

36. The system of claim 35, wherein the ~~step of securing the flux flow member to the barrier comprises welding the flux flow member~~ is welded to the barrier.

37. The system of claim 22, wherein the barrier comprises separate barrier sections and the flux flow member comprises a weld bead which is formed by welding the barrier sections together.

38. The system of claim 21, wherein the at least one flux flow member comprises a magnetic permeability greater than the magnetic permeability of the barrier, the transmitter includes two transmitter poles, the receiver comprises two receiver poles which are generally aligned with the transmitter poles, and the flux flow member is positioned between a first transmitter pole and a first receiver pole and between a second transmitter pole and a second receiver pole.

39. The system of claim 38, wherein the at least one flux flow member comprises a first flux flow member which is positioned between the first transmitter pole and the first receiver pole a second flux flow member which is positioned between the second transmitter pole and the second receiver pole.

40. The system of claim 39, wherein the barrier comprises a first housing in which the transmitter is located and a second housing in which the receiver is located, and the first and second flux flow members are attached to at least one of the housings.