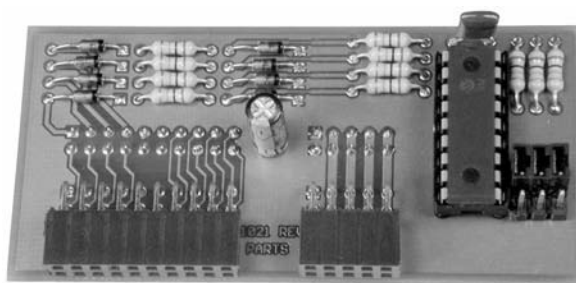


# 4042 Optional Accessory

## Multi-Function Adapter

**\*\*PUMP-DOWN APPLICATION\*\***



**\*\* Add new features to the Model 4042 \*\***

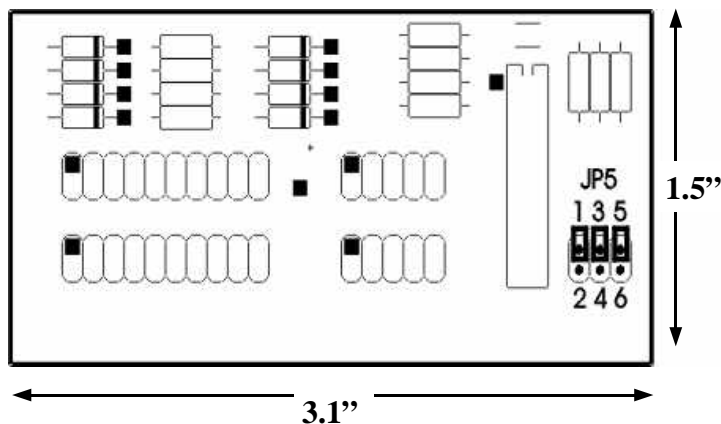
- First On First Off - 2, 3 or 4 Pumps
- Sequence On Simultaneous Off - 2 or 3 Pumps
- Add alternation of pumps without expense of a separate alternating relay

### DESCRIPTION

The Multi-Function Adapter is a micro-controller based device that adds features to the Model 4042 that would normally have to be wired external to the pump controller. The adapter is installed between the set points and output relays. It adds special sequencing such as Sequence On Simultaneous Off or First On First Off. Also, the adapter adds alternation of the outputs. Selection of the operation of the adapter is done by jumpers on the adapter.

**\*\*Note\*\*** With the adapter installed, the set-point LED's on the front panel of the 4042 show the status of the set-points, and not the condition of the relays.

### DIMENSIONS



**Fig. 1 Pump-Down Application**

Opt.	SETPOINTS				ALTERNATE PUMPS (RELAY OUTPUT #)	Jumper Both Pins JUMPER JP5 *	COMMENTS
	1	2	3	4			
1	STOP	LEAD	LAG	ALARM	P1(#2) - P2(#3)	None **	Sequence ON Simultaneous OFF
2	STOP	LEAD	LAG	2nd LAG	P1(#2), P2(#3), P3(#4)	5-6	Sequence ON Simultaneous OFF
3	STOP	LEAD	LAG	2nd LAG	No Alternation	3-4	Sequence ON Simultaneous OFF
4	STOP	LEAD	LAG	HIGH	P1(#2) & P2(#3), P3(#4) will disable P1 & P2 and act alone	3-4, 5-6	2 small pumps alternate, Pump 3 is larger and works alone if needed
5	STOP	LEAD	LAG	2nd LAG	None - 1 pump ON at a time	1-2	First ON First OFF
6	LEAD	LAG	ALARM 1	ALARM 2	P1(#1) - P2(#2)	1-2, 5-6	First ON First OFF
7	LEAD	LAG	2nd LAG	ALARM	P1(#1), P2(#2), P3(#3)	1-2, 3-4	First ON First OFF
8	LEAD	LAG	2nd LAG	HIGH	P1(#1), P2(#2), P3(#3), P4(#4)	1-2, 3-4, 5-6	First ON First OFF

\* See Applications on page 2 and 3. Custom configurations are possible, contact Time Mark for more details

\*\* The dimensional diagram above shows None (opt. 1 - no two pins are jumpered.)

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January 2004 Page 1 of 3  
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# 4042 Optional Accessory Multi-function Adapter

READ ALL INSTRUCTIONS BEFORE INSTALLING, OPERATING OR SERVICING THIS DEVICE.  
KEEP THIS DATA SHEET FOR FUTURE REFERENCE.

## GENERAL SAFETY

POTENTIALLY HAZARDOUS VOLTAGES ARE PRESENT AT THE TERMINALS OF THE MODEL 4042.  
ALL ELECTRICAL POWER SHOULD BE REMOVED WHEN CONNECTING OR DISCONNECTING WIRING OR THIS ADAPTER.  
DO NOT EXCEED THE OUTPUT OR INPUT RATINGS, AS STATED IN THE SPECIFICATIONS.  
PROTECT THE UNIT WITH PROPERLY RATED FUSES.  
DO NOT INSTALL IN DAMP OR MOIST AREAS.  
THIS DEVICE SHOULD BE INSTALLED AND SERVICED BY QUALIFIED PERSONNEL.

## INSTALLATION INSTRUCTIONS

**Fig. 1** - Unplug the two ribbon cable connectors from the User Board. Be careful not to bend any of the pins. Note location of red stripe on cable.

**Fig. 2** - Plug the adapter on to the pins of J5 and J6 on the User Board.

**Fig. 3** - Attach the ribbon connectors to the adapter pins, keeping red stripe in same position as noted in fig. 1.

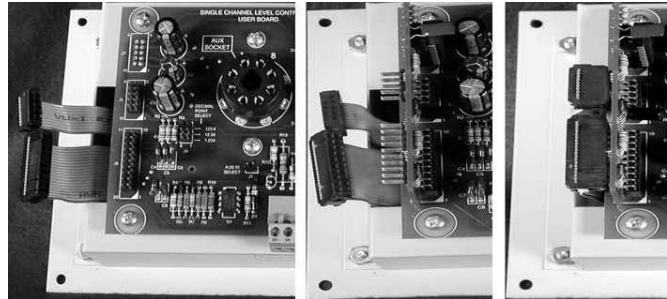


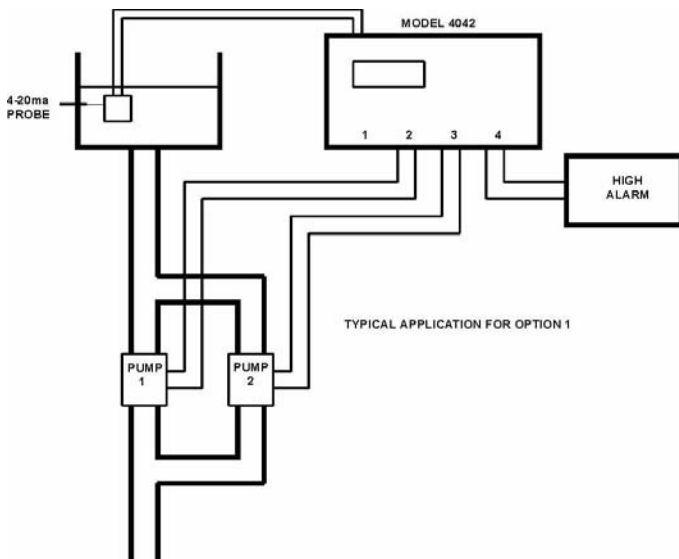
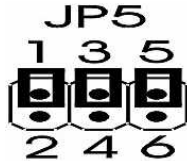
fig. 1

fig. 2

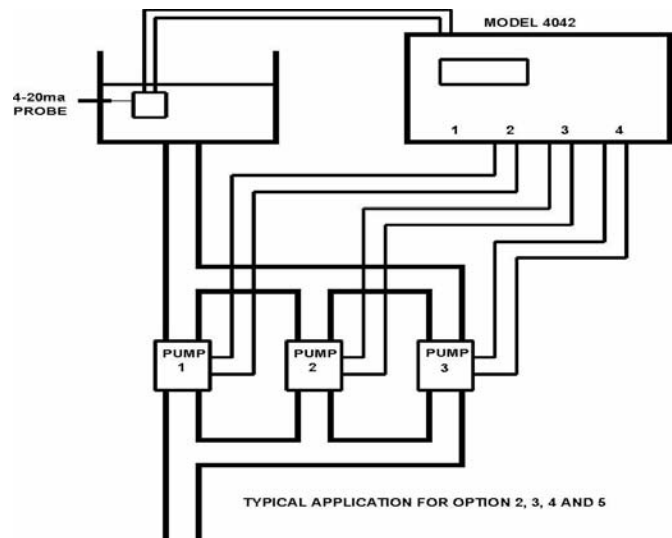
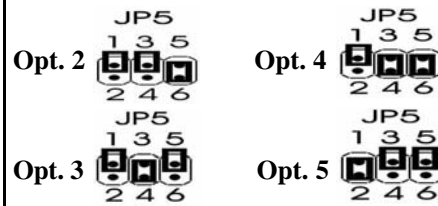
fig. 3

## TYPICAL APPLICATIONS

**Opt. 1 - Two Pumps  
Sequence On Simultaneous Off**



**Three Pumps**



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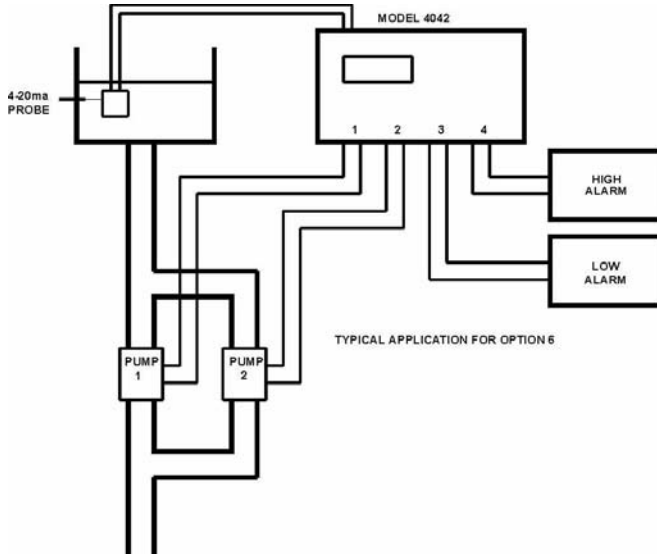
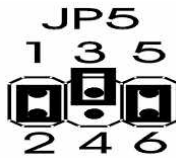
January 2004 Page 2 of 3  
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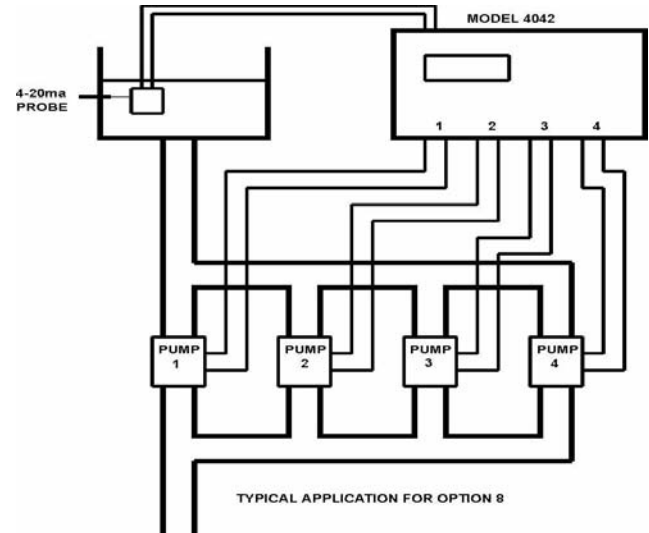
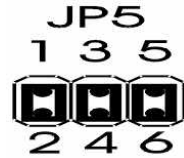
# 4042 Optional Accessory Multi-function Adapter

## TYPICAL APPLICATIONS

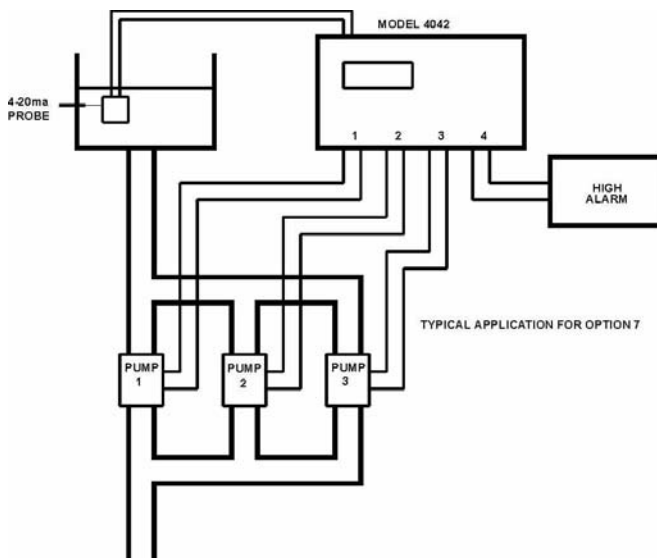
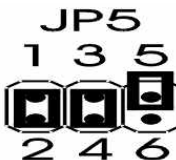
### Opt. 6 - Two Pumps First On First Off



### Opt. 8 - Four Pumps First On First Off



### Opt. 7 - Three Pumps First On First Off



## TROUBLESHOOTING

- 1) Make sure power has been removed from the 4042 before attempting to troubleshoot any conditions.
- 2) Check the connection between the adapter board and User Board, and ribbon cable connections to the adapter board to ensure no pins were bent or missed.
- 3) Verify jumper settings are correct as listed on page 1 and shown in the Typical Applications section.

## WARRANTY

The **Multi-Function Adapter** is warranted to be free from defects in materials and workmanship for one year. Should this device fail to operate, we will repair or replace for one year from the date of manufacture. Contact the Time Mark Sales department, Monday-Friday, 8 a.m. to 5 p.m. CST, for further details.


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