



MX-2000/2100 KVC E&M Signaling to Key Positive Source Devices

INTRODUCTION

The E-lead output from a KVC.1, KVC.2, KVC.3 or KVF.4 E&M audio card in an MDS MX2000/2100 or RAD KM-2000/2100 multiplexer can be used to key transmitters or other devices that require grounding a circuit that operates from an internal positive voltage source. At the originating end, a contact closure to ground activates the M lead on the appropriate multiplexer sub-channel, and the E-lead closure to the card's signal ground line at the other end provides the keying signal.

These cards are designed to pull a negative voltage up to ground. In the standard KVC.1/KVC.2/KVC.3/KVF.4 E&M card, a positive voltage applied to the E lead finds its way to ground through a diode and a resistor on the card, continuously activating a device attached to it. These cards can be easily, quickly and non-destructively modified to work with either polarity in this application. This modification requires only removing one easily accessible resistor in each sub channel on the KVC or KVF card, as shown below.

Note: This modification needs to be done only at the end where the mux card is connected to the transmitter or other device to be keyed. It is not required or desired at the originating end, since it isolates both the E and SG (signal ground) leads from the mux chassis ground. You must connect both the E and SG leads to the device to be keyed by the E lead.

IMPLEMENTING THE APPLICATION

Using KVC or KVF E&M Signaling to Key Positive Voltages Sources

1) Remove:

R14 & R15 for KVC.1

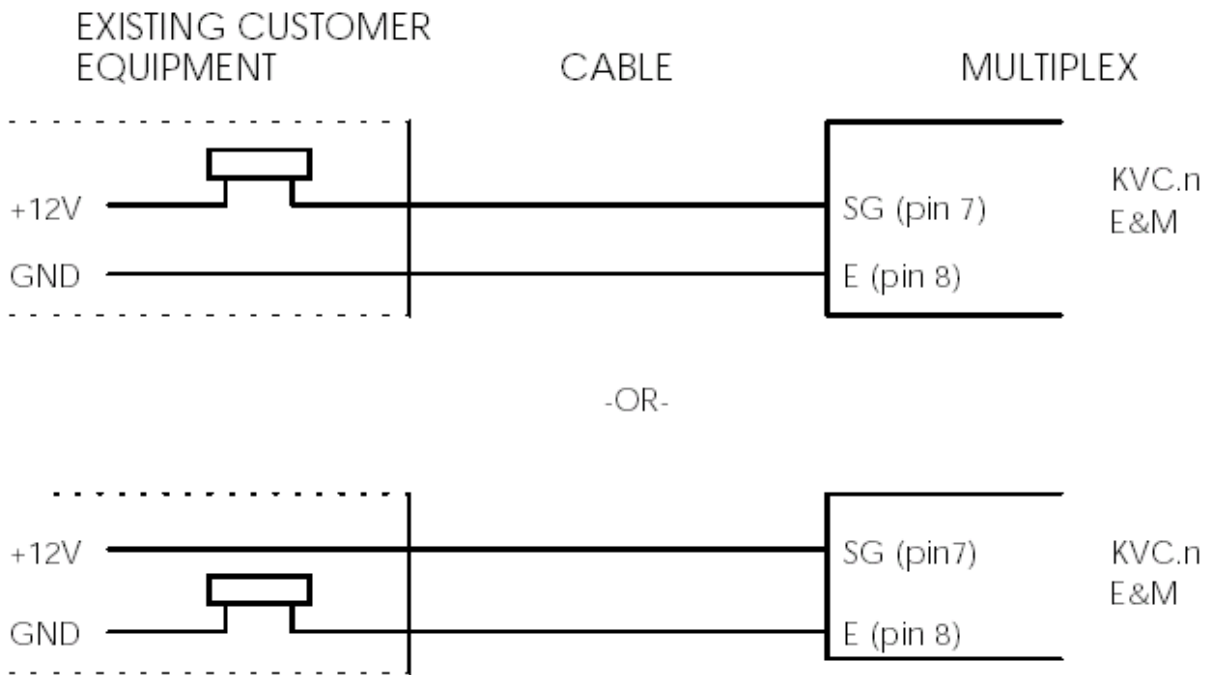
R21 & R24 for KVC.2

R21 & R24 for KVC.3

R6 & R7 from LIC-E&M daughter board on KVC.1M

R6 & R7 from LIC-E&M daughter board on KVF.4N

- 2) Set switches on KVC/KVF card for SSDC-5 signaling (refer to Mux documentation).
- 3) Connect SG lead to high side (typically center conductor) of transmitter keying circuit.
- 4) Connect E lead to transmitter chassis ground.
- 5) Ground M lead to chassis to activate E lead at other end.



For more information, contact MDS Technical Services at techsupport@microwavedata.com, or by phone at +1-585-241-5510.