QSR Performance Solutions Drive Thru System - Installation Instructions

What Is Included

1 — Base Station w/ 13.5 VDC power adaptor

1 — Programming station w/ 18" cable

1 — Microphone for inbound audio

1 — Speaker for outbound audio

1 Lot — Acoustic foam for speaker post

Varies Per Order — Belt-packs w/ pouch

1 — Battery per Belt-Pack (w/1 additional battery when 4 or more belt-packs are ordered)

Varies Per Order — Headsets (1 per belt-pack)

1 — Battery charger w/ 5 VDC power adaptor

What Is Not Included

- Cable to connect Base to speaker post equipment (3 separately jacketed, shielded, twisted pairs, minimum 20 gauge stranded)
- Vehicle detection loop
- Optional grill speaker (8 ohms)
- Speaker post
- Conduit from inside restaurant to speaker post
- Miscellaneous hardware
- Tools

Installation Steps

1. Begin charging batteries prior to installing system

2. Determine best location for Base
    - Needs electrical outlet (power adaptor has 6 foot cable)
    - Maintain 3 feet clearance from large metal objects and electrical or electronic equipment
    - Relative close proximity to drive thru booth(s) but avoid installing where base cannot be serviced without interrupting normal business operations
    - Be mindful of where conduit to speaker post terminates inside
    - Programming station connects to base with 18" cable and needs to be at a height and location that is accessible to restaurant employees

3. Install cabling from speaker post to Base location. 3 individually shielded, jacketed, twisted pairs, minimum 20 gauge stranded.

4. Mount Base and connect cables (keep power cable and transformer at least 6 inches from left side of Base)

5. Mount programming station within 18" of Base, and at an accessible height and connect cable

6. Mount vehicle detector and connect to Base, and to cable feeding to loop at speaker post

7. Install speaker and microphone in speaker post and connect cables, including connection to vehicle detector loop. Solder all splices.
    - **IMPORTANT!** Speaker and microphone inside of speaker post **MUST** be acoustically and mechanically isolated from each other **AND** the speaker post with foam rubber or an acoustic dampening material to insure quality audio performance.
    - In a typical speaker post the microphone would be mounted in the top section, closer to the person placing the order. The speaker should be at least 2 feet away from the microphone, typically mounted lower.

Installation Steps — cont.

8. Make sure jumpers in Base are configured to match your installation (see Base Station Controls diagram)

- J1 & J2 — Separate speaker & mic or one device serving as both
- J4 — Detection type: closure or pulse
- J5 — Full-duplex or Standard (half-duplex)
- J6 — Full-duplex click suppression

9. Turn on power to base

10. Insert batteries in belt-packs and program per instructions on programming station

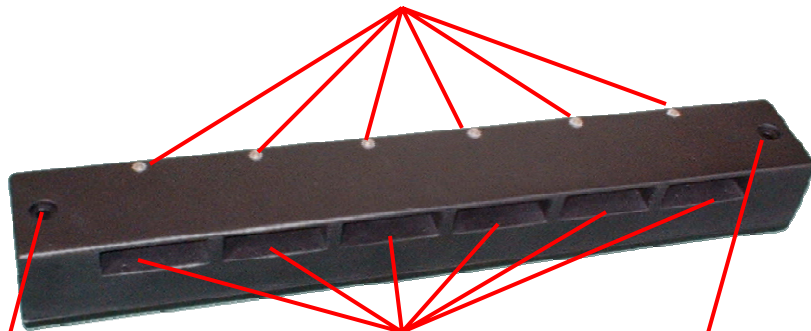11. Connect headsets to belt-packs and test range, reception, audio quality, and volume

12. Adjust volume levels as needed

13. Test vehicle detection

14. Train restaurant employees and manager

QSR Drive Thru Solutions - Batteries & Charger

Charging Indicators — Will light red when battery is charging and change to green when battery is charged

Charging Ports for Batteries

Holes for Wall Mount Screws

NOTES:
- Batteries are Lithium-Ion
- Batteries require about 3 hours to charge
- Batteries will hold a charge for about 8 to 10 hours during normal use
- When the battery voltage becomes too low, a short warble tone, occurring at five–second intervals is heard in the headset. After 2 minutes the headset will shut off.
- Batteries should be removed from belt-pack and stored in charger when not being used.

QSR Performance Solutions - Base Station Front Cover Indicators & Controls

Channel Indicators
Indicates which one of the eight channel frequencies is being used

Talk Indicator
Lights when the Talk button is pressed on a belt-pack

Page Indicator
Lights when the Page button is pressed on a belt-pack

Vehicle Indicator
Lights when vehicle is detected at speaker post

Grill Monitor Volume
Adjusts the volume of the optional grill speaker
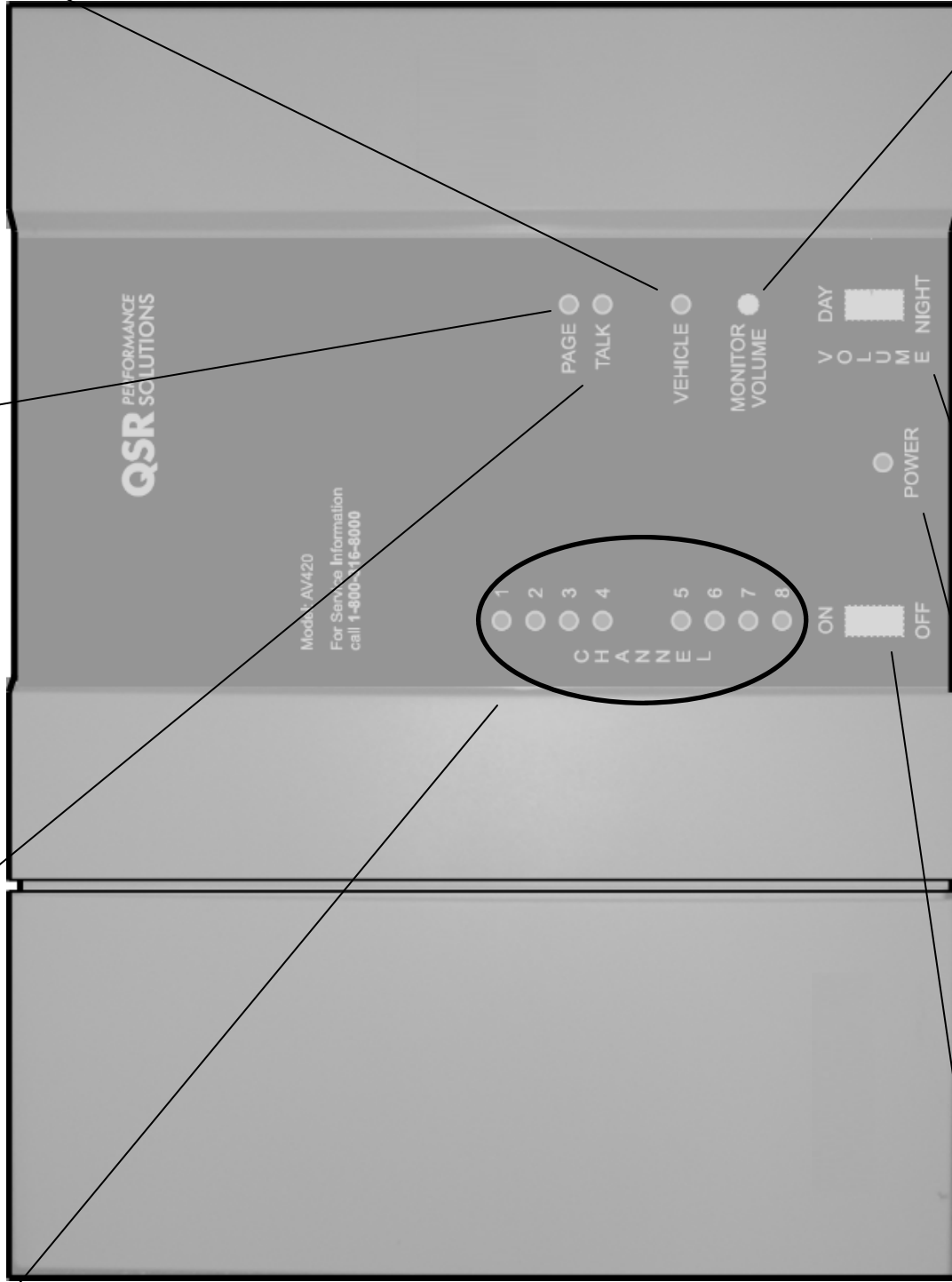
Power Switch
Used to turn power to base off & on. Turn off to enable optional wired backup if one is installed.

Power Indicator
Lights when power is applied to base.

Day / Night Volume Switch
Day position enables DAY outgoing volume control. Night position enables NIGHT outgoing volume control.

QSR PERFORMANCE SOLUTIONS

Model AV420
For Service Information call 1-800-16-8000

PAGE
TALK
VEHICLE
MONITOR VOLUME
VOLUME DAY NIGHT
POWER
CHANNEL 1 2 3 4 5 6 7 8
ON OFF

QSR Performance Solutions - Base Station Controls

Connects to menu-board speaker. When using 1 device as a speaker and mic, use this connection.

To grill speaker

Used with greeters

Not normally used

Connects to cross-lane module in 2 lane system

Connects to one leg of vehicle detector contact closure

Connects to cross-lane module in 2 lane system

Connects to greeters and cross-lane modules
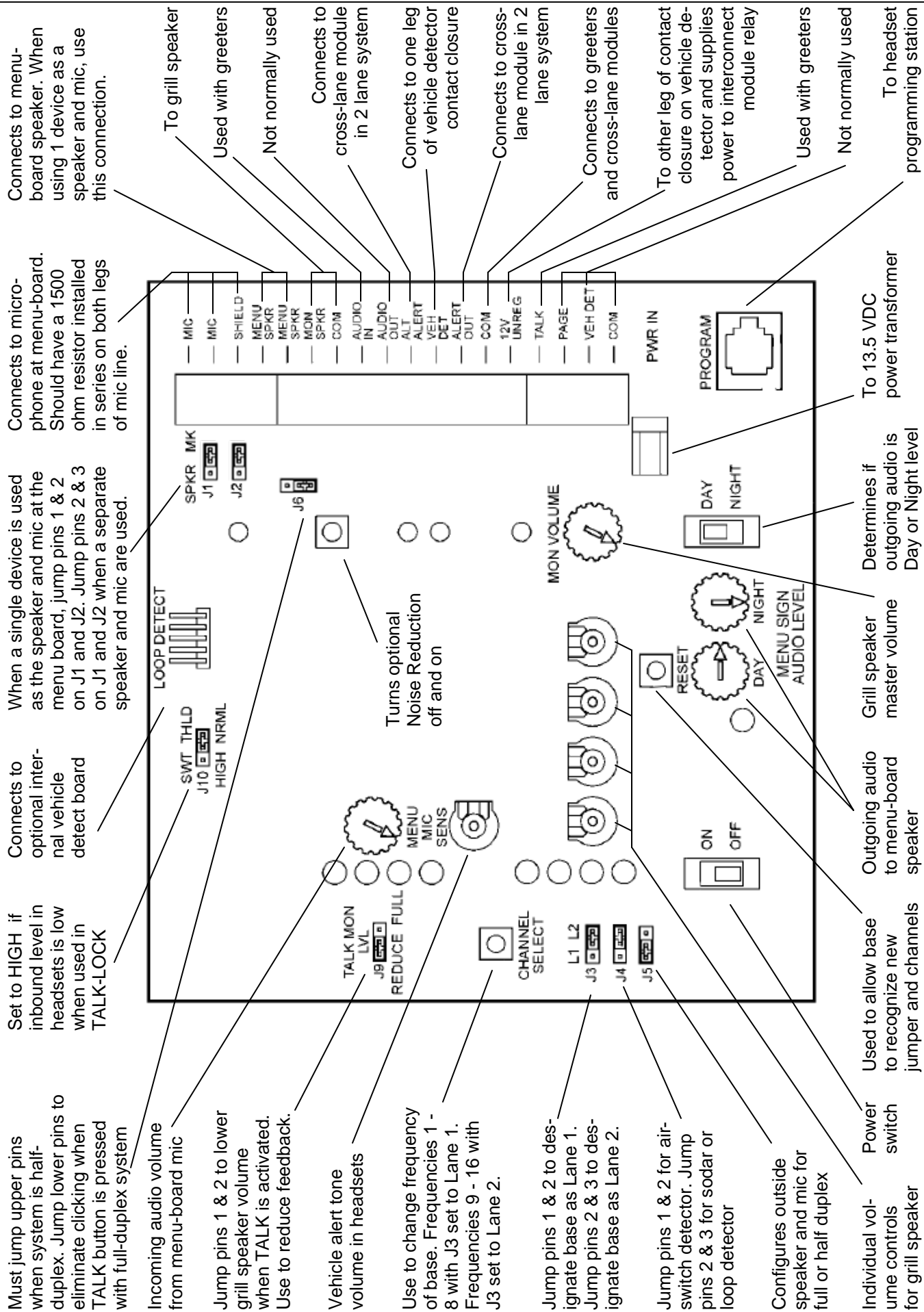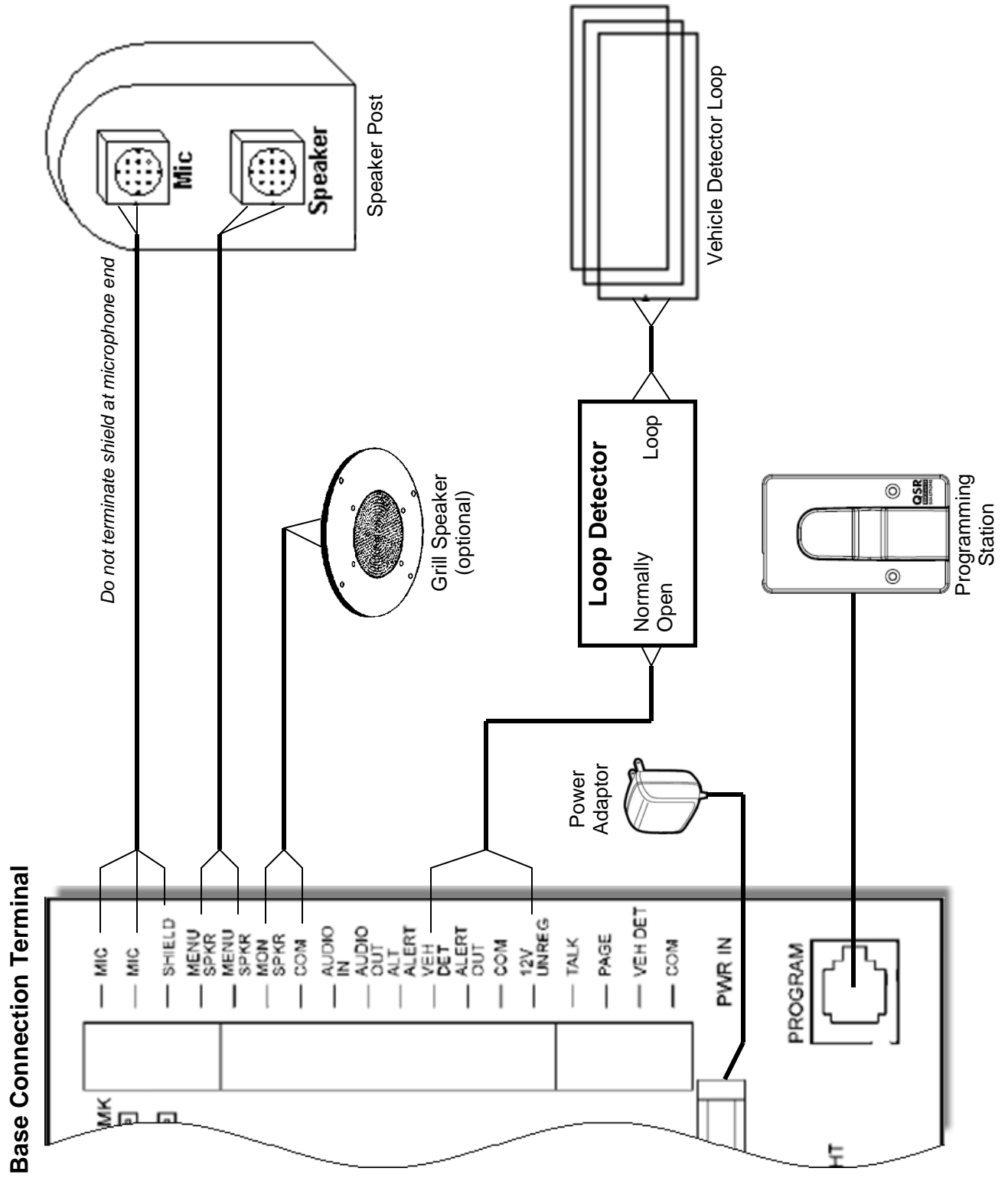
To other leg of contact closure on vehicle detector and supplies power to interconnect module relay

Used with greeters

Not normally used

Connects to microphone at menu-board. Should have a 1500 ohm resistor installed in series on both legs of mic line.

When a single device is used as the speaker and mic at the menu board, jump pins 1 & 2 on J1 and J2. Jump pins 2 & 3 on J1 and J2 when a separate speaker and mic are used.

Set to HIGH if inbound level in headsets is low when used in TALK-LOCK

Connects to optional internal vehicle detect board

Turns optional Noise Reduction off and on

To 13.5 VDC power transformer

Determines if outgoing audio is Day or Night level

MIC
MIC
SHIELD
MENU SPKR
MENU SPKR
MON SPKR
COM
AUDIO IN
AUDIO OUT
ALT ALERT
VEH DET
ALERT OUT
COM
12V UNREG
TALK
PAGE
VEH DET
COM
PWR IN

PROGRAM

SPKR MK
J1
J2

J6

DAY
NIGHT

MON VOLUME

LOOP DETECT

SWT THLD
J10
HIGH NRML

RESET

MENU SIGN AUDIO LEVEL
DAY NIGHT

Grill speaker master volume

Outgoing audio to menu-board speaker

Must jump upper pins when system is half-duplex. Jump lower pins to eliminate clicking when TALK button is pressed with full-duplex system

Incoming audio volume from menu-board mic

Jump pins 1 & 2 to lower grill speaker volume when TALK is activated. Use to reduce feedback.

Vehicle alert tone volume in headsets

Use to change frequency of base. Frequencies 1 - 8 with J3 set to Lane 1. Frequencies 9 - 16 with J3 set to Lane 2.

Jump pins 1 & 2 to designate base as Lane 1. Jump pins 2 & 3 to designate base as Lane 2.

Jump pins 1 & 2 for airswitch detector. Jump pins 2 & 3 for sodar or loop detector

Configures outside speaker and mic for full or half duplex

Individual volume controls for grill speaker

Power switch

Used to allow base to recognize new jumper and channels

TALK MON LVL
J9
REDUCE FULL

MENU MIC SENS

CHANNEL SELECT

L1 L2
J3
J4
J5

ON
OFF

4

Mic

Speaker

Speaker Post

Do not terminate shield at microphone end

Vehicle Detector Loop

Grill Speaker (optional)

Loop Detector

Loop

Normally Open

Programming Station

Power Adaptor

Base Connection Terminal

MIC
MIC
SHIELD
MENU SPKR
MENU
SPKR
MON SPKR
COM
AUDIO IN
AUDIO OUT
ALT ALERT
VEH DET
ALERT OUT
COM
12V UNREG
TALK
PAGE
VEH DET
COM
PWR IN
PROGRAM

MK

HT

QSR Performance Solutions Drive Thru - Belt-Pack

1 2 3 4 5 6 7 8   9 10 11

Bottom View

1. Page
- Press to talk to the other headsets without being heard at the speaker post
- Belt-packs can be programmed for Page Monitor Mode, they will only hear communication from other belt-packs that are using the Page button and will not hear communication to or from the speaker post
- To program a belt-pack for Page Monitor Mode, hold Page button down while powering the headset on.
- To exit Page Monitor Mode turn the belt-pack off and back on

2. Volume Down
- Listening volume can be adjusted in 7 steps from the lowest to highest setting. When the belt-pack is powered on, the listening level will be near mid-level and can be adjusted 3 steps up or 4 steps down. A short tone will be heard each time the volume is adjusted. A long tone is heard when the lowest or highest level is reached.

3. Volume Up
- Turns up incoming audio from speaker post. See previous section for details

4. Power LED
- Green when belt-pack is powered on
- Red when talk-lock is in use
- Flashes green during channel programming

5. Power On / Off
- Press to turn power to belt-pack on or off

6. Talk Lock
- Used with a full-duplex system, press to activate hands-free communication
- When car arrives at speaker post, press to activate. Communication will automatically deactivate when car leaves speaker post and automatically reactivate when next car arrives
- Press Talk 1 or Page to deactivate Talk Lock
- Only 1 belt-pack at a time can use Talk Lock and no other headsets can talk to the speaker post
- Disabled or enabled by holding Talk Lock button down when the headset is being powered up

7. Talk 2
- Has the exact same function as Talk 1 when used with a single lane system
- On Dual and Cross Lane systems Talk 2 will be programmed to communicate with Lane 2

8. Talk 1
- Activates communication to outside speaker
- Will also be heard by other headsets and possibly grill speaker (depending on system configuration)
- Can be used to test incoming and outgoing audio even when no car is present
- On half-duplex systems, press to talk and release to listen
- On full-duplex systems incoming audio will be heard even while Talk 1 is pressed
- On Dual and Cross Lane systems Talk 1 will be programmed to communicate with Lane 1

9. Headset Jack
- The 2 prong headset connector plugs in here

10. Battery Compartment
- Battery goes here

11. Battery Release
- Slide back to release battery from compartment