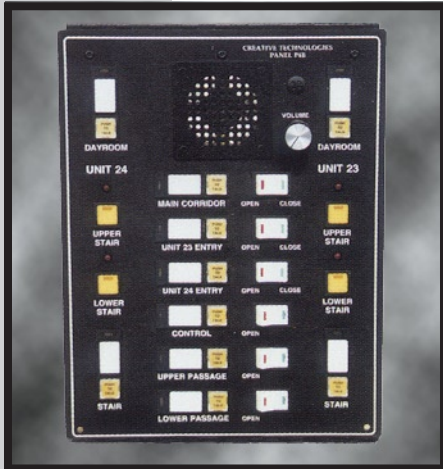
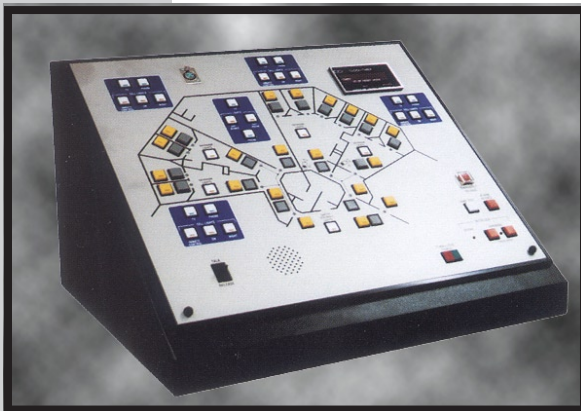


# ADI SPECIFICATION SHEET

## Anodized Aluminum Control Panel



The anodized panel artwork can be designed with black lines and legends on a clear aluminum background (as shown below) or with clear aluminum lines and legends on a black background. This two-color process is the standard process, however, an optional four-color process is available. The four-color process can be used to produce six additional colors. Multiple colors can be used in a single artwork design.



The **Anodized Aluminum Control Panel** is a tough and durable way to interface with your critical system operations. Anodized aluminum control panels are custom designed to fit easily into an existing configuration or a new application. The real value in an anodized aluminum control panel is the strength and durability the anodizing process adds to the artwork and the panel.



Anodizing is an electromechanical process that restructures the surface of the aluminum and permanently seals the color pigments into the aluminum panel. The artwork becomes a part of the aluminum panel and will have increased resistance to scratches and damage from ultraviolet light. As a part of the anodizing process the panel surface is brushed to create a non-glare surface that is easy to read. This anodizing process is done to Mil Standard-A-8625.

**Automation Displays, Inc.**

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# SPECIFICATION SHEET

## Design Data

The **Anodized Aluminum Control Panel** provides maximum flexibility in meeting your project requirements. Panels are available as rack mount or hinge mount for easy wiring access. All panel devices are wired to multi-pin connectors. Other wiring, mounting, and panel device options are listed below.

### Wiring Options

- Wire to terminal blocks
- Wire to customer selected connectors
- Custom matrix
- Multiple commons
- LED test diodes
- Serial interface:
  - RS232 serial interface
  - RS422 serial interface
  - RS485 serial interface
- ADI Z-net interface
- Mounting and wiring of customer supplied equipment or driver cards
- Complete hardwired systems
- Programmed annunciator cards
- Latched relay annunciator cards
- Power supplies
- AC/DC convertors
- Audible alarms:
  - Single tone alarm
  - Six tone alarm with volume control
- Time of day clocks:
  - 12-hour clock
  - 24-hour clock
- Synchronized clock displays
- Speaker and speaker grille
- Microphones:
  - Dynamic microphones
  - Condenser microphones
- Microphone mounting options:
  - Through-the-panel mount
  - Behind the panel mount
- XLR-3 microphone jacks (standard)
- Volume controls
- Panel mount telephone

### Panel Mounting Options

- Custom desk top turrets
- Custom control consoles
- Wall mount back boxes
- Rack mount
- Stainless steel frames
- Stainless steel enclosures
- Trim rings for millwork mounting
- Key locks
- Torx head security screws
- Southco knuckle hinges
- Stainless steel hinges
- Black anodized trim edge

### Switch Options

Most panel mount switches for control applications are compatible with the Anodized Aluminum Control Panel. Some typical manufacturers used include:

- Honeywell, MICROSWITCH, AML Series
- OTTO Engineering, Inc., P Series
- Square D/Telemecanique, ZBX Series
- IDEC Corporation, A6 Series
- EAO Switch Corporation, Series 19

### Color Options

- Four-color process
- Additional colors available with this option:
  - Red
  - Blue
  - Green
  - Yellow
  - Turquoise
  - Brown

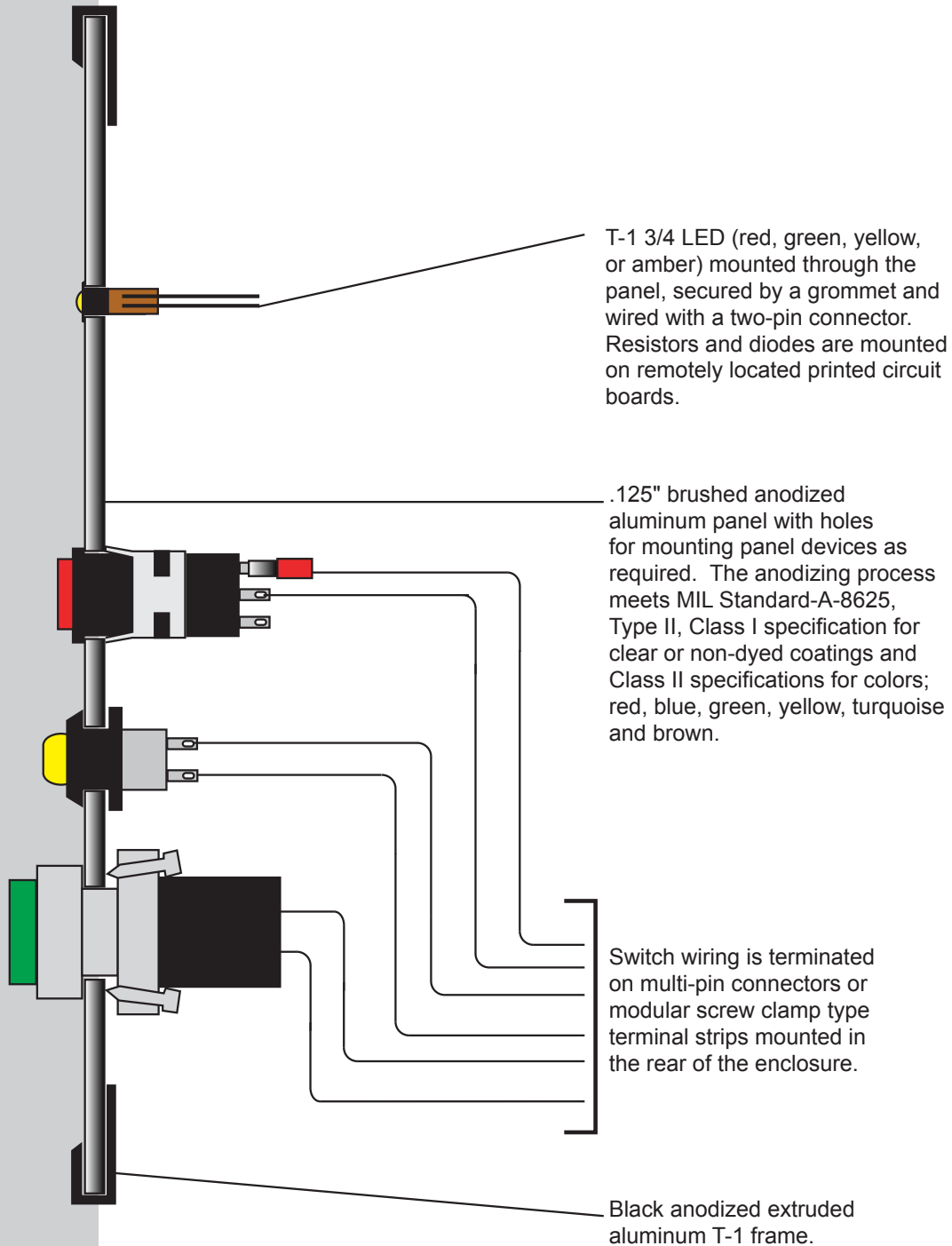
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# AD SPECIFICATION SHEET

## Control Panel Construction



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# SPECIFICATION SHEET

## ENGINEERING/ARCHITECT SPECIFICATION FOR AN ANODIZED ALUMINUM CONTROL PANEL

### 1.0 General

This specification defines the basic construction and components for an anodized aluminum control panel.

### 2.0 Construction

The control panel shall be constructed of .125 inch anodized aluminum. LEDs, switches and other devices shall be mounted through the panel face as required. Wiring shall be grouped and tie wraps shall be placed at intervals of not less than 4 inches. Wire runs shall be provided as required to assure a neat appearance and access to the panel devices.

#### 2.1 Trim Edge (optional)

A black anodized T1 trim edge shall frame the panel.

### 3.0 Anodized Graphic

#### 3.1 Graphic Colors

The anodized plate shall have a graphic or linear image as shown in the Engineer/Architect plans with either black background, clear graphics and legends or clear background, black graphics and legends (standard 2-color process) as defined in the project specifications.

##### 3.1.1 Graphic Colors (optional)

The anodized plate shall have a graphic or linear image as shown in the Engineer/Architect plans. A four-color process shall be used to apply multiple colors to the anodized surface. Colors specified for highlighted areas shall be red, blue, green, yellow, turquoise, and brown.

#### 3.2 Graphic Surface

The anodized graphic plate shall be straight lined (brushed) to provide a non-glare "grain" across the face of the panel. Holes shall be provided through the anodized plate for the LEDs and other panel devices as required.

#### 3.3 Anodizing

Anodizing is an electrochemical process that restructures the surface of the aluminum into a

layer of aluminum oxide. The anodized coating, approximately .0007" in thickness, is porous in nature and shall allow for the introduction of selected colors. The dye colors and a layer of nickel acetate shall be sealed in the aluminum plate. This process shall increase resistance to abrasion and increase the ultraviolet stability of the pigment colors.

### 4.0 Indicators

The indicators shall be high intensity LEDs, size T-1 $\frac{3}{4}$  and rated for normal operation at 20mA. The LEDs shall have a minimum operating life of 170,000 hours of continuous or pulsed operation. The body or lens of the LED shall be constructed of high impact plastic. Hewlett Packard HLMP series LEDs or equivalent shall be used. The LEDs shall be mounted in grommets inserted through the anodized plate. Resistors and diodes for current limiting and LED test shall be remotely mounted on printed circuit boards. Solder type pressed in turrets shall be provided on the printed circuit boards for electrical connections. Printed circuit boards shall be constructed of .062" epoxy glass material (NEMA Type FR-4, Grade 10). All field wiring shall be terminated on multi-pin connectors or modular screw clamp style terminals as required.

### 5.0 Switches

Switches as required shall be mounted through the display panel. All devices shall be rated for the load handled. All field wiring shall be terminated on multi-pin connectors or modular screw terminals as required. The Engineer/Architect shall define the type of switch.

### 6.0 Enclosure

The enclosure or desktop turret shall be made of cold rolled steel and assembled using all formed and welded steel construction. The enclosure shall be primed and painted with baked enamel and have a textured finish. The architect shall approve size and style of the enclosure.

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