

the address bus. If it is used to latch the data bus as well then the data bus has non-data information on it at NADS time.

This information is a four bit 'page' number to denote which of the 16 possible 4K pages is required (in a basic 4K system this address will always be 0000 and thus need not be latched). The other four bits of the data bus at NADS time shows the status of four flags R-FLAG shows whether input or output is to take place, I-FLAG shows whether data or instruction is being accessed, D-FLAG shows that a DELAY in in operation and H-FLAG can be used with the CONT input to enable a pro-

grammed halt.  
Vss-VGG Nominal 12 volt supply.

### WE HAVE 'LIFT-OFF'

Perhaps your car is not quite capable of 'lift-off' but it may well have ignition problems, so why not solve the problems with SC/MP? Fig 2 shows a very complex and relatively expensive application for SC/MP which may find application in racing engines fitted to cars, boats, planes, etc. An analogue multiplexer samples various signals from transducers in significant parts of the engine and passes these to the CPU via an A/D converter. The selection of transducer input and output

selection is done via a latch connected to the data bus. The system may well be expensive as a straightforward electronic ignition system but remember that with all that information available to it the CPU would also be able to give outputs of RPM, MPG, general engine efficiency, etc., and still have enough time and core to control lights, heating, warning lamps, etc. In fact a car built around a SC/MP might be a very interesting proposition.

At a recent exhibition NS had a Scalextric racing car set run from a microprocessor which was not a SC/MP but could well have been according to NS engineers. The idea was for one car controlled by a human to race against another car controlled by the MPU, similarly one can imagine a very complex train layout being controlled by a SC/MP system—in its spare time of course after looking after the rest of the household heating and cooking and helping junior with his homework. Anybody got a nice N gauge layout they want to sell?

Price of the SC/MP CPU chip is only £12.50; an evaluation kit at £50 and a pseudo-TTY kit also at about £50. Available from NS distributors or Bywood starting July/August.

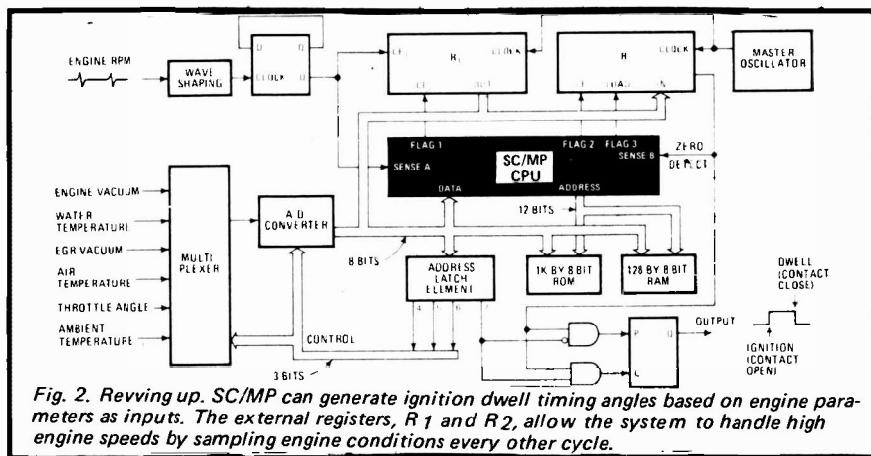


Fig. 2. Revving up. SC/MP can generate ignition dwell timing angles based on engine parameters as inputs. The external registers, R1 and R2, allow the system to handle high engine speeds by sampling engine conditions every other cycle.

## LYNX ELECTRONICS (LONDON) LTD

Transistors	BC183	10p*	BF337	32p	CRS1-10	25p	2N697	12p	
AC126	15p	BC183L	10p*	BFV60	17p*	CRS1-20	35p	2N706	10p
AC127	16p	BC184	11p*	BFX29	25p	CRS1-40	40p	2N929	14p
AC128	13p	BC184L	11p*	BFX30	30p	CRS1-60	65p	2N930	14p
AC128K	25p	BC207B	12p*	BFX84	23p	CRS3-05	34p	2N1131	15p
AC141	18p	BC212	12p*	BFX85	25p	CRS3-10	45p	2N1132	16p
AC141K	28p	BC212L	11p*	BFX88	20p	CRS3-20	50p	2N1304	20p
AC142	18p	BC213	12p*	BFX90	20p	CRS3-40	60p	2N1305	20p
AC142K	28p	BC213L	12p*	BFY51	18p	CRS3-60	85p	2N1711	18p
AC176	16p	BC214	14p*	BFY52	19p	MJ480	80p	2N2102	44p
AC176K	26p	BC214L	14p*	BFY64	35p	MJ481	£1.05	2N2369	14p
AC187	18p	BC237	16p*	BFY90	65p	MJ490	90p	2N2369A	14p
AC187K	25p	BC238	16p*	BR100	20p	MJ491	£1.15	2N2484	16p
AC188	18p	BC300	34p	BRY39	40p	MJE340	40p*	2N2646	50p
AC188K	25p	BC301	32p	BSX19	16p	MJE371	60p	2N2905	18p
AD140	50p	BC323	60p	BSX20	18p	MJE520	45p	2N2905A	22p
AD142	50p	BC327	18p*	BSX21	20p	MJE521	55p	2N2926R	10p*
AD143	46p	BC328	16p*	BSY95A	12p	OA5	50p*	2N2926R	10p*
AD149	45p	BC337	17p*	BT106	£1.00	OA90	80p	2N2926R	10p*
AD161	35p	BC338	17p*	BT107	£1.00	OA91	80p	2N2926R	10p*
AD162	35p	BCY70	12p	BT108	£1.00	OC41	15p	2N3053	15p
AL102	95p	BCY71	18p	BT109	£1.00	OC42	15p	2N3054	40p
AL103	95p	BCY72	12p	BT116	£1.00	OC44	12p	2N3055	50p
AF114	20p	BD115	55p	BU105	£1.80*	OC45	10p	2N3440	56p
AF115	20p	BD131	36p	BU105/	£1.80*	OC70	10p	2N3442	£1.20
AF116	20p	BD132	40p	02	£1.90*	OC71	10p	2N3570	80p
AF117	20p	BD135	36p	BU126	£1.60*	OC72	22p	2N3702	10p*
AF118	50p	BD136	39p	BY206	15p*	OC84	14p	2N3703	10p*
AF139	33p	BD137	40p	BY207	20p*	SC40A	73p	2N3704	10p*
AF239	37p	BD138	48p	BYX36-300	12p*	SC40B	81p	2N3705	10p*
BC107	14p	BD139	8p	BYX36-500	15p*	SC40D	98p	2N3706	10p*
BC107B	16p	BD181	86p	BYX36-900	18p*	SC40F	65p	2N3707	10p*
BC108	13p	BD182	92p	BYX36-1200	21p*	SC41A	65p	2N3711	£1.05
BC109	14p	BD183	97p	BYX38	300	SC41B	70p	2N3715	£1.15
BC109C	16p	BD232	60p*	BYX38-300	300	SC41D	85p	2N3716	£1.25
BC117	19p*	BD233	48p*	BYX38-600	600	SC41F	60p	2N3771	£1.60
BC125	18p*	BD237	55p*	BYX38-900	900	ST2	20p	2N3772	£1.60
BC126	20p*	BD238	55p*	BYX38-1200	1200	TIP29A	44p	2N3819	12p*
BC141	28p	BD184	£1.20	BYX38-300	300	TIP30A	52p	2N3904	16p
BC142	23p	BDY20	80p	BYX38-600	600	TIP31A	54p	2N3906	16p*
BC143	23p	BDY38	60p	BYX38-900	900	TIP32A	64p	2N4124	14p
BC144	30p	BDY60	60p	BYX38-1200	1200	TIP34	£1.05	2N4290	12p*
BC147	9p*	BDY61	65p	BYX38-300	300	TIP41A	88p	2N4348	£1.20
BC148	9p*	BDY62	55p	BYX38-600	600	TIP42A	72p	2N4370	25p*
BC149	9p*	BF178	28p	BYX38-900	900	IN2069	14p	2N4871	35p*
BC152	25p*	BF179	30p	BZX61 series	20p	IN2070	16p*	2N4919	70p*
BC153	18p*	BF194	10p*	BZX61 series	20p	IN4001	4p*	2N4920	50p*
BC157	9p*	BF195	10p*	BZX61 series	20p	IN4002	5p*	2N4922	50p*
BC158	9p*	BF196	12p*	BZX61 series	20p	IN4003	6p*	2N4923	64p*
BC159	32p*	BF197	12p*	BZX61 series	20p	IN4004	7p*	2N5060	20p*
BC160	32p	BF224J	18p*	C106A	40p	IN4005	8p*	2N5061	25p*
BC161	38p	BF244	17p*	C106B	50p	IN4006	9p*	2N5062	27p*
BC168B	9p*	BF257	30p	C106C	50p	IN4007	10p*	2N5064	30p*
BC182	11p*	BF257	30p	C106F	35p	CRS1-05	25p	2N5496	85p
BC182L	11p*	BF258	35p	CRS1-05	25p	2N696	14p	2N5496	85p

### DIGITAL DISPLAYS & LED's

DL704	99p	DL747	1-75	2 RED LED ONLY	13p
DL707	99p	DL750	1-75	GREEN CLEAR	15p

### THYRISTORS

	8A	1A	3A	6A	8A	10A
	(TO92)	(TO5)	(C106 type)	(TO220)	(TO220)	(TO220)
50	20	25	35	41	42	47
100	25	35	40	47	48	54
200	27	35	45	58	60	68
400	30	40	50	67	68	80
600		65	70	1.00	1.10	1.20

### TRIACS (PLASTIC TO-220 PKG, ISOLATED TAB)

	4A		6-5A		8-5A		10A		15A	
	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)	(a)	(b)
100 V	0.60	0.60	0.70	0.70	0.78	0.78	0.83	0.83	1.01	1.01
200 V	0.64	0.64	0.75	0.75	0.87	0.87	0.87	0.87	1.17	1.17
400 V	0.77	0.78	0.80	0.83	0.97	1.01	1.13	1.19	1.42	1.50

N.B. Triacs without internal trigger diac are priced under column (a). Triacs with internal trigger diac are priced under column (b). When ordering please indicate clearly the type required.

### 74 TTL mixed prices

	1-24	25-99	100+	1-24	25-99	100+	1-24	25-99	100+
7400	14p	12p	10p	7445	85p	71p	7492	57p	48p
7401	14p	12p	10p	7447	81p	75p	7493	45p	32p
7402	14p	12p	10p	7448	75p	62p	7495	67p	55p
7403	15p	12p	10p	7447A	95p	83p	74100	£1.08	89p
7404	16p	13p	11p	7470	30p	25p	74107	35p	28p
7405	16p	13p	11p	7472	25p	21p	74121	34p	28p
7409	16p	13p	11p	7473	30p	25p	74122	47p	39p
7413	16p	13p	11p	7474	32p	26p	74141	78p	63p
7413	29p	24p	20p	7475	47p	39p	74145	68p	58p
7417	27p	22p	20p	7476	32p	26p	74154	£1.82	£1.48
7420	16p	13p	11p	7482	75p	62p	74174	£1.06	83p
7427	27p	22p	18p	7485	£1.30	£1.09	74180	£1.06	88p
7430	16p	13p	11p	7486	32p	26p	74181	£3.20	£2.50
7432	27p	22p	18p	7489	£2.92	£2.80	74192	£1.35	£1.14
7437	27p	22p	18p	7490	49p	40p	74193	£1.35	£1.14
7441	75p	62p	50p	7491	85p	55p	74196	£1.64	£1.34
7442	65p	55p	43p						

### LINEAR IC's

301A 8 pin DIL	3s*	3900 14 pin DIL	70*	565 14 pin DIL	£2.00*
307	55*	709 8/14 pin DIL	35*	566 8 pin DIL	£1.50*
308K	1.60	741 8/14 pin DIL	28*	567 8 pin DIL	£2.00*
380 14 pin DIL	90*	748 8 pin DIL	34*	CA3045 14 pin DIL	50*
381 14 pin DIL	1.60*	555 8 pin DIL	45	CA3045	85*

### NATIONAL CLOCK CHIPS

MM5314	£3.75	MM 5316	£5.25
(Basic clock chip giving 6 digit display)		(Sophisticated device including alarm, similar to CT 7001)	

### HIGHAM MEAD, CHESHAM, BUCKS. Tel. (02405) 75151

VAT—Please add 8% except items marked \* which are 25%