

920M MCM7 Interconnections

Terry Froggatt, Friday 9th February 2024.

This file records the wiring within an Elliott 920M MCM.
It was derived from MCM7 serial 5343 and checked on MCM7 serial 88.
The wiring for extra store modules and for plug PLB is present
in both and is included here, although PLB itself and some of
the modules are not fitted.

Text inside one or more depth of round brackets is comment.
Titles within "(*** ***)" introduce groups of related signals.
Text inside square brackets can be ignored.

Signal names appear at the start of a line outside comments,
each is followed by a list of connected pins on one or more
lines with subsequent lines indented. Occasionally the name
of the first pin doubles as the signal name.

The names chosen for signals are to some extent arbitrary.
"~" indicates "not", and where there are two signals, one with
"~" and one without, they are either complementary outputs
from a latch (directly or each via a single inverting gate),
or one is obtained by a single inverting gate from the other.

3-letter gating signals like "ATF" in the left side of the "Control
Sequence" diagram boxes appear here with a lower-case "t", thus "AtF".
1-letter gating signals like "A" in the right side of the "Control
Sequence" diagram boxes appear here prefixed by "t", thus "tA",
and where separate signals are needed to drive the bottom & top
halves of the word, they become "btA" and "ttA".
Letters "s" and "c" are sometimes used within Set and Clear signals.

The source pin of a signal is often but possibly not always given
first in the list. Where signals are wire-ored the word "to" often
but possibly not always separates the outputs from the inputs.

Expander connections from 566s into 564s or 565s have
the same name as the 564 or 565 output, plus a final "xx",
although they are in the opposite logical sense.

The signal name "gnd" for "ground" or "0v" occurs more than once.
The signal name "n/c" for "not connected" occurs frequently and is
often used to record an unused input to a gate whose output is used.
Such inputs float high and appear as diodes showing high resistance
one way to ground. Pins commented as "Isolated" show a high resistance
both ways to ground, implying not connected within or outside the module.

No pin appears twice. Some pins are not listed here and are assumed
unused, for example one of the two complementary outputs of a latch,
or the unused pin 11 on modules containing a single 14-pin chip.

)

[X]

(*** Display Outputs from 10Kohm Resistors to SKTE & SKTF ***)
(The Initial Instructions bistable in E47 is not displayed)

(Name	From	Bridge	Hinge	Connector)
DispQ00	A07/13			A03/12=SKTE/55 (From Q-reg LSB)
DispBT	A11/09			D04/04=SKTF/04 (Block Transfer)
DispSta	E32/13		E15/10=D15/06	D04/05=SKTF/05 (From Adder MSB)
DispRTi	F43/10	F36/10=F35/06	E22/08=D22/08	D04/07=SKTF/07 (Read Time)
DispEms	F43/12	F36/12=F35/04	E22/07=D22/09	D04/06=SKTF/06 (E-reg MSB)
DispIst	E32/02		E22/02=D22/14	D04/09=SKTF/09 (Ignore Store)
DispTW	E32/04		E22/03=D22/13	D04/10=SKTF/10 (Writing)
DispTR	E32/06		E22/04=D22/12	D04/13=SKTF/13 (Reading)
DispPTW	E32/08		E22/05=D22/11	D04/14=SKTF/14 (Pending Write)
DispEls	E32/10		E22/06=D22/10	D04/15=SKTF/15 (E-reg LSB)

DispWTi	F43/08	F36/08=F35/08	E22/09=D22/07	C04/08=SKTF/23	(Write Time)
DispAck	F43/04	F36/04=F35/12	E21/10=D21/06	D03/08=SKTF/36	(I/O Reply)
DispReq	F43/06	F36/06=F35/10	E21/09=D21/07	D03/09=SKTF/37	(I/O Request)
DispC07	F43/02	F36/02=F35/14	E20/09=D20/07	D03/10=SKTF/38	(Counter Flag)

	(Name	From	Hinge	Connector)
DispC01	H20/02	E14/02=D14/14	C04/09=SKTF/24	
DispC02	H20/04	E15/08=D15/08	D04/08=SKTF/08	
DispC03	H20/06	E16/09=D16/07	D03/15=SKTF/43	
DispC04	H20/08	E17/10=D17/06	D03/13=SKTF/41	
DispC05	H20/10	E16/10=D16/06	D03/14=SKTF/42	
DispC06	H20/12	E17/11=D17/05	D03/11=SKTF/39	

	(Name	From	Bridge	Connector)
DispA01	A07/03		A03/03=SKTE/46	
DispA02	A08/03		A03/02=SKTE/45	
DispA03	A11/03		B03/14=SKTE/42	
DispA04	A14/05		B03/10=SKTE/38	
DispA05	A14/03		B03/11=SKTE/39	
DispA06	A22/12		B03/04=SKTE/32	
DispA07	A27/13		A04/01=SKTE/16	
DispA08	A30/05		A04/08=SKTE/23	
DispA09	A32/07		B02/02=SKTE/58	
DispA10	A44/03	C36/02=C35/14	B04/04=SKTE/04	
DispA11	A44/05	D36/13=D35/03	B04/03=SKTE/03	
DispA12	A47/11	A36/10=A35/06	C03/01=SKTF/44	
DispA13	A47/05	A36/04=A35/12	C04/02=SKTF/17	
DispA14	B52/11	D36/10=D35/06	C03/09=SKTF/52	
DispA15	A59/05	D36/05=D35/11	D04/11=SKTF/11	
DispA16	A59/09	A36/09=A35/07	C04/10=SKTF/25	
DispA17	A62/13	D37/12=D34/04	C03/11=SKTF/54	
DispA18	B52/03	D38/12=D33/04	C03/05=SKTF/48	

	(Name	From	Bridge	Connector)
DispQ01	A07/08		A03/08=SKTE/51	
DispQ02	A08/07		A03/07=SKTE/50	
DispQ03	A11/07		B03/12=SKTE/40	
DispQ04	A14/07		B03/09=SKTE/37	
DispQ05	A22/07		A04/07=SKTE/22	
DispQ06	A27/07		A04/06=SKTE/21	
DispQ07	A30/11		B04/14=SKTE/14	
DispQ08	A32/03		A04/13=SKTE/28	
DispQ09	A32/11		B02/03=SKTE/59	
DispQ10	A44/07	A37/11=A34/05	B04/06=SKTE/06	
DispQ11	A46/07	A36/14=A35/02	B04/05=SKTE/05	
DispQ12	A47/07	A36/06=A35/10	C04/03=SKTF/18	
DispQ13	B52/07	C36/03=C35/13	C03/07=SKTF/50	
DispQ14	A59/11	A36/12=A35/04	C03/06=SKTF/49	
DispQ15	A62/11	D37/11=D34/05	D03/05=SKTF/33	
DispQ16	A59/03	D36/04=D35/12	D03/12=SKTF/40	
DispQ17	A65/13	D37/13=D34/03	C03/10=SKTF/53	
DispQ18	A65/09	D38/11=D33/05	C03/04=SKTF/47	

	(Name	From	Bridge	Connector)
DispM01	A07/05		A03/05=SKTE/48	
DispM02	A08/13		A03/13=SKTE/56	
DispM03	A11/13		A03/01=SKTE/44	
DispM04	A14/13		B03/06=SKTE/34	
DispM05	A22/03		A04/11=SKTE/26	
DispM06	A27/03		A04/10=SKTE/25	
DispM07	A30/03		A04/12=SKTE/27	
DispM08	A32/05		B02/01=SKTE/57	
DispM09	A30/12		B04/15=SKTE/15	
DispM10	A44/09	A38/08=A33/08	B04/08=SKTE/08	
DispM11	A46/13	A38/13=A33/03	B03/03=SKTE/31	
DispM12	A47/03	C36/14=C35/02	B02/04=SKTE/60	
DispM13	A47/13	A38/14=A33/02	B03/02=SKTE/30	
DispM14	B52/08	D36/12=D35/04	C04/11=SKTF/26	
DispM15	A59/12	A36/13=A35/03	B02/05=SKTE/61	
DispM16	A62/07	D37/08=D34/08	D02/02=SKTF/58	
DispM17	A62/03	D36/08=D35/08	D04/12=SKTF/12	

DispM18 A65/03 D37/07=D34/09 D02/01=SKTF/57

(Name	From	Bridge	Connector)
DispJ01	A07/07		A03/06=SKTE/49
DispJ02	A08/11		A03/11=SKTE/54
DispJ03	A11/05		B03/13=SKTE/41
DispJ04	A14/11		B03/07=SKTE/35
DispJ05	A22/11		B03/05=SKTE/33
DispJ06	A27/11		A04/02=SKTE/17
DispJ07	A30/07		A04/04=SKTE/19
DispJ08	A32/09		B04/02=SKTE/02
DispJ09	A30/09		B04/13=SKTE/13
DispJ10	A46/03	C36/13=C35/03	C04/12=SKTF/27
DispJ11	A46/09	A38/09=A33/07	B04/09=SKTE/09
DispJ12	A46/11	A38/11=A33/05	B04/11=SKTE/11
DispJ13	B52/05	D38/13=D33/03	B03/01=SKTE/29
DispJ14	B52/13	B38/02=B33/14	B04/07=SKTE/07
DispJ15	A59/07	A36/11=A35/05	C04/13=SKTF/28
DispJ16	A62/09	D37/09=D34/07	D02/03=SKTF/59

(Name	From	Bridge	Connector)
DispP01	A07/11		A03/10=SKTE/53
DispP02	A08/05		A03/04=SKTE/47
DispP03	A08/09		A03/09=SKTE/52
DispP04	A11/11		B03/15=SKTE/43
DispP05	A14/09		B03/08=SKTE/36
DispP06	A22/09		A04/05=SKTE/20
DispP07	A22/05		A04/09=SKTE/24
DispP08	A27/09		A04/03=SKTE/18
DispP09	A32/13		C04/01=SKTF/16
DispP10	A44/13	A37/14=A34/02	B04/12=SKTE/12
DispP11	A46/05	C36/12=C35/04	C03/13=SKTF/56
DispP12	A44/11	A38/10=A33/06	B04/10=SKTE/10
DispP13	A47/09	A36/08=A35/08	C03/08=SKTF/51
DispI01	A62/05	D36/09=D35/07	C03/12=SKTF/55
DispI02	A65/05	D38/09=D33/07	C03/02=SKTF/45
DispI03	A65/07	D38/10=D33/06	C03/03=SKTF/46
DispI04	A65/11	D37/10=D34/06	D02/04=SKTF/60

n/c A27/05 A27/04 (unused resistor)

(*** Control Panel Word Generator Inputs from SKTG to M-register ***)

(Gates to pull selected word generator inputs down)
~PTSpresent SKTH/38=H03/10 E05/08
PullNdown SKTG/27=E04/12 E05/04 E05/09 E05/10
PullFdown SKTG/25=E04/10 E06/06 E06/04 E06/09 E06/10
n/c E06/08

(Name	From	Also	Bridge	Hinge	To)
WG01	SKTG/51=E03/08			E16/08=D16/08	B07/04
WG02	SKTG/50=E03/07	E05/05		E16/07=D16/09	B10/04
WG03	SKTG/48=E03/05	E05/07		E16/06=D16/10	B13/04
WG04	SKTG/47=E03/04	E05/03		E16/05=D16/11	B16/04
WG05	SKTG/45=E03/02			E20/11=D20/05	B21/06
WG06	SKTG/21=E04/06			E21/11=D21/05	B24/06
WG07	SKTG/23=E04/08			E22/11=D22/05	B27/06
WG08	SKTG/24=E04/09			E22/10=D22/06	B30/06
WG09	SKTG/49=E03/06		E35/13=E36/03	E49/02=D49/14	B39/04
WG10	SKTG/53=E03/10		E35/05=E36/11	E51/10=D51/06	B42/04
WG11	SKTG/52=E03/09		E35/06=E36/10	E51/09=D51/07	B45/04
WG12	SKTG/46=E03/03		F35/02=F36/14	E51/07=D51/09	B48/04
WG13	SKTG/54=E03/11		E35/12=E36/04	E51/06=D51/10	B51/04
WG14	SKTG/22=E04/07	E06/07	E34/07=E37/09	E56/11=D56/05	B55/06
WG15	SKTG/19=E04/04	E06/05	E34/05=E37/11	E56/09=D56/07	B59/06
WG16	SKTG/18=E04/03	E06/03	E34/06=E37/10	E56/10=D56/06	B62/06
WG17	SKTG/56=E03/13		E34/04=E37/12	E53/03=D53/13	A64/04
WG18	SKTG/17=E04/02	E06/02	E35/04=E36/12	E53/02=D53/14	A66/04

(*** Adder Outputs from 554 modules ***)

(Name	From	AddInv	Hinge	Star	Bridge	BTdone)
~Adder02	C09/02	A09/06				
~Adder03	C12/02	A12/04				
~Adder06	C23/02	A23/11				
~Adder07	C26/02	D27/04				
~Adder10	C41/02	D41/13				
~Adder11	C44/02	D43/06				
~Adder14	C54/02	C56/06				
~Adder15	C58/02	D59/06				
~Adder18	C66/02	D66/04	D53/08=E53/08	F42/06	F37/02=F34/14	G24/03
~Adder18slow	D66/02	(module but not backplane)				

(Name	From	Areg	Left	Right	Qreg	Jreg	Mreg	Bridge)
Adder01	C06/02	B05/03	B08/04	D66/08	C05/04	C07/05	B07/06	D35/14=D36/02
(Adder01 right goes into Qreg18 gated as below)								
Adder02	A09/02	B08/03	B11/04	B05/07	C08/04	C10/05	B10/06	
Adder03	A12/03	B11/03	B14/04	B08/07	C11/04	C13/05	B13/06	
Adder04	C15/02	B14/03	B19/04	B11/07	C14/04	C16/05	B16/06	
Adder05	C20/02	B19/03	B22/08	B14/07	C19/04	C21/03	B21/05	
Adder06	A23/14	B22/09	B25/08	B19/07	C22/08	C24/03	B24/05	
Adder07	D27/03	B25/09	B28/08	B22/05	C25/08	C27/03	B27/05	
Adder08	C29/02	B28/09	B31/08	B25/05	C28/08	C30/03	B30/05	
Adder09	C32/02	B31/09	B40/04	B28/05	C31/08	C39/05	B39/06	B33/05=B38/11
Adder10	D41/12	B40/03	B43/04	B31/05	C40/04	C42/05	B42/06	C38/02=C33/14
Adder11	D43/02	B43/03	B46/04	B40/07	C43/04	C45/05	B45/06	
Adder12	C47/02	B46/03	B49/04	B43/07	C46/04	C48/05	B48/06	
Adder13	C50/02	B49/03	B53/08	B46/07	C49/04	C51/05	B51/06	
Adder14	C56/02	B53/09	B57/08	B49/07	C53/08	C55/03	B55/05	
Adder15	D59/02	B57/09	B60/08	B53/05	C57/08	C59/03	B59/05	
Adder16	C61/02	B60/09	B63/08	B57/05	C60/08	C62/03	B62/05	
Adder17	C64/02	B63/09	B65/08	B60/05	C63/08		A64/06	
Adder18	D66/03	B65/09		B63/05	C65/08		A66/06 and D66/06	
(~Adder18 left goes into Star as above)								

(Adder LSB shifts into Q MSB for Fns 12 13 14 but not Fn 3)
~ToQreg18 D66/07 D66/11 (Nand (Adder01,Iand8=1e))
ToQreg18 D66/14 C65/09 (And (Adder01,Iand8=1e))

(*** Inverted A Q D Operand from Adder to this & next Carry ***)

(Name	From	Carry	Lookah)
~AQDop01	C06/08	B06/08	
~AQDop02	C09/08	B09/09	
~AQDop03	C12/08	B12/08	B15/02
~AQDop04	C15/08	B15/07	
~AQDop05	C20/08	B20/08	
~AQDop06	C23/08	B23/09	
~AQDop07	C26/08	B26/08	B29/02
~AQDop08	C29/08	B29/07	
~AQDop09	C32/08	B32/08	
~AQDop10	C41/08	B41/09	
~AQDop11	C44/08	B44/08	B47/02
~AQDop12	C47/08	B47/07	
~AQDop13	C50/08	B50/08	
~AQDop14	C54/08	B54/09	
~AQDop15	C58/08	B58/08	B61/02
~AQDop16	C61/08	B61/07	
~AQDop17	C64/08	B64/08	
~AQDop18	C66/08	B66/07	

(*** Inverted M N J Operand to/from Adder to this & next Carry ***)

(Name	Jgate	To/Frm	Carry	Lookah	Bridge)
~MNJop01	D06/07	C06/05	B06/09		
~MNJop02	D09/07	C09/05	B09/10		
~MNJop03	D11/07	C12/05	B12/09	B15/14	
~MNJop04	C17/07	C15/05	B15/06		
~MNJop05	C18/07	C20/05	B20/09		
~MNJop06	D25/07	C23/05	B23/10		
~MNJop07	D27/07	C26/05	B26/09	B29/14	
~MNJop08	D30/07	C29/05	B29/06		

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~MNJop09 D39/07 C32/05 B32/09          D38/07=D33/09
~MNJop10 D41/07 C41/05 B41/10
~MNJop11 D43/07 C44/05 B44/09 B47/14
~MNJop12 D45/07 C47/05 B47/06
~MNJop13 D47/07 C50/05 B50/09
~MNJop14 C56/07 C54/05 B54/10
~MNJop15 D59/07 C58/05 B58/09 B61/14
~MNJop16 D61/07 C61/05 B61/06
~MNJop17          C64/05 B64/09
~MNJop18          C66/05 B66/06

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(*** Earlier Carry to this Adder and to this & next Carry ***)

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(Name      From      Adder  Carry  Lookah Bridge)
(Carry00 see 1tF)
~Carry01 B06/04 C09/14
~Carry02 B09/11 C12/14 B12/04 B15/04
Carry03  B12/07 C15/14
Carry04  B15/03 C20/14 B20/06 B23/13
~Carry05 B20/04 C23/14
~Carry06 B23/11 C26/14 B26/04 B29/04
Carry07  B26/07 C29/14
Carry08  B29/03 C32/14 B32/06 B41/13 B34/06=B37/10
~Carry09 B32/04 C41/14          C34/11=C37/05
~Carry10 B41/11 C44/14 B44/04 B47/04
Carry11  B44/07 C47/14
Carry12  B47/03 C50/14 B50/06 B54/13
~Carry13 B50/04 C54/14
~Carry14 B54/11 C58/14 B58/04 B61/04
Carry15  B58/07 C61/14
Carry16  B61/03 C64/14 B64/06 B66/04
~Carry17 B64/04 C66/14

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Adder19 B66/03 to B65/05

(with sign-bit regeneration, for multiply and right shifts)

(*** Remaining Links between Carry modules ***)

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(Name      From      Lookah Bridge)
Lookah01a B06/03 B09/02
Lookah01b B06/07 B09/12
Lookah03c B12/06 B15/05
Lookah05a B20/03 B23/02
Lookah05b B20/07 B23/12
Lookah07c B26/06 B29/05
Lookah09a B32/03 B41/14 B33/02=B38/14
Lookah09b B32/07 B41/12 B34/07=B37/09
Lookah11c B44/06 B47/05
Lookah13a B50/03 B54/14
Lookah13b B50/07 B54/12
Lookah15c B58/06 B61/05
Lookah17a B64/03 B66/14
Lookah17b B64/07 B66/05

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n/c B09/14 B23/14 B41/02 B54/02 B66/02

(on 559s, either pin 02 or 14 is used and the other is n/c)

(*** Collate IFU PTS to A-register merged in Carry module ***)

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(Name      From      Areg)
VIPtoAreg01 B06/10 B05/06
VIPtoAreg02 B09/04 B08/06
VIPtoAreg03 B12/12 B11/06
VIPtoAreg04 B15/08 B14/06
VIPtoAreg05 B20/10 B19/06
VIPtoAreg06 B23/04 B22/06
VIPtoAreg07 B26/12 B25/06
VIPtoAreg08 B29/08 B28/06
VIPtoAreg09 B32/10 B31/06
VIPtoAreg10 B41/04 B40/06
VIPtoAreg11 B44/12 B43/06

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VIPtoAreg12 B47/08 B46/06
 VIPtoAreg13 B50/10 B49/06
 VIPtoAreg14 B54/04 B53/06
 VIPtoAreg15 B58/12 B57/06
 VIPtoAreg16 B61/08 B60/06
 VIPtoAreg17 B64/10 B63/06
 VIPtoAreg18 B66/08 B65/06

(*** Direct A-register Outputs from 551 latches ***)

(Name	From	Disply	Adder	Bridge	Links)
Areg01	B05/13	A07/02	C06/13		
Areg02	B08/13	A08/02	C09/13		A26/02
Areg03	B11/13	A11/02	C12/13		A26/04
Areg04	B14/13	A14/04	C15/13		A26/06
Areg05	B19/13	A14/02	C20/11		A26/07
Areg06	B22/13	A22/13	C23/11	A33/09=A38/07	A51/01 A26/08 (unused)
(Note use of what are normally power pins at A51/01)					
Areg07	B25/13	A27/12	C26/11	A33/04=A38/12	A51/02
Areg08	B28/13	A30/04	C29/11	A34/04=A37/12	A51/03
Areg09	B31/13	A32/06	C32/11	A33/14=A38/02	A51/04
Areg10	B40/13	A44/02	C41/13		A51/05
Areg11	B43/13	A44/04	C44/13		A51/06
Areg12	B46/13	A47/10	C47/13		
Areg13	B49/13	A47/04	C50/13		
Areg14	B53/13	B52/10	C54/11		
Areg15	B57/13	A59/04	C58/11		
Areg16	B60/13	A59/08	C61/11		
Areg17	B63/13	A62/12	C64/11		
Areg18	B65/13	B52/02	C66/11		

(Name	From	IOinv	Bridge)
Areg01e	B05/10	D06/10	
Areg02e	B08/10	D09/11	
Areg03e	B11/10	D11/10	
Areg04e	B14/10	C17/04	
Areg05e	B19/10	D11/06	
Areg06e	B22/10	D25/11	
Areg07e	B25/10	D27/06	
Areg08e	B28/10	D30/06	
Areg09e	B31/10	D39/06	D34/10=D37/06
Areg10e	B40/10	D41/10	
Areg11e	B43/10	D41/11	
Areg12e	B46/10	D43/10	
Areg13e	B49/10	D43/04	
Areg14e	B53/10	D47/10	
Areg15e	B57/10	D47/06	
Areg16e	B60/10	D61/06	
Areg17e	B63/10	D64/10	
Areg18e	B65/10	D64/06	

(*** Inverse A-register Outputs from 551 latches ***)

(Name	From	To)
~Areg01	B05/12	A26/01 (reader bit8 "OR")
~Areg18	B65/12	D64/13 (ConInv)

(*** Inverse A-register from 567 gates to IFU & PTS Transmitters ***)

(Name	From	Bridge	Hinge	IFUtx	PTStx)
~Areg01i	D06/05	C35/07=C36/09	D50/11=E50/05	E62/02	E62/04
~Areg02i	D09/14	C35/09=C36/07	D49/09=E49/07	E60/02	E60/04
~Areg03i	D11/05	D35/05=D36/11	D48/07=E48/09	E58/02	E58/04
~Areg04i	C17/03	C35/11=C36/05	D49/10=E49/06	E59/02	E59/04
~Areg05i	D11/02	C35/10=C36/06	D49/13=E49/03	E65/02	E65/04
~Areg06i	D25/14	C35/08=C36/08	D50/10=E50/06	E61/02	E61/04
~Areg07i	D27/02	C33/02=C38/14	D52/04=E52/12	F63/02	F63/04
~Areg08i	D30/02	C33/04=C38/12	D51/11=E51/05	E66/02	E66/04
~Areg09i	D39/02		D49/08=E49/08	F58/02	
~Areg10i	D41/05		D49/07=E49/09	F58/04	
~Areg11i	D41/14		D50/09=E50/07	F60/04	

~Areg12i	D43/05	D49/06=E49/10	F60/02
~Areg13i	D43/03	D48/04=E48/12	F61/02
~Areg14i	D47/05	D48/06=E48/10	F61/04
~Areg15i	D47/02	D48/03=E48/13	E64/02
~Areg16i	D61/02	D54/06=E54/10	E64/04
~Areg17i	D64/05	D52/05=E52/11	E63/02
~Areg18i	D64/02	D57/04=E57/12	E63/04

(*** I-register & P-register Outputs from 553 latches ***)

(Name From Disply Qgate)
Iand1=1e D58/04 A62/04
Iand2=1e D58/14 A65/04
Iand4=1e D62/04 A65/06
Iand8=1e D62/14 A65/10 D66/09
(see I-Register Decode for the others)

(Name From Disply)
Preg01 D08/02 A07/10
Preg02 D08/05 A08/04
Preg03 D12/02 A08/08
Preg04 D12/05 A11/10
Preg05 D24/02 A14/08
Preg06 D24/05 A22/08
Preg07 D28/02 A22/04
Preg08 D28/05 A27/08
Preg09 D31/02 A32/12
Preg10 D42/05 A44/12
Preg11e D42/14 A46/04
Preg12e D46/04 A44/10
Preg13e D46/14 A47/08
(see Input/Output for Preg11 Preg12 Preg13)

(Name	From	Bridge	Hinge	IFUtx	PTStx)
~Preg01	D08/06	B34/11=B37/05	D48/08=E48/08	F62/02	F62/04
~Preg02	D08/03	B35/14=B36/02	D49/03=E49/13	F66/02	
~Preg03	D12/06	B34/13=B37/03	D50/04=E50/12	F59/02	F66/04
~Preg04	D12/03	B34/14=B37/02	D49/04=E49/12	F59/04	
~Preg05	D24/06	B37/06=B34/10	D52/03=E52/13	F64/04	
~Preg06	D24/03	B34/03=B37/13	D54/03=E54/13	F64/02	
~Preg07	D28/06	C34/06=C37/10	D51/04=E51/12	F65/02	
~Preg08	D28/03	C34/02=C37/14	D51/03=E51/13	F65/04	
~Preg09	D31/06	B35/13=B36/03	D50/03=E50/13	F56/04	
~Preg10	D42/03		D52/13=E52/03	F56/02	
~Preg11	D42/02		D52/14=E52/02	F57/02	
~Preg12	D46/03				
~Preg13	D46/02				

(*** Data & Addresses from IFU Transmitters to PLC ***)

(Name	From	To)
IFUout01	E62/11	E67/09=PLC/09
IFUout02	E60/11	E67/07=PLC/07
IFUout03	E58/11	E67/05=PLC/05
IFUout04	E59/11	E67/06=PLC/06
IFUout05	E65/11	E67/13=PLC/13
IFUout06	E61/11	E67/08=PLC/08
IFUout07	F63/11	E69/04=PLC/60
IFUout08	E66/11	E67/12=PLC/12
IFUout09	F58/11	E69/01=PLC/57
IFUout10	F58/14	E69/05=PLC/61
IFUout11	F60/14	F68/10=PLC/53
IFUout12	F60/11	E69/02=PLC/58
IFUout13	F61/11	E69/03=PLC/59
IFUout14	F61/14	F68/11=PLC/54
IFUout15	E64/11	E67/11=PLC/11
IFUout16	E64/14	E67/15=PLC/15
IFUout17	E63/11	E67/10=PLC/10
IFUout18	E63/14	E67/14=PLC/14

(Name From To)

```

IFUadd01 F62/11 F68/06=PLC/49
IFUadd02 F66/11 F67/13=PLC/28
IFUadd03 F59/11 F67/04=PLC/19
IFUadd04 F59/14 F67/05=PLC/20
IFUadd05 F64/14 F68/07=PLC/50
IFUadd06 F64/11 F68/08=PLC/51
IFUadd07 F65/11 F68/09=PLC/52
IFUadd08 F65/14 F68/13=PLC/56
IFUadd09 F56/14 F67/03=PLC/18
IFUadd10 F56/11 F68/12=PLC/55
IFUadd11 F57/11 F67/02=PLC/17

```

(*** Data & Addresses from PTS Transmitters to SKTH ***)

```

(Name From Bridge To)
Punch1 E62/14 G37/05=G34/11 G04/06=SKTH/21
Punch2 E60/14 G37/09=G34/07 G04/10=SKTH/25
Punch3 E58/14 G37/11=G34/05 G04/12=SKTH/27
Punch4 E59/14 G37/10=G34/06 G04/11=SKTH/26
Punch5 E65/14 G36/04=G35/12 G04/05=SKTH/20
Punch6 E61/14 G37/08=G34/08 G04/09=SKTH/24
Punch7 F63/14 H36/06=H35/10 G04/04=SKTH/19
Punch8 E66/14 H36/14=H35/02 G04/02=SKTH/17

```

```

(Name From Bridge To)
StaSel F62/14 G36/03=G35/13 G04/03=SKTH/18
TtySel F66/14 H37/14=H34/02 G04/01=SKTH/16

```

(*** IFU Input from PLC to Receivers ***)

```

(Name Connector Bridge Hinge IFUrx)
IFUin01a PLC/34=E68/06 F37/07=F34/09 E21/02=D21/14 D05/02
IFUin02a PLC/35=E68/07 F37/06=F34/10 E21/03=D21/13 D10/02
(Name Connector Hinge Bridge IFUrx)
IFUin03a PLC/37=E68/09 E48/11=D48/05 C37/02=C34/14 D13/02
IFUin04a PLC/47=F68/04 E49/05=D49/11 C36/10=C35/06 B18/02
IFUin05a PLC/46=F68/03 E49/04=D49/12 C36/11=C35/05 A20/02
IFUin06a PLC/45=F68/02 E50/04=D50/12 C37/12=C34/04 A25/02
IFUin07a PLC/30=E68/02 E51/14=D51/02 C37/04=C34/12 D26/02
IFUin08a PLC/36=E68/08 E49/11=D49/05 C37/11=C34/05 D29/02
IFUin09a PLC/31=E68/03 E50/14=D50/02 C36/04=C35/12 D32/02
IFUin10a PLC/32=E68/04 E49/14=D49/02 D40/02
IFUin11a PLC/38=E68/10 E51/04=D51/12 A43/02
IFUin12a PLC/33=E68/05 E48/14=D48/02 D44/02
IFUin13a PLC/40=E68/12 E54/11=D54/05 A49/02
IFUin14a PLC/39=E68/11 E52/14=D52/02 C52/02
IFUin15a PLC/41=E68/13 E54/14=D54/02 A57/02
IFUin16a PLC/44=F68/01 E55/14=D55/02 D60/02
IFUin17a PLC/43=E68/15 E56/14=D56/02 D63/02
IFUin18a PLC/42=E68/14 E57/13=D57/03 D65/02

```

(*** IFU Input from Receivers to 567 gates ***)

```

(Name From IFUinv Bridge)
~IFUin01b D05/14 A06/06
~IFUin02b D10/14 D09/10
~IFUin03b D13/14 D11/13
~IFUin04b B18/14 C17/11
~IFUin05b A20/14 A15/09
~IFUin06b A25/14 D25/10
~IFUin07b D26/14 A29/06
~IFUin08b D29/14 A40/04 D34/11=D37/05
~IFUin09b D32/14 D25/13
~IFUin10b D40/14 D41/06
~IFUin11b A43/14 D25/04 D36/07=D35/09
~IFUin12b D44/14 D43/13
~IFUin13b A49/14 D43/11
~IFUin14b C52/14 D47/04
~IFUin15b A57/14 D47/13
~IFUin16b D60/14 D59/13
~IFUin17b D63/14 D64/11

```

~IFUin18b D65/14 D66/13
n/c A15/08

(*** IFU Input from 567 gates to Carry modules ***)

(Name	From	IFUtoA Bridge)
IFUin01c	A06/02	B06/12
IFUin02c	D09/05	B09/05
IFUin03c	D11/12	B12/11
IFUin04c	C17/14	B15/10
IFUin05c	A15/07	B20/14
IFUin06c	D25/05	B23/07
IFUin07c	A29/02	B26/14
IFUin08c	A40/03	B29/11 A38/03=A33/13
IFUin09c	D25/12	B32/14
IFUin10c	D41/02	B41/05
IFUin11c	D25/03	B44/11 D34/14=D37/02
IFUin12c	D43/12	B47/10
IFUin13c	D43/14	B50/12
IFUin14c	D47/03	B54/07
IFUin15c	D47/12	B58/14
IFUin16c	D59/12	B61/11
IFUin17c	D64/14	B64/14
IFUin18c	D66/12	B66/11

(*** PTS Input from SKTH to Receivers ***)

(Name	From	PTSrx)
Reader1a	SKTH/28=G04/13	F06/02
Reader2a	SKTH/55=G03/12	F06/04
Reader3a	SKTH/56=G03/13	F05/02
Reader4a	SKTH/54=G03/11	F05/04
Reader5a	SKTH/46=G03/03	G06/02
Reader6a	SKTH/48=G03/05	G06/04
Reader7a	SKTH/45=G03/02	G05/02
Reader8a	SKTH/47=G03/04	G05/04

(*** PTS Input from Receivers to 567 gates ***)

(Name	From	Hinge	PTSinv)
~Reader1b	F06/14	E15/11=D15/05	D06/11
~Reader2b	F06/12	E15/12=D15/04	D09/06
~Reader3b	F05/14	E16/11=D16/05	D11/11
~Reader4b	F05/12	E18/02=D18/14	C17/06
~Reader5b	G06/14	E15/02=D15/14	A15/06
~Reader6b	G06/12	E19/02=D19/14	A23/08
~Reader7b	G05/14	E19/03=D19/13	A29/08
~Reader8b	G05/12	E20/13=D20/03	A40/08 B34/09=B37/07
n/c A23/09 A29/09 (but not A40/09)			

(*** PTS Input from 567 gates to Carry modules ***)

(Name	From	PTStA Bridge)
Reader1c	D06/14	B06/14
Reader2c	D09/02	B09/07
Reader3c	D11/14	B12/14
Reader4c	C17/02	B15/11
Reader5c	A15/02	B20/12
Reader6c	A23/07	B23/05
Reader7c	A29/07	B26/11
Reader8c	A40/07	B29/10 A37/07=A34/09

(*** PTS Input upper-bit Links ***)

(Name	From	PTStA Bridge)
~Reader08	A26/13	A40/09 A34/07=A37/09
Reader09	A26/12	B32/12
Reader10	A26/11	B41/07 B34/04=B37/12
Reader11	A26/10	B44/14 A34/10=A37/06
Reader12	A26/09	B47/11 B35/03=B36/13
Reader13	A51/14	B50/14

Reader14 A51/13 B54/05
 Reader15 A51/12 B58/11
 Reader16 A51/11 B61/10
 Reader17 A51/10 B64/12
 Reader18 A51/09 B66/10

(*** Direct Q-register Outputs from 551 latches ***)

gnd C05/07
 n/c C05/08

(Name	From	Disply	Adder	Left	Right	Bridge)
Qreg01	C05/13	A07/09	C06/11	C08/08	A05/09	
(Qreg01 right goes into Qreg00)						
Qreg02	C08/13	A08/06	C09/11	C11/08	C05/03	
Qreg03	C11/13	A11/06	C12/11	C14/08	C08/03	
Qreg04	C14/13	A14/06	C15/11	C19/08	C11/03	
Qreg05	C19/13	A22/06	C20/13	C22/04	C14/03	
Qreg06	C22/13	A27/06	C23/13	C25/04	C19/03	
Qreg07	C25/13	A30/10	C26/13	C28/04	C22/09	
Qreg08	C28/13	A32/02	C29/13	C31/04	C25/09	
Qreg09	C31/13	A32/10	C32/13	C40/08	C28/09	C33/07=C38/09
Qreg10	C40/13	A44/06	C41/11	C43/08	C31/09	C37/07=C34/09
Qreg11	C43/13	A46/06	C44/11	C46/08	C40/03	
Qreg12	C46/13	A47/06	C47/11	C49/08	C43/03	
Qreg13	C49/13	B52/06	C50/11	C53/04	C46/03	
Qreg14	C53/13	A59/10	C54/13	C57/04	C49/03	
Qreg15	C57/13	A62/10	C58/13	C60/04	C53/09	
Qreg16	C60/13	A59/02	C61/13	C63/04	C57/09	
Qreg17	C63/13	A65/12	C64/13	C65/04	C60/09	
Qreg18	C65/13	A65/08	C66/13	B05/04	C63/09	A38/04=A33/12
(Qreg18 left goes into Areg01)						

(*** Inverse Q-register Outputs from 551 latches ***)

(Name	From	ConInv)
~Qreg00	A05/12	D06/06
~Qreg01	C05/12	D06/13

(*** Direct M-register Outputs from 552 latches ***)

(Name	From	Disply	Adder	PorI	StInv	Bridge)
Mreg01	B07/09	A07/04	C06/06	D08/09	A06/04	
Mreg02	B10/09	A08/12	C09/06	D08/12	A09/04	
Mreg03	B13/09	A11/12	C12/06	D12/09	A12/06	
Mreg04	B16/09	A14/12	C15/06	D12/12	A15/04	
Mreg05	B21/09	A22/02	C20/03	D24/09	C18/04	
Mreg06	B24/09	A27/02	C23/03	D24/12	A23/04	
Mreg07	B27/09	A30/02	C26/03	D28/09	A29/04	
Mreg08	B30/09	A32/04	C29/03	D28/12	D30/04	
Mreg09	B39/09	A30/13	C32/03	D31/09	D39/04	D38/04=D33/12
Mreg10	B42/09	A44/08	C41/06	D42/12	A40/06	
Mreg11	B45/09	A46/12	C44/06	D42/07	D41/04	
Mreg12	B48/09	A47/02	C47/06	D46/12	D45/04	
Mreg13	B51/09	A47/12	C50/06	D46/07	A50/04	
Mreg14	B55/09	B52/09	C54/03	D58/12	C56/04	
Mreg15	B59/09	A59/13	C58/03	D58/07	D59/04	
Mreg16	B62/09	A62/06	C61/03	D62/12	D61/04	
Mreg17	A64/09	A62/02	C64/03	D62/07	A50/08	
Mreg18	A66/09	A65/02	C66/03		A50/06	
n/c A50/09						

(*** Inverse M-register Outputs from 552 latches ***)

(Name	From	XStTx	Adder	PorI	ConInv	Bridge)
~Mreg01	B07/08	D07/04	C06/03	D08/07		
~Mreg02	B10/08	A10/04	C09/03	D08/13		
~Mreg03	B13/08	A13/04	C12/03	D12/07		
~Mreg04	B16/08	B17/04	C15/03	D12/13		
~Mreg05	B21/08	A21/04	C20/06	D24/07		
~Mreg06	B24/08	A24/04	C23/06	D24/13		

```

~Mreg07 B27/08 A28/04 C26/06 D28/07
~Mreg08 B30/08 A31/04 C29/06 D28/13
~Mreg09 B39/08 A39/04 C32/06 D31/07          C38/08=C33/08
~Mreg10 B42/08 A41/04 C41/03 D42/13
~Mreg11 B45/08 A42/04 C44/03 D42/09
~Mreg12 B48/08 A45/04 C47/03 D46/13 D45/06
~Mreg13 B51/08 A48/04 C50/03 D46/09 D47/11
~Mreg14 B55/08 B56/04 C54/06 D58/13
~Mreg15 B59/08 A56/04 C58/06 D58/09
~Mreg16 B62/08 A60/04 C61/06 D62/13
~Mreg17 A64/08 A63/04 C64/06 D62/09
~Mreg18 A66/08 A63/02 C66/06          D66/10

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(*** Inverse M-register from 567 gates to Internal Store ***)

(Name	From	Hinge	Bridge	To30F)
~Mreg01s	A06/03	A16/10=U1/05		P01/11
~Mreg02s	A09/03	A17/10=U2/05		P02/11
~Mreg03s	A12/02	A16/04=U1/11		P03/11
~Mreg04s	A15/03	A16/07=U1/08		P04/11
~Mreg05s	C18/03	A18/03=U1/25		P05/11
~Mreg06s	A23/03	A18/11=U1/17		N02/11
~Mreg07s	A29/03	A19/13=U2/15		N03/11
~Mreg08s	D30/03	A17/03=U2/12		N04/11
~Mreg09s	D39/03	A53/06=U1/35	W2X1/50	N05/11
~Mreg10s	A40/02	A52/08=U2/33	W2X1/06	K02/11
~Mreg11s	D41/03	A52/12=U2/29	W1X2/05	K03/11
~Mreg12s	D45/03	A53/12=U1/29	W2X1/05	K04/11
~Mreg13s	A50/03	A53/05=U1/36	W2X1/08	K05/11
~Mreg14s	C56/03	A52/13=U2/28	W2X1/04	J01/11
~Mreg15s	D59/03	A53/13=U1/28	W2X1/02	J02/11
~Mreg16s	D61/03	A54/13=U2/41	W2X1/09	J03/11
~Mreg17s	A50/07	A52/05=U2/36	W2X1/07	J04/11
~Mreg18s	A50/02	A54/05=U2/49	W2X1/10	J05/11

(*** Extra Store Data Transmitter Outputs to PLB ***)

(Name	From	To	Bridge)
Mreg01x	D07/14	PLB/50=D68/07	D35/02=D36/14
Mreg02x	A10/14	PLB/57=C69/01	A35/11=A36/05
Mreg03x	A13/14	PLB/71=C70/03	A35/09=A36/07
Mreg04x	B17/14	PLB/44=D68/01	B34/02=B37/14
Mreg05x	A21/14	PLB/59=C69/03	A33/11=A38/05
Mreg06x	A24/14	PLB/60=C69/04	A34/12=A37/04
Mreg07x	A28/14	PLB/61=C69/05	A35/13=A36/03
Mreg08x	A31/14	PLB/42=C68/14	A35/14=A36/02
Mreg09x	A39/14	PLB/72=C70/04	
Mreg10x	A41/14	PLB/07=C67/07	
Mreg11x	A42/14	PLB/35=C68/07	
Mreg12x	A45/14	PLB/31=C68/03	
Mreg13x	A48/14	PLB/30=C68/02	
Mreg14x	B56/14	PLB/15=C67/15	
Mreg15x	A56/14	PLB/41=C68/13	
Mreg16x	A60/14	PLB/39=C68/11	
Mreg17x	A63/14	PLB/36=C68/08	
Mreg18x	A63/11	PLB/63=C69/07	

(*** Extra Store Receiver Inputs from PLB ***)

(Name	From	ToRx	Bridge)
XStore01	PLB/69=D69/14	D05/04	D38/02=D33/14
XStore02	PLB/67=D69/12	D10/04	D38/03=D33/13
XStore03	PLB/66=D69/11	D13/04	D37/03=D34/13
XStore04	PLB/46=D68/03	B18/04	B37/04=B34/12
XStore05	PLB/58=C69/02	A20/04	A37/05=A34/11
XStore06	PLB/29=C68/01	A25/04	A38/06=A33/10
XStore07	PLB/65=D69/10	D26/04	D38/06=D33/10
XStore08	PLB/64=D69/09	D29/04	D36/06=D35/10
XStore09	PLB/68=D69/13	D32/04	D36/03=D35/13
XStore10	PLB/21=D67/06	D40/04	
XStore11	PLB/62=C69/06	A43/04	

```

XStore12 PLB/20=D67/05 D44/04
XStore13 PLB/10=C67/10 A49/04
XStore14 PLB/16=D67/01 C52/04
XStore15 PLB/32=C68/04 A57/04
XStore16 PLB/17=D67/02 D60/04
XStore17 PLB/18=D67/03 D63/04
XStore18 PLB/19=D67/04 D65/04

```

(*** Both Store Inverses into M-register ***)

```

(Name      FromIs Bridge  Hinge          FromXs ToMreg Bridge)
~Store01 P01/13          A16/12=U1/03 D05/12 B07/11
~Store02 P02/13          A16/11=U1/04 D10/12 B10/11
~Store03 P03/13          A17/11=U2/04 D13/12 B13/11
~Store04 P04/13          A17/04=U2/11 B18/12 B16/11
~Store05 P05/13          A18/04=U1/24 A20/12 B21/11
~Store06 N02/13          A19/04=U2/24 A25/12 B24/11
~Store07 N03/13          A19/03=U2/25 D26/12 B27/11
~Store08 N04/13          A17/05=U2/10 D29/12 B30/11
~Store09 N05/13 W1X2/44 A52/04=U2/37 D32/12 B39/11 B35/06=B36/10
~Store10 K02/13 W1X2/17 A53/03=U1/38 D40/12 B42/11
~Store11 K03/13 W1X2/15 A52/03=U2/38 A43/12 B45/11
~Store12 K04/13 W1X2/16 A54/03=U2/51 D44/12 B48/11
~Store13 K05/13 W1X2/14 A52/09=U2/32 A49/12 B51/11
~Store14 J01/13 W1X2/10 A52/07=U2/34 C52/12 B55/11
~Store15 J02/13 W1X2/09 A53/07=U1/34 A57/12 B59/11
~Store16 J03/13 W1X2/08 A55/03=U1/51 D60/12 B62/11
~Store17 J04/13 W1X2/07 A54/04=U2/50 D63/12 A64/11
~Store18 J05/13 W1X2/06 A53/08=U1/33 D65/12 A66/11

```

(*** Suppressed J-register 2-input gate inputs ***)

```

n/c C07/03      (EtJ)      C16/03 C21/04 C24/05 C27/05 C30/05
    C39/03 C42/03 C45/03 C48/03 C51/03 C55/04 C59/04 C62/04
gnd C07/09      (E-reg bits) C16/09 C21/05 C24/04 C27/04 C30/04
    C39/09 C42/09 C45/09 C48/09 C51/09 C55/05 C59/05 C62/05

n/c C07/08 C10/07 C13/07 C16/07 C21/07 C24/07 C27/07 C30/07
    C39/07 C42/07 C45/07 C48/07 C51/07 C55/07 C59/07 C62/07
gnd (K1) C10/08 C13/08 C16/08 C21/08 C24/08 C27/08 C30/08
    C39/08 C42/08 C45/08 C48/08 C51/08 C55/08 C59/08 C62/08

```

(*** Direct J-register Outputs from 551 latches ***)

```

(Name      From      Disply Jgate Bridge)
Jreg01 C07/13 A07/06 D06/08
Jreg02 C10/13 A08/10 D09/08
Jreg03 C13/13 A11/04 D11/08
Jreg04 C16/13 A14/10 C17/08
Jreg05 C21/13 A22/10 C18/08
Jreg06 C24/13 A27/10 D25/08
Jreg07 C27/13 A30/06 D27/08
Jreg08 C30/13 A32/08 D30/08
Jreg09 C39/13 A30/08 D39/08 A37/08=A34/08
Jreg10 C42/13 A46/02 D41/08
Jreg11 C45/13 A46/08 D43/08
Jreg12 C48/13 A46/10 D45/08
Jreg13 C51/13 B52/04 D47/08
Jreg14 C55/13 B52/12 C56/08
Jreg15 C59/13 A59/06 D59/08
Jreg16 C62/13 A62/08 D61/08

```

```

(Name      From      XStTx StInv  IIinv NoInv Bridge)
Jreg01e C07/10 D07/02 A06/11 A06/13
Jreg02e C10/10 A10/02 A09/11 A09/13
Jreg03e C13/10 A13/02 A12/11 A12/13
Jreg04e C16/10 B17/02 A15/11 A15/13
Jreg05e C21/10 A21/02 C18/13
Jreg06e C24/10 A24/02 A23/06
Jreg07e C27/10 A28/02 A29/13
Jreg08e C30/10 A31/02 D30/13

```

```

Jreg09e C39/10 A39/02 D39/13
Jreg10e C42/10 A41/02 A40/13
Jreg11e C45/10 A42/02 D27/13          B37/08=B34/08
Jreg12e C48/10 A45/02 D45/13
Jreg13e C51/10 A48/02 A50/13
Jreg14e C55/10 B56/02          C56/13 C56/11
Jreg15e C59/10 A56/02          A58/13 A58/11
Jreg16e C62/10 A60/02          D61/13 D61/11

```

(*** Inverse J-register Outputs from 551 latches ***)

```

(Name   From   CouInv)
~Jreg01 C07/12 D06/04
~Jreg02 C10/12 D09/04
~Jreg03 C13/12 D11/04
~Jreg04 C16/12 C17/13
~Jreg05 C21/12 C18/06
~Jreg06 C24/12 D25/06

```

```

(Name   From   StInv IIinv NoInv Bridge)
~Jreg01e C07/14 A06/10 A06/09
~Jreg02e C10/14 A09/10 A09/09
~Jreg03e C13/14 A12/10 A12/09
~Jreg04e C16/14 A15/10 C17/10
~Jreg05e C21/14 C18/11 C18/10
~Jreg06e C24/14 A23/13 A23/10
~Jreg07e C27/14 A29/11 A29/10
~Jreg08e C30/14 D30/11 D30/10
~Jreg09e C39/14 D39/11 D39/10
~Jreg10e C42/14 A40/11 A40/10
~Jreg11e C45/14 D27/11 D27/10          B36/04=B35/12
~Jreg12e C48/14 D45/11 D45/10
~Jreg13e C51/14 A50/11 A50/10
~Jreg14e C55/14          C56/10
~Jreg15e C59/14          A58/10
~Jreg16e C62/14          D61/10
n/c A06/08 A09/08 A12/08

```

(*** J-register from 567 gates to nowhere ***)

```

Jreg14n C56/05
Jreg15n A58/05
Jreg16n D61/05
~Jreg14n C56/14
~Jreg15n A58/14
~Jreg16n D61/14

```

(*** Direct J-register from 567 gates to Internal Store 47F gates ***)

```

(Name   From   Hinge          Bridge To47F)
Jreg01s A06/05 A16/13=U1/02 W2X1/53 P08/08          P10/17
Jreg02s A09/05 A17/13=U2/02 W1X2/45 P08/07 P09/17 P10/08
Jreg03s A12/05 A18/13=U1/15 W1X2/48          P09/08 P10/16
Jreg04s A15/05 A18/10=U1/18 W2X1/49 N08/08          N10/17
Jreg05s C18/14 A16/06=U1/09 W2X1/48 N08/07 N09/17 N10/08
Jreg06s A23/12 A19/10=U2/18 W2X1/52          N09/08 N10/16
Jreg07s A29/14 A19/11=U2/17 W2X1/03 K08/08          K10/17
Jreg08s D30/14 A16/09=U1/06 W1X2/04 K08/07 K09/17 K10/08
Jreg09s D39/14 A55/08=U1/46          K09/08 K10/16
Jreg10s A40/14 A52/06=U2/35          L08/08          L10/17 M08/08          M10/17
Jreg11s D27/14 A19/05=U2/23 W2X1/47 L08/07 L09/17 L10/08 M08/07 M09/17 M10/08
Jreg12s D45/14 A55/11=U1/43          L09/08 L10/16          M09/08 M10/16
Jreg13s A50/14 A55/05=U1/49          M08/15 M09/15 M10/15

```

(*** Inverse J-register from 567 gates to Internal Store 47F gates ***)

```

(Name   From   Hinge          Bridge To47F)
~Jreg01s A06/14 A17/12=U2/03 W2X1/51 P08/18 P09/16
~Jreg02s A09/14 A18/12=U1/16 W1X2/47 P08/17 P09/07 P10/18
~Jreg03s A12/14 A17/09=U2/06 W1X2/46 P08/16 P09/18
~Jreg04s A15/14 A18/09=U1/19 W2X1/54 N08/18 N09/16

```

```

~Jreg05s C18/12 A16/08=U1/07 W2X1/46 N08/17 N09/07 N10/18
~Jreg06s A23/02 A19/08=U2/20 W1X2/49 N08/16 N09/18
~Jreg07s A29/12 A19/12=U2/16 W1X2/03 K08/18 K09/16
~Jreg08s D30/12 A19/09=U2/19 W1X2/02 K08/17 K09/07 K10/18
~Jreg09s D39/12 A55/07=U1/47 K08/16 K09/18
~Jreg10s A40/12 A54/07=U2/47 L08/18 L09/16 M08/18 M09/16
~Jreg11s D27/12 A17/08=U2/07 W1X2/18 L08/17 L09/07 L10/18 M08/17 M09/07 M10/18
~Jreg12s D45/12 A55/10=U1/44 L08/16 L09/18 M08/16 M09/18
~Jreg13s A50/12 A54/08=U2/46 W2X1/33 L08/15 L09/15 L10/15 (and) K01/17

```

(*** Suppressed address inputs to Internal Store 47F gates ***)

```

n/c K08/15 K09/15 K10/15 N08/15 N09/15 N10/15 P08/15 P09/15 P10/15
gnd K10/07 L10/07 M10/07 N10/07 P10/07

```

(*** Extra Store Address Transmitter Outputs to PLB ***)

```

(Name      From      To      Bridge)
~Jreg01x D07/11 PLB/49=D68/06 C34/10=C37/06
~Jreg02x A10/11 PLB/48=D68/05 C34/07=C37/09
~Jreg03x A13/11 PLB/47=D68/04 C34/03=C37/13
~Jreg04x B17/11 PLB/45=D68/02 B34/05=B37/11
~Jreg05x A21/11 PLB/43=C68/15 B35/02=B36/14
~Jreg06x A24/11 PLB/37=C68/09 A34/14=A37/02
~Jreg07x A28/11 PLB/12=C67/12 A34/06=A37/10
~Jreg08x A31/11 PLB/13=C67/13 A34/13=A37/03
~Jreg09x A39/11 PLB/11=C67/11
~Jreg10x A41/11 PLB/09=C67/09
~Jreg11x A42/11 PLB/08=C67/08
~Jreg12x A45/11 PLB/34=C68/06
~Jreg13x A48/11 PLB/33=C68/05
~Jreg14x B56/11 PLB/14=C67/14
~Jreg15x A56/11 PLB/40=C68/12
~Jreg16x A60/11 PLB/38=C68/10

```

(*** J-register from 567 gates to Initial Instructions ***)

```

(Name      From      Hinge      Bridge      To)
Jreg01i A06/07 D17/04=E17/12 E33/08=E38/08 E42/07 E43/07 E44/12 E45/07
Jreg02i A09/07 D16/04=E16/12 E35/02=E36/14 E43/04 E43/09 E44/03 E44/14 E46/09
Jreg03i A12/07 D15/09=E15/07 F33/08=F38/08 E42/10 E42/13 E43/10 E43/13 E45/10
E45/13 E46/10
Jreg04i C17/05 D17/11=E17/05 F34/06=F37/10 E45/12 E45/14 E46/12
Jreg05i C18/05 D20/04=E20/12 E33/03=E38/13 E47/09
Jreg06i A23/05 D23/14=E23/02 E34/11=E37/05 E47/10
Jreg07i A29/05 D23/13=E23/03 E35/10=E36/06 F46/05
Jreg08i D30/05 D22/04=E22/12 F33/13=F38/03 F46/07
Jreg09i D39/05 D50/07=E50/09 F46/09
Jreg10i A40/05 D53/04=E53/12 F46/10
Jreg11i D27/05 D21/04=E21/12 F33/14=F38/02 F46/02
Jreg12i D45/05 D50/08=E50/08 F46/03
Jreg13i A50/05 D53/05=E53/11 F46/14

```

```

(Name      From      Hinge      Bridge      To)
~Jreg01i A06/12 D14/03=E14/13 E33/04=E38/12 E42/03 E43/03 E44/07 E45/03 E46/07
~Jreg02i A09/12 D16/02=E16/14 F33/02=F38/14 E42/04 E42/09 E44/05 E44/11 E45/04
E45/09
~Jreg03i A12/12 D17/02=E17/14 E34/03=E37/13 E44/08 E44/13 E47/04
~Jreg04i A15/12 D18/02=E18/14 E35/09=E36/07 E42/12 E42/14 E43/12 E43/14 E47/03
~Jreg14i C56/12 D51/14=E51/02 E40/03 F46/06
~Jreg15i A58/12 D57/14=E57/02 E40/04 F46/11
~Jreg16i D61/12 D57/13=E57/03 E40/13 F46/13

```

(*** Initial Instructions ***)

```

(Name      From      To)
~8180 E42/02 F44/07 F47/03 F47/07 F49/03 F50/03 F50/07
~8181 E42/05 F44/03 F50/09 F52/07
~8182 E43/02 F44/04 F44/10 F50/04 F50/10
~8183 E43/05 E46/03 F44/09 F47/04 F47/09 F52/09
n/c E44/06 (4th input)

```

~8184 E44/04 F47/10 F50/13 F52/03 F52/10
 ~8185 E44/10 F50/12 F52/04
 ~8186 E44/02 E46/04 F44/12 F47/12 F47/13 F52/12
 ~8187 E44/09 F44/13 F45/02 F45/07 F49/06 F51/02 F51/07
 ~8188 E45/02 E46/13 F47/14 F49/07
 ~8189 E45/05 E46/14 F44/14 F45/09 F49/08
 ~8190 E46/05 F45/03 F51/03 F51/09 F52/13

(Name 566 to 564)
 ~II01xx F51/04 F52/08
 II03xx F51/08 F50/08
 n/c F51/05 F51/10 F51/14
 II14xx F45/04 F47/08
 II16xx F45/08 F44/08
 n/c F45/05 F45/10 F45/14

(Name From To)
 ~II01 F52/05 F48/13
 ~II12 F49/05 F48/06
 ~II13 E46/02 F49/09
 ~II17 F44/02 F48/11
 n/c F49/14

(Name From Bridge Hinge To)
 II01 F48/12 E37/07=E34/09 E15/06=D15/10 B07/13
 II02 F52/02 E37/08=E34/08 E15/05=D15/11 B10/13
 II03 F50/05 E37/06=E34/10 E17/04=D17/12 B13/13
 II04 F50/02 G36/11=G35/05 E16/04=D16/12 B16/13
 (II05 II06 II07 II08 II09 II10 II11 provided by II13)
 II12 F48/02 E50/03=D50/13 B48/13
 II13 F49/04 E52/09=D52/07 B51/13 B45/13 B42/13 B39/13
 B38/05=B33/11 B30/13 B27/13 B24/13 B21/13
 II14 F47/05 E52/10=D52/06 B55/13
 II15 F47/02 E54/12=D54/04 B59/13
 II16 F44/05 E55/11=D55/05 B62/13
 II17 F48/14 E55/02=D55/14 A64/13
 II18 F49/02 E54/02=D54/14 A66/13
 n/c F50/14 F52/14

~JinIIxx F46/04 F46/08 F46/12 to E47/08
 Obsolete E47/02 E47/07 (linked but n/c)
 (Low on ~Reset at E47/13 to Enable II)
 (High on Term at E47/11 to Disable II)
 ~JinII E47/05 F48/10
 JinII F48/05 F48/08 E39/03

~Strobe L04/14 W1X2/31 U2/30=A52/11 D52/08=E52/08 F48/04
 Strobe F48/03 F48/09
 ~IIItM F48/07 F49/12
 n/c F49/11 F49/13
 IIItM F49/10 E51/03=D51/13 B38/07=B33/09
 B07/12 B10/12 B13/12 B16/12 B21/12 B24/12 B27/12 B30/12 B39/12
 B42/12 B45/12 B48/12 B51/12 B55/12 B59/12 B62/12 A64/12 A66/12

(*** I-Register Decode ***)
 (Letter pairs starting "D" relate to similar 920B/903 signals)

n/c G39/12 G39/13 G40/11 G40/13 G40/14 G42/12 G43/03 G43/11
 G43/13 G43/14 G44/04 G44/14 G45/12 G45/14 G46/12 G46/14

Iand8=1 D62/06 D57/11=E57/05 G41/09 G41/13 G44/10 G44/12 G45/07
 Iand8=0 D62/02 D57/10=E57/06 G42/10 G43/08 G45/03 G46/03 H38/13=H33/03 G11/03
 Iand4=1 D62/05 D57/12=E57/04 G41/12 G41/14 G43/07 G44/07 G45/04 G45/09
 Iand4=0 D62/03 D57/07=E57/09 G42/07 G44/09 G46/04 G38/02=G33/14 G11/05
 Iand2=1 D58/06 D57/06=E57/10 G39/04 G40/08 G41/04 G41/10 G42/03
 Iand2=0 D58/02 D55/03=E55/13 G39/10 G40/06 G45/10 H37/12=H34/04 G11/06
 Iand1=1 D58/05 D57/05=E57/11 G40/03 G40/07 G41/07 G42/04
 Iand1=0 D58/03 D56/03=E56/13 G39/03 G39/07 G41/03 G45/13

Idiv4#0 DH G42/05 G42/09
 Idiv4#1 DF G43/05 G43/09

Idiv4#2 DG G44/08 G44/03
Idiv4#3 DE G44/05 G44/13
Irem4#0 DD G39/05 G39/09
Irem4#1 DB G40/02 G40/12
Irem4#2 DC G39/02 G39/14
Irem4#3 DA G40/05 G40/09

Idiv4=0 DH G42/08 G38/11=G33/05 G12/08 G12/13 G13/08 G13/12
Idiv4=1 DF G43/04 G37/14=G34/02 G14/11 G15/07 G15/13 G16/08 G16/13
Idiv4=2 DG G44/02 G38/14=G33/02 G14/07 G14/14 G17/08 G17/13 F16/14
Idiv4=3 DE G44/06 G38/10=G33/06 G18/08 G18/12
Irem4=0 DD G39/08 G38/03=G33/13 G12/05 G14/12 G18/05 G18/11 G19/07 G21/07
Irem4=1 DB G40/10 G37/02=G34/14 G12/03
G14/08 G15/12 G18/03 G18/14 G19/13 G20/12 G20/14
Irem4=2 DC G39/06 F38/06=F33/10 G12/11 G13/07 G16/14 G17/03 G17/14
Irem4=3 DA G40/04 G36/02=G35/14 G13/13 G15/03
G15/06 G16/03 G16/06 G16/11 G17/05 G17/11 F16/04

Fn#14 G41/02 G43/12 G61/12
Fn=14 G43/10 G38/07=G33/09
G21/12 G22/12 G22/14 G23/08 G23/12 G24/09 G24/14 G25/14
Fn#15 G41/05 G43/06 H47/11
Fn=15 G43/02 G38/05=G33/11 G25/11 G27/07 G28/03 G28/10

Irem4#3a G42/02 G46/13
Fn#0or1or2 G46/02 G46/07
Fn#4or6 G45/02 G46/09
Fn#12or13 G45/05 G46/10
GetOperand G46/05 G38/09=G33/07 G11/13 (High for Fns 0 1 2 4 6 12 13)

(*** Counter Decode ***)

C1=1 H06/08 H12/03 H12/14 H14/03 H14/14 H16/12 H19/12 H20/03
C1=0 H06/05 H12/05 H12/11 H14/05 H14/11 H16/04 H19/04
C2=1 H08/08 H12/12 H14/12 H19/10 H19/14 H20/05
C2=0 H08/05 H12/07 H14/07 H16/10 H16/14
C3=1 H10/08 H14/08 H14/13 H19/09 H20/07
C3=0 H10/05 H12/08 H12/13 H16/09 H16/13 H19/13
C4=1 H25/08 H18/09 H18/14 H21/09 H21/14 H22/09 H20/09
C4=0 H25/05 H22/14
C5=1 H27/08 H21/03 H20/11
C5=0 H27/05 H18/03 H18/07 H21/07 H22/04 H22/10 H23/08
C6=1 H29/08 G19/08 G19/12 G21/08 H20/13
C6=0 H29/05 H18/02 H18/05 H21/05 H22/03 H22/07 H23/07

Crem8#0 H12/04 H13/07
Crem8#1 H12/02 H13/09
Crem8#2 H12/10 H13/03
Crem8#3 H12/09 H13/14
Crem8#4 H14/04 H15/07
Crem8#5 H14/02 H15/09
Crem8#6 H14/10 H15/03
Crem8#7 H14/09 H15/14
n/c H12/06 H13/04 H13/10 H13/11 H13/12 H13/13
n/c H14/06 H15/04 H15/10 H15/11 H15/12 H15/13
Crem8=0 H13/05 G07/05
Crem8=1 H13/08 G07/03 G07/14
Crem8=2 H13/02 G07/11 G08/04
Crem8=3 H13/06 G09/08 G24/04 G25/13
Crem8=4 H15/05 G08/12 G09/12 G25/08 G26/14 E11/10
Crem8=5 H15/08 G10/10 G26/08 G26/11
Crem8=6 H15/02 G10/12 G27/11
Crem8=7 H15/06 G11/12

n/c H16/03 H16/07 H17/06 H17/12 H17/13 H17/14 H18/10 H19/03
H19/07 H21/10 H22/12 H22/13 H23/03 H23/09 H23/11 H23/12
Cdiv8#0 H22/02 H23/13
Cdiv8=0 H23/10 G07/08 G07/13 G08/09 G08/13 G09/07 G09/13 G10/07 G10/09 G11/11
Cdiv8#1 H22/05 H23/14
Cdiv8=1 H23/04 G24/13 G25/07 G25/12 G26/07 G26/12 G27/12 E11/09
C#08xx H18/08 to H16/06

```

C#08 H16/02 H17/11
C=08 H17/10 G11/07 G12/07 G12/12 G13/11 G14/03 G14/05 G14/13
      G15/14 G16/12 G17/07 G18/07 G22/09 G22/13 G23/14 G28/09
C#09xx H18/04 to H16/08
C#09 H16/05 H17/09
C=09 H17/04 G13/05 G13/14 G15/11 G16/07 G17/12 G18/13 G23/07 G23/11
C#10xx H21/08 to H19/06
C#10 H19/02 H17/03
C=10 H17/02 F16/03 G13/03 G15/08 G24/10 G27/08 G28/04
C>15 H23/05 G21/13
C#63xx H21/04 to H19/08
C#63 H19/05 H23/06 G19/11 G20/04 G20/10 G21/03
C=63 H23/02 G19/03 G19/14

```

(*** Miscellaneous Conditionals ***)

```

(Q00 latch at A05)
(btQ      E10/04 to A05/02 etc)
(QSR      F11/02 to A05/03 etc)
(Qreg01 C05/13 to A05/09 etc)
n/c A05/04 A05/08
gnd A05/05 A05/07
Qreg00 (Disply) A05/13 A07/12

```

```

(Inverters at G30)
Q00=1 D06/02 D14/02=E14/14 G30/04 G21/06
Q00=0 G30/03 G19/05
Q01=1 D06/12 D15/02=E15/14 G30/06 G19/06
Q01=0 G30/02 G21/05
M12=1 D45/02 D50/06=E50/10 G36/14=G35/02 G30/10 G22/04 G23/05 G28/13 G31/07 G31/12
M12=0 G30/05 G22/10 G27/05
M13=1 D47/14 D48/13=E48/03 F36/11=F35/05 G30/13 G21/11 G22/03 G31/04 G31/10
M13=0 G30/12 G21/14 G22/07 G23/06 G27/06 G28/14
M18=1 D66/05 D57/08=E57/08 G38/08=G33/08 G30/11 G15/05 G29/04 G29/10
M18=0 G30/14 G08/07
A18=1 D64/12 D57/09=E57/07 G38/04=G33/12 G30/09 G14/06 G16/05
A18=0 G30/07 (unused?)
n/c G30/08

```

```

(M12-v-M13 at G31)
~M12&M13 G31/05 G31/03 G31/09
M12=M13 G31/02 G31/08 to G31/14 G23/03
M12#M13 G31/06 G23/13
n/c G31/13

```

```

(Star latch at F42)
~tStar E28/08 E28/13
tStar E28/06 G33/10=G38/06 F42/02
(~Adder18 C66/02 to F42/06 etc)
n/c E28/14 F42/04 F42/07 F42/03
gnd      F42/05 F42/08 F42/09
Star F42/13 F38/11=F33/05 E32/12 G29/07 G29/12

```

```

(M18-v-Star at G29)
~M18&Star G29/05 G29/03 G29/09
M18=Star G29/02 G29/08 to G29/14 G20/07
M18#Star G29/06 G20/03
n/c G29/13

```

```

(Enter & Obey Keys at G32 etc)
n/c G32/03 G32/12 G42/14
~NGA (Low for Enter) SKTG/32=F03/04 G08/10 G09/11 G32/10 G33/04=G38/12 G42/13
NGA G42/06 G37/13=G34/03 G09/14
~NGO (Low for Obey) SKTG/44=E03/01 G32/07
NG G32/05 G32/04 G32/09
~NGout G32/02 SKTG/16=E04/01 (to control panel)
~NG G32/08 G32/13 G08/03 G09/06
C7orNG G32/06 G09/03

```

```

(C7 at H31 etc)
n/c H31/12 H31/13 H31/14 H32/09

```

```

~tsC7 E27/08 H31/09
~tcC7 E27/06 H31/03 (and to clear Block) G10/03
~C7=0 H31/05 H31/04 H32/10
~C7=1 H31/02 H31/07 H32/08
C7=0 H32/05 G07/12 G08/14 G09/05 G26/06 G26/13 G32/14
C7=1 H32/07 G25/03 G25/05 G26/03 (Disply) G35/03=G36/13 F43/03

```

(*** Microprogram Outputs ***)

```

n/c F16/13 F26/03 F26/14 G07/07 G11/08 G12/06 G13/06
    G17/06 G18/06 G24/07 G24/12 G27/13 G28/07 G28/12

```

```

~Control.00+P2      G07/04 F19/12(DtE)                (already gated by Phase2)
~Control.01         G07/02 E27/10(Stop)
~Control.01-C7      G07/09 E27/03(Trace) F18/04(EtJ) F15/07(RxW)      (get SCR)
~Control.02-C7-NG   G08/02 F29/13(1tF)                  (inc SCR)
~Control.02-C7      G07/10 F28/14(MtF) F12/02(FtM) F15/03(WxR)      (put SCR)
~Control.03-C7-NG   G09/04 F28/07(MtF) F27/07(DtF) F18/09(FtJ)      (dec SCR)
                   F12/11(MTrTw)                (get instruction)
~Control.03+C7orNG  G09/02 F13/12(WtM)
~Control.04+NGA     G09/09 F28/11(MtF) F07/06(FtA) F21/10(Clear6) F23/10(cC7)
~Control.04-NGA     G09/10 F30/12(JtF) F07/05(FtM) F23/12(cC7)
                   E11/13(inhibitM) F19/04(M14-16) H11/11(MtI)
~Control.04-M18-NGA G08/05 F20/04(sC2)                (skip next two steps)
~Control.05         G10/05 F18/03(EtJ) E09/13(K1) F28/13(MtF) F07/02(FtQ)
                   F14/03(MTrTw)                (get B-reg)
~Control.06         G10/08 F26/10(QtF) F28/10(MtF) F07/07(FtM)      (add B-reg)
~Control.07+GO      G11/10 F27/13(MtF) F17/02(FtJ) F14/04(MTrTw) (get operand)
                   (gated with G46/05, high for Fns 0 1 2 4 6 12 13)

~Fn<8.08   G11/02 F28/06(MtF)      (common to Fns 0 to 7)
~Fn0189.08 G11/04 F21/07(Clear6) (common to Fns 0 1 8 9)

~Fn00.08 G12/04 F17/10(EtJ) E09/14(K1) F08/10(FtQ) E28/03(sC1) F12/10(IstTrTw)
~Fn01.08 G12/02 F24/03(AtF) F07/11(FtA)
~Fn02.08 G12/10 F08/12(FtQ)
~Fn02.09 G13/04 F24/06(AtF) F07/10(FtM)
~Fn02.10 G13/02 F29/05(NtF) F29/02(1tF) F26/05(QtF) F07/13(FtA) F22/02(Clear6)
~Fn03.08 G13/10 F11/04(QSR) F17/03(FtJ)
~Fn03.09 G13/09 F26/09(QtF) F07/09(FtM) F21/09(Clear6) F11/07(QSL) F12/07(IstTrTw)
~Fn04.08 G14/10 F08/04(FtA) F22/11(Clear6)
~Fn05.08 G15/09 F17/14(FtJ)
~Fn05.09 G15/10 F24/13(AtF) F12/03(FtM) F22/13(Clear6) F12/05(IstTrTw)
~Fn06.08 G16/09 F24/07(AtF) F10/09(VtA) F22/07(Clear6)

~Fn07.08   G16/10 F08/07(FtQ) F14/07(jcM)
~Fn07.09   G16/02 F24/05(AtF) F29/07(NtF) F13/13(FtM)
~Fn07.09+A18 G16/04 F22/05(Clear6)
~Fn07.10   G15/02 F18/13(EtJ) F25/03(QtF) F13/14(FtM) F22/03(Clear6)
~Fn07.10+M18 G15/04 F12/09(IstTrTw) F21/13(Audio)
~Fn08.08   G14/09 F17/09(EtJ) F16/09(IstTrTw) F21/04(Audio)
~Fn09.08   G14/02 F17/07(EtJ)
~Fn09.08+A18 G14/04 F16/12(IstTrTw) F21/03(Audio)

~Fn10.08 G17/02 F28/03(MtF) F17/13(FtJ) F15/10(RxW)
~Fn10.09 G17/09 F28/09(MtF) F29/11(1tF) F13/04(FtM) F22/10(Clear6) F15/04(WxR)
~Fn11.08 G17/04 F28/02(MtF) F07/14(FtQ) F18/14(EtJ) F14/14(MTrTw)
~Fn11.09 G17/10 F26/07(QtF) F17/11(FtJ)
~Fn11.10 F16/02 E28/10(MtF14-16) F26/06(FtQ) F22/06(Clear6) F19/03(M14-16)
                                           F16/10(IstTrTw)

~Fn12.08   G18/04 F24/09(AtF) F08/09(FtQ) E09/12(jcA)
~Fn12.09   G18/10 F20/09(sC3&6)
~Fn12.add  G21/04 F27/03(MtF)
~Fn12.sub  G19/04 F30/03(NtF) F29/03(1tF)
~Fn12.loop G21/02 F24/10(AtF) F09/09(RtA) F11/03(QSR)
~Fn12.exit G19/02 F25/12(AtF) F08/03(FtA)

~Fn13.08   G18/02 F11/14(QSR) F24/14(AtF,F18tStar)
~Fn13.09   G18/09 F11/10(QSL) F20/08(sC3&6) F23/04(Sup)
~Fn13.add  G20/02 F27/04(MtF)

```

```

~Fn13.sub G20/05 F30/13(NtF) F31/13(1tF) E13/14(2tQ)
~Fn13.loop G19/10 F24/02(AtF,F18tStar) F09/13(LtA) F11/12(QL)
~Fn13.exit G19/09 F25/04(QtF) F31/04(1tF) F08/13(FtA)

~Fn14sh.08L G22/05 F30/04(NtF) F29/06(1tF) F18/10(FtJ)
~Fn14sh.08R G22/02 F27/14(MtF) F17/06(FtJ)
~Fn14sh.09 G23/02 F21/12(Clear6) F20/11(JtC)
~Fn14sh.loopL G21/09 F25/09(AtF) F09/11(LtA) F11/09(QL)
~Fn14sh.loopR G21/10 F25/07(AtF) F09/14(RtA) F11/13(QSR)

~Fn14bt.08 G23/09 F24/11(AtF) F18/07(FtJ) F19/07(MtP)
~Fn14bt.09 G23/10 F30/10(JtF) F25/13(QtF) F13/03(FtM)
~Fn14bt.09sC7 G23/04 F20/10(sC7)
~Fn14bt.10 G24/05 F30/14(NtF) F29/14(1tF) F07/03(FtQ)
~Fn14bt.11 G25/09 F25/14(QtF) F30/09(JtF) E27/07(Stop)
~Fn14bt.11exit G24/02 F22/09(Clear6) F23/09(cC7)
~Fn14bt.12-C7 G26/09 F14/13(MTrTw)
~Fn14bt.12+C7 G25/02 F10/13(IFUtA) F32/03(sZ1)
~Fn14bt.12+C7-Z2 G25/04 F23/03(Sup)
~Fn14bt.13-C7 G26/10 F28/05(MtF) F08/14(FtA) F32/04(sZ1)
~Fn14bt.13-C7-Z2 G26/04 F23/13(Sup)
~Fn14bt.13+C7 G26/02 F25/10(AtF) F12/14(FtM) F31/10(0tZ) F16/07(IstTrTw)
~Fn14bt.14 G27/10 F30/07(JtF) F31/03(1tF) F18/12(FtJ) F20/06(cC3) F31/07(0tZ)

~Fn15.08 G28/05 F19/10(MtP)
~Fn15.09 (does nothing, why not renumber later steps?)
~Fn15.10getIFU G27/04 F10/11(IFUtA) F32/13(sZ1)
~Fn15.10getPTSxx F26/04 to G28/06
~Fn15.10getPTS G28/02 E07/14(PTStA)
~Fn15.10-Z2 G27/02 F23/14(Sup) F32/14(sZ1)
~Fn15.11 G25/10 F22/14(Clear6) F31/12(0tZ)

```

(*** Miscellaneous Signals gathered from Microprogram Outputs ***)

```

n/c E27/04 F21/14 F23/07 F31/09
sC7 F20/05 E27/12
cC7 F23/05 E27/14
sZ1 F32/02 F32/09
0tZ F31/05 F34/05=F37/11 G63/14
Trace E27/02 E33/02=E38/14 H62/08 H63/08 H64/08
Stop E27/05 E33/10=E38/06 H43/04
Audio F21/02 SKTG/67=E02/12 (to control panel)

```

(*** "Phase1" Clear Signal Distribution ***)

```

n/c G51/03 G51/09 G51/10 G51/12 G51/13 G51/14
n/c G47/03 G47/09 G47/10 G47/12 G47/13 G47/14
n/c G48/03 G48/09 G48/10 G48/12 G48/13 G48/14
n/c G49/03 G49/09 G49/10 G49/12 G49/13 G49/14
n/c G50/03 G50/09 G50/10 G50/12 G50/13 G50/14
~~Phase1 H49/09 G51/04
~Phase1 G51/02
    G51/07 G47/04 G47/07 G48/04 G48/07 G49/04 G49/07 G50/04 G50/07

Phase1a G51/05 D16/14=E16/02 E34/12=E37/04
    A05/11 B05/11 B07/14 B08/11 B10/14 C05/11 C07/11 C08/11 C10/11
Phase1b G47/02 D17/14=E17/02 E33/11=E38/05
    B11/11 B13/14 B14/11 B16/14 B19/11 C11/11 C13/11 C14/11 C16/11
Phase1c G47/05 D21/02=E21/14 E33/13=E38/03
    B21/14 B22/11 B24/14 B25/11 C19/11 C21/11 C22/11 C24/11 C25/11
Phase1d G48/02 D23/02=E23/14 F33/06=F38/10
    B27/14 B28/11 B30/14 B31/11 C27/11 C28/11 C30/11 C31/11
Phase1e G48/05 D48/14=E48/02
    B39/14 B40/11 B42/14 B43/11 C39/11 C40/11 C42/11 C43/11 C45/11
Phase1f G49/02 D50/14=E50/02
    B45/14 B46/11 B48/14 B49/11 B51/14 C46/11 C48/11 C49/11 C51/11
Phase1g G49/05 D53/02=E53/14
    B53/11 B55/14 B57/11 B59/14 C53/11 C55/11 C57/11 C59/11 C60/11
Phase1h G50/02 D57/02=E57/14
    A64/14 A66/14 B60/11 B62/14 B63/11 B65/11 C62/11 C63/11 C65/11
Phase1i G50/05 H38/04=H33/12

```

F42/11 G64/07 H58/14 H59/10 H61/14 H05/11 H07/11 H09/11 H26/11 H28/11 H30/11

(*** Primary Gating Signals gathered from Microprogram Outputs ***)

AtFxx F24/04 F24/08 F24/12 to F25/08

AtF F25/05 E14/05=D14/11 C33/09=C38/07 (and for F18tStar) E28/12
C06/12 C09/12 C12/12 C15/12 C20/10 C23/10 C26/10 C29/10 C32/10
C41/12 C44/12 C47/12 C50/12 C54/10 C58/10 C61/10 C64/10 C66/10

QtFxx F26/08 to F25/06

QtF F25/02 E14/06=D14/10 C33/12=C38/04
C06/10 C09/10 C12/10 C15/10 C20/12 C23/12 C26/12 C29/12 C32/12
C41/10 C44/10 C47/10 C50/10 C54/12 C58/12 C61/12 C64/12 C66/12

n/c F27/09 F27/10 F27/12

DtF (aka -1TF) F27/05 E15/09=D15/07 C34/08=C37/08
C06/09 C09/09 C12/09 C15/09 C20/09 C23/09 C26/09 C29/09 C32/09
C41/09 C44/09 C47/09 C50/09 C54/09 C58/09 C61/09 C64/09 C66/09

MtFxx F28/04 F28/08 F28/12 to F27/06

MtF F27/02 E14/08=D14/08 C33/05=C38/11 (and for MtF14-16) E05/06
C06/07 C09/07 C12/07 C15/07 C20/04 C23/04 C26/04 C29/04 C32/04
C41/07 C44/07 C47/07 C50/07 C64/04 C66/04

~MtF E05/02 E28/07

MtF14-16 E28/05 F34/12=F37/04 E56/07=D56/09 C54/04 C58/04 C61/04

n/c F29/09 F29/10

NtFxx F29/08 to F30/06

NtF F30/02 E14/07=D14/09 C33/11=C38/05
C06/04 C09/04 C12/04 C15/04 C20/07 C23/07 C26/07 C29/07 C32/07
C41/04 C44/04 C47/04 C50/04 C54/07 C58/07 C61/07 C64/07 C66/07

n/c F31/14

1tFxx F29/04 F29/12 to F31/06

1tF F31/02 E14/04=D14/12 C06/14 B06/06 B09/13

JtF F30/05 E14/10=D14/06 D33/08=D38/08

D06/09 D09/09 D11/09 C17/09 C18/09 D25/09 D27/09 D30/09
D39/09 D41/09 D43/09 D45/09 D47/09 C56/09 D59/09 D61/09

FtAxx F07/12 to F08/06

FtA F08/02 E07/08 E23/06=D23/10 B33/04=B38/12
B05/09 B08/09 B11/09 B14/09 B19/09 B22/03 B25/03 B28/03 B31/03
B40/09 B43/09 B46/09 B49/09 B53/03 B57/03 B60/03 B63/03 B65/03

n/c F09/12

LtA F09/10 F09/03 E23/10=D23/06 B33/10=B38/06

B05/05 B08/05 B11/05 B14/05 B19/05 B22/07 B25/07 B28/07 B31/07
B40/05 B43/05 B46/05 B49/05 B53/07 B57/07 B60/07 B63/07 B65/07

RtA F09/04 F09/07 E23/08=D23/08 B33/07=B38/09

B05/08 B08/08 B11/08 B14/08 B19/08 B22/04 B25/04 B28/04 B31/04
B40/08 B43/08 B46/08 B49/08 B53/04 B57/04 B60/04 B63/04 B65/04

n/c F10/14

VtA F10/04 F10/03 E23/07=D23/09 B33/03=B38/13

B06/02 B09/03 B12/02 B15/13 B20/02 B23/03 B26/02 B29/13 B32/02
B41/03 B44/02 B47/13 B50/02 B54/03 B58/02 B61/13 B64/02 B66/13

n/c F10/12

IFUtA (aka PTA1) F10/10 F10/07 E23/05=D23/11 B33/13=B38/03

B06/11 B09/06 B12/10 B15/09 B20/13 B23/08 B26/13 B29/12 B32/13
B41/06 B44/10 B47/09 B50/11 B54/08 B58/13 B61/12 B64/13 B66/12

n/c E07/09

PTStA (aka PTA2) E07/04 E07/03 E20/10=D20/06 B33/06=B38/10

B06/13 B09/08 B12/13 B15/12 B20/11 B23/06 B26/10 B29/09 B32/11
B41/08 B44/13 B47/12 B50/13 B54/06 B58/10 B61/09 B64/11 B66/09

n/c F26/11 F26/13

FtQxx F07/04 F26/12 to F08/08

FtQ F08/05 E09/04 E22/14=D22/02 C33/10=C38/06
 C05/05 C08/05 C11/05 C14/05 C19/05 C22/07 C25/07 C28/07 C31/07
 C40/05 C43/05 C46/05 C49/05 C53/07 C57/07 C60/07 C63/07 C65/07

QSL F11/05 E10/08 E22/13=D22/03 C33/06=C38/10
 (gnd) C08/07 C11/07 C14/07 C19/07 C22/05 C25/05 C28/05 C31/05
 C40/07 C43/07 C46/07 C49/07 C53/05 C57/05 C60/05 C63/05 C65/05

QSR F11/02 E10/06 E23/13=D23/03 C33/03=C38/13 (and for Q00) A05/03
 C05/09 C08/09 C11/09 C14/09 C19/09 C22/03 C25/03 C28/03 C31/03
 C40/09 C43/09 C46/09 C49/09 C53/03 C57/03 C60/03 C63/03 C65/03

n/c E13/13
 2tQ E13/06 E14/12=D14/04 D09/13
 ~2tQ D09/12 C08/06

FtMxx F07/08 F12/04 to F13/06
 FtM F13/02 E11/04 E23/09=D23/07 B33/08=B38/08
 B07/07 B10/07 B13/07 B16/07 B21/04 B24/04 B27/04 B30/04 B39/07
 B42/07 B45/07 B48/07 B51/07 B55/04 B59/04 B62/04 A64/07 A66/07

n/c F13/07 F13/09 F13/10
 WtM F13/05 E12/06 E25/08 E23/11=D23/05 B33/12=B38/04
 B07/05 B10/05 B13/05 B16/05 B21/07 B24/07 B27/07 B30/07 B39/05
 B42/05 B45/05 B48/05 B51/05 B55/07 B59/07 B62/07 A64/05 A66/05

FtJxx F17/04 F17/12 to F18/08
 FtJ F18/05 E25/06 E21/13=D21/03 C33/13=C38/03
 C07/04 C10/04 C13/04 C16/04 C21/09 C24/09 C27/09 C30/09
 C39/04 C42/04 C45/04 C48/04 C51/04 C55/09 C59/09 C62/09

n/c F17/05
 EtJxx F17/08 to F18/06
 EtJ F18/02 F19/13 E14/03=D14/13 C10/03 C13/03

K1 E09/06 E14/09=D14/07 C07/07 (Selects B-register rather than SCR)

n/c E09/09
 jcA E09/08 E09/10 (just clear A)
 n/c F14/09 F14/10 F14/12
 jcM F14/05 E12/07 (just clear M)
 M14-16 F19/02 G10/14

MtP F19/05 E26/08
 MtI H11/14 E26/06

(** "Phase2" Transfer Signal Distribution **)

n/c H51/03 H51/09 H51/10 H51/12 H51/13 H51/14
 ~Phase2 H49/08 H47/13
 ~Phase2 H47/12 H51/04 H51/07
 Phase2 H51/02 H51/05 to F38/09=F33/07
 H05/02 H07/02 H09/02 H26/02 H28/02 H30/02 G07/06
 E07/06 E07/07 E09/03 E09/07 E10/03 E10/07 E25/03
 E25/07 E26/03 E26/07 F09/06 F09/08 F10/06 F10/08
 F19/14 E11/03 E12/03 E12/08 E13/03 E13/10 G10/13
 E24/04 E24/10 E27/09 E27/13 F32/07 E31/07 E28/09

(** Secondary Gating Signals from Primary Signals and "Phase2" **)
 (The signals into pin 2 of the 551 latches look like double loads)

n/c F19/09
 DtE F19/08 F33/04=F38/12 H53/11

~tAa F09/02 F09/05 to E08/03 E08/07
 ~tAb E07/05 to E08/04 E08/09
 ~tAc F10/02 F10/05 to E08/13 E08/10
 ~tAd E07/02 E09/05 to E08/14 E08/12
 btA E08/02 E15/03=D15/13
 B05/02 B08/02 B11/02 B14/02 B19/02 B22/02 B25/02 B28/02 B31/02
 ttA E08/05 E33/09=E38/07 E48/04=D48/12

B40/02 B43/02 B46/02 B49/02 B53/02 B57/02 B60/02 B63/02 B65/02
 n/c E10/11 E10/13 E10/14
 ~tQ E09/02 E10/02 E10/05 to E10/09 E10/12
 btQ E10/04 E16/03=D16/13 (and for Q00) A05/02
 C05/02 C08/02 C11/02 C14/02 C19/02 C22/02 C25/02 C28/02 C31/02
 ttQ E10/10 E34/14=E37/02 E48/05=D48/11
 C40/02 C43/02 C46/02 C49/02 C53/02 C57/02 C60/02 C63/02 C65/02

 n/c E11/14 E12/11
 ~tMa E13/02 E13/05 to E07/11 E12/13 E12/14
 ~tMb E11/02 E12/02 E12/05 to E07/12 E12/09 E12/12
 ~tMc G10/06 to E07/13
 8btM E12/10 E17/03=D17/13
 B07/02 B10/02 B13/02 B16/02 B21/02 B24/02 B27/02 B30/02
 7ttM E12/04 E33/14=E38/02 E48/07=D48/09
 B39/02 B42/02 B45/02 B48/02 B51/02 A64/02 A66/02
 3ttM E07/10 E35/14=E36/02 E55/12=D55/04 B55/02 B59/02 B62/02

 n/c E25/11 E25/12 E25/14
 ~tJ E25/02 E25/05 F19/06 to E25/09 E25/13
 btJ E25/10 E18/03=D18/13
 C07/02 C10/02 C13/02 C16/02 C21/02 C24/02 C27/02 C30/02
 ttJ E25/04 F34/02=F37/14 E48/06=D48/10
 C39/02 C42/02 C45/02 C48/02 C51/02 C55/02 C59/02 C62/02

 n/c E26/12 E26/13
 ~tP E26/05 E26/11
 tP E26/10 E23/04=D23/12 D08/11 D12/11 D24/11 D28/11 D31/11
 D33/11=D38/05 D42/11 D46/11

 n/c E26/14
 ~tI E26/02 E26/09
 tI E26/04 E35/03=E36/13 E56/12=D56/04 D58/11 D62/11

 (***) Store Signals gathered from Microprogram Outputs (***)

 n/c E24/12
 IstTrTwxx F12/08 to F16/08
 IstTrTw F16/05 E24/09 E24/03
 ~IstTrTw E24/08 E29/04 E30/13

 n/c E13/12 F12/06 F12/13
 MTrTwxx F12/12 to F14/06
 MTrTw F14/02 E13/04 E13/09
 ~MTrTw E13/08 E29/14 E30/03

 n/c F15/12
 RxW F15/05 E13/07 F15/09
 ~RxW F15/08 E29/03

 n/c F15/14
 WxR F15/02 F15/13 E24/07
 ~WxR F15/06 E30/04

 (***) Store Control Signals (***)

 (Suppress Internal Store)
 n/c E40/14
 SIS E40/02 F37/12=F34/04 E20/14=D20/02 A17/07=U2/08 M03/02 M04/04
 (High to suppress, pink link between E40/02 & E40/01=gnd ignored)

 (Ignore Store Output)
 ~IstPh2 E24/02 E24/05 to F35/03=F36/13 E39/14
 Ist E39/06 E39/07 E39/09 F41/04 (Disply) E36/08=E35/08 E32/03
 ~Ist E39/05 E39/13
 ~ExtIst F41/14 E53/05=D53/11 D67/09=PLB/24
 n/c E39/04 E39/12
 ~IntIst E39/02 E39/08 to E55/10=D55/06 A54/11=U2/43 W1X2/23 K01/12

 (Trigger Read, and the Read Latch)

```

n/c E29/10 E29/13
uTr E29/02 E29/07
~IntTr E29/05 F35/13=F36/03 E41/10 F39/02 E51/08=D51/08 A52/10=U2/31
    W1X2/29 M02/02
ExtTr F39/11 E54/03=D54/13 D67/13=PLB28
n/c E40/07 E40/09 E40/10
IntRRpy N01/05 W1X2/51 U2/44=A54/10 D56/08=E56/08 E40/12
ExtRRpy PLB/56=D68/13 D56/14=E56/02 F40/02
Read E40/05 F40/14 E41/05 to E41/12 (Disply) E36/09=E35/07 E32/07
~Read E41/08 E41/07 H47/08

(Trigger Write, and the Write Latches)
n/c E30/07 E30/14
uTw E30/02 E31/10
~TwPh2 E31/05 E31/03
PendW E31/02 E30/10 E31/09 (Disply) E32/09
~PendW E30/05 E31/04
~IntTw E31/08 F34/13=F37/03 E41/03 F41/02 E53/10=D53/06 A54/12=U2/42
    W1X2/24 L02/02
ExtTw F41/11 E54/04=D54/12 D67/11=PLB26
n/c E31/13
IntWRpy N01/06 W2X1/36 U1/50=A55/04 D53/09=E53/07 G36/12=G35/04 E31/14
ExtWRpy PLB/27=D67/12 D55/13=E55/03 F40/04
Write E31/06 F40/12 E41/02 to E41/14 (Disply) E38/11=E33/05 E32/05
~Write E41/06 E41/04 H43/10

(***) Interrupt Logic (***)

IFUint1 PLC/22=F67/07 H65/02
IFUint2 PLC/23=F67/08 H65/04
IFUint3 PLC/21=F67/06 H66/02
H65/14 H62/06
H65/12 H63/06
H66/14 H64/06
H62/02 H58/04
H63/02 H59/09
H64/02 H61/04
PIntEn1 SKTG/39=F03/11 H33/06=H38/10 H58/03
PIntEn2 SKTG/36=F03/08 H33/10=H38/06 H59/07
PIntEn3 SKTG/35=F03/07 H33/11=H38/05 H61/03
n/c H58/13 H59/12 H61/13
~Trace1 SKTG/40=F03/12 H33/04=H38/12 H62/04
~Trace2 SKTG/34=F03/06 H35/13=H36/03 H63/04
~Trace3 SKTG/41=F03/13 H33/14=H38/02 H64/04
H62/03 H62/09
H63/03 H63/09
H64/03 H64/09
ManInt1 SKTG/05=F04/05 H35/09=H36/07 G54/04 H62/10
ManInt2 SKTG/06=F04/06 H35/08=H36/08 G54/06 H63/10
ManInt3 SKTG/07=F04/07 H35/07=H36/09 G54/08 H64/10
~Raise1 H58/02 H62/07 H62/05 to H58/10
~Raise2 H59/05 H63/07 H63/05 to H55/07
~Raise3 H61/02 H64/07 H64/05 to H57/03
n/c H58/12 H60/12 H57/12 H57/13 H57/14
IntLat1 H58/05 H54/07
IntLat2 H55/05 H60/07 H55/13
IntLat3 H57/02 H57/10
~IntLat1 H54/05 H58/07 H54/09 H54/13 H55/14 H56/09
~IntLat2 H60/05 H55/10 H55/09 H54/14
~IntLat3 H57/05 H57/04 H56/07 H56/12
n/c H54/12 H55/12 H56/10
LatInd1 H54/08 H37/08=H34/08 F03/02=SKTG/30
LatInd2 H55/08 H37/07=H34/09 F03/01=SKTG/29
LatInd3 H56/05 H37/09=H34/07 F03/03=SKTG/31
~EinMSB H54/06 H53/09 H54/03
~EinLSB H56/08 H55/06 to H53/13 H55/03
n/c H54/04 H55/04
EinMSB H54/02 H53/07
EinLSB H55/02 H53/12
EoutMSBe (Disply) H53/14 F43/13
EoutLSBe (Disply) H53/04 E36/05=E35/11 E32/11

```

```

EoutMSB H53/06 H56/04 H61/10 E38/10=E33/06 E15/04=D15/12 C13/09
EoutLSB H53/05 H52/09 H60/14 E38/09=E33/07 E14/11=D14/05 C10/09
~EoutMSB H53/02 H52/10 H52/12 H59/14 H60/03
~EoutLSB H53/03 H52/07 H56/03 H59/04 H61/09
n/c H52/04 H52/13 H56/14
~LevInd1 H52/05 H52/03
~LevInd2 H52/08 H52/14
~LevInd3 H56/02 H56/13
LevInd1 H52/02 H37/02=H34/14 F04/01=SKTG/01
LevInd2 H52/06 H37/10=H34/06 F04/02=SKTG/02
LevInd3 H56/06 H37/03=H34/13 F04/03=SKTG/03
n/c H59/13 H60/13 H61/12
~Term1 H59/02 H54/10
~Term2 H60/02 H60/09
~Term3 H61/05 H57/07
(see elsewhere for: Phase1, Trace, Reset, Term, DtE, EtJ)

(***) Single Word & Block Transfer Input/Output, and Terminate (***)

(Request Latch)
n/c F32/10 F32/12 G63/07 G63/13
~tsZ1 F32/05 F34/08=F37/08 G63/09
Z1 G63/06 G63/08 to G63/04 G64/03 (Disply) F43/07
~Z1 G63/02 G63/12 G63/10
~~Z1 G63/05 G59/12 G59/14 G60/09 G60/14 G62/14

(Address Decode)
n/c G60/04 G60/12 G61/03 G61/10
Preg11 D42/06 D52/10=E52/06 G62/13 G61/07
Preg12 D46/05 D52/12=E52/04 G62/04 G61/09 G59/04 G59/10
Preg13 D46/06 D52/11=E52/05 G62/03 G61/04 G60/07 G59/07
~Preg13a G61/02 G59/03 G60/03
Fn14or~Preg12 G61/08 G60/10 G60/13
Fn15&~Preg11 H47/14 G61/05 to G59/09 G59/13

(Request Outputs)
~SIP G60/02 G65/04
~SOP G60/05 G65/02
~RRQ G59/02 H39/04
~PRQ G59/05 H39/02
SIP G65/14 F67/12=PLC/27
SOP G65/11 F67/11=PLC/26
RRQ H39/14 H38/14=H33/02 H04/15=SKTH/15
PRQ H39/11 H38/11=H33/05 H04/12=SKTH/12

(Reply Inputs, and Terminate)
RIP PLC/24=F67/09 G66/02
ROP PLC/25=F67/10 G66/04
RAQ SKTH/23=G04/08 G34/09=G37/07 G58/02
PAQ SKTH/22=G04/07 G34/10=G37/06 G58/04
~Reply G58/12 G58/14 G66/12 G66/14 to G62/09
~Term G62/02 G62/07 G61/14
Term G61/06 H59/03 H60/04 H61/07 (pink link) E47/11
ReplyOrTerm G62/05 G64/10
n/c G61/13 G62/10 G62/12

(Reply Latch)
~tsZ2 G64/05 G64/09
Z2 G64/08 G64/04 (Disply) F43/05
~Z2 G64/02 G64/12 G64/14 G38/13=G33/03 G25/06 G26/05 G27/03
~~Z2 G64/06 F37/05=F34/11 F26/02
n/c G64/13

(Block Transfer Latch)
n/c E11/12
Block H32/14 E05/14 to G10/04 (Disply) E19/08=D19/08 A11/08
~Block E11/05 G10/02 to E05/11 F33/09=F38/07 F39/04
~~Block F39/14 F69/13=PLC/68

(***) Direct J-register from 567 gates to Counter (***)

```

```

(Name   From   Hinge      Countr CouInv)
Jreg01c D06/03 D17/03=E17/13 H05/03 H24/06
Jreg02c D09/03 D16/03=E16/13 H07/03 H24/04
Jreg03c D11/03 D15/03=E15/13 H09/03 H24/10
Jreg04c C17/12 D18/12=E18/04 H26/03 H24/13
Jreg05c C18/02 D19/12=E19/04 H28/03 H32/06
Jreg06c D25/02 D23/04=E23/12 H30/03 H32/04

```

```

(If J5-J6 are both low, and J1-J4 are not all low, add 16).
~Jreg1or2 H24/02 H24/03 to H24/09
~Jreg3or4 H24/05 H24/12 to H24/08
SetC5 H32/02 H32/03 H24/07 to H28/04

```

(*** Counter Inputs gathered from Microprogram Outputs ***)

```

Clear6xx F22/04 F22/08 F22/12 to F21/08
Clear6 F21/05 F20/13
~Clear6 F20/12 H05/07 H07/07 H09/07 H26/07 H28/07 H30/07

```

```

n/c E28/04
sC1 E28/02 H05/04
sC2 F20/03 H07/04
cC3 F20/02 H11/08
sC3&6 F20/07 H09/04 H30/04
SuppressCount F23/02 H11/10

```

(*** Counter Internal Signals ***)

```

JtC F20/14 (not gated with Phase2)
      H05/09 H07/09 H09/09 H26/09 H28/09 H30/09 (and) H28/05

```

```

~CycleRept SKTG/43=F03/15 H11/06
CycleRept H11/02 H11/04 (Cycle Repeat)
Count H11/03 H11/05 to H06/11

```

```

gnd H26/04
n/c H05/05 H07/05 H09/05 H26/05 H30/05

```

```

(Direct Counter Latch to Adder)
CtA1 H05/13 H06/06
CtA2 H07/13 H08/06
CtA3 H09/13 H10/06
CtA4 H26/13 H25/06
CtA5 H28/13 H27/06
CtA6 H30/13 H29/06 H21/02 (why?)
CtA6a H24/14 G20/09 G20/13 (why?)

```

```

(Inverse Counter Latch to Adder)
~CtA1 H05/12 H06/09
~CtA2 H07/12 H08/09
~CtA3 H09/12 H10/09
~CtA4 H26/12 H25/09
~CtA5 H28/12 H27/09
~CtA6 H30/12 H29/09 H24/11 (why?)

```

```

(Counter Adder back to Latch)
AtC1 H06/02 H05/08
AtC2 H08/02 H07/08
n/c H11/09
AtC3 H10/02 H11/07 to H09/08
AtC4 H25/02 H26/08
AtC5 H27/02 H28/08
AtC6 H29/02 H30/08

```

```

(Carry between Counter Adders)
(AtA0 see Count)

```

```

AtA1 H06/13 H08/11
AtA2 H08/13 H10/11
AtA3 H10/13 H25/11
AtA4 H25/13 H27/11
AtA5 H27/13 H29/11

```

(*** Timing ***)

Restart SKTG/38=F03/10 H33/07=H38/09 G54/10 H40/09 (on 88)
(white wire link bypassing H38/09 on 5343)
~Restart H40/08 H45/03

n/c H40/04 H40/12 H40/13 H41/04 H41/12
H42/12 H42/13 H42/14 H43/13
~CycleStop SKTG/37=F03/09 H33/09=H38/07 H40/07
~CycleStopA ["RR"] G52/06 &/or G56/13 to the other and H40/10 (move to Reset?)
CycleStopB H40/05 H41/07
CycleStopC ["TT"] H45/08 &/or H49/03 to the other and H41/10
~OrderStop SKTG/15=F04/15 H35/05=H36/11 H41/09
OrderStop H41/08 H43/03

SetGo H45/04 H40/03
~SetGo H40/02 H42/09
~SetStop H41/05 H43/02 to H42/03
Stopped H42/02 H42/07
~Stopped H42/05 H42/04 H43/07 H40/14
StopLamp H40/06 F38/13=F33/03 (to control panel) SKTG/68=E02/13

(~Write E41/06 E41/04 H43/10)
WTime H45/12 H47/10 F43/09
~WTwor H47/05 H43/12 H45/07
WGate H43/05 and the other to H46/06 &/or H46/13

(~Read E41/08 E41/07 H47/08)
RTime H45/13 H47/04 H47/06 F43/11
~RTime H47/02 H49/07
~RTwor H47/03 to H45/06 &/or H50/06 &/or H50/13 to H47/09
RGate H47/07 H45/11

TLinkA H45/05 to or from H49/11
TLinkB H49/10 to or from H49/13

(~~Phase1 H49/09 G51/04)
(~~Phase2 H49/08 H47/13)
PhaseC H49/05 H41/03 H43/14
~PhaseC H41/02 E39/10 E37/14=E34/02 E30/09
PhaseR H49/12 F37/13=F34/03 E29/09
PhaseW H49/04 &/or H49/06 to the other and E37/03=E34/13 E31/12 E11/07

(*** Reset ***)

ResetK SKTG/33=F03/05 H33/13=H38/03 G54/02 G52/14
~JumpK SKTG/08=F04/08 H34/03=H37/13 G52/13

n/c G53/06 G53/08 G53/13 G53/14
ResetA G52/03 &/or G52/08 to the other and G53/07
~ResetB G53/05 G53/03
ResetC G53/02 G53/12
ResetD G52/04 &/or G56/04 to the other and G53/11

n/c E24/13 (G53/14)
~Reset G53/10 (High to Run, Low to Reset) E38/04=E33/12
E24/14 E29/12 E30/12 E41/09 E41/13 E47/13 F55/02 F55/04
G53/09 G63/03 H31/10 H42/10 H43/09 H57/09 H58/09 H60/10
~~Reset G53/04 (Low to Run, High to Reset) H38/08=H33/08
H06/07 H08/07 H10/07 H25/07 H27/07 H29/07 H32/11

ResetLamp E24/06 (to control panel) SKTG/69=E02/14
ResetIFU F55/11 (to interface) PLC/16=F67/01
G37/04=G34/12 (to paper tape) SKTH/49=G03/06
ResetXst F55/14 E53/13=D53/03 (to extra store) PLB/51=D68/08

(*** Control Panel Input Pull-down Resistors ***)

gnd G54/03 G54/05 G54/07 G54/09 G54/11
n/c G54/12 G54/13 (unused resistor)

(*** Control Deck Margins and Reference Voltages ***)

[V]

MarginsF53 PLA/18=B67/03 D55/08=E55/08 F53/02
MarginsH46 F53/10 H46/03
MarginsF54 PLA/17=B67/02 D54/09=E54/07 F54/02
MarginsH50 F54/10 H50/03

[X]

(*** Links between connectors ***)

[L]

(Name	SKTG	Bridge	Hinge	PLA)
SG09&PA31	SKTG/09=F04/09	G35/11=G36/05	E56/03=D56/13	A68/03=PLA/31
SG10&PA30	SKTG/10=F04/10	G35/10=G36/06	E56/04=D56/12	A68/02=PLA/30
SG20&PA26	SKTG/20=E04/05	H35/14=H36/02	E56/05=D56/11	B67/11=PLA/26

(Name	SKTH	Bridge	PLC)
SH14&PC64	SKTH/14=H04/14	H35/03=H36/13	F69/09=PLC/64
SH13&PC65	SKTH/13=H04/13	H35/04=H36/12	F69/10=PLC/65
SH11&PC66	SKTH/11=H04/11	H35/06=H36/10	F69/11=PLC/66

[X]

(*** Unused 566 Expander gates, outputs listed last ***)

n/c F45/06 F45/11 F45/13 to F45/12
n/c F51/06 F51/11 F51/13 to F51/12
n/c H18/06 H18/11 H18/13 to H18/12
n/c H21/06 H21/11 H21/13 to H21/12

(*** Other unused gates, outputs listed last ***)

n/c (567) A58/06 to A58/02
n/c (567) A58/04 to A58/03
n/c (567) A58/08 A58/09 to A58/07
n/c (553) D31/12 D31/13 to D31/03 D31/04 D31/05 (latch)
n/c (567) D59/10 to D59/05
n/c (567) D59/11 to D59/14
n/c (567) D64/04 to D64/03
n/c (567) D64/08 D64/09 to D64/07
n/c (567) E06/11 to E06/14
n/c (567) E06/13 to E06/12
n/c (573) F57/04 to F57/14 (Tx)
n/c (561) G11/14 to G11/09 (shared inputs used)
n/c (561) G12/14 to G12/09 (shared inputs used)
n/c (561) G27/14 to G27/09 (shared inputs used)
n/c (567) H11/13 to H11/12
n/c (563) H17/07 H17/08 to H17/05
n/c (567) H32/13 to H32/12
n/c (567) H41/13 H41/14 to H41/06
n/c (567) H62/11 to H62/14, H62/13 to H62/12
n/c (567) H63/11 to H63/14, H63/13 to H63/12
n/c (567) H64/11 to H64/14, H64/13 to H64/12
n/c (587) H66/04 to H66/12 (Rx)

(*** Power connections ***)

(Unable to distinguish power versus sensing wires beyond PLA)
(On column A hinge connectors: pin01=pin02, pin14=pin15)

[M]

-5v PLA/27=B67/12 PLA/28=B67/13 PLA/49=B68/06 PLA/50=B68/07
PLA/53=B68/10 PLA/55=B68/12 PLA/56=B68/13
SKTF/19=C04/04 SKTF/31=D03/03 SKTF/32=D03/04 SKTF/34=D03/06
SKTF/35=D03/07 D19/04=E19/12 SKTG/70=E02/15 SKTG/81=E01/14
B36/05=B35/11 B36/06=B35/10 B36/07=B35/09 B36/09=B35/07
B36/11=B35/05 B36/12=B35/04 C37/03=C34/13 D37/04=D34/12
U2/01=A17/14 U2/13=A17/02 U2/14=A19/14 U2/26=A19/02
J01/01 J02/01 J03/01 J04/01 J05/01 K02/01 K03/01 K04/01 K05/01
N02/01 N03/01 N04/01 N05/01 P01/01 P02/01 P03/01 P04/01 P05/01
Y1/26 Y2/25 K07/01 K07/02 K07/07 P07/01 P07/02 P07/07

K01/01 L01/01 M01/01 N01/01 L02/01 M02/01
 L03/01 M03/01 L04/01 M04/01 L05/01 M05/01
 L07/01 L07/03 M01/03 N01/18
 W1X2/01 W1X2/13 W1X2/50 W1X2/54 W1X2/58 W1X2/59 W2X1/61 W2X1/62

[0]

gnd PLA/01=A67/01 PLA/02=A67/02 PLA/03=A67/03 PLA/04=A67/04
 PLA/05=A67/05 PLA/06=A67/06 PLA/07=A67/07 PLA/08=A67/08
 PLA/09=A67/09 PLA/10=A67/10 PLA/11=A67/11 PLA/13=A67/13
 PLA/32=A68/04 PLA/39=A68/11 PLA/48=B68/05
 PLA/57=A69/01 PLA/58=A69/02 PLA/59=A69/03
 PLA/71=A70/03 PLA/72=A70/04 PLA/73=A70/05 PLA/74=A70/06
 PLA/75=A70/07 PLA/79=B70/12 PLA/80=B70/13 PLA/81=B70/14
 PLB/01=C67/01 PLB/02=C67/02 PLB/03=C67/03 PLB/04=C67/04
 PLB/05=C67/05 PLB/06=C67/06 PLB/23=D67/08 PLB/25=D67/10
 PLB/53=D68/10 PLB/55=D68/12 PLB/70=D69/15
 PLB/73=C70/05 PLB/74=C70/06 PLB/75=C70/07 PLB/76=D70/09 PLB/77=D70/10
 PLB/78=D70/11 PLB/79=D70/12 PLB/80=D70/13 PLB/81=D70/14 PLB/82=D70/15
 PLC/01=E67/01 PLC/02=E67/02 PLC/03=E67/03 PLC/04=E67/04 PLC/29=E68/01
 PLC/62=E69/06 PLC/63=E69/07 PLC/67=F69/12 PLC/69=F69/14
 PLC/70=F69/15 PLC/71=E70/03 PLC/72=E70/04 PLC/73=E70/05
 PLC/74=E70/06 PLC/75=E70/07 PLC/76=F70/09 PLC/77=F70/10
 PLC/78=F70/11 PLC/79=F70/12 PLC/80=F70/13 PLC/81=F70/14
 SKTE/01=B04/01 SKTF/01=D04/01 SKTF/02=D04/02 SKTF/03=D04/03
 SKTG/04=F04/04 SKTG/55=E03/12 SKTG/57=F02/01 SKTG/58=F02/02
 SKTG/59=F02/03 SKTG/60=F02/04 SKTG/61=F02/05 SKTG/62=F02/06
 SKTG/63=F02/07 SKTG/64=E02/09 SKTG/65=E02/10 SKTG/66=E02/11
 SKTH/29=H03/01 SKTH/30=H03/02 SKTH/31=H03/03 SKTH/32=H03/04
 SKTH/33=H03/05 SKTH/34=H03/06 SKTH/35=H03/07
 SKTH/57=H02/01 SKTH/58=H02/02 SKTH/59=H02/03
 U1/01=A16/14 U1/13=A16/02 U1/14=A18/14 U1/26=A18/02
 U2/27=A52/14 U2/39=A52/02 U2/40=A54/14 U2/52=A54/02
 D51/01=E51/15 D51/15=E51/01 D56/01=E56/15 D56/15=E56/01
 D17/01=E17/15 D17/15=E17/01 D19/01=E19/15 D19/15=E19/01
 D21/01=E21/15 D21/15=E21/01
 A34/01=A37/15 A34/15=A37/01 B33/01=B38/15 B33/15=B38/01
 B34/01=B37/15 B34/15=B37/01 C34/01=C37/15 C34/15=C37/01
 D33/01=D38/15 D33/15=D38/01 D35/01=D36/15 D35/15=D36/01
 E34/01=E37/15 E34/15=E37/01 F33/01=F38/15 F33/15=F38/01
 F35/01=F36/15 F35/15=F36/01 G34/01=G37/15 G34/15=G37/01
 H33/01=H38/15 H33/15=H38/01 H35/01=H36/15 H35/15=H36/01
 F53/01 F54/01 G56/02 H45/14 H46/14 H49/14 H50/14
 J01/09 J02/09 J03/09 J04/09 J05/09 K02/09 K03/09 K04/09 K05/09
 N02/09 N03/09 N04/09 N05/09 P01/09 P02/09 P03/09 P04/09 P05/09
 J06/08 K06/08 L06/08 M06/08 N06/08 P06/08
 J06/09 K06/09 L06/09 M06/09 N06/09 P06/09
 K08/09 K09/09 K10/09 L08/09 L09/09 L10/09 M08/09 M09/09 M10/09
 N08/09 N09/09 N10/09 P08/09 P09/09 P10/09 K07/09 P07/09
 K01/09 L01/09 M01/09 N01/09 L02/09 M02/09
 L03/09 M03/09 L04/09 M04/09 L05/09 M05/09
 L07/09 M07/09 N01/14
 W2X1/01 W2X1/15 W2X1/16 W2X1/17 W2X1/25 W2X1/28 W2X1/34 W2X1/37 W2X1/55
 A61/01 (and pin 01 of all type 5## except 566)

[5]

+5vL PLA/19=B67/04 PLA/40=A68/12 PLA/41=A68/13 PLA/42=A68/14
 PLA/43=A68/15 PLA/44=B68/01 PLA/45=B68/02 PLA/46=B68/03
 PLA/47=B68/04 PLA/64=B69/09 PLA/65=B69/10 PLA/66=B69/11
 PLA/67=B69/12 PLA/68=B69/13 PLA/69=B69/14 PLA/70=B69/15
 PLB/52=D68/09 PLC/48=F68/05
 SKTF/20=C04/05 SKTF/21=C04/06 SKTF/22=C04/07
 SKTF/29=D03/01 SKTF/30=D03/02
 SKTG/72=F01/04 SKTG/73=F01/05 SKTG/74=F01/06 SKTG/75=F01/07
 SKTG/76=E01/09 SKTH/43=H03/15
 D52/01=E52/15 D52/15=E52/01 D54/01=E54/15 D54/15=E54/01
 D15/01=E15/15 D15/15=E15/01 D20/01=E20/15 D20/15=E20/01
 D22/01=E22/15 D22/15=E22/01
 A35/01=A36/15 A35/15=A36/01 B35/01=B36/15 B35/15=B36/01
 C35/01=C36/15 C35/15=C36/01 D34/01=D37/15 D34/15=D37/01
 E33/01=E38/15 E33/15=E38/01 E35/01=E36/15 E35/15=E36/01
 F34/01=F37/15 F34/15=F37/01 G33/01=G38/15 G33/15=G38/01

G35/01=G36/15 G35/15=G36/01 H34/01=H37/15 H34/15=H37/01
F53/15 F54/15 H45/02 H49/02
A61/15 (and pin 15 of all type 5## except 566 573 G52 G53)

[P]

+5vS PLA/14=A67/14 PLA/15=A67/15 PLA/16=B67/01
D50/01=E50/15 D50/15=E50/01
A38/01=A33/15 A38/15=A33/01 C38/01=C33/15 C38/15=C33/01
U1/27=A53/14 U1/39=A53/02
J01/10 J02/10 J03/10 J04/10 J05/10 K02/10 K03/10 K04/10 K05/10
N02/10 N03/10 N04/10 N05/10 P01/10 P02/10 P03/10 P04/10 P05/10
K08/10 K09/10 K10/10 L08/10 L09/10 L10/10 M08/10 M09/10 M10/10
N08/10 N09/10 N10/10 P08/10 P09/10 P10/10 K07/10 P07/10
K01/10 L01/10 M01/10 N01/10 L02/10 M02/10
L03/10 M03/10 L04/10 M04/10 L05/10 M05/10 L07/10
W1X2/11 W1X2/12 W1X2/61 W1X2/62
(and pin 15 of all 42 type 573)

[2]

+12v PLA/60=A69/04 PLA/61=A69/05
A37/13=A34/03 B36/08=B35/08
U1/20=A18/08 U2/21=A19/07
J01/03 J02/03 J03/03 J04/03 J05/03 K02/03 K03/03 K04/03 K05/03
N02/03 N03/03 N04/03 N05/03 P01/03 P02/03 P03/03 P04/03 P05/03
L01/03 L04/18 M05/03
(and to Z1/41 & Z2/41) W2X1/21 W2X1/22 W2X1/23 W2X1/24

[8]

+18v PLA/33=A68/05 PLA/34=A68/06 PLA/35=A68/07
PLA/51=B68/08 PLA/52=B68/09 PLA/62=A69/06 PLA/63=A69/07
D37/14=D34/02 D38/14=D33/02
U1/22=A18/06 U1/40=A55/14 U1/52=A55/02 U2/22=A19/06
M07/18 L07/18 M01/18
W1X2/56 W1X2/55 W1X2/35 W1X2/32 W1X2/25 W1X2/22
J06/17 K06/17 L06/17 M06/17 N06/17 P06/17
J06/18 K06/18 L06/18 M06/18 N06/18 P06/18
J01/18 J02/18 J03/18 J04/18 J05/18 K02/18 K03/18 K04/18 K05/18
N02/18 N03/18 N04/18 N05/18 P01/18 P02/18 P03/18 P04/18 P05/18
V1/10 V1/11 V1/12 V1/14 V1/15 V1/36 V1/37 V1/39 V1/40 V1/41
V2/10 V2/11 V2/12 V2/14 V2/37 V2/39 V2/40 V2/41
n/c (Isolated) V1/13 V1/16 V1/35 V1/38
V2/13 V2/15 V2/16 V2/35 V2/36 V2/38

+18va M07/11 K08/13 K09/13 K10/13 L08/12 L09/12 L10/12 M08/12 M09/12 M10/12
+18vb M07/12 N08/13 N09/13 N10/13 P08/12 P09/12 P10/12
+18vc M07/15 K08/12 K09/12 K10/12 L08/13 L09/13 L10/13 M08/13 M09/13 M10/13
+18vd M07/16 N08/12 N09/12 N10/12 P08/13 P09/13 P10/13

[A]

+5aux PLA/23=B67/08 D54/11=E54/05 & D55/11=E55/05 G56/14 G52/15 G53/15
G36/07=G35/09 SKTG/11=F04/11 SKTG/14=F04/14
-5aux PLA/25=B67/10 D56/10=E56/06 G56/12

[G]

~PwrGd PLA/21=B67/06 to D55/10=E55/06 G52/07
PGStore G52/02 to E54/09=D54/07 A53/04=U1/37 W1X2/26 L01/11
PGReshaped L01/06 to L03/16 M02/16 M03/16

[X]

(*** Temperature Sensing ***)

[T]

RefSensor Y2/26 to L07/05 L07/12
TempRef L07/04 to U1/30=A53/11 A68/01=PLA/29
LimSensor Y1/25 to W1X2/53 M01/05 M01/12
TempLink M01/04 to L01/08 N01/16 (and why? to) W2X1/20
StoreOther L01/07 to W1X2/28 U1/31=A53/10 A68/09=PLA/37 D53/10=E53/06 G52/12
StoreReady L01/17 to U1/23=A18/05 D17/10=E17/06 E05/13
W1X2/27 U1/32=A53/09 B68/11=PLA/54 D67/07=PLB/22
~StoreReady E05/12 to E04/11=SKTG/26

[X]

(*** Remaining Store Hinge connections ***)

(Isolated)

n/c U1/10=A16/05 U1/12=A16/03 U1/21=A18/07 U1/41=A55/13
U2/09=A17/06 U2/45=A54/09 U2/48=A54/06

[V]

(Margins)

MarginsL04 U1/42=A55/12 L04/03 W2X1/58 Z1/58 B67/05=PLA/20
MarginsN01 U1/45=A55/09 N01/04 W2X1/59 Z1/59 B67/07=PLA/22
MarginsM05 U1/48=A55/06 M05/05 W2X1/57 Z1/57 A67/12=PLA/12 (to 30F/05s?)

[X]

(*** Data within Internal Store to Core ***)

("b" = bottom 4K, "t" = top 4K)

(Name	Frm30F	To33F)
Driver01b	P01/16	P06/11
Driver01t	P01/17	P06/12
Driver02b	P02/16	P06/13
Driver02t	P02/17	P06/14
Driver03b	P03/16	P06/15
Driver03t	P03/17	P06/16
Driver04b	P04/16	N06/11
Driver04t	P04/17	N06/12
Driver05b	P05/16	N06/13
Driver05t	P05/17	N06/14
Driver06b	N02/16	N06/15
Driver06t	N02/17	N06/16
Driver07b	N03/16	M06/11
Driver07t	N03/17	M06/12
Driver08b	N04/16	M06/13
Driver08t	N04/17	M06/14
Driver09b	N05/16	M06/15
Driver09t	N05/17	M06/16
Driver10b	K02/16	J06/15
Driver10t	K02/17	J06/16
Driver11b	K03/16	J06/13
Driver11t	K03/17	J06/14
Driver12b	K04/16	J06/11
Driver12t	K04/17	J06/12
Driver13b	K05/16	K06/15
Driver13t	K05/17	K06/16
Driver14b	J01/16	K06/13
Driver14t	J01/17	K06/14
Driver15b	J02/16	K06/11
Driver15t	J02/17	K06/12
Driver16b	J03/16	L06/15
Driver16t	J03/17	L06/16
Driver17b	J04/16	L06/13
Driver17t	J04/17	L06/14
Driver18b	J05/16	L06/11
Driver18t	J05/17	L06/12

(Name	Frm33F	Core)
Inhibit01b	P06/02	V1/46
Inhibit01t	P06/03	V2/46
Inhibit02b	P06/04	V1/45
Inhibit02t	P06/05	V2/45
Inhibit03b	P06/06	V1/44
Inhibit03t	P06/07	V2/44
Inhibit04b	N06/02	V1/43
Inhibit04t	N06/03	V2/43
Inhibit05b	N06/04	V1/42
Inhibit05t	N06/05	V2/42
Inhibit06b	N06/06	V1/50
Inhibit06t	N06/07	V2/50
Inhibit07b	M06/02	V1/49
Inhibit07t	M06/03	V2/49
Inhibit08b	M06/04	V1/48

Inhibit08t M06/05 V2/48
Inhibit09b M06/06 V1/47
Inhibit09t M06/07 V2/47
Inhibit10b J06/06 V1/01
Inhibit10t J06/07 V2/01
Inhibit11b J06/04 V1/02
Inhibit11t J06/05 V2/02
Inhibit12b J06/02 V1/03
Inhibit12t J06/03 V2/03
Inhibit13b K06/06 V1/04
Inhibit13t K06/07 V2/04
Inhibit14b K06/04 V1/05
Inhibit14t K06/05 V2/05
Inhibit15b K06/02 V1/06
Inhibit15t K06/03 V2/06
Inhibit16b L06/06 V1/07
Inhibit16t L06/07 V2/07
Inhibit17b L06/04 V1/08
Inhibit17t L06/05 V2/08
Inhibit18b L06/02 V1/09
Inhibit18t L06/03 V2/09

(*** Data within Internal Store from Core ***)

(Name	Core	To30F)
Sense01a	V2/30	P01/07
Sense01b	V1/30	P01/08
Sense02a	V2/31	P02/07
Sense02b	V1/31	P02/08
Sense03a	V2/32	P03/07
Sense03b	V1/32	P03/08
Sense04a	V2/33	P04/07
Sense04b	V1/33	P04/08
Sense05a	V2/34	P05/07
Sense05b	V1/34	P05/08
Sense06a	V2/26	N02/07
Sense06b	V1/26	N02/08
Sense07a	V2/27	N03/07
Sense07b	V1/27	N03/08
Sense08a	V2/28	N04/07
Sense08b	V1/28	N04/08
Sense09a	V2/29	N05/07
Sense09b	V1/29	N05/08
Sense10a	V2/25	K02/07
Sense10b	V1/25	K02/08
Sense11a	V2/24	K03/07
Sense11b	V1/24	K03/08
Sense12a	V2/23	K04/07
Sense12b	V1/23	K04/08
Sense13a	V2/22	K05/07
Sense13b	V1/22	K05/08
Sense14a	V2/21	J01/07
Sense14b	V1/21	J01/08
Sense15a	V2/20	J02/07
Sense15b	V1/20	J02/08
Sense16a	V2/19	J03/07
Sense16b	V1/19	J03/08
Sense17a	V2/18	J04/07
Sense17b	V1/18	J04/08
Sense18a	V2/17	J05/07
Sense18b	V1/17	J05/08

(*** Address Drivers & Gates within Internal Store ***)

(J01,J02,J03)
P08/01 Y2/49
P08/02 Y2/03
P08/03 Y2/04
P08/05 Y2/02
P08/11 Y2/01
P08/14 Y2/50

P09/01 Y2/47
P09/02 Y2/45
P09/03 Y2/46
P09/05 Y2/44
P09/11 Y2/43
P09/14 Y2/48
P10/01 Y2/05
n/c P10/02 P10/03
P10/05 Y2/08
P10/11 Y2/07
P10/14 Y2/06

(J04,J05,J06)
N08/01 Y1/49
N08/02 Y1/03
N08/03 Y1/04
N08/05 Y1/02
N08/11 Y1/01
N08/14 Y1/50
N09/01 Y1/47
N09/02 Y1/45
N09/03 Y1/46
N09/05 Y1/44
N09/11 Y1/43
N09/14 Y1/48
N10/01 Y1/05
n/c N10/02 N10/03
N10/05 Y1/08
N10/11 Y1/07
N10/14 Y1/06

(J07,J08,J09)
K08/01 Y2/09 Y2/29
K08/02 Y2/15 Y2/31
K08/03 Y2/16 Y2/32
K08/05 Y2/12 Y2/28
K08/11 Y2/11 Y2/27
K08/14 Y2/10 Y2/30
K09/01 Y2/13 Y2/33
K09/02 Y2/17 Y2/37
K09/03 Y2/18 Y2/38
K09/05 Y2/22 Y2/42
K09/11 Y2/21 Y2/41
K09/14 Y2/14 Y2/34
K10/01 Y2/19 Y2/35
n/c K10/02 K10/03
K10/05 Y2/24 Y2/40
K10/11 Y2/23 Y2/39
K10/14 Y2/20 Y2/36

(J10,J11,J12,J13)
L08/01 Y1/11
L08/02 Y1/13
L08/03 Y1/14
L08/05 Y1/10
L08/11 Y1/09
L08/14 Y1/12
L09/01 Y1/15
L09/02 Y1/19
L09/03 Y1/20
L09/05 Y1/24
L09/11 Y1/23
L09/14 Y1/16
L10/01 Y1/17
n/c L10/02 L10/03
L10/05 Y1/22
L10/11 Y1/21
L10/14 Y1/18

(J10,J11,J12,J13)
M08/01 Y1/29

M08/02 Y1/31
M08/03 Y1/32
M08/05 Y1/28
M08/11 Y1/27
M08/14 Y1/30
M09/01 Y1/33
M09/02 Y1/37
M09/03 Y1/38
M09/05 Y1/42
M09/11 Y1/41
M09/14 Y1/34
M10/01 Y1/35
n/c M10/02 M10/03
M10/05 Y1/40
M10/11 Y1/39
M10/14 Y1/36

(*** Remaining Internal Store Internal Signals ***)
(Sometimes direction & sense uncertain)

K01/03 J01/02 J02/02 J03/02 J04/02 J05/02 K02/02 K03/02 K04/02 K05/02
N02/02 N03/02 N04/02 N05/02 P01/02 P02/02 P03/02 P04/02 P05/02
Lower4K K01/14
J01/12 J02/12 J03/12 J04/12 J05/12 K02/12 K03/12 K04/12 K05/12
N02/12 N03/12 N04/12 N05/12 P01/12 P02/12 P03/12 P04/12 P05/12
Upper4K K01/18
J01/14 J02/14 J03/14 J04/14 J05/14 K02/14 K03/14 K04/14 K05/14
N02/14 N03/14 N04/14 N05/14 P01/14 P02/14 P03/14 P04/14 P05/14

[V]

(Inhibit Margins?)

M05/06 J01/05 J02/05 J03/05 J04/05 J05/05 K02/05 K03/05 K04/05 K05/05
N02/05 N03/05 N04/05 N05/05 P01/05 P02/05 P03/05 P04/05 P05/05

(XY Driver Margins?)

N01/12 W2X1/26 K07/12 P07/12
N01/15 W1X2/19 K07/05 P07/05

[X]

N01/11 W1X2/21 K07/13 P07/13

RGSX K01/07 W2X1/12 K08/04 K09/04 K10/04
WGSX K01/04 W2X1/11 L08/04 L09/04 L10/04 M08/04 M09/04 M10/04
WGSY K01/05 W1X2/33 N08/04 N09/04 N10/04
RGSY K01/06 W1X2/34 P08/04 P09/04 P10/04

IWX K07/14 K08/06 K09/06 K10/06
IRX K07/11 L08/06 L09/06 L10/06 M08/06 M09/06 M10/06
IRY P07/11 N08/06 N09/06 N10/06
IWY P07/14 P08/06 P09/06 P10/06

W L03/14 M04/11 W1X2/20 K07/04 P07/04
RX M04/08 M03/14 W2X1/13 K07/03
RY M03/08 M03/07 W1X2/30 P07/03

L05/11 L03/05
L03/12 N01/17
N01/03 M02/07 M02/08 K01/16
K01/13 K01/15 L03/07 L03/08
L03/17 L03/13
M03/05 L05/08
L05/06 M04/06 L03/15 L02/13
K01/11 L04/08
L04/02 M05/02
L04/07 L04/11 L03/02
L04/04 L03/11
M02/17 M03/17 M03/13
M03/11 L02/16
L02/15 M02/12
M02/11 M02/14
M02/13 M02/05
M03/12 N01/13
L02/14 M04/14
L02/08 L04/06 L05/07 M02/15 M03/15 M04/07 [***]

(Isolated)

n/c (33F) J06/01 K06/01 L06/01 M06/01 N06/01 P06/01
J06/10 K06/10 L06/10 M06/10 N06/10 P06/10
(30F) J01/04 J02/04 J03/04 J04/04 J05/04 K02/04 K03/04 K04/04 K05/04
N02/04 N03/04 N04/04 N05/04 P01/04 P02/04 P03/04 P04/04 P05/04
J01/06 J02/06 J03/06 J04/06 J05/06 K02/06 K03/06 K04/06 K05/06
N02/06 N03/06 N04/06 N05/06 P01/06 P02/06 P03/06 P04/06 P05/06
J01/15 J02/15 J03/15 J04/15 J05/15 K02/15 K03/15 K04/15 K05/15
N02/15 N03/15 N04/15 N05/15 P01/15 P02/15 P03/15 P04/15 P05/15
(21F) K07/06 K07/08 K07/15 K07/16 K07/17 K07/18
P07/06 P07/08 P07/15 P07/16 P07/17 P07/18
(32F) M07/01 M07/02 M07/03 M07/04 M07/05 M07/06
M07/07 M07/08 M07/10 M07/13 M07/14 M07/17
(39F) L07/02 L07/06 L07/07 L07/08 L07/11 L07/14 L07/15 L07/16 L07/17
M01/02 M01/06 M01/07 M01/08 M01/11 M01/14 M01/15 M01/16 M01/17
(40F) L01/02 L01/05 L01/14 L01/15 L01/16
(23F) N01/02 N01/07 N01/08
(35) L02/05 L02/18
(35F) M02/18
(34) L03/18 M03/18
(38) L04/12 L04/13 L04/15 L04/16 L04/17
(36F) M04/02 M04/03 M04/12 M04/13 M04/15 M04/16 M04/17 M04/18
(45) L05/12 L05/13 L05/15 L05/16 L05/17 L05/18
(27F) M05/11 M05/12 M05/13 M05/14 M05/15 M05/16 M05/17 M05/18

*** EOF ***