NOTATION FROM SECTIONS 1, 3 AND 4

Notation introduced in §1 and §3 for twisted Foulkes modules

$\Delta^{(2^m\,;\,k)}$	Set of all elements δ of the form $\big\{\{i_1,i_1'\},\ldots,\{i_m,i_m'\},(j_1,\ldots,j_k)\big\}$ where $\{i_1,i_1',\ldots,i_m,i_m',j_1,\ldots,j_k\}=\{1,\ldots,2m+k\}$
F	Ground field of odd characteristic p
$\Gamma^{(2^m\,;\,k)}$	Set of elements of the form $\big(\mathcal{S}(\delta),\mathcal{T}(\delta)\big)$, used only in Lemma 3.3
$H^{(2^m)}$	Foulkes module with permutation basis $\Omega^{(2^m)}$
$H^{(2^m\,;\,k)}$	Twisted Foulkes module, $H^{(2^m\,;\,k)}=\big(H^{(2^m)}\boxtimes \mathrm{sgn}_{S_k}\big)\big\uparrow_{S_{2m}\times S_k}^{S_{2m+k}}$
$\mathcal{I}(\delta)$	Involution $(i_1,i_1')\cdots(i_m,i_m')\in S_{2m+k}$ corresponding to $\delta\in\Delta^{(2^m\,;\,k)}$
$K^{(2^m\,;\,k)}$	Submodule of $F\Delta^{(2^m\,;\,k)}$ spanned by $\delta-\mathrm{sgn}(g)\delta g$ for $g\in S_{\mathcal{T}(\delta)}$ and $\delta\in\Delta^{(2^m\,;\,k)}$
$\mathcal{S}(\delta)$	$\big\{\{i_1,i_1'\},\ldots,\{i_m,i_m'\}\big\}$ if δ is as above
$\mathcal{T}(\delta)$	$\{j_1,\ldots,j_k\}$ if δ is as above
$\overline{\omega}$	Image of $\omega\in\Omega^{(2^m\,;\,k)}$ under $F\Delta^{(2^m\,;\,k)}\rightarrow F\Delta^{(2^m\,;\,k)}/K^{(2^m\,;\,k)}$
$\Omega^{(2^m)}$	Collection of set partitions of $\{1,\ldots,2m\}$ into m sets each of size 2
$\Omega^{(2^m\,;\,k)}$	Subset of $\Delta^{(2^m\,;\,k)}$ of elements such that $j_1<j_2<\ldots<j_k$
z_j	p-cycle $(p(j-1)+1,\ldots,jp)\in S_{2m+k}$

Main notation used in the proof of Theorem 1.2 in §4.

$\mathcal{A}$	Basis for $H^{(2^{mp}\,;\,k)}(R_r)$, defined in proof of Lemma 4.2 to be $\big\{\overline{\omega}:\omega\in\Omega^{(2^m\,;\,k)},\mathcal{I}(\omega)\in\mathrm{Cent}_{S_{2m+k}}(R_r)\big\}$
$\mathcal{A}_{2t}$	Subset of $\mathcal{A}$ defined immediately before Lemma 4.2
$\mathcal{B}$	p-permutation basis for M, defined in the second step to be $\{s_\omega\overline{\omega}:\omega\in\Omega^{(2^{tp}\,;\,(r-2t)p)},\mathcal{I}(\omega)\in\mathrm{Cent}_{S_{rp}}(C)\}$
$\mathcal{B}(h)$	Subset of the p-permutation basis $\mathcal{B}$ for $M(R_r)$, defined in Proposition 4.4
C	$\langle z_1\rangle\times\langle z_2\rangle\times\cdots\times\langle z_r\rangle$
D_t	$C\cap N_{S_{rp}}(Q_t)$
E_t	$\langle z_1z_{t+1}\rangle\times\cdots\times\langle z_tz_{2t}\rangle\times\langle z_{2t+1}\rangle\times\cdots\times\langle z_r\rangle$
$\mathcal{I}_{\mathcal{O}}(\omega)$	Involution induced on the blocks $\mathcal{O}_1,\ldots,\mathcal{O}_r$ corr. to $\omega\in\Omega^{(2^{tp}\,;\,(r-2t)p}$ such that $\mathcal{I}(\omega)\in C_{S_{rp}}(R_r)$, defined before Proposition 4.4
L, L^+	Factors of Q_t where $L_t\le S_{\{1,\ldots,2tp\}}$ and $L_t^+\le S_{\{2tp+1,\ldots,rp\}}$
M, M_t	$H^{(2^{tp}\,;\,(r-2t)p)}(R_r)$
$\mathcal{O}_j$	$\{p(j-1)+1,\ldots,jp\}$, orbit of z_j
P	Fixed Sylow p-subgroup of S_{rp} having C as its base group and R_r in its center and containing Q_t, defined at the start of the second step
Q_t	Sylow p-subgroup of $S_2\wr S_{tp}\times S_{\{2tp+1,\ldots,rp\}}$
R_r	Cyclic subgroup $\langle z_1\cdots z_r\rangle$ with support of size rp
T_r	$\{t\in\mathbf{N}_0:tp\le m,\ 2t\le r,\ (r-2t)p\le k\}$: $2t$ is the number of orbits of R_r that permute the set part of elements of $\Delta^{(2^m\,;\,k)}$