

TRANSFER INSTRUCTIONS -(8 bit)															
Oper	Op Code	Adr met	Instruction Format					Status Reg.					A	Explanation	
			1. Byte	2. Byte	3. Byte	4. Byte	5. Byte	T	S	N	Y	E			
MOV	Ki,Kj	L	0 1 0 0 0 0 0 0	0 0 Ki Kj					==	◆	◆	==	==	1	Ki ← Kj
EXC	Ki,Kj	L	0 1 0 0 0 0 0 1	0 0 Ki Kj					==	==	==	==	==	3	Ki ↔ Kj
CHN	Ki	L	0 1 0 0 0 0 1 0	0 1					==	◆	◆	==	==	5	D3 D2 D1 D0 D7 D6 D5 D4
LDA	Ki,V	V	0 0 0 0 0 0 0 0	0 0 0 0 0 Ki		Datai			==	◆	◆	==	==	1	Ki ← V
	Ki,<adr>	D	0 0 0 0 0 0 0 0	0 0 1 0 0 Ki		Adr (H)	Adr (L)		==	◆	◆	==	==	2	Ki ←<Adr>
	Ki,<CD>	K	0 0 0 0 0 0 0 0	0 1 0 0 0 Ki					==	◆	◆	==	==	3	Ki ←<<CD>>
	Ki,<SK+S>	S	0 0 0 0 0 0 0 0	0 1 1 0 0 Ki		S			==	◆	◆	==	==	4	Ki ←<SK+S>
	Ki,<SK+S>+R	R	0 0 0 0 0 0 0 0	1 0 0 0 0 Ki		S	R		==	◆	◆	==	==	5	Ki ←<SK+S> +R
	Ki,<SK+S>-R	Z	0 0 0 0 0 0 0 0	1 0 1 0 0 Ki		S	R		==	◆	◆	==	==	5	Ki ←<SK+S> -R
	Ki,<SK+CD+S>	U	0 0 0 0 0 0 0 0	1 1 0 0 0 Ki		S			==	◆	◆	==	==	6	Ki ←<SK+CD+S>
	Ki,<YG+S>	Y	0 0 0 0 0 0 0 0	1 1 1 0 0 Ki		S			==	◆	◆	==	==	5	Ki ←<YG+S>
STR	V,Adr	V	0 0 0 0 0 0 0 1	0 0 0 0 1		Datai	Adr (H)	Adr (L)		==	==	==	==	3	Adr ← V
	Ki,<adr>	D	0 0 0 0 0 0 0 1	0 0 1 0 0 Ki		Adr (H)	Adr (L)		==	==	==	==	==	2	Adr ← Ki
	Ki,<CD>	K	0 0 0 0 0 0 0 1	0 1 0 0 0 Ki					==	==	==	==	==	3	<<CD>> ← Ki
	Ki,<SK+S>	S	0 0 0 0 0 0 0 1	0 1 1 0 0 Ki		S			==	==	==	==	==	4	<SK+S> ← Ki
	Ki,<SK+S>+R	R	0 0 0 0 0 0 0 1	1 0 0 0 0 Ki		S	R		==	==	==	==	==	5	<SK+S> ← Ki + R
	Ki,<SK+S>-R	Z	0 0 0 0 0 0 0 1	1 0 1 0 0 Ki		S	R		==	==	==	==	==	5	<SK+S> ← Ki - R
	Ki,<SK+CD+S>	U	0 0 0 0 0 0 0 1	1 1 0 0 0 Ki		S			==	==	==	==	==	6	<SK+CD+S> ← Ki
	Ki,<YG+S>	Y	0 0 0 0 0 0 0 1	1 1 1 0 0 Ki		S			==	==	==	==	==	5	<YG+S> ← Ki

TRANSFER INSTRUCTIONS - (16 bit)													
Oper	Op Code	Adr met	Instruction Format				Status Reg.					A	Explanation
			1. Byte	2. Byte	3. Byte	4. Byte	T	S	N	Y	E		
MOV	Kii,Kjj	L	0 1 1 0 0 0 0 0	0 0 Kii Kjj			==	◆	◆	==	==	2	Kii ← Kjj
EXC	Kii,Kjj	L	0 1 1 0 0 0 0 1	0 0 Kii Kjj			==	==	==	==	==	4	Kii ↔ Kjj
LDA	Kii,VV	V	0 0 1 0 0 0 0 0	0 0 0 0 0 0 Kii	Datai	Data	==	◆	◆	==	==	2	Kii ← VV
	Kii,<adr>	D	0 0 1 0 0 0 0 0	0 0 1 0 0 0 Kii	Adr (H)	Adr (L)	==	◆	◆	==	==	3	Kii ← <Adr> + <Adr+1>
	Kii,<CD>	K	0 0 1 0 0 0 0 0	0 1 0 0 0 0 Kii			==	◆	◆	==	==	4	Kii ← <<CD>> + <<CD+1>>
	Kii,<SK+S>	S	0 0 1 0 0 0 0 0	0 1 1 0 0 0 Kii	S		==	◆	◆	==	==	5	Kii ← <SK+S> + <SK+S+1>
	Kii,<SK+S>+R	R	0 0 1 0 0 0 0 0	1 0 0 0 0 0 Kii	S	R	==	◆	◆	==	==	6	Kii ← <SK+S> + <SK+S+1> + R
	Kii,<SK+S>-R	Z	0 0 1 0 0 0 0 0	1 0 1 0 0 0 Kii	S	R	==	◆	◆	==	==	6	Kii ← <SK+S> + <SK+S+1> - R
	Kii,<SK+CD+S>	U	0 0 1 0 0 0 0 0	1 1 0 0 0 0 Kii	S		==	◆	◆	==	==	7	Kii ← <SK+CD+S> + <SK+CD+S+1>
	Kii,<YG+S>	Y	0 0 1 0 0 0 0 0	1 1 1 0 0 0 Kii	S		==	◆	◆	==	==	6	Kii ← <YG+S> + <YG+S+1>
STR	Kii,<adr>	D	0 0 1 0 0 0 0 1	0 0 1 0 0 0 Kii	Adr (H)	Adr (L)	==	==	==	==	==	3	Adr + (Adr+1) ← Kii
	Kii,<CD>	K	0 0 1 0 0 0 0 1	0 1 0 0 0 0 Kii			==	==	==	==	==	4	<<CD>> + <<CD+1>> ← Kii
	Kii,<SK+S>	S	0 0 1 0 0 0 0 1	0 1 1 0 0 0 Kii	S		==	==	==	==	==	5	<SK+S> + <SK+S+1> ← Kii
	Kii,<SK+S>+R	R	0 0 1 0 0 0 0 1	1 0 0 0 0 0 Kii	S	R	==	==	==	==	==	6	<SK+S> + <SK+S+1> ← Kii + R
	Kii,<SK+S>-R	Z	0 0 1 0 0 0 0 1	1 0 1 0 0 0 Kii	S	R	==	==	==	==	==	6	<SK+S> + <SK+S+1> ← Kii - R
	Kii,<SK+CD+S>	U	0 0 1 0 0 0 0 1	1 1 0 0 0 0 Kii	S		==	==	==	==	==	7	<SK+CD+S> + <SK+CD+S+1> ← Kii
	Kii,<YG+S>	Y	0 0 1 0 0 0 0 1	1 1 1 0 0 0 Kii	S		==	==	==	==	==	6	<YG+S> + <YG+S+1> ← Kii

LOGIC INSTRUCTIONS - (8 bit)													
Oper	Op Code	Adr met	Instruction Format				Status Reg.					A	Explanation
			1. Byte	2. Byte	3. Byte	4. Byte	T	S	N	Y	E		
AND	Ai,V	V	0 0 0 0 1 0 0 0	0 0 0 0 0 0 Ai			==	◆	◆	==	==	3	Ai ← Ai • V
	Ai,Ki	L	0 1 0 0 1 0 0 0	0 0 Ai Ki			==	◆	◆	==	==	3	Ai ← Ai • Ki
	Ai,<adr>	D	0 0 0 0 1 0 0 0	0 0 1 0 0 Ai	Adr (H)	Adr (L)	==	◆	◆	==	==	4	Ai ← Ai • <Adr>
	Ai,<CD>	K	0 0 0 0 1 0 0 0	0 1 0 0 0 Ai			==	◆	◆	==	==	6	Ai ← Ai • <<CD>>
	Ai,<SK+S>	S	0 0 0 0 1 0 0 0	0 1 1 0 0 Ai	S		==	◆	◆	==	==	7	Ai ← Ai • <SK+S>
	Ai,<SK+S>+R	R	0 0 0 0 1 0 0 0	1 0 0 0 0 Ai	S	R	==	◆	◆	==	==	7	Ai ← Ai • <SK+S> + R
	Ai,<SK+S>-R	Z	0 0 0 0 1 0 0 0	1 0 1 0 0 Ai	S	R	==	◆	◆	==	==	7	Ai ← Ai • <SK+S> - R
	Ai,<SK+CD+S>	U	0 0 0 0 1 0 0 0	1 1 0 0 0 Ai	S		==	◆	◆	==	==	8	Ai ← Ai • <SK+CD+S>
OR	Ai,<YG+S>	Y	0 0 0 0 1 0 0 0	1 1 1 0 0 Ai	S		==	◆	◆	==	==	7	Ai ← Ai • <YG+S>
	Ai,V	V	0 0 0 0 1 0 0 1	0 0 0 0 0 0 Ai			==	◆	◆	==	==	3	Ai ← Ai + V
	Ai,Ki	L	0 1 0 0 1 0 0 1	0 0 Ai Ki			==	◆	◆	==	==	3	Ai ← Ai + Ki
	Ai,<adr>	D	0 0 0 0 1 0 0 1	0 0 1 0 0 Ai	Adr (H)	Adr (L)	==	◆	◆	==	==	4	Ai ← Ai + <Adr>
	Ai,<CD>	K	0 0 0 0 1 0 0 1	0 1 0 0 0 Ai			==	◆	◆	==	==	6	Ai ← Ai + <<CD>>
	Ai,<SK+S>	S	0 0 0 0 1 0 0 1	0 1 1 0 0 Ai	S		==	◆	◆	==	==	7	Ai ← Ai + <SK+S>
	Ai,<SK+S>+R	R	0 0 0 0 1 0 0 1	1 0 0 0 0 Ai	S	R	==	◆	◆	==	==	7	Ai ← Ai + <SK+S> + R
	Ai,<SK+S>-R	Z	0 0 0 0 1 0 0 1	1 0 1 0 0 Ai	S	R	==	◆	◆	==	==	7	Ai ← Ai + <SK+S> - R
XOR	Ai,<SK+CD+S>	U	0 0 0 0 1 0 0 1	1 1 0 0 0 Ai	S		==	◆	◆	==	==	8	Ai ← Ai + <SK+CD+S>
	Ai,<YG+S>	Y	0 0 0 0 1 0 0 1	1 1 1 0 0 Ai	S		==	◆	◆	==	==	7	Ai ← Ai + <YG+S>
	Ai,V	V	0 0 0 0 1 0 1 0	0 0 0 0 0 0 Ai			==	◆	◆	==	==	3	Ai ← Ai ⊕ V
	Ai,Ki	L	0 1 0 0 1 0 1 0	0 0 Ai Ki			==	◆	◆	==	==	3	Ai ← Ai ⊕ Ki
	Ai,<adr>	D	0 0 0 0 1 0 1 0	0 0 1 0 0 Ai	Adr (H)	Adr (L)	==	◆	◆	==	==	4	Ai ← Ai ⊕ <Adr>
	Ai,<CD>	K	0 0 0 0 1 0 1 0	0 1 0 0 0 Ai			==	◆	◆	==	==	6	Ai ← Ai ⊕ <<CD>>
	Ai,<SK+S>	S	0 0 0 0 1 0 1 0	0 1 1 0 0 Ai	S		==	◆	◆	==	==	7	Ai ← Ai ⊕ <SK+S>
	Ai,<SK+S>+R	R	0 0 0 0 1 0 1 0	1 0 0 0 0 Ai	S	R	==	◆	◆	==	==	7	Ai ← Ai ⊕ <SK+S> + R
	Ai,<SK+S>-R	Z	0 0 0 0 1 0 1 0	1 0 1 0 0 Ai	S	R	==	◆	◆	==	==	7	Ai ← Ai ⊕ <SK+S> - R
	Ai,<SK+CD+S>	U	0 0 0 0 1 0 1 0	1 1 0 0 0 Ai	S		==	◆	◆	==	==	8	Ai ← Ai ⊕ <SK+CD+S>
	Ai,<YG+S>	Y	0 0 0 0 1 0 1 0	1 1 1 0 0 Ai	S		==	◆	◆	==	==	7	Ai ← Ai ⊕ <YG+S>