

FRONT PLATE

The schematic diagram illustrates the logic circuit for the alarm system. It features several integrated circuits (ICs) and passive components:

- ICs:**
  - V5-E 74HC04:** Hex inverters used for signal inversion.
  - V5-F 74HC04:** Hex inverters used for signal inversion.
  - V6-A 74HC244:** 8-bit bus buffer with 3-state outputs.
  - V7-B 74HC08:** 2-input AND gate.
  - V8-B 74HC74:** D-type flip-flop with preset and clear inputs.
  - V10-C 74HC11:** Schmitt trigger inverter.
  - V13-C 74HC27:** 3-input NOR gate.
  - V14-D 74HC132:** Schmitt trigger NAND gate.
- Passive Components:**
  - Resistors:** R12, R13, R14, R15 (475 ohms); R2, R4, R6, R8 (2K7 ohms); R21, R22 (10K ohms); R28 (10K ohms).
  - Capacitors:** C4 (100nF).
- Logic Functionality:**
  - The circuit processes inputs from the alarm panel (XC1) through a series of inverters and buffers.
  - Inputs R\_ALARM\_2 and R\_ALARM\_1 are connected to XC1 pins 6 and 8, respectively.
  - Inputs FAULT\_GEN#1 and FAULT\_GEN#2 are connected to XC1 pins 3 and 7, passing through resistors R12, R13, R14, and R15.
  - The circuit includes a 5V supply and a 100nF capacitor (C4) for decoupling.
  - The output of the logic is connected to the alarm panel via the OK signal.

Source Shift Logic

74HC08 2-input AND gates: V7-D, V10-B

74HC32 1-input inverters: V15-A, V15-B

74HC244 3-state buffers: V6-B, V16-A

74HC74 D-type flip-flops: V11-A, V11-B

Inputs: GEN1, OK, ATR1, GEN2\_OK, GEN2\_F, GEN2, ATR2

Outputs: A1, A2

Power: +5V

Resistors: R18, R19, R17

Capacitors: C7, C8, C9

Labels: CHANGE OVER SINGLE SHIFT, MULT1 SHIFT, PP2, MAN, AUTO

TO: SHEET 2

The circuit diagram illustrates a digital alarm system using various 74HC logic chips. The components and their connections are as follows:

- Power Supply:** +5V and GND are connected to the power pins of all logic chips.
- Logic Chips:**
  - V5-D (74HC04):** Inverter.
  - V15-C (74HC32):** OR gate.
  - V13-B (74HC27):** Decoder.
  - V7-A (74HC08):** AND gate.
  - V11-A (74HC74):** Flip-flop.
  - V11-B (74HC74):** Flip-flop.
  - V12-B (74HC74):** Flip-flop.
  - V15-B (74HC244):** Buffer.
- Inputs:**
  - CLOCK1:** Connected to the clock input of V11-A.
  - AUTOF, G1F, G2F, MANF:** Connected to the inputs of V15-C.
  - QK:** Connected to the input of V13-B.
- Outputs:**
  - ALARM TO SHEET 2:** Connected to the output of V12-B.
  - TO: ACOUSTIC ALARM (FRONTPLATE):** Connected to the output of V15-B.
- Other Components:**
  - R16 (4K75):** Resistor connected to the output of V15-B.
  - O1 (BC337):** Transistor connected to the output of V15-B.
  - R17 (10K):** Resistor connected to the output of V11-B.
  - PP1, PP2:** Push buttons connected to the inputs of V11-B and V12-B.
  - GEN1, GEN2:** General purpose inputs connected to the inputs of V15-B.
  - CHANGE OVER SINGLE SHIFT, MULTI SHIFT:** Switches connected to the inputs of V11-B.

		MAIN BOARD		4008 109 8354		6 00-07-18		
						5 97-08-07		
						5 97-10-30		
CHECK:		NAME: SB/SMA/JML				3 SH SH 130 - 3		5 97-11-27
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