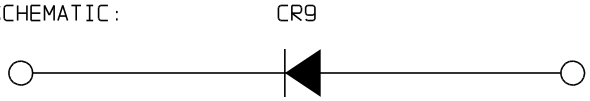
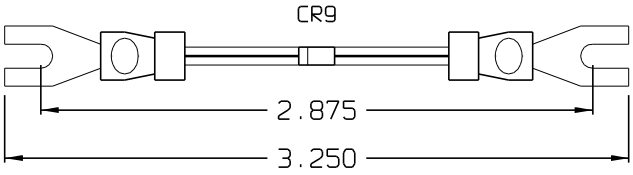
EXTERNAL RELAY FREE-WHEELING DIODE

SCHEMATIC:



ASSEMBLY:

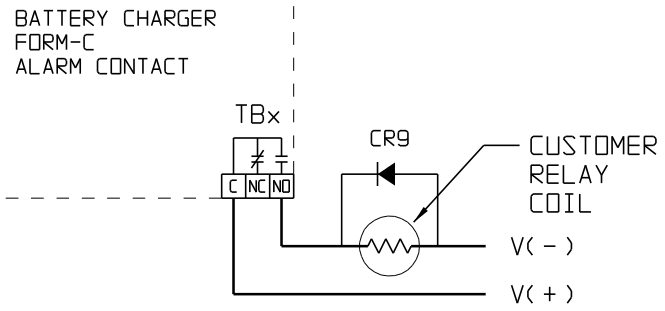


NOTES:

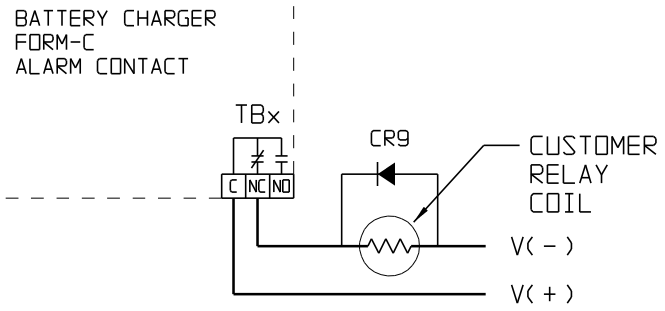
1) FREE-WHEELING DIODE (CR9) IS RATED FOR 1A AT 400V

2) ASSEMBLY LUGS ARE INSULATED, ACCEPTING #22-16 AWG WIRE

NORMALLY OPEN CONNECTION



"FAIL SAFE" NORMALLY CLOSED CONNECTION



BACKGROUND:

Freewheeling diodes need to be added whenever an application is utilized in the connection described above to limit the voltage generated by the external relay coil. The diode is added across the coil of the external relay with the cathode connected to the positive voltage of the coil and the anode is connected to the negative voltage of the coil. The diode can be added directly to the coil.

The dry Form C Alarm Contact Closures on the AT and SCR Series Chargers are rated at 0.5 amps at 120Vac or 120Vdc. These contacts are used to signal a fault in the battery charger alarm circuit. The contacts are used to power a lamp, audible alarm or energize another relay coil. Although these remote loads may have very low power requirements, care needs to be taken to ensure proper operation.

If the current flowing through the coil is not allowed to dissipate slowly, the inductance of the coil can cause large voltage spikes to appear across the switching element (i.e. relay or transistor conducting the switching function). This action is due to the magnetic field collapsing once the coil is turned off.

REV	ECN No	DATE	APP
0	20329	091306	

THIRD ANGLE PROJECTION

DRAWN BY	MCR	091306
APPROVED		

UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:

TITLE APPLICATION INSTRUCTIONS: EXTERNAL RELAY FREE-WHEELING DIODE (EJ5128-00)

DRAWING No	JD5011-00	REV 0	A
SCALE NTS	PART No JD5011-00	SHEET 1 OF 1	

FILENAME [JD5011-XX.PRT]