

Application Note

IPB Integrated Protection Relay

1. Remote Operation

The Remote Termination Unit (RTU-1) provides remote stop, start facilities of the IPB Relay's controlled outlet of a DCB or transformer. This mode of operation is obtained by selecting "Yes" (Level 9, Position 14) on the Remote Display Module.

It should be noted that if this mode of operation is selected adequate protection is necessary to prevent leakage or damage to the wiring to the remote stop/start station. If precautions are not taken a fault could occur preventing the de-energising of the outlet.

To prevent this occurring the following steps should be considered:

1. Provide adequate insulation and protection to the RTU-1 Remote Termination's Unit's digital input circuits. Note that if the PTC input is not being used it should be bridged to the stop input. This increases the inputs tolerance to leakage.
2. Stop/Start functions are operational only; **therefore emergency stops should be wired direct into the pilot circuit prior to connecting to the pilot terminal of the RTU-1 Remote Termination Unit.**

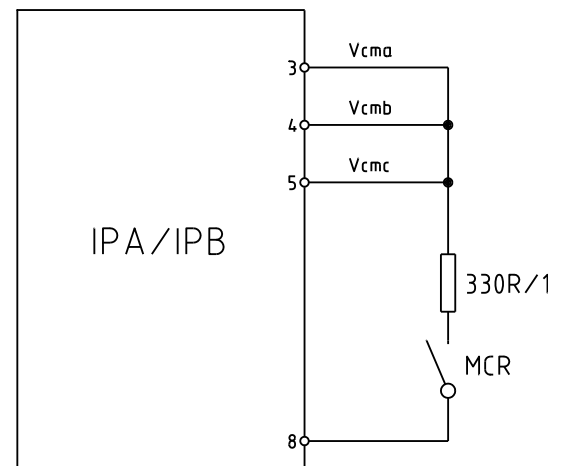
It is recommended that consideration should be given to upgrading to the RTU-2 Remote Termination Unit that has fully shrouded terminals, with the pilot and earth terminals being kept segregated from the other terminals.

See IPB User Manual for further details.

2. Under Voltage Defeat

A function of the Ampcontrol IPA/IPB Integrated Protection Relay is to monitor the load side voltage when the outlet is energised. This function checks the integrity of the wiring to the Cable Connection Module (CCMA) to ensure the Earth Fault Lockout System will detect faults.

When the IPA/IPB Integrated Protection Relay is installed in the high-tension end of a substation the Earth Fault Lockout System is not required. In this instance, the under voltage checking needs to be defeated. The following circuit can be adopted to perform this function:



When the relay's MCR contact closes the serial communication interface power supply injects voltage into the voltage inputs, thus defeating the under voltage check system.