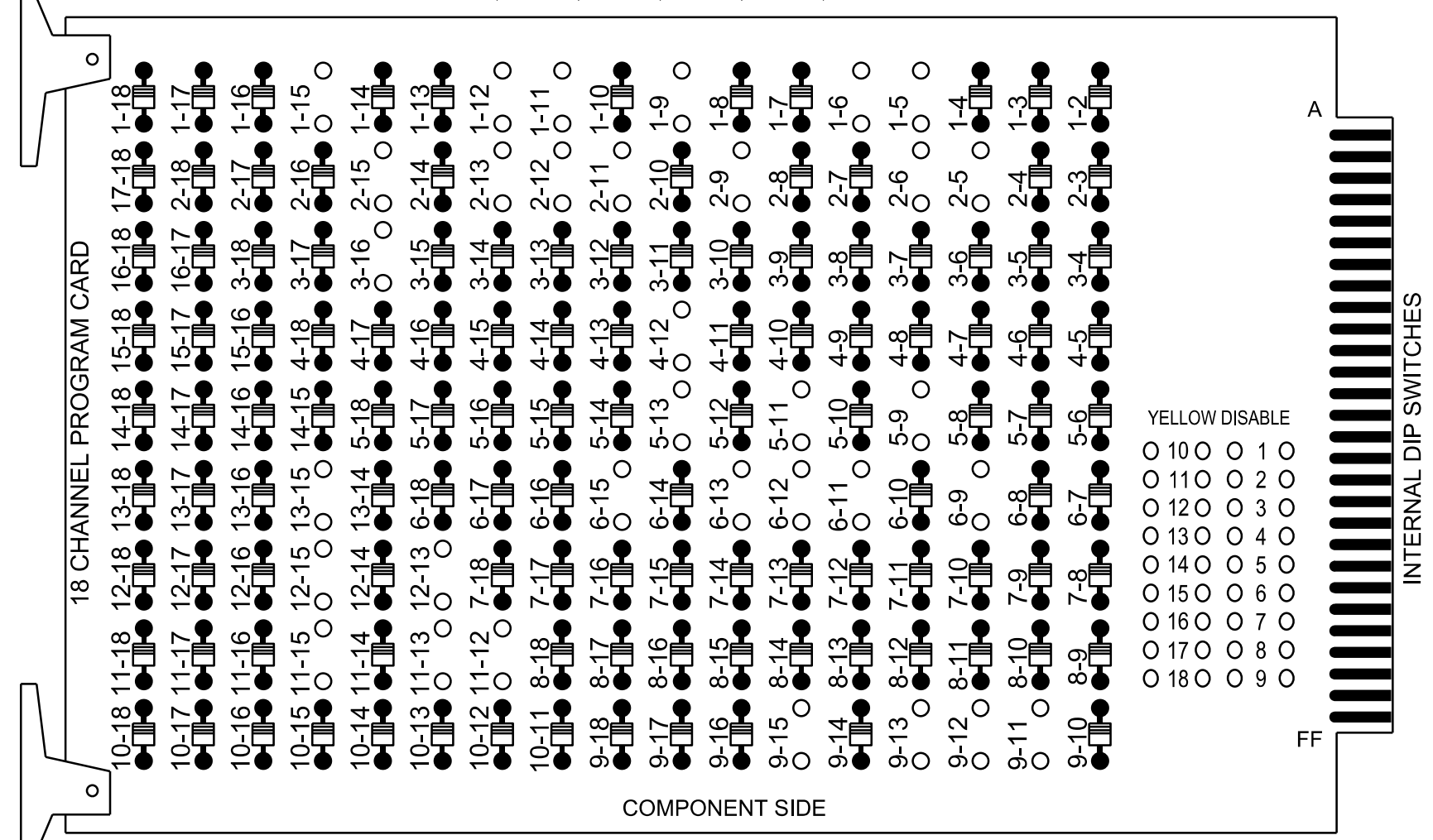


### 18 CHANNEL IP CONFLICT MONITOR PROGRAMMING DETAIL

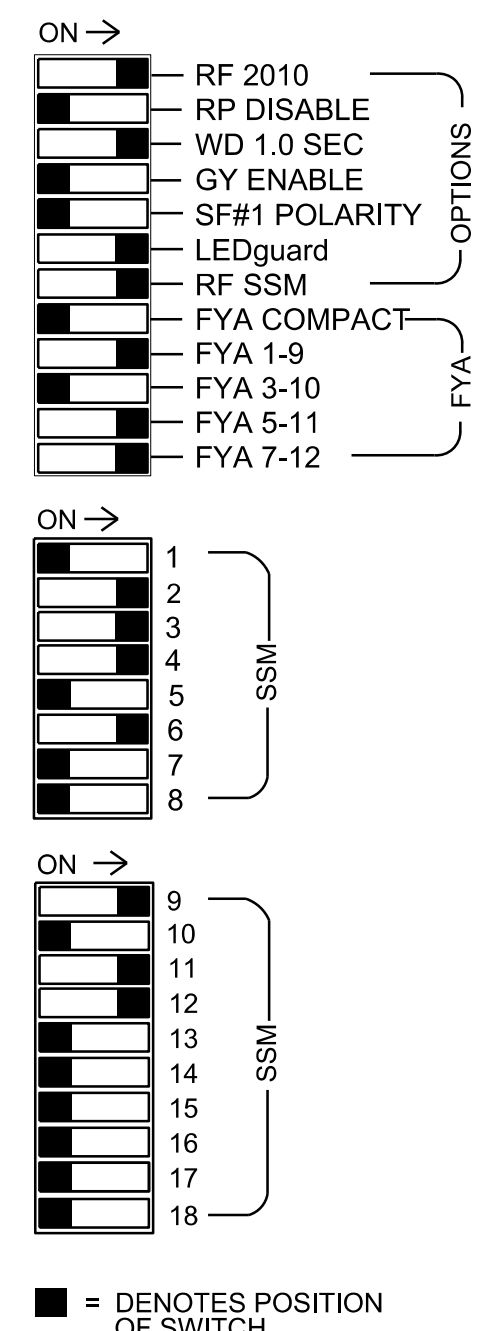
(remove jumpers and set switches as shown)

REMOVE DIODE JUMPERS 1-5, 1-6, 1-9, 1-11, 1-12, 1-15, 2-5, 2-6, 2-9, 2-11, 2-12, 2-13, 2-15, 3-16, 4-12, 5-9, 5-11, 5-13, 6-9, 6-11, 6-12, 6-13, 6-15, 9-11, 9-12, 9-13, 9-15, 11-12, 11-13, 11-15, 12-13, 12-15, and 13-15.



REMOVE JUMPERS AS SHOWN

- NOTES:**
- Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
  - Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
  - Ensure that the Red Enable is active at all times during normal operation.
  - Integrate monitor with Ethernet network in cabinet.



### NOTES

- To prevent "flash-conflict" problems, insert red flash program blocks for all unused vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the signal plan.
- Program controller to start up in phase 2 Green Walk and 6 Green Walk.
- If this signal will be managed by an ATMS software, enable controller and detector logging for all detectors used at this location.
- The cabinet and controller are part of the D14-12 Waynesville Signal System.

### EQUIPMENT INFORMATION

Controller.....2070LX  
 Cabinet.....332 w/ Aux  
 Software.....Q-Free MAXTIME  
 Cabinet Mount.....Base  
 Output File Positions.....18 With Aux. Output File  
 Load Switches Used.....S1, S2, S3, S4, S5, S7, S8, S9,  
 S12, AUX S1, AUX S4, AUX S5  
 Phases Used.....1, 2, 2PED, 3, 3PED, 4, 5, 6,  
 6PED  
 Overlap "1".....\*  
 Overlap "2".....NOT USED  
 Overlap "3".....\*  
 Overlap "4".....\*

\*See overlap programming detail on sheet 2

### SIGNAL HEAD HOOK-UP CHART

LOAD SWITCH NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	AUX S1	AUX S2	AUX S3	AUX S4	AUX S5	AUX S6				
CMU CHANNEL NO.	1	2	13	3	4	14	5	6	15	7	8	16	9	10	17	11	12	18				
PHASE	1	2	2 PED	3	4	4 PED	5	6	6 PED	7	8	3 PED	OL1	OL2	SPARE	OL3	OL4	SPARE				
SIGNAL HEAD NO.	11*	21,22	P21, P22	31	32	41	42	43	NU	51*	61,62	P61, P62	NU	NU	P31, P32	11*	NU	51*	63*	NU		
RED		128		116	101	101			134										A101			
YELLOW	*	129		117	102	102		*	135													
GREEN		130		118	103	103			136													
RED ARROW				116	101														A121		A114	
YELLOW ARROW				117	102														A122		A115	A102
FLASHING YELLOW ARROW																			A123		A116	A103
GREEN ARROW	127			118	103	103			133													
Hand icon				113									119								110	
Walking person icon				115									121									112

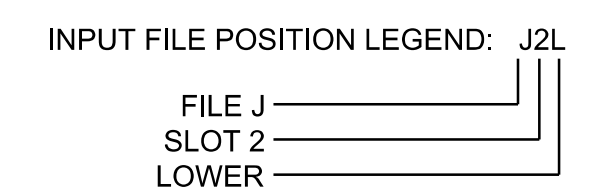
NU = Not Used  
 \* Denotes install load resistor. See load resistor installation detail this sheet.  
 \* See pictorial of head wiring in detail this sheet.

### INPUT FILE CONNECTION & PROGRAMMING CHART

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT POINT	DETECTOR NO.	CALL PHASE	DELAY TIME	EXTEND TIME	EXTEND	ADDED INITIAL	CALL	DELAY DURING GREEN
1A	TB2-1,2	I1U	56	18	1	1	15		X		X	
2A	TB2-5,6	I2U	39	-	29	6			X		X	
2B	TB2-7,8	I2L	43	5	3	2			X		X	
3A	TB4-5,6	I5U	58	20	7	3	3		X		X	
3B	TB4-9,10	I6U	41	3	8	3			X		X	
4A	TB6-1,2	I7U	65	31	10	4	3		X		X	
4B	TB6-3,4	I7L	78	44	11	4			X		X	
* S13	TB6-9,10	I9U	60	22	13							
* S14	TB6-11,12	I9L	62	24	14							
5A	TB3-1,2	J1U	55	17	15	5	15		X		X	
6A	TB3-5,6	J2U	40	2	16	6			X		X	
6B	TB3-7,8	J2L	44	6	17	6			X		X	
* S15	TB7-9,10	J9U	59	21	27							
* S16	TB7-11,12	J9L	61	23	28							
PED PUSH BUTTONS												
P21,P22	TB8-4,6	I12U	67	33	2	PED 2						
P31,P32	TB8-8,9	I13L	70	36	8	PED 3						
P41,P42	TB8-5,6	I12L	69	35	4	PED 4						

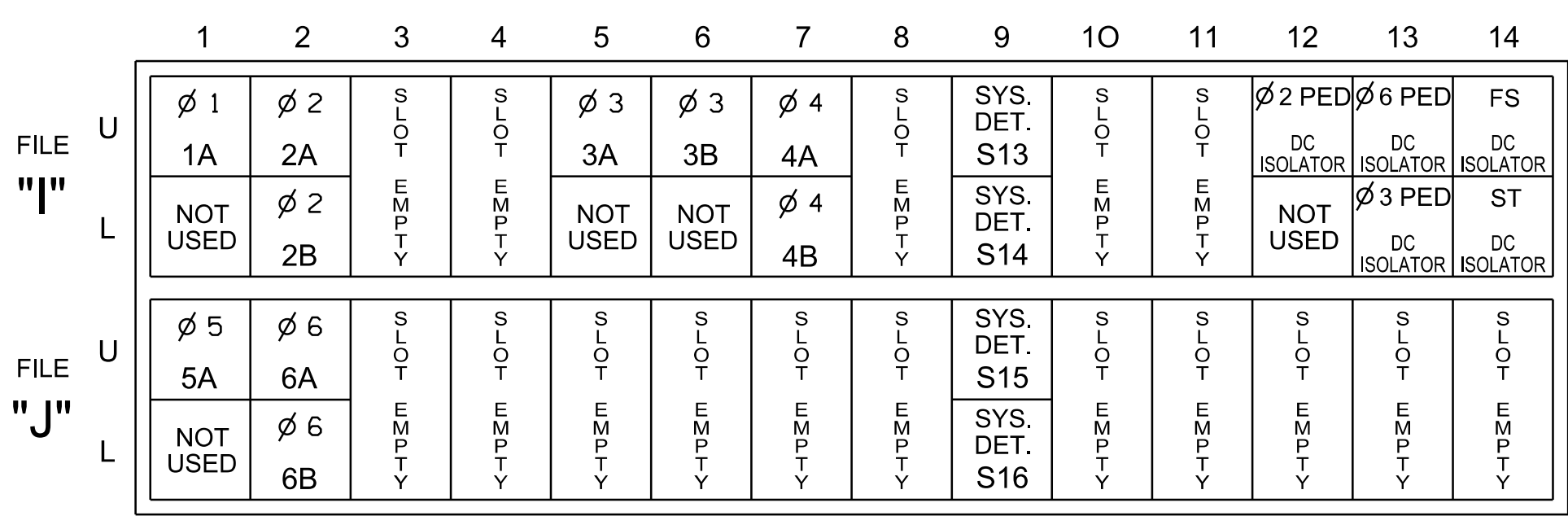
NOTE: INSTALL DC ISOLATORS IN INPUT FILE SLOTS I12 AND I13.

\*System detector only. Remove any assigned vehicle phase.



### INPUT FILE POSITION LAYOUT

(front view)

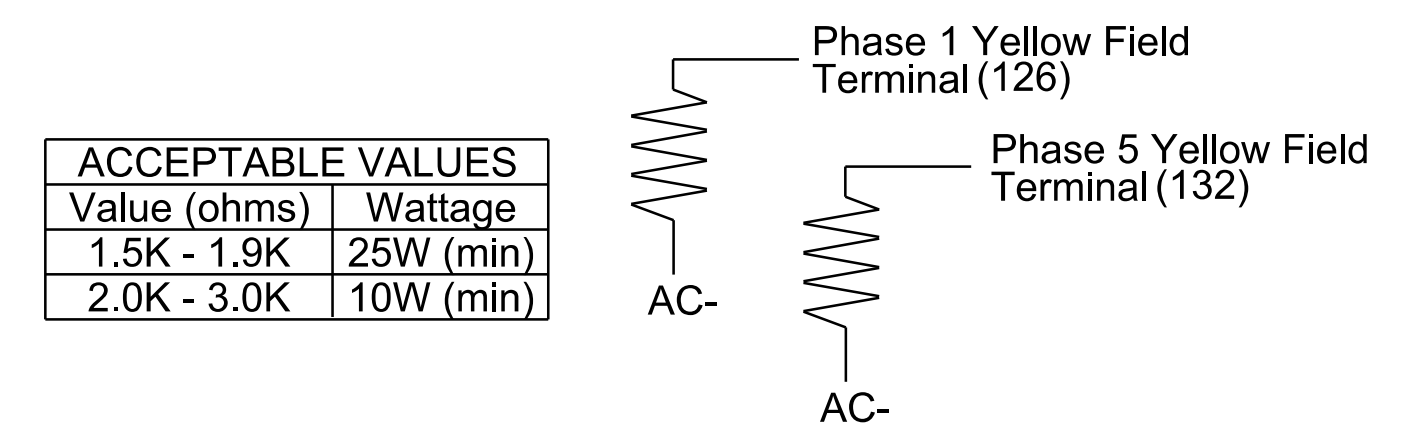


EX.: 1A, 2A, ETC. = LOOP NO.'S

FS = FLASH SENSE  
 ST = STOP TIME

### LOAD RESISTOR INSTALLATION DETAIL

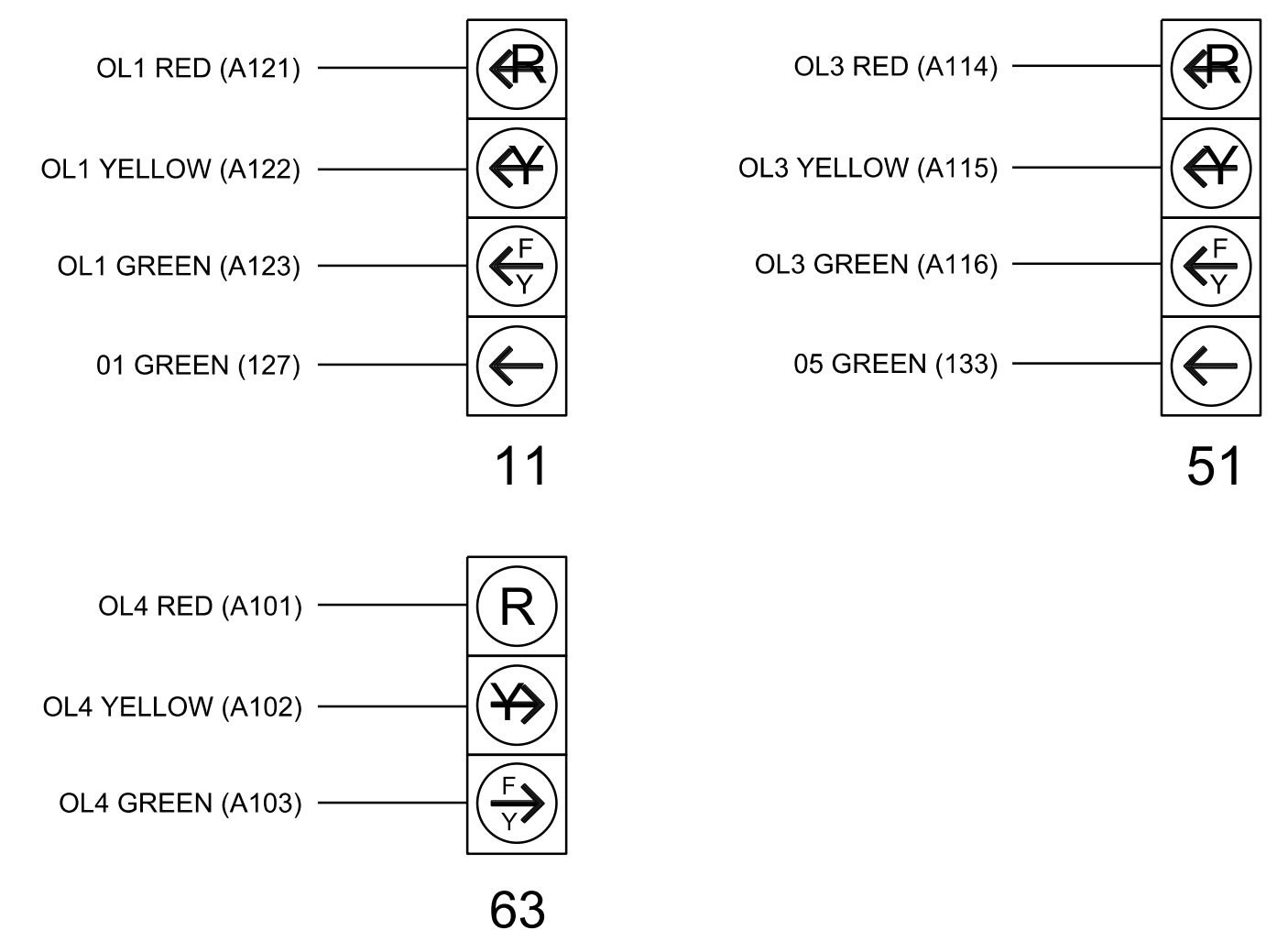
(install resistors as shown)



ACCEPTABLE VALUES	
Value (ohms)	Wattage
1.5K - 1.9K	25W (min)
2.0K - 3.0K	10W (min)

### FYA SIGNAL WIRING DETAIL

(wire signal heads as shown)



THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 14-0359  
 DESIGNED: Apr 2023  
 SEALED: 04/11/2023  
 REVISED: N/A

Electrical Detail - Sheet 1 of 2  
 Final Design

ELECTRICAL AND PROGRAMMING DETAILS FOR: RAMEY KEMP ASSOCIATES 8210 University Executive Park Drive Suite 220 Charlotte, North Carolina 28226 Phone: 704-548-4200   www.rameykemp.com   NC License No. F-1489	Prepared For: US 276 (Russ Avenue) at Dellwood Road/ SR 1184 (Howell Mill Road) Division 14 Haywood County Waynesville	SEAL SEAL 32396 WILLIAM J. HAMILTON ENGINEER 04/11/2023
	PLAN DATE: April 2023 REVIEWED BY: WJ Hamilton PREPARED BY: TS Popelka RKA PROJ. NO: 16085 (040)	REVISIONS INIT. DATE