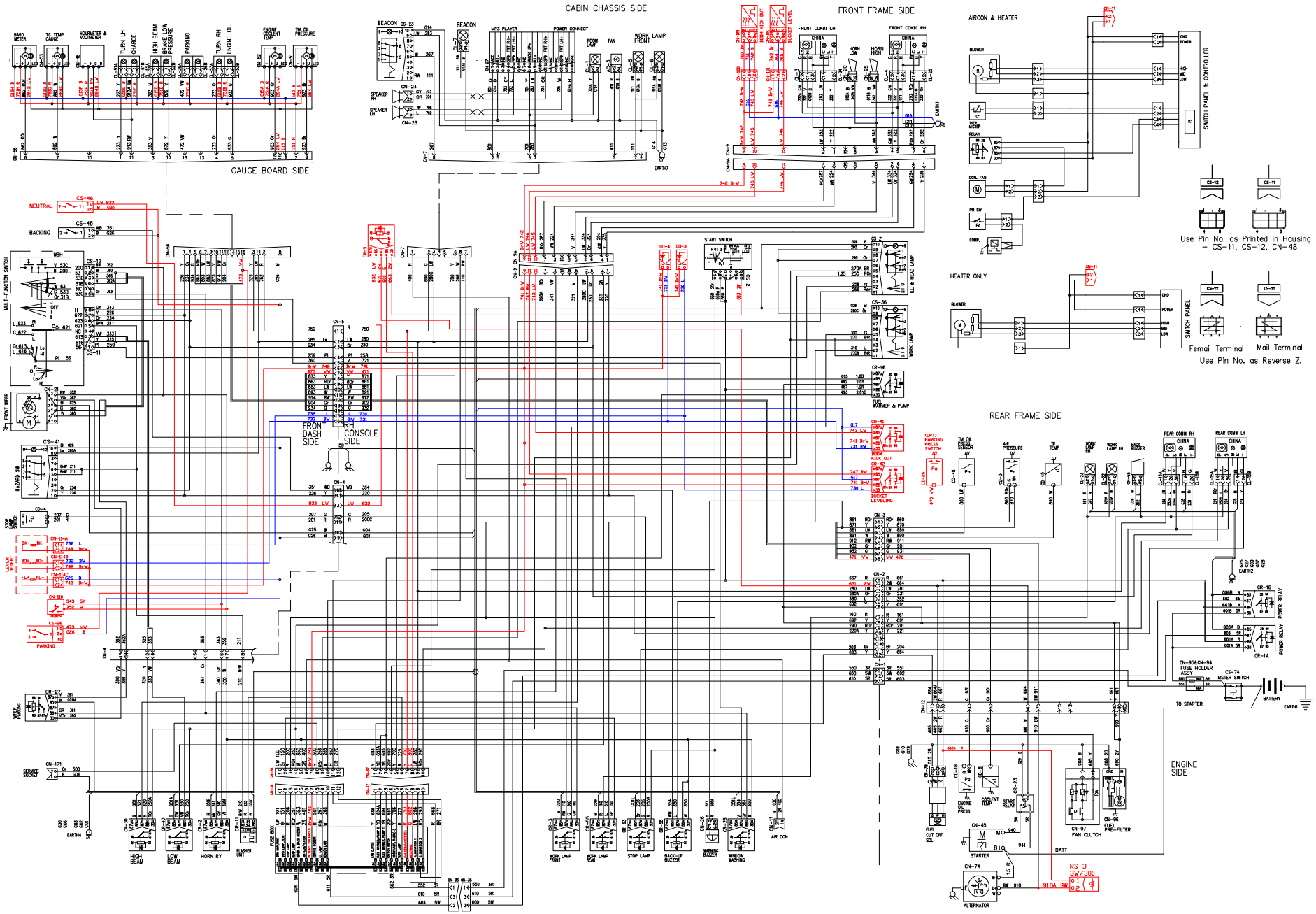2. ELECTRICAL CIRCUIT