Let $G$ be a group and $\mathbb{C}$ the field of complex numbers. Suppose $\sigma : G \to G$ is an involution on $G$. We present the central solution $f : G \times G \to \mathbb{C}$ of the functional equation

\[ f(x_1\sigma y_1, x_2\sigma y_2) - f(x_1\sigma y_1, x_2) - f(x_1, x_2\sigma y_2) = f(x_1y_1, x_2y_2) - f(x_1y_1, x_2) - f(x_1, x_2y_2) \]

for all $x_1, x_2, y_1, y_2 \in G$ based upon solutions of the functional equations

\[ f(xy) + f(x\sigma y) = 2f(x) \]
\[ f_1(xy) + f_2(x\sigma y) = f_3(x) \]

where $f, f_1, f_2, f_3 : G \to \mathbb{C}$. (Received September 21, 2015)