

GENERAL DESCRIPTION

The IU2080 provides an interface between the two wire multiplexed ring circuit and local supply loop sounders and strobes with their associated user supplied external power supply. The local supply loop circuit can be selected for a 12V or a 24V application. The selection is done by the S2 switch located on the board. If the switch is closed, the loop is set to the 12V application and if the switch is open the loop is set to the 24V application. The external power supply provides the power to drive the sounders and strobes. A number of devices totalling up to 3A may be connected to the sounder spur (750 mA in applications requiring AFNOR approvals).

The ICC monitors the local power supply for a low voltage condition and the external fault relay contacts (via fault +ve) for an open condition. An end of line resistor is used to insure that the local supply loop is intact. The ICC monitors for loop shorts as well as for loop open circuits via this resistor. Moreover, the ICC can provide a means for EOL monitoring via a Z-style connection back to the ICC itself.

INDICATORS

The IU2080 contains a red LED that will light when the relay is in a position to cause the sounders and sirens to be energized. The green LED indicates that the external power supply voltage is present and greater than approximately 8 volts.

INSTALLATION

Please refer to wiring diagrams for proper wiring of the indicating circuit controller.

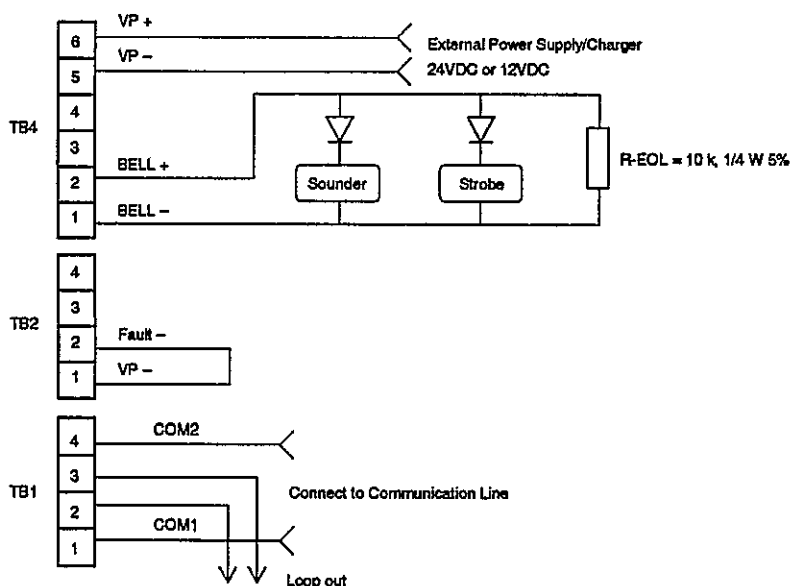
ADDRESSING

The address of the ICC is set by a dip switch on the ICC circuit board. The decimal address of the ICC must be converted to a binary number to set the dip switch.

TECHNICAL DATA

Operating voltage	17—28V (at the communication loop terminals)
Total standby current	< 350 μ A (< 200 μ A typical)
Maximum loop alarm current	< 3.5 mA
End of line resistor value	10 k 1/4W, 5%
Bell loop impedances at 24V:	
Short circuit	< 3.3 k
Quiescent	3.3 k—13.0 k
Open circuit	> 13.0 k
Local power supply, low voltage detection:	
12V supply	< 10.2 V
24V supply	< 20.4 V
Local supply current (standby)	<11.0 mA @ 24 V DC
Local supply current (alarm)	<72.0 mA @ 24 V DC plus bell loop load current
Supervisory voltage	approx. 2.2 V DC inverted
Bell loop voltage in alarm	12 or 24 V DC
Fuse rating	3A

Figure 1. Style Y Operation Without Power Supply Trouble Relay



Connect indicating circuit for 24 V DC or 12 V DC application without the fault contact relay.

If 12V DC application, close S2 switch located on the PCB.

Bell output in alarm condition.

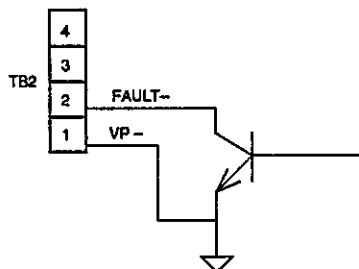
DIP SWITCH ADDRESS SETTINGS

Decimal #	Binary Conversion	Decimal #	Binary Conversion	Decimal #	Binary Conversion	Decimal #	Binary Conversion
Switch	12345678	Switch	12345678	Switch	12345678	Switch	12345678
	MSB LSB		MSB LSB		MSB LSB		MSB LSB
1	00000001	34	00110100	66	01100110	98	10011000
2	00000010	35	00110101	67	01100111	99	10011001
3	00000011	36	00110110	68	01101000	100	10100000
4	00000100	37	00110111	69	01101001	101	10100001
5	00000101	38	00111000	70	01110000	102	10100010
6	00000110	39	00111001	71	01110001	103	10100011
7	00000111	40	01000000	72	01110010	104	10100100
8	00001000	41	01000001	73	01110011	105	10100101
9	00001001	42	01000010	74	01110100	106	10100110
10	00010000	43	01000011	75	01110101	107	10100111
11	00010001	44	01000100	76	01110110	108	10101000
12	00010010	45	01000101	77	01110111	109	10101001
13	00010011	46	01000110	78	01111000	110	10110000
14	00010100	47	01000111	79	01111001	111	10110001
15	00010101	48	01001000	80	10000000	112	10110010
16	00010110	49	01001001	81	10000001	113	10110011
17	00010111	50	01010000	82	10000010	114	10110100
18	00011000	51	01010001	83	10000011	115	10110101
19	00011001	52	01010010	84	10000100	116	10110110
20	00100000	53	01010011	85	10000101	117	10110111
21	00100001	54	01010100	86	10000110	118	10111000
22	00100010	55	01010101	87	10000111	119	10111001
23	00100011	56	01010110	88	10001000	120	11000000
24	00100100	57	01010111	89	10001001	121	11000001
25	00100101	58	01011000	90	10010000	122	11000010
26	00100110	59	01011001	91	10010001	123	11000011
27	00100111	60	01100000	92	10010010	124	11000100
28	00101000	61	01100001	93	10010011	125	11000101
29	00101001	62	01100010	94	10010100	126	11000110
30	00110000	63	01100011	95	10010101	127	11000111
31	00110001	64	01100100	96	10010110	128	11001000
32	00110010	65	01100101	97	10010111		
33	00110011						

DIP SWITCH SETTING

MSB	SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8	LSB
*For example, decimal number 10 = 00010000 or decimal number 128 = 11001000 binary									

Figure 2. Fault signal indication with open collector driver



Connect the fault signal terminals as shown if the open collector transistor is used. The transistor has to be in the "on" condition under normal operation. If the transistor will open, the fault signal to the panel is indicated.

This connection is valid for all modes of operation.

Figure 3. Physical layout of ICC board

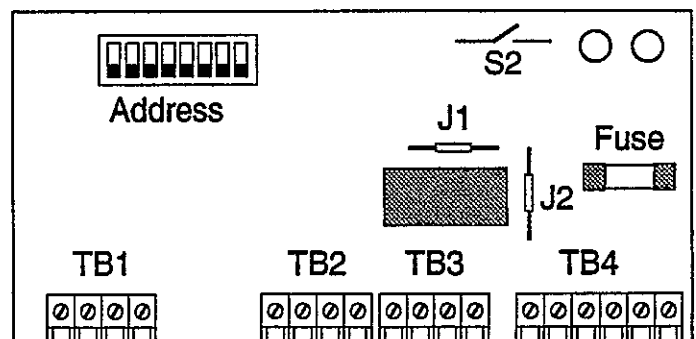
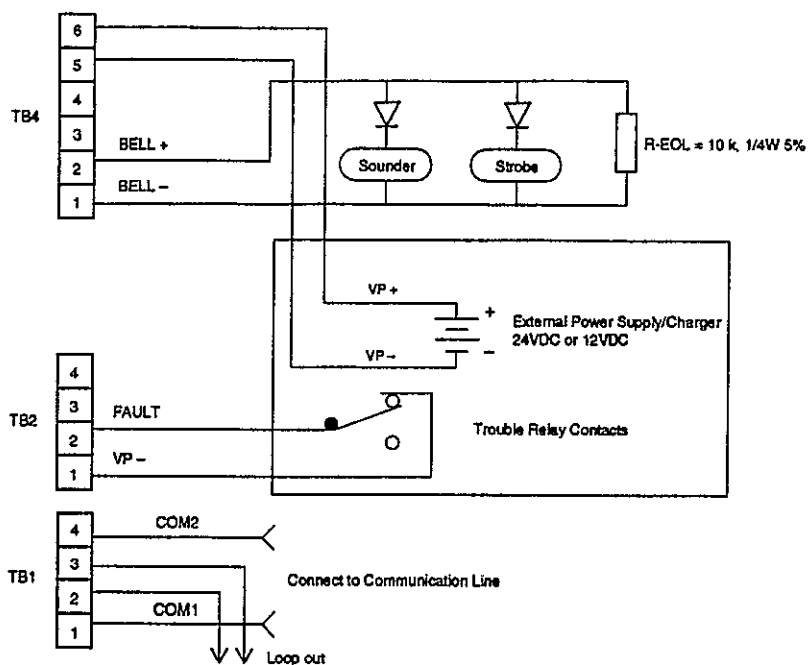


Figure 4. Style Y Operation With Power Supply Trouble Relay

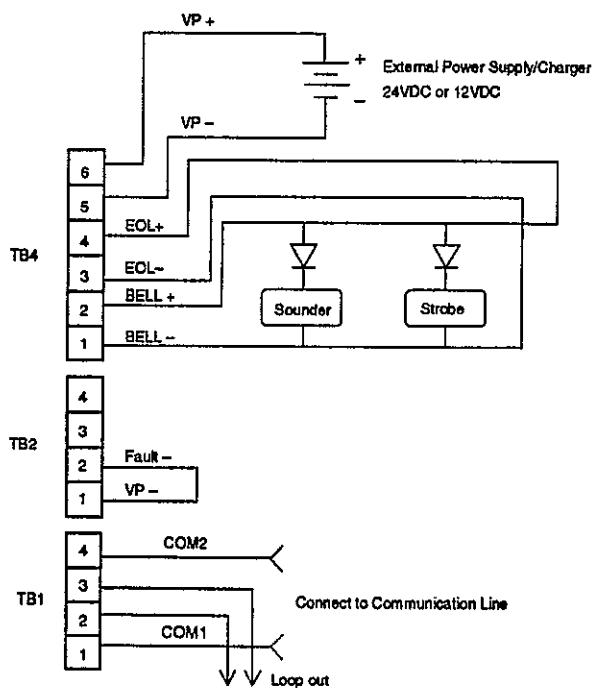


Connect indicating circuit for 24VDC or 12VDC application with the fault contact relay as shown.

If 12VDC application, close S2 switch located on the PCB.

Bell output in alarm condition.

Figure 5. Style Z Operation Without Power Supply Trouble Relay



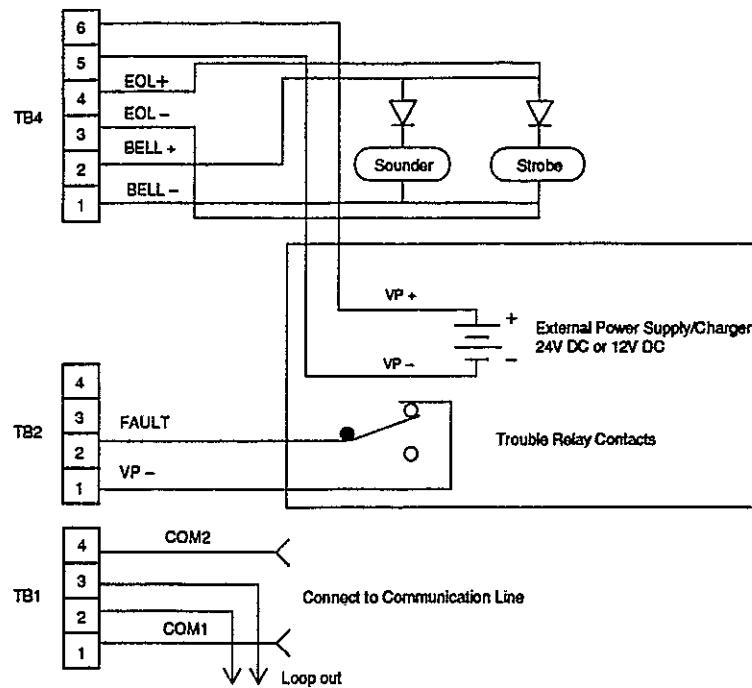
Connect indicating circuit for 24 VDC or 12VDC application without the fault contact relay as shown.

If 12VDC application, close S2 switch located on the PCB.

Bell output in alarm condition.

NOTE: 10 k end of line resistor is internally connected between pin 4 and 3 of TB4

Figure 6. Style Z Operation With Power Supply Trouble Relay



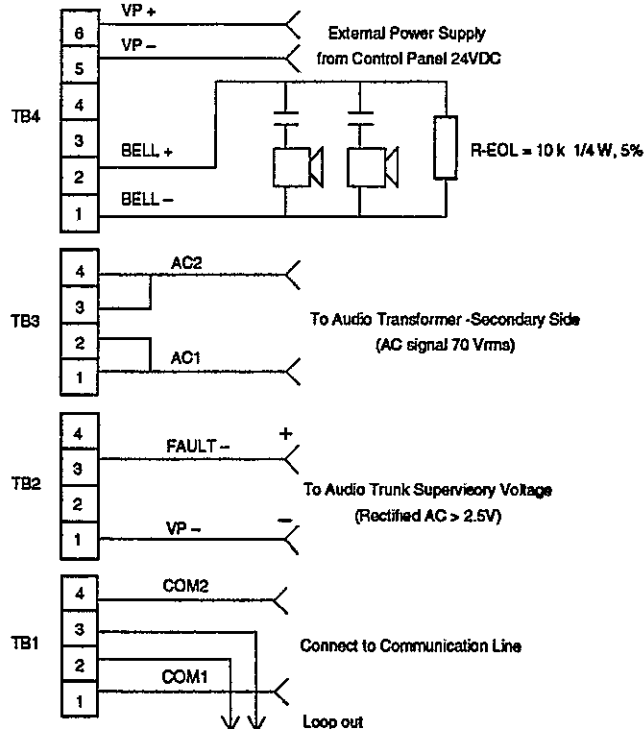
Connect indicating circuit for 24VDC or 12VDC application with the fault contact relay as shown below.

If 12VDC application, close S2 switch located on the PCB.

Bell output in alarm condition.

NOTE: 10K End of line resistor is internally connected between pin 4 and 3 of TB4

Figure 7. AC Operation



Connect indicating circuit for the audio application.

Bell output in alarm condition.

NOTE: remove JP1 and JP2 jumpers located on the PCB