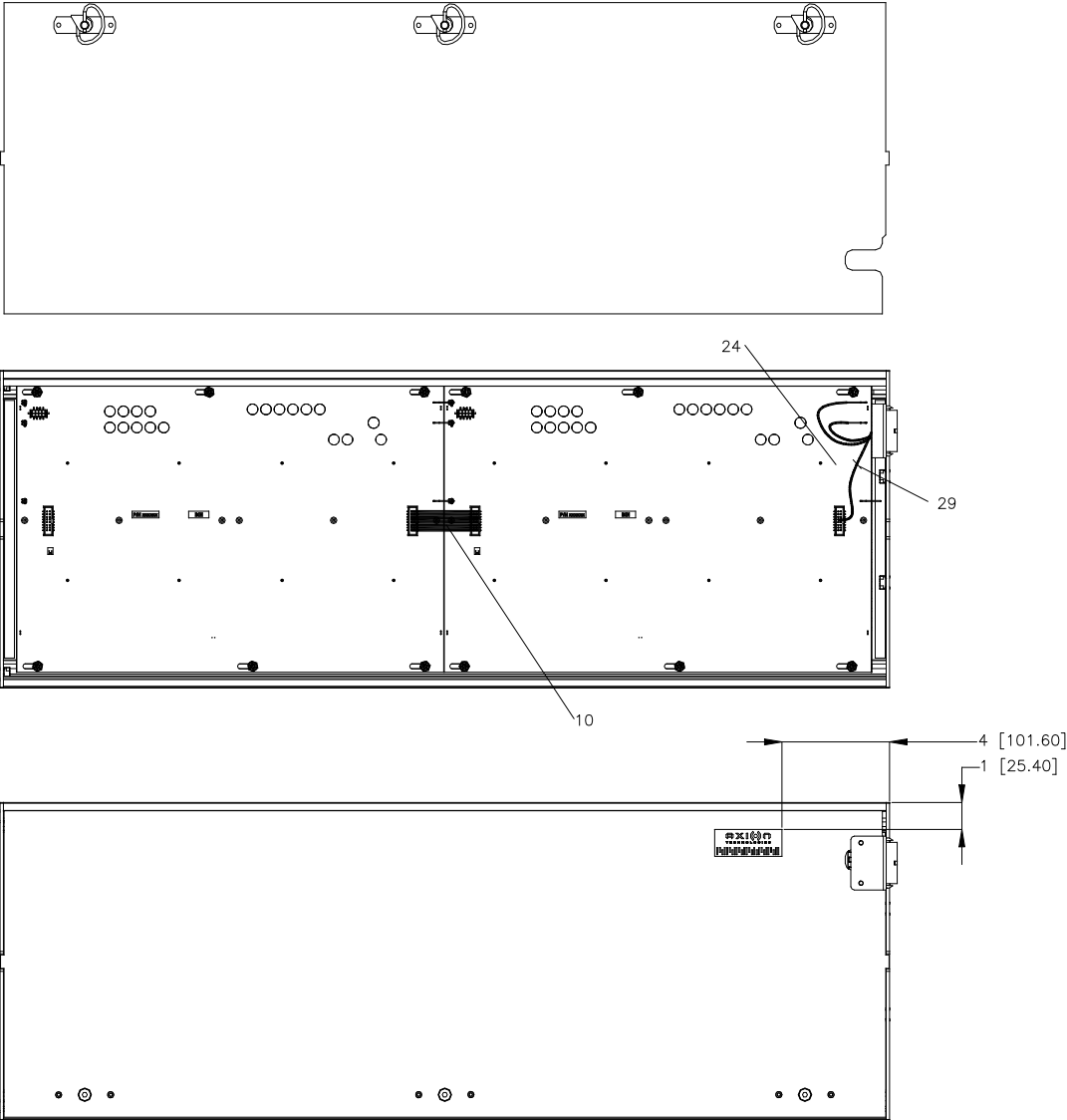
2.3.2. Cabling – Right Side Sign



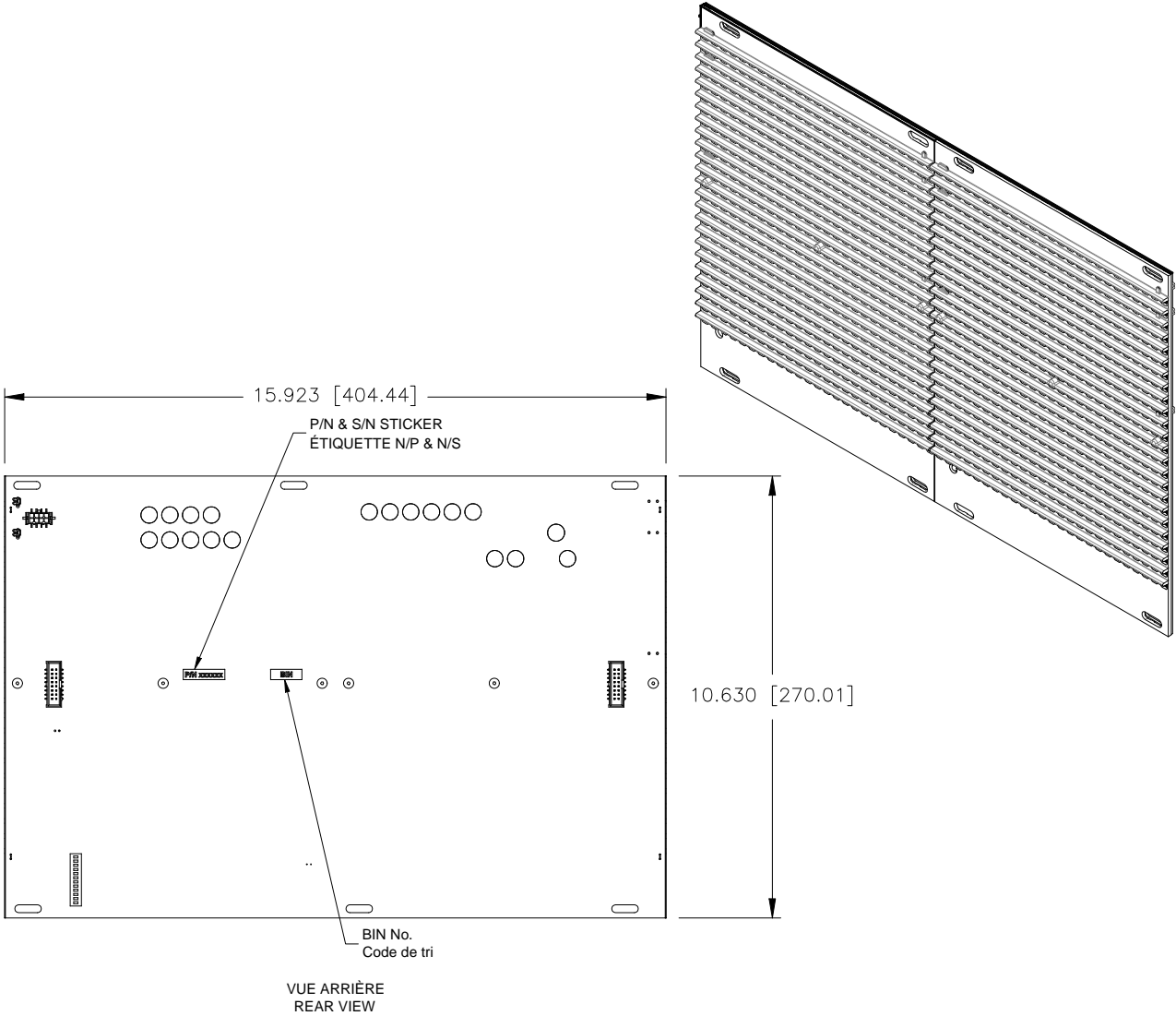
2.3.3. Exploded View – Left Side Sign



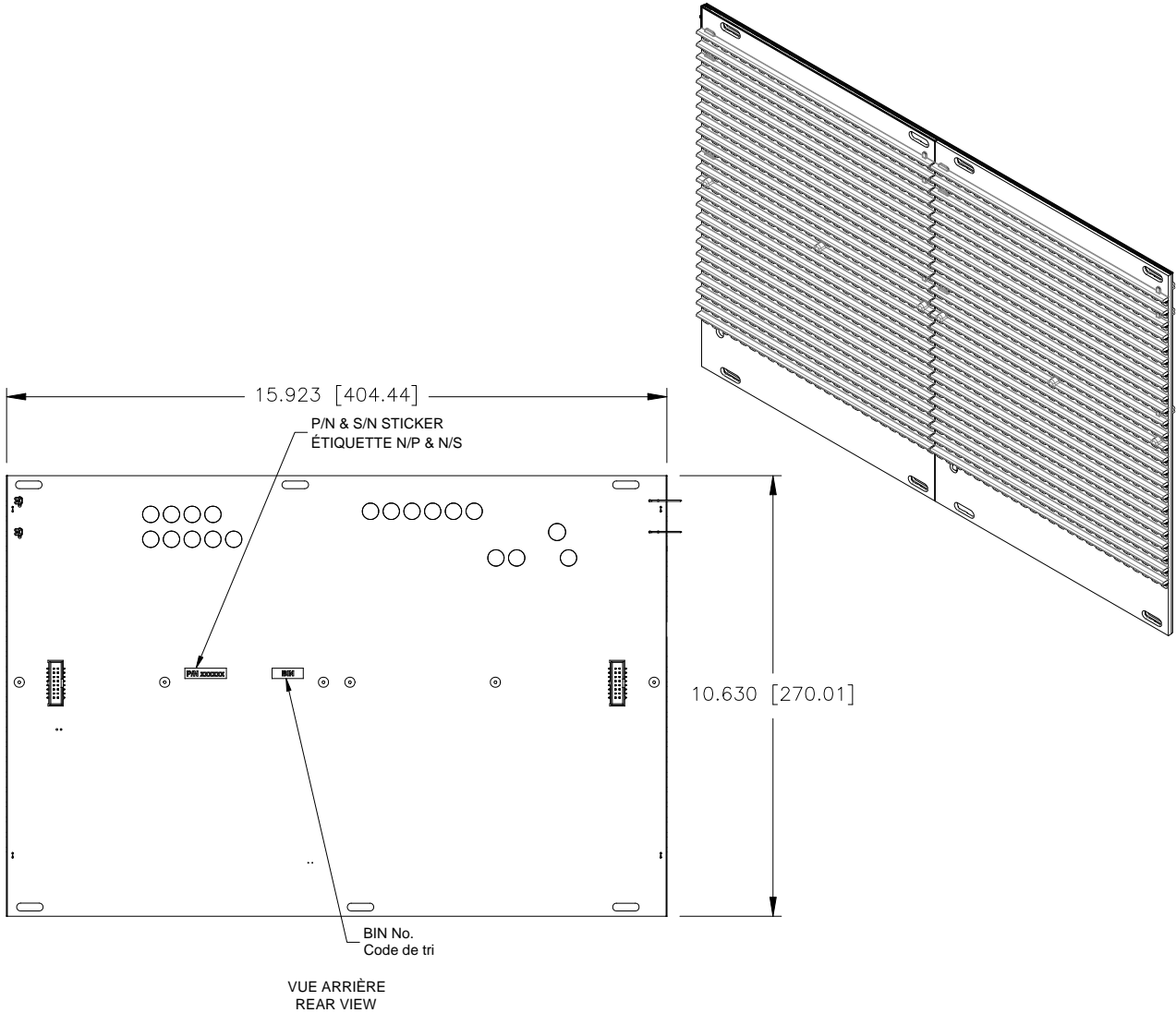
2.3.4. Cabling – Left Side Sign



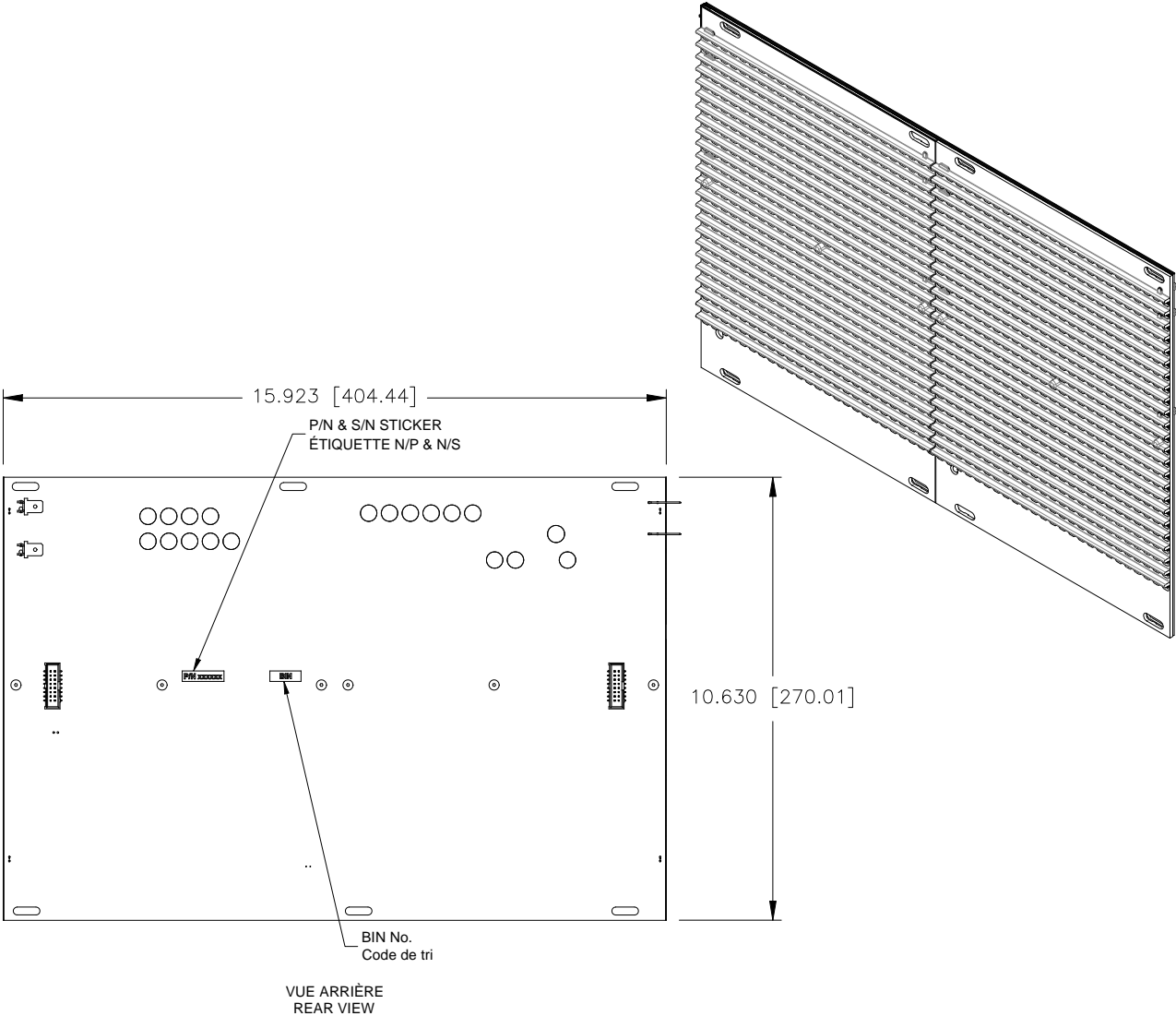
2.4 ASSY PCB LED-DRVR-PS-CPU 8101624



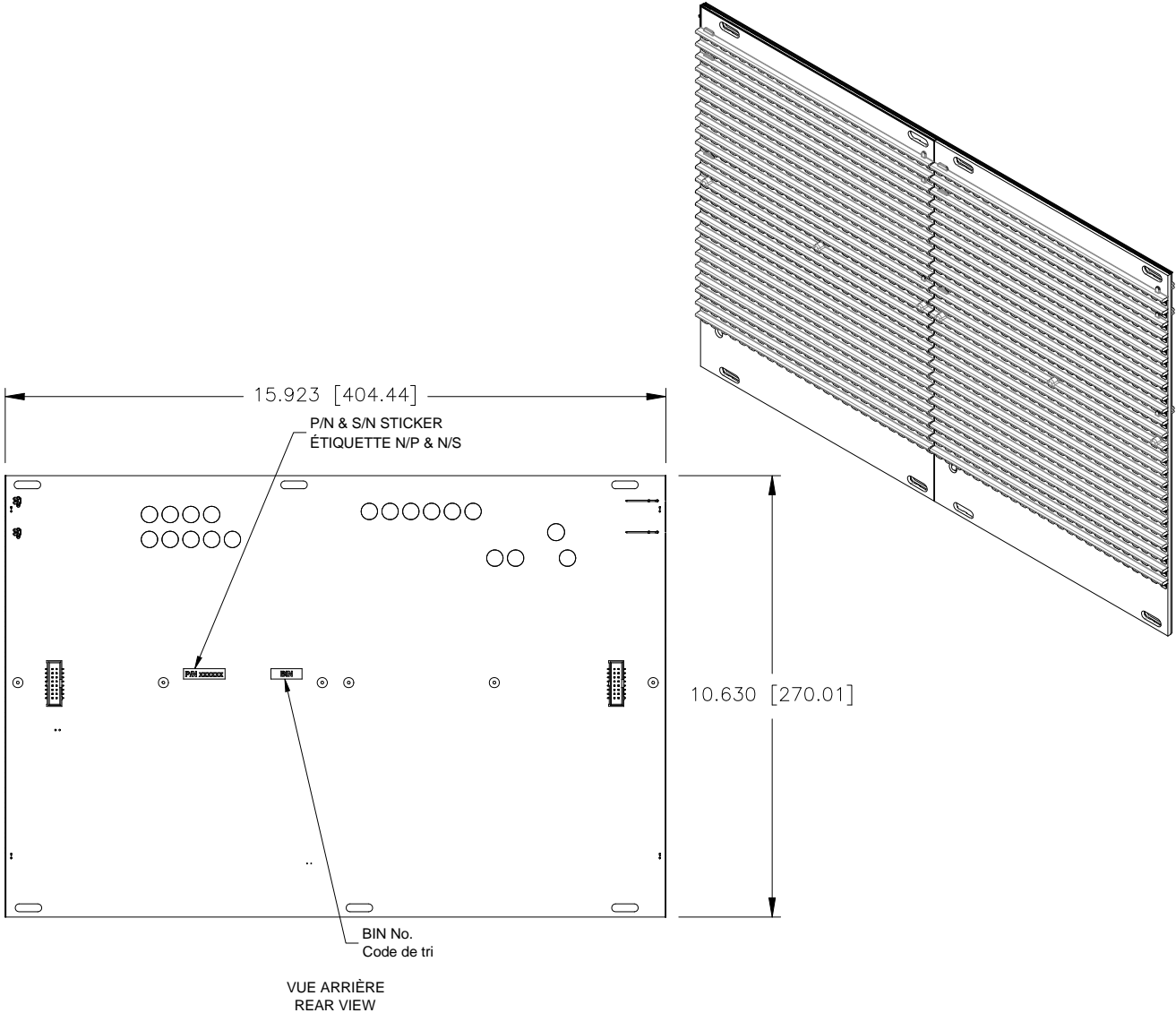
2.5 ASSY PCB LED-DRVR-PS #1 8101625



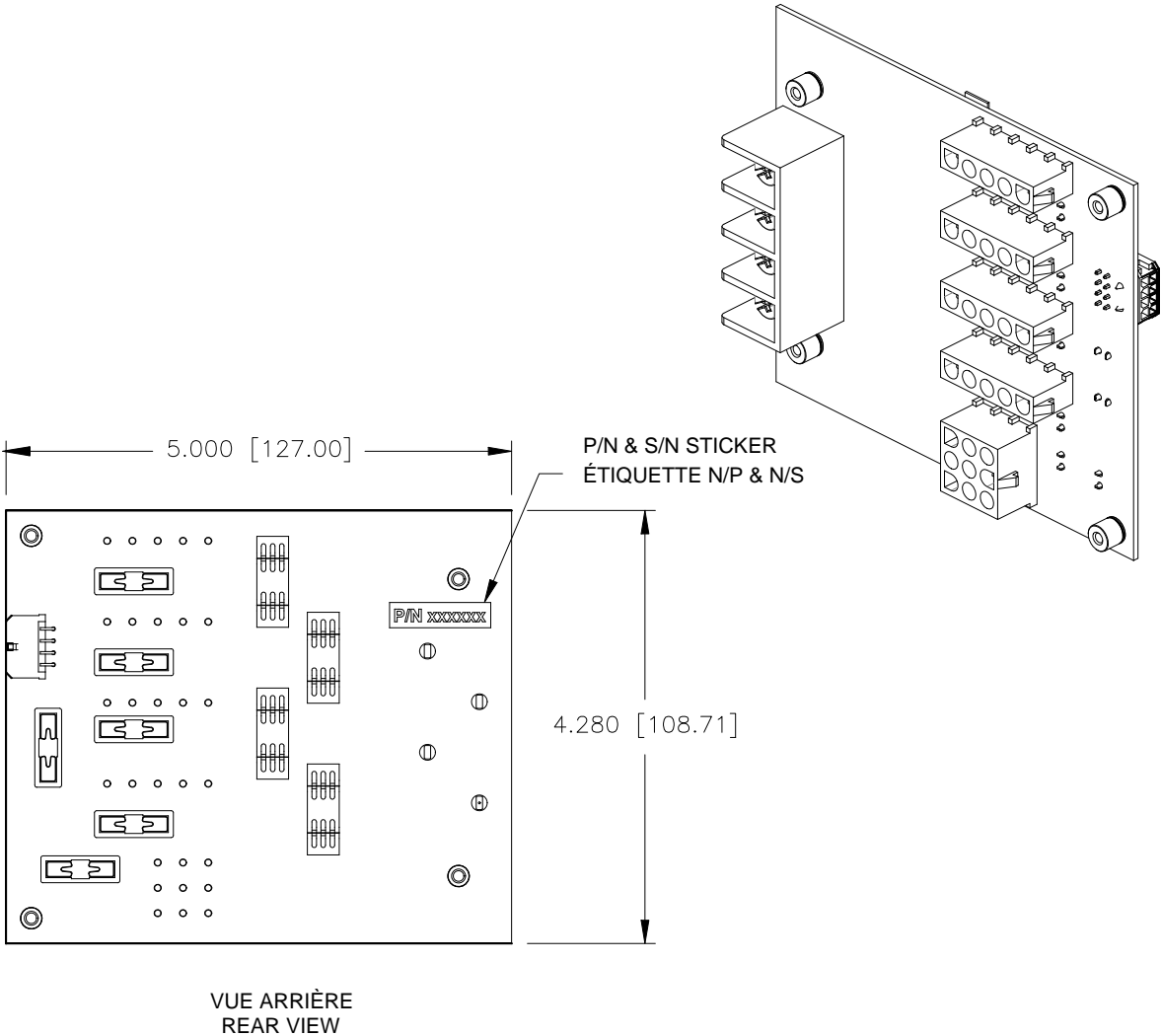
2.6 ASSY PCB LED-DRVR-PS #2 8101681



2.7 ASSY PCB LED-DRVR-PS #3 8101682

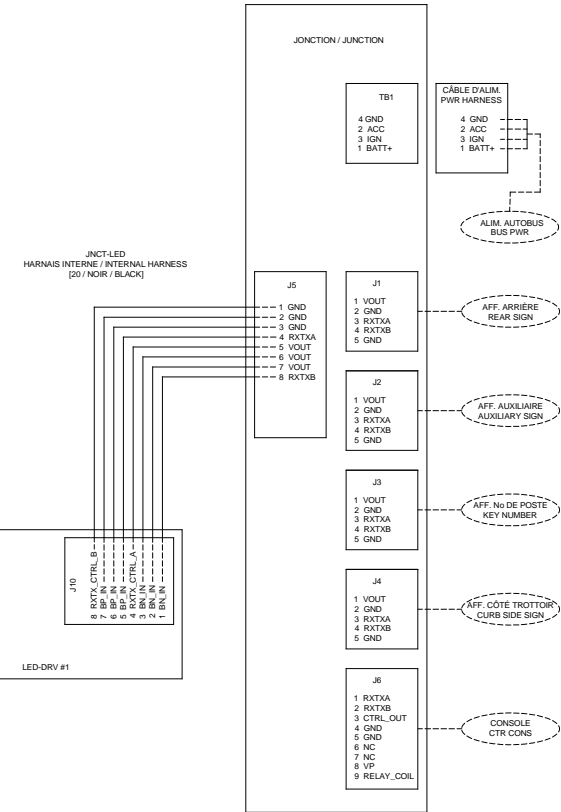
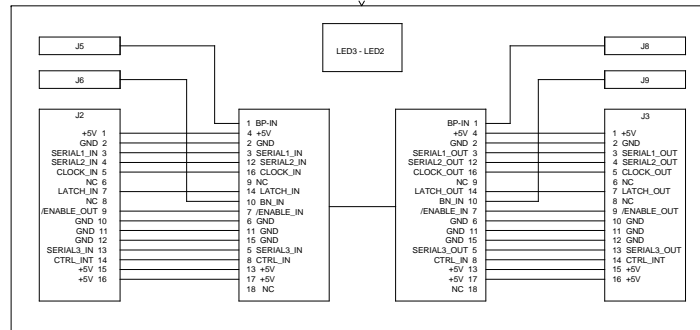
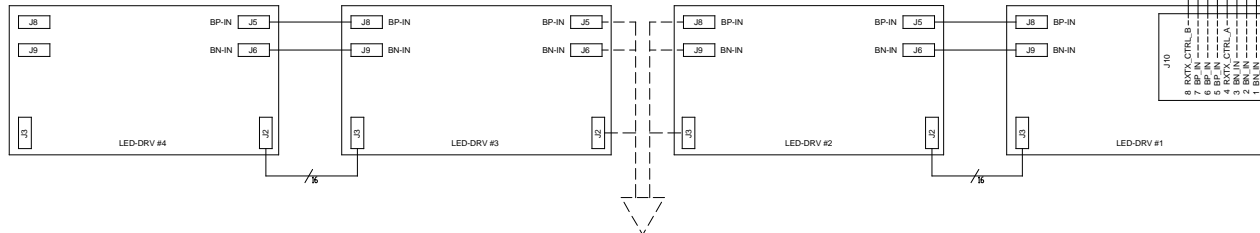
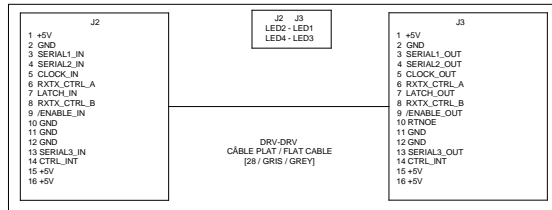


2.8 ASSY PCB JUNCTION 9-36V 8101626



2.9 WIRING DIAGRAM

NOTE : VUE INTÉRIEURE DE L' AFFICHEUR (VENANT DE L' ARRIÈRE DE L' ENSEIGNE)
 LIRE DE DROITE VERS LA GAUCHE (LED-DRV #1 À LED-DRV #4)
 INSIDE SIGN VIEW (FROM REAR OF SIGN)
 FROM RIGHT TO LEFT (LED-DRIVER #1 TO LED-DRIVER #4)



2.10 PARTS LIST

NOTE

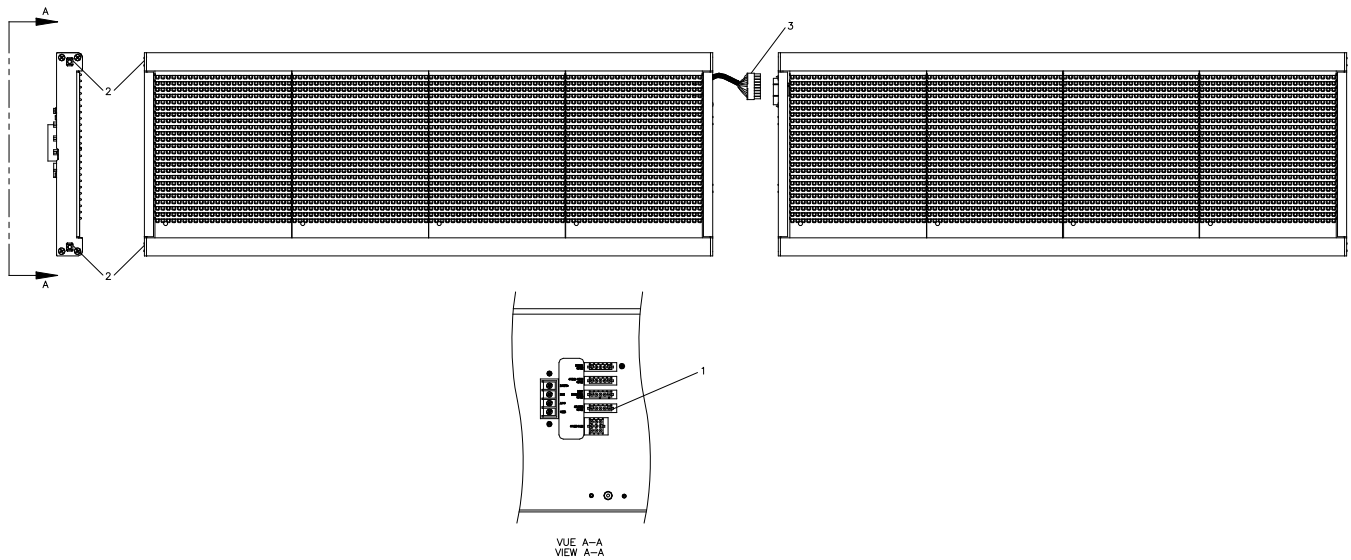
The following callouts correspond to superseded or unavailable items: 11, 16, 31, 33, 34

| Item No. | Part No. | Qty | Description | Manufacturer | Remarks |
|----------|--------------------------|-----|---|----------------------------------|--|
| | 9000472 | 1 | FRONT SIGN 24X200 SPLIT YELLOW 9" | AXION | Complete item. |
| | 9000472 – LH – BIN XY | 1 | FRONT SIGN 24X200 SPLIT LEFT SIDE YELLOW 9" | AXION | <ul style="list-style-type: none"> Includes following items: 1, 2, 3, 4, 5, 8, 10, 12.3, 12.4, 13, 14, 15, 16, 17, 18, 19, 23, 24, 27, 29, 30. Replace X and Y with bin numbers. See Section 2.7 for bin number sticker location. |
| | 9000472 – RH – BIN XY | 1 | FRONT SIGN 24X200 SPLIT RIGHT SIDE YELLOW 9" | AXION | <ul style="list-style-type: none"> Includes following items: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.1, 12.2, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 25, 26, 28, 29, 31, 32. Replace X and Y with bin numbers. See Section 2.7 for bin number sticker location. |
| XXX | 8300631 | 1 | COMPLETE FT SIGN CASING 24X200 SPLIT 9" | AXION | Complete casing only. Includes following items: 1, 2, 3, 5, 6, 8, 13, 14, 15, 16, 17, 25, 26, 28, and 31 |
| 1 | 0302430 | 2 | 0940 TOP EXT FRONT SIGN 24X200 SPLIT | AXION | Not to be sold separately. For information only. Refer to 8300631 |
| 2 | 0302476 | 2 | 0940 BOT EXT FRONT SIGN 24X200 SPLIT | AXION | Not to be sold separately. For information only. Refer to 8300631 |
| 3 | 0302379 | 2 | 0940 END PL 9IN PLAIN | AXION | Not to be sold separately. For information only. Refer to 8300631 |
| 4 | 2827790 | 16 | SCR PHI #10 1-1/4 STL/ZN FLT | 530-083 SPAENAUER (SELF-TAPPING) | Not to be sold separately. For information only. Refer to 8300631 |
| 5 | 0302479 | 2 | 0940 LT BACK PL 9in 24X200 | AXION | Not to be sold separately. For information only. Refer to 8300631 |
| 6 | 0302477 | 1 | 0940 RT BACK PL 9in 24X200 SPLIT | AXION | Not to be sold separately. For information only. Refer to 8300631 |
| 7 | 8101626 | 1 | 0940 JUNCTION 9-36V BD ASSY | AXION | |
| 8 | 8101628 | 8 | 0940 STUDS LOCATOR 24X50-9 | AXION | Not to be sold separately. For information only. Refer to 8300631 |
| 9 | 8201558 | 1 | 0940 FT 24x200 JNC HARNESS FOR FT SIGN SPLIT S40 | AXION | |
| 10 | 8201528 | 2 | 0847 DRV-DRV 8CM FLAT CAB HARN | AXION | |
| 12 | 8900026 | 1 | 0940 24X200 9IN LED BOARD KIT | AXION | |
| 12.1 | 8101624– BIN XY | 1 | 0940 Y LED-DRVR-PS-CPU 24X50-9 BD | AXION | Replace X and Y with bin numbers. See Section 2.4 for bin number sticker location. |
| 12.2 | 8101681 – BIN XY | 1 | 0940 LED-DRVR-PS #2 24X50-9 BD ASSY | AXION | Replace X and Y with bin numbers. See Section 2.6 for bin number sticker location. |

| Item No. | Part No. | Qty | Description | Manufacturer | Remarks |
|----------|------------------|--------|---|---------------------------|--|
| 12.3 | 8101682 – BIN XY | 1 | 0940 LED-DRVR-PS #3 24X50-9 BD ASSY | AXION | Replace X and Y with bin numbers. See Section 2.7 for bin number sticker location. |
| 12.4 | 8101625 – BIN XY | 1 | 0940 LED-DRVR-PS 24X50-9 BD ASSY | AXION | Replace X and Y with bin numbers. See Section 2.5 for bin number sticker location. |
| 13 | 2826394 | 8 | CAGENUT 1/4-20 STL/ZN | 202-124 SPAENAU | Not to be sold separately. For information only. Refer to 8300631 |
| 14 | 2500539 | 6 | SPRING LATCH HEX 0.063-0.375 | 57-10-801-10 SOUTHCO | Not to be sold separately. For information only. Refer to 8300631 |
| 15 | 2825962 | 12 | RIVET POP ALU 1/8 1/16-1/8 | PR-103 (AD42H) SPAENAU | Not to be sold separately. For information only. Refer to 8300631 |
| 17 | 2500303 | 329 CM | GASKET NEOPREN 1/4W"X1/16"T | BIC #7-SC41 PROFOM | Not to be sold separately. For information only. Refer to 8300631 |
| 18 | 2825612 | 24 | FLAT WASHER NYL #8 3/8 1/16 | W-5002 SPAENAU | |
| 19 | 2825200 | 24 | LOCKNUT 6-32 STL/ZN NYL | 178-C02-1C SPAENAU | |
| 20 | 2825050 | 4 | SCREW PHI 6-32 3/8 STL/ZN PAN | 385-B71-1P SPAENAU | |
| 21 | 2825177 | 4 | SPRING WASHER SZN #6 | W-311 SPAENAU | |
| 22 | 2825542 | 4 | FLAT WASHER SZN #6 5/16 1/32 | 656-B13-1Y SPAENAU (ONLY) | |
| 23 | 0302480 | 1 | 0940 CONNECTOR SUPPORT SPLT FOR 9000472 | AXION | |
| 24 | 8201555 | 1 | 0940 FT 24x200 SPLIT HARNESS FOR 9000472 | AXION | |
| 25 | 2825486 | 3 | CABL HOLD TIE SCR NYL 3/8 | TA1S8-M PANDUIT | Not to be sold separately. For information only. Refer to 8300631 |
| 26 | 2825578 | 3 | FLAT WASHER SZN #4 5/16 1/32 | 656-B04-1E SPAENAU | Not to be sold separately. For information only. Refer to 8300631 |
| 27 | 0302478 | 1 | 0940 BACK PL 9in 24X200 SPLT FOR 9000472 | AXION | |
| 28 | 0400550 | 1 | 0940 CONNECTOR ID STICKER | AXION | Not to be sold separately. For information only. Refer to 8300631 |
| 29 | 2800078 | 3 | TIE WRAP 3 5/8" CLEAR | CT18075M BURNDY | |
| 30 | 2825446 | 3 | RIVET POP AL. 0,125 PO DIAM X 0,390 PO LG X 0,188 PO/0,250 PO | 608-173 SPAENAU | |
| 32 | 8201556 | 1 | 0940 FT 24x200 SPLT INT HRN FOR 9000472 | AXION | |
| 35 | 2800115 | 1 | TIE WRAP 4,625 NYL WHITE REMOV | TOAH-18-01 RICHCO | |

3. REMOVAL AND REPLACEMENT PROCEDURES

3.1 SIGN REMOVAL AND REPLACEMENT

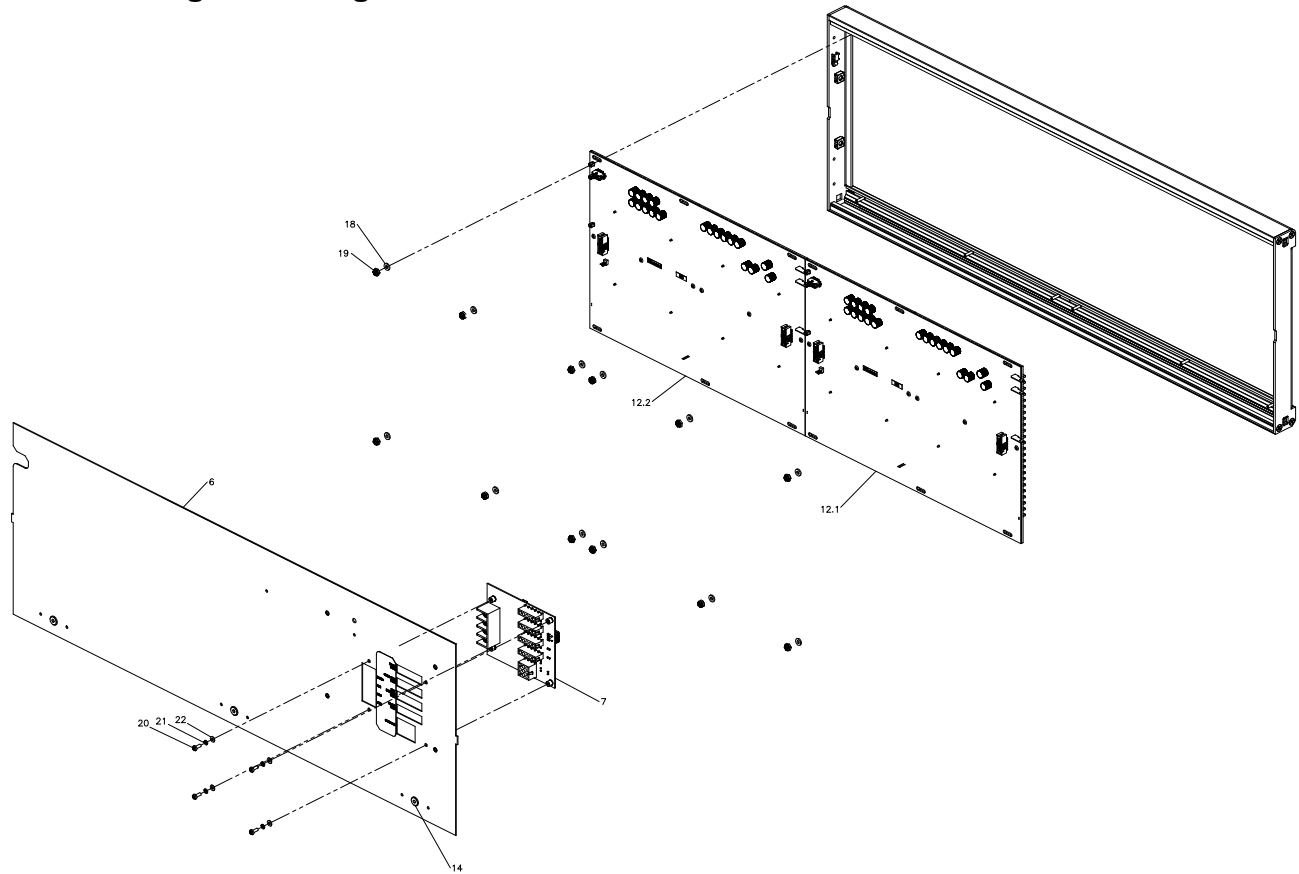


Procedure:

- Turn off sign system power supply.
- Disconnect cable(s) (1) from sign.
- Disconnect right sight sign from left side sign (3).
- Remove sign retaining bolts (2).
- Remove sign.
- Reverse procedure to replace sign.

3.2 ELECTRONIC MODULE REMOVAL AND REPLACEMENT

3.2.1. Right Side Sign



3.2.1.1. Junction 9-36V board removal and replacement

- Turn counterclockwise spring latches (14).
- Remove back panel (6).
- Disconnect power connector from junction board (7) J5.
- Remove screws (20, 21, 22).
- Remove junction board (7).
- Reverse procedure to replace junction 9-36V board.

3.2.1.2. LED-DRVR-PS-CPU board removal and replacement (12.1)

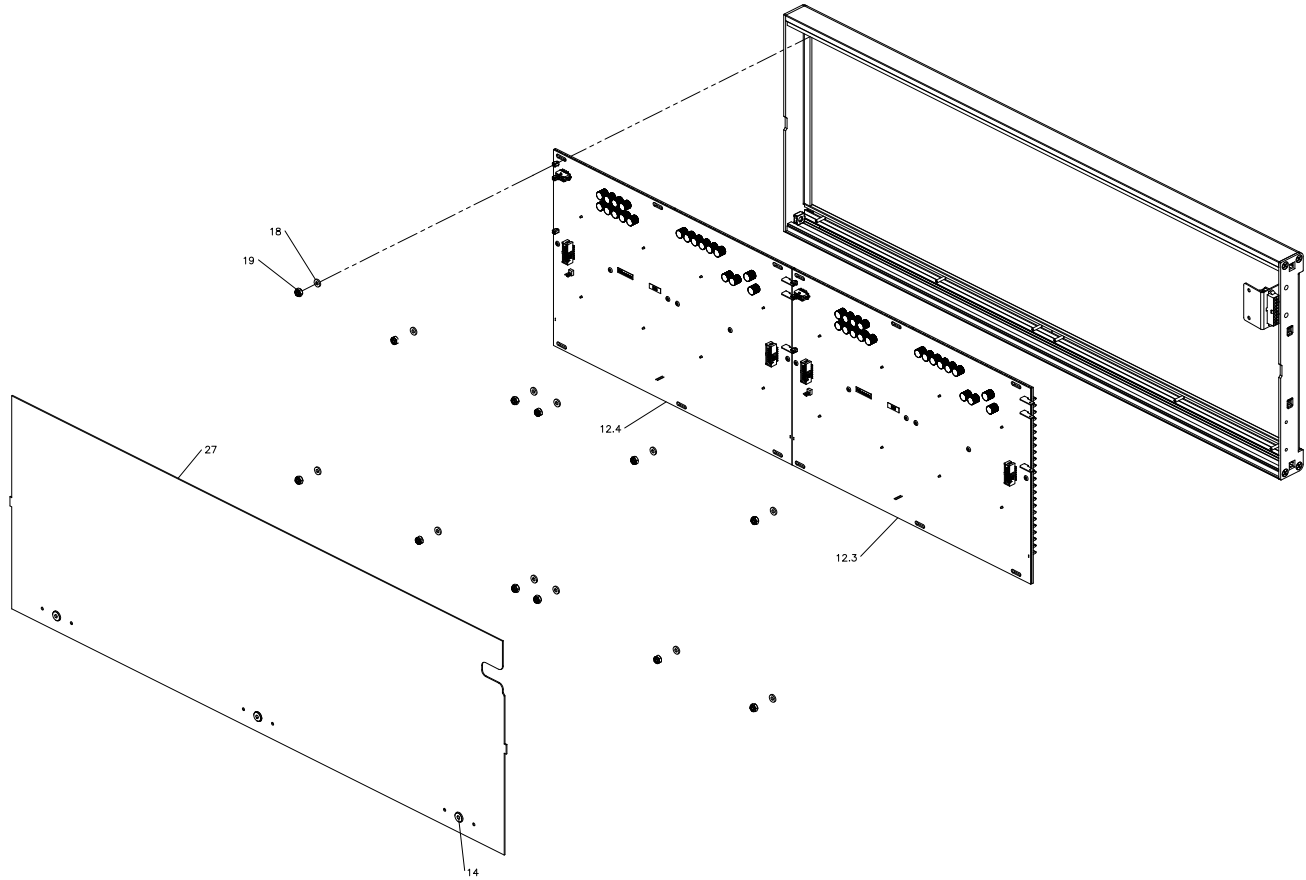
- Turn counterclockwise spring latches (14).
- Remove back panel (6).
- Disconnect flat cable from LED-DRVR-PS-CPU board (12.1) J3.
- Remove locknuts and washers (18, 19) from LED-DRVR-PS-CPU (12.1) board.
- Slightly lift right side of the LED-DRVR-PS-CPU board (12.1) and slide to the right to remove it.
- Reverse procedure to replace LED-DRVR-PS-CPU board (12.1).
- Set DIP switch as per the following configuration.

| Serial Number | Sign ID | CPU DIP SWITCH SETTINGS | | | | | | | | | | | | |
|-------------------------|---------|-------------------------|---|---|---|---|---|---|---|---|----|----|----|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | |
| FRONT 24 X 200 SPLIT 9" | C3 | ON | ■ | ■ | | | | | ■ | ■ | | | | |
| | | OFF | | | ■ | ■ | ■ | ■ | | | ■ | ■ | ■ | ■ |

3.2.1.3. LED-DRVR-PS board removal and replacement (12.2)

- Turn counterclockwise spring latches (14).
- Remove back panel (6).
- Disconnect flat cable from J2, cable from J3, and both tabs of the LED-DRVR-PS (12.2) board to be replaced.
- Remove locknuts and washers (18, 19) from LED-DRVR-PS (12.2) board to be replaced.
- Slightly lift right side of the board and slide to the right to remove LED-DRVR-PS board (12.2).
- Reverse procedure to replace LED-DRVR-PS board.

3.2.2. Left Side Sign



3.2.2.1. LED-DRVR-PS board removal and replacement (12.3)

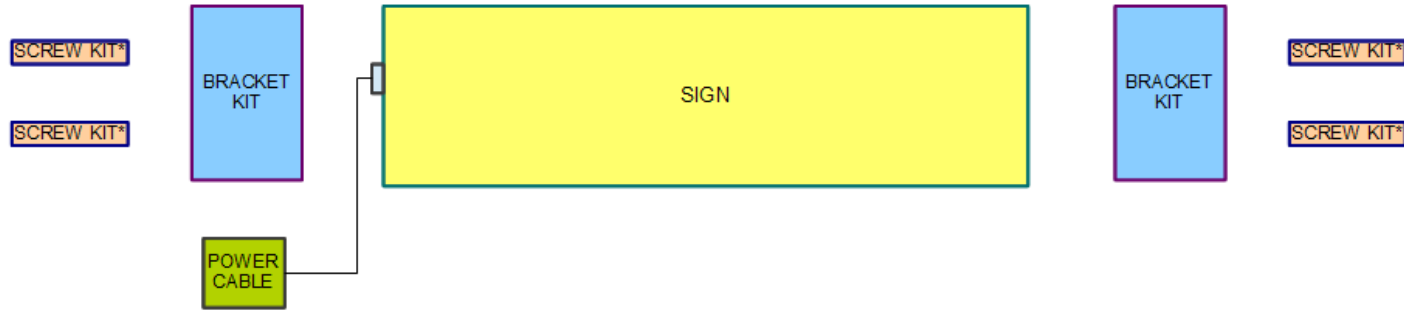
- Turn counterclockwise spring latches (14).
- Remove back panel (27).
- Disconnect flat cable from J3, cable from J3, and both tabs of the LED-DRVR-PS (12.3) board to be replaced.
- Remove locknuts and washers (18, 19) from LED-DRVR-PS (12.3) board to be replaced.
- Slightly lift right side of the board and slide to the right to remove LED-DRVR-PS board (12.3).
- Reverse procedure to replace LED-DRVR-PS board (12.3).

3.2.2.2. LED-DRVR-PS board removal and replacement (12.4)

- Turn counterclockwise spring latches (14).
- Remove back panel (27).
- Disconnect flat cable from J2 of the LED-DRVR-PS (12.4) board to be replaced.
- Remove locknuts and washers (18, 19) from LED-DRVR-PS (12.4) board to be replaced.
- Slightly lift right side of the board and slide to the right to remove LED-DRVR-PS board (12.4).
- Reverse procedure to replace LED-DRVR-PS board (12.4).

APPENDIX

A-1 AVAILABLE OPTIONS



** Included in bracket kit.*

| Level | Part Number | Qty | Description | Manufacturer | Remarks |
|-------|-------------|-------|------------------------------------|----------------------|----------------------------------|
| 1 | 9000472-08 | 1 | 0940 Y FT 24X200 9IN S40 SPLT PRV | AXION | See Customer drawing #09409030B1 |
| 2 | 9000472 | 1 | FRONT 24X200 9IN SPLT S40 | AXION | |
| 2 | 9000475 | 1 | BRACKET KIT FT 24X200 PRV | AXION | |
| 3 | 0302483 | 2 | FT BRACKET ADAPTOR SPLT PRV | AXION | |
| 3 | 0302482 | 1 | COVER JUNCTION SPLT | AXION | |
| 3 | 0302481 | 1 | COVER CONNECTOR SPLT | AXION | |
| 3 | 2500183 | 6 cm | EXTRUDED RUBBER 1/32 5/32 7/32 | RW-73 SPAENAUER | |
| 3 | 2500082 | 50 cm | GASKET NEOPRENE 3/8"W X 1/8"T | 892-382 SPAENAUER | |
| 3 | 9000478 | 1 | FT 9" BRACKET SCREW KIT PRV | AXION | |
| 4 | 2826373 | 8 | SCREW HEX 1/4-20 3/4 STL /ZN CAP | 325-144 SPAENAUER | |
| 4 | 2825532 | 8 | SPRING WASH STL/ZN 1/4 | 16-SN SPAENAUER | |
| 4 | 2825458 | 8 | FLAT WASHER SZN 1/4 5/8 1/16 | 656-B52-1C SPAENAUER | |
| 4 | 2825824 | 6 | SCREW PHILLIPS10-32 3/8 STL/ZN BDG | 385-B01-1Y SPAENAUER | |
| 4 | 2825174 | 6 | SPRING WASH STL/ZN #10 | 663-W05-1A SPAENAUER | |
| 4 | 2825240 | 6 | FLAT WASHER STL/ZN #10 3/8 3/64 | 656-040 SPAENAUER | |