

FSC 132 $(AC) \times 2^E \rightarrow (AC)$

Byte Manipulation

IBP 133 *If* $P - S > 0$: $P - S \rightarrow P$
If $P - S < 0$: $Y + 1 \rightarrow Y$; $36 - S \rightarrow P$

ILDB 134 IBP, LDB

IDPB 136 IBP, DPB

LDB 135 BYTE IN ((E)) \rightarrow (AC)

DPB 137 BYTE IN (AC) \rightarrow BYTE IN ((E))

Floating Point Arithmetic

FAD 140 $(AC) + (E) \rightarrow (AC)$

FADL 141 $(AC) + (E) \rightarrow (AC, AC+1)$

FADM 142 $(AC) + (E) \rightarrow (E)$

FADB 143 $(AC) + (E) \rightarrow (AC)(E)$

FADR 144 $(AC) + (E) \rightarrow (AC)$

FADRl 145 $(AC) + (E) \rightarrow (AC, AC+1)$

FADRM 146 $(AC) + (E) \rightarrow (E)$

FADRb 147 $(AC) + (E) \rightarrow (AC)(E)$

FSB 150 $(AC) - (E) \rightarrow (AC)$

FSBL 151 $(AC) - (E) \rightarrow (AC, AC+1)$

FSBM 152 $(AC) - (E) \rightarrow (E)$

FSBB 153 $(AC) - (E) \rightarrow (AC)(E)$

FSBR 154 $(AC) - (E) \rightarrow (AC)$

FSBRl 155 $(AC) - (E) \rightarrow (AC, AC+1)$

FSBRM 156 $(AC) - (E) \rightarrow (E)$

FSBRb 157 $(AC) - (E) \rightarrow (AC)(E)$

FMP 160 $(AC) \times (E) \rightarrow (AC)$

FMPPL 161 $(AC) \times (E) \rightarrow (AC, AC+1)$

FMPM 162 $(AC) \times (E) \rightarrow (E)$

FMPb 163 $(AC) \times (E) \rightarrow (AC)(E)$

FMPR 164 $(AC) \times (E) \rightarrow (AC)$

FMPRl 165 $(AC) \times (E) \rightarrow (AC, AC+1)$

FMPRM 166 $(AC) \times (E) \rightarrow (E)$

FMPRb 167 $(AC) \times (E) \rightarrow (AC)(E)$

FDV 170 $(AC) / (E) \rightarrow (AC)$

FDVL 171 $(AC) / (E) \rightarrow (AC)$
REMAINDER $\rightarrow (AC+1)$

FDVM 172 $(AC) / (E) \rightarrow (E)$

FDVb 173 $(AC) / (E) \rightarrow (AC)(E)$

FDVR 174 $(AC) / (E) \rightarrow (AC)$

FDVRL 175 $(AC) / (E) \rightarrow (AC)$
REMAINDER $\rightarrow (AC+1)$

FDVRM 176 $(AC) / (E) \rightarrow (E)$

FDVRb 177 $(AC) / (E) \rightarrow (AC)(E)$

Full Word Data Transmission

MOVE	200	$(E) \rightarrow (AC)$	MOVS	204	$(E)_S \rightarrow (AC)$
MOVEI	201	$0, E \rightarrow (AC)$	MOVSI	205	$E, 0 \rightarrow (AC)$
MOVEM	202	$(AC) \rightarrow (E)$	MOVSM	206	$(AC)_S \rightarrow (E)$
MOVES	203	<i>If</i> $AC \neq 0: (E) \rightarrow (AC)$	MOVSS	207	$(E)_S \rightarrow (E)$ <i>If</i> $AC \neq 0: (E) \rightarrow (AC)$
MOVN	210	$-(E) \rightarrow (AC)$	MOVMM	214	$ E \rightarrow (AC)$
MOVNI	211	$-[0, E] \rightarrow (AC)$	MOVMI	215	$0, E \rightarrow (AC)$
MOVNM	212	$-(AC) \rightarrow (E)$	MOVMM	216	$ AC \rightarrow (E)$
MOVNS	213	$-(E) \rightarrow (E)$ <i>If</i> $AC \neq 0: (E) \rightarrow (AC)$	MOVMS	217	$ E \rightarrow (E)$ <i>If</i> $AC \neq 0: (E) \rightarrow (AC)$

Fixed Point Multiply-Divide

IMUL	220	$(AC) \times (E) \rightarrow (AC)$	MUL	224	$(AC) \times (E) \rightarrow (AC, AC+1)$
IMULI	221	$(AC) \times 0, E \rightarrow (AC)$	MULI	225	$(AC) \times 0, E \rightarrow (AC, AC+1)$
IMULM	222	$(AC) \times (E) \rightarrow (E)$	MULM	226	$(AC) \times (E) \rightarrow (E)$
IMULB	223	$(AC) \times (E) \rightarrow (AC)(E)$	MULB	227	$(AC) \times (E) \rightarrow (AC, AC+1)(E)$
IDIV	230	$(AC) / (E) \rightarrow (AC)$ REMAINDER $\rightarrow (AC+1)$	DIV	234	$(AC, AC+1) / (E) \rightarrow (AC)$ REMAINDER $\rightarrow (AC+1)$
IDIVI	231	$(AC) / 0, E \rightarrow (AC)$ REMAINDER $\rightarrow (AC+1)$	DIVI	235	$(AC, AC+1) / 0, E \rightarrow (AC)$ REMAINDER $\rightarrow (AC+1)$
IDIVM	232	$(AC) / (E) \rightarrow (E)$	DIVM	236	$(AC, AC+1) / (E) \rightarrow (E)$
IDIVB	233	$(AC) / (E) \rightarrow (AC)(E)$ REMAINDER $\rightarrow (AC+1)$	DIVB	237	$(AC, AC+1) / (E) \rightarrow (AC)(E)$ REMAINDER $\rightarrow (AC+1)$

Shift and Rotate

ASH	240	$(AC) \times 2^E \rightarrow (AC)$	ASHC	244	$(AC, AC+1) \times 2^E \rightarrow (AC, AC+1)$
ROT	241	Rotate (AC) E places	ROTC	245	Rotate $(AC, AC+1)$ E places
LSH	242	Shift (AC) E places	LSHC	246	Shift $(AC, AC+1)$ E places

Miscellaneous

EXCH	250	$(AC) \leftrightarrow (E)$
BLT	251	Move $E - (AC)_R + 1$ words starting with $((AC)_L) \rightarrow ((AC)_R)$
AOBJP	252	$(AC) + 1000001 \rightarrow (AC)$; <i>If</i> $(AC) \geq 0: E \rightarrow (PC)$
AOBJN	253	$(AC) + 1000001 \rightarrow (AC)$; <i>If</i> $(AC) < 0: E \rightarrow (PC)$
JRST	254	$E \rightarrow (PC)$ [<i>If</i> $AC \neq 0$, reset processor state according to AC]
JFCL	255	<i>If</i> $AC \wedge \text{FLAGS} \neq 0: E \rightarrow (PC)$; $\sim AC \wedge \text{FLAGS} \rightarrow \text{FLAGS}$
XCT	256	Execute (E)

Pushdown List and Jumps

PUSHJ	260	$(AC) + 1000001 \rightarrow (AC)$; $\text{FLAGS}, (PC) \rightarrow ((AC)_R)$; $E \rightarrow (PC)$
PUSH	261	$(AC) + 1000001 \rightarrow (AC)$; $(E) \rightarrow ((AC)_R)$
POP	262	$((AC)_R) \rightarrow (E)$; $(AC) - 1000001 \rightarrow (AC)$
POPJ	263	$((AC)_R)_R \rightarrow (PC)$; $(AC) - 1000001 \rightarrow (AC)$
JSR	264	$\text{FLAGS}, (PC) \rightarrow (E)$; $E + 1 \rightarrow (PC)$
JSP	265	$\text{FLAGS}, (PC) \rightarrow (AC)$; $E \rightarrow (PC)$
JSA	266	$(AC) \rightarrow (E)$; $E, (PC) \rightarrow (AC)$; $E + 1 \rightarrow (PC)$
JRA	267	$E \rightarrow (PC)$; $((AC)_L) \rightarrow (AC)$

Fixed Point Add-Subtract

ADD	270	$(AC) + (E) \rightarrow (AC)$	SUB	274	$(AC) - (E) \rightarrow (AC)$
ADDI	271	$(AC) + 0, E \rightarrow (AC)$	SUBI	275	$(AC) - 0, E \rightarrow (AC)$
ADDM	272	$(AC) + (E) \rightarrow (E)$	SUBM	276	$(AC) - (E) \rightarrow (E)$
ADDB	273	$(AC) + (E) \rightarrow (AC)(E)$	SUBB	277	$(AC) - (E) \rightarrow (AC)(E)$

Arithmetic Testing

CAI	300	No-op	CAM	310	No-op
CAIL	301	If (AC) < E: skip	CAML	311	If (AC) < (E): skip
CAIE	302	If (AC) = E: skip	CAME	312	If (AC) = (E): skip
CAILE	303	If (AC) ≤ E: skip	CAMLE	313	If (AC) ≤ (E): skip
CAIA	304	skip	CAMA	314	skip
CAIGE	305	If (AC) ≥ E: skip	CAMGE	315	If (AC) ≥ (E): skip
CAIN	306	If (AC) ≠ E: skip	CAMN	316	If (AC) ≠ (E): skip
CAIG	307	If (AC) > E: skip	CAMG	317	If (AC) > (E): skip
JUMP	320	No-op	SKIP	330	If AC ≠ 0: (E) → (AC)
JUMPL	321	If (AC) < 0: E → (PC)	SKIPL	331	If AC ≠ 0: (E) → (AC) If (E) < 0: skip
JUMPE	322	If (AC) = 0: E → (PC)	SKIPE	332	If AC ≠ 0: (E) → (AC) If (E) = 0: skip
JUMPLE	323	If (AC) ≤ 0: E → (PC)	SKIPL	333	If AC ≠ 0: (E) → (AC) If (E) ≤ 0: skip
JUMPA	324	E → (PC)	SKIP	334	If AC ≠ 0: (E) → (AC) skip
JUMPGE	325	If (AC) ≥ 0: E → (PC)	SKIPGE	335	If AC ≠ 0: (E) → (AC) If (E) ≥ 0: skip
JUMPN	326	If (AC) ≠ 0: E → (PC)	SKIPN	336	If AC ≠ 0: (E) → (AC) If (E) ≠ 0: skip
JUMPG	327	If (AC) > 0: E → (PC)	SKIPG	337	If AC > 0: (E) → (AC) If (E) > 0: skip
AOJ	340	(AC) + 1 → (AC)	SOJ	360	(AC) - 1 → (AC)
AOJL	341	(AC) + 1 → (AC) If (AC) < 0: E → (PC)	SOJL	361	(AC) - 1 → (AC) If (AC) < 0: E → (PC)
AOJE	342	(AC) + 1 → (AC) If (AC) = 0: E → (PC)	SOJE	362	(AC) - 1 → (AC) If (AC) = 0: E → (PC)
AOJLE	343	(AC) + 1 → (AC) If (AC) ≤ 0: E → (PC)	SOJLE	363	(AC) - 1 → (AC) If (AC) ≤ 0: E → (PC)
AOJA	344	(AC) + 1 → (AC) E → (PC)	SOJA	364	(AC) - 1 → (AC) E → (PC)
AOJGE	345	(AC) + 1 → (AC) If (AC) ≥ 0: E → (PC)	SOJGE	365	(AC) - 1 → (AC) If (AC) ≥ 0: E → (PC)
AOJN	346	(AC) + 1 → (AC) If (AC) ≠ 0: E → (PC)	SOJN	366	(AC) - 1 → (AC) If (AC) ≠ 0: E → (PC)
AOJG	347	(AC) + 1 → (AC) If (AC) ≥ 0: E → (PC)	SOJG	367	(AC) - 1 → (AC) If (AC) ≥ 0: E → (PC)

AOS	350	$(E) + 1 \rightarrow (E)$ <i>If</i> $AC \neq 0$: $(E) \rightarrow (AC)$	SOS	370	$(E) - 1 \rightarrow (E)$ <i>If</i> $AC \neq 0$: $(E) \rightarrow (AC)$
AOSL	351	$(E) + 1 \rightarrow (E)$ <i>If</i> $AC \neq 0$: $(E) \rightarrow (AC)$ <i>If</i> $(E) < 0$: <i>skip</i>	SOSL	371	$(E) - 1 \rightarrow (E)$ <i>If</i> $AC \neq 0$: $(E) \rightarrow (AC)$ <i>If</i> $(E) < 0$: <i>skip</i>
AOSE	352	$(E) + 1 \rightarrow (E)$ <i>If</i> $AC \neq 0$: $(E) \rightarrow (AC)$ <i>If</i> $(E) = 0$: <i>skip</i>	SOSE	372	$(E) - 1 \rightarrow (E)$ <i>If</i> $AC \neq 0$: $(E) \rightarrow (AC)$ <i>If</i> $(E) = 0$: <i>skip</i>
AOSLE	353	$(E) + 1 \rightarrow (E)$ <i>If</i> $AC \neq 0$: $(E) \rightarrow (AC)$ <i>If</i> $(E) \leq 0$: <i>skip</i>	SOSLE	373	$(E) - 1 \rightarrow (E)$ <i>If</i> $AC \neq 0$: $(E) \rightarrow (AC)$ <i>If</i> $(E) \leq 0$: <i>skip</i>
AOSA	354	$(E) + 1 \rightarrow (E)$ <i>If</i> $AC \neq 0$: $(E) \rightarrow (AC)$ <i>skip</i>	SOSA	374	$(E) - 1 \rightarrow (E)$ <i>If</i> $AC \neq 0$: $(E) \rightarrow (AC)$ <i>skip</i>
AOSGE	355	$(E) + 1 \rightarrow (E)$ <i>If</i> $AC \neq 0$: $(E) \rightarrow (AC)$ <i>If</i> $(E) \geq 0$: <i>skip</i>	SOSGE	375	$(E) - 1 \rightarrow (E)$ <i>If</i> $AC \neq 0$: $(E) \rightarrow (AC)$ <i>If</i> $(E) \geq 0$: <i>skip</i>
AOSN	356	$(E) + 1 \rightarrow (E)$ <i>If</i> $AC \neq 0$: $(E) \rightarrow (AC)$ <i>If</i> $(E) \neq 0$: <i>skip</i>	SOSN	376	$(E) - 1 \rightarrow (E)$ <i>If</i> $AC \neq 0$: $(E) \rightarrow (AC)$ <i>If</i> $(E) \neq 0$: <i>skip</i>
AOSG	357	$(E) + 1 \rightarrow (E)$ <i>If</i> $AC \neq 0$: $(E) \rightarrow (AC)$ <i>If</i> $(E) > 0$: <i>skip</i>	SOSG	377	$(E) - 1 \rightarrow (E)$ <i>If</i> $AC \neq 0$: $(E) \rightarrow (AC)$ <i>If</i> $(E) > 0$: <i>skip</i>

Boolean

SETZ	400	$0 \rightarrow (AC)$	AND	404	$(AC) \wedge (E) \rightarrow (AC)$
SETZI	401	$0 \rightarrow (AC)$	ANDI	405	$(AC) \wedge 0, E \rightarrow (AC)$
SETZM	402	$0 \rightarrow (E)$	ANDM	406	$(AC) \wedge (E) \rightarrow (E)$
SETZB	403	$0 \rightarrow (AC)(E)$	ANDB	407	$(AC) \wedge (E) \rightarrow (AC)(E)$
ANDCA	410	$\sim(AC) \wedge (E) \rightarrow (AC)$	SETM	414	$(E) \rightarrow (AC)$
ANDCAI	411	$\sim(AC) \wedge 0, E \rightarrow (AC)$	SETMI	415	$0, E \rightarrow (AC)$
ANDCAM	412	$\sim(AC) \wedge (E) \rightarrow (E)$	SETMM	416	$(E) \rightarrow (E)$ [no-op]
ANDCAB	413	$\sim(AC) \wedge (E) \rightarrow (AC)(E)$	SETMB	417	$(E) \rightarrow (AC)(E)$
ANDCM	420	$(AC) \wedge \sim(E) \rightarrow (AC)$	SETA	424	$(AC) \rightarrow (AC)$ [no-op]
ANDCMI	421	$(AC) \wedge \sim[0, E] \rightarrow (AC)$	SETAI	425	$(AC) \rightarrow (AC)$ [no-op]
ANDCMM	422	$(AC) \wedge \sim(E) \rightarrow (E)$	SETAM	426	$(AC) \rightarrow (E)$
ANDCMB	423	$(AC) \wedge \sim(E) \rightarrow (AC)(E)$	SETAB	427	$(AC) \rightarrow (AC)(E)$
XOR	430	$(AC) \underline{\vee} (E) \rightarrow (AC)$	IOR	434	$(AC) \vee (E) \rightarrow (AC)$
XORI	431	$(AC) \underline{\vee} 0, E \rightarrow (AC)$	IORI	435	$(AC) \vee 0, E \rightarrow (AC)$
XORM	432	$(AC) \underline{\vee} (E) \rightarrow (E)$	IORM	436	$(AC) \vee (E) \rightarrow (E)$
XORB	433	$(AC) \underline{\vee} (E) \rightarrow (AC)(E)$	IORB	437	$(AC) \vee (E) \rightarrow (AC)(E)$
ANDCB	440	$\sim(AC) \wedge \sim(E) \rightarrow (AC)$	EQV	444	$\sim[(AC) \underline{\vee} (E)] \rightarrow (AC)$
ANDCBI	441	$\sim(AC) \wedge \sim[0, E] \rightarrow (AC)$	EQVI	445	$\sim[(AC) \underline{\vee} 0, E] \rightarrow (AC)$
ANDCBM	442	$\sim(AC) \wedge \sim(E) \rightarrow (E)$	EQVM	446	$\sim[(AC) \underline{\vee} (E)] \rightarrow (E)$
ANDCBB	443	$\sim(AC) \wedge \sim(E) \rightarrow (AC)(E)$	EQVB	447	$\sim[(AC) \underline{\vee} (E)] \rightarrow (AC)(E)$
SETCA	450	$\sim(AC) \rightarrow (AC)$	ORCA	454	$\sim(AC) \vee (E) \rightarrow (AC)$
SETCAI	451	$\sim(AC) \rightarrow (AC)$	ORCAI	455	$\sim(AC) \vee 0, E \rightarrow (AC)$
SETCAM	452	$\sim(AC) \rightarrow (E)$	ORCAM	456	$\sim(AC) \vee (E) \rightarrow (E)$
SETCAB	453	$\sim(AC) \rightarrow (AC)(E)$	ORCAB	457	$\sim(AC) \vee (E) \rightarrow (AC)(E)$
SETCM	460	$\sim(E) \rightarrow (AC)$	ORCM	464	$(AC) \vee \sim(E) \rightarrow (AC)$
SETCMI	461	$\sim[0, E] \rightarrow (AC)$	ORCMI	465	$(AC) \vee \sim[0, E] \rightarrow (AC)$
SETCMM	462	$\sim(E) \rightarrow (E)$	ORCMM	466	$(AC) \vee \sim(E) \rightarrow (E)$
SETCMB	463	$\sim(E) \rightarrow (AC)(E)$	ORCMB	467	$(AC) \vee \sim(E) \rightarrow (AC)(E)$
ORCB	470	$\sim(AC) \vee \sim(E) \rightarrow (AC)$	SETO	474	$77777777777777 \rightarrow (AC)$
ORCBI	471	$\sim(AC) \vee \sim[0, E] \rightarrow (AC)$	SETOI	475	$77777777777777 \rightarrow (AC)$
ORCBM	472	$\sim(AC) \vee \sim(E) \rightarrow (E)$	SETOM	476	$77777777777777 \rightarrow (E)$
ORCBB	473	$\sim(AC) \vee \sim(E) \rightarrow (AC)(E)$	SETOB	477	$77777777777777 \rightarrow (AC)(E)$

Half Word Data Transmission

HLL	500	$(E)_L \rightarrow (AC)_L$	HRL	504	$(E)_R \rightarrow (AC)_L$
HLLI	501	$0 \rightarrow (AC)_L$	HRLI	505	$E \rightarrow (AC)_L$
HLLM	502	$(AC)_L \rightarrow (E)_L$	HRLM	506	$(AC)_R \rightarrow (E)_L$
HLLS	503	If $AC \neq 0$: $(E) \rightarrow (AC)$	HRLS	507	$(E)_R \rightarrow (E)_L$ If $AC \neq 0$: $(E) \rightarrow (AC)$
HLLZ	510	$(E)_L, 0 \rightarrow (AC)$	HRLZ	514	$(E)_R, 0 \rightarrow (AC)$
HLLZI	511	$0 \rightarrow (AC)$	HRLZI	515	$E, 0 \rightarrow (AC)$
HLLZM	512	$(AC)_L, 0 \rightarrow (E)$	HRLZM	516	$(AC)_R, 0 \rightarrow (E)$
HLLZS	513	$0 \rightarrow (E)_R$ If $AC \neq 0$: $(E) \rightarrow (AC)$	HRLZS	517	$(E)_R, 0 \rightarrow (E)$ If $AC \neq 0$: $(E) \rightarrow (AC)$
HLLO	520	$(E)_L, 777777 \rightarrow (AC)$	HLRO	524	$(E)_R, 777777 \rightarrow (AC)$
HLLOI	521	$0, 777777 \rightarrow (AC)$	HLROI	525	$E, 777777 \rightarrow (AC)$
HLLOM	522	$(AC)_L, 777777 \rightarrow (E)$	HLROM	526	$(AC)_R, 777777 \rightarrow (E)$
HLLOS	523	$777777 \rightarrow (E)_R$ If $AC \neq 0$: $(E) \rightarrow (AC)$	HLROS	527	$(E)_R, 777777 \rightarrow (E)$ If $AC \neq 0$: $(E) \rightarrow (AC)$
HLLE	530	$(E)_L, [(E)_0 \times 777777] \rightarrow (AC)$	HLRE	534	$(E)_R, [(E)_{18} \times 777777] \rightarrow (AC)$
HLLEI	531	$0 \rightarrow (AC)$	HLREI	535	$E, [E_{18} \times 777777] \rightarrow (AC)$
HLLEM	532	$(AC)_L, [(AC)_0 \times 777777] \rightarrow (E)$	HLREM	536	$(AC)_R, [(AC)_{18} \times 777777] \rightarrow (E)$
HLLES	533	$(E)_0 \times 777777 \rightarrow (E)_R$ If $AC \neq 0$: $(E) \rightarrow (AC)$	HLRES	537	$(E)_R, [(E)_{18} \times 777777] \rightarrow (E)$ If $AC \neq 0$: $(E) \rightarrow (AC)$
HRR	540	$(E)_R \rightarrow (AC)_R$	HLR	544	$(E)_L \rightarrow (AC)_R$
HRRI	541	$E \rightarrow (AC)_R$	HLRI	545	$0 \rightarrow (AC)_R$
HRRM	542	$(AC)_R \rightarrow (E)_R$	HLRM	546	$(AC)_L \rightarrow (E)_R$
HRRS	543	If $AC \neq 0$: $(E) \rightarrow (AC)$	HLRS	547	$(E)_L \rightarrow (E)_R$ If $AC \neq 0$: $(E) \rightarrow (AC)$
HRRZ	550	$0, (E)_R \rightarrow (AC)$	HLRZ	554	$0, (E)_L \rightarrow (AC)$
HRRZI	551	$0, E \rightarrow (AC)$	HLRZI	555	$0 \rightarrow (AC)$
HRRZM	552	$0, (AC)_R \rightarrow (E)$	HLRZM	556	$0, (AC)_L \rightarrow (E)$
HRRZS	553	$0 \rightarrow (E)_L$ If $AC \neq 0$: $(E) \rightarrow (AC)$	HLRZS	557	$0, (E)_L \rightarrow (E)$ If $AC \neq 0$: $(E) \rightarrow (AC)$
HRRO	560	$777777, (E)_R \rightarrow (AC)$	HLRO	564	$777777, (E)_L \rightarrow (AC)$
HRROI	561	$777777, E \rightarrow (AC)$	HLROI	565	$777777, 0 \rightarrow (AC)$
HRROM	562	$777777, (AC)_R \rightarrow (E)$	HLROM	566	$777777, (AC)_L \rightarrow (E)$
HRROS	563	$777777 \rightarrow (E)_L$ If $AC \neq 0$: $(E) \rightarrow (AC)$	HLROS	567	$777777, (E)_L \rightarrow (E)$ If $AC \neq 0$: $(E) \rightarrow (AC)$
HRRE	570	$[(E)_{18} \times 777777], (E)_R \rightarrow (AC)$	HLRE	574	$[(E)_0 \times 777777], (E)_L \rightarrow (AC)$
HRREI	571	$[E_{18} \times 777777], E \rightarrow (AC)$	HLREI	575	$0 \rightarrow (AC)$
HRREM	572	$[(AC)_{18} \times 777777], (AC)_R \rightarrow (E)$	HLREM	576	$[(AC)_0 \times 777777], (AC)_L \rightarrow (E)$
HRRES	573	$(E)_{18} \times 777777 \rightarrow (E)_L$ If $AC \neq 0$: $(E) \rightarrow (AC)$	HLRES	577	$[(E)_0 \times 777777], (E)_L \rightarrow (E)$ If $AC \neq 0$: $(E) \rightarrow (AC)$

Logical Testing and Manipulation

TRN	600	No-op	TLN	601	No-op
TRNE	602	If $(AC)_R \wedge E = 0$: skip	TLNE	603	If $(AC)_L \wedge E = 0$: skip
TRNA	604	skip	TLNA	605	skip
TRNN	606	If $(AC)_R \wedge E \neq 0$: skip	TLNN	607	If $(AC)_L \wedge E \neq 0$: skip
TDN	610	No-op	TSN	611	No-op
TDNE	612	If $(AC) \wedge (E) = 0$: skip	TSNE	613	If $(AC) \wedge (E)_S = 0$: skip
TDNA	614	skip	TSNA	615	skip
TDNN	616	If $(AC) \wedge (E) \neq 0$: skip	TSNN	617	If $(AC) \wedge (E)_S \neq 0$: skip
TRZ	620	$(AC)_R \wedge \sim E \rightarrow (AC)_R$	TLZ	621	$(AC)_L \wedge \sim E \rightarrow (AC)_L$
TRZE	622	If $(AC)_R \wedge E = 0$: skip $(AC)_R \wedge \sim E \rightarrow (AC)_R$	TLZE	623	If $(AC)_L \wedge E = 0$: skip $(AC)_L \wedge \sim E \rightarrow (AC)_L$
TRZA	624	$(AC)_R \wedge \sim E \rightarrow (AC)_R$ skip	TLZA	625	$(AC)_L \wedge \sim E \rightarrow (AC)_L$ skip
TRZN	626	If $(AC)_R \wedge E \neq 0$: skip $(AC)_R \wedge \sim E \rightarrow (AC)_R$	TLZN	627	If $(AC)_L \wedge E \neq 0$: skip $(AC)_L \wedge \sim E \rightarrow (AC)_L$
TDZ	630	$(AC) \wedge \sim(E) \rightarrow (AC)$	TSZ	631	$(AC) \wedge \sim(E)_S \rightarrow (AC)$
TDZE	632	If $(AC) \wedge (E) = 0$: skip $(AC) \wedge \sim(E) \rightarrow (AC)$	TSZE	633	If $(AC) \wedge (E)_S = 0$: skip $(AC) \wedge \sim(E)_S \rightarrow (AC)$
TDZA	634	$(AC) \wedge \sim(E) \rightarrow (AC)$ skip	TSZA	635	$(AC) \wedge \sim(E)_S \rightarrow (AC)$ skip
TDZN	636	If $(AC) \wedge (E) \neq 0$: skip $(AC) \wedge \sim(E) \rightarrow (AC)$	TSZN	637	If $(AC) \wedge (E)_S \neq 0$: skip $(AC) \wedge \sim(E)_S \rightarrow (AC)$
TRC	640	$(AC)_R \vee E \rightarrow (AC)_R$	TLC	641	$(AC)_L \vee E \rightarrow (AC)_L$
TRCE	642	If $(AC)_R \wedge E = 0$: skip $(AC)_R \vee E \rightarrow (AC)_R$	TLCE	643	If $(AC)_L \wedge E = 0$: skip $(AC)_L \vee E \rightarrow (AC)_L$
TRCA	644	$(AC)_R \vee E \rightarrow (AC)_R$ skip	TLCA	645	$(AC)_L \vee E \rightarrow (AC)_L$ skip
TRCN	646	If $(AC)_R \wedge E \neq 0$: skip $(AC)_R \vee E \rightarrow (AC)_R$	TLCN	647	If $(AC)_L \wedge E \neq 0$: skip $(AC)_L \vee E \rightarrow (AC)_L$
TDC	650	$(AC) \vee (E) \rightarrow (AC)$	TSC	651	$(AC) \vee (E)_S \rightarrow (AC)$
TDCE	652	If $(AC) \wedge (E) = 0$: skip $(AC) \vee (E) \rightarrow (AC)$	TSCE	653	If $(AC) \wedge (E)_S = 0$: skip $(AC) \vee (E)_S \rightarrow (AC)$
TDCA	654	$(AC) \vee (E) \rightarrow (AC)$ skip	TSCA	655	$(AC) \vee (E)_S \rightarrow (AC)$ skip
TDCN	656	If $(AC) \wedge (E) \neq 0$: skip $(AC) \vee (E) \rightarrow (AC)$	TSCN	657	If $(AC) \wedge (E)_S \neq 0$: skip $(AC) \vee (E)_S \rightarrow (AC)$
TRO	660	$(AC)_R \vee E \rightarrow (AC)_R$	TLO	661	$(AC)_L \vee E \rightarrow (AC)_R$
TROE	662	If $(AC)_R \wedge E = 0$: skip $(AC)_R \vee E \rightarrow (AC)_R$	TLOE	663	If $(AC)_L \wedge E = 0$: skip $(AC)_L \vee E \rightarrow (AC)_R$
TROA	664	$(AC)_R \vee E \rightarrow (AC)_R$ skip	TLOA	665	$(AC)_L \vee E \rightarrow (AC)_R$ skip
TRON	666	If $(AC)_R \wedge E \neq 0$: skip $(AC)_R \vee E \rightarrow (AC)_R$	TLON	667	If $(AC)_L \wedge E \neq 0$: skip $(AC)_L \vee E \rightarrow (AC)_R$
TDO	670	$(AC) \vee (E) \rightarrow (AC)$	TSO	671	$(AC) \vee (E)_S \rightarrow (AC)$
TDOE	672	If $(AC) \wedge (E) = 0$: skip $(AC) \vee (E) \rightarrow (AC)$	TSOE	673	If $(AC) \wedge (E)_S = 0$: skip $(AC) \vee (E)_S \rightarrow (AC)$
TDOA	674	$(AC) \vee (E) \rightarrow (AC)$ skip	TSOA	675	$(AC) \vee (E)_S \rightarrow (AC)$ skip
TDON	676	If $(AC) \wedge (E) \neq 0$: skip $(AC) \vee (E) \rightarrow (AC)$	TSON	677	If $(AC) \wedge (E)_S \neq 0$: skip $(AC) \vee (E)_S \rightarrow (AC)$