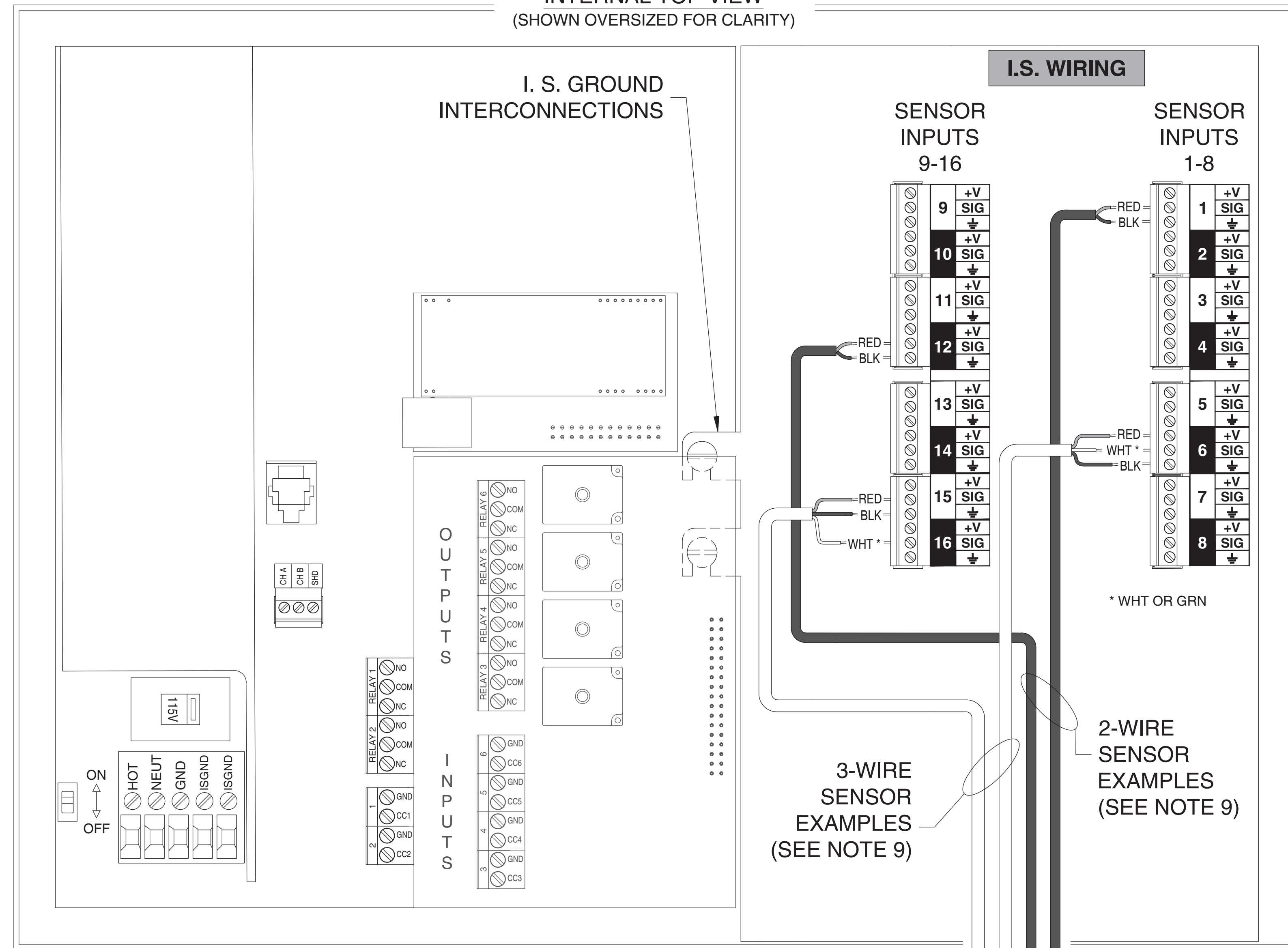


WIRING DRAWING - LEAK/POINT LEVEL ALARM CONSOLE (LC2000)

INTERNAL TOP VIEW
(SHOWN OVERSIZED FOR CLARITY)



▲ IMPORTANT NOTES - READ CAREFULLY BEFORE INSTALLATION

UNLESS OTHERWISE SPECIFIED:
(NOTES 3-8 DO NOT APPLY TO THIS PAGE)

1. CONSOLE MOUNTING: MOUNT AS CLOSE AS PRACTICAL TO DIVIDING BOUNDARY OF THE HAZARDOUS AND NON-HAZARDOUS AREAS. NEVER MOUNT INSIDE THE HAZARDOUS AREA.
2. INTRINSICALLY SAFE INPUT WIRING: WIRE AND INSTALL IN ACCORDANCE WITH ARTICLE 504 OF NATIONAL ELECTRICAL CODE ANSI/NFPA 70. NON-INTRINSICALLY SAFE WIRING CANNOT BE RUN IN CONDUIT OR OPEN RACEWAYS TOGETHER WITH INTRINSICALLY SAFE WIRING.
 - a. I.S. ELECTRO-OPTIC/DRY CONTACT ENTITY PARAMETERS: (between ground and any ungrounded contact) $V_t = 29.4$ Volts; $I_t = 0.149$ Amps; $C_a = 0.88\mu\text{F}$; $L_a = 10\text{mH}$.
 - b. IF THE ELECTRICAL PARAMETERS OF THE CABLE ARE UNKNOWN, THE FOLLOWING VALUES MAY BE USED. Capacitance = $60 \mu\text{F}/\text{ft}$; Inductance = $0.20 \mu\text{H}/\text{ft}$.
 - c. IN ORDER TO DETERMINE THE SUITABILITY OF THE CONNECTION BETWEEN THE LC2000 AND INTRINSICALLY SAFE DEVICES, THE TOTAL PARAMETERS FOR EACH INTRINSICALLY SAFE SENSOR INPUT CIRCUIT MUST BE DETERMINED.
First the C_c and L_c of each cable is calculated using length and the manufactures specified parameters or the values given in note (b). The C_c and L_c for each intrinsically safe circuit is then determined by adding the C_c and L_c for all cables used in each sensor input circuit. The C_i and L_i for each intrinsically safe circuit is then determined by adding the C_i and L_i for all devices connected to each sensor input circuit.
 - d. LC2000 I.S. EQUIPMENT

V_t	\leq	V_{max}	(smallest V_{max} of any I.S. device in circuit)
I_t	\leq	I_{max}	(smallest I_{max} of any device in circuit)
C_a	\geq	$C_i + C_c$	(using C_i and C_c totals for each circuit)
L_a	\geq	$L_i + L_c$	(using C_i and C_c totals for each circuit)
9. SHIELDED SENSOR FIELD CABLE IS NOT REQUIRED, BUT IF USED, THE SHIELD WIRE MUST BE CONNECTED TO THE SENSOR GROUND TERMINAL IN THE CONSOLE I.S. COMPARTMENT AND SHOULD BE CUT BACK AND LEFT UNTERMINATED AT THE SENSOR JUNCTION BOX.

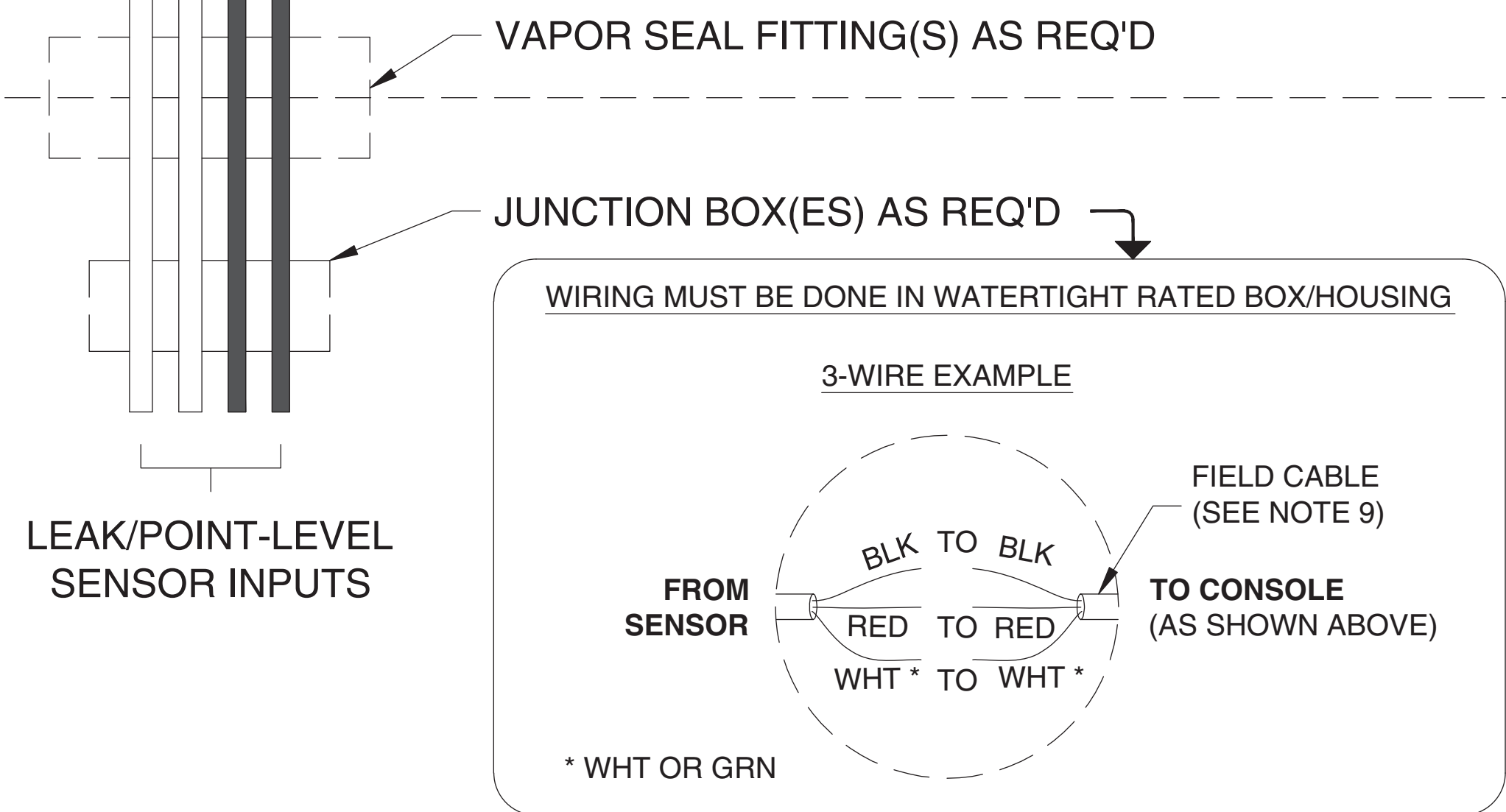
NON-INTRINSICALLY SAFE WIRING

INTRINSICALLY SAFE WIRING

▲
NON-HAZARDOUS AREA
(SEE NOTE 1 ABOVE)

HAZARDOUS AREA
CLASS I, DIVISION 1, GROUPS C AND D

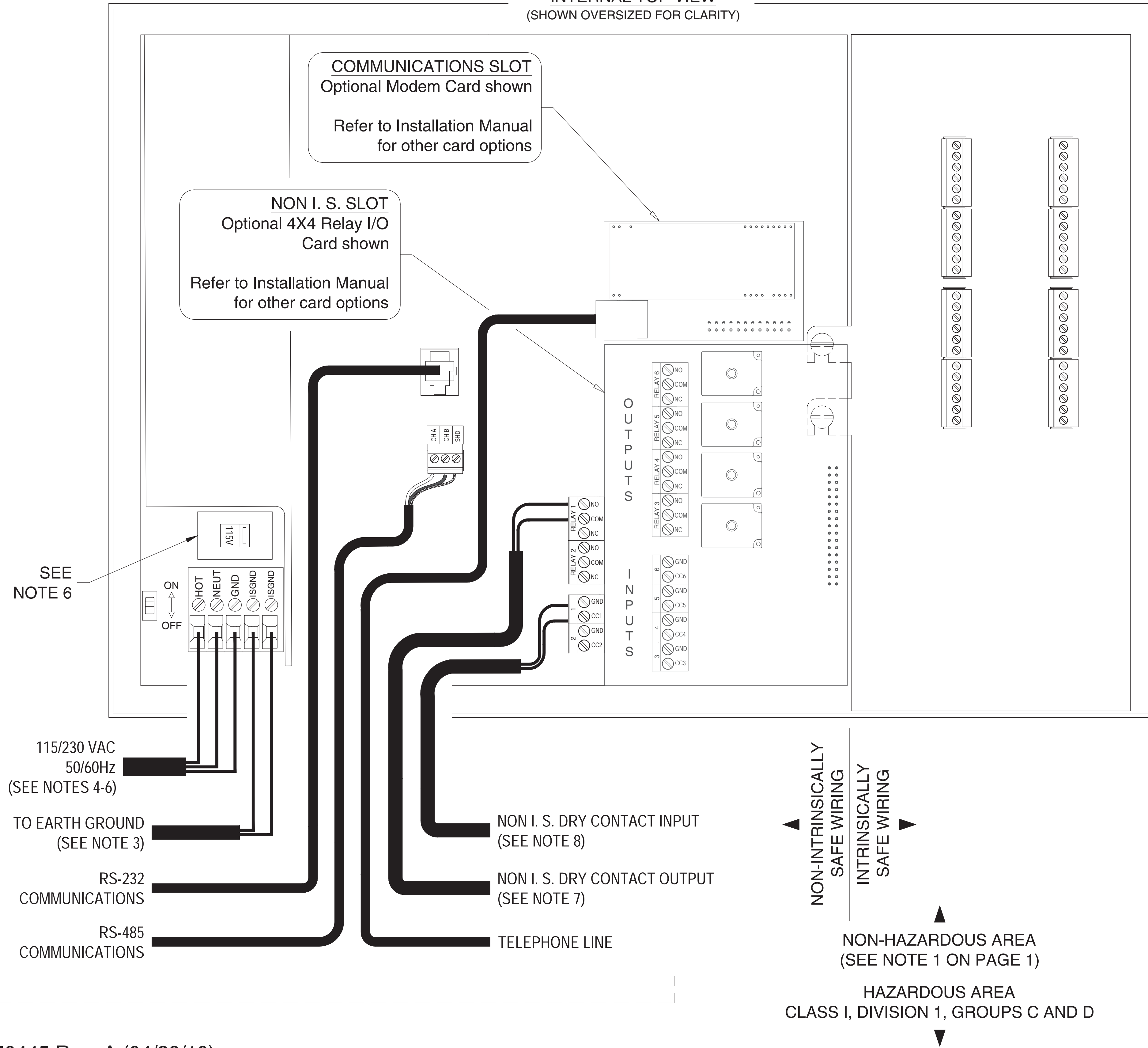
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WIRING DRAWING - LEAK/POINT LEVEL ALARM CONSOLE (LC2000)

NON I.S. WIRING

INTERNAL TOP VIEW
(SHOWN OVERSIZED FOR CLARITY)



⚠ IMPORTANT NOTES - READ CAREFULLY BEFORE INSTALLATION

UNLESS OTHERWISE SPECIFIED:
(NOTES 1,2 & 9 DO NOT APPLY TO THIS PAGE)

3. WARNING: TO INSURE INTRINSIC SAFETY, A 12 AWG WIRE MUST BE CONNECTED TO EACH TERMINAL. EACH WIRE MUST THEN BE CONNECTED TO THE SYSTEM EARTH GROUND (GROUND BUSS BAR) AT THE SERVICE PANEL. THE RESISTANCE BETWEEN THE EARTH GROUND TERMINAL BLOCK AND EARTH GROUND SHALL BE LESS THAN 1 OHM.
4. CONSOLE CANNOT BE CONNECTED TO EQUIPMENT THAT USES OR GENERATES MORE THAN 250 VOLTS WITH RESPECT TO EARTH.
5. POWER TO THE TMS2000 CONSOLE SHOULD BE PROPERLY WIRED TO A SEPARATE DEDICATED 115/230 VAC CIRCUIT BREAKER.
6. SWITCH MUST BE SET TO 115 VAC FOR 115 VAC OPERATION AND 230 VAC FOR 230 VAC OPERATION.
7. DRY CONTACT SWITCH OUTPUT WIRING: WIRE TO COMMON AND EITHER NORMALLY OPEN OR NORMALLY CLOSED FOR DESIRED SWITCH CONTACT. OUTPUT RATED 10 AMPS AT 120 VAC, 6 AMPS AT 240 VAC (VOLTAGE MUST BE LESS THAN 120 VAC OR 240 VAC RESPECTIVELY).
8. NEC CLASS 2 CIRCUITS.