RAA
RAF
RAG
qkj

CP3
OIA

CP9
OIA
BRANCH PREAMBLE → (IA)

RAC
CP5
OIB
BARREL TEST → (IA)

QLP
CP6
OJC

CP11
OJC
MEMORY PORT BUSY → (JA)

RAA
—
RAF
QQC

CP3
OJD

CP10
OJD
HOLD ISSUE → (JA)

RAG
qkj
CP9
OIE
BRANCH FALL-THROUGH → (IA)

HOLD
SAME
CP3-HOLD
OG-
FIELD ADDRESS $2^{27}-2^4$ → (IA)

HOLD
SAME
CP3-HOLD
OH-
WORD ADDRESS 2^3-2^0 → (IA)

HOLD
INSTRUCTION CONSTANT
(JA) IE-,EA-,EC-
QXE
CP3-HOLD
AA-, AB-
PARCEL EXCHANGE REGISTER $2^{29}-2^0, 2^{-1}, 2^{-2}$

BRANCH FALL THROUGH
CP8
qkj

(SEE NOTE #3)
START QYD
CP4-02 INSTR RJC
GO ISSUE INSTRUCTION 0,1,3-17 QAC GA-

CP2 RAA — CP3 RAB — CP4 RAC — CP5 RAD — CP6 RAE — CP7 RAF — CP8 RAG

GO ISSUE INSTRUCTION 0-17 QAC GA-

CP2 HA- — CP3 HB- — CP4 HC- — CP5 HD- — CP6 HE- — CP7 HF-

GO ISSUE INSTRUCTION 0-17 QAC GA-

CP2 QXE

HOLD UNTIL (QQC)
RAB
CP4 QQA

HOLD (SEE NOTE #1)
SAME
CP5 QQC
FETCH SEQUENCE
CP9 QQC
CLEAR FETCH SEQUENCE

HOLD (SEE NOTE #2)
QQA
PORT NOT BUSY qlp
NO FETCH IN PROGRESS qqw
NO ABORT FETCH qql
CP5 QLP QLQ
PORT BUSY
CP10 QLP QLQ
PORT BUSY CLEARED

qkj
RAG
CP9 QQL
ABORT FETCH

QQC
CP10 QQM
CLEAR PORT

NOTE #1
HOLD FETCH SEQUENCE (QQC) UNTIL ABORT FETCH (QQL)

NOTE #2
HOLD PORT BUSY (QLP,QLQ) UNTIL CLEAR PORT (QQM)

NOTE #3
FOR A RETURN JUMP INSTRUCTION (002) ADD THREE CLOCK PERIODS TO THE DIAGRAM.

NOTE #4
INSTRUCTIONS 000,001 (EXIT), 006,007 (SET/CLEAR SEMAPHORE), WILL ALWAYS GO THROUGH A BRANCH FALL THROUGH SEQUENCE.

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IB MODULE - BRANCH FALL THROUGH SEQUENCE

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