

blue mountain avionics

Product	All Generation EFIS Units	
Release	ALL	
Subject	Using a single magnetometer with two EFIS units	
Original	02/28/2008	Larry Romig

Connecting a single magnetometer to multiple EFIS units

Many of you have chosen to use multiple EFIS units in your installation. The EFIS units get magnetic heading information from a device called a magnetometer. The magnetometer senses the Earth's magnetic field to give us heading information for the EFIS.

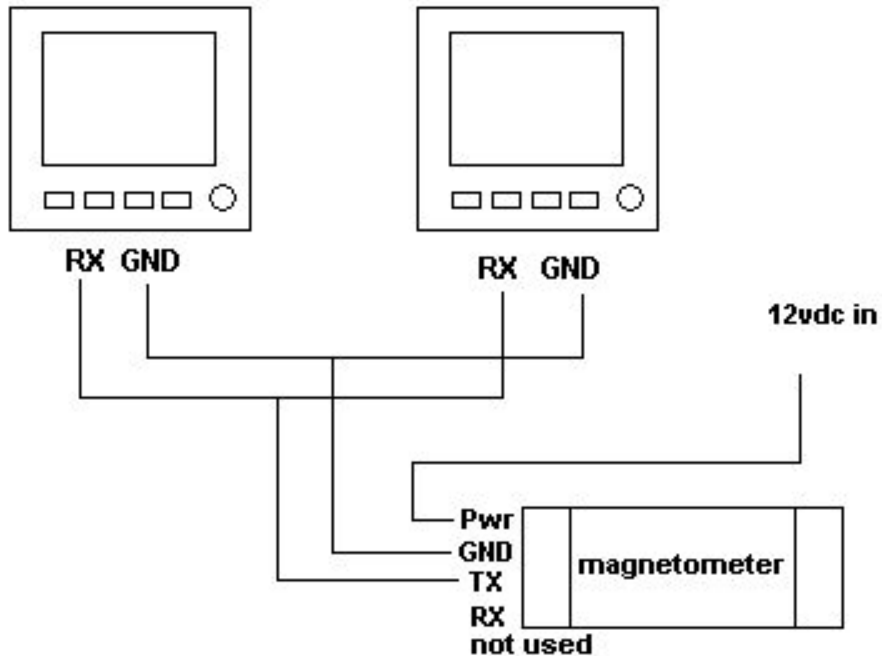
If you are lucky enough to have more than one BMA EFIS in your aircraft you can simplify your installation by using a single magnetometer to provide magnetic information to multiple BMA EFIS. Through the application of this Note you can simplify installation by only having to align and calibrate one magnetometer. In addition if you have two magnetometers you can now have a spare!

Simply wire your magnetometer like the diagram below and magnetic heading information is supplied to both EFIS units from a single magnetometer.

Please note that the magnetometer no longer receives power directly from the EFIS. Power needs to be supplied to the magnetometer independent of either EFIS and from ships power. Remember, if powered from either EFIS the magnetometer would also fail with the failure of EFIS.

When wired like the diagram below the output from the magnetometer is shared with the BMA EFIS units in your aircraft.

Serial device wiring for signal splitting to EFIS units.



Each EFIS supplies PWR, GND, RX and TX to it's magnetometer. In a multiple EFIS set up we will only use the GND and the RX. 12 VDC power should be supplied from ships power and the grounds coming from each EFIS should be tied together. The TX from the EFIS (and the RX at the magnetometer) are not used. You will split the TX from the magnetometer to the RX of each of the EFIS units.