International Telecommunication Union

ITU-T G.8031/Y.1342

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

Corrigendum 1

(09/2010)

SERIES G: TRANSMISSION SYSTEMS AND MEDIA, DIGITAL SYSTEMS AND NETWORKS

Packet over Transport aspects – Ethernet over Transport aspects

SERIES Y: GLOBAL INFORMATION INFRASTRUCTURE, INTERNET PROTOCOL ASPECTS AND NEXT-GENERATION NETWORKS

Internet protocol aspects – Transport

Ethernet linear protection switching

Corrigendum 1

Recommendation ITU-T G.8031/Y.1342 (2009) – Corrigendum 1

ITU-T G-SERIES RECOMMENDATIONS

TRANSMISSION SYSTEMS AND MEDIA, DIGITAL SYSTEMS AND NETWORKS

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GENERAL CHARACTERISTICS COMMON TO ALL ANALOGUE CARRIER-TRANSMISSION SYSTEMS	G.200–G.299
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COORDINATION OF RADIOTELEPHONY AND LINE TELEPHONY	G.450–G.499
TRANSMISSION MEDIA AND OPTICAL SYSTEMS CHARACTERISTICS	G.600–G.699
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For further details, please refer to the list of ITU-T Recommendations.

Recommendation ITU-T G.8031/Y.1342

Ethernet linear protection switching

Corrigendum 1

Summary

Corrigendum 1 to Recommendation ITU-T G.8031/Y.1342 clarifies clause 11.1 (APS format), clause 11.2.1 (Principle of operation), clause 11.10 (Equal priority requests), clause 11.15 (Failure of protocol defects), Annex A (State transition tables of protection switching), and Appendix IV (State transition diagrams using SDL).

History

Edition	Recommendation	Approval	Study Group
1.0	ITU-T G.8031/Y.1342	2006-06-06	15
1.1	ITU-T G.8031/Y.1342 (2006) Amend. 1	2007-10-07	15
1.2	ITU-T G.8031/Y.1342 (2006) Cor. 1	2008-06-06	15
2.0	ITU-T G.8031/Y.1342	2009-11-13	15
2.1	ITU-T G.8031/Y.1342 (2009) Cor. 1	2010-09-06	15

FOREWORD

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The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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As of the date of approval of this Recommendation, ITU had received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementers are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database at http://www.itu.int/ITU-T/ipr/.

CONTENTS

Recommendation ITU-T G.8031/Y.1342

Ethernet linear protection switching

Corrigendum 1

1) Scope

This corrigendum contains material to correct Recommendation ITU-T G.8031/Y.1342, *Ethernet linear protection switching*.

2) References

Add the following reference:

– Recommendation ITU-T G.8031/Y.1342 (2009), *Ethernet linear protection switching.*

3) Changes to Recommendation ITU-T G.8031/Y.1342

The following subclauses contain changes to be made to Recommendation ITU-T G.8031/Y.1342.

3.1) Clause 11.1, APS format

In Table 11-1, to the right of "Request/State",

Replace:

0110	Manual switch to working (MS-W)	

By:

0110	Deprecated	

3.2) Figure 11-3

On the transition between the Validity check logic and the Mismatch detection logic,

Replace:

"Requested signal" and "bridged signal" far end status

By:

"Requested signal" far end status

3.3) Clause 11.2.1, Principle of operation

Replace:

The "global priority logic" compares the top priority local request with the request of the last received "request/state" information (according to the order of priority of Table 11-1) to determine the top priority global request. In the global priority logic, a state transition by one of three local requests, CLEAR command, clearance of SF(-P) and expiration of WTR timer, shall be calculated first, then further state transitions by the last received far-end request shall be calculated.

By:

The state transitions and the top priority global request are calculated in the "global priority logic" based on the top priority local request, the request of the last received "Request/State" information, and state transition tables defined in Annex A, as follows:

a) If the top priority local request is CLEAR, or clearance of SF(-P), or expiration of WTR, a state transition is calculated first based on the top priority local request and state machine table for local requests to obtain an intermediate state. Then, starting at this intermediate state, the last received far end request and the state machine table for far end requests are used to calculate the final state.

b) If the top priority local request is neither CLEAR, nor clearance of SF(-P), nor expiration of WTR, the "global priority logic" compares the top priority local request with the request of the last received "Request/State" information based on Table 11-1.

   i) If the top priority local request has higher or equal priority, it is used with the state transition table for local requests defined in Annex A to determine the final state; otherwise

   ii) The request of the last received "Request/State" information is used with the state transition table for far end requests defined in Annex A to determine the final state.

The final state corresponds to the "top priority global request".

Delete:

As described above, state transitions of a protection switching process are calculated within the "global priority logic". All state transitions caused by a top priority global request are defined in Annex A.

Replace:

The bridge/selector status is transmitted to the far end via the "request signal" and "bridged signal" (with coding as described in Table 11-1). It is also compared with the bridge/selector status of the far end as indicated by the received "request signal" and "bridged signal".

By:

The bridge/selector status is transmitted to the far end via the "Requested Signal" and "Bridged Signal" (with coding as described in Table 11-1). It is also compared with the bridge/selector status of the far end as indicated by the received "Requested Signal" and "Bridged Signal".

3.4) Clause 11.10, Equal priority requests

In the last bullet item,

Replace:

Note that MS with the requested signal number 1 and 0 have different priorities.

By:

Note in case MS is issued simultaneously either as local or far end requests to both working and protection transport entities, MS to the working transport entity is considered as having higher priority than MS to the protection transport entity.

3.5) Clause 11.15, Failure of protocol defects

In the third bullet item,

Replace:

– Lack of response to a bridge request (i.e., no match in sent "requested signal" and received "requested signal") for > 50 ms.

By:

– Lack of response to a bridge request (i.e., no match in sent "Requested Signal" and received "Requested Signal") in case of bidirectional switching for > 50 ms.

3.6) Clause A.1.2, Far-end requests

In Table A.2,

Replace:

A	No Request Working/Active Protection/Standby	NR [r/b=null]	(→A)	(→A)	→B	→B	→B	N/A	→M	(→A)	(→A) or →E[a)] or →F[b)]	(→A)

By:

A	No Request Working/Active Protection/Standby	NR [r/b=null]	(→A)	(→A)	→B	→B	→B	→B	→M	(→A)	(→A) or →E[a)] or →F[b)]	(→A)

3.7) Clause A.3.2, Far-end requests

In Table A.6,

Replace:

A	No Request Working/Active Protection/Standby	NR [r=null, b=normal]	(→A)	(→A)	→B	→B	→B	N/A	→M	(→A)	(→A) or →E[a)] or →F[b)]	(→A)

By:

A	No Request Working/Active Protection/Standby	NR [r=null, b=normal]	(→A)	(→A)	→B	→B	→B	→B	→M	(→A)	(→A) or →E[a)] or →F[b)]	(→A)

3.8) Clause A.2.1, Local requests

In Table A.3,

Replace:

H	Manual Switch Working/Active Protection/Standby	MS [r/b=null]	→C	→D	→E	N/A	→F	N/A	→G	O	→A	O

By:

H	Manual Switch Working/Active Protection/Standby	MS [r/b=null]	→C	→D	→E	N/A	→F	N/A	O	O	→A	O

3.9) Clause A.2.2, Far-end requests

In Table A.4,

Replace:

H	Manual Switch Working/Active Protection/Standby	MS [r/b=null]	→A	→A	→B	→B	→B	(→H)	O	O	O	O	O	O	O	O

By:

H	Manual Switch Working/Active Protection/Standby	MS [r/b=null]	→A	→A	→B	→B	O	(→H)	O	O	O	O	O	O	O	O

3.10) Clause A.4.1, Local requests

In Table A.7,

Replace:

H	Manual Switch Working/Active Protection/Standby	MS [r=null, b=normal]	→C	→D	→E	N/A	→F	N/A	→G	O	→A	O

By:

H	Manual Switch Working/Active Protection/Standby	MS [r=null, b=normal]	→C	→D	→E	N/A	→F	N/A	O	O	→A	O

3.11) Clause A.4.2, Far-end requests

In Table A.8,

Replace:

H	Manual Switch Working/Active Protection/Standby	MS [r= null, b=normal]	→A	→A	→B	→B	→B	(→H)	O	O	O	O	O	O	O	O

By:

H	Manual Switch Working/Active Protection/Standby	MS [r= null, b=normal]	→A	→A	→B	→B	O	(→H)	O	O	O	O	O	O	O	O

3.12) Clause A.6.1, Local Requests

In Table A.10,

Replace:

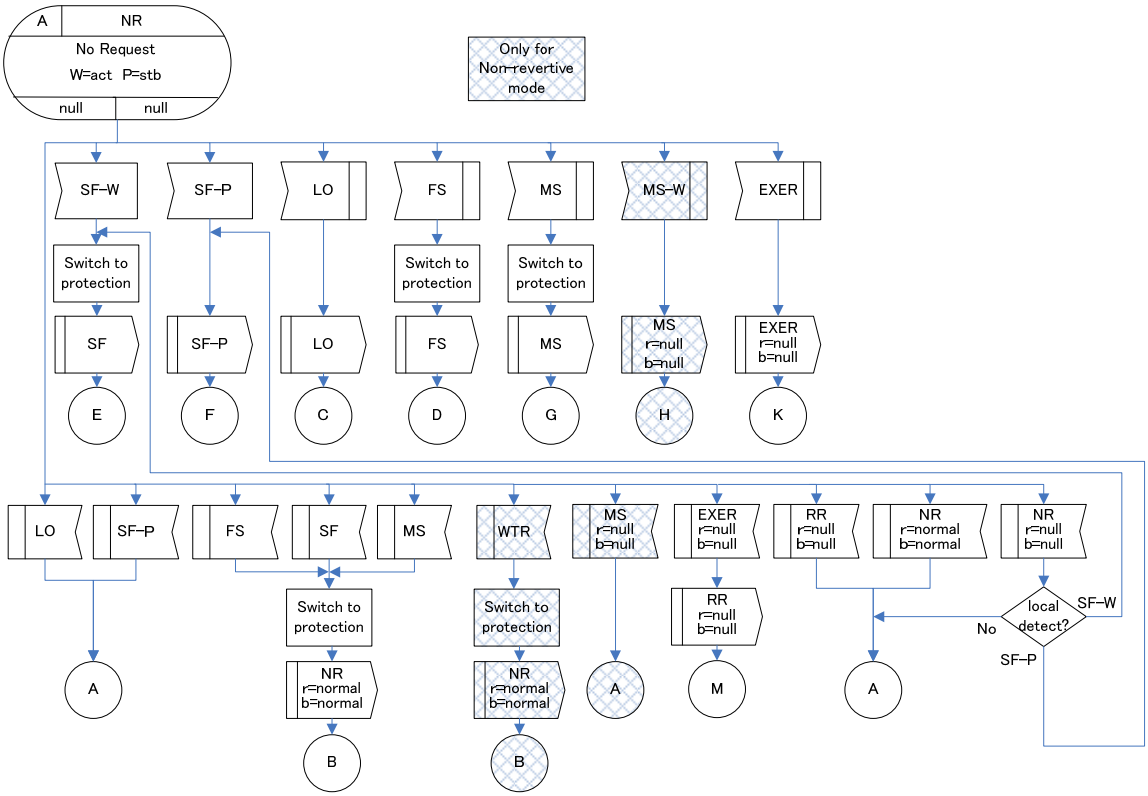
H	Manual Switch Working/Active Protection/Standby	→C	→D	→E	N/A	→F	N/A	→G	O	→A	N/A

By:

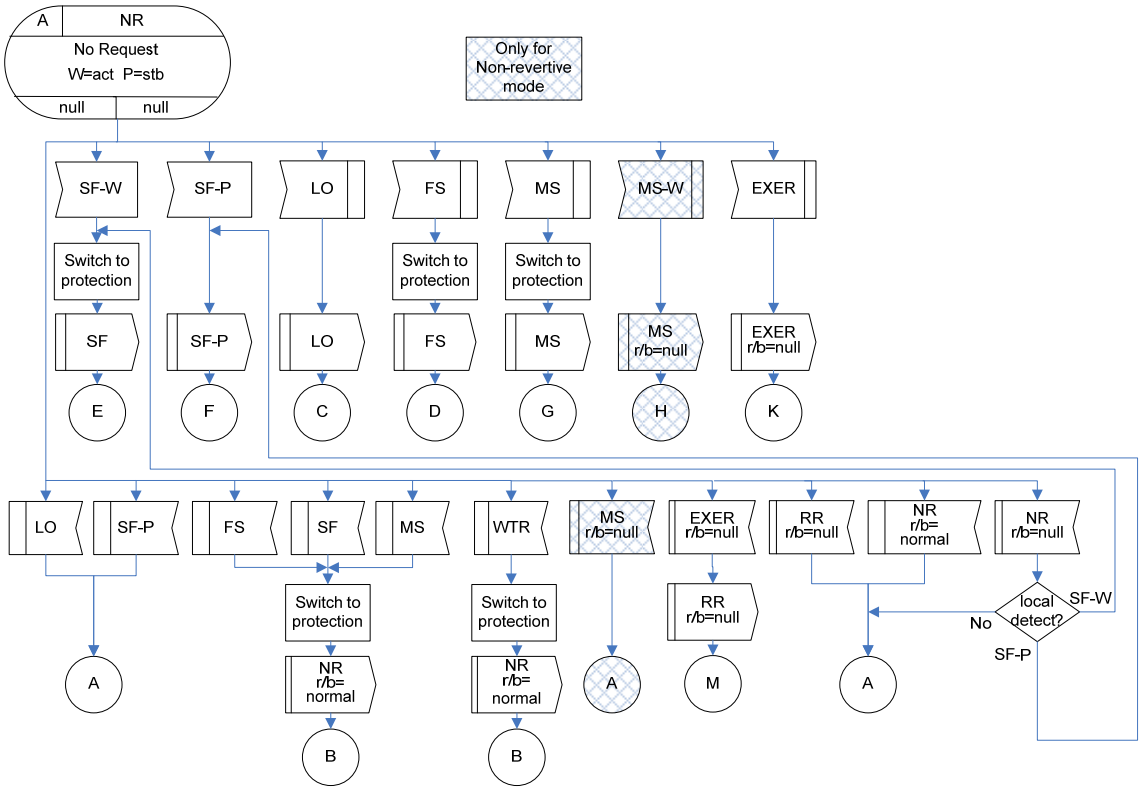
H	Manual Switch Working/Active Protection/Standby	→C	→D	→E	N/A	→F	N/A	O	O	→A	N/A

3.13) Figure IV.1

Replace Figure IV.1:

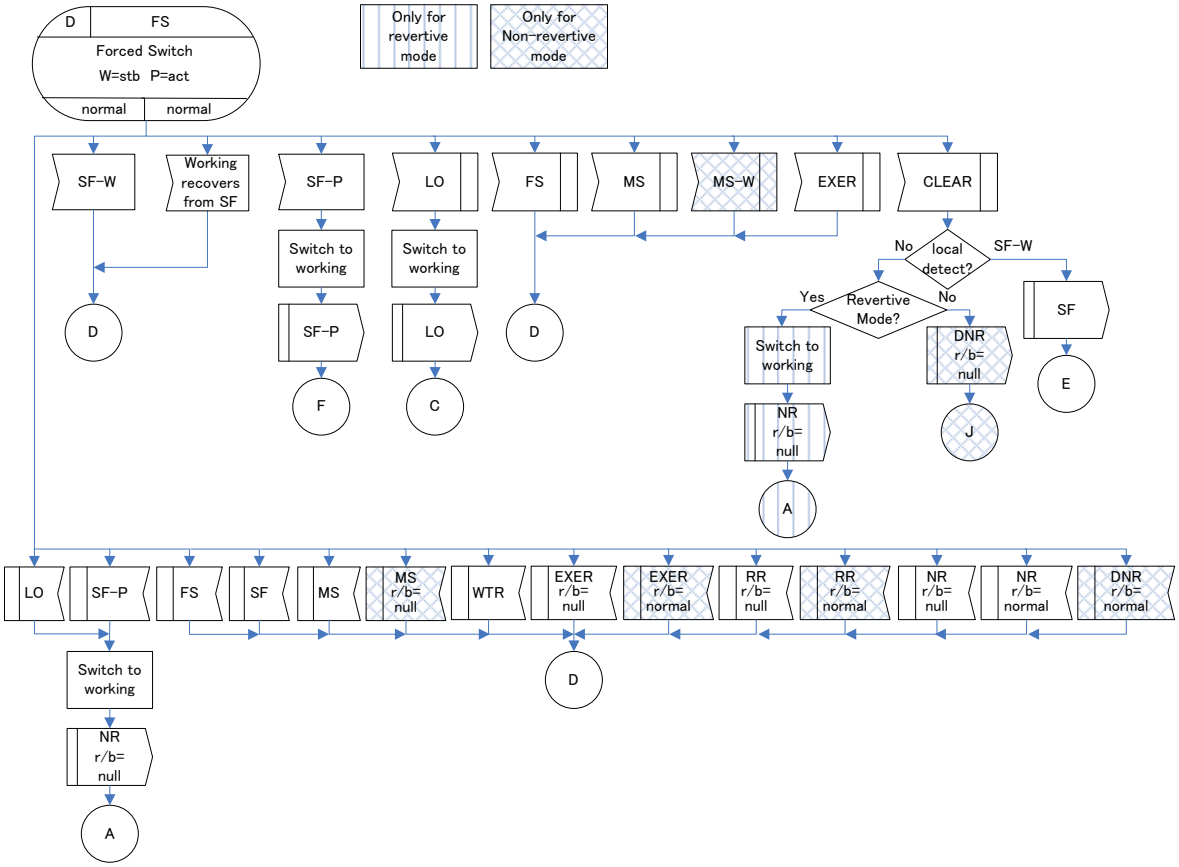


By:

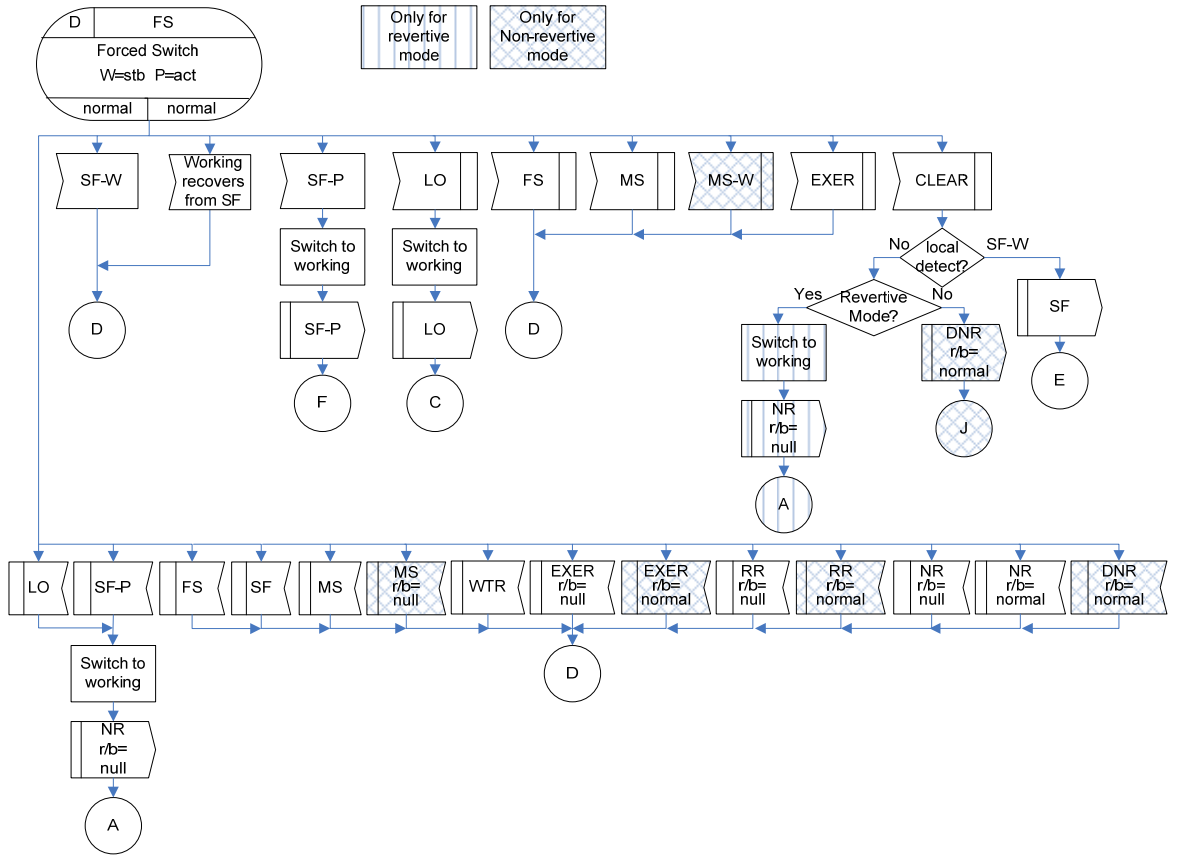


3.14) Figure IV.4

Replace Figure IV.4:

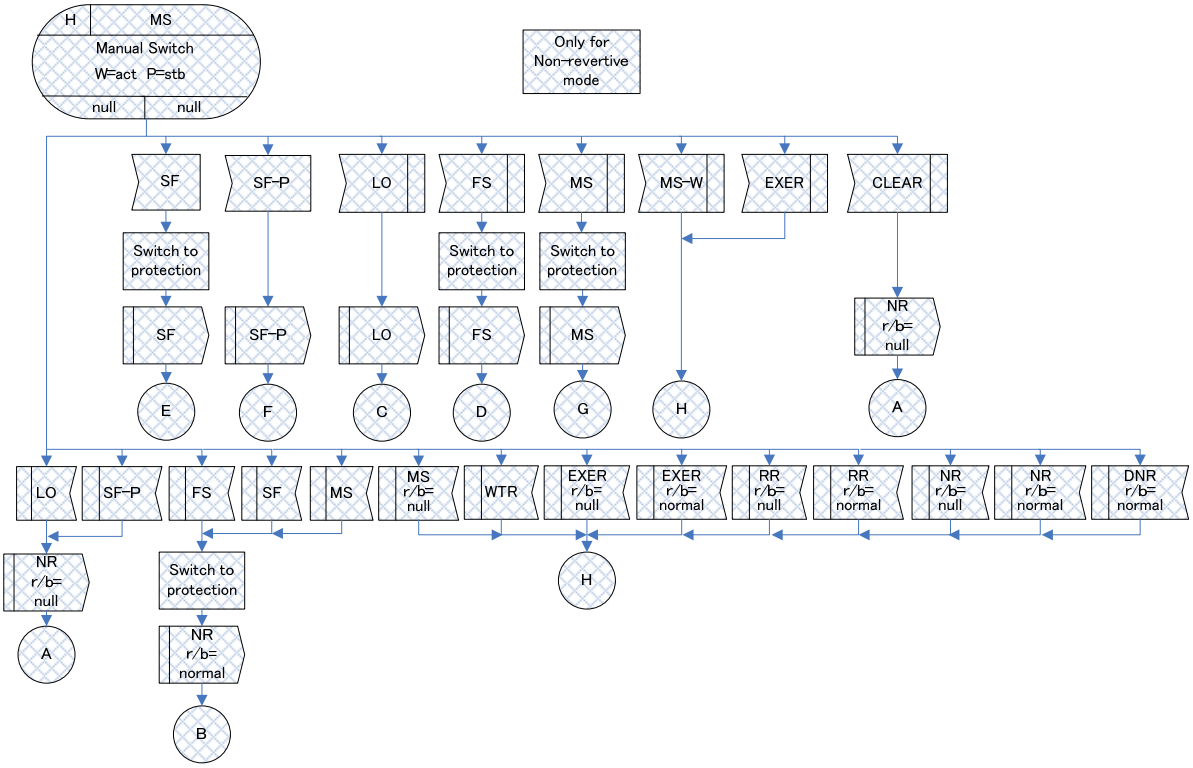


By:



3.15) Figure IV.8

Replace Figure IV.8:



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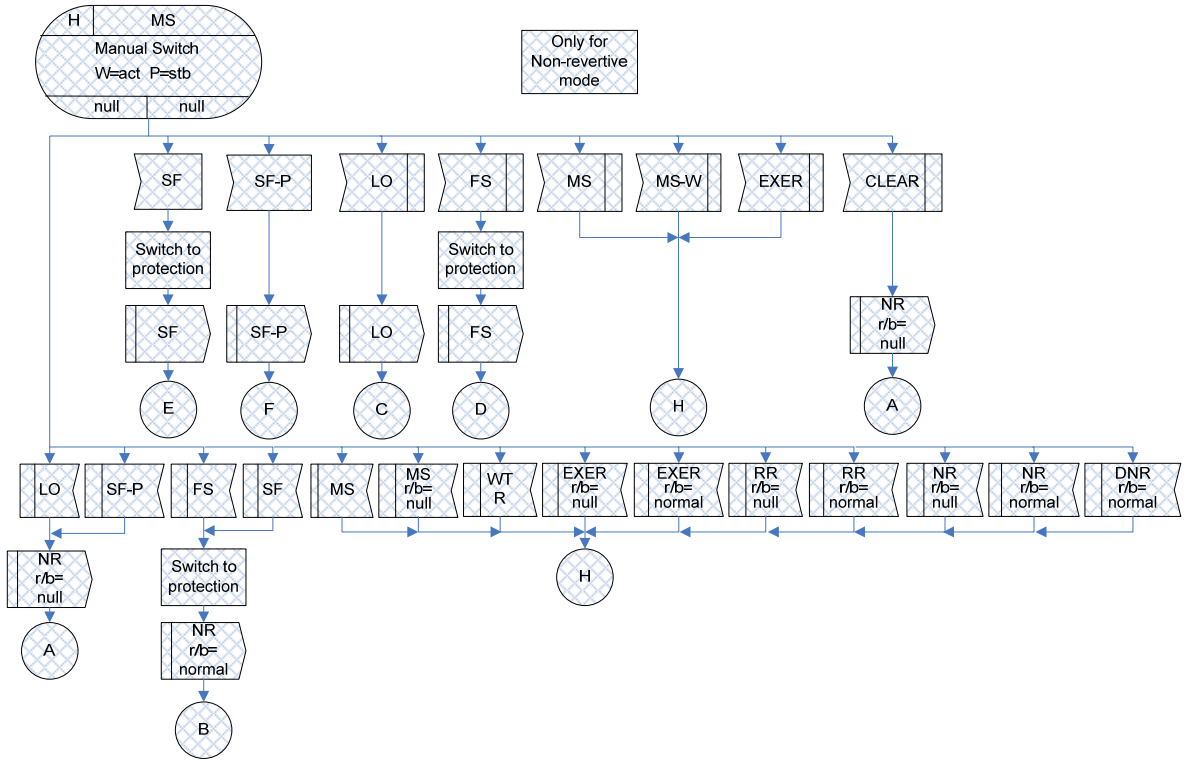
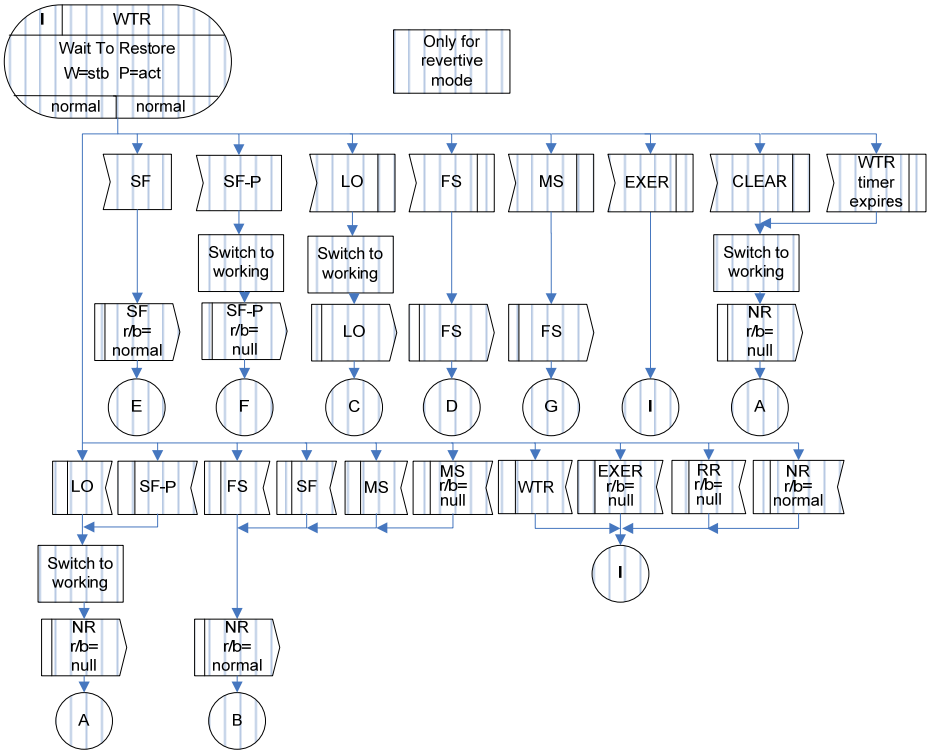
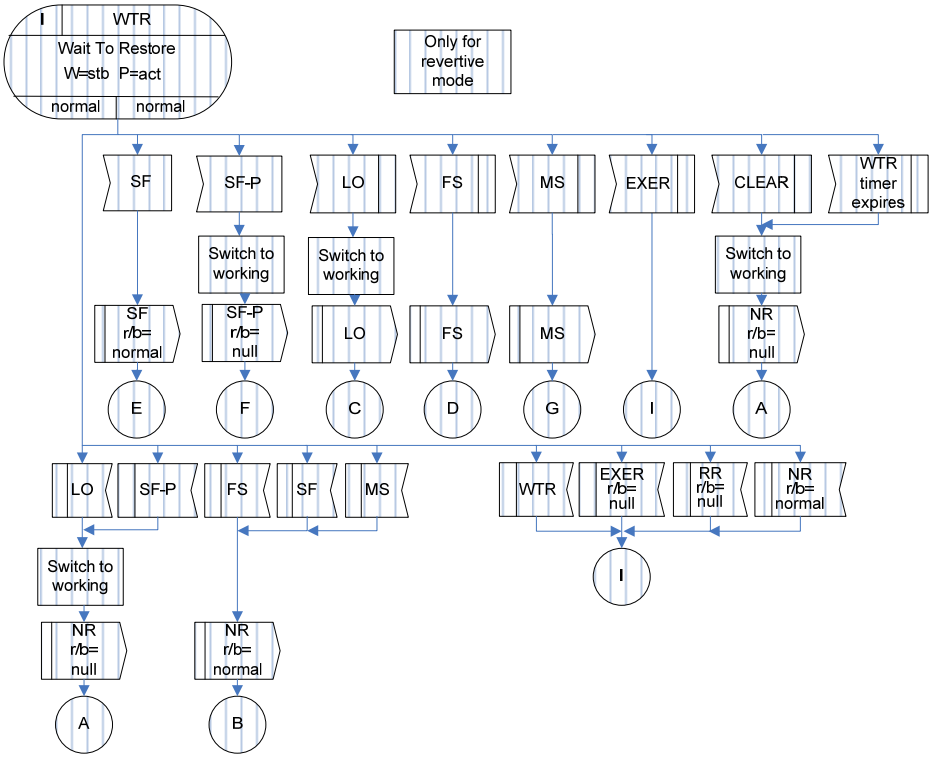


3.16) Figure IV.9

Replace Figure IV.9:

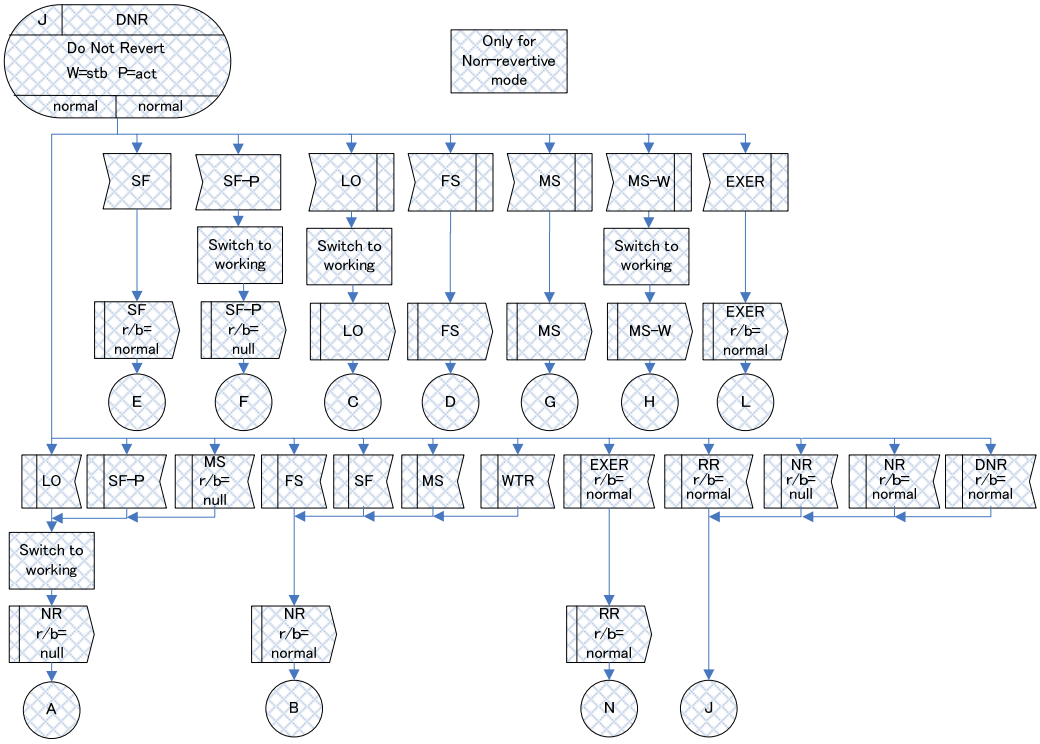


By:

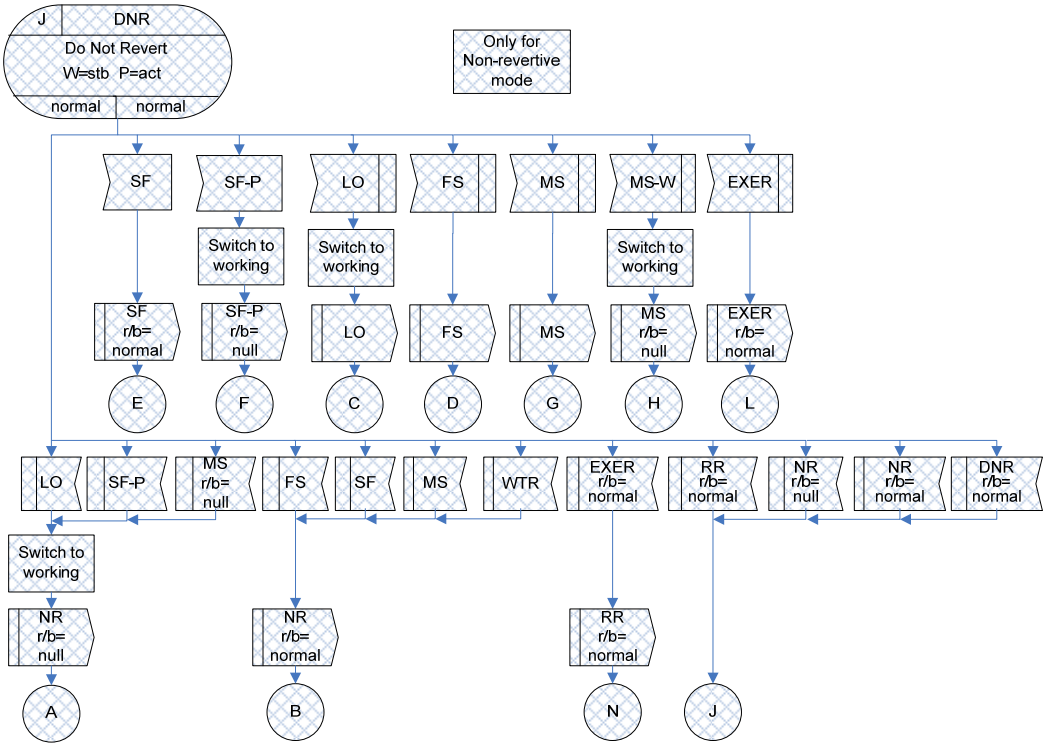


3.17) Figure IV.10

Replace Figure IV.10:

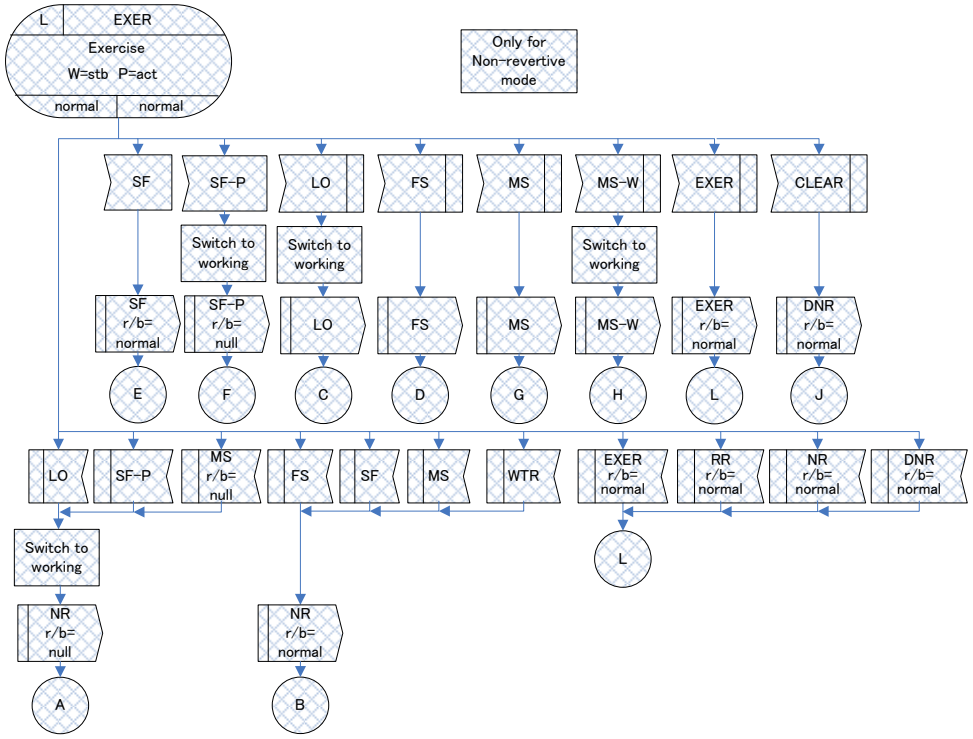


By:



3.18) Figure IV.12

Replace Figure IV.12:



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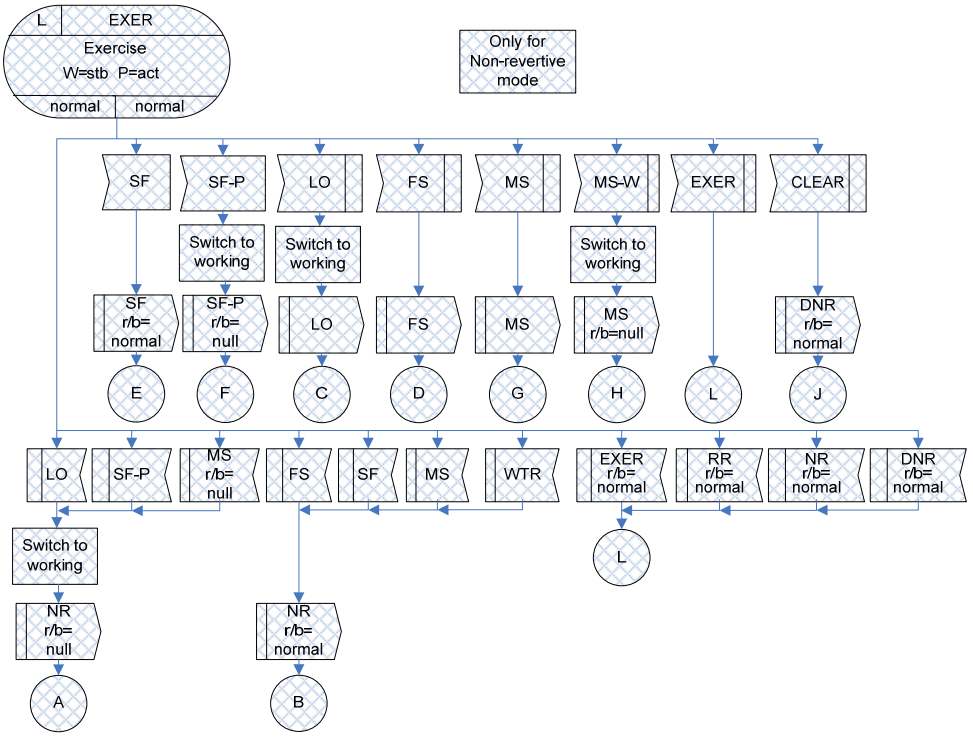
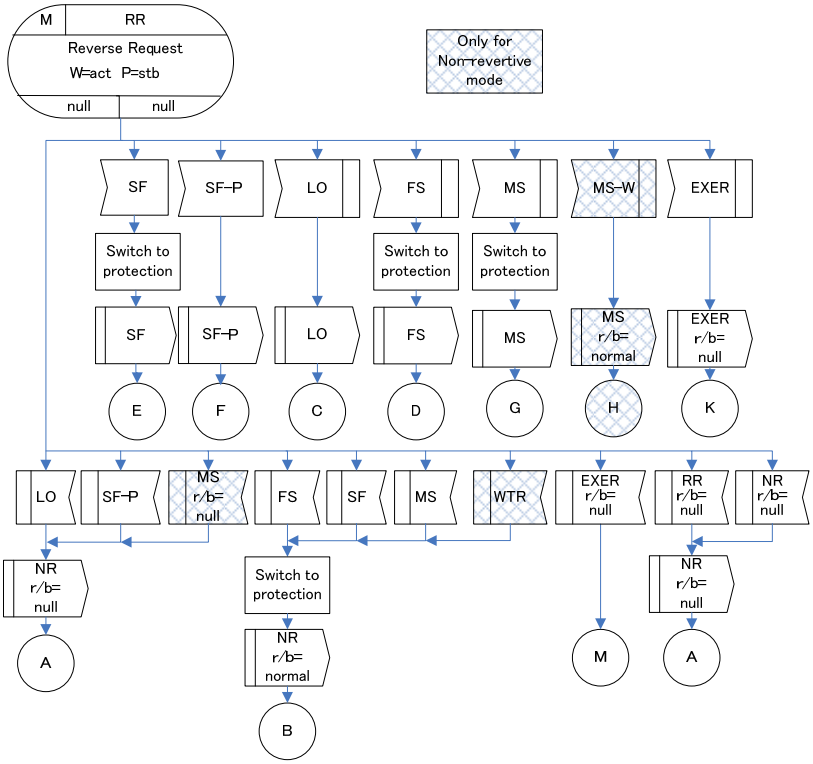


3.19) Figure IV.13

Replace Figure IV.13:



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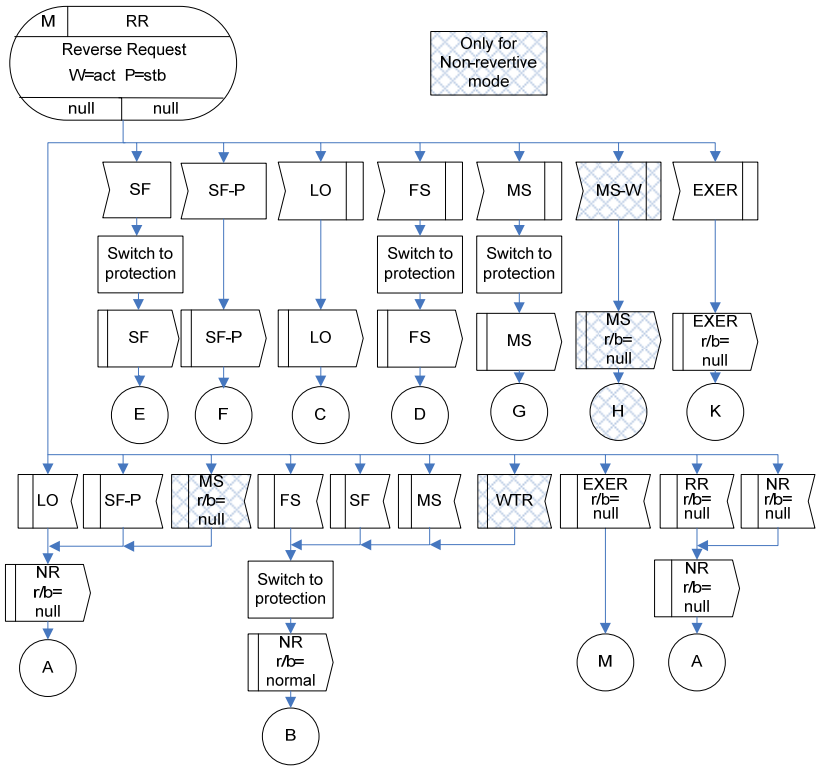
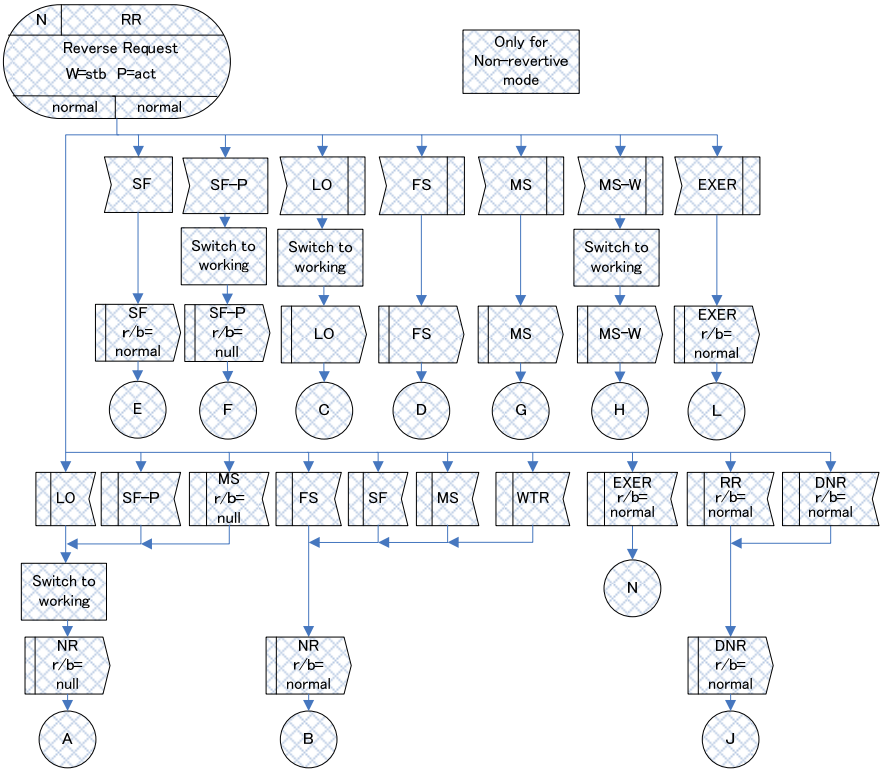


3.20) Figure IV.14

Replace Figure IV.14:



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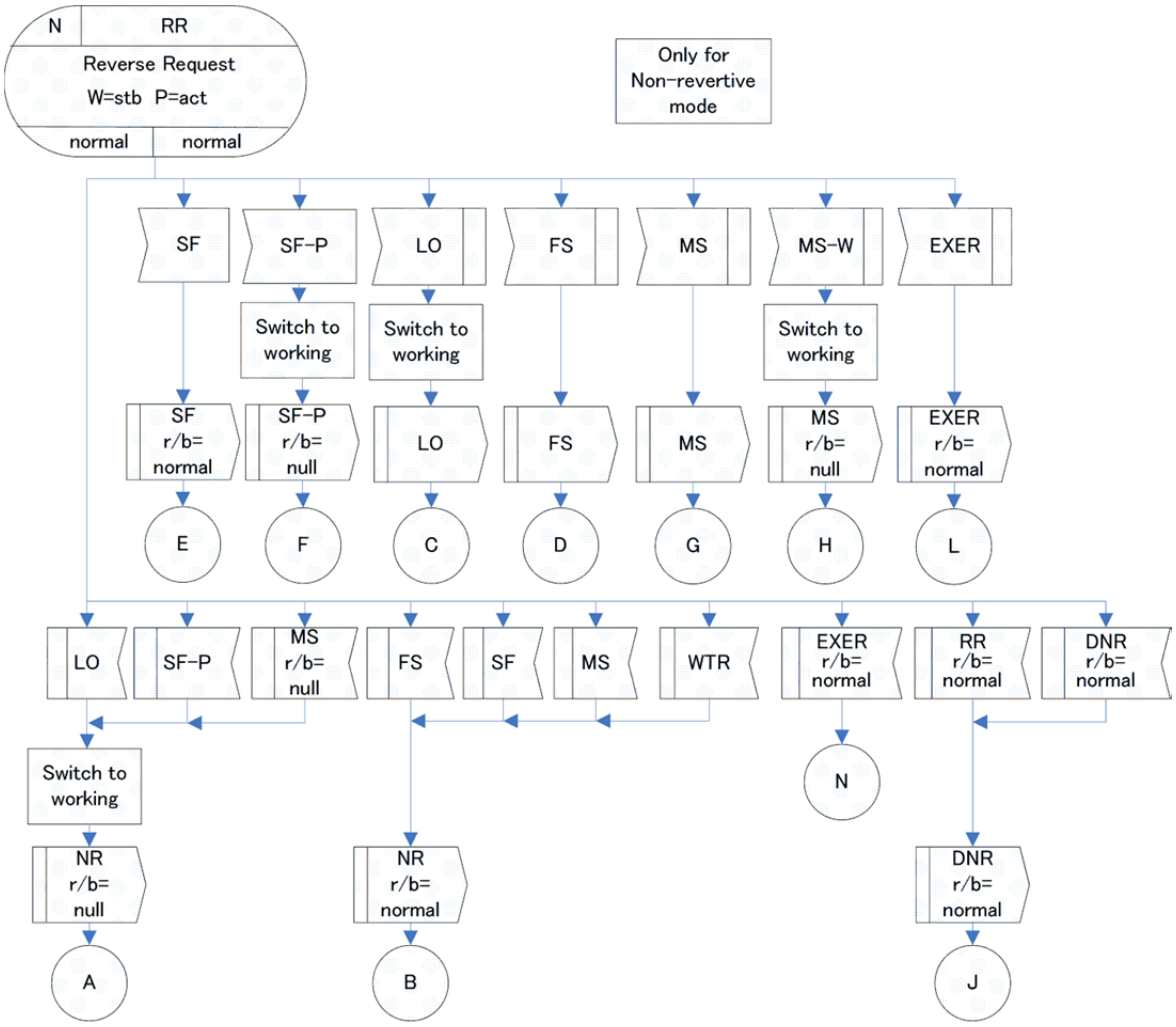
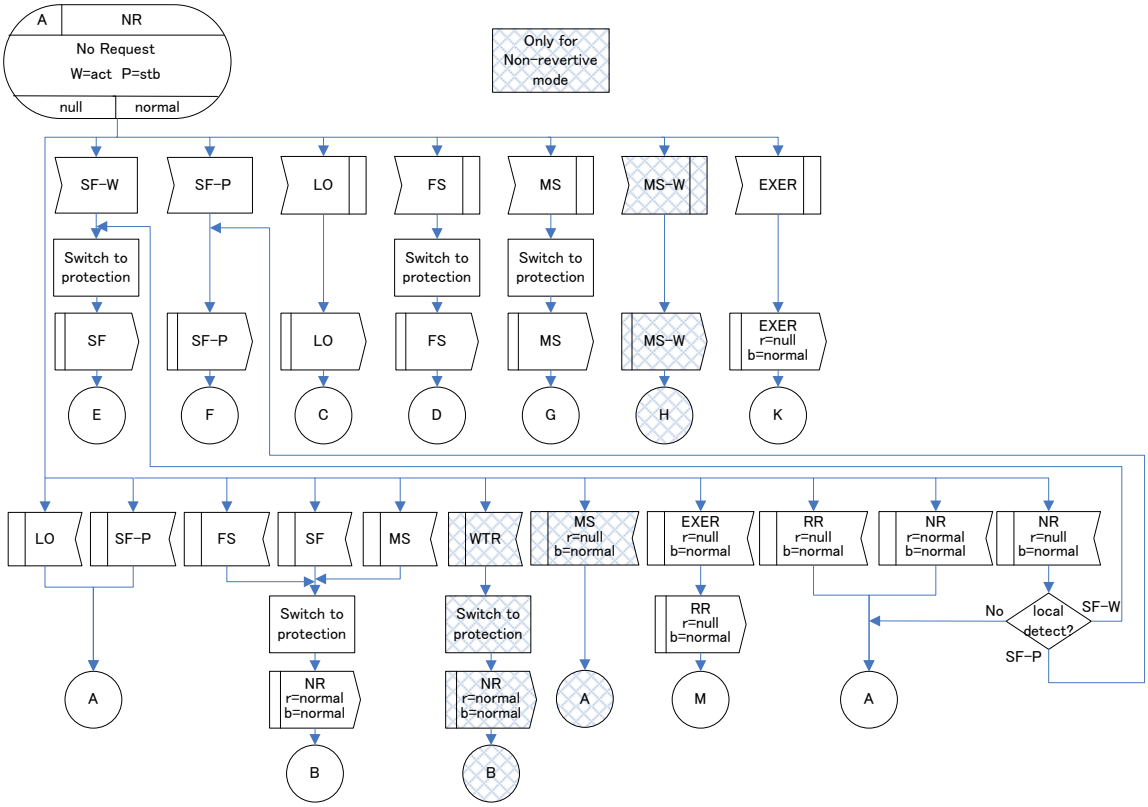

N
RR
Reverse Request
W=stb P=act
normal
normal
Only for Non-revertive mode
SF
SF-P
LO
FS
MS
MS-W
EXER
Switch to working
Switch to working
Switch to working
SF r/b= normal
SF-P r/b= null
LO
FS
MS
MS r/b= null
EXER r/b= normal
E
F
C
D
G
H
L
LO
SF-P
MS r/b= null
FS
SF
MS
WTR
EXER r/b= normal
RR r/b= normal
DNR r/b= normal
Switch to working
N
NR r/b= null
NR r/b= normal
DNR r/b= normal
A
B
J

3.21) Figure IV.15

Replace Figure IV.15:



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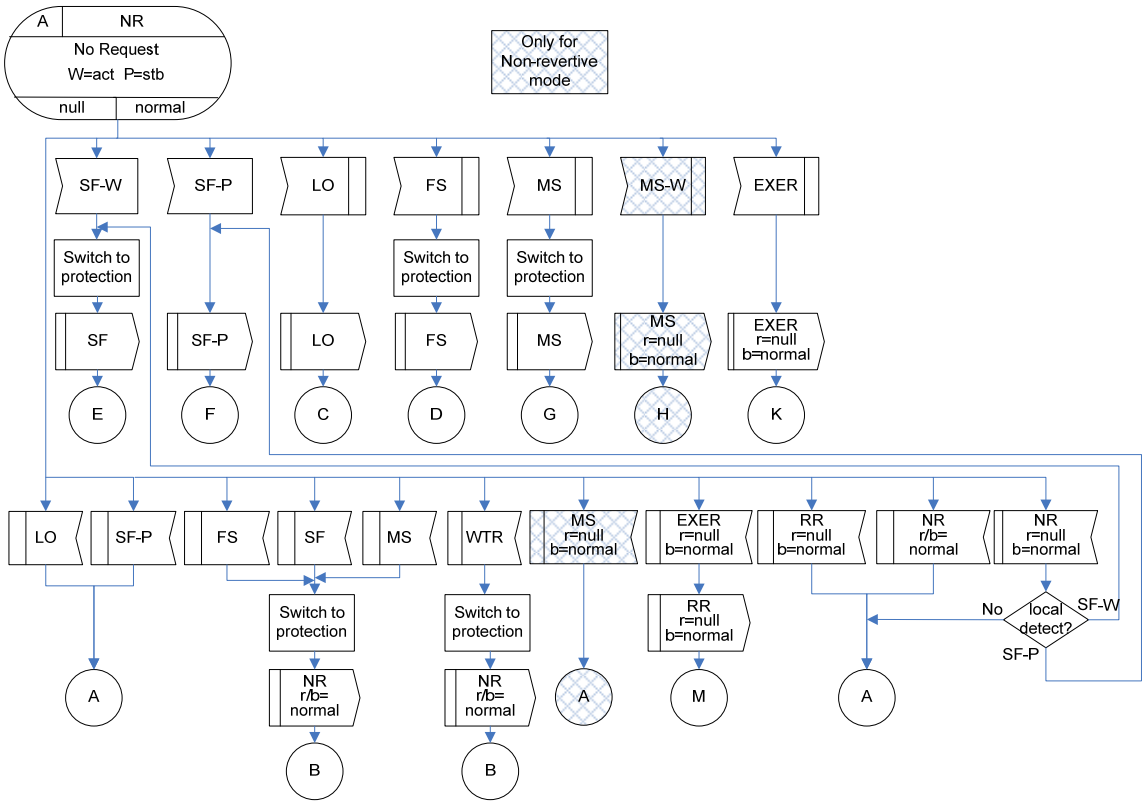
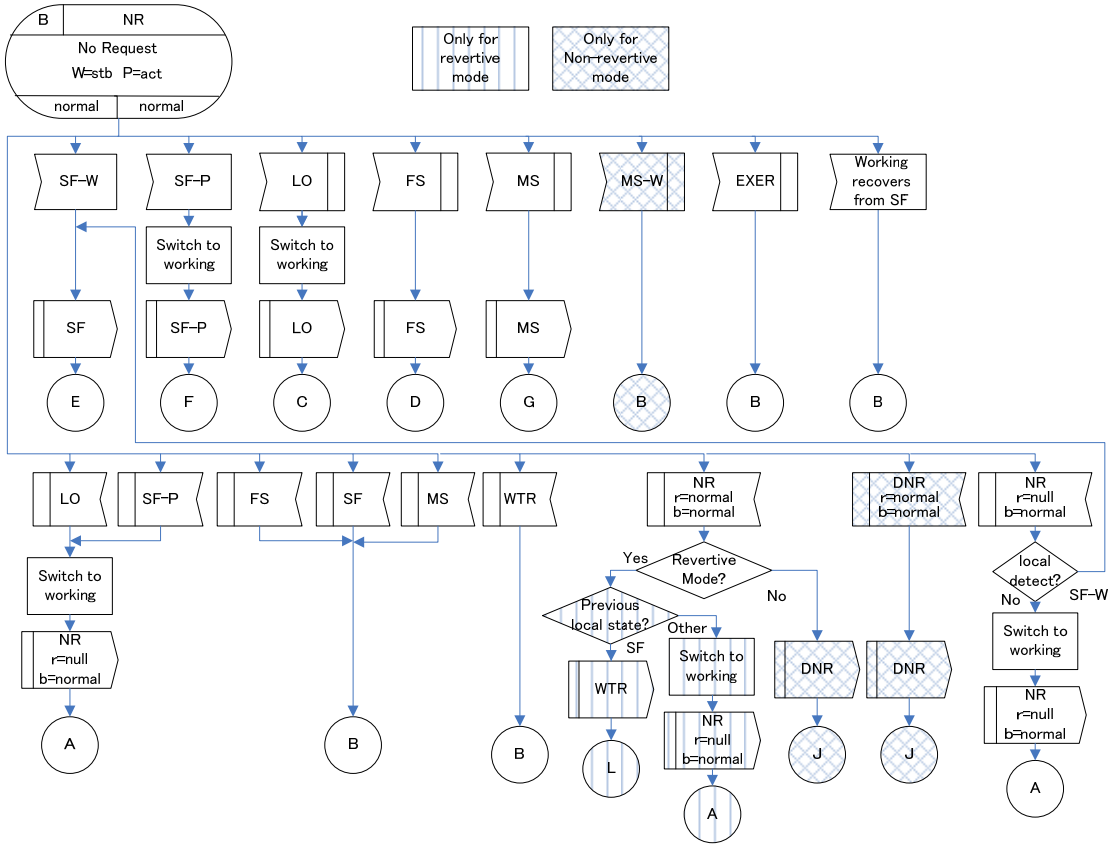


3.22) Figure IV.16

Replace Figure IV.16:



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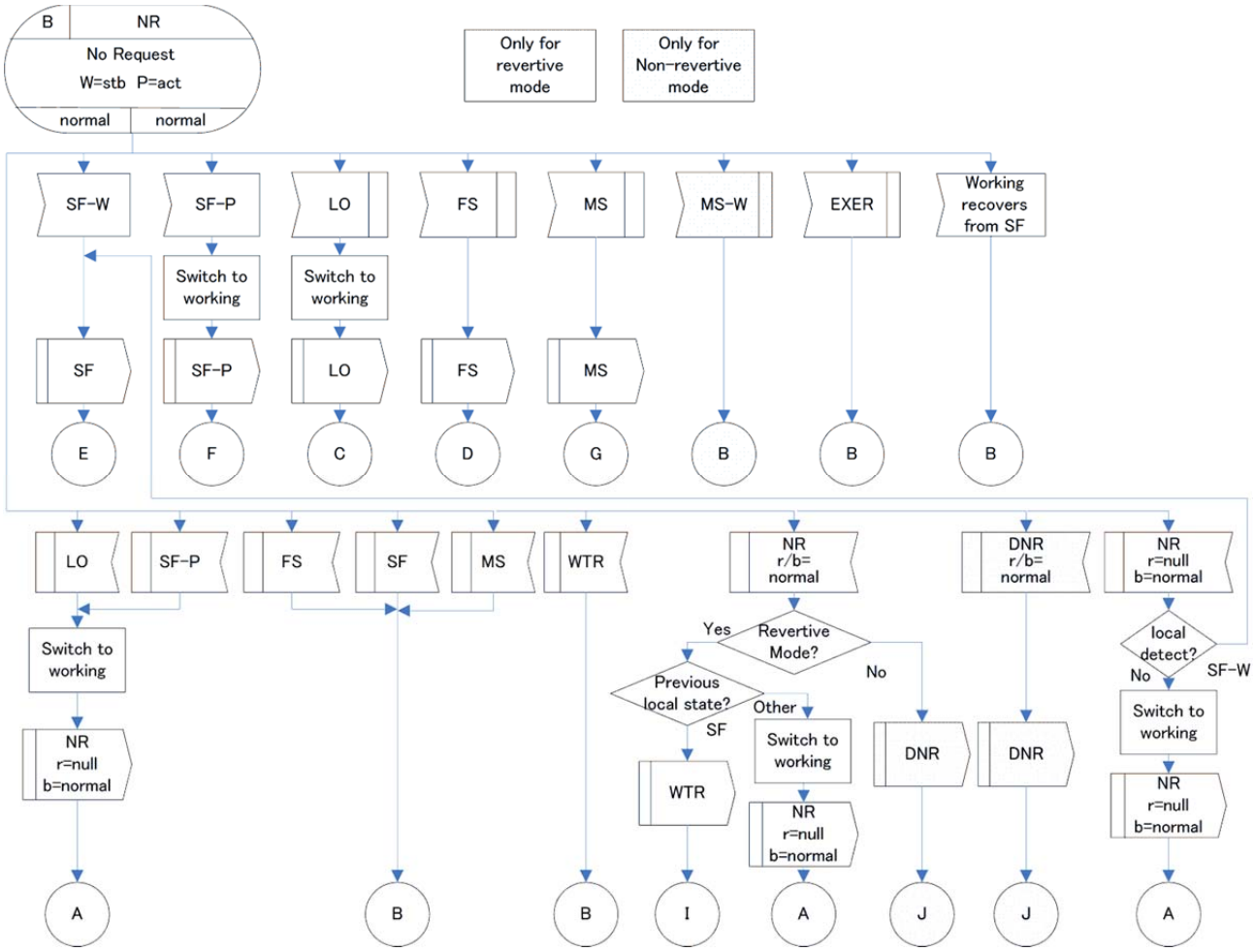
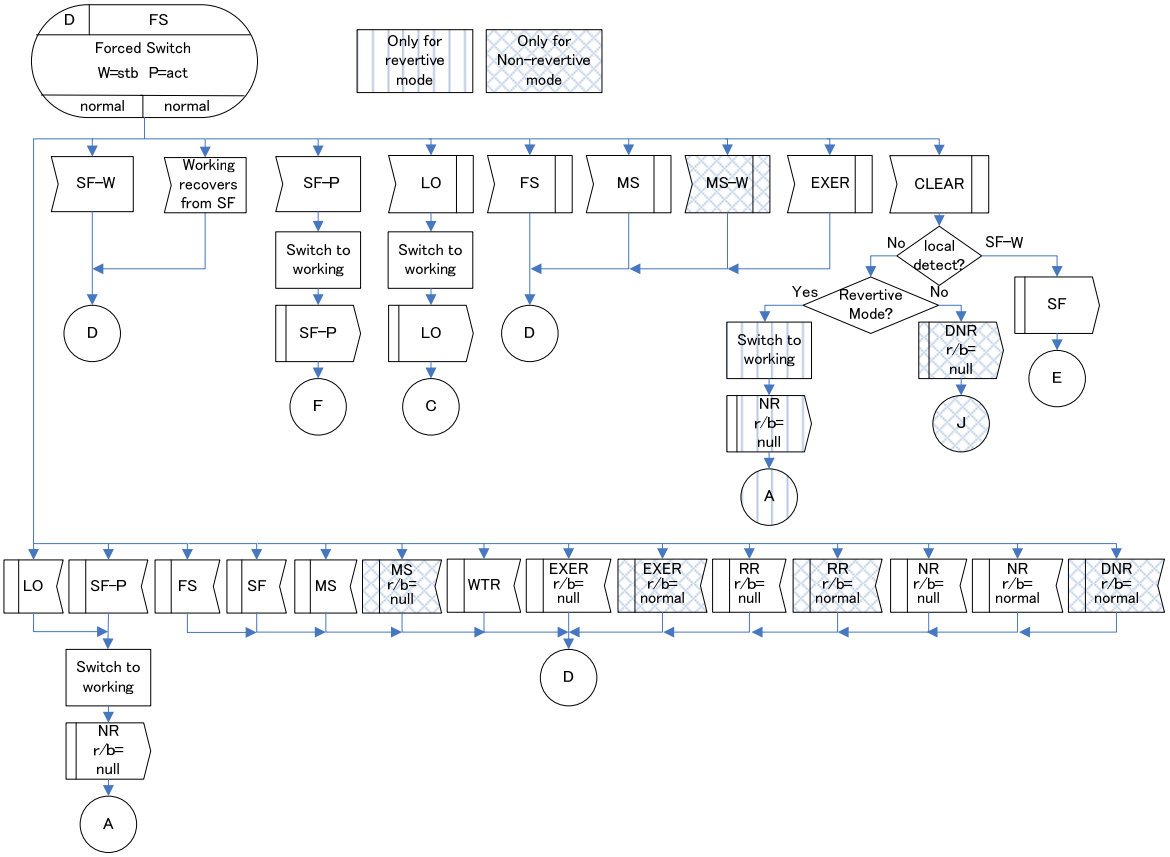
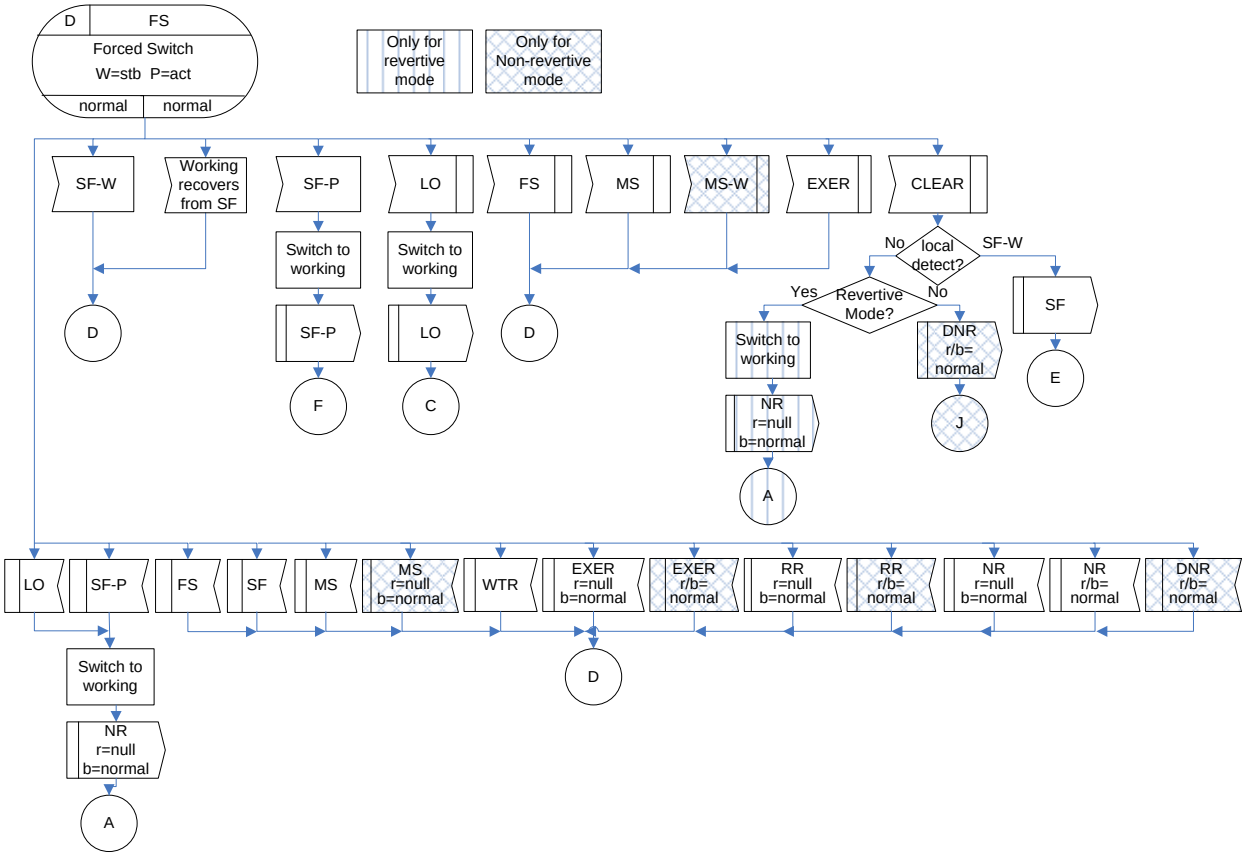

B
NR
No Request
W=stb P=act
normal
normal
Only for revertive mode
Only for Non-revertive mode
SF-W
SF-P
LO
FS
MS
MS-W
EXER
Working recovers from SF
Switch to working
Switch to working
SF
SF-P
LO
FS
MS
E
F
C
D
G
B
B
B
LO
SF-P
FS
SF
MS
WTR
NR r/b= normal
DNR r/b= normal
NR r=null b=normal
Switch to working
Yes
Revertive Mode?
No
local detect?
No
SF-W
Previous local state?
Other
SF
Switch to working
DNR
DNR
Switch to working
WTR
NR r=null b=normal
NR r=null b=normal
A
B
B
I
A
J
J
A

3.23) Figure IV.18

Replace Figure IV.18:

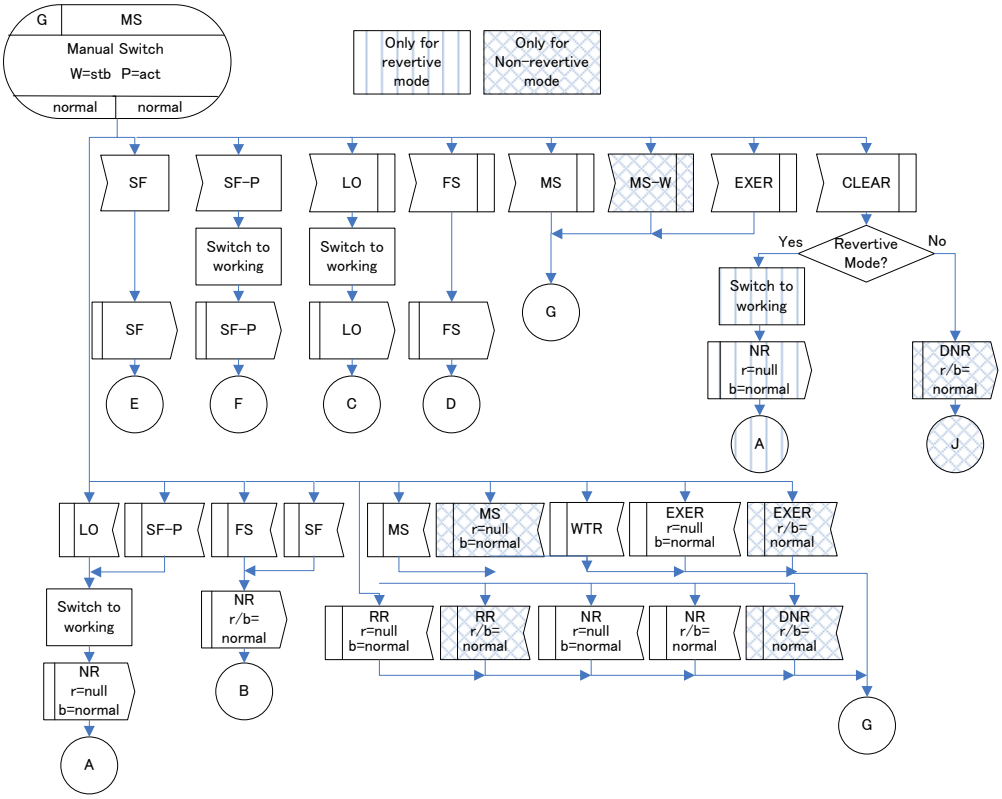


By:



3.24) Figure IV.21

Replace Figure IV.21:



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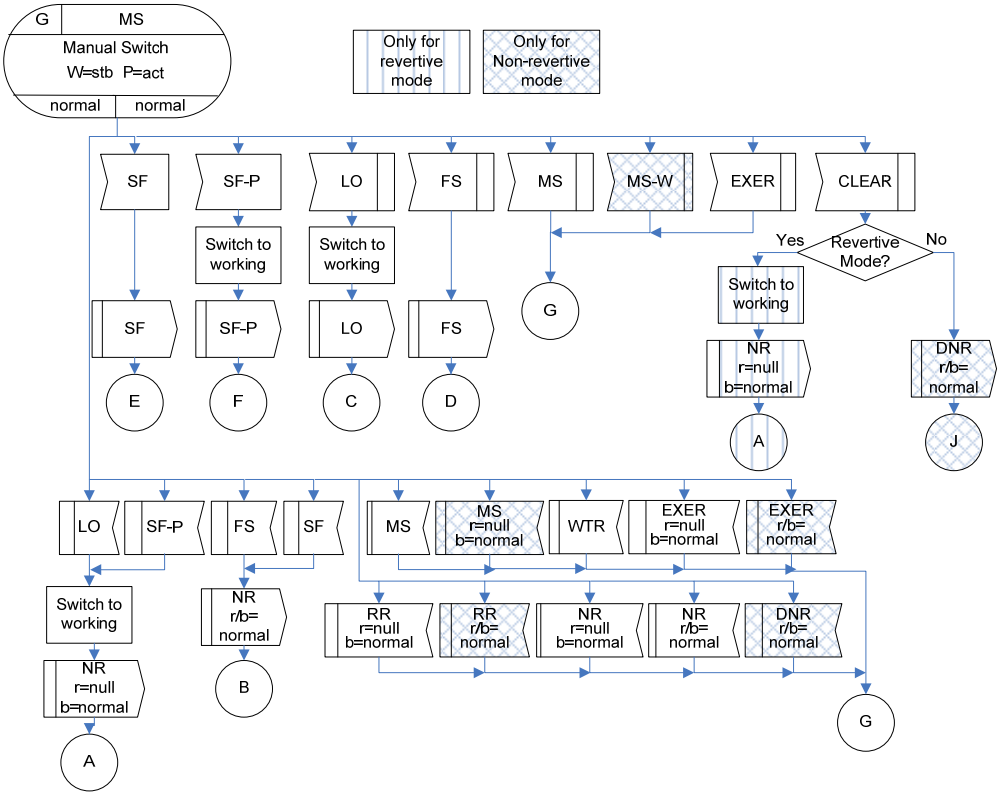
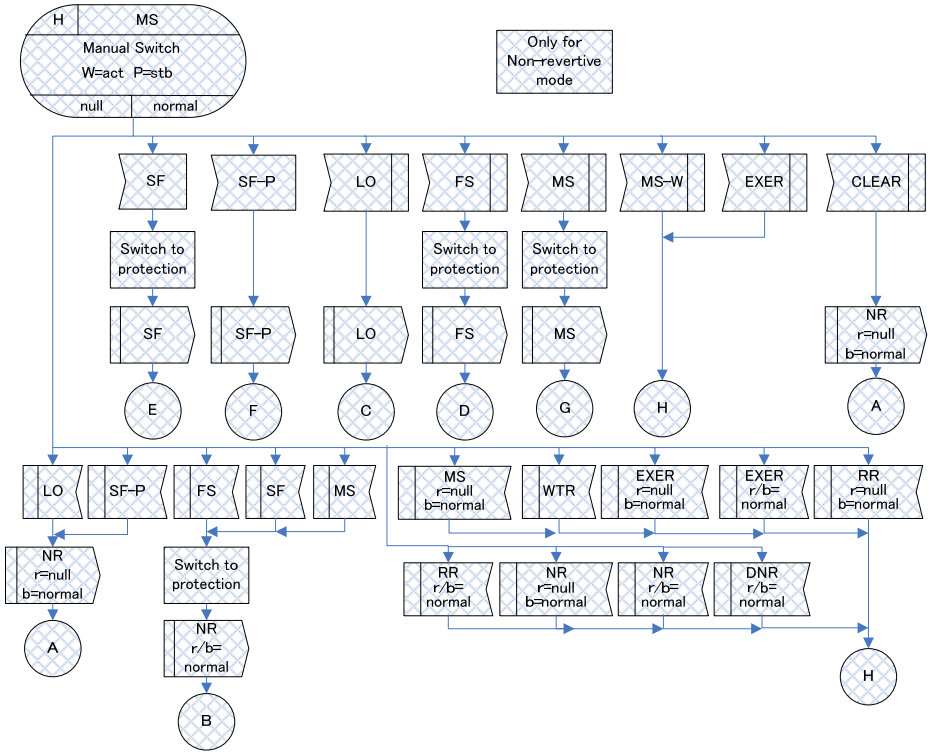
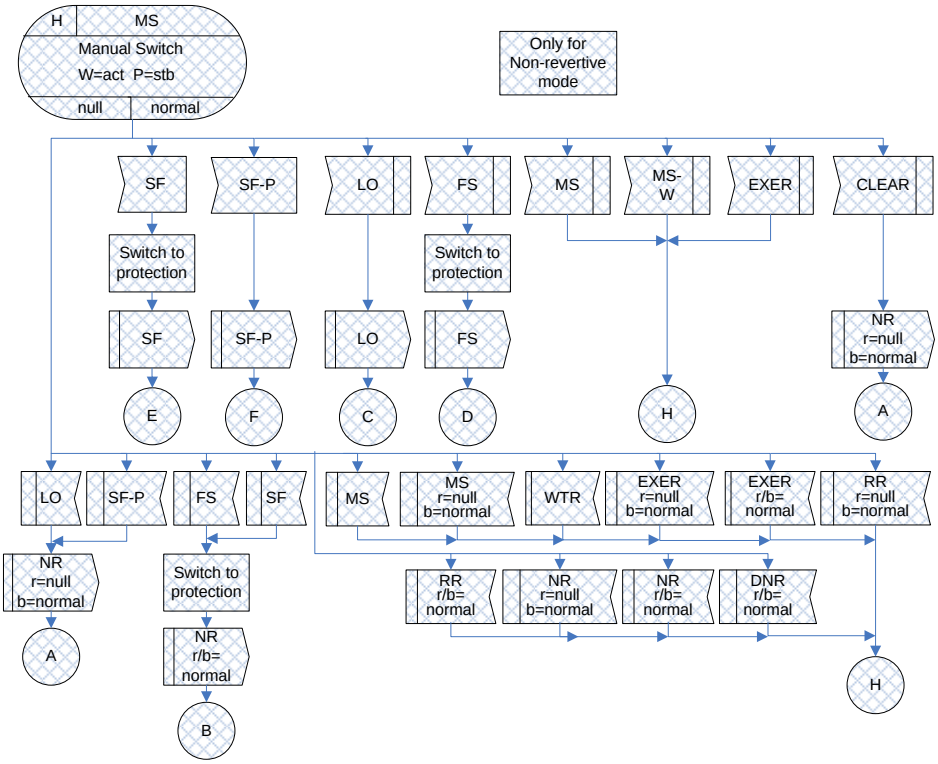


3.25) Figure IV.22

Replace Figure IV.22:

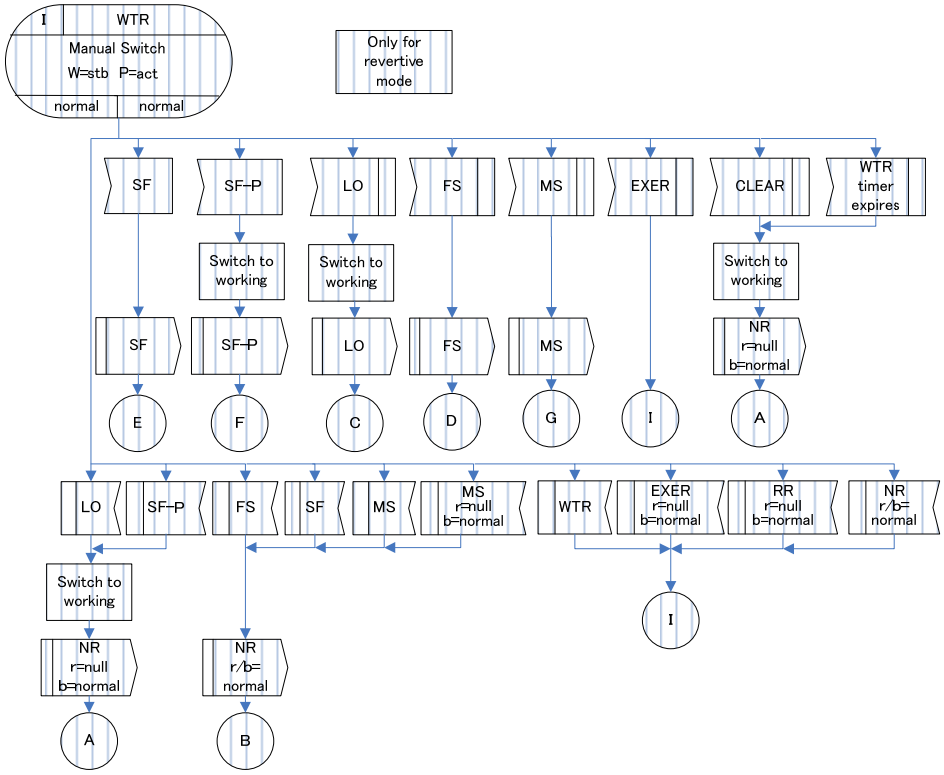


By:



3.26) Figure IV.23

Replace Figure IV.23:



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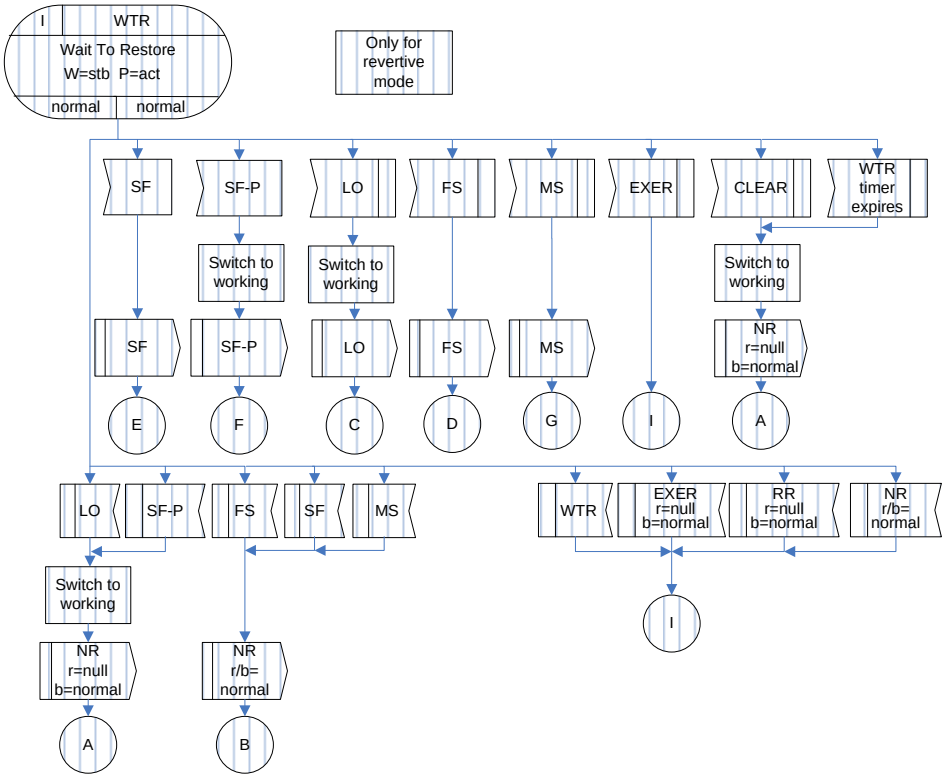
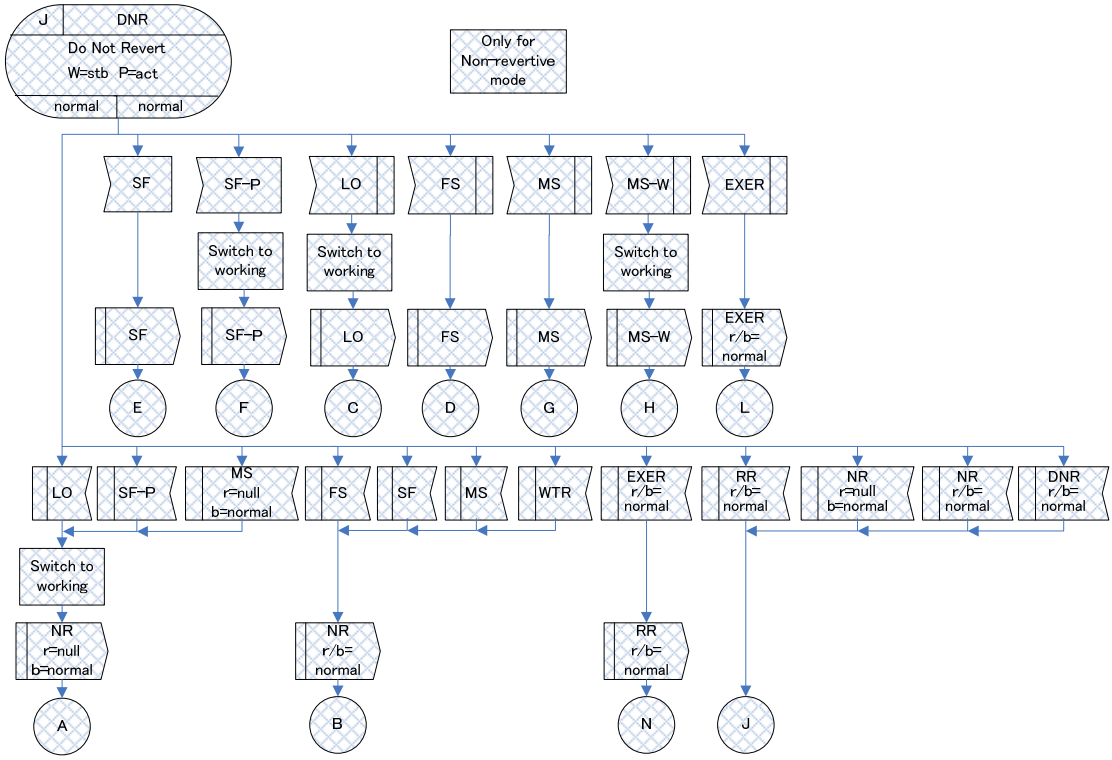
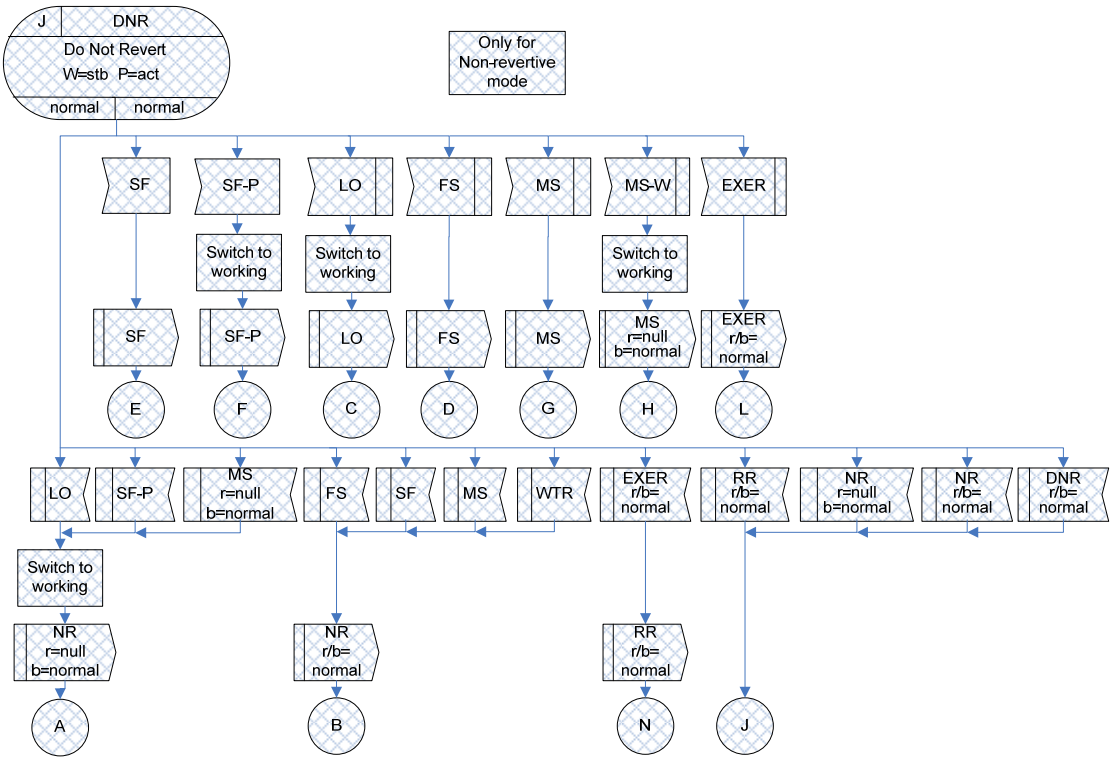


3.27) Figure IV.24

Replace Figure IV.24:

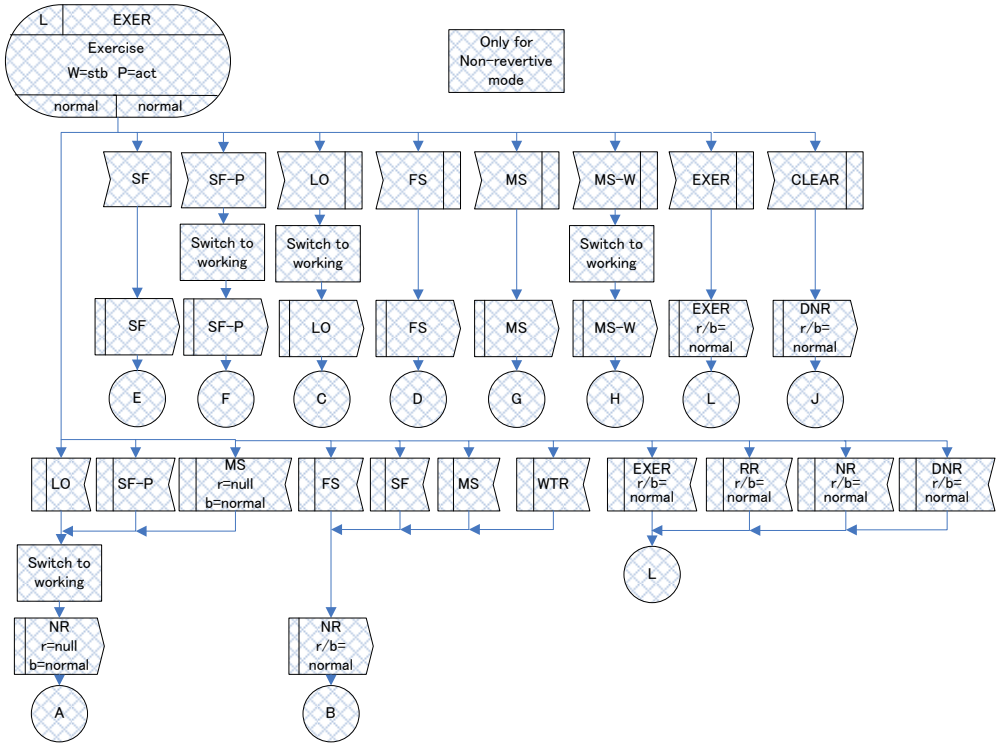


By:

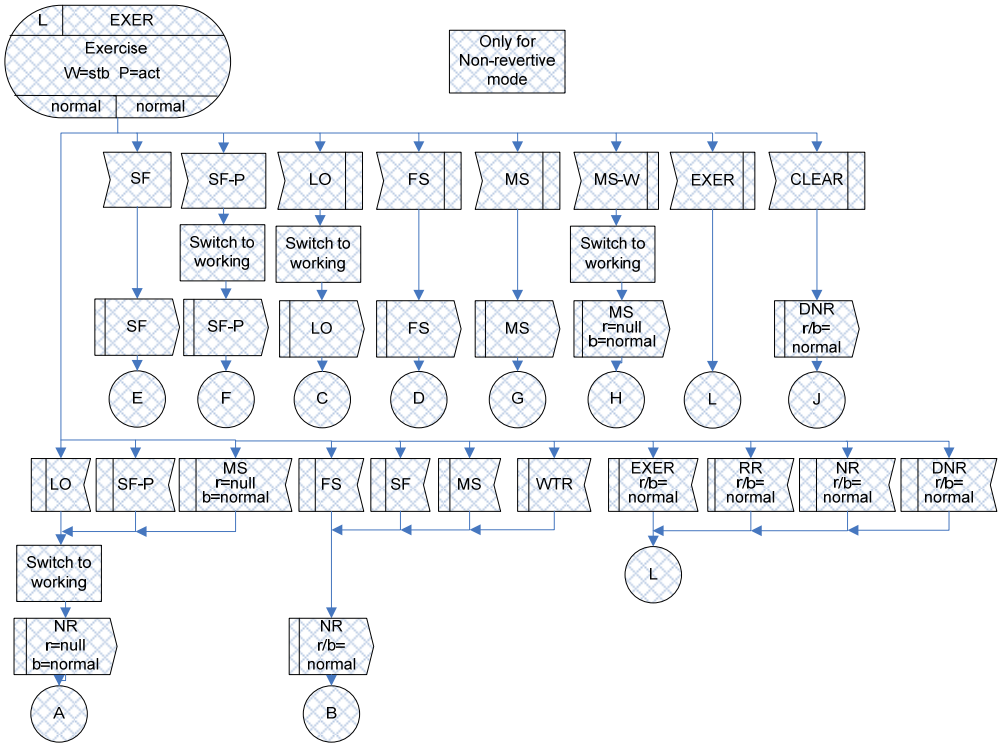


3.28) Figure IV.26

Replace Figure IV.26:

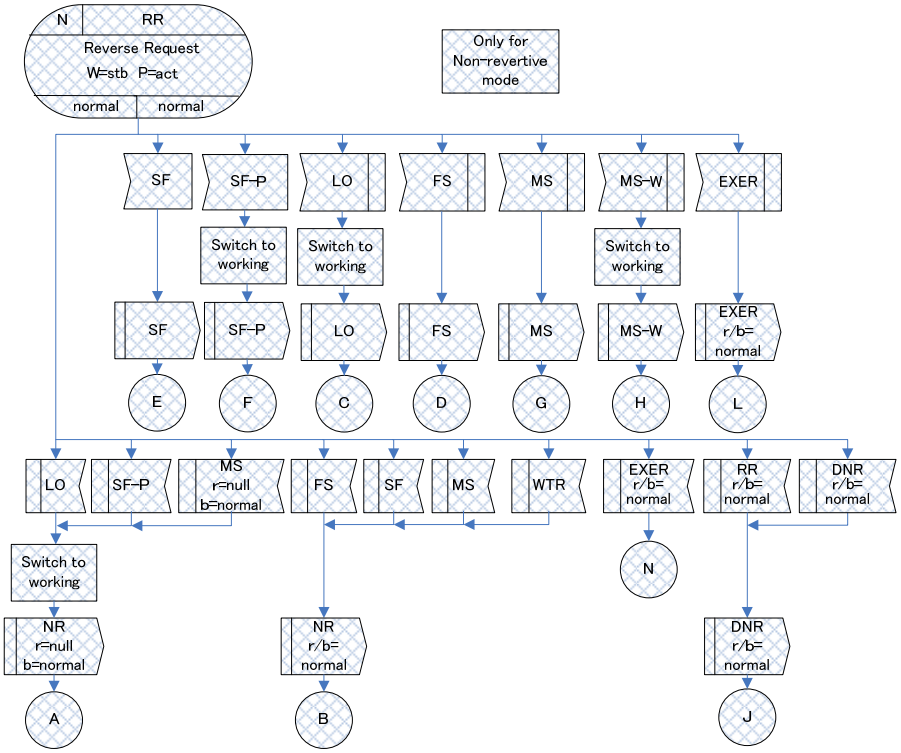


By:

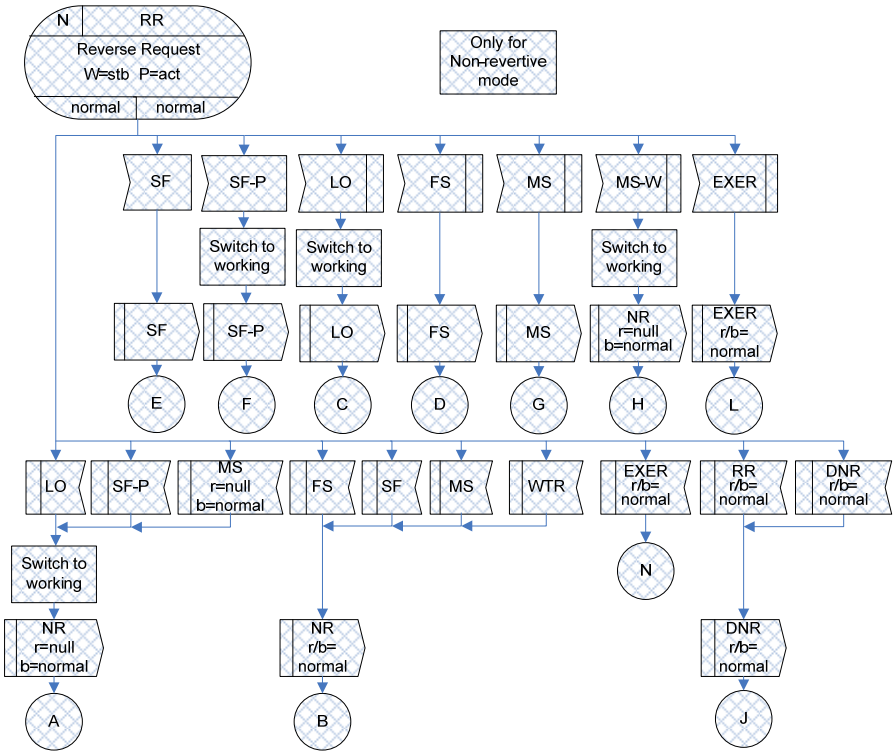


3.29) Figure IV.28

Replace Figure IV.28:

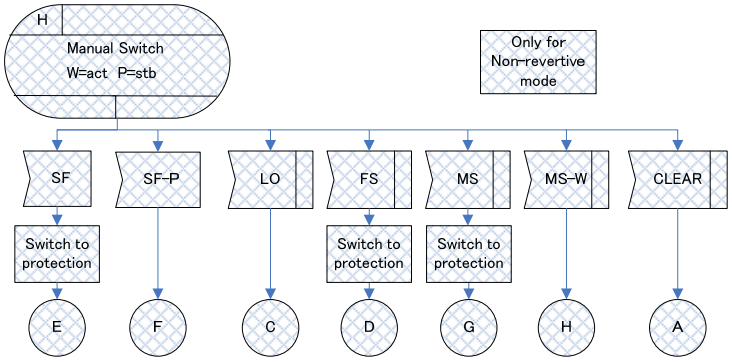


By:

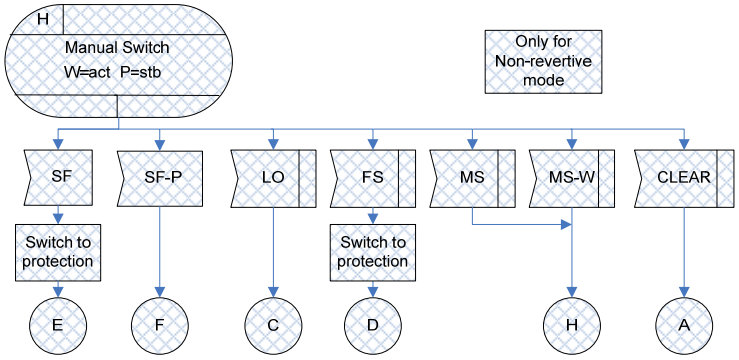


3.30) Figure IV.35

Replace Figure IV.35:



By:



3.31) Title of Figure IV.37

Replace the title of Figure IV.37:

Figure IV.37 – DNR(W=act/P=stb) state for 1+1 unidirectional protection switching

By:

Figure IV.37 – DNR(W=stb/P=act) state for 1+1 unidirectional protection switching

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