

User's Manual

Alarm Status Indicator Panel

SACO CONTROLS 3846580 Canada Inc.



Model #

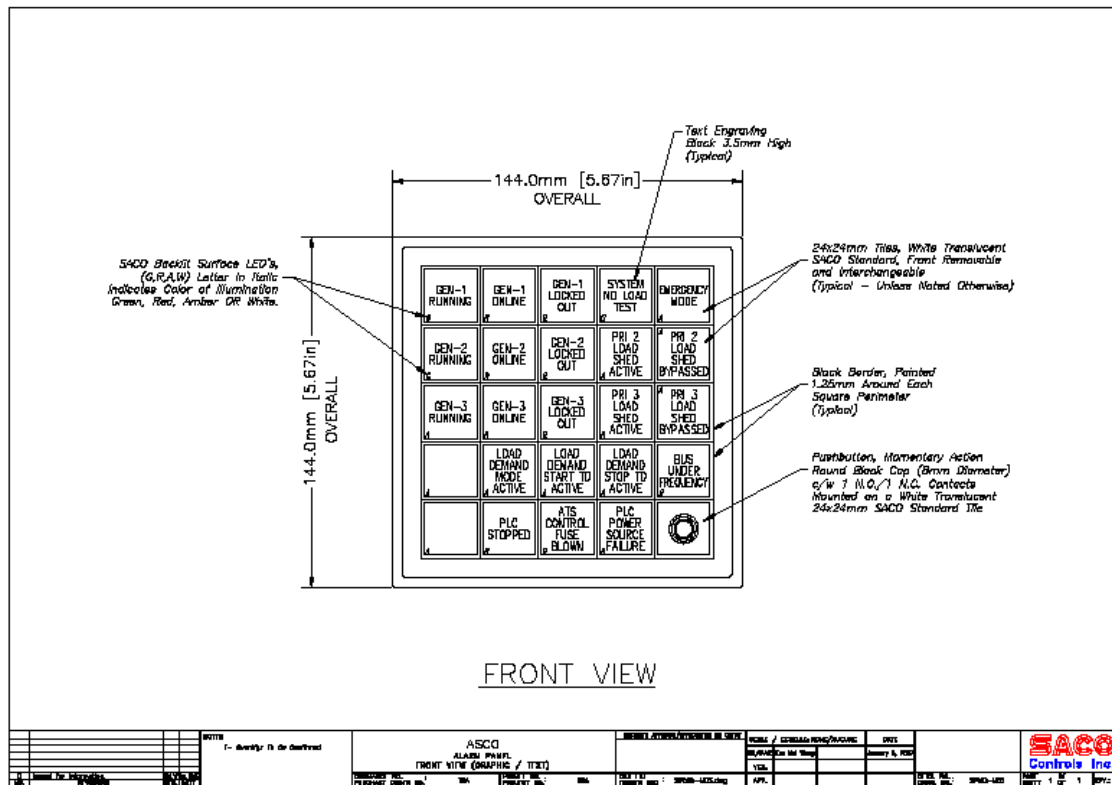
AS5X52424OD144144

Description

SACO CONTROLS Inc. AS5X524240D144144 Alarm Status Indicator Panel consists of alarm windows, LED indicators, PCB boards, 26-pin connector and casing. The system is modular in construction and solid-state annunciator of high reliability and performance.

Consisting of mosaic construction, multiple tiles can be placed side-by side to achieve the desired alarm window or individually placed to add emphasis to a static representation. No limit exists for the number of alarm points that can be added to any system.

Future modifications are effortlessly done by easily removing the tile from the front and snapping in a replacement.



Applications For

- 1) Industrial Process Control -
- 2) Dispatching Power Networks -
- 3) H.V.A.C. Systems -
- 4) Power Plants Water Treatment and Processing -
- 5) Mass Transit -
- 6) Fire Detection Panels to enumerate a few possibilities.

Features

Alarm Windows

- a) Custom-built, modular construction
- b) 5X5 X-Y stackable with size of windows in any 24mm multiple
- c) Flush-mounted windows composed of translucent tiles with back-lighting
- d) Mosaic, cabinet, rack and panel mount. Use mountings brackets supplied with system ONLY
- e) Window engraving according to client's requirements and specifications
- f) Long-life LED Indicator illumination - 100,000 hours

Alarm windows are modular in construction. Any number of alarm windows of any size can be supplied. Alarm windows are composed of translucent tiles. Standard sizes are available in 24x24mm, 24x48mm. However, any multiple of 24mm can be achieved by grouping different tile sizes together to achieve the desired window.

Tiles are made of high quality polycarbonate (MAKROLON) material with the following properties:

- Non-reflective, antistatic, smooth surface
- Flame retardant and self-extinguishing
- Highly resistant to ultraviolet rays
- High thermal resistance with temperature rating of :
 - 1) 100 °C or 212 °F continuous
 - 2) 125 °C or 257 °F intermittent

To construct the light box, translucent tiles are mounted on a 24 x 24mm zinc-alloy die-cast grid structure in the X and Y direction until the desired number of windows (height by width) is achieved. A black border (or any other color) is painted outlining each alarm window's perimeter.

Client-specified texts are engraved on the translucent tiles to add informative alarm data. The engraved grooves are filled with special permanent, non-glare black ink that does not fade with time. Text heights are available in a variety of different sizes.

Alarm Status Indicator Panel

- 1) Solid-state based design
- 2) Built-in internal monitoring of fail-safe circuit operation
- 3) Each alarm annunciator box accepts 24- field inputs
- 4) Client-configurable field input designation (N.O., N.C., FV)
- 5) High reliability and excellent real-time performance
- 6) MTBF minimum 100,000 hrs.
- 7) High immunity to external noise

Alarm Status Indicator Panel

Each alarm annunciator can accept up to 24 field contact inputs. As standard configuration, each field input controls one alarm window of single colored illumination. A 26-conductor flat ribbon cable with a 26 screw terminals is provided for easy communication with field signals.

Push button is included to provide operator intervention for testing the LED's.

Two (2) - Mounting brackets are located on both sides of the alarm annunciator box for easy installation.

Illumination

Alarm windows use backlit LED indicators which are front removable(Use tool P/N SRT-01 supplied with panel).

Standard illumination colors are given below:

➤ **red, green, white, blue, yellow, amber** LED color

Other colors are also available. The illumination voltage for the alarm windows is typically 24Vdc.

Supply Voltage

Typically 24Vdc ($\pm 10\%$). This supply provides both the illumination voltage for the lights.

Specifications

Mechanical

System Configuration

This Alarm Annunciator can be integrated into SACO Controls mosaic system or supplied as a stand-alone unit.

Window Size and Placement

Standard size is 24x24mm .Any multiple of 24mm can be accommodated. Mosaic tiles snaps into grid structure.

Engraving

Alarm texts are engraved according to client's requirements.

Pushbutton

Standard Integral lamp Test push button momentary non-illuminated type with 1N.O. /1N.C. contacts.

Field Inputs

Field inputs to control each alarm are user-configurable. Standard Input Voltage 24 Vdc.

Outputs

Visual

Mosaic translucent tiles are backlight with LED's.

General

Supply Voltage

Illumination Voltage Standard 24Vdc $\pm 10\%$. Provides both illumination and logic circuit power.

Supply Current

LED for 24x24mm window = 15 mA

(Multiply current consumption by the number of 24mm alarm window)

Environmental -**Normal Environmental Conditions**

- a) Unit is to be used Indoor
- b) Altitude up to 2000 m
- c) Operating Temperature 5 °C to 40 °C
- d) Storage Temperature - 40 °C to 60 °C
- e) Maximum Relative Humidity 80% for temperatures up to 31°C decreasing linearly close to 50 % at 40 °C.
- f) Main Voltage supply fluctuations $\pm 10\%$ of nominal voltage.
- g) Rated Pollution degree : 2

Equipment Installation :

- a) Verify cut out dimension of Cabinet/enclosure
- b) Insert Status panel until bezel is firmly tight against cabinet surface
- c) Install the mounting brackets on unit.
- d) Tight screw arms on both mounting brackets until they are firmly tight against cabinet surface.



Equipment Operation :

- a) Use only components supplied with unit
- b) Use a damp cloth with soap and water - 1 to 4 parts ratio
- c) Please refer to BOM for parts & components information.

Equipment Maintenance :

- a) Verify tightness of mounting brackets accordingly.
- b) Verify intensity of illumination on alarm windows face.
- c) To remove alarm window tiles use extraction tool supplied by SACO

Symbols explanation

- 1)  Caution , risk of danger/ refer to provide engineering drawings with the user's manual
- 2)  Main rated input voltage and current

Warranty

SACO CONTROLS Inc. warrants this product manufactured and designed in **SACO CONTROLS Inc.** production plant to be free from defects in material and workmanship, and take upon himself the repair or replacement of any product that it is find to be defective as a result of **SACO CONTROLS Inc.** manufacturing process. Defects of parts resulting from mishandling or abusive treatment are not covered by the present warranty and are the responsibility of purchaser. This warranty is for a period of ONE(1) year from the date of shipment of the equipment and after receipt F.C.A at **SACO CONTROLS Inc.** plant.

Ordering Information -

When ordering this SACO part please include the following:

Part Number	AS5X52424OD144144
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Include also :

- 1) Drawings with engraving and lettering on each alarm windows.
- 2) Drawings indicating clearly Illumination color for each alarm window

Illumination Color

R = Red ; A = Amber ; G = Green ; W = White
Y = Yellow ; B = Blue ; Other (please specify)

Technical drawings - Alarm Status Indicator Panel AS5X52424OD144144

ISOMETRIC BACK VIEW

ITEM	PART NUMBER	DESCRIPTION	QTY.
1	443-350	PANEL HOUSING	1
2	SFP-01	FRONT SEAL	1
3	440-001	MOUNTING BRACKETS	2
4	SRT-01	TILF/LAMP REMOVR TOOL	1
5	ST-2424-WT	WHITE TRANSLUCENT TILCS	25
6	MEP41172W17-HA	FUSIBUTTON NON-ILLUMINATED 1N.O./1N.C.	1
7	SG-5X5	120X120mm GRID MODULE	1
8	4502-632-B	STANDOFF HEX M/F 6-32 .25"	4
9	S-120X120-25 RLV.C	PCB MAIN MOTHERBOARD	1
10	261026ADP	PCB ADAPTOR	1
11	841B	STANDOFF HFK M/F 6-32 1.00" ALUMINUM	4
12	443-373-01	BACK PLATE	1
13	N/A	FIXD SCRFW	4
14	N/A	PAN HFAD PHILLIPS SCRFW 6-32 3/8"	4
15	135060000	J1 SIGNAL INPUT	1
16	SLA 7/100 433K OR	J2 Power Connector (PCB)	1
17	LD5651TL4-B0G	Ultra Bright Amber LED (24VDC)	-
18	LD574TR04-B0G	ULTRA BRIGHT RED LED (24VDC)	-
19	NSPG546BS	ULTRA BRIGHT GREEN LED (24VDC)	-
20	NSPW510BS	ULTRA BRIGHT WHITE LED (24VDC)	-

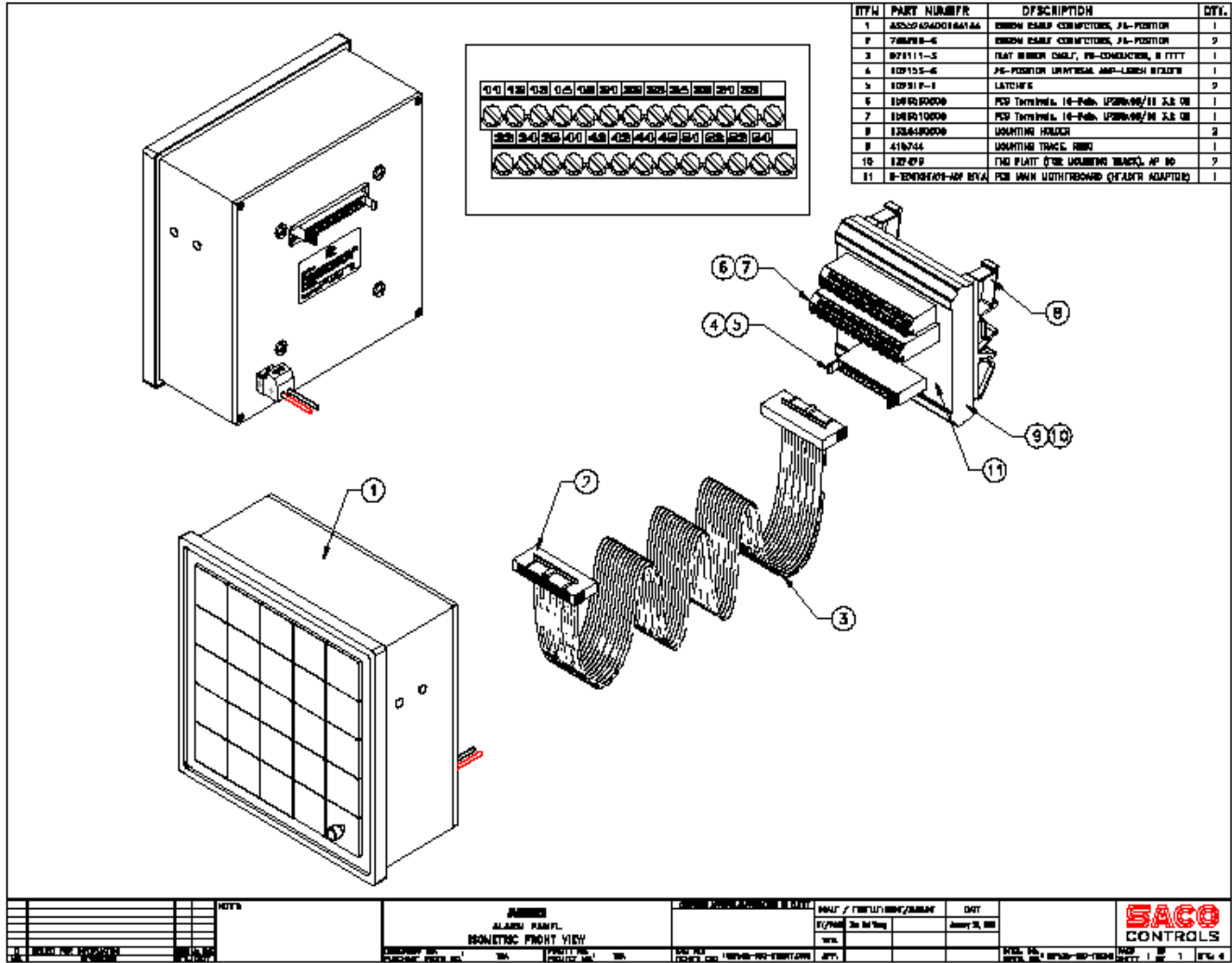
ISOMETRIC FRONT VIEW

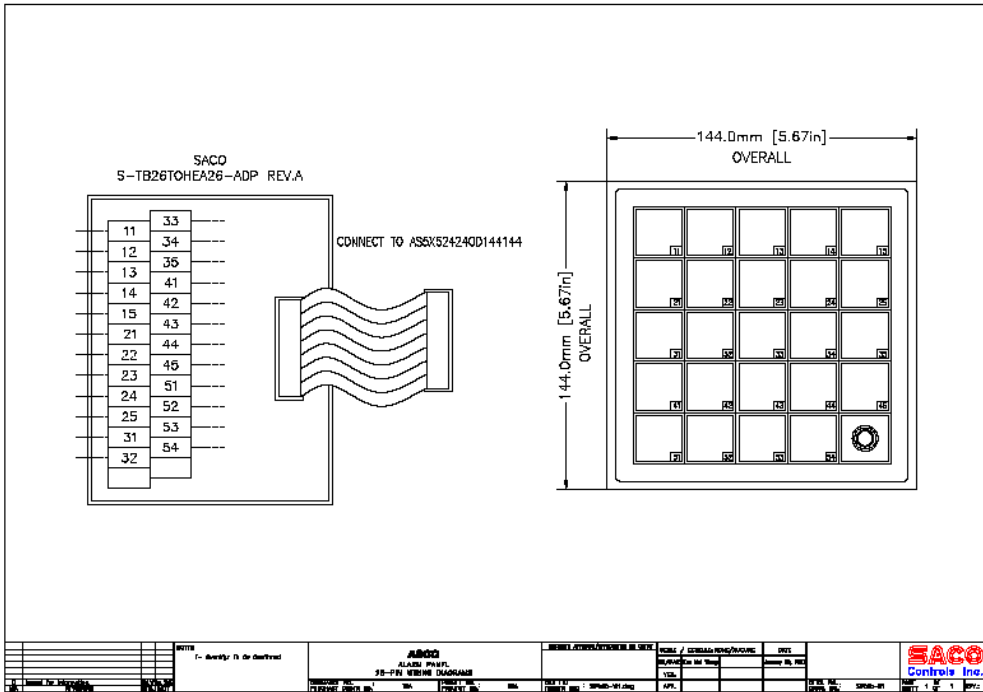
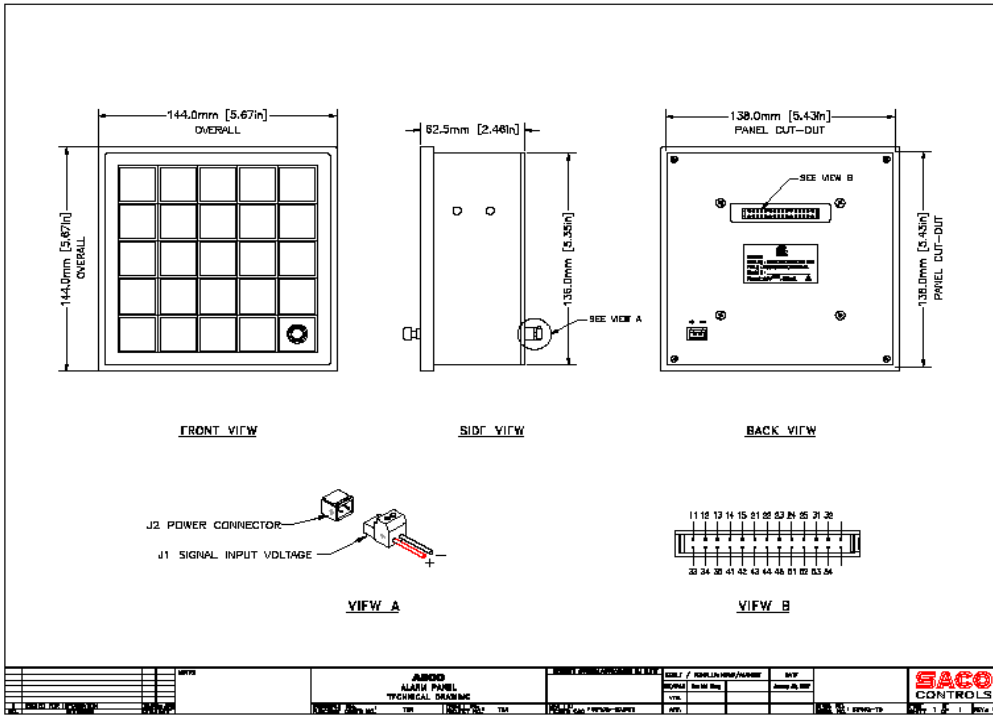
REV	1
DATE	07/10/07
BY	LSB
CHKD	LSB
APP	LSB

SACO	
ALARM PANEL	
ISOMETRIC VIEW	
PROJECT NO.	144144
REV	1
DATE	07/10/07
BY	LSB
CHKD	LSB
APP	LSB

REV	1
DATE	07/10/07
BY	LSB
CHKD	LSB
APP	LSB

SACO	
CONTROLS	
REV	1
DATE	07/10/07
BY	LSB
CHKD	LSB
APP	LSB





SACO CONTROLS INC. Alarm LED Display 5x5 Box -



SACO - Model 5X524240D144144.

The SACO Controls Alarm Display black box with redundant LED Alarm window display is available in multiple sizes using the basic dimensions of SACO tile dimensions 24 x 24 mm. The basic model size is:



5 (Height) x 5 (Width) alarm windows (24 x 24 mm) arrays



Main Features of the Basic model:

a) Size of each Alarm Window = 24 x 24 mm .



b) LED colours available are : Red , Green , Yellow , Blue , Amber , White or any combination colours.



- c) Redundant front removable monochrome LED indicators-Use supplied tooling -P/N SRT-01
- d) LED Test Push Button
- e) Ribbon cable extension for remote termination - Standard length 6.0 ft.
- f) 26- Pin connectors - via a 26 pin flat ribbon cable

Specifications:

a) Enclosure size :



Any number of windows multiple of the basic tile size 24 x 24 mm .

Supply Number of Windows - Rows x Columns

- b) Engraving /Lettering: According to Customer request
- c) Standard SACO Input Voltage to LED's : 24 Vdc
- d) Power consumption: LED's= 12mA@ 24 Vdc
- e) Integral LED Test PB
- f) Two(2) Brackets supplied for Mounting into Cabinet/Enclosure or Mosaic applications.
- g) Delivery delay - 3 to 5 weeks from Receipt of P.O.

