Now define $\alpha\colon (X_G)_G \to B_G \times X_G$ by $\alpha(\langle e,e',x\rangle_G) = \langle e\rangle_G \times \langle e\cdot e',x\rangle_G$ and let $\beta\colon B_G \times X_G \to (X_G)_G$ be defined by $\beta(\langle e\rangle_G \times \langle e',x\rangle_G) = \langle e,e^{-1}\cdot e',x\rangle_G$. Then α and β are well defined and $\alpha o \beta$ = identity and $\beta o \alpha$ = identity. Hence $\alpha\colon (X_G)_G \to B_G \times X_G$ is a homeomorphism.