

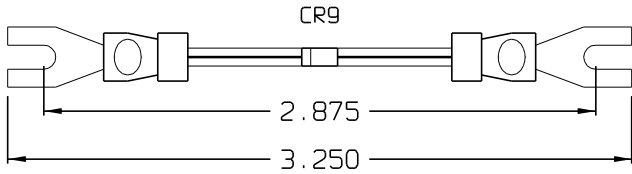
EXTERNAL RELAY
FREE-WHEELING DIODE

SCHEMATIC:

CR9



ASSEMBLY:

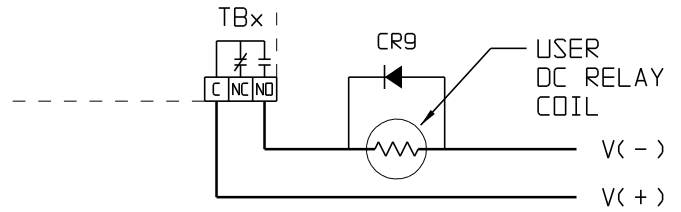


NOTES:

- 1) FREE-WHEELING DIODE (CR9) IS RATED FOR 1A AT 400V
- 2) ASSEMBLY LUGS ARE INSULATED, ACCEPTING #22-16 AWG WIRE

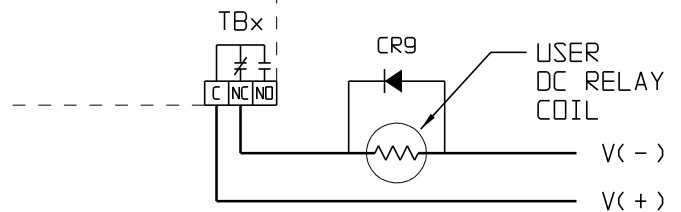
NORMALLY OPEN CONNECTION

BATTERY CHARGER
FORM-C
ALARM CONTACT



"FAIL SAFE" NORMALLY CLOSED CONNECTION

BATTERY CHARGER
FORM-C
ALARM CONTACT



NOTICE

Free-wheeling diodes need to be added to an alarm circuit, whenever an application utilizes the connection described above. This limits the voltage generated by an external DC relay coil. The FW diode (CR9) is added across the coil of the external relay, with the cathode connected to the positive(+) voltage of the coil, and the anode connected to the negative(-) voltage. The small diode can be added directly to the DC coil.

The "dry" form-C alarm contacts on ATevo, AT10.1, AT30, and SCR/SCRF series battery chargers are rated at 0.5A at 120Vac or 120Vdc. These contacts signal a "fault" in the charger alarm circuitry. They are often used to power an external 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 (e.g.: a larger relay or transistor conducting the switching function). This action is due to the magnetic field collapsing, once the coil is turned off.

				THIRD ANGLE PROJECTION										
OB	N/A	072017	MCT	DRAWN BY	MCR	091306	TITLE APPLICATION INSTRUCTIONS: EXTERNAL RELAY FREE-WHEELING DIODE (EJ5128-00)							
OA	N/A	050117	MCT	APPROVED	MCT	092006	DRAWING No		JD5011-00		REV	OB	A	
0	20329	091306	MCT	UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:			SCALE	NTS	PART No	JD5011-00	SHEET	1	OF	1