



- NOTES:**
- 1) ALL FIELD WIRING MUST BE IN ACCORDANCE WITH N.F.P.A. PAMPHLET #70, ARTICLE #780.
  - 2) CONTACTS ARE SHOWN IN DE-ENERGIZED POSITION.
  - 3) IF USED, DEDUCT FROM 5 AMPS, TOTAL SUPPLY CAPACITY IN ALARM.
  - 4) SUPERVISION OF A REMOTE AUXILIARY CONTROL UNIT MAYBE ATTAINED, BY CONNECTING THE ISOLATED NORMALLY CLOSED SUPERVISORY CONTACT, ACROSS THE TR AND TR TERMINALS, AND REMOVING JUMPER J7.
  - 5)
  - 6) FOR NON-SILENCEABLE OPERATION OF THE AUXILIARY INDICATING CIRCUIT, WIRE THE "D" INPUT TO AN "A" OUTPUT OF THE DESIRED ZONE, AND REMOVE DIODE CR21 (ON THE ALARM/TROUBLE CARD).
  - 7) WHEN THE BL1 AND BL2 TERMINALS ARE NOT USED INSTALL A 10K OHM, 1/4 WATT RESISTOR, REMOVE IF BELL IS CONNECTED AS SHOWN. BELL MUST BE INSTALLED IN THE SAME ROOM AS CONTROL UNIT, AND CONDUCTORS MUST BE IN CONDUIT OR EQUIVALENT PROTECTION.
  - 8) IF LINE REVERSAL CARD IS USED: (SEE DS168-14)
    - A. REMOVE JUMPER A IF REMOTE REPORTING OF TROUBLE IS REQUIRED.
    - B. ADJUST R1 (ON LINE REVERSAL CARD) TO OBTAIN THE CORRECT CURRENT TO THE REVERSAL DEVICE USED, STARTING R1 FROM A FULLY CLOCKWISE SETTING.
    - C. ADJUST R2 (ON LINE REVERSAL CARD) TO OBTAIN THE CORRECT SUPERVISION REFERENCE LEVEL (SEE INSTRUCTIONS).
  - 9) REMOVE JUMPER JB WHEN MASTER BOX OR LINE REVERSAL CARDS ARE USED (SEE DS168-14 AND 15).
  - 10) TO USE BELL CIRCUIT #1 FOR SELECTIVE SIGNALING, REMOVE DIODE CR8 (ON D2 PLUG-IN CARD), AND CONNECT WIRE FROM D1 INPUT TO ALARM OUTPUT OF DESIRED INITIATING ZONE.
  - 11) TO USE BELL CIRCUIT #2 FOR SELECTIVE SIGNALING, REMOVE DIODE CR8 (ON D2 PLUG-IN CARD), AND CONNECT WIRE FROM D2 INPUT TO ALARM OUTPUT OF DESIRED INITIATING ZONE.
  - 12) INDICATING CIRCUIT #1 AND #2 CAN BE INDEPENDENTLY WIRED EITHER CLASS "A" OR "B". SEE TABLE #1 FOR COMPATIBLE DEVICES.
  - 13) REMOVE W1 WHEN OPTIONAL SYSTEM CURRENT METER IS USED.
  - 14) REMOVE JUMPER J9, AND W2 WHEN OPTIONAL MARCH TIME CARD IS USED (SEE DS168-13).
  - 15) CONNECT ONLY BELL LOAD TO VB+ AND VB- TERMINALS, VB PROVIDES MARCH TIME ALARM OUTPUT WHEN OPTIONAL MARCH TIME CARD IS CARD.
  - 16) IF USED, REQUIRES AN E.O.L. RELAY, ASS'Y NO. 30089 FOR SUPERVISION.
  - 17) FOR MAXIMUM DETECTOR LOAD, SEE TABLE #3. SWITCHED OFF DURING RESET.
  - 18) OUTPUT IS SWITCHED POSITIVE ON ALARM, AND OFF BY THE ZONE ACKNOWLEDGE SWITCH.
  - 19) LATCHING CONTACTS, RESTORED BY RESET.
  - 20) OUTPUT IS SWITCHED POSITIVE ON ALARM, AND RESTORED BY RESET.
  - 21) REMOVE R1 (ON Z/D MOTHER BOARD) WHEN ZONE "A" OUTPUT IS USED FOR SUPERVISED REMOTE ANNUNCIATOR DRIVE (ONE DEVICE ONLY).
  - 22) REMOVE R1 (ON Z/D MOTHER BOARD) WHEN USED WITH OPTIONAL D1 PLUG-IN.
  - 23) OPTIONAL INDICATING CIRCUIT D1 CAN BE WIRED EITHER CLASS "A" OR "B". TOTAL LOAD FOR ALL D1'S (MAX.4) FROM DAISY CHAIN BUS VB, MUST NOT EXCEED 2 AMPS.
  - 24) TO USE OPTIONAL D1 CIRCUIT FOR SELECTIVE SIGNALING ONLY, REMOVE DIODE CR2 (ON D1 PLUG-IN CARD), AND WIRE FROM "D" SELECT OUTPUT OF THE DESIRED ZONE TO THE "D" INPUT OF THE D1 PLUG-IN CARD (SEE DS168-16).
  - 25) MAXIMUM LOAD FOR ALL OPTIONAL D1 CIRCUITS, ARE NOT TO EXCEED 4 AMPS. WHEN THE TOTAL D1 LOAD EXCEEDS 2 AMPS, EXTERNAL WIRING FROM CONTROL (VB) IS REQUIRED.
  - 26) CONNECT ONLY SEALED LEAD ACID STANDBY BATTERIES TO B+ AND B-. ANY OTHER LOAD WILL TEND TO DISCHARGE BATTERIES. TRICKLE CURRENT PROGRAMMING RESISTOR (A,B,C,D) ARE LOCATED ON THE POWER MANAGEMENT PLUG-IN CARD. SEE DS168-12 FOR APPLICATION AND PROGRAMMING INSTRUCTIONS. BATTERIES ARE TO BE INSTALLED IN A U.L. LISTED BATTERY ENCLOSURE FOR SEALED LEAD ACID BATTERIES.
  - 27) IF USED WITH A FULLY LOADED SYSTEM AND 40 AH BATTERIES, DEDUCT QUIESCENT LOAD FROM 220 MA. MAXIMUM. TOTAL QUIESCENT LOAD AVAILABLE FOR CURRENT RATING WITH OTHER SYSTEM LOADING OR OTHER BATTERY CAPACITIES, SEE DS168-12.
  - 28) E.O.L. RELAY CONNECTIONS, CONNECT VIOLET WIRES TO TR TERMINALS, AND RED AND BLACK WIRES TO A+ AND A- TERMINALS.
  - 29) REMOVE R7 AND R18 WHEN Z1 IS USED FOR CLASS "B" WIRING.
  - 30) NOT SUITABLE FOR MOTOR OR PILOT-DUTY SERVICE.
  - 31) GAMEWELL PART NUMBER IS COMPATIBILITY MARKER EXCEPT WHERE INDICATED (\*\*).
  - 32) FOR REMOTE LED OPTION, USE PART NUMBER 30203-01.
  - 33) MAXIMUM 1 DEVICE IN ALARM PER ZONE.
  - 34) ANY COMBINATION OF BASES IS POSSIBLE, UP TO A MAXIMUM OF 25 DEVICES PER ZONE.

**TABLE #3 COMPATIBLE DEVICES**

P/N	DEVICE	DESCRIPTION	COMP. DETECTOR	QTY/LINE
30780-01	277B	STANDARD BASE	F7, D8, DI-4A, R7, R7, R902	25
30780-02	277D	STANDARD BASE W/REMOTE	F7, D8, DI-4A, R7, R7, R902	25
30780-03	277R	STANDARD BASE W/REMOTE & RELAY	F7, D8, DI-4A, R7, R7, R902	25
30780-04	277F	STANDARD BASE W/FLASH STANDBY & REMOTE	F7, D8, DI-4A, R7, R7, R902	25
30780-05	277R	STANDARD BASE W/FLASH STANDBY, REMOTE & RELAY	F7, D8, DI-4A, R7, R7, R902	25
70891	** (HB-4)	SMOKE DETECTOR BASE	70884,70885 ** (HD-3) 70886	25
70892	** (HB-13)	SMOKE DETECTOR BASE W/RELAY	70884,70885 ** (HD-3) 70886	25
70894	** (HB-18)	HEAT DETECTOR BASE W/LATCHING LED	70887,70888 70889,70890 ** (N/A)	MAX. AL CURRENT 100mA
70893	** (HB-18)	HEAT DETECTOR BASE NON LATCHING	70887,70888 70889,70890 ** (N/A)	MAX. AL CURRENT 100mA
71257	** (HB-54)	SMOKE DETECTOR BASE	70884,70885 ** (HD-3) 70886	25
71258	** (HB-71)	SMOKE DETECTOR BASE W/RELAY	70884,70885 ** (HD-3) 70886	25
71259	** (HB-71)	HEAT DETECTOR BASE W/LATCHING LED	70887,70888 70889,70890 ** (N/A)	MAX. AL CURRENT 100mA
45681-200	71034	4" BASE	55000-350 71033 55000-250 71034 55000-150 71035	25
45681-220	71098	6" BASE	55000-350 71033 55000-250 71034 55000-150 71035	25

**TABLE #2 COMPATIBLE DEVICES A+, A- TERM.**

PART #	DEVICE	RATING
49209	RELAY	.050 A
50018	RELAY	.035 A
87888	RELAY	.027 A
87921	RELAY	.027 A
30385	KAB	.035 A EA
30386-1	KAB	.035 A EA
30405	K24	.024 A EA
30405-1	K24W	.024 A EA
30431	KRP	.020 A EA
50283	DOOR HOLDERS	.088 A
50285	DOOR HOLDERS	.088 A
50287	DOOR HOLDERS	.088 A
50382	DOOR HOLDERS	.018 A

**TABLE #1 COMPATIBLE DEVICES**

PART #	DEVICE	RATING
68859	SINGLE STROKE BELL	.360 A
68863	VIBRATING BELL	.110 A
70398	HORN	.063 A
68052	MOTORBELL 8"	.030 A
68053	MOTORBELL 8"	.030 A
68054	MOTORBELL 10"	.030 A
88480-01	SINGLE STROKE CHIME	.020 A
88481-01	SINGLE STROKE CHIME W/LIGHT	.045 A
70399	HORN	.042 A
70393	STROBE LIGHT	.025 A

**WIRING ZANS 400**

DESIGN BY JLS CHECKED BY BMS  
 APPROVED BY DER 7 DATE 11-13-87

**GameWell** D-W1056

TELEPHONE UNLESS OTHERWISE STATED  
 FEDERAL REGISTERED TRADEMARK