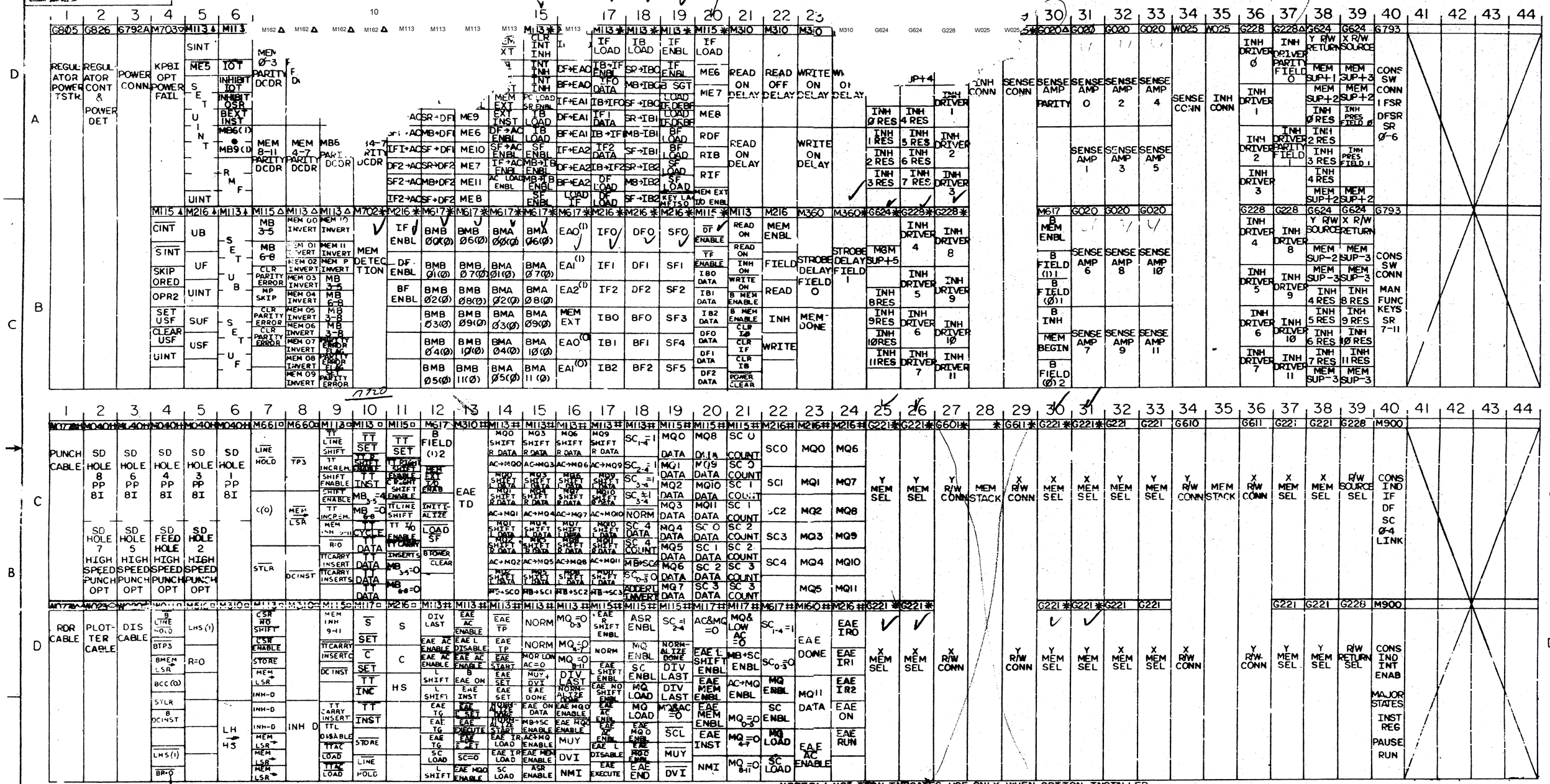
This drawing and specifications, herein, are the property of Digital Equipment Corporation and shall not be reproduced or copied or used in whole or in part as the basis for the manufacture or sale of items without written permission.



NOTES: 1. NOTATION INDICATES USE ONLY WHEN OPTION INSTALLED

⊕	MC8I	⊥	DL8I	⊠	VP8I	▲	KT8I
⊕	MK8I	⊥	PD8I	⊥	VC8I		
⊕	MP8I	⊥	PR8I	▽	KP8I		

2. *FOR MC8I REPLACE THE G020'S IN LOC A30, A31, A32 A33 B31, B32 AND B33 WITH G021S

3. *Δ FOR MP8I AND MC8I9 THE USUAL MEMORY STACK DEC#30-05256-1 IS REPLACED BY DEC#30-05256-2 WITH G112S AT LOC CD36 AND CD29 RESPECTIVELY.

REVISIONS	REV	CHANGE NO	TO	CHK
	H		REDRAWN	
	J		12	
	K		13	
	L	81-00009		OLOUGHLIN
	M	81-00013		OLOUGHLIN
	N	81-00015		J.E. OLOUGHLIN
	P	81-00020		OLOUGHLIN
	R	00021		OLOUGHLIN
	S	00024		OLOUGHLIN
	T	81-00025		J. OLOUGHLIN
	U	81-00032		M. ARSENAULT
	V	81-00034		ARSENAULT
	W	81-00042		ARSENAULT
	Y	00046		M. ARSENAULT
	Z	81-00050		ARSENAULT

DEC FORM 187 DRD 105

UNLESS OTHERWISE SPECIFIED
DIMENSION IN INCHES
TOLERANCES
DECIMALS ± .005 FRACTIONS ± 1/64 ANGLES ± 0°30'
FINAL SURFACE QUALITY
REMOVE BURRS AND BREAK SHARP CORNERS

MATERIAL

FINISH

DRN.	R. BERNIER	DATE 8/9/67
CHK'D.	P. DAIGNEAULT	DATE 8/14/67
ENG.	E. DECASTRO	DATE 10/10/67
PROJ. ENG.	E. DECASTRO	DATE 10/10/67
PROD.	B. VILLANCOURT	DATE 8/21/67
FIRST USED ON	E-UA-8I-0-0	
SCALE		
SHEET 1 OF 2		

digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS

TITLE MODULE UTILIZATION

SIZE	CODE	NUMBER	REV
D	MU	8I-0-17	A C

DIST.

This drawing and specifications herein are the property of Digital Equipment Corporation and shall not be reproduced or copied or used in whole or in part as the basis for the manufacture or sale of items without written permission

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
	M706	M707							M113	M700	M113	M113	M160	M115	M113	M310	M310	M216	M216	M216	M115	M113	M215	M113	M115	M160	M160	M160	M160	M160	M617	M617	M216	M220	M220	M220	M220	M220	M220	M900
	TTY RECVR	TTY TRANS							SD	$\overline{\text{MFTS0}}$	KEY LA	PAUSE	DATA	MEM START	MEM START	.3μS	.15μS	TS 1	TS 2	IR0	$\overline{\text{TAD}}$	AND	FETCH	EAE LEFT SHIFT	EAE LEFT SHIFT	PC LOAD	CARRY INSERT	L ENABLE	MEM ENABLE	MA ENABLE	DOUBLE RIGHT ROTATE	MA LOAD	ADD ACCPT	AC ØØ	AC Ø2	AC Ø4	AC Ø6	AC Ø8	AC 1Ø	CONS IND
									SD	MFTP0	KEY ST	PAUSE		PC ENABLE	MEM START			MEM IDLE	TS 3	IR 1	$\overline{\text{AND}}$	TAD		JMP DEFER 1	CLEAR INT ENABLE				Ø-4	Ø-11	DOUBLE LEFT ROTATE	PC LOAD	WC OVFOL							AC Ø-5
									INH		KEY DP	CLEAR PAUSE		CLR IB IF DF	TP 4	CLEAR PAUSE	TP 2				$\overline{\text{ISZ}}$	ISZ	DEFER	IR 0(I) IR 1(I)	WC+CA +TT SET														
									INH		KEY EX+DP	IO END			TP 4							JMS		SPECIAL CYCLE															
									MEM ENAB 9-0	MFTS1	KEY STOP+SS	KEY LA EX+DP		KEY ST+EX +DP	TP 1						$\overline{\text{DCA}}$	DCA	EXECUTE	TP 4+ INT OK	D SET															
E	TTI Ø-7	TPR FLAG							MEM ENAB 9-0	MFTP1	KEY SI	SLOW CYCLE		SET TS 4	SET TS3			TS 4	IOP 1	BREAK SYNC	$\overline{\text{JMS}}$	LOAD IR	WORD COUNT	AC(I) MB0-5(I)	SKIP															
									IOP 1(I)		KEY EX+DP	RESTART		SET TS 4	SET TS4			RUN			$\overline{\text{IOT}}$	JMP		HT AC=Ø	SKIP															
	TTI SKIP	TTO SKIP							IOP2(I)	MFTS2	KEY LA+DP	TT SKIP		I/O STROBE	I/O START		.35μS	SKIP	IOP 2	I/O ON		LOAD IR	CUR ADD.	MID AC=Ø	LOAD SKIP															
									IOP4(I)	MFTP2	KEY CONT	DATA TO WC			I/O START						$\overline{\text{JMP}}$	OPR		LOW AC=Ø	LOAD SKIP					AC ENABLE										
	IN ACTIVE	OUT ACTIVE							IOP 1(I)		BREAK 1 MEM INC	TT INT							IOP 4		$\overline{\text{OPR}}$	IOT	BREAK	SKIP							AND ENABLE	AC ENABLE	LINK							
			M452					‡M660	MI19		MI17	M310	M310	M310	M310	M310	M310	M310	M310	M310	MI17	MI13	MI13	MI13	MI17	MI17	MI13	MI17	MI17	MI15	MI13	M617	M617	MI13	M160						
	IN STOP 2	OUT STOP 2						B MEM START	OUR BACK PLANE HAS NO WIRES TO THIS CARD		$\overline{\text{IOT}}$	I/O	.4μS	.4μS	.4μS	.4μS	.4μS	.4μS	.4μS	.4μS	SLOW CYCLE	CLEAR ADD ACC	MEMO	NO SHIFT	OP 1	DOUBLE LEFT ROTATE	MEM ENABLE 5-11	ADD	MEM ENABLE Ø-4	PC ENABLE	MEM ENABLE Ø-4	CARRY INSERT	LINK						
											IOP										KEY LA ST EX OP CONT	ADD ACC	F SET	CA INCR	MA ENABLE Ø-4	DOUBLE RIGHT ROTATE	MEM ENABLE 5-11		MEM ENABLE Ø-4	I/O ENABLE	MEM ENABLE 5-11	MA LOAD	CONT						
	IN STOP 1	OUT STOP 1.5	TTO CLOCK					BTP2			I+2+4	STROBE	IOP 2	IOP 2	IOP 4	IOP 4	I/O	I/O			SET IOP 1	LOAD INT ENABLE	SET: FETCH	AUTO INDEX	INT SKIP	RIGHT SHIFT	MEM 5-11	OP2	MEM ENABLE Ø-4	DATA ENABLE	MA ENABLE Ø-4	MA LOAD							
											I PC	ANS					END	END			SET IOP 2	LOAD INT ENB	E SET	AUTO INDEX	PC ENABLE	LEFT SHIFT			OP2	AC CLEAR	DATA ENABLE	OP 1 MB6(I)	LINK						
F											ENAB										SET IOP 4	LOAD INT ENB	D SET	AUTO INDEX	DATA ENABLE	NO SHIFT	CARRY INSERT		DATA ADD ENABLE	IO ENABLE	MA ENABLE 5-11	PC ENABLE IOP 4	CONT						
											INT INH										SLOW CYCLE	CLEAR INT ENB	BREAK OK	AUTO INDEX	SR ENABLE	PC LOAD	AUTO INDEX		L ENABLE	SR ENABLE	B FETCH (I)	ADDER IR → LINK	DATA						
																					TPC ENABLE	LOAD INT ENB	WC SET	SKIP	TT INST	AND ENABLE			KEY LA MF15 Ø	MANUAL PRESET	B EXECUTE (I)	CARRY → LINK	ADDER L						
											TT INT										SLOW CYCLE	LOAD INT ENB	BREAK OK+WC SET	LOAD SKIP	EAE ONE	AC LOAD	OPI											
																					INITIAL	PROCESS OR IOT	B SET	LOAD SKIP	PC INCR														
																					INITIAL	PROCESS IOT	WC SET																

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
	W011 ‡	W011 ‡	W011 ‡	W011 ‡	W011 ‡		M651 ψ	M651 ψ	M651 ψ	M651 ψ	M651 ψ	M651 ψ	M651 ψ	M651 ψ	M651 ψ	M651 ψ	M651 ψ	M651 ψ	M651 ψ	M651 ψ			A701 ‡	A707 ‡	A607 ‡	M705 ~	M715 ~	M710 ‡	M704 ~	M708 ▼	M709 ‡	M716 ↓		W971 ↓						
	EXTD MEM CONN	EXTD MEM CONN	EXTD MEM CONN	EXTD MEM CONN	EXTD MEM CONN		BAC Ø	BAC 3	BAC 6	BAC 9	IOP 1	TS3	MB0(I)	MB3(Ø)	MB4(I)	MB6(Ø)	MB7(I)	MB9(I)	RUN	BREAK																				
H	MCB MB 3-5	BMA 6-11	MCB MB 6-11	MEM P	MEM 8-11																		VC8I OPT	VC8I OPT	VC8I OPT	PR8I OPT	PR8I OPT	PP8I OPT	VP8I OPT	KW8I OPT	KW8I OPT	CR8I OPT		CR8I OPT						
	BMA Ø-5	MCB MB Ø-2	EA Ø-2	MEM Ø-7	MEM START STROBE MEM DONE MB PARITY ODD		BAC 1	BAC 4	BAC 7	BAC 1Ø	IOP 2	TS1	MB1(I)	MB3(I)	MB5(Ø)	MB6(I)	MB8(Ø)	MB1Ø(I)	TT INST	ADD. ACCPT			DIS CONT	DIS D/A	DIS D/A	RDR CONT	RDR CLOCK	PUNCH CONT	PLOTTER CONT	CLOCK CONT	CLOCK CTR	CARD RDR CONT 1		CARD RDR CABLE						
							BAC 2	BAC 5	BAC 8	BAC 11	IOP 4	INIT	MB2(I)	MB4(Ø)	MB5(I)	MB7(Ø)	MB8(I)	MB11(I)	WC OVFLO																					
	W011	W011	W011	W011	W011	W011	W011	W011	W011	W011	W011	W076	M506 ψ	M506 ψ	M506 ψ	M506 ψ	M506 ψ	M506 ψ	M506 ψ	M506 ψ												M714 ↓								
	IN-OUT CONN	IN-OUT CONN	IN-OUT CONN	IN-OUT CONN	IN-OUT CONN	IN-OUT CONN	IN-OUT CONN	IN-OUT CONN	IN-OUT CONN	IN-OUT CONN	IN-OUT CONN	TTY CONN	IBØ	IB6	I/O SKIP	DATA ADD. Ø	DATA ADD. 6	DATA Ø	DATA 6	MEM INCR										KW8I OPT		CR8I OPT							
J	BAC Ø-8	BAC 9-11 IOP 1,2&4 TS3 TS1 INIT	MB Ø-5	MB 6-11	IB Ø-8	IB 9-11 SKIP INT AC CLEAR RUN TT INST LINE	DATA ADD. Ø-8	DATA ADD. 9-11 BRK REST DATA DIR. BREAK ADD. ACC. MEM INCR	DATA Ø-8	DATA 9-11 3CYC CA NOR WC OVFLO	EXTD DATA ADD. Ø-2		IB1	IB7	INT RQST	DATA ADD. 1	DATA ADD. 7	DATA 1	DATA 7	3 CYCLE										FREQ SOURCE		CARD RDR CONT 2							
													IB2	IB8	AC CLEAR	DATA ADD. 2	DATA ADD. 8	DATA 2	DATA 8	$\overline{\text{CA}}$ INCR																			
													IB3	IB9	LINE	DATA ADD. 3	DATA ADD. 9	DATA 3	DATA 9	EXTD DATA ADD. Ø																			
													IB4	IB1Ø	BRK RQST	DATA ADD. 4	DATA ADD. 1Ø	DATA 4	DATA 1Ø	EXTD DATA ADD. 1																			
													IB5	IB11	DATA DIR	DATA ADD. 5	DATA ADD. 11	DATA 5	DATA 11	EXTD DATA ADD. 2																			

NOTES: 1. NOTATION INDICATES USE ONLY WHEN OPTION INTALLED

#	VC8I	◇	VP8I	⋈	KW8I D,E,F
~	PR8I	T	MM8I	↓	CR8I
#	PP8I	⧗	KW8I		

2. ⧗ FREQ SOURCE AT LOC J30 IS AS FOLLOWS:

M501	KW8I A OR C	M401	KW8I B OR E
M405	KW8I C OR F		

3. ψ FOR KA8I REPLACE M506'S IN LOC J13 TO J20 WITH M516'S; REPLACE M651'S IN LOC H07 TO H20 WITH M661'S; EXCEPT USE M660'S IN LOC H11 AND H12

4. M660 MODULE IN SLOT F08 TO BE PUT IN WITH THE FIRST MM 8I A ONLY.

REVISIONS				
CHK	CHANGE NO.	REV.		
	8I-00053	AA	T. Quillen 5-21-69	ARSENAULT
	8I-00054	AB	T. Quillen 6/3/69	ARSENAULT
	00059	AC	M. Moran 11-4-70	M. ARSENAULT

UNLESS OTHERWISE SPECIFIED
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES
TOLERANCES
DECIMALS ± .005 FRACTIONS ± 1/64 ANGLES ± 0°30'
FINAL SURFACE QUALITY ✓
REMOVE BURRS AND BREAK SHARP CORNERS

MATERIAL

FINISH

DRN.		DATE
CHK'D.		DATE
ENG.		DATE
PROJ. ENG.		DATE
PROD.		DATE
FIRST USED ON		
SCALE		
SHEET 2 OF 2		

[redacted] EQUIPMENT CORPORATION
MAYNARD, MASSACHUSETTS

TITLE
MODULE UTILIZATION

SIZE D CODE MU NUMBER 8I-0-17 REV AC