

## REMOTE ANNUNCIATOR STATIONS

- **Applications**  
Multiple LIM Remote Indicators for Central Monitoring of Isolated Power Systems
- **Mounting**  
Available for flush or surface mounted applications
- **Standards**  
UL 1047 - Isolated Power Systems Equipment
- **Warranty**  
Industry's first 5 year limited warranty



## Introduction

ISOTROL Type RAS Remote Annunciator Stations utilize multiple LIM remote indicators each connected to a LIM whose functions it duplicates. The Type RAS offers the most current technology for central monitoring of Isolated Power Systems.

## General

The Type RAS typically includes multiple BENDER Series MK2000... LIM remote indicators, each monitoring a separate Isolated Power System. The Series MK2000 has a green "SAFE" LED, a red "HAZARD" LED, an audible alarm buzzer, and a "MUTE" button with integral amber LED. Additionally, the LIM remote indicator may contain a Total Hazard Current Meter, and a LIM "TEST" button. Each BENDER MK2000... Series LIM remote indicator is powered directly from the BENDER LIM2000plus™ Series Line Isolation Monitor (LIM) which is located in the Isolated Power Panel.

## Backbox

For flush mounted applications the backbox is fabricated from 16GA galvanized steel. Surface mounted enclosures are finished with a coat of hospital ivory, epoxy enamel. Outline drawings shown on the following pages of this brochure provide additional dimension and construction details.

## Face Plate

Manufactured from 14GA Type 304 Stainless Steel with a #4 brushed finish, the front trim supports the LIM remote indicators. The face plate for flush mounted units extends 1" on all sides of the backbox. For surface mounted units, the face plate shall exactly match the dimensions of the backbox.

## LIM Remote Indicators

The Bender Series MK2000... LIM remote indicator duplicates the audible and visual alarm indications of the BENDER LIM2000plus™ Series Line Isolation Monitor (LIM) installed in the Isolated Power System. It is powered by a 12VDC signal from the LIM. There is a green LED which indicates a "SAFE" condition, a red LED which indicates a "HAZARD" condition, and a "MUTE" button with integral amber LED which indicates that the audible alarm has been placed in the "MUTE" mode. Optionally, a system muting function can be provided which causes the LIM at the panel location to also be silenced when the "MUTE" button is depressed.

The "SAFE" LED remains ON in the normal mode of operation until the Total Hazard Current, THC, exceeds the threshold limit of either 5 or 2mA. When this occurs, the "SAFE" LED goes OFF, the "HAZARD" LED illuminates, and the audible alarm can be heard from a distance of at least 25' from the unit.



BENDER LIM Remote Indicators shown mounted on gang plates

To prevent tampering, it is not possible to adjust the volume from the front of the unit. Depressing the "MUTE" button silences the alarm. Simultaneously, the integral amber LED illuminates to indicate this condition. The unit reverts back to the normal mode of operation when the THC level drops below the threshold limit.

## Customized Remote Annunciator Stations

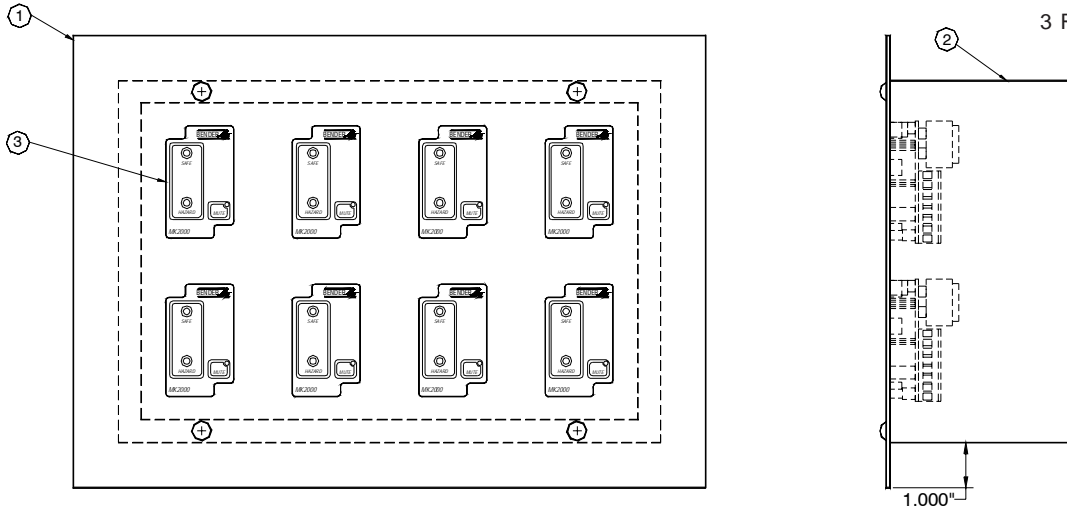
For retrofit and other special applications, ISOTROL SYSTEMS offers customized RAS stations. For details call our Technical Support Hotline.

## Support and Services

- On-site installation inspection and certification services
- System design assistance provided upon request
- Technical support hotline: (800) 833-6834

# Outline Drawing for Remote Annunciator Station

- 1 Stainless Steel Face Plate
- 2 Backbox, Galvanized Steel
- 3 Remote Indicator



Drawings above show flush mount application

## Selection Guide for Remote Annunciator Stations (Type RAS)

When selecting the Remote Annunciator Station for your application, use the Product Code below. If you have any questions or need further assistance, please call us using our toll-free number: (800) 833-6834.

### Code A - Basic Designation

RAS: Remote Annunciator Station

### Code B - Quantity of LIM Remote Indicators

### Code C - Type of LIM Remote Indicators (All Remotes have "MUTE" Button)

- A: MK2000-G1
- B: MK2000P-G1, w/ "TEST" button
- C: MK2000M-G2, w/ analog meter
- D: MK2000MP-G2, w/ analog meter, "TEST" button
- E: MK2000CBM-G2, w/digital display, "TEST" button, & overload indicator

### Code D - Type of Remote mounting

F: Flush                      S: Surface

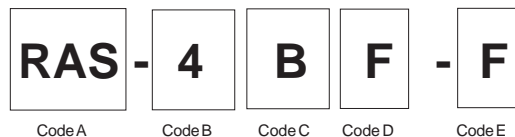
### Code E - Type of mounting

F: Flush                      S: Surface

For backbox configuration requirements, please contact factory

Call the factory for additional equipment or custom requirements

### Example for ISOTROL Type RAS Product Code



## Suggested Specification for ISOTROL Type RAS Remote Annunciator Stations

Furnish and install ISOTROL Type RAS Remote Annunciator Stations in the locations shown on the architectural / electrical drawings. The RAS shall be UL Listed and labeled as an assembly. The Type RAS shall consist of:

### Backbox

Shall be flush or surface mounted as indicated on the contract documents. Flush mounted units shall be fabricated from 16GA galvanized sheet steel. Surface mounted units shall be 16GA galvanized sheet steel and shall have a finish coat of hospital ivory, epoxy enamel. The dimensions of the backbox shall be determined by the number and arrangement of the individual remote indicators.

### Face Plate

Shall be fabricated from 14GA Type 304 Stainless Steel, with #4 brushed finish. The face plate for flush mounted units extends 1" on all sides of the backbox. For surface mounted units, the face plate shall exactly match the dimensions of the backbox. The size of the face plate shall be determined by the number and arrangement of the individual remote indicators. The face plate shall be attached to the backbox by means #10-32 x 1" Stainless Steel Truss Head Phillips machine screws.

### Remote Indicators for Line Isolation Monitors

The remote indicator which duplicates the audible and visual alarm indications of the LIM installed in the Isolated Power Panel. The remote indicator shall contain a green "SAFE" LED, a red "HAZARD" LED and a "MUTE" button with integral amber LED. The remote indicator shall function as follows:

- The green LED stays illuminated when the leakage current is within predetermined limits.
- The green LED extinguishes and the red LED illuminates when the predetermined limit is exceeded; an audible alarm also sounds.
- When depressed, the "MUTE" button shall mute the audible alarm signal. Actuation of this button shall cause the integral amber LED to illuminate, indicating that the audible alarm has been silenced.
- When the leakage current has returned to the acceptable limit level, the alarm indicators shall automatically reset.
- Optional THC meter or digital display.

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Specifications and other data subject to change without notice.

### Our Address

**BENDER/ISOTROL**

700 Fox Chase

Coatesville, PA 19320

Phone: 800-833-6834

610-383-9655

Fax: 610-383-7100

E-mail: isotrol@bender.org

