

## AVAILABLE ACCESSORIES FOR USE WITH AIR PRODUCTS DUCT SMOKE DETECTORS

### REMOTE ACCESSORIES

#### MSR-100R Series Remote Accessory Controllers

**(featuring visual pilot, trouble, alarm functions, key operated test/reset and selectable audible indication with buzzer silence function)**

MSR-100R/W	Remote Indicator/Control Assembly w/ White Single Gang Cover Plate
MSR-100R/R	Remote Indicator/Control Assembly w/ Red Single Gang Cover Plate
MSR-100R/S	Remote Indicator/Control Assembly w/ Stainless Steel Single Gang Cover Plate

#### MSR-100RAV Series Remote Accessory Controllers with Enhanced Sounder and Strobe

MSR-100RAV/W/C	Remote Indicator/Control Assembly w/ Audible/Visual Assembly (Clear Lens); White Double Gang Cover Plate
MSR-100RAV/W/O	Remote Indicator/Control Assembly w/ Audible/Visual Assembly (Opaque Lens); White Double Gang Cover Plate
MSR-100RAV/R/C	Remote Indicator/Control Assembly w/ Audible/Visual Assembly (Clear Lens); Red Double Gang Cover Plate
MSR-100RAV/R/O	Remote Indicator/Control Assembly w/ Audible/Visual Assembly (Opaque Lens); Red Double Gang Cover Plate
MSR-100RAV/S/C	Remote Indicator/Control Assembly w/ Audible/Visual Assembly (Clear Lens); Stainless Steel Double Gang Cover Plate
MSR-100RAV/S/O	Remote Indicator/Control Assembly w/ Audible/Visual Assembly (Opaque Lens); Stainless Steel Double Gang Cover Plate

MSR-A	Optional Field Upgrade, Audible module only with color choice of Double Gang cover plate
MSR-V	Optional Field Upgrade, Visual Strobe module only with choice of Double Gang cover plate, requires existing MSR- Series Control Module AND existing MSR-A to operate. Add /O for Opaque; /C for Clear lens
MSR-AV	Optional Field Upgrade, Audible and Visual Strobe module combo with color choice Double Gang cover plate requires existing MSR- Series Control Module to operate

### SMOKE TEST GAS

TG-1000	Solo Aerosol Test Gas with Spray Nozzle
TG-2000	Solo Aerosol Test Gas with Nozzle for SL- Series Test Port

### NOTCHED SAMPLING TUBES (SL- SERIES)

STN-1.0	For duct widths of 6" TO 1.0'
STN-2.5	For duct widths of 1.0' TO 2.5'
STN-5.0	For duct widths of 2.5' TO 5.0'
STN-10.0	For duct widths of 5.0' TO 10.0'

### SAMPLING TUBES (RW- AND SM- SERIES)

STS-1.0	For duct widths of 6" TO 1.0'
STS-2.5	For duct widths of 1.0' TO 2.5'
STS-5.0	For duct widths of 2.5' TO 5.0'
STS-10.0	For duct widths of 5.0' TO 10.0'

### WEATHERPROOF ENCLOSURES

WP-1	Weatherproof Enclosure for RW- and SM- Series Detectors
WP-2000	Weatherproof Enclosure for SL- Series Detectors

### POWER SUPPLIES

T-PB 202-1	24VAC @ 4.0A Class I Power Supply
T-PB 202-0	24VAC @ 4.0A Class I Power Supply
T-PB 303-1	24VAC @ 3.0A Class I Power Supply
T-PB 303-0	24VAC @ 3.0A Class I Power Supply



FOR FURTHER ASSISTANCE, PLEASE CONTACT OUR  
TOLL-FREE TECHNICAL SUPPORT HOTLINE:

1 (888) 332-2241 or +1 (248) 332-3900 outside the USA



## AIR PRODUCTS AND CONTROLS INC. INSTALLATION GUIDE FOR MSR-100 SERIES REMOTE ACCESSORIES

MSR-100 Series

25 Corporate Drive • Auburn Hills, MI 48326 USA  
US Toll Free 888.332.2241 • Phone 248.332.3900 • Fax 248.332.8807 • www.ap-c.com

### PRODUCT DESCRIPTION

The MSR Series remote accessories offer the most comprehensive set of features, functionality and ease of installation ever available in a duct smoke detector remote accessory. They are compatible with the range of duct smoke detectors as described herein. All MSR-Series remote accessories are compatible with standard Decora style cover plates (base color choice plate included).

### The MSR-100 Series

The 100 Series remote accessory is available with only the single gang remote indicator/control (MSR-100R Products), or with the addition of a single gang strobe/sounder assembly (MSR-100RAV Products). Optional field upgrade kits for existing installed MSR-100R products are also available (MSR-100A and MSR-100AV Products).

The indicator/control assembly provides

- Visual indication of detector Pilot, Trouble and Alarm Functions
- Selectable audible indication of Alarm, Trouble or both
- Buzzer Silence function, with "ringback" following condition correction
- Lamp/Buzzer test function
- Key-Operated detector Test and Reset functions
- Lever-operated quick-connect "No-Tools" terminal block
- Port for plugging in the Audible/Visual Assembly



MSR-100RAV/S/C

The strobe/sounder (audible/visual) assembly\* provides visual indication of alarm conditions, and is connected to the indicator/control assembly via the provided polarized connector.

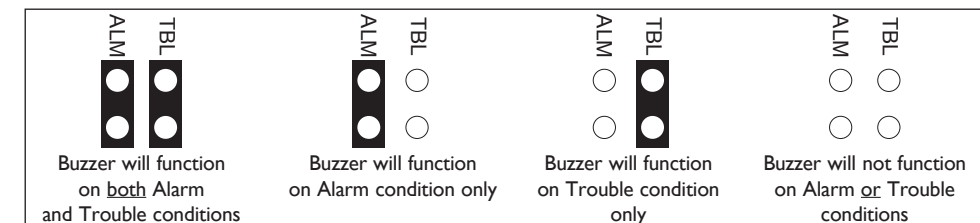
**\* NOTE:** The strobe and audible sounder features are not ADA compliant, and not intended for life safety notification or evacuation purposes (public mode). These functions are for duct smoke detector status indication only. All units require one gang of space in a standard "Listed" deep gang box (minimum 2" deep) - not supplied.

### STROBE CONNECTION

To install the Audible module, simply plug the provided connector onto the pins as indicated on the rear of the control module. If adding a strobe component, align the copper pins with the holes on the face of the audible module and press into place. Install cover plate following completion of remote module wiring.

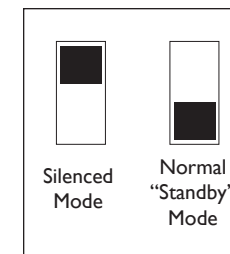
### AUDIBLE BUZZER CONFIGURATION - MSR CONTROL MODULE

There are two jumpers located on the rear of the indicator/control assembly. To enable audible buzzer operation for Alarm or Trouble conditions, simply leave the jumpers in place. To disable either or both functions, remove the appropriate jumper(s).



### SILENCE AND RINGBACK FUNCTIONS - MSR CONTROL MODULE

On the occasion where an audible alarm or trouble condition needs to be silenced while the detector condition is inspected and remedied, the indicator/control module provides a silence function. The slide switch located on the front of the module is pushed UP to activate the silence function.



Upon correction of the notified condition, the silenced buzzer will resume sounding. This is the ringback feature which serves as a reminder to reset the silence switch to the "normal", DOWN position.

\* Note that the silence function does not effect an add-on Audible module (in second gang position). If a sounder module is connected via polarized connector, it will continue to sound even if the silence function is engaged. Also, the strobe module, when used, will not stop operating when the silence function is engaged.

NOTICE: The information contained in this document is the most current available at the time of shipment of accompanying product, and is subject to change without notice. Future references should always be made to the most current revision of this document. The information contained in all this document should be considered before installing or using the product. Any example applications shown are subject to the most current enforced local/national codes, standards, approvals, certifications, and/or the authority having jurisdiction. All of these resources, as well as the specific manufacturer of any shown or mentioned related equipment, should be consulted prior to any implementation. For further information or assistance concerning this product, contact Air Products and Controls Inc. Air Products and Controls Inc. reserves the right to change any and all documentation without notice.  
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A COPY OF THESE INSTRUCTIONS SHOULD BE LEFT WITH THE EQUIPMENT UNTIL INSTALLATION BY ALL TRADES IS FULLY COMPLETE.  
FOLLOWING FINAL INSPECTION, A COPY SHOULD BE LEFT WITH THE OWNER/USER.

TECHNICAL SUPPORT: (888) 332-2241 or +1 (248) 332-3900



### LAMP AND BUZZER TEST FUNCTION

The indicator/control module includes an integrated LED and Buzzer test function, to ensure that the visual and audible indicators are functioning and haven't "burned out". Simply depress the "LED TEST" button on the front of the module to activate test. If the remote accessory is functioning properly, all of the LEDs will illuminate, and the buzzer will sound (unless in "silence" mode or jumper programmed to not sound on alarm or trouble). Releasing the "LED TEST" button will return the unit to normal condition.

**NOTE:** If a strobe module is connected, the strobe will not be tested (or flash) as part of the lamp and buzzer test function. That test is for the LED and audible indicators located on the control module only. To test the add-on strobe or sounder/strobe modules simply insert the key and rotate the key switch to the Test/Reset position.

### MECHANICAL SPECIFICATIONS for the MSR-100

Power Requirements:	Standby	18mA	Input Voltage:	24VDC
	Alarm	25mA		
	Trouble with Buzzer	23mA	Dimensions:	Single Gang Plate: 4½" (114.3mm)H x 2¾" (69.85mm)W
	Trouble Silenced	23mA		Double Gang Plate: 4½" (114.3mm)H x 4½" (114.3mm)W
	Trouble without Buzzer	07mA	Wiring:	14-28AWG, Solid or Stranded
	Alarm with Buzzer	62mA		
	Alarm Silenced with Buzzer	42mA	Temperature:	0°C to 49°C (32°F to 120°F)
	Alarm with Buzzer & Strobe	157mA		
	Alarm Silenced w Buzzer & Strobe	155mA		
	Lamp Test with Buzzer	60mA		
	Lamp Test with Buzzer Silenced	39mA		

With AV Module: Alarm Current: 95mA; UL Listed Alarm db: 68 db @10 ft (high); 53 db @ 10 ft (low); Alarm candela: 2.0 on axis  
Reverberent Room Alarm db: 87 db @10 ft (high); 83 db @ 10 ft (low)

Approvals: UL Listed for use with Air Products and Controls duct smoke detectors referenced herein including all RW- Series, SM- Series SL- Series and RT-Series duct smoke detectors  
UL URRQ.S7425 • CSFM 7300-1004:107 • MEA 73-92-E Vol.31

### PACKAGE CONTENTS AND STROBE CONSTRUCTION

Remote accessories that include the indicator/control unit are shipped with the following parts:

- Installation Instructions
- Indicator/Control Unit with back box mounting screws (back box not supplied)
- Keys for Test/Reset function
- Decora Style Cover Plate with mounting screws (single gang)

Remote accessories that include the indicator/control unit and sounder module are shipped with the following parts:

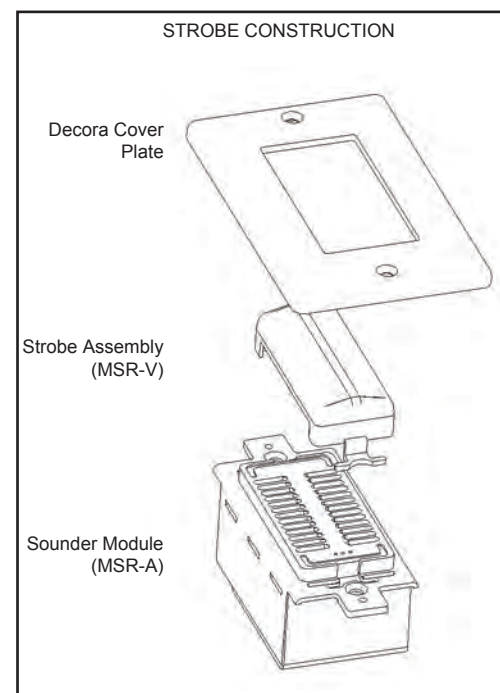
- Indicator/Control Unit package
- Sounder Module with back box mounting screws (back box not supplied)
- Decora Style Cover Plate with mounting screws (double gang)

Remote accessories that include the indicator/control unit, sounder module and strobe assembly are shipped with the following parts:

- Indicator/Control Unit package
- Sounder Module package
- Strobe Assembly
- Strobe Lens Decals for optional use: "SMOKE", "FIRE"  
(1 of each version in horizontal orientation plus 1 each vertically set)

Strobe Assembly Units may be ordered separately but are only functional when paired with the MSR-A Module. Strobe Assemblies are shipped with:

- Installation Instructions
- Strobe Assembly
- Strobe Lens Decals for optional use: "SMOKE", "FIRE"  
(1 of each version in horizontal orientation plus 1 each vertically set)



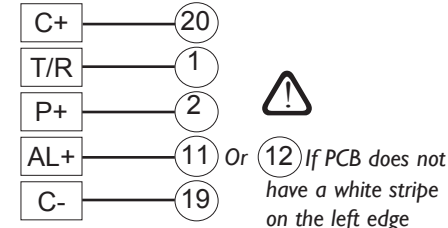
### WIRING INSTRUCTIONS

**NOTE:** For proper installation, testing, operation and maintenance of a duct smoke detector, please refer to the detector installation guide. The following wiring diagrams are applicable only to compatible, current limited, UL Listed remote accessories from Air Products and Controls. Use of any other devices may result in damage to the duct smoke detector or those devices, potential injury, and will void any applicable warranties.

**REMARQUE:** Pour une installation correcte, le contrôle, l'exploitation et l'entretien d'un détecteur conduit de fumée, s'il vous plaît consulter le guide d'installation de détecteur. Les schémas de câblage suivants sont applicables qu'aux compatibles, accessoires éloignées actuelles limitées UL de produits et de contrôles aériens. L'utilisation d'autres appareils peut causer des dommages au détecteur conduit de fumée ou de ces dispositifs, les risques de blessures, et annulera toute garantie applicable.

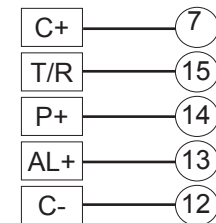
### SL-2000 Series Duct Smoke Detectors

- △ **NOTE:** Trouble LED will illuminate on the MSR-100 when the detector cover is removed, or if the smoke detector head is removed and the cover replaced.
- △ **NOTE:** If duct smoke detectors are interconnected for common functions, please refer to unit installation guide for connection options for remote alarm functions.
- △ **NOTE:** If detector circuit board does not have a white stripe running from the top to the bottom on the left edge, use terminal 12 for the AL+ connection.



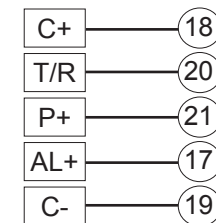
### HS-100 Series Special Applications Duct Smoke Detectors

- △ **NOTE:** Trouble LED will illuminate on the MSR-100 if the smoke detector head is removed.
- △ **NOTE:** If duct smoke detectors are interconnected for common functions, please refer to unit installation guide for connection options for remote alarm functions.



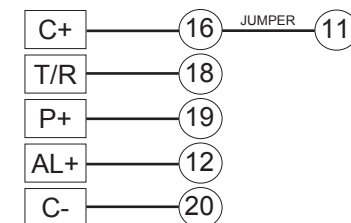
### SM-501 Series Duct Smoke Detectors

- △ **NOTE:** Trouble LED will illuminate on the MSR-100 if the smoke detector head is removed.
- △ **NOTE:** If duct smoke detectors are interconnected for common functions, please refer to unit installation guide for connection options for remote alarm functions.



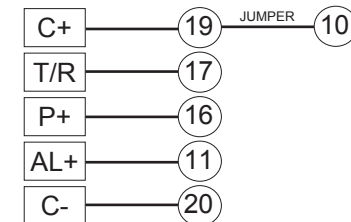
### 2650-560APC and 2650-561APC Duct Smoke Detectors

- △ **NOTE:** A jumper wire must be placed between Terminals 16 and 11 to facilitate alarm functionality.
- △ **NOTE:** The Trouble LED will illuminate when the smoke detector head is removed on the MSR-100.
- △ **NOTE:** Use of an MSR remote accessory with these detector models requires the dedicated use of one set of alarm contacts.
- △ **NOTE:** These models of duct smoke detectors are not intended for interconnection when using the MSR- Series Remote Accessories. For further information and assistance with this application, please contact our technical hotline.



### RWJ, RWF Series Duct Smoke Detectors

- △ **NOTE:** A jumper is required between Terminals 19 and 10 to facilitate the alarm functionality. If the trouble contacts of the RWJ Series detector are being used for other switching applications, or for connection to a Fire Alarm Control Panel, the on-board RWJ option jumper must be removed (cut). Failure to remove the RWJ option jumper could result in damage to the Fire Alarm Control Panel or other connected equipment.
- △ **NOTE:** The Trouble LED will illuminate when the smoke detector head is removed on the MSR-100.
- △ **NOTE:** Use of an MSR remote accessory with these detector models requires the dedicated use of one set of alarm contacts.
- △ **NOTE:** These models of duct smoke detectors are not intended for interconnection when using the MSR- Series Remote Accessories. For further information and assistance with this application, please contact our technical hotline.



### RWX, RWL, RWH Series Duct Smoke Detectors

- △ **NOTE:** For connection of MSR remote accessories to the RWX Series, RWL Series and RWH Series, a jumper wire must be placed between Terminals 19 and 10 to facilitate alarm functionality.
- △ **NOTE:** The Trouble LED will illuminate when the smoke detector head is removed on the MSR-100.
- △ **NOTE:** Use of an MSR remote accessory with these detector models requires the dedicated use of one set of alarm contacts.
- △ **NOTE:** These models of duct smoke detectors are not intended for interconnection when using the MSR- Series Remote Accessories. For further information and assistance with this application, please contact our technical hotline.

