

The DSC Dual SYNC Control Unit is an optional accessory for a fire alarm system control unit. This unit provides synchronization of the MC and HMC strobes and synchronization and silenceability to the MTH series of electronic audible signals. When connected to a compatible polarity reversal type of notification appliance circuit, there is supervision of the wiring from the control unit through the DSC unit to the End-of-Line device (also see individual wiring instructions for the compatible appliances). The DSC unit triggers the strobe lights to flash at a rate of 1 to 1.1 flashes per second (60 to 66 flashes per minute). The DSC unit also triggers the MTH series of electronic audible signals to sound in a synchronized temporal or march time pattern, the audible signals may also be silenced while the strobes continues to flash. The unit can support two Style Y (class B) or one Style Z (class A) notification appliance circuit(s).

The DSC unit may be alternatively configured to synchronize conventional audible notification appliances. The DSC may be configured to sound audible devices at a temporal or march time pattern. Or, the silenceable input may be used to slave from an existing coded fire alarm system control unit. Refer to P/N 315-096363 for a list of compatible notification appliances and the maximum number of devices allowed per NAC circuit.

PARTS SUPPLIED

1	DSC	SYNC Control Unit
4	941201	Screws, #8-32x3/8"
2	940705	Nut, #8-32
1	315-545222	Instruction Sheet

DSC Wiring

Audible Control

From control panel (non-pulsing or pulsing)

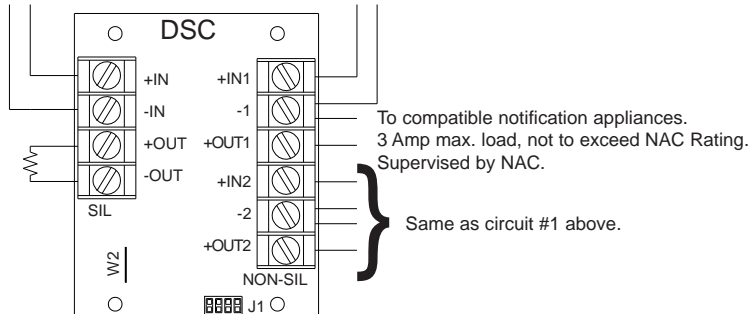
Silenceable NAC or slaved NAC:

Listed Operating Voltage Range Limits:
Special Application 16-32V DC or FWR,
.005 Amp, If required.

Audible Power

From control panel (non-pulsing) **Nonsilenceable**
NAC:

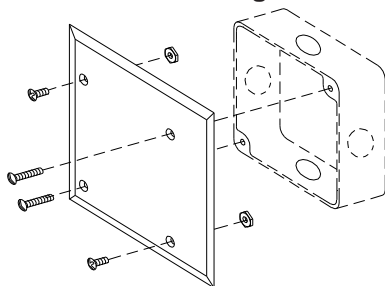
Listed Operating Voltage Range Limits:
Special Application 16-32V DC or FWR,
.055 Amp plus output notification appliance load.



NOTES:

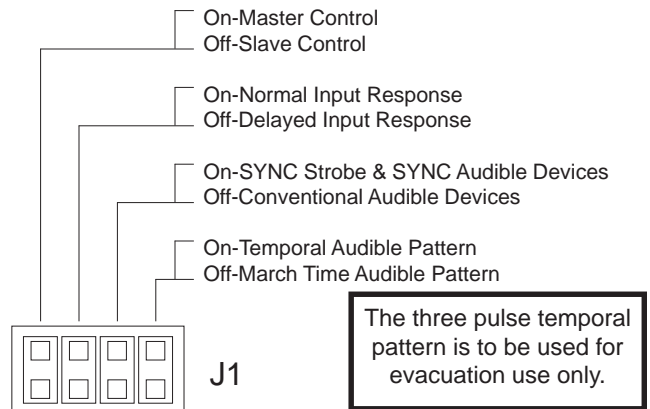
- Units to be installed in accordance with all local electrical codes.
- Terminal block will accept a maximum of #12 AWG wiring.
- See Installation Instructions for proper strobe installation.
- See Installation Instructions for proper signal installation.
- When the silenceable NAC input is not used or when separate horn and strobe operation is not required, cut wire jumper W2 on circuit board: only on firmware version 1.1 or later.
- The maximum line impedance per circuit is 30 ohms.
- The DSC Control Units were only tested to the operating voltage limits of 16V and 32V. **Do Not apply 80% and 110% of these values for system operation.**

DSC Mounting

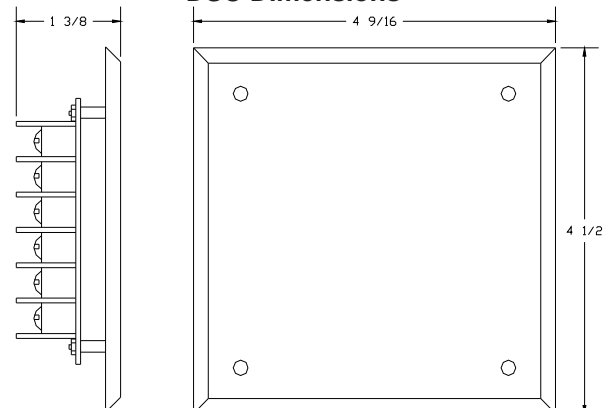


- Installation is to be done by qualified personnel who have thoroughly read and understood this instruction sheet.
- Disconnect all power into the system, including batteries.
- Mount 4" square backbox as required (see below).
Surface: SHBB-R surface box
or SBB-R surface box
Flush: BBS-R backbox + FER extension ring
- Attach conduit and run wires as required.
- Select desired operation with jumpers on header J1.
- Connect wires from fire alarm system control unit as shown.
- Connect wires to notification appliances as required.
- If required, use two 941201 screws and two 940705 nuts to fill unused mounting holes.
- Attach control unit to backbox, using 941201 screws.
- Apply power to system.
- Check for proper operation of functions.

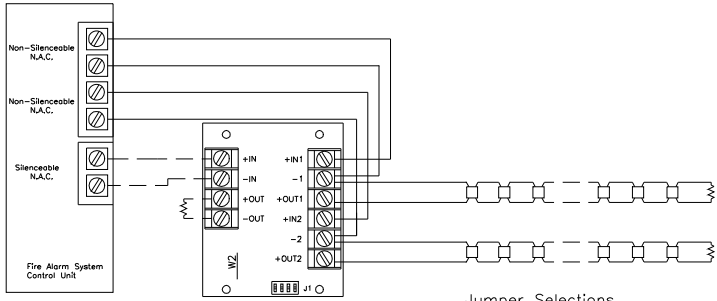
DSC Configuration



DSC Dimensions



Dual Style Y (Class B) Wiring Diagram for SYNC Appliances

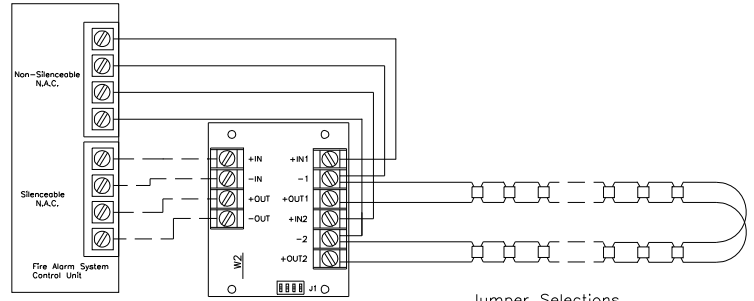


Jumper Selections
 On--Master Control Unit
 On/Off--Normal/Delayed Sil Input Response
 On--SYNC Notification Appliances
 On/Off--Temporal/March Time

Notes:

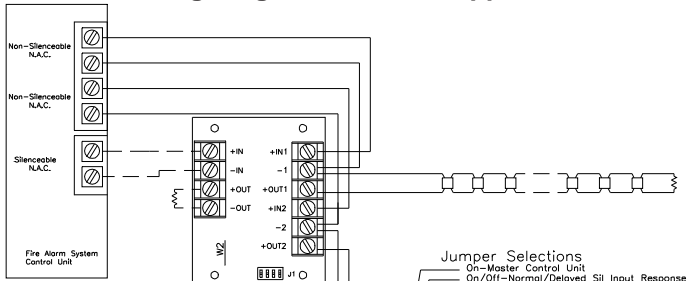
- 1.) The Silenceable N.A.C. controls the silencing of the audible Sync appliances.
- 2.) The Silenceable N.A.C. is required only if audible SYNC appliances are used.
- 3.) The Non-Silenceable N.A.C. supervises and powers the associated Output circuit and appliances.
- 4.) The delayed Sil Input allows the Sil Input to be connected to a pulsed N.A.C. with an off time up to 4 seconds.
- 5.) When silenceable NAC is not used see note 5 on page 1.

Single Style Z (Class A) Wiring Diagram for SYNC Appliances



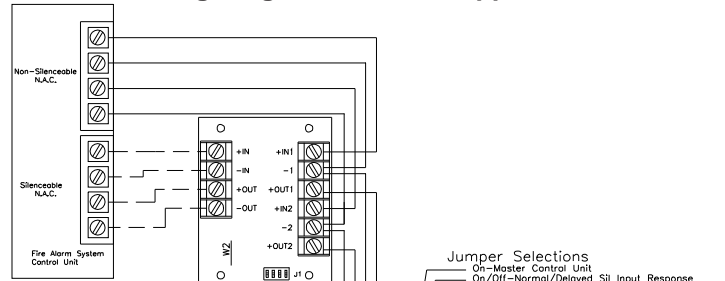
Jumper Selections
 On--Master Control Unit
 On/Off--Normal/Delayed Sil Input Response
 On--SYNC Notification Appliances
 On/Off--Temporal/March Time

Master/Slave Style Y (Class B) Wiring Diagram for SYNC Appliances

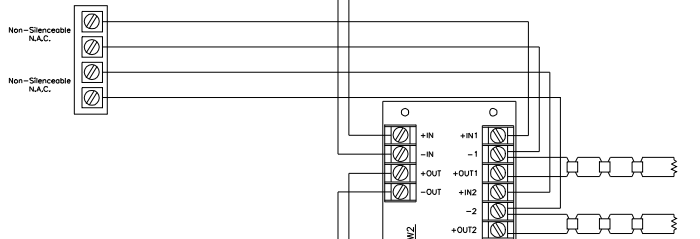


Jumper Selections
 On--Master Control Unit
 On/Off--Normal/Delayed Sil Input Response
 On--SYNC Notification Appliances
 On/Off--Temporal/March Time

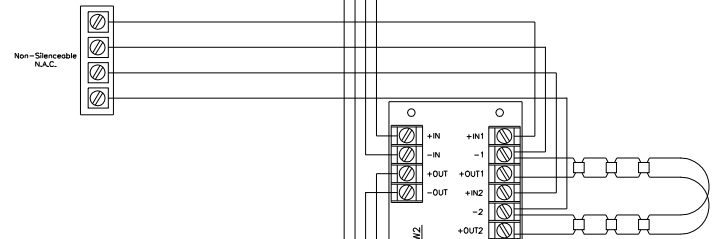
Master/Slave Style Z (Class A) Wiring Diagram for SYNC Appliances



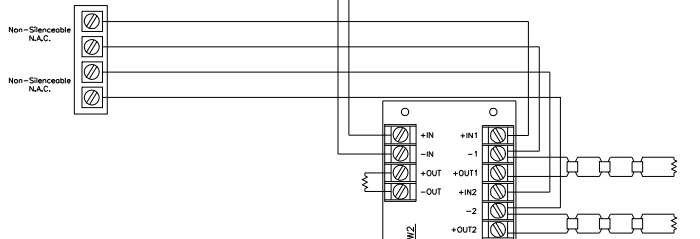
Jumper Selections
 On--Master Control Unit
 On/Off--Normal/Delayed Sil Input Response
 On--SYNC Notification Appliances
 On/Off--Temporal/March Time



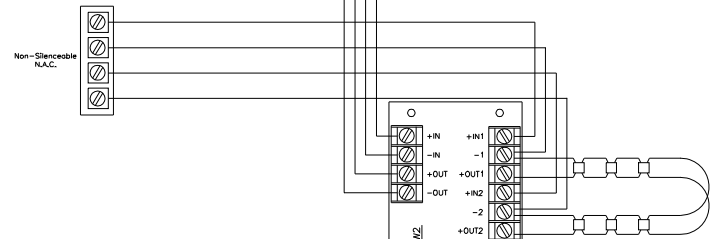
Jumper Selections
 Off--Slave Control Unit
 Not used
 Not used



Jumper Selections
 Off--Slave Control Unit
 Not used
 Not used



Jumper Selections
 Off--Slave Control Unit
 Not used
 Not used

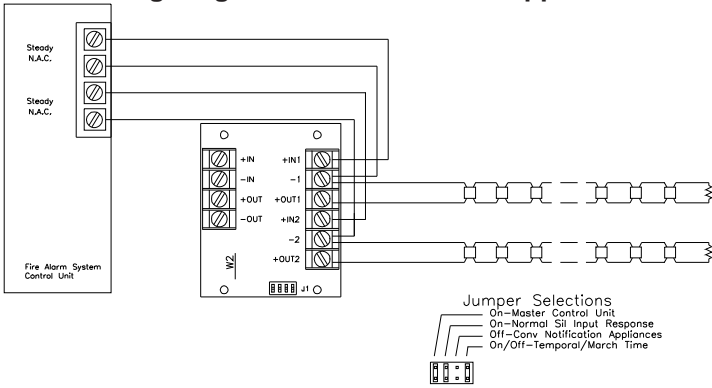


Jumper Selections
 Off--Slave Control Unit
 Not used
 Not used

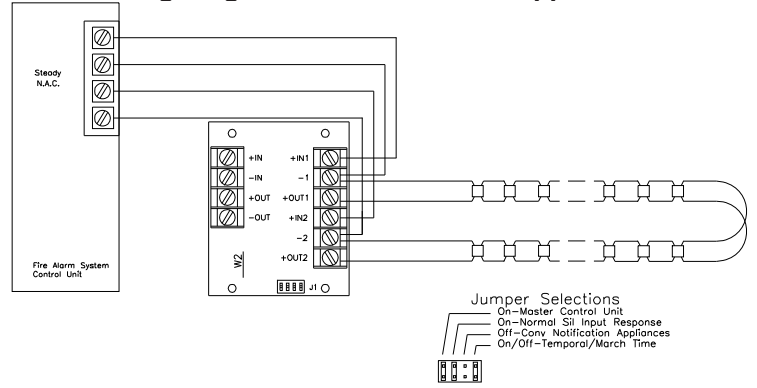
Notes:

- 1.) The Silenceable N.A.C. controls the silencing of the audible Sync appliances.
- 2.) The Silenceable N.A.C. is required only if audible SYNC appliances are used.
When the silenceable NAC input is not used or when separate horn and strobe operation is not required, cut wire jumper W2 on circuit board: only on firmware version 1.1 or later.
- 3.) The Non-Silenceable N.A.C. supervises and powers the associated Output circuit and appliances.
- 4.) The delayed Sil Input allows the Sil Input to be connected to a pulsed N.A.C. with an off time up to 4 seconds.
- 5.) Up to 600 DSC control units may be slaved from the master DSC control unit.
This number is determined by the master Non-Silenceable N.A.C. current divided by the slave input current (ie: 3A/.005A.=600).
- 6.) Cascading of the output of a slave to the input of another slave is not recommended.

**Coded Style Y (Class B)
Wiring Diagram for Conventional Appliances**



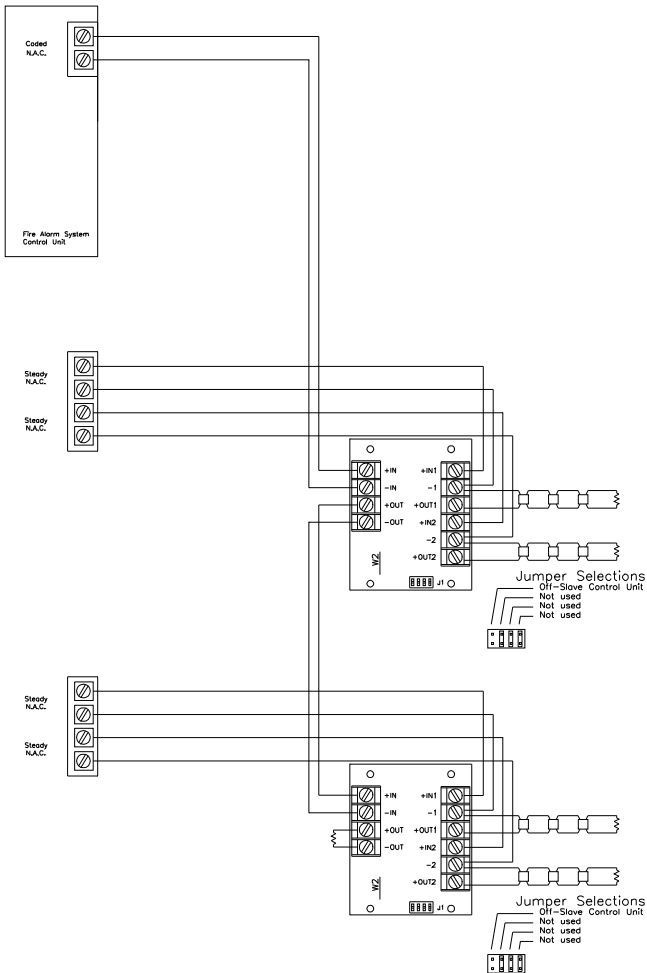
**Coded Style Z (Class A)
Wiring Diagram for Conventional Appliances**



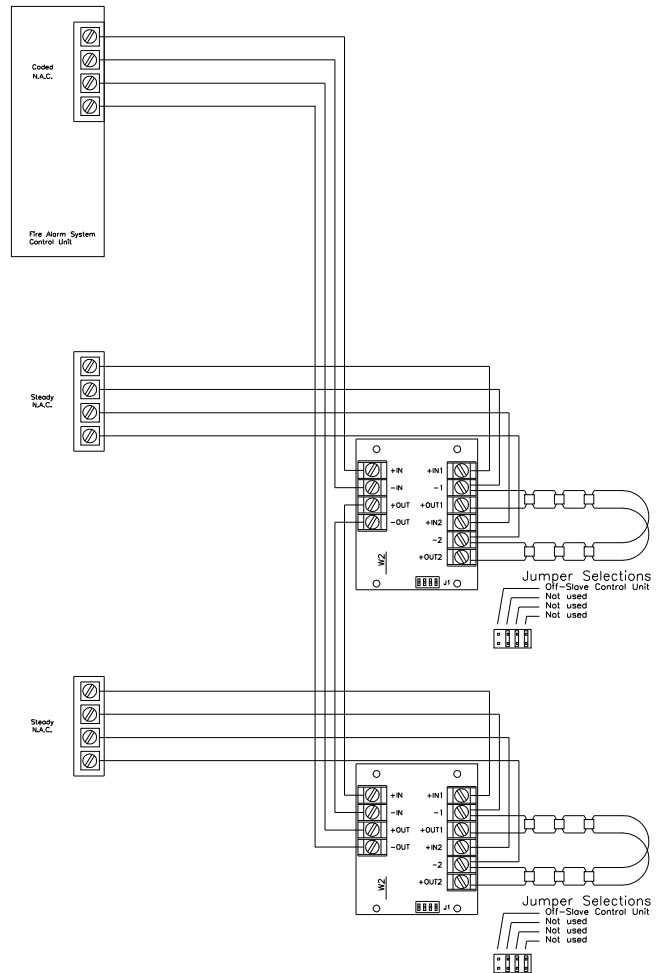
Notes:

- 1.) The above configuration will allow conversion of a steady N.A.C. to temporal or march time.
- 2.) The second steady N.A.C. is optional in the Style Y diagram.
- 3.) The Non-Silenceable N.A.C. supervises and powers the associated Output circuit and appliances.
- 4.) For Compatible notification appliances, see the installation instructions for the Steady N.A.C.
- 5.) If two Style Y Steady N.A.C.s are used, both must be from the same control unit/signal expansion control unit.
- 6.) The Sil Input is not used.
- 7.) Additional DSC units may be slaved, as shown below.

**Coded Expansion Style Y (Class B)
Wiring Diagram for Conventional Appliances**



**Coded Expansion Style Z (Class A)
Wiring Diagram for Conventional Appliances**



Notes:

- 1.) The above configuration will allow conversion of a steady N.A.C. to coded, following the existing Coded N.A.C..
- 2.) The second steady N.A.C. is optional in the Style Y diagram.
- 3.) The Steady N.A.C. supervises and powers the associated Output circuit and appliances.
- 4.) If two Style Y Steady N.A.C.s are used, both must be from the same control unit/signal expansion unit.
- 5.) For Compatible notification Appliances, see the installation instructions for the Steady N.A.C..
- 6.) Up to 600 DSC control units may be slaved from the Coded N.A.C..
This number is determined by the Coded N.A.C. current divided by the slave input current (ie: 3A/.005A.=600).

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