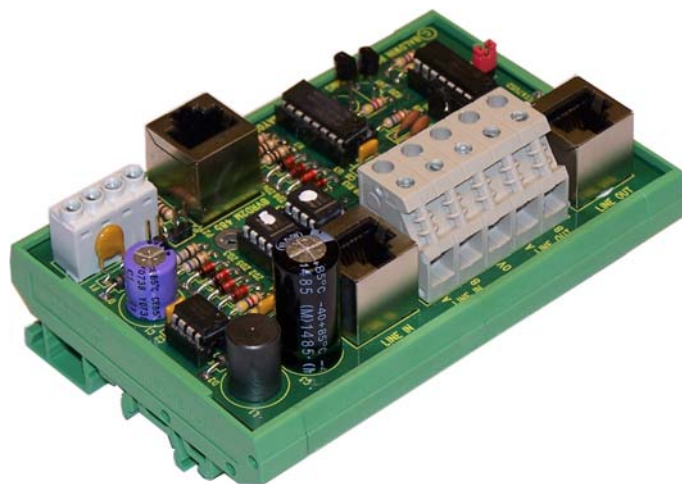


BVRD485R

Utilising Software V1-00

Installation Manual



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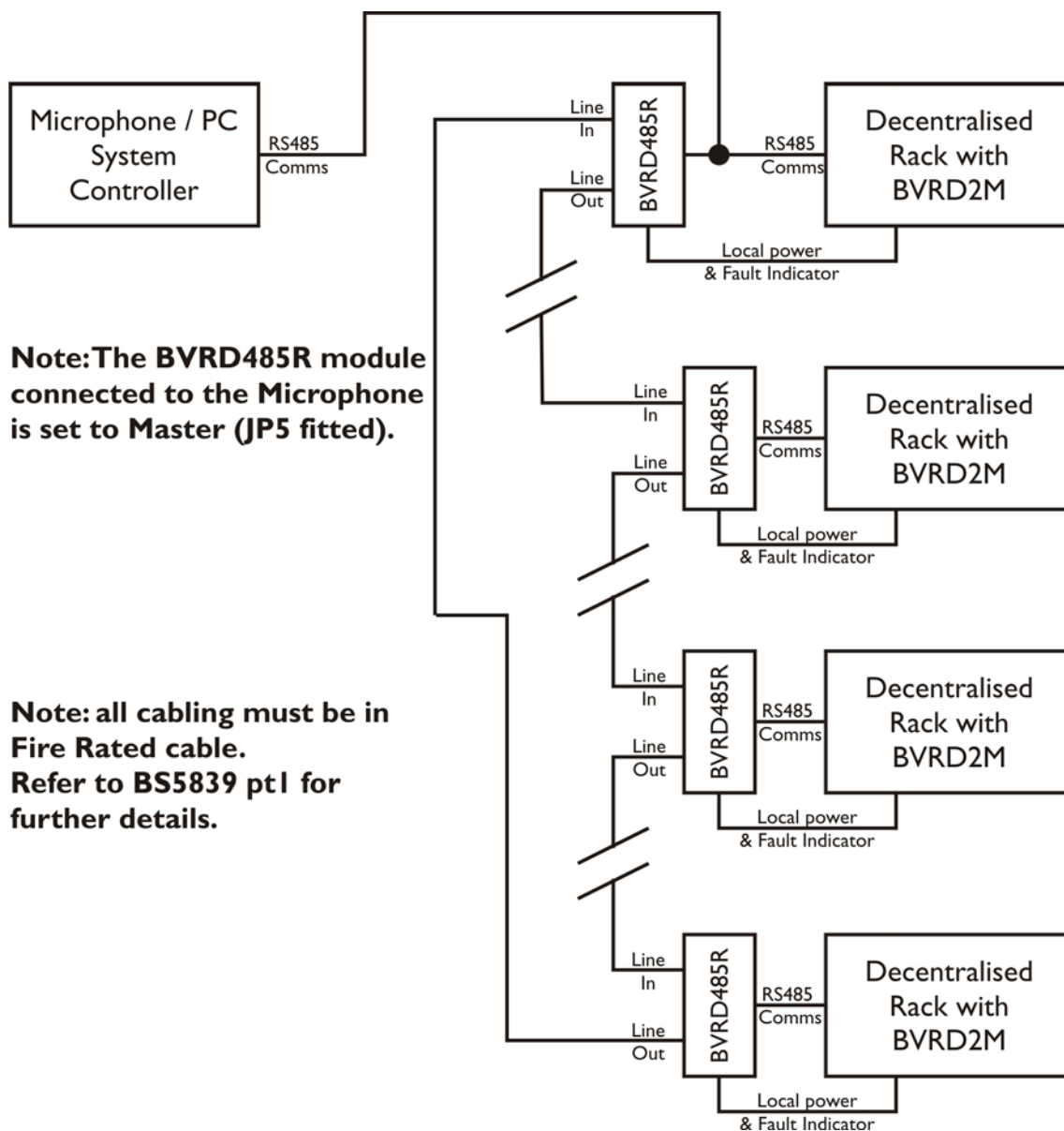
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BALDWIN BOXALL
COMMUNICATIONS

VIGIL BVRD485R

The Vigil BVRD485R is an RS485 Repeater Module to enable RS485 communications over long distances. The modules are normally wired in a loop to maintain communications in case of cable failure.

The loop is monitored and if a cable break is detected the BVRD485R will announce a fault.



The maximum cable length between repeater units is 1000 meters when operating at 9600 baud and using suitable Fire Rated cable.

Where there is the risk of differing earth potentials around the loop (such as between buildings) there is an optional plug in module to galvanically isolate the output.

Method of Operation of Data Monitoring

“Master” unit – Microphone / PC System Controller connection to Data Ring

Under normal conditions data is sent to the ring from the “Line In” port and the “Line Out” port is monitored for return data.

If the return data is not present (i.e. the loop is broken) the unit will announce a fault and data will be sent from both the “Line In” and “Line Out” ports. Once in Fault condition the unit will monitor the return data every four minutes. If data is present the unit will automatically reset and remove the fault.

“Slave” units connected to the Data Ring

The Slave units monitor both the “Line In” and “Line Out” ports.

If data is not received on either port for 1 minute the unit will announce a fault.

If data is then received on either port the unit will automatically reset and remove the fault.

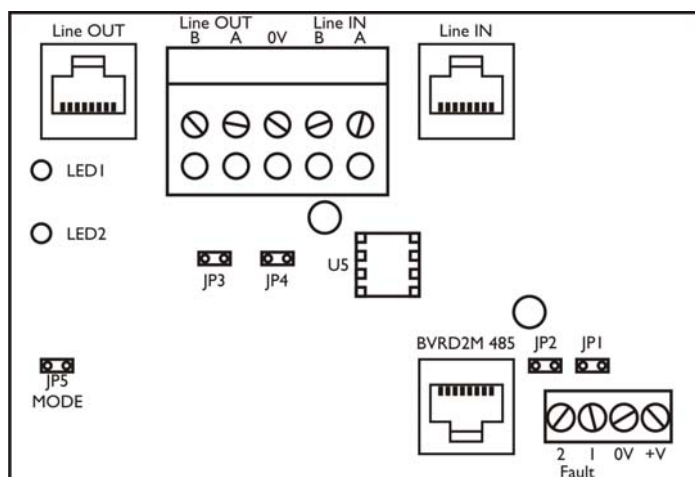
BVRD485RI Galvanically Isolated Output version

The BVRD485RI includes an extra module to isolate the output where there is a risk of different earth potentials. This is likely where the loop passes between multiple buildings. The Isolate Module is fitted in place of U5.

When the Isolate Module is fitted JP3 & JP4 must be removed.

Jumpers & Indicators

Ident	Description	Default Setting
JP1 & JP2	Can be fitted to improve communications over long cable runs.	Not fitted
JP3 & JP4	Must be removed if the BVRD485RI isolate module is fitted.	Fitted
JP5	Only fitted to the “Master” unit.	Fitted
Status LED1	Illuminates when “Line IN” port is transmitting data	N/A
Status LED2	Illuminates when “Line OUT” port is transmitting data	N/A
Fault 1	Open collector output 40V @ 10mA max. Fault output conducts when the unit is NOT in fault.	N/A
Fault 2	Not used	N/A



Each BRD485R unit requires a local 24V DC supply.