

Component Engineering

14739 Aurora Ave N, #110 Shoreline, WA 98133-6547 • 206-284-9171 • www.componentengineering.com

QX-20UA Installation and Operating Instructions

The QX-20UA/FM-35 combination is a direct replacement for the original UA laser scanner and cue decoder. It is mounted on the original standoffs and plugs directly into the existing headers.

You may select one of four different programs/configurations. These programs incorporate the operations of our most widely used TA-10 custom configurations.

All of the UA laser scanner automation's front panel manual switches and switched functions will continue to operate in the usual way. The QX-20 performs cue decoding and provides a timed (7 second) start sequence and a timed (7 second) end of show sequence.

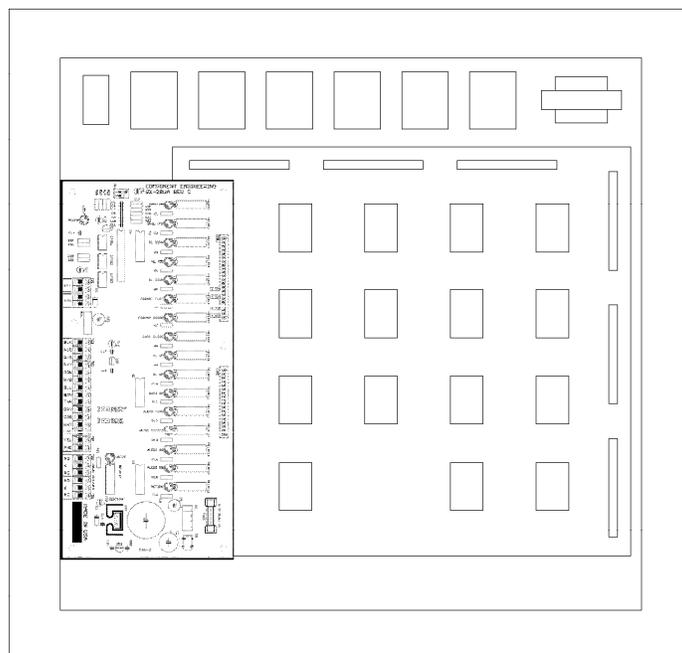
The start function is initiated by the UA automation by connecting a 2-conductor cable to the terminals that power the run indicator light. If the RUN light is powered, the board will accept cues and perform timed functions. If the light is NOT powered, the QX-20 will not function in any way. This ensures that the automation and the QX-20 will always be in the same mode.

To enable the interlock function, an additional pair of wires must be connected to the bottom of the original UA power relay board. This connects to an unused contact set on the INTERLOCK relay. There are directions for connecting this feature on Page 4.

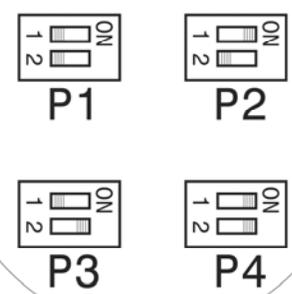
If the UA automation is started in interlock mode, the show run program will wait for a cue before performing the open show functions. The house to MID cue serves this dual function. If you are in interlock mode, this cue will begin the open show sequence. After the show is running it will revert to being a single function cue.

The FM-35 motion function is enabled after four seconds. There are two box links provided to bypass either the motion or presence function. Link ON = Function enabled.

In the Regal programs, Event 4 sends the masking to FLAT for the digital show. The FLAT turret is wired through the NC contacts of the USER1 relay and is disconnected from the FLAT format relay during this change. Cue 6 pulses User1 and the second contact set may be used for an independent purpose.



Program Select Switch



Processor Version X.XX

Format function headers

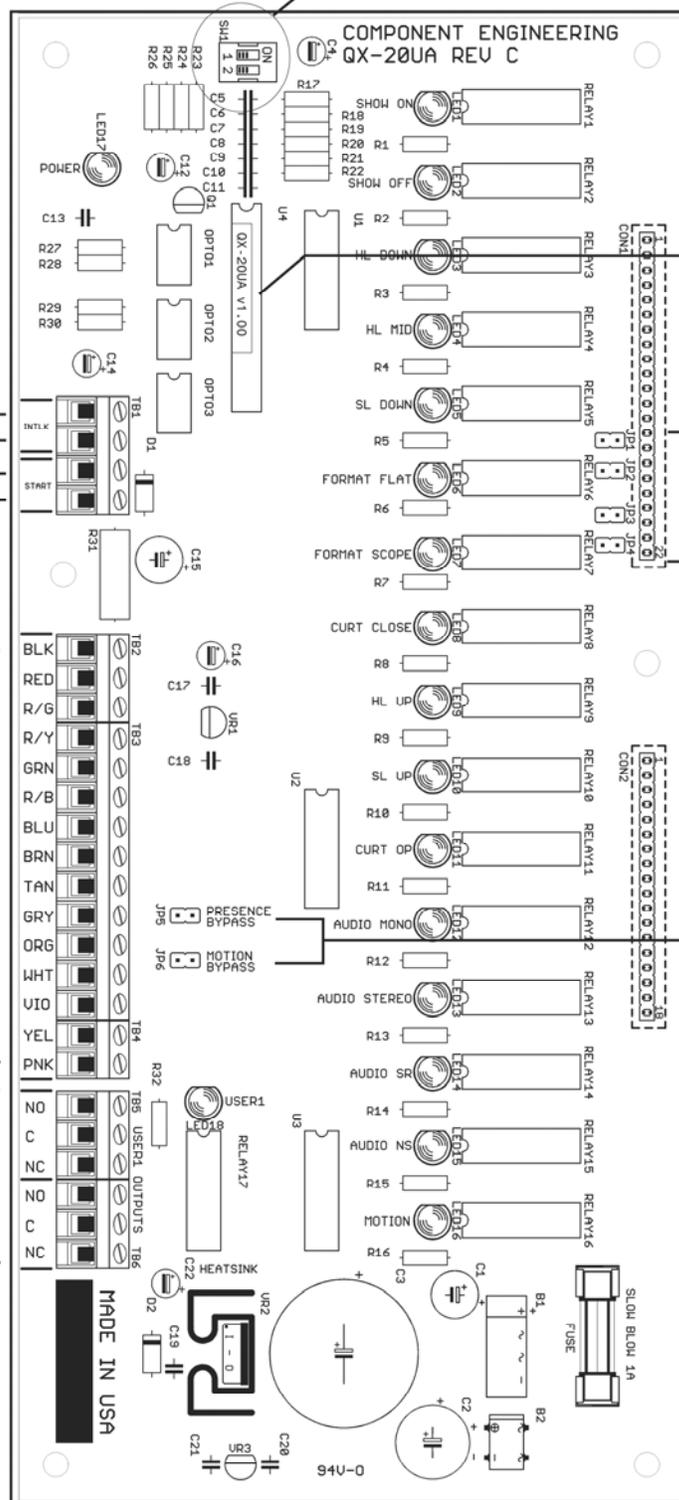
Motion and Presence bypass

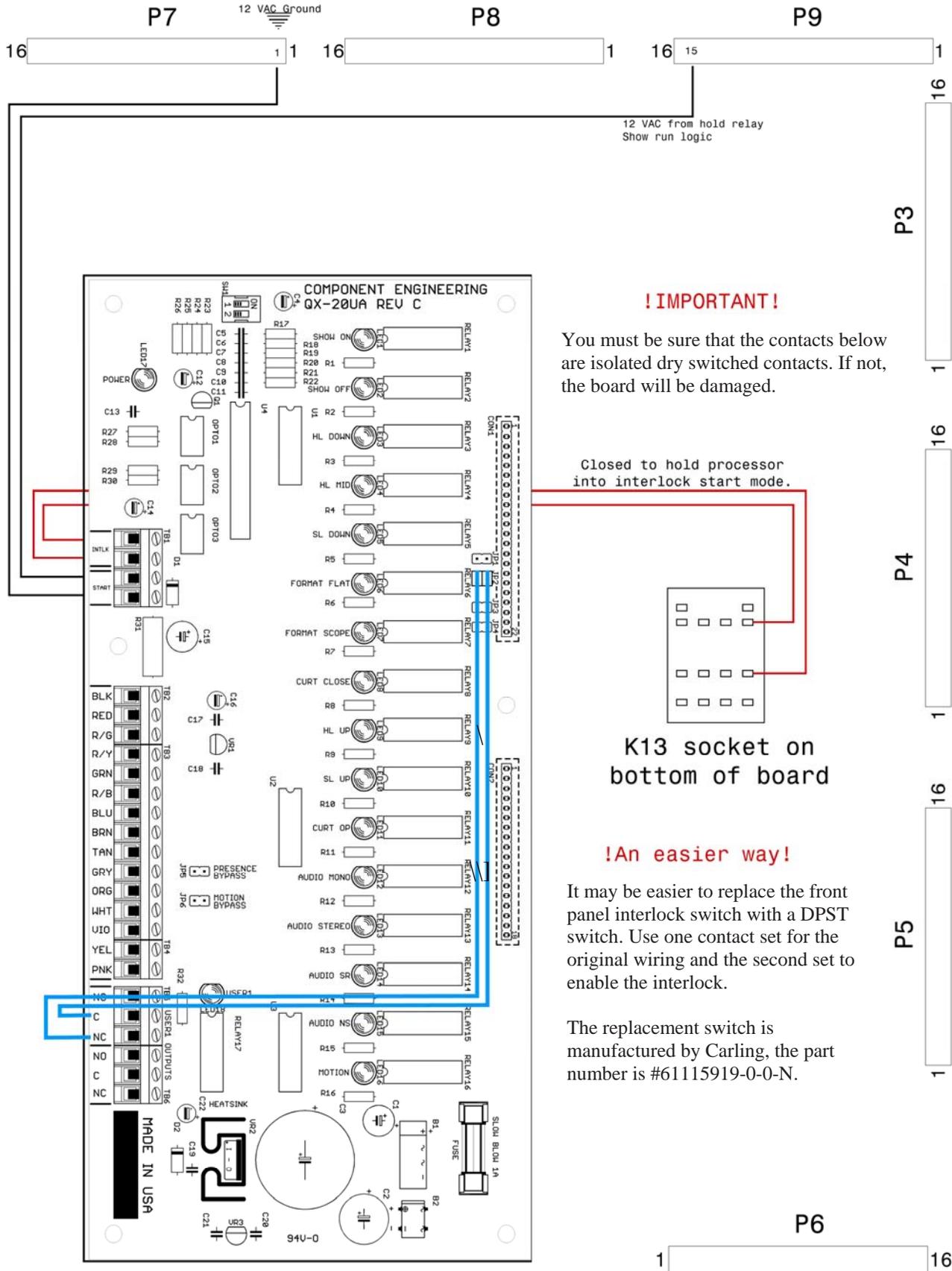
Fuse 1 Amp SloBlo

Interlock
Start

FM-35

User1 Relay Outputs





! IMPORTANT!

You must be sure that the contacts below are isolated dry switched contacts. If not, the board will be damaged.

Closed to hold processor into interlock start mode.

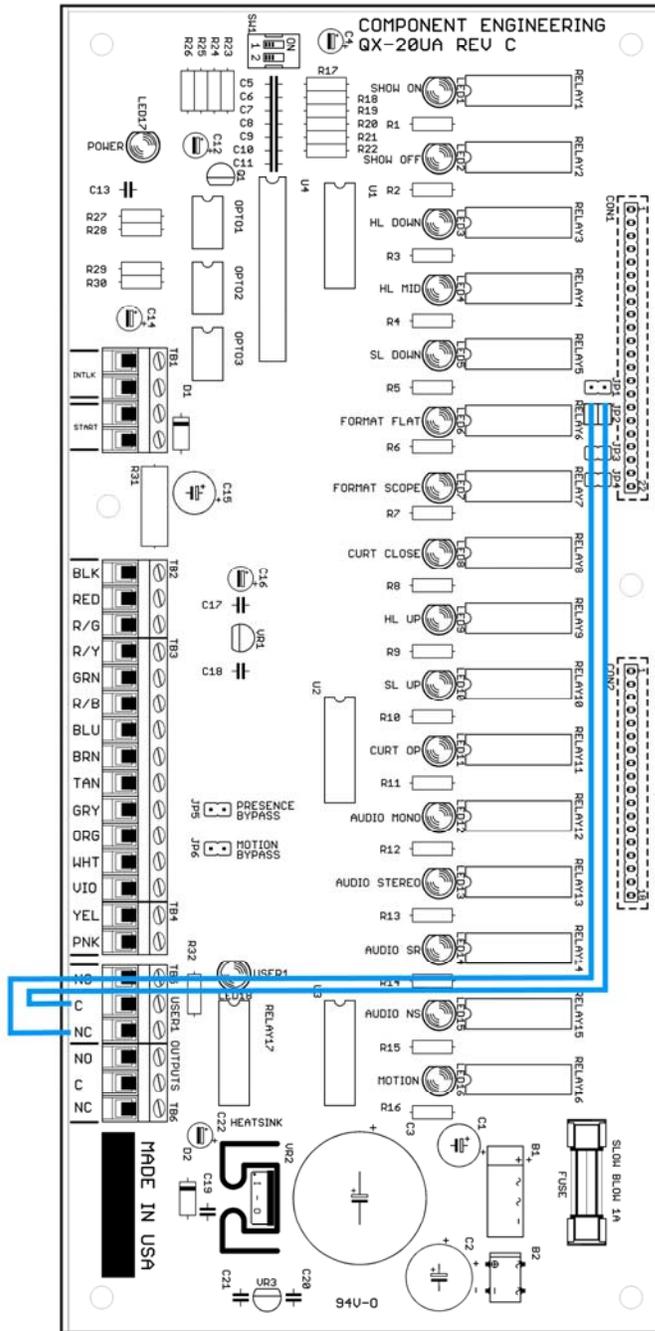
K13 socket on bottom of board

!An easier way!

It may be easier to replace the front panel interlock switch with a DPST switch. Use one contact set for the original wiring and the second set to enable the interlock.

The replacement switch is manufactured by Carling, the part number is #61115919-0-0-N.

End of show flat masking only function



When the format flat function is pulsed it performs two functions; the flat turret and the flat masking. If the USER1 relay and the format flat relay pulse simultaneously the format flat function does not include the turret. Programs 2,3 and 4 are designed to utilize this feature.

Program No. 1

E1 Hse $\frac{1}{2}$, Stg DN

E2 Show ON, Audio SR, Curt OPEN

E3 Hse UP, Stg UP, Curt CL

E4 Flat, Audio NS, Show OFF

Q1 Event3 Trigger

Q2 Hse $\frac{1}{2}$
(Intlk Mode Strt)

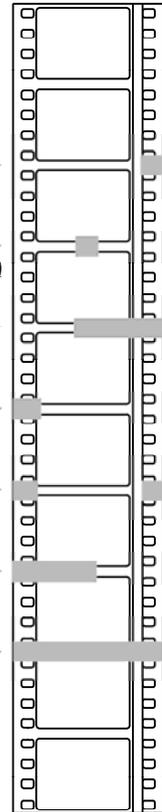
Q3

Q4 Hse DN,SR

Q5 User1

Q6

Q7 Scope



Program No. 2

E1 Hse $\frac{1}{2}$, Stg DN

E2 Show ON, Audio SR, Curt OP

E3 Hse UP, Stg UP, Curt CL

E4 Audio NS, Show OFF, User1, Flat

Q1 Event3 Trigger

Q2 Mono

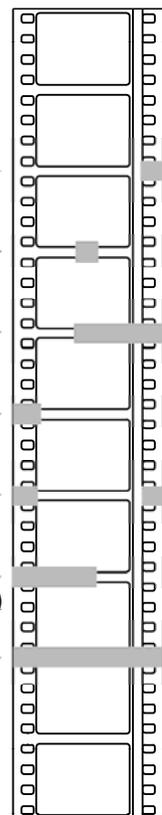
Q3 Hse DN

Q4 SCOPE

Q5 SR

Q6 Hse $\frac{1}{2}$
(Intlk Mode Strt)

Q7 "A"



Program No. 3

E1 Hse 1/2, Stg DN, Curt OP

E2 Show ON, Audio SR

E3 Hse UP, Stg UP

E4 Curt CL, Audio NS, Flat, User1
Show OFF

Q1 Event3 Trigger

Q2 Hse 1/2
(Intlk Mode Strt)

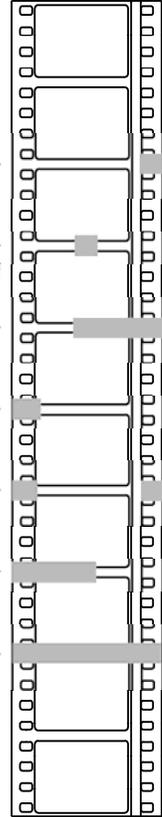
Q3 Scope

Q4 Hse DN

Q5 Flat

Q6 Hse 1/2

Q7 User1



Program No. 4

E1 Hse 1/2, Stg DN

E2 Show ON, Curt OPEN, Audio SR

E3 Hse UP, Stg UP, Curt CL

E4 Show OFF, Flat, User1, Audio NS

Q1 Event3 Trigger

Q2 Hse 1/2
(Intlk Mode Strt)

Q3 Scope

Q4 Hse DOWN

Q5 Flat

Q6

Q7 User1

