ROUTER-01 USERS MANUAL

DESCRIPTION

The router-01 is a 1 line to 4 line telephone multiplexor. It has the capability to separate out the calls for the different lines using the distinctive ring feature available from most telephone companies. There are several modes of operation that are set up using DIP switches in the unit. This device is compliant with Bellcore GR-219-CORE standard.

EXTERNAL CONNECTIONS

The external telephone line connections are made to the connector J101. Terminals 1 and 2 are for the incoming line. The rest of the terminals are for the 4 outgoing lines. The terminal functions are shown below.

Terminal	Function
1	Line in Red
2	Line in Green
3	Line 1 Red
4	Line 1 Green
5	Line 2 Red
6	Line 2 Green
7	Line 3 Red
8	Line 3 Green
9	Line 4 Red
10	Line 4 Green

For those who do not have telephone wiring that adheres to the standard color codes, the red wire is –48V with respect to the green wire when all phones are on the hook.

The wire should be run out through the cutout near the terminal strip.

Power is provided by a 9VDC unregulated adapter connected to the plug on the side of the unit.

DIP SWITCH SETTINGS

There are 5 sets of 4 dip switches. The first 4 DIP switches (indicated SW201, SW202, SW203, and SW204 on the board outline) are used to control how each line responds to the incoming rings and the last one (SW205 on the board outline) determine the overall response of the unit.

On the first 4 dip switches are used to control the ring pattern that will activate the line. The available ring patterns and switch settings are:

Position 1	Position 2	Position 3	Position 4	Ring Pattern
OFF	OFF	OFF	OFF	Not enabled on any ring
ON	OFF	OFF	OFF	Single ring
OFF	ON	OFF	OFF	Enable on any ring
ON	ON	OFF	OFF	Not used
OFF	OFF	ON	OFF	Short-long ring
ON	OFF	ON	OFF	Long-short ring
OFF	ON	ON	OFF	Short-long ring
ON	ON	ON	OFF	Long-long ring
OFF	OFF	OFF	ON	Short-short-short ring
ON	OFF	OFF	ON	Long-short-short ring
OFF	ON	OFF	ON	Short-long-short ring
ON	ON	OFF	ON	Long-long-short ring
OFF	OFF	ON	ON	Short-short-long ring
ON	OFF	ON	ON	Long-short-long ring

OFF	ON	ON	ON	Short-long-long ring
ON	ON	ON	ON	Long-long-long ring

If the line is not picked up after the number of rings set on switch 5, then the ringing will be switched to line 1 if the default is set ON. If the default is OFF, the line will keep ringing until the caller hangs up. The default line is always line 1.

The enable on any ring would be used for a phone in a common area where it is desired that any call could be answered at that phone.

The not enabled on any ring option would be used when an incoming call would never occur. An example may be a computer modem. This is beneficial when used in conjunction with the privacy feature. The computer could then call out without the possibility of another user interfering with the connection. Another application would be setting up a common answering machine/service. Line 1 could be the answering machine (where the default calls go) and set up not enabled on any ring with the default enabled. After a number of rings with default enabled, the call would be switched to the answering machine/service.

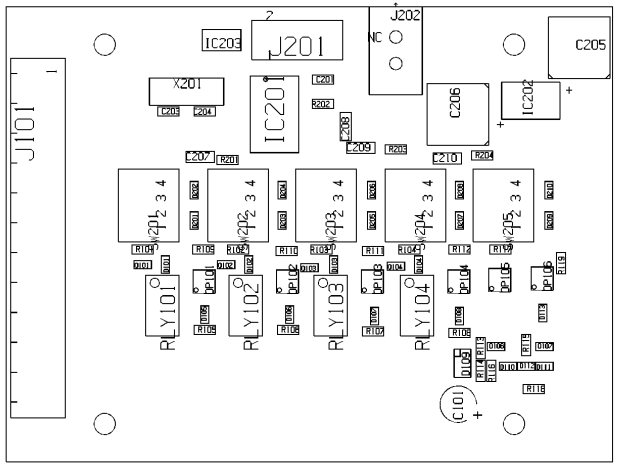
The 5 th DIP switch is used to control the number of rings to default, the privacy option. The first 2 switches control the number of rings, and the fourth position controls the privacy option. The switch positions for various numbers of rings to default are as follows:

Position 1	Position 2	Position 3	Number of Rings to Default
OFF	OFF	OFF	Default disabled
ON	OFF	OFF	4
OFF	ON	OFF	5
ON	ON	OFF	6
OFF	OFF	ON	7
ON	OFF	ON	8
OFF	ON	ON	9
ON	ON	ON	10

The fourth position on the 5th DIP switch is used to control the privacy option. When this switch is on, the following will happen:
1)The first ring is supressed and will not be passed on to the phones. This will interfere with call display features (the call display signal is following the first ring).
2)For outgoing calls, the line that is making the call will not be interrupted if another line is picked up. The second line picked up will not get a dial tone.
3)On incoming calls, only the phones that are set to ring with the particular pattern are connected to the line.

If the switch is off the following will happen:
1)All of the phones ring on the first ring. The call display signal will be passed on to the phones that are enabled with the incoming ring pattern. The other lines may not receive a complete call display signal.
2)On outgoing calls, any other line can connect to the outgoing line and the phone will behave as an extension.
3)On incoming calls, only the phones that are set to ring with the particular pattern will be connected to the line. Other lines will not be able to break into the conversation.

Position 4	Function
OFF	Privacy Disabled
ON	Privacy Enabled



TITLE TELEPHONE ROUTER PCB	
TOP SILKSCREEN	REV
DATE MARCH 31, 2001	SHEET