

2392, 2393 & 2394 TAC Pneumodular Two-Three-Four Position Selector Switches

Data Sheet

These switches are manually operated devices adaptable to a wide variety of applications in pneumatic control systems. They are normally used to perform diverting or supply and exhaust functions to operate final control components or index relays in multiple switching systems.

The 2392-504 is a four-branch switch. The 2392-505 is a five-branch switch that provides one blocked port in each knob position.

The 2393-504 is a four-branch switch which can be used to supply a signal to any one of three devices or supply any one of three signals to a device. Its unused ports are blocked. The 2393-505 is identical except for its unused ports being exhausted to atmosphere.

The 2394-504 and 2394-505 are five-branch switches which follow the same operating pattern as the 2392 series. However, they can supply a signal to any one of four devices or vice-versa. Unused ports are blocked in the 2394-504 and exhausted in the 2394-505.

Various dials are available for each model and for specific switch applications.

Table-1 Ordering Data.

TAC Uni-Line Number	Replaces Model	Description	
2392-504	S520	2-Position - 4 branch	
2392-505	S521	2-Position - 5 branch (unused port blocked)	
2393-504	S530	3-Position - 4 branch (unused por blocked)	
2393-505	S531	3-Position - 4 branch (unused ports exhausted)	
2394-504	S540	4-Position - 5 branch (unused port blocked)	
2394-505	S541	4-Position - 5 branch (unused ports exhausted)	

For Dial Plate Ordering Data, see page 2.

Table-2 Mounting Brackets.

TAC Uni-Line Number	Replaces Model	Description	
22-155	K511	Single switch bracket	
22-156	K512	One switch & one gauge per bracket	
22-157	K514	Two switches & two gauges per bracket	



Table-3 Replacement Parts.

TAC Uni-Line Number	Replaces Model	Description
22-173	K550	Replacement knob
22-174	K551	Replacement Locknut

SPECIFICATIONS

Main Air Pressure: 30 psig maximum.

Air Capacity: 40 scfh Air Consumption: None

Maximum Ambient Temperature: 140°F

Mounting: Designed for use on 22-120 TAC Pneumodular manifold socket. These devices can also be mounted by using the appropriate mounting bracket (see Mounting Bracket ordering data).

Connections: Barbed nipples for 1/4" OD polyethylene or

5/32" ID polyurethane tubing.

Material:

Case, Glass-filled nylon

Dial Plates, Anodized aluminum.

Knob, Black sunburst plastic with pointer.

GENERAL INSTRUCTIONS

These devices are to be used on clean, dry, oil free control air only, and will operate properly when mounted in any position.

The inherent reliability of these devices is enhanced and prolonged through regular inspection and preventive maintenance by a qualified control expert. Should any of these devices become inoperative, it should be replaced by a new unit.

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Caution: This device should be installed by a qualified service technician with due regard for safety, as improper installation could result in a hazardous condition.

Table-4 Dial Plate Ordering Data.

TAC Uni-Line Number	Replaces Model	Dial Markings			
2392 SERIES					
22-306	50-06	Blank			
22-309	50-09	Occup.	Unoccup.	_	
22-311	50-11	Min.	Max.	_	_
22-313	50-13	Winter	Summer		_
22-314	50-14	Manual	Auto	_	_
22-315	50-15	Auto	Off	_	
22-316	50-16	On	Auto	_	_
22-317	50-17	On	Off	_	
22-318	50-18	Closed	Auto	_	
22-319	50-19	Open	Auto	_	_
22-320	50-20	Open	Closed		_
22-323	50-23	Day	Night	_	_
22-324	50-24	Heat	Cool	_	_
22-352	50-52	1	2	_	_
2393 SERIES					
22-306	50-06	Blank			
22-332	50-32	1	2	3	<u> </u>
22-237	50-37	Open	Auto	Closed	-
22-338	50-38	Heat	Auto	Cool	_
22-339	50-39	Day	Auto	Night	_
22-345	50-45	Winter	Auto	Summer	
22-346	50-46	Occup.	Auto	Unoccup.	_
22-347	50-47	On	Auto	Off	
2394 SERIES					
22-306	50-06	Blank			
22-348	50-48	2	3	4	1
22-349	50-49	Heat	Vent	Cool	Auto

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2392-504

PORT 5 BLOCKED

2393-504 **PORTS NOT CONNECTED TO 5** BLOCKED

2394-504

PORTS NOT CONNECTED TO 5 BLOCKED

















2392-505

PORT 1 **BLOCKED**

PORT 2 BLOCKED

2393-505 PORTS NOT CONNECTED **TO 5 VENTED**

2394-505 PORTS NOT CONNECTED **TO 5 VENTED**

MOUNTING INSTRUCTIONS

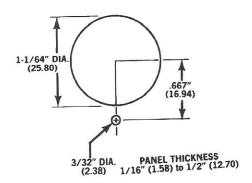
Panel Mounting

Inside: These devices have been designed to be mounted on a Pneumodular manifold socket. One socket, one gasket and two mounting screws are required in addition to the appropriate manifold backplate. Refer to the TAC Pneumodular Parts and Accessories Data Sheet for complete ordering information.

Surface: These devices may also be mounted on a panel face (1/2" maximum panel thickness) by using a 1-1/64" mounting hole. (See Figure-1).

Field Mounting

These devices may also be mounted without the backplate, socket or gasket to replace competitive and old Robertshaw devices by using the appropriate mounting bracket as shown in the ordering information chart on page 1.



MINIMUM CENTERLINE SPACING FOR PANEL CUTOUT 2" (50.8)

Figure-1

REPLACEMENT OF OLD DEVICES

To replace older models of Robertshaw selector switches (such as factory models S20, S21, S30, S40 or S41) with a -11 designation (example: S20-11), a 22-172 adaptor washer must be used (see Figure-2).

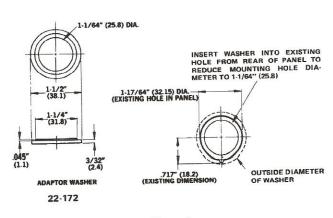


Figure-2

DIAL PLATE INSTALLATION

With the knob removed and the locknut run back for clearance, turn the dial plate to fit over the projections on the front of the switch body. Align and engage the vertical notch in the dial plate with the tab behind the top switch body projection. Tighten the locknut against the back of the dial and replace knob. (See Figure-3).

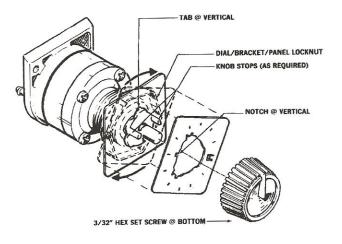


Figure-3

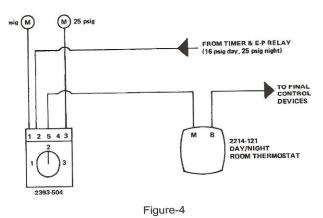
TYPICAL APPLICATION

Automatic or Manual Changeover of Day/Night System

In position 1, the switch will connect ports 1 and 5 supplying 16 psig main air pressure to the thermostat for day operation.

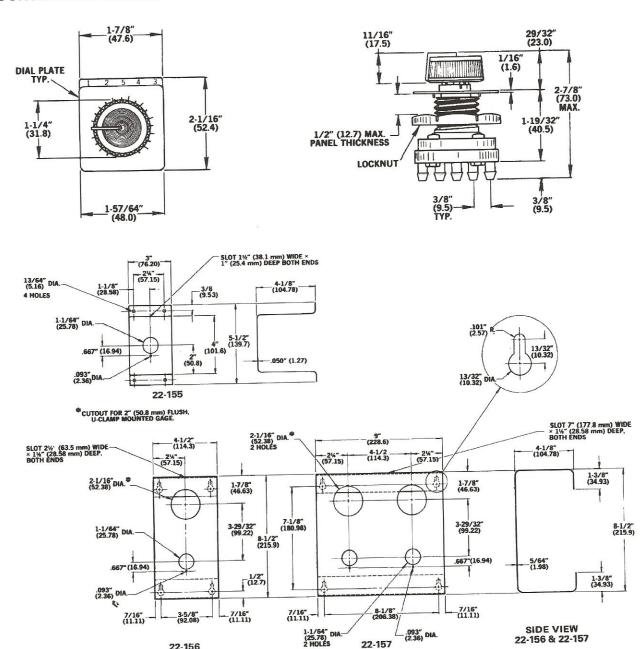
In position 2, the switch will connect ports 2 and 5 supplying either 16 psig main air pressure for day operation, or 25 psig main air pressure for night operation, to the thermostat from an E-P relay being controlled by a programmed timer.

In position 3, the switch will connect ports 3 and 5 supplying 25 psig main air pressure to the thermostat for night operation.



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MOUNTING DIMENSIONS



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Installation Guide

Mounting

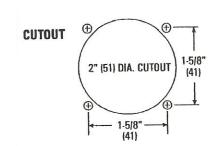
Units may be hollow-wall mounted or connected to a ring panel backplate using a HMO-4506 bracket.

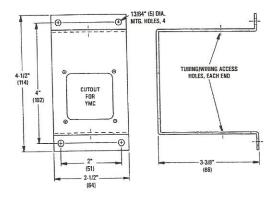
Hollow Walls:

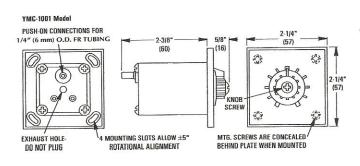
- 1. Cut a 2" (51 mm) diameter hole.
- 2. Make connections to the back of the unit (see Connections).
- 3. Secure unit with the four $5 \times 1/2$ " sheet metal screws (provided).
- 4. Loosen knob screw and remove the front knob.
- 5. Apply the scale plate of your choice.
- 6. Replace knob and lock with knob screw.

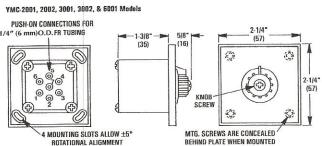
Flat Walls:

- 1. Install the HMO-4506 mounting bracket.
- 2. Make connections to the back of the unit (see Connections).
- 3. Secure unit with the four screws (provided), inserted in the 13/64" mounting holes.
- Loosen knob screw and remove the front knob.
- Apply the scale plate of your choice.
- 7. Replace knob and lock with knob screw.







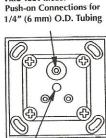


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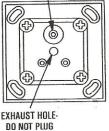
Connections

- Use only clean, dry, control air. No attempt should be made to use any other medium.
- Use 1/4" (6) O.D. FR Tubing for all connections.
- Connect clean, dry, main air supply to upper center Port on YMC-1001.
- Refer to the table below when making all other connections.

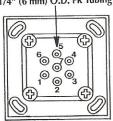
MODELO	POSITION	PORTS CONNECTED		
MODELS	PUSITION	FUNTO COMMECTED		
YMC-2001, 2002	Left	2-1; 5-4		
	Right	2-3; 5-6		
YMC-3001, 3002	Left	7-1		
	Center	7-2		
	Right	7-3		
YMC-6001	11	7-1		
	2	7-2		
	3	7-3		
	4	7-4		
	5	7-5		
	6	7-6		



YMC-1001 Model



All Other Models Push-On Connections for 1/4" (6 mm) O.D. FR Tubing



Adjustments and Calibration

Upon receipt, no adjustment should be required.

Maintenance |

No routine maintenance is required.

Care should be taken to keep the unit clean from dust during installation.

Each component is designed for dependable, long term reliability and performance.

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