The group G is isomorphic to the group labelled by [32, 37] in the Small Groups library.
Ordinary character table of $G \cong C2 \times (C8 : C2)$:

	1a	8a	2a	2b	4a	2c	8b	8c	8d	2d	4b	4c	2e	4d	8e	8f	8g	4e	4f	8h
χ_1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
χ_2	1	-1	-1	-1	1	1	1	1	1	-1	1	-1	-1	-1	-1	1	1	1	-1	-1
χ_3	1	-1	-1	-1	1	1	-1	-1	-1	-1	1	1	1	1	1	-1	-1	1	1	1
χ_4	1	1	1	-1	1	1	-1	-1	-1	1	1	-1	-1	-1	-1	-1	-1	1	-1	-1
χ_5	1	-1	1	-1	1	1	-1	1	-1	1	1	-1	1	1	1	-1	1	-1	1	-1
χ_6	1	1	-1	-1	1	1	1	-1	1	-1	1	1	-1	-1	1	1	-1	-1	-1	1
χ_7	1	1	-1	1	1	1	-1	1	-1	-1	1	-1	1	1	-1	-1	1	-1	-1	1
χ_8	1	-1	1	1	1	1	1	-1	1	1	1	1	-1	-1	-1	1	-1	-1	1	-1
χ_9	1	$-E(4)$	-1	-1	-1	1	$E(4)$	$E(4)$	$E(4)$	1	1	1	-1	-1	$-E(4)$	$-E(4)$	$-E(4)$	-1	1	$E(4)$
χ_{10}	1	$E(4)$	-1	-1	-1	1	$-E(4)$	$-E(4)$	$-E(4)$	1	1	1	-1	-1	$E(4)$	$E(4)$	$E(4)$	-1	1	$-E(4)$
χ_{11}	1	$-E(4)$	-1	1	-1	1	$E(4)$	$-E(4)$	$E(4)$	-1	1	-1	1	1	$E(4)$	$-E(4)$	$E(4)$	1	-1	$-E(4)$
χ_{12}	1	$E(4)$	-1	1	-1	1	$-E(4)$	$E(4)$	$-E(4)$	-1	1	-1	1	1	$-E(4)$	$E(4)$	$-E(4)$	1	-1	$E(4)$
χ_{13}	1	$-E(4)$	1	-1	-1	1	$E(4)$	$E(4)$	$-E(4)$	-1	1	-1	1	1	$E(4)$	$E(4)$	$-E(4)$	1	-1	$-E(4)$
χ_{14}	1	$E(4)$	1	-1	-1	1	$E(4)$	$-E(4)$	$-E(4)$	-1	1	-1	1	1	$-E(4)$	$-E(4)$	$E(4)$	1	-1	$E(4)$
χ_{15}	1	$-E(4)$	1	1	-1	1	$-E(4)$	$E(4)$	$E(4)$	1	1	1	-1	-1	$-E(4)$	$E(4)$	$E(4)$	-1	1	$-E(4)$
χ_{16}	1	$E(4)$	1	1	-1	1	$E(4)$	$-E(4)$	$-E(4)$	1	1	1	-1	-1	$E(4)$	$-E(4)$	$-E(4)$	-1	1	$E(4)$
χ_{17}	2	0	0	-2	$-2*E(4)$	-2	0	0	0	0	$2*E(4)$	2	$2*E(4)$	0	0	0	0	0	$-2*E(4)$	0
χ_{18}	2	0	0	-2	$2*E(4)$	-2	0	0	0	0	$-2*E(4)$	2	$-2*E(4)$	0	0	0	0	0	$2*E(4)$	0
χ_{19}	2	0	0	2	$-2*E(4)$	-2	0	0	0	0	$-2*E(4)$	-2	$2*E(4)$	0	0	0	0	0	$2*E(4)$	0
χ_{20}	2	0	0	2	$2*E(4)$	-2	0	0	0	0	$2*E(4)$	-2	$-2*E(4)$	0	0	0	0	0	$-2*E(4)$	0

Trivial source character table of $G \cong C2 \times (C8 : C2)$ at $p = 2$:

[A large trivial source character table follows with columns N_1 through N_{34}, normalisers N_i, p-subgroups P_1 through P_{34}, and representatives; the full numeric content is reproduced in the source.]

$P_1 = Group([()]) \cong 1$

$P_2 = Group([(1,15)(2,21)(3,24)(4,6)(5,26)(7,28)(8,10)(9,30)(11,13)(12,31)(14,16)(17,19)(18,32)(20,22)(23,25)(27,29)]) \cong C2$

$P_3 = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32)]) \cong C2$

$P_4 = Group([(1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(18,27)(19,28)(22,30)(25,31)(29,32)]) \cong C2$

$P_5 = Group([(1,3)(2,7)(4,11)(5,12)(6,13)(8,17)(9,18)(10,19)(14,23)(15,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32)]) \cong C2$

$P_6 = Group([(1,11)(2,17)(3,4)(5,23)(6,24)(7,8)(9,27)(10,28)(12,14)(13,15)(16,31)(18,20)(19,21)(22,32)(25,26)(29,30)]) \cong C2$

$P_7 = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32), (1,5,6,16)(2,9,10,22)(3,12,13,25)(4,14,15,26)(7,18,19,29)(8,20,21,30)(11,23,24,31)(17,27,28,32)]) \cong C4$

$P_8 = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32), (1,4)(2,8)(3,11)(5,14)(6,15)(7,17)(9,20)(10,21)(12,23)(13,24)(16,26)(18,27)(19,28)(22,30)(25,31)(29,32)]) \cong C2 \times C2$

$P_9 = Group([(1,15)(2,21)(3,24)(4,6)(5,26)(7,28)(8,10)(9,30)(11,13)(12,31)(14,16)(17,19)(18,32)(20,22)(23,25)(27,29), (1,3)(2,7)(4,11)(5,12)(6,13)(8,17)(9,18)(10,19)(14,23)(15,24)(16,25)(20,27)(21,28)(22,29)(26,31)(30,32)]) \cong C2 \times C2$

$P_{10} = Group([(1,6)(2,10)(3,13)(4,15)(5,16)(7,19)(8,21)(9,22)(11,24)(12,25)(14,26)(17,28)(18,29)(20,30)(23,31)(27,32), (1,14,6,26)(2,20,10,30)(3,23,13,31)(4,5,15,16)(7,27,19,32)(8,9,21,22)(11,18,24,25)(17,18,28,29)]) \cong C2 \times C2$

[Further subgroup definitions P_{11} through P_{34} and normaliser group definitions N_1 through N_{34} follow, each given as explicit permutation group generators with isomorphism type, including types $\cong C2$, $\cong C4$, $\cong C8$, $\cong C2 \times C2$, $\cong C4 \times C2$, $\cong C8 : C2$, $\cong C2 \times (C8 : C2)$, $\cong C2 \times C2 \times C2$, etc.]