

Fig. 11-1. Isolation amplifier for medical telemetry (NS).

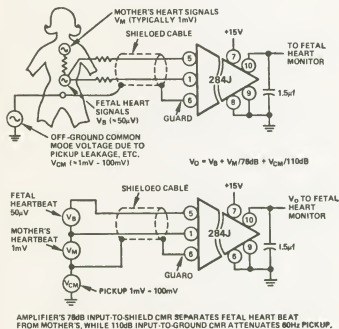


Fig. 11-2. Fetal heartbeat monitoring input circuitry using an Analog Devices 284-J isolation amplifier (AD).

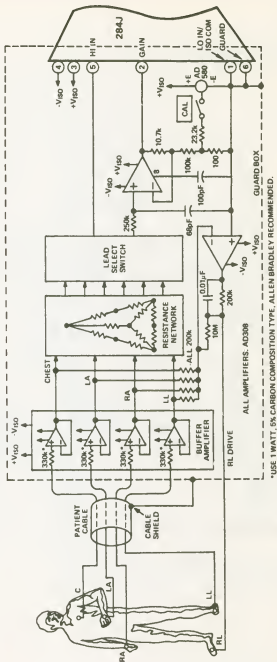
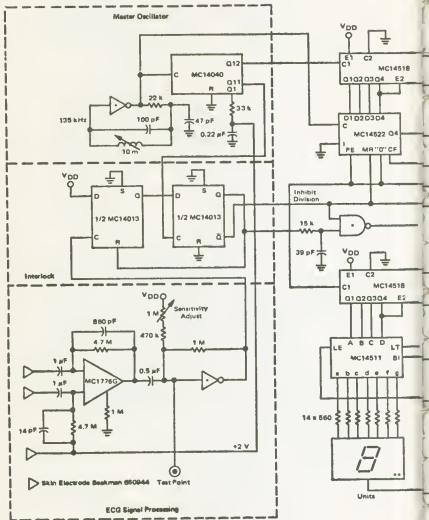
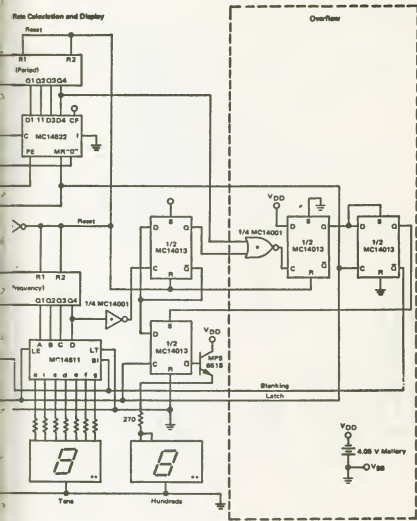


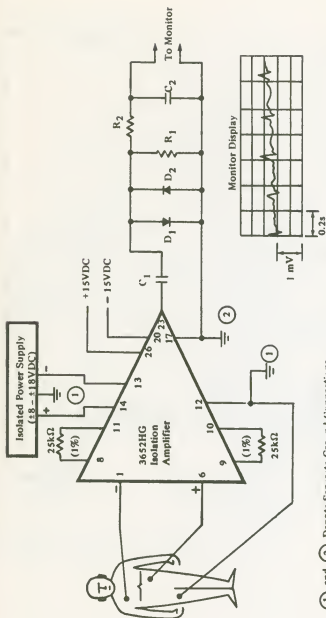
Fig. 11-3. Multilead EKG recorder input circuitry using a 284J isolation amplifier (AD).



*MC14572 Hex Functional Gate **Common Cathode Display HP5082-7740

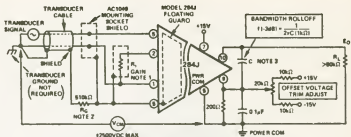
Fig. 11-4. Heart rate monitor (M).





① and ② Denote Separate Ground Connections

Fig. 11-5. EKG input amplifier using an optically coupled 3652HG isolation amplifier to protect the patient from possible lethal potentials (BB).



NOTE 1. GAIN RESISTOR, R_G , 1%, 50ppm/°C METAL FILM TYPE IS RECOMMENDED.
 FOR GAIN = 1V/V, LEAVE TERMINAL 2 OPEN
 FOR GAIN = 10V/V, SHORT TERMINAL 2 TO TERMINAL 1

$$\text{GAIN} = 1 + \frac{100k\Omega}{107k\Omega + R_G(k\Omega)}$$

NOTE 2. GUARD RESISTOR R_G , REQUIRED ONLY FOR CMV > ±2500V_{PK} (±5kV_{PK} MAX).
 R_G MAY BE MOUNTED ON AC1049 MOUNTING SOCKET USING STANDOFF PROVIDED.
 (USE 1/2 WATT, 5% CARBON COMPOSITION TYPE ALLEN BRADLEY RECOMMENDED)

NOTE 3. OUTPUT FILTER CAPACITOR, C. SELECT TO ROLL OFF NOISE
 AND OUTPUT RIPPLE. I.e. SELECT C = 1 μF FOR dc TO 100Hz BANDWIDTH

Fig. 11-6. Isolation amplifier for biomedical and industrial applications (AD).