

☐ **INSTALLER COPY**
☐ **FILE COPY**

Relays are for Exhaust Fan control ONLY.
Do NOT use for Aeration Fans.

Server Radio
900MHz = CH 7
2.4 GHz = CH 14

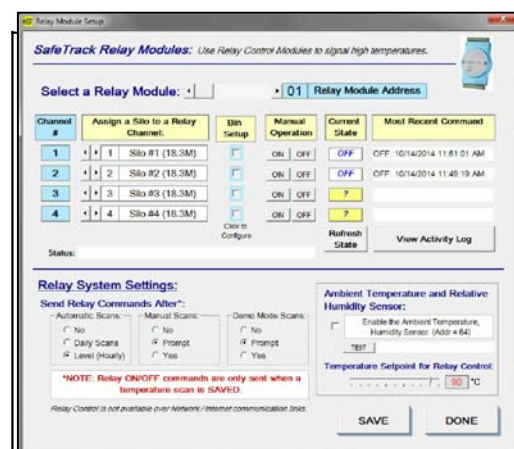
Client Radio
900 MHz = CH 7
2.4 GHz = CH 14
Radio ID=63

Position Client Radios so that each has a direct, or a daisy-chain (hopping), line-of-sight path to the Server radio. Max. hop distance = 1 Mi. (1.6km) with unobstructed line-of-sight.

SafeTrack: Relay Configuration

Each Silo is configured to control:

- 1 Relay Module Address
- 1 Relay Module Channel # (1-4)



Computer

USB Port
or COM Port

USB-Serial Converter

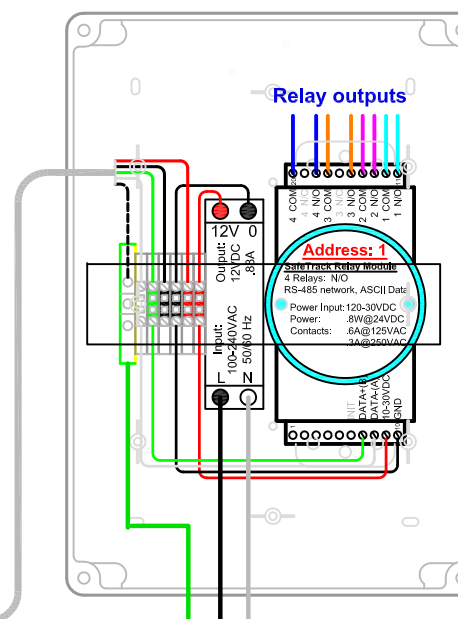
RS232-RS485 Isolated Converter
Data "A"=White
Data "B"=Green
GND=Black
+12V=Red

Power Supply
12VDC
Wall-Mount

Radio Cable
Belden 8723
in conduit.
300'(91M) max.

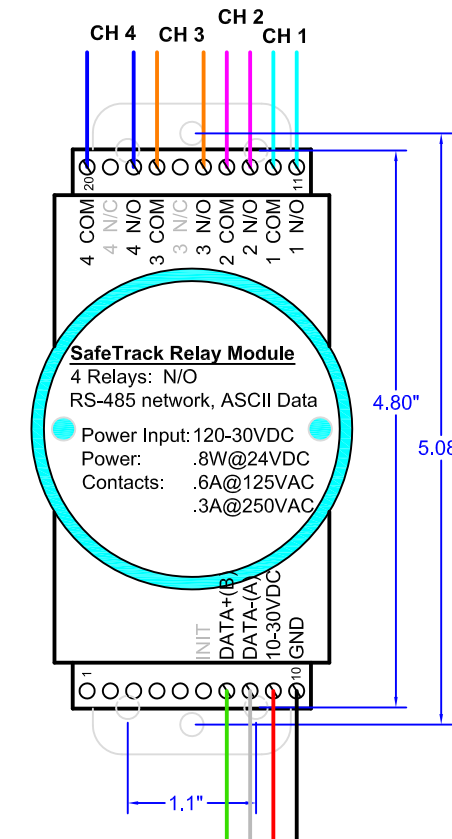
Radio Cable
Belden 8723
in conduit.
300'(91M) max.

Relay Control Module:
Communications ID = 01



Power
100-240VAC
and Earth-Ground
from Electrician

Relay Control Modules can be wired directly to SafeTrack Remote Scanners or to the SafeTrack computer.



Relay Module Wiring
+10-24VDC=Red
0VDC=Black
Data "-A"=White
Data "+B"=Green

SafeTrack Relay Control Module:

- 4 "Channels" per Modules
- N/O, Dry contacts
- Supply: 10-24VDC
- Contact Rating: .6A @125VAC
- RS-485 Communications

NOTE: This drawing may not represent your actual layout.

SafeTrack Relay Control Module Operation:

- There are 4 relay N/O outputs per Relay Module.
- Each relay output is configured for 1 silo in the SafeTrack software.
- You must configure the upper-limit temperature trip-point for each silo in the SafeTrack software.
- The control signal is sent to the Relay Module upon completion of a SafeTrack temperature scan of the silo.
- Relay-Trip options in the SafeTrack software:
 - 1) Any high temperature in the bin (grain or air).
 - 2) High temperature in the grain only.#
 - 3) High temperature in the air above the grain.#
 - 4) Air above the grain is 15F greater than the ambient temperature.*#

* This feature requires an optional external Ambient temperature sensor
Grain Level Detection must be enabled (automatic hourly scanning).

CAUTION: HIGH VOLTAGE EXISTS IN REMOTE SCANNERS.

DISCONNECT DC POWER FROM BACKPLANE BEFORE PLUGGING IN OR REMOVING THE COM CARD AND TC CABLE CARDS.

DO NOT MOUNT RADIOS AT OR DIRECTLY UNDER THE HIGHEST POINT OF A STRUCTURE.

POWER AND EARTH-GND MUST BE FREE OF RFI AND EMI NOISE (INTERFERENCE).

ALL WARRANTIES ARE VOID IF A NOISELESS EARTH-GROUND IS NOT CONNECTED AT ALL POINTS SPECIFIED.

DO NOT RUN BELDEN WIRE OR TEMPERATURE CABLES IN CONDUIT WITH HIGH-VOLTAGE WIRING.

SAFE-GRAIN INC.
LOVELAND, OHIO 45140

TITLE: **SAFETRACK SYSTEM
RELAY CONTROL MODULE
TYPICAL WIRING DETAIL**

PART NO: T-817.030010	DWG NO. B-10-10-S2	JOB NO:
SCALE:	SIZE:	DRAWN BY: JTL DATE: 12-1-2016

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