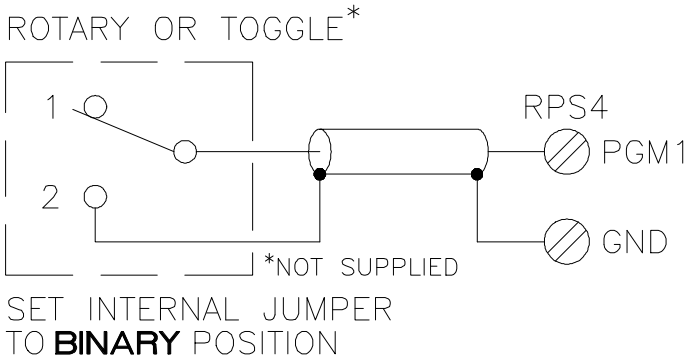
RPS 4 Remote Program Selector

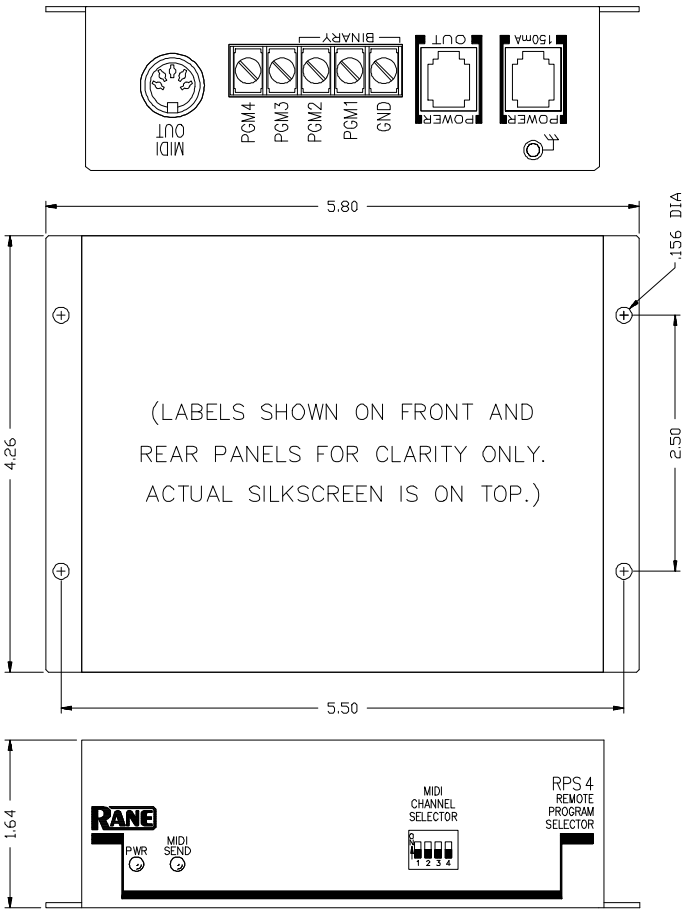
In some applications, it may be desirable to switch the MPE programs from a remote location, without the use of a computer or MIDI controller. A simple switch to change programs can also make operation a lot easier for the non-technical person who may be responsible for operating the sound system. The RPS 4 comes to the rescue.

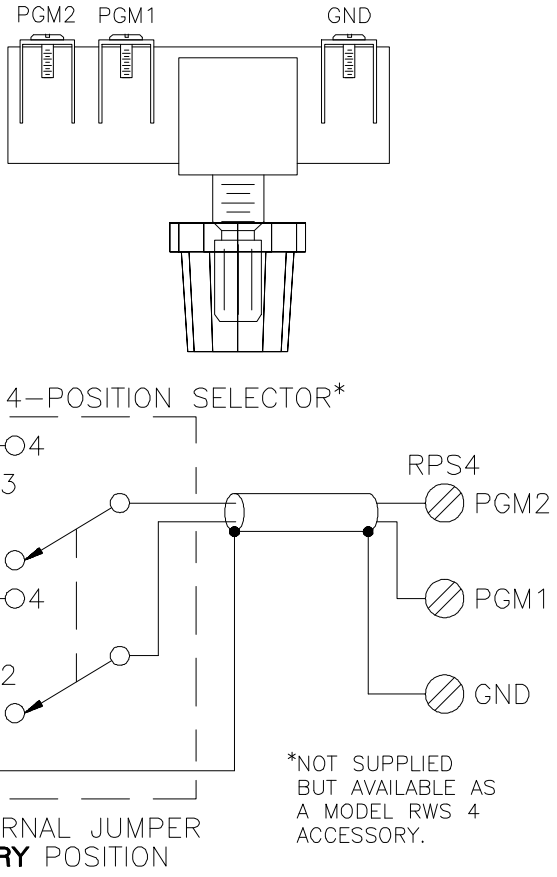
Simply, the RPS 4 converts contact closures to MIDI program changes. Depending on your requirements, the RPS 4 can generate up to 16 program changes (1-16). These MIDI program change commands can simultaneously change your EQ curve(s) on your MPE and/or any other MIDI controlled device in your system. The sound equipment can then be locked up in a rack somewhere else, possibly minimizing cable runs and curious fingers. Presets can be made for different program material, occupancy changes, different mics or placement, music or speech. The switch can be located away from the equipment rack. With the Rane FVL 22 Remote Volume Level controller and the RPS 4, continuous volume and EQ presets can be controlled by a couple of knobs on a wall plate or in a lectern!

The wiring diagram for a simple two program selector is shown below. This will toggle between programs 1 and 2.

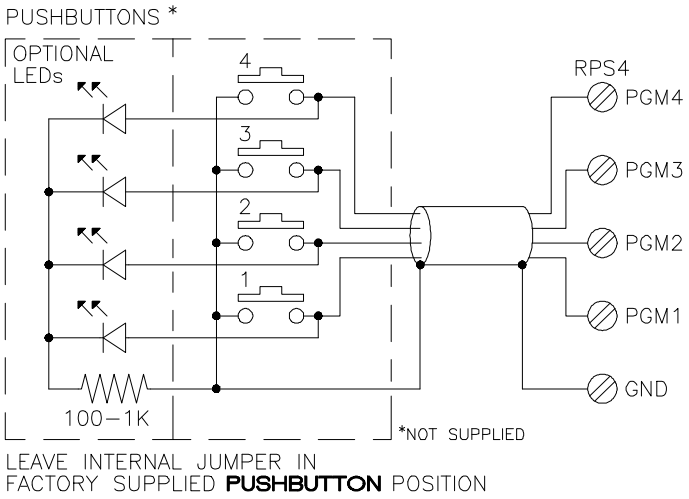


The Rane **RWS 4** is a four position wall mount switch designed to fit a 75 ohm coax wall plate. It will supply four program changes to the MPEs using any 3 conductor cable. Here's an actual size drawing along with the wiring diagram.

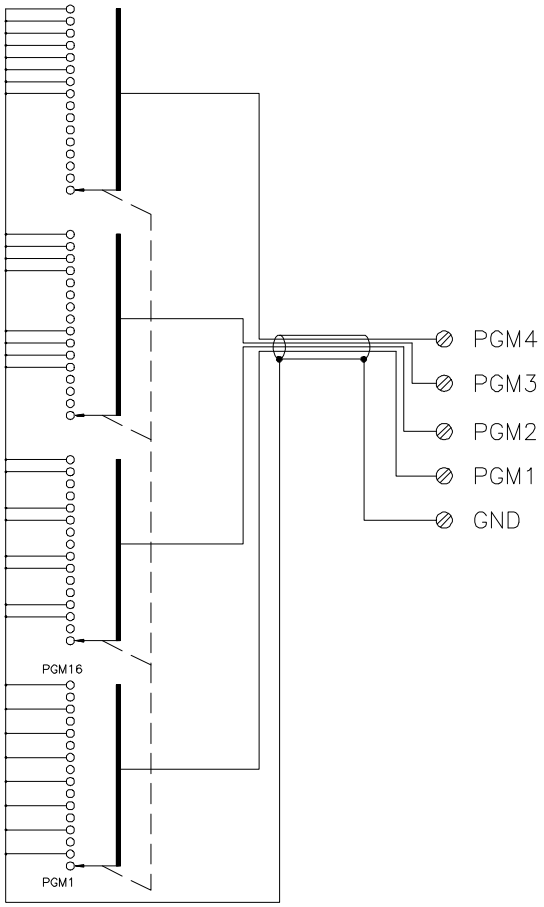


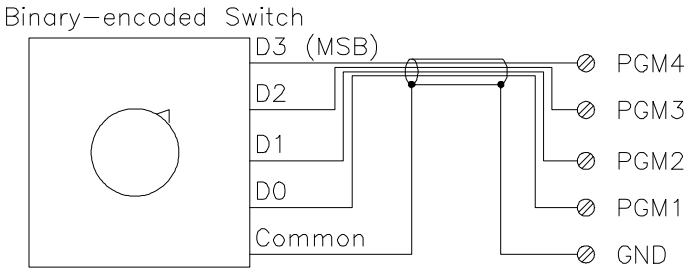


Here is a wiring diagram to use with momentary contact pushbuttons with optional LED indicators. This idea can be used for 2, 3 or 4 program changes.



Using a binary encoded switch, 16 MIDI program changes can be activated. A four pole, sixteen throw switch can also be used. A switch with fewer positions (such as an eight throw switch) may be used by omitting the extra connections.





Use of the RPS 4 is pretty obvious and shouldn't present any problems. Here is a short check list:

1. Connect a MIDI cable (standard 5-pin DIN) between the **MIDI OUT** jack on the RPS 4 and the **MIDI IN** jack on the MPE. When controlling more than one MIDI unit at a time, connect the RPS 4 **MIDI OUT** jack to the **MIDI IN** jack on the first MPE, then connect the **MIDI THRU** jack from the first MPE to the **MIDI IN** jack on the second MPE, and so on. *(Do not use the **MPE MIDI OUT** jacks. MPE MIDI OUTs won't carry the program change.)*
2. If controlling an MPE, disconnect the power supply cable from the red **POWER** jack on the MPE and reconnect it to the **POWER** jack on the RPS 4. Next, using the cable supplied, connect the **POWER OUT** jack on the RPS 4 to the MPE's red **POWER** jack. *All other applications require using the optional Rane RS 1 remote power supply (NOT SUPPLIED). Connect the RS 1 to either red **POWER** jack.*
3. Use the **MIDI CHANNEL SELECTOR** to set the desired channel. All units being controlled must use the same MIDI channel. Refer to the diagrams on the top of the RPS 4 for the correct switch settings.
4. The final step is wiring up the switches. Refer to the diagrams above for several choices. The RPS 4 works with all types of switches.

Note there is an internal jumper option labelled **BINARY** or **PUSHBUTTON**. All RPS 4s are shipped with this jumper installed in the **PUSHBUTTON** mode. As the name implies, this is the correct position when using momentary pushbuttons to change programs. Changing the jumper to the **BINARY** position allows using the minimum number of interconnecting wires. Sometimes this represents a significant cost savings and convenience.