

RECOMP II USERS' PROGRAM NO. 1114

PROGRAM TITLE: HALF WORD STORAGE

PROGRAM CLASSIFICATION: Subroutine

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PURPOSE: To store a half word (twenty bits)  
from either the left or right half  
of the accumulator into either the  
left or right half of a specified  
location.

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DESCRIPTION:

This subroutine is designed to store a half word (20 bits) from either the left or the right half of the accumulator into either the left or right half of a specified location LLLL.

STORAGE REQUIREMENTS:

0000.0 to 0147.1. Information from the loops is saved and restored back to the loops before transfer is made back to program from this subroutine.

CALLING SEQUENCE:

The calling sequence may start either in the left or right half of a word.

+ 00 RRRR.0  
+ 57 0000.0  
- 00 LLLL.<sup>0</sup>  
+ 00 LLLL.<sub>1</sub>

- RRRR indicates word to be stored
- Half word to be stored comes from left half of accumulator.
  - + Half word to be stored comes from right half of accumulator.
  - 0 Half word from accumulator will be stored in left half of LLLL.
  - 1 Half word from accumulator will be stored in right half of LLLL.

RESTRICTIONS:

The location LLLL may not be a loop address.

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ABSOLUTE LOCATION	S	OPRN	ADDRESS	LOCATION SYMBOL	S	OPRN	ADDRESS	REMARKS
0000	+	15	01260			SAX		
	+	65	01300			CFL		
01	+	67	01400			CFV		
	+	01	01270			ADD		
02	+	42	01231			STA		
	+	03	00550			SUB		
03	+	42	00061			STA		
	+	42	00101			STA		
04	+	42	00121			STA		
	+	42	00141			STA		
05	+	33	00550			EXT		
	+	50	00141			TZE		
06	+	40	00000			ARS		
	+	00	00000			CLA		
07	+	33	01140			EXT		
	+	50	00121			TZE		
0010	+	40	00000			ARS		
	+	00	00000			CLA		
11	+	41	00240			ALS		
	+	57	00600			TRA		
12	+	40	00000			ARS		
	+	00	00000			CLA		
13	+	41	00240			ALS		
	+	33	01160			EXT		
14	+	57	00161			TRA		
	+	00	00000			CLA		
15	+	51	00161			TMI		
	+	57	00600			TRA		
16	+	00	00000			CLA		
	+	64	00200			CTL		
17	+	66	00300			CTV		
	+	57	77600			TRA		

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ABSOLUTE LOCATION	S	OPRN	ADDRESS	LOCATION SYMBOL	S	OPRN	ADDRESS	REMARKS
0020	+	60	01250					STO
	+	33	01150					EXT
21	+	50	00400					TZE
	+	00	01250					CLA
22	+	01	01150					ADD
	+	42	77630					STA
23	+	00	00000					CLA
	+	40	00240					ARS
24	+	41	00240					ALS
	+	60	01170					STO
25	+	51	77721					TMI
	+	00	01260					CLA
26	+	40	00240					ARS
	+	51	77710					TMI
27	+	01	01140					ADD
	+	01	01170					ADD
0030	+	60	01240					STO
	+	57	01200					TRA
31	+	60	00560					STO
	+	02	00560					CLS
32	+	57	77671					TRA
	+	00	01260					CLA
33	+	40	00240					ARS
	+	52	77751					TPL
34	+	01	01170					ADD
	+	60	01240					STO
35	+	57	01200					TRA
	+	60	00560					STO
36	+	02	00560					CLS
	+	03	01140					SUB
37	+	57	77740					TRA
	-	00	00000					CLA

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ABSOLUTE LOCATION	S	OPRN	ADDRESS	LOCATION SYMBOL	S	OPRN	ADDRESS	REMARKS
0040	+	64	00400			CTL		
	+	66	00500			CTV		
41	+	57	77611			TRA		
	+	00	01250			CLA		
42	+	03	01150			SUB		
	+	42	77660			STA		
43	+	42	77710			STA		
	+	00	01260			CLA		
44	+	40	00240			ARS		
	+	41	00240			ALS		
45	+	60	77770			STO		
	+	51	77710			TMI		
46	+	00	00000			CLA		
	+	41	00230			ALS		
47	+	40	00230			ARS		
	+	01	77770			ADD		
0050	+	60	01240			STO		
	+	57	01200			TRA		
51	+	00	00000			CLA		
	+	41	00230			ALS		
52	+	40	00230			ARS		
	+	33	01160			EXT		
53	+	01	77770			ADD		
	+	60	01240			STO		
54	+	57	01200			TRA		
	-	00	00000			CLA		
55	+	00	00000			CLA		
	-	00	00001			CAM		
56	+	00	00000			CLA		
	-	00	00000			CLA		
57	+	00	00000			CLA		
	-	00	00000			CLA		

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ABSOLUTE LOCATION	S	OPRN	ADDRESS	LOCATION SYMBOL	S	OPRN	ADDRESS	REMARKS
0060	+	64	00600			CTL		
	+	66	00700			CTV		
61	+	57	77611			TRA		
	+	60	01250			STO		
62	+	33	01150			EXT		
	+	50	01000			TZE		
63	+	00	01250			CLA		
	+	03	01150			SUB		
64	+	42	77650			STA		
	+	40	00000			ARS		
65	+	00	00000			CLA		
	+	40	00240			ARS		
66	+	41	00240			ALS		
	+	60	77770			STO		
67	+	51	77721			TMI		
	+	00	01261			CAM		
0070	+	41	00230			ALS		
	+	40	00230			ARS		
71	+	01	77770			ADD		
	+	60	01240			STO		
72	+	57	01200			TRA		
	+	00	01260			CLA		
73	+	41	00230			ALS		
	+	40	00230			ARS		
74	+	33	77760			EXT		
	+	01	77770			ADD		
75	+	60	01240			STO		
	+	57	01200			TRA		
76	-	77	77771			HTR		
	+	77	77771			HTR		
77	+	00	00000			CLA		
	-	00	00000			CLA		

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ABSOLUTE LOCATION	S	OPRN	ADDRESS	LOCATION SYMBOL	S	OPRN	ADDRESS	REMARKS
0100	+	64	01000			CTL		
	+	66	01100			CTV		
01	+	57	77611			TRA		
	+	00	01250			CLA		
02	+	01	77750			ADD		
	+	42	77630			STA		
03	+	00	00000			CLA		
	+	41	00230			ALS		
04	+	40	00230			ARS		
	+	60	77770			STO		
05	+	00	01260			CLA		
	+	33	77740			EXT		
06	+	50	77710			TZE		
	+	00	01261			CAM		
07	+	41	00240			ALS		
	+	01	77770			ADD		
0110	+	60	01240			STO		
	+	57	01200			TRA		
11	+	00	01261			CAM		
	+	41	00240			ALS		
12	+	33	77760			EXT		
	+	03	77770			SUB		
13	+	60	01240			STO		
	+	57	01200			TRA		
14	+	00	00000			CLA		
	+	00	00000			CLA		
15	+	00	00001			CAM		
	-	00	00000			CLA		
16	-	77	77771			HTR		
	+	77	77771			HTR		
17	+	00	00000			CLA		
	-	00	00000			CLA		

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ABSOLUTE LOCATION	S	OPRN	ADDRESS	LOCATION SYMBOL	S	OPRN	ADDRESS	REMARKS
0120	+	00	01250			CLA		
	+	42	01230			STA		
21	+	64	01300			CTL		
	+	66	01400			CTV		
22	+	00	01240			CLA		
	+	40	00000			ARS		
23	+	60	00000			STO		
	+	57	00000			TRÁ		
24	+	00	00000			CLA		
	-	00	00000			CLA		
25	+	00	00000			CLA		
	-	00	00000			CLA		
26	+	00	00000			CLA		
	-	00	00000			CLA		
27	+	00	00000			CLA		
	-	00	00010			CLA		