Remodeled ISS / DG Interactive Store

A few days after a Dollar General Store with a Digital Witness has been remodeled ISS has been asked to perform the following task.

Existing Interactive –

- All cameras need to be checked and confirmed labeled properly and moved to ensure view are correct per installation guide
- Emergency phones confirmed working – register, stockroom and managers office
- Contact button at register working properly
- PVM's – liquid laundry, cosmetics and front door (should be moved to ensure camera and monitor catch areas properly)
- A red phone and 2 panic buttons will be shipped as these items typically are discarded during the remodel. Instructions for installing the panic buttons will be found in this guide.
- **Additional items need to be reported so they can be quoted as needed.**

If the job will take more than 10 hours, requires additional materials or a lift, it must be quoted to DG for approval. Do not use truck stock other than non- inventory miscellaneous materials. If materials and/or additional labor is required, please make a list and email to the following:

Prinze Cobb = prinze.cobb@interfacesys.com 469-975-9361

Nick Huck = nick.huck@interfacesys.com 314-595-0121

Paul Mack = paul.mack@interfacesys.com 314-595-0232

Email the signed COC to Paul Mack

CAMERA SAMPLE VEIWS

CAMERA 1 – FRONT DOOR

CAMERA 2 – REGISTER 1

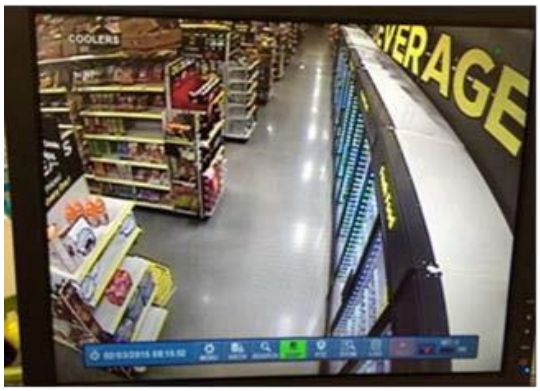
CAMERA 3 – REGISTER2/SAFE

CAMERA 4 - OFFICE

CAMERA 5 – MEN'S UNDERGARMENTS

CAMERA 6 – HEALTH AND BEAUTY

CAMERA 7 – FIRST AID AND COUGH



CAMERA 8 – REFRIDGERATION

CAMERA 9 – BACK AISLE

CAMERA 10 – LIQUID LAUNDRY

CAMERA 11 – RECEIVING

CAMERA 12– DSD

CAMERA 13 – HEALTH

CAMERA 14 – REGISTER 3/SAFE

CAMERA 15 – MULLION CAMERA

CAMERA 16 – FRONT EXTERIOR

NOTE: CAMERA 2, REGISTER 1 CAMERA MUST SHOW CUSTOMER AT THE CASH WRAP.

CAMERA 14 – REAR EXTERIOR, (OPTIONAL CAMERA VIEW IF NO REGISTER 3 IS ON SITE).

Public View Monitors (PVM) – Each site is required to have 3 PVMs. These PVMs are required to be in the following 3 locations facing a specific direction and showing specific video content. Please see the below template to bring site up to expected standard.

PVM NO.	PVM VIDEO CONTENT	PVM LOCATION	PVM FACING
1 32" Monitor	CAMERA 1 - ENTRY DOORS	10-20' inside front door, directly in front of door	PVM should be facing the customers as they enter the building
2 22" Monitor	CAMERA 10 - LIQUID LAUNDRY AISLE	Physically mounted within the aisle in which the camera is viewing	Facing down the protected aisle so that shoppers in the aisle can see themselves in the aisle – PVM centered in aisle can face either aisle direction
3 22" monitor	CAMERA 6 – COSMETICS AISLE	Physically mounted within the aisle in which the camera is viewing	Facing down the protected aisle so that shoppers in the aisle can see themselves in the aisle – PVM centered in aisle can face either aisle direction

EXAMPLE PVM VIEWS

PVM ONE, (CAMERA 1 – FRONT ENTRANCE)

PVM TWO, (CAMERA 10 – LIQUID LAUNDRY)

PVM THREE, (CAMERA 6 – COSMETICS)

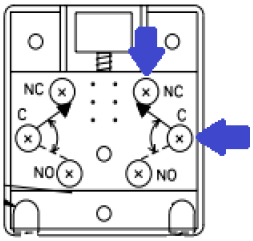
Verify Camera Labels Match Views

a. Through "CHAT", verify and/or modify camera titles with ISS TTU. (TTU may be able to adjust camera titles remotely). Assist with description of the screen shot, if asked.
b. Once the camera views and camera labels have been verified, move on to the next step. DO NOT GO ON TO THE NEXT STEP UNTIL THE DVR CAMERA VIEWS AND CAMERA LABELS HAVE BEEN 100% VERIFIED AND SIGNED OFF WITH ISS TTU.

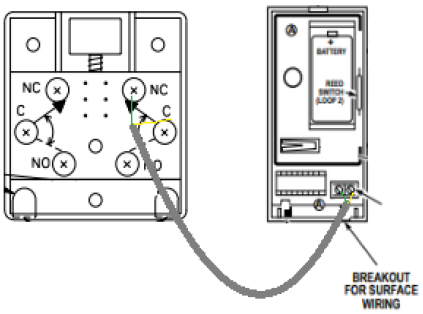
WIRELESS PANIC BUTTON INSTALLATION: (A 5816WMWH and HUB-M were shipped for each Panic being replaced).

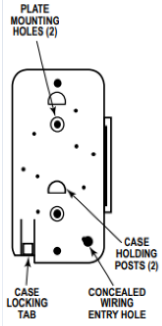
a. You will also need 12" of 22/4 wire minimum.
b. Remove 5816 from packaging and open the cover by pushing on the tab as shown.

c. Notate the serial number to be given to the help desk during the following step.
d. Open the Hub M by removing the screw or screws and locate the NC screw Terminals on either side.



e. Connect a wire from the screw terminals at the 5816WMWH to the HUB-M as shown.





f. Mount the 5816WMWH using the provided bracket and screws, below the Panic Button which will also be mounted using the provided screws.
g. Snap the cover for the 5816WMWH back in place and screw the cover for the panic back on.

Test Audio, Hold Ups and Emergency Phone:

a. IMPORTANT STEP: Through "Chat", request be placed on **"TEST" before testing the HUBs and Emergency Phone.**
b. Pick up the Red Phone. Verify two-way audio with C3.
c. Activate POS1 and POS2 Hold-Up Buttons. Verify with Plano Installs both signals were received.
d. Once HUB signals are verified, Plano Installs will issue a Close Code. Make sure you document this Close Code on the Certificate of Completion.
e. Complete the Certificate of Completion, (including Close Code), and have the MOD sign.

Date: September 29, 2021

To: All Interface Security Employees & Contract Personnel

From: April Stang

Subject: **Monthly Code Word for October 2021**

In the interest of Life Safety and Security regarding our Customer's data, please use the following code word for the month of October 2021, when calling any of our departments within the Earth City Security Operations Center and Plano Command & Control Center.

The code word for the month of October: **Equinox**

We will begin using this new code word on Friday, October 1, 2021.

NETWORK SKILLSET

Digital Witness NEW BUILD 2019

Confidential and Proprietary

Date of Guide, APRIL 1, 2019

Revision 1.0.0

Revision Control:

Current version: 4/1/2019, V1.0.0
Previous version:

Changes: None

COMMUNICATIONS DIRECTORY

Responsibilities	Contact Information	
Onepath TAC Cabling, Missing Equipment, Site Log In, Cabinet Health Check	Direct	(800) 493-0016, Opt 3
Project Manager Paul Mack Installation Communication	Direct Cell Email	(314) 595-0232 (314) 734-9298 Paul.Mack@interfacesys.com
Earth City ISS TTU Activate SIM Broadband Connection Issues	Direct	(888) 269-7535
Technician Support / Help Desk Verify configuration, review tested signals, and make final preparation of site to go online.	Direct Email	(866) 227-8180 installs@interfacesys.com
Interface "CHAT		www.interfacesys.com/technicians

Overview:

In this installation, you will be removing the existing security system, in most cases an alarm panel and a basic CCTV system, replacing it with the Interface Security Systems Interactive solution called **Digital Witness**. With the Digital Witness solution, you can **virtually observe the entire store by the use of cameras, speakers and microphones. Our Central Station is able to** watch, listen to and speak directly to any Dollar General location from our central command centers. This real-time technology provides video and audio verification to law enforcement and significantly reduces false alarms. You will be installing an all-in-one cabinet containing a DVR, alarm panel, two-way audio devices, as well as communication devices to send the information back to ISS monitoring.

For the installation, there will be two FEs or technicians on-site. This Install Guide outlines the responsibility for the **ALARM FE**. Some overlap of responsibilities may occur for each Field Engineer however, the Alarm FE will be considered the **"Lead Technician"** and is ultimately responsible for the site's successful completion.

This will be a four-day installation, with Milestone Goals required to completed by the end of each installation day. Please read this Install completely before starting any work on site.

REQUIRED TOOLS

Ladder (Minimum 8' step ladder)

Alarm/Security Standard Tool Kit, (Including, but not limited to):

- Multi-Meter
- #1, #2 and #3 Phillips Head Screwdrivers
- 1/4", 3/16 and 5/16" Flat-Blade Screwdrivers
- Phillips and Flat-Blade "Tweaker" Screwdriver
- 8" Torpedo Level
- Diagonal Cutters
- Wire Strippers, (capable to 22 gauge stranded)
- Long-Nose Pliers10"
- Adjustable wrench
- Crimping tool – RJ45 Plug
- Utility knife
- Protective eyewear

Butt Set

Label Maker, With Supplies

Wire Tracer/Toner

25' Tape Measure

Fish Tape

"Green" Sticks

Coax BNC Crimp Tool/Compression Tool

RJ45 Crimp Tool

3/8" 18-Volt Cordless Drill, w/ Spare Battery, ("Hammer" function recommended but not required)

Set of Standard Jobber Drill Bits

Set of Masonry Drill Bits

Digital Camera, (Cell phone camera will suffice)

Cell Phone

REQUIRED MATERIAL/SUPPLIES

22/4 Cable – Minimum 500' (Plenum preferred)

Fastener Assortment

RJ45 Connectors

Coax Connectors

Tie Wraps, ("ZIP Ties)

Splice Caps, ("B" Connectors)

TRAINING VIDEOS

If at any time during this conversion, you get stuck, or have a question about a particular subject, Interface Security Systems has published a series of **Training Videos** to assist you in answering your questions before you have to make a call or log onto "CHAT" to get assistance. Topics covered in these Training Videos include:

- **EOL Resistors**
- **Iverify Cabinet Circuit Board Identification**
- **Iverify Cabinet Wiring Identification**
- **Digital Witness Cabinet Identification**
- **Mounting the Digital Witness Cabinet**
- **Umbilical Cable Connection**
- **Red Phone Troubleshooting**

To logon onto the training video site, go to http://marcom.interfacesys.com/Pwd/DW/login.html and enter username: **tech** password: **training2017** and simply "click" on the **Training Video** you wish to review.

BASIC INSTALLATION TIMELINE

ALARM SKILLSET SCOPE	HOURS	NETWORK SKILLSET SCOPE	HOURS
DAY 1			
Inventory Parts List	0.5	Inventory Parts List	0.5
Alarm System Conversion	6.0	Install Audio Cabinet, CP Online Run Burg Panel RJ45	2.0
		Audio Wires Pulled to Location,	5.5
Alarm Testing and Bring On-Line	1.5		
DAY 2			
CCTV Wire Pulls/Camera Install (If additional time is available start/complete PVM installation)	8.0	CCTV Wire Pulls/Camera Install (If additional time is available start/complete PVM installation)	8.0
DAY 3			
DVR De-Install, New DVR and Power Supply Installation	6.0	Install and connect all audio devices	6.0
Focus and Zoom Cameras	2.0	Test Audio Devices	2.0
DAY 4			
Any Remaining Tasks	4.0	Any Remaining Tasks	4.0
Signage	1.0	Rapid Response testing	4.0
Photo Tasks and Close Out Documentation	3.0		

Milestone 1:

- Inventory parts shipped to site. If there are any parts shortages, contact TAC immediately.
- Audio Cabinet with Broadband connection will be installed. NO 4G GSM COMMUNICATION FOR THE ALARM PANEL will be used for this deployment except in the rare occurrence where the Broadband connection is defective.
- The alarm end devices installed
- Alarm Panel and Zone Expansion Module installed and converted to Plano/C3 monitoring.
- Minimum Perimeter Burg will be tested and activated with C3 before 12:00 noon the day of the install.
- All audio wires pulled to their location.

Milestone 2:

- Pre-wire for the Cameras.
- Install the cameras at the new location.
- Make the power and coax connections at this camera. Adjust the direction, zoom and focus after it is installed. This will put a new camera on the existing DVR until the Head-End conversion is complete.

Milestone 3:

- Installation of the new DVR monitor and mouse on the manager's desk.
- Installation of the new camera power supply.
- Connection of the DVR, audio cabinet, and re-connection of the alarm Broadband connections to the Netgear switch.

Milestone 4:

- Install Emergency Phones
- Convert all audio over to the new audio cabinet, speakers, mics and Emergency Phones
- Test the audio capability.
- Test Remote View capability of DVR.
- Place site on Rapid Response status with C3, Plano.

Exception Scope of Work

- For all Exception work, the Addendum Request will be created from the Cognito Site Surveys.
- The Project Manager will create the Addendum Request and send to the Account Manager for the Addendum Creation and approvals.
- ALL APPROVALS WILL NEED TO GO THROUGH S.O.E. FOR TICKET CREATION.
- After exception work is complete, a Final Audit will be conducted with the PM before leaving site.

PRIOR TO ENTERING STORE.

a. Ensure you have the correct ISS monthly password. If you do not know the current password, contact Onepath TAC, at (800) 493-0016 Option 3.
b. Contact Installs via "CHAT" to have them place the existing alarm system placed on test for the duration of the alarm conversion.

PRELIMINARY SET-UP

a. Enter the premise and introduce yourself as a representative of Interface Security Systems and that you are there to convert the security system.
b. Un-box and verify the parts on-site match the Parts List, APPENDIX 3. Notify Onepath TAC IMMEDIATELY if any equipment is missing.

INTRODUCTION

THIS INSTALL GUIDE REFLECTS THE DOLLAR GENERAL DIGITAL WITNESS NEW BUILD SCOPE OF WORK. PLEASE READ THIS ENTIRE GUIDE PRIOR TO BEGINNING THE DIGITAL WITNESS CONVERSION. THIS IS AN EXTREMELY LARGE SCOPE OF WORK. IT IS HIGHLY RECOMMENDED THAT YOU PRINT THIS INSTALL GUIDE IN COLOR PRIOR TO ARRIVING ON SITE. THERE WILL BE TWO TECHNICIANS ON SITE, ONE WITH AN ALARM SKILLSET AND ONE WITH A NETWORK SKILLSET, BOTH WITH DIFFERENT RESPONSIBILITIES TO ACCOMPLISH THE SAME GOAL OF RAPID RESPONSE STATUS OF THE INTERACTIVE SYSTEM. IT WILL BE NECESSARY TO COMMUNICATE WITH THE OTHER TECHNICIAN AS HIS/HER SUCCESSFUL COMPLETION OF CERTAIN STEPS WITHIN THIS SCOPE MAY DEPEND ON YOUR SUCCESSFUL COMPLETION OF YOURS.

In this conversion, you will be installing the Interface Security Systems Interactive solution called Digital Witness. With the Digital Witness solution, you can virtually observe the entire store by the use of cameras, speakers and microphones. Our Central Station is able to watch, listen to and speak directly to any Dollar General Interactive location from our central command centers. This real-time technology provides video and audio verification to law enforcement and significantly reduces false alarms. You will be installing modular cabinets containing two-way audio devices, a DVR, alarm panel, as well as communication devices to send the information back to ISS monitoring.

IF YOU SEE THIS CABINET ON SITE, STOP, DO NOT TOUCH. THIS IS NOT AN INTERFACE CABINET!

NETWORK SKILLSET MILESTONE ONE:

SPEED AND "PING" TEST

a. Before you start your speed test, determine whether the Cradlepoint SIM is active that is installed in the Audio Cabinet. You may need to activate the SIM in the Cradlepoint.
b. Every Cradlepoint should have been shipped with a activated AT&T SIM installed.
c. Un-box the Audio Cabinet, the UPS Power Supply and the GS-105 Unmanaged Switch.
d. Power up the Audio Cabinet and wait for the Cradlepoint to go "on-line".
e. Plug your laptop into the Ethernet port closest to the power port on the Cradlepoint. Open any browser and see if you can "surf".
f. If you are not able to surf from the CP, contact EARTH CITY TTU at (888) 269-7535 to activate the SIM in the Cradlepoint.
g. After the SIM has been activated, verify you can surf, and then perform the speed test below.
h. If your speed test is less than 768K upload speed, contact your Project Manager immediately.

Store Number: _____

Primary Broadband Test Results:

	PING TIME	DOWNLOAD SPEED	UPLOAD SPEED
TEST 1			
TEST 2			
TEST 3			

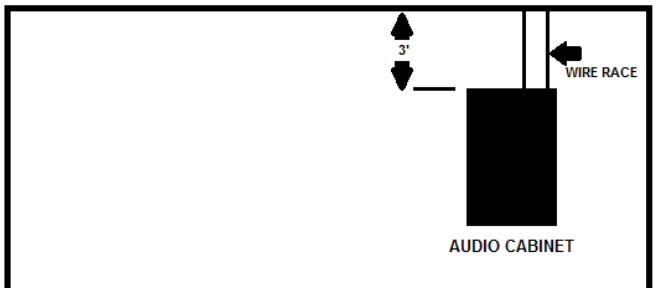
ONCE THIS SPEED TEST TABLE IS COMPLETE, TAKE A PHOTO OF THIS PAGE AND IMMEDIATELY EMAIL THE PIC TO: PAUL.MACK@INTERFACESYS.COM

MOUNT THE AUDIO CABINET

INTERACTIVE AUDIO CABINET

a. Determine where in the manager's you will install the Audio Cabinet. If you feel you need to mount this cabinet other than in the manager's office, please contact your Project Manager for approval.
b. Permanently mount the Audio Cabinet. Make sure the cabinet is "in range" of a non-switched power outlet.

c. The cabinet will be hung NO MORE THAN THREE, (3), FEET DOWN FROM THE CEILING.
d. Mount the Universal Wire race. There should be no gaps from the cabinet to the race, and no gap from the race to the ceiling. See illustration below:



UNIVERSAL WIRE RACE

e. Mount the UPS Power Supply centered, under the Audio Cabinet at this time.
f. Place the GS105, Unmanaged Switch in the bottom of the Audio Cabinet and run the transformer wire to the UPS Power Supply.
g. Connect the Primary Broadband Connection from the Cradlepoint to PORT 1 of the Switch.
h. CONNECT THE BROADBAND CONNECTION TO THE IP7 PRIMARY AT THIS TIME.
i. Once the Audio cabinet is hung and the Cradlepoint is on line, continue to the next step.

AUDIO ZONE PRE-WIRE

a. There will be (5) Audio Zones located throughout the store:
   - AUDIO ZONE 1 – CASH WRAP
   - AUDIO ZONE 2 – COSMETICS AISLE
   - AUDIO ZONE 3 – LIQUID LAUNDRY AISLE
   - AUDIO ZONE 4 – SALES FLOOR SIDE OF STOCKROOM ENTRANCE
   - AUDIO ZONE 5 – OUTSIDE FRONT ENTRANCE – EXTERIOR MIC AND SPEAKER
b. Run all audio wire from Manager's Office Head End to the speaker/mic end point. All audio wires will be ran using a single jacketed cable consisting of an unshielded 22/4 pair for the speaker audio, and a shielded pair for the microphone.
c. All wiring will be installed using wire-control rings, and/or "j" hooks, according to local code and guidelines. IT IS UNACCEPLTABLE TO LAY WIRES LOOSE ABOVE THE DROP CEILING. It is acceptable to use the same wire chase for alarm, audio and video.

d. For the Front Exterior Audio Zone, and the optional Rear Exit camera, it will be necessary to make an exterior wall penetration. An outdoor sealant will be required to seal the penetration when complete. See illustration below:

e. Since there are certain audio and phone wire runs that terminate in close proximity to each other, you will be pulling multiple wires in one pull. ALWAYS START YOUR WIRE PULL AT THE LOCATION OF THE END DEVICE AND PULL BACK TO THE HEAD-END.
f. YOU WILL BE REQUIRED TO LEAVE A 25', (OR MORE, WHEN REQUIRED), SERVICE LOOP FOR EVERY WIRE AT THE DEVICE END, AND A 10' SERVICE LOOP AT THE HEAD END.
g. DO NOT REMOVE OR DISCONNECT ANY EXISTING CAMERAS AT THIS TIME.
h. NEATLY COIL UP YOUR SERVICE LOOP ENDS AND LEAVE ABOVE THE CEILING. THESE CONNECTIONS WILL BE MADE LATER IN THIS INSTALL.
i. Your first wire pull will be for Audio Zone 1. The wires for this first pull will be:
    - Audio Wire for AZ-1 – Register One
    - Audio Wire for AZ-5 – Front Exterior
    - CAT5 Wire for the Cash Wrap Emergency Phone
j. MAKE SURE YOU LEAVE ENOUGH SERVICE LOOP TO REACH YOUR FINAL TERMINATION POINT.
k. Your second wire pull will be for Audio Zone 2. The wires for this pull are:
    - Audio wire for AZ2 – Cosmetics
l. Your third wire pull will be for Audio Zone 3. The wires for this pull are:
    - Audio wire for AZ-3 – Liquid Laundry
m. Your fourth wire pull will be for Audio Zone 4. The wires for this pull are:
    - Audio wire for AZ4 – Sales Floor Side of the Stockroom
    - CAT5 Wire for Stockroom Emergency Phone
n. The last wire pull will be the short CAT5 wire for the Office Emergency Phone

NETWORK SKILLSET MILESTONE TWO:
AUDIO AND CCTV INSTALLATION – Day 2 Scope of Work is the same for both FEs

a. Before you begin the CCTV conversion, there are "rules" that must be strictly adhered to. These rules are as follows:
    - YOU WILL BE REQUIRED TO RUN NEW VIDEO SIAMEZE WIRE TO THE NEW CAMERA LOCATIONS. MAKE SURE THE COAX WIRE AND BNC CONNECTORS ARE IN GOOD CONDITION AFTER PULLING.
    - You must adhere to the Standard Camera Label List. There will be no exceptions without prior approval from the Project Manager.
    - Every camera will be installed at a specific location and display a specific view required for each camera. Sample pictures are provided in this Guide.
b. The Standard Camera Label list and proper device location is as follows:

CAMERA NO.	CAMERA DESCRIPTION	VIEW DEFINITION
1	ENTRY DOORS	*ABOVE THE FRONT ENTRY DOORS, ALL OF THE DOOR CAPTURED IN THE FRAME
2	REGISTER 1	ABOVE OR SLIGHTLY BEHIND THE REGISTER ONE CASHIER CAPTURE THE POS IN FRAME
3	REGISTER 2/SAFE	VIEW DOWN THE CASH WRAP AISLE, CAPTURE REGISTERS AND SAFE.
4	OFFICE DOOR/DESK	VIEW CAPTURING DESK TOP AND DOOR, NOT THE BACK OF THE MANAGER SITTING AT DESK.
5	MEN'S UNDERGARMENTS	VIEW CAPTURING PACKAGED MEN'S UNDERGARMENTS
6	COSMETICS	*VIEW CAPTURING COSMETIC AISLE.
7	FIRST AID & COUGH	VIEW CAPTURING FIRST AID AND COUGH MEDICINE AISLE
8	REFRIGERATION	VIEW LOOKING ACROSS REFRIDGERATORS, GOAL IS TO CAPTURE SLIP AND FALLS
9	BACK AISLE	VIWE LOOKING ACROSS THE REAR AISLE OF THE STORE
10	LIQUID LAUNDRY	*VIEW CAPTURING LIQUID LAUNDRY SECTION OF THE LAUNDRY AISLE
11	RECEIVING	CAPTURE THE MAN DOOR AND AS MUCH OF RECEIVING AS POSSIBLE
12	DSD	SIDE VIEW OF INSIDE FRONT DOOR DELIVERY STAGING AREA
13	HEALTH	CAPTURE BAND AID, ANTISEPTIC AISLE
14	SAFE	VIEW DOWN THE CASH WRAP AISLE, CAPTURE REGISTERS AND SAFE.
15	FRONT DOOR MULLION	HEIGHT STRIP CAMERA, CAPTURE CUSTOMER FACES AS THEY ARE LEAVING THE STORE
16	FRONT EXTERIOR	CAPTURE EXTERIOR FRONT ENTRANCE AREA
*	PVM CAMERA	

c. There are also (3) required PVM, (P)ublic (V)iew (M)onitors required for every site. Front Entrance, Liquid Laundry Aisle, and Cosmetic Aisle are all the required locations for the PVMs.

RUN ALL CCTV SIAMESE FROM CAMERA AND PVM LOCATIONS TO THE DVR

a. Run all camera coax wire from Manager's Office to the camera end point. All camera wires will be ran using coax "Siamese" plenum.
b. All wiring will be installed using wire-control rings, and/or "j" hooks, according to local code and guidelines. IT IS UNACCEPLTABLE TO LAY WIRES LOOSE ABOVE THE DROP CEILING. It is acceptable to use the same wire chase for alarm, audio and video.

NOTE: Camera 3 and Camera 14 "RULES" to determine Siamese wire run locations.

c. If there are ONLY 2 Cash Register Stations in the store, Camera 3 will be labeled REGISTER 2 AND SAFE, and the camera view will look like the following illustration:

d. The camera will be mounted above and to the left of the cash register, aimed down the "aisle" behind the Cash Registers and capturing the Safe in the frame.
e. Camera 14 now becomes the Rear Exterior Door camera.

f. If there are three Cash Register Stations in the store, Camera 3 becomes **REGISTER 2 CAMERA** with the following view:

g. Camera 14 then becomes **REGISTER 3 AND SAFE CAMERA, with no EXTERIOR REAR DOOR CAMERA.**

h. A Floor Plan drawing may be made available to you. Contact your Project Manager if you need this document.

i. YOU WILL BE REQUIRED TO LEAVE A 25', (OR MORE, WHEN REQUIRED), SERVICE LOOP FOR EVERY WIRE AT THE DEVICE END, AND A 10' SERVICE LOOP AT THE HEAD END.

j. Terminate the Camera and PVM end of the wire run with a BNC connector, once the wire run is complete.

k. **NEATLY COIL UP YOUR SERVICE LOOP ENDS AND LEAVE ABOVE THE CEILING. THESE CONNECTIONS WILL BE MADE LATER IN THIS INSTALL.**

PVM LOCATIONS

PVM NO.	PVM DESCRIPTION	DESCRIPTION OF PVM VIEW
1	CAMERA 1 - ENTRY DOORS	install 32" pole-mounted PVM if no PVM on existing system
2	CAMERA 10 - LIQUID LAUNDRY	install 22" pole-mounted PVM if no PVM on existing system
3	CAMERA 6 - COSMETICS	install 22" pole-mounted PVM if no PVM on existing system

INSTALL CAMERAS AND PVMS

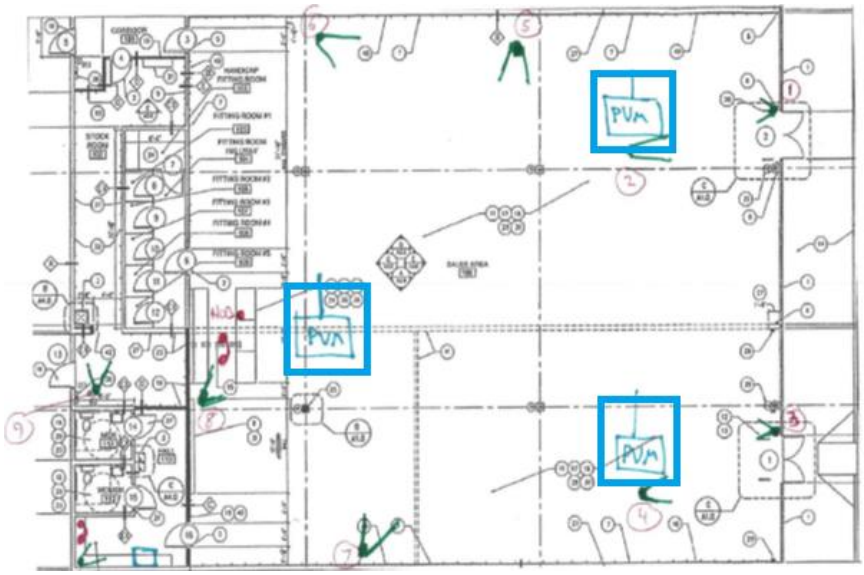
a. ENSURE TO LABEL ALL THE WIRES AT THE HEAD END EQUIPMENT LOCATION. You must leave 25 feet of extra cable at each camera drop, plus the length of the camera drop, to be safe leave 35'.

b. All cameras must be installed between 10 to 14 feet above ground. Exterior cameras, if any, may be mounted higher to avoid any possible vandalism. Use the camera mounts provided according to the manufacturer's specifications.

c. Because of the different floor plans for each store, there is no "General Camera Location" illustration included in this Guide. Please refer to your specific Floor Plan for you site at the end of this Guide.

HIKVISION TURBO DOME CAMERA

d. Install all the cameras at the designated location according to the Camera label Template discussed earlier.
e. It is acceptable to connect the BNC and power wires to the camera at this time. The Head-End connection will be made later.
f. Install the PVM on Sales floor using the extension pole. The length of these poles may vary depending on ceiling height. (See your Floor Plan for locations).
g. Entrance 32" PVM is facing front entrance displaying just the Front Entrance camera. The Cosmetic 21.5" PVM will be hung above the **Cosmetic Aisle** displaying the camera view. The **Liquid Laundry Aisle** camera, 21.5" PVM, will be displaying the Laundry camera only.

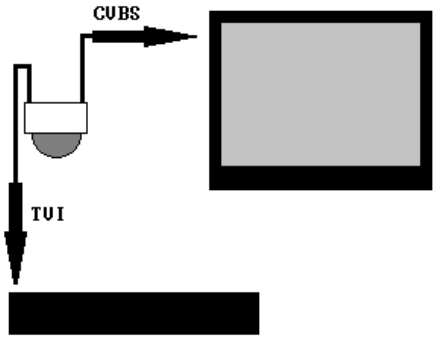


PVM LOCATION

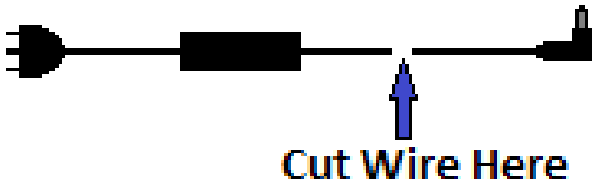
l. Bottom of PVM must measure in height between 9 feet from ground.
m. If required, extend the power transformer wire using 18/4 wire, doubled, using red and white as the [+] leg, black and green as the [-] leg.
n. Mount the PVM using the monitor mounting pole provided. Install these mounts in accordance with the manufacturer's specifications.

o. The below illustration gives basic instructions on how the camera and PVM are to be wired for the PVM monitors:

POWER – CAMERA POWER SUPPLY
TVI/TURBO CONNECTOR - DVR COAX WIRE RUN
CVBS/ANALOG CONNECTOR – PVM COAX WIRE RUN



p. Power Wiring – You will notice the 21.5" PVMs are 12vdc powered monitors, not 120vac. The reason we use the 12vdc devices is so that we can extend the power wire, UP TO (60) FEET, in order to power these monitors without having to install a new power outlet.
q. This is accomplished by "cutting in" a length of 22/4 or 18/4 on the low-voltage side of the transformer.
r. Determine the length of wire you will need to reach the outlet from the monitor, and cut wire to



length. DO NOT USE 22/2 or SMALLER DIAMETER WIRE FOR THIS CONNETION. If you are using 22/4 or 18/4 wire, strip back wire jacket and twist the RED and WHITE together and then twist the GREEN and BLACK wire together.

s. **IMPORTANT** - This is a polarity sensitive connection. Make sure you observe polarity when making this connection. ALWAYS CONNECT THE RED/WHITE PAIR, (if using 22/4 or 18/4) OR THE RED WIRE, (if using 18/2), to the low voltage transformer wire WITH THE WHITE STRIPE RUNNING THE LENGTH OF THE WIRE. The GREEN/BLACK PAIR, (if using 22/4 or 18/4) OR THE BLACK WIRE, (if using 18/2), to the low voltage transformer wire WITH NO WHITE STRIPE.
t. The connection can be made using either wire nuts or "B" style crimp connectors.

CAMERA SAMPLE VEIWS

CAMERA 1 – FRONT DOOR

CAMERA 2 – REGISTER 1

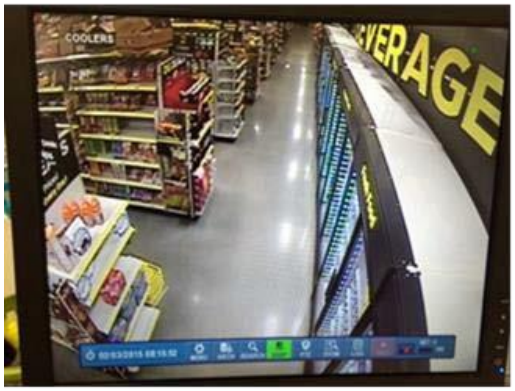
CAMERA 3 – REGISTER2/SAFE

CAMERA 4 - OFFICE

CAMERA 5 – MEN'S UNDERGARMENTS

CAMERA 6 – HEALTH AND BEAUTY

CAMERA 7 – FIRST AID AND COUGH



CAMERA 8 – REFRIDGERATION

CAMERA 9 – BACK AISLE

CAMERA 10 – LIQUID LAUNDRY

CAMERA 11 – RECEIVING

CAMERA 12 – DSD

CAMERA 13 – HEALTH

CAMERA 14 – REGISTER 3/SAFE, (SELECT STR

CAMERA 15 – MULLION CAMERA

CAMERA 16 – FRONT EXTERIOR

CAMERA 14 – REAR EXTERIOR, (OPTIONAL CAMERA VIEW IF NO REGISTER 3 IS ON SITE)

Public View Monitors (PVM) – Each site is required to have 3 PVMs. These PVMs are required to be in the following 3 locations facing a specific direction and showing specific video content. Please see the below template to bring site up to expected standard.

PVM NO.	PVM VIDEO CONTENT	PVM LOCATION	PVM FACING
1 – 32" monitor	CAMERA 1 - ENTRY DOORS	10-20' inside front door, directly in front of door	PVM should be facing the customers as they enter the building
2 – 22" monitor	CAMERA 10 - LIQUID LAUNDRY AISLE	Physically mounted within the aisle in which the camera is viewing	Facing down the protected aisle so that shoppers in the aisle can see themselves in the aisle – PVM centered in aisle can face either aisle direction
3 – 22" monitor	CAMERA 6 – COSMETICS AISLE	Physically mounted within the aisle in which the camera is viewing	Facing down the protected aisle so that shoppers in the aisle can see themselves in the aisle – PVM centered in aisle can face either aisle direction

EXAMPLE PVM VIEWS

PVM ONE, (CAMERA 1 – FRONT ENTRANCE)

PVM TWO, (CAMERA 10 – LIQUID LAUNDRY)

PVM THREE, (CAMERA 6 – COSMETICS)

Once all of the coax wire has been run and the cameras are installed, your Milestone Two Scope of work is complete.
NOTE: THERE IS NO TTU EVENT FOR THIS STEP.

MILESTONE THREE:
INSTALL AUDIO END DEVICES

a. There will be 5 Audio Zones per store:
   - AUDIO ZONE 1 – CASH WRAP
   - AUDIO ZONE 2 – COSMETICS AISLE
   - AUDIO ZONE 3 – LIQUID LAUNDRY AISLE
   - AUDIO ZONE 4 – SALES FLOOR SIDE OF STOCKROOM ENTRANCE
   - AUDIO ZONE 5 – OUTSIDE FRONT ENTRANCE – EXTERIOR MIC AND SPEAKER

2. Audio Zone 1 will always be at the Cash Wrap at REGISTER 1. Please follow the provided specific floor plan for the location of the rest of the Audio Zones.

3. For the (exterior speaker and mic, it will require a wall penetration. Identify where you are going to access the inside of the store through the penetration point – access piping may need to be installed to allow wiring to be run into the building from the outside. See Picture below:

4. One wall penetration must be made for the exterior audio zone cable, (1) pair for the speaker, (1) pair for the microphone.

5. Mount the EK-150RT, Exterior Speaker per installation instructions included with each speaker. The speaker will be mounted at the front entrance.

EXTERIOR SPEAKER

6. Connect the UNSHIELDED PAIR of the audio wire to the speaker. Observe polarity.

7. Mount the ISS-EXT-MIC, external microphone a minimum distance of 3 feet from the speaker. This is to reduce or eliminate feedback into the microphone.

8. Connect the SHEILDED PAIR from the audio wire to the microphone. DO NOT CONNECT THE DRAIN WIRE AT THE MICROPHONE. The drain will be connected at the Audio cabinet.
9. Mount the EK-70 speakers per installation instructions included with each speaker. IT IS ACCEPTABLE TO SURFACE MOUNT THESE SPEAKERS TO THE DROP CEILING FOR A HORIZONTAL MOUNT, OR ON AN INSIDE WALL FOR A VERTICAL MOUNT. IT WILL ONLY BE NECESSARY TO USE AN EXTESION POLE IF THE FLOOR PLAN CALLS FOR A "CENTER-FLOOR" SPEAKER IN AN OPEN CEILING STORE.

ELK-70 SPEAKER, COVER OPEN

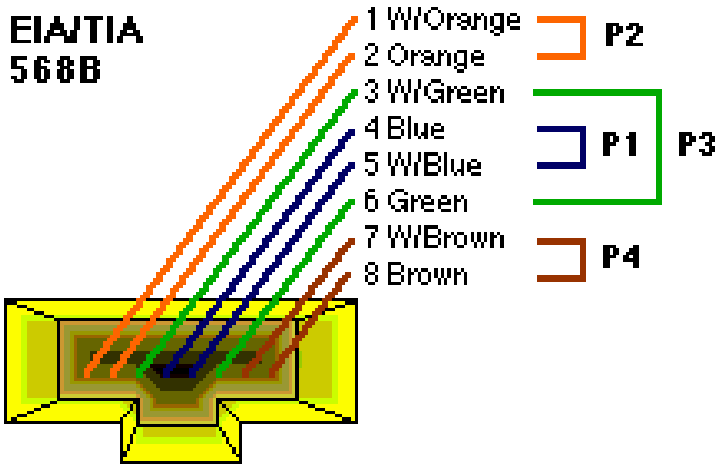
10. Connect the UNSHIELDED PAIR of the audio wire to the speakers. Observe polarity, and one audio wire for each audio zone.
11. Mount the ISS-INT-MIC, internal microphones a minimum distance of 3 feet from each of the interior speakers. This is to reduce or eliminate feedback into the microphone. Specific device location will be designated on your specific floor plan.
12. Connect the SHEILDED PAIR from the audio wire to the microphone. DO NOT CONNECT THE DRAIN WIRE AT THE MICROPHONE. The drain will be connected at the audio cabinet.

EMERGENCY PHONE INSTALLATION

RED PHONE INSTALLATION

INSTALL RJ45 PLUGS ON RED PHONE CAT5 WIRES

a. At each Emergency Phone location, install an RJ45 Plug, 568B on each of the CAT5 wire drops.
b. Install an RJ 45 plug using the 568B wiring diagram below:



INSTALL THREE DID, RED PHONES – (CASH WRAP, MANAGERS OFFICE, AND STOCK ROOM)

a. Shipped to the site are two "styles" of Red Phone. There are two Red Phones shipped with a panic button installed on the side and an Ethernet jack under the phone, and two without.

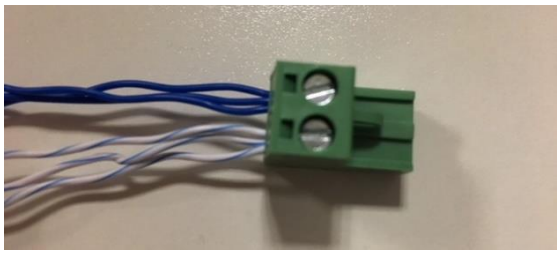
b. For the stock room and Managers office, we will use the Red Phone **WITH** the installed panic button.
c. Remove the wall plate from the back of the phone, mount it in place. For the Manager's office, the phone mounts next to the entry door, and for the stock room, the phone mounts to either side of the entry/exit man door.
d. Securely mount the wall plate to the wall, connect the Red Phone Ethernet plug to the Biscuit jack.
e. For the Register Phone, there are no panic buttons associated with this phone, however the connection is still the same.
f. Install the telephone jack wall plate back box at each RED PHONE location.
g. Connect the RJ45 to the Ethernet Jack.

HEAD END CONNECTIONS

a. Out of the cabinet are your Audio umbilical cables. These cables are labeled MIC1 and MIC2, MIC3, MIC4 and MIC5. Also, SPK1 through SPK5, and PHN.
b. All audio connections are pre-wired inside the cabinet, so there is nothing for you wire inside the cabinet in this step.
c. Land the MICROPHONE wires you labeled earlier to MIC 1/MIC 2 umbilical. IF YOUR MICROPHONE HAS A DRAIN WIRE, (BARE WIRE), LAND THIS WIRE WITH THE GROUND WIRE. IF THERE IS NO DARIN WIRE, JUST CONNECT THE POSITIVE AND NEGATIVE WIRES. POLARITY DOES NOT MATTER FOR THIS CONNECTION. Follow the illustration below:

d. Land the speaker wires in this same fashion. Audio Zones 1 through Audio Zone 5 labeled in an earlier step, on the proper Phoenix connector. INSTALLATIONS HAVE 5 SPEAKER/MIC ZONES. SIMPLY CONNECT THE NUMBER OF MICROPHONE AND SPEAKER WIRES YOU LABELED IN A PREVIOUS STEP.

e. Land ALL the Emergency Phone wires on the Phoenix connector labeled **PHN** as follows: Remember your Phone connection at the Audio Cabinet. Land all solid color wires on one terminal, land all white-striped wires on the opposite terminal.



f. Once all the Audio Cabinet connections are made, place the Audio Wires in the Universal Wire Race and snap on the cover. All Phoenix connections should be above the ceiling tile. (If hard ceiling, drop all phoenix connectors down into the Audio cabinet).

g. Make sure all the Broadband connections inside the Audio Cabinet are correct.

h. Permanently route and connect the alarm CAT5 cable to Port 4 of the unmanaged switch.

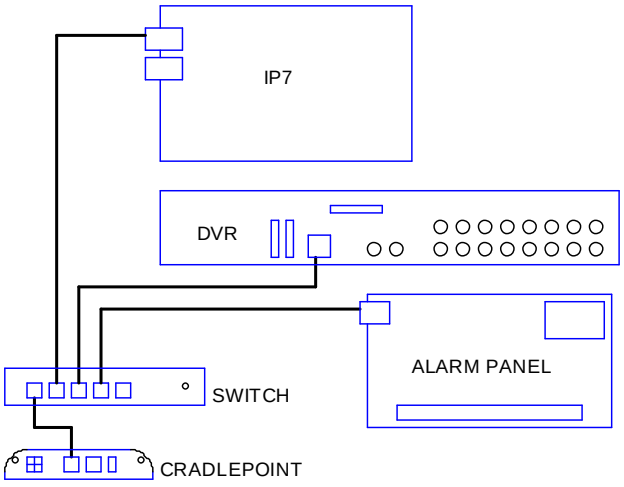
i. Make an Ethernet patch cable to run from the DVR Ethernet port to Port 3 of the unmanaged switch.

j. Make an Ethernet cable and connect to the Primary port of the IP7 Audio board inside the Audio Cabinet to Port 2 of the unmanaged switch.

k. The permanent CAT5 wire runs to these devices will look neat and professional. Proper wire management is required.

l. Connection diagram below:

- Cradlepoint – Port 1 of the unmanaged switch
- IP7 Audio Board - Port 2 of the unmanaged switch
- DVR - Port 3 of the unmanaged switch
- Alarm Panel - Port 4 of the unmanaged switch



m. After these connections are made and link lights have been verified on the 105 switch you can start the Rapid Response testing.

RAPID RESPONSE TESTING

PERFORM TESTING OF THE ENTIRE SYSTEM

a. A full and complete test of the new ALARM system is required. Contact ISS TTU via "Chat", **APPENDIX 2**, to inform ISS TTU that you are about to proceed with the system test, and they will ensure the system is still on test and adjust the time, if required.

b. Start with the alarm panel and HUBs and send these signals **IN ORDER**. It is not necessary to arm the system to send these signals.

   u. **Register One HUB**
   v. **Register Two HUB**
   w. **Office HUB**
   x. **Stockroom HUB**

a. Test the Red Phone off-hook alarm signals. Send these signals **IN ORDER**. It is not necessary to arm the system to send these signals.

   - **Cash Wrap**
   - **Office**
   - **Stockroom**

b. Arm the system and send all conventional zone signals.

c. Through **"CHAT" – DW STANDARD INSTALL.** inquire about signals received, and ISS TTU will verify all alarm signals received. After confirmation of ALL the alarm signals, if this is successful, ISS TTU will "make active" the alarm system.

d. DO NOT GO TO THE NEXT STEP UNTIL ALL OF THE ALARM SIGNALS HAVE BEEN RECEIVED, VERIFIED AND THE ALARM IS ACTIVE.

Verify Camera Labels Match Views

e. Through "CHAT", verify and/or modify camera titles with ISS TTU. (TTU may be able to adjust camera titles remotely). Assist with description of the screen shot, if asked. DO NOT RELOCATE OR RENAME CAMERA 3. THIS SCREENSHOT IS ALSO USED FOR THE FRONT PVM. RELOCATING OR RENAMING WILL AFFECT THE FRONT PVM CAMERA VIEW.

f. Once the camera views and camera labels have been verified, move on to the next step. DO NOT GO ON TO THE NEXT STEP UNTIL THE DVR CAMERA VIEWS AND CAMERA LABELS HAVE BEEN 100% VERIFIED AND SIGNED OFF WITH ISS TTU.

g. Verify Front and Rear PVM views. Under the "View" tab, select ONLY THE INTERIOR, PUBLIC ACCESS AREAS. Do not include the Manager's Office, Stock Room, Hallway, or any exterior cameras.

Verify the PVM views.

Test Audio Voice Downs

h. Through "Chat", request voice downs for each audio zone. **ISS TTU will be removing the site from "TEST". The balance of the testing will be live.**

i. Pick up the Red Phones, one at a time. Verify two-way audio with ISS TTU. You will be asked to respond to test the microphone function.

j. **Audio Zone 1** – Sales Floor. (MIC location near Cash Wrap), **Audio Zone 2** – Stock Room, (MIC located near Rear Door), **Audio Zone 3** – Outside Front of Store, (NO MICS)

k. After all voice-downs have been confirmed. ISS TTU will be calling your cell phone directly, they will conference you into their monitoring center. The monitoring center will ask you to re-test openings

and closing signals with a single HUB. They will also ask you to verify the voice-down on audio zone one, only.

l. After testing with the monitoring center, your Scope is complete. Start on your close-out procedure with ISS TTU.

COMPLETE CLOSEOUT PROCESS:

a. Contact the Installs team via "CHAT"
b. Installs will connect you to the monitoring center, C3.
c. C3 will verify all audio, Emergency phones and Off-Hook zones are working properly.
d. PLANO "INSTALLS" TTU will issue a RAPID RESPONSE close code after test and turn up. Record this on your SR.
e. Clean all work areas
f. Dress all cabling and secure and loose wiring. THE INSTALL MUST LOOK NEAT AND PROFESSIONAL OR A CLOSE CODE WILL NOT BE ISSUED.
g. Complete all remaining photo tasks. (Photos are required in real time for closure with One Path TAC.
h. Train EU on new alarm system and confirm codes are working
i. Have MOD confirm all registers, phones, and store equipment is working properly.
j. Box up all devices removed from the Manager's office, such as the DVR, Cradlepoint, Switch, etc., and ready them for shipping back to One Path.
k. Have MOD fill out Certificate of Completion and sign.
l. Call into One Path TAC and Close SR.

REQUIRED PHOTO TASKS

1. Photo of the camera monitor showing all camera views
2. Photo of installed KP with decal
3. Photo of PVM One with PVM view displayed
4. Photo of PVM Two with PVM view displayed
5. Photo of PVM Three with PVM view displayed
6. Photo of Camera Power Supply and P/S wire management
7. Photo of the emergency phones, signage installed
8. Photo of the signed Certificate of Completion

Appendix 1
Alarm Panel Function

Alarm Panel Operations

- **To Disarm** (Turn off) - Enter your 4 digit code plus 1 (off)
  Example: If your 4 digit code is 2222, you would press 2222-1 to turn off the system upon entering the store or if the siren is sounding. 2222 is the example used for all codes below. When doing any of the examples shown use your 4 digit passcode instead of 2222.

- **To Arm** (turn on) the system *when leaving* - Enter your 4 digit code plus 2 (away) Example enter 2222-2

- **To Arm** the system and *remain in the building* - Enter your 4 digit code plus 3 (stay). This will arm the doors but not the interior motion detectors. Example enter 2222-3

- **To Bypass** (temporarily disable) a zone – Enter you 4 digit code plus 6 (bypass) plus the 2 digit zone number. Enter 2222 6 02 this will bypass zone 2.

- **To Silence Alarms** – Enter your 4 digit code plus 1 (off) Note: The keypad will display ALARM + the zone that went off. You must clear the alarm memory to be able to arm the system again.

- **To Clear Alarm Memory** - Enter your 4 digit code plus 1(off) two times. Example, enter 222-1 and 222-1 again.

- **Turning the chime on or off -** Keypad chimes upon opening an entry door – Enter your 4 digit code plus 9 (chime) Enter 2222-9 to turn on and enter 222-9 again to turn off.

- **Testing the system –** Call Interface to put the system on test. Arm the system to the away mode and trip all devices. Disarm the system when done and clear the alarm memory. Call Interface to verify signals.

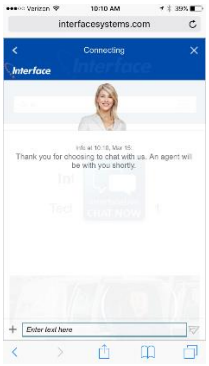
Appendix 2
"Chat" Set Up

Steps for Initiating Chat with Interface Live Agents:

1. Go to http://www.interfacesystems.com/technicians and click on Interface Live Chat button in page center.

2. Next you will be asked several questions in a **mandatory** pre-chat survey. Answer all the questions to ensure your chat is routed to the right team. **DW-SATNDARD INSTALLATION.**

3. After you click to submit, you will be routed to a queue to wait for the next available agent from the appropriate helpdesk.



4. You are now connected to Interface Live.

Appendix 3
Parts List

Burg Parts:

SYSTEM	Item No.	Item Description	Qty Per Site
BURG	PL-HUBM	HOLD-UP BUTTON DPDT MOMENTARY	4
BURG	5816WMWH	DOOR/WINDOW TRANSMITTER W/MAGNET WHITE	2
BURG	4219	8 ZONE EXPANDER	1
BURG	GI-TSC20	DO NOT ORDER, USE STOCK	1
BURG	6160RF	KEYPAD ALPHA ADEMCO	1
BURG	7939WG-WH	SURFACE MNT CONT GY HNYWL LOGO	5
BURG	CK-DT8035	PIR WIRED,35 DUAL TEC, TAMPER,100LB	2
BURG	CK-FG1625T	ACOUSTIC GLASSBREAK TAMP FORMC	2
BURG	CK-IS25100TC	100’ MOTION DETECTOR	2
BURG	DS938Z	360 DEGREE MOTION DETECTOR	1
BURG	VISTA-21IP	8 ZN INTEGRATED IP CNTRL PANEL	1

Audio Cabinet Parts:

SYSTEM	Item No.	Item Description	Qty Per Site
INTVIDEO	UMB-INTER-6MIC	6 MICROPHONE ZONE HARNESS	1
INTVIDEO	UMB-INTER-6SPK	6 SPEAKER ZONE HARNESS	1
INTVIDEO	AX-OLS200	12 VOLT DC 10 AMP OLS P/S	1
INTVIDEO	ISS00151	INTERFACE LARGE AUDIO ENCLOSURE	1
INTVIDEO	EK-800	AMPLIFIER 10 WATT	5
INTVIDEO	CBL-10P12IN	10 PIN 12IN RIBBON CABLE FOR IP7-MZC-FD & IP7-ZX4L	2
INTVIDEO	IP7-MZC-FD	AUD, BOARD 2WAY AUDIO PRIMARY DA	1
INTVIDEO	IP7-ZX4L	AUD, BOARD 2WAY AUDIO 4ZONE EXPANDER DA	2

INTERVIDEO Parts:

SYSTEM	Item No.	Item Description	Qty Per Site
INTVIDEO	4A-XP400	400VA 200W UPS	1
INTVIDEO	CE-CM-SX-6-B	PVM TELESCOPING CEILING MNT BRCKT 3FT-5FT6IN BLACK	3
INTVIDEO	FS2X2XCAPWHFOOT	FOOT INCRAMENTS OF FS2X2WH6NM	3
INTVIDEO	ISS-EXT-MIC	EXTERIOR MICROPHONE	1
INTVIDEO	ISS-INT-MIC	INTERIOR MICROPHONE	4
INTVIDEO	PW-PS1250F1	DEPLETE STOCK THEN USE PW-PS1250F1	2
INTVIDEO	AX-OLS200	12 VOLT DC 10 AMP OLS P/S	1
INTVIDEO	AX-VR1T	24VAC TO 12VDC 1AMP REGULATOR	1
INTVIDEO	ISS-00112	HOUSING HEIGHT STRIP CAMERA(NO CAMERA)DUAL FP POSI	1
INTVIDEO	ISS-8GBUSBDRIVE	4246820 - KINGSTON USB FLASH DRIVE - 8 GB	1
INTVIDEO	ISS-DSD5032FLB	32IN LED MONITOR HDMI DVI VGA 1XBNC 24VDC LOOPING	1
INTVIDEO	ISS-PC140	PENDANT CAP 140MM FITS ISS-DS2CE56D5TAVPIR3 + MORE	2
INTVIDEO	ISS-WMS	WALL MOUNT SHORT W/ JUNCTION BOX-ORDER PENDANT	2
INTVIDEO	KTC-KEZC2MIP4	MINI HD-TVI PINHOLE METAL CASE CAMERA	1
INTVIDEO	PPP-P3AC24168CB	PREFERRED POWER SUPPLY 24VAC, 16 OUTPUT, 8 AMP	1
INTVIDEO	EK-70	SPEAKER 20W INTERIOR PAINTABLE	4
INTVIDEO	ISS-DS2CC52D9TAVPIT	DEPLETE STOCK - USE ISS-DS2CC52D9TAVPIT	15
INTVIDEO	ISS-DS7316HUHIF4N	DEPLETE STOCK - THEN USE ISS-DS7316HUHIF4N	1
INTVIDEO	VK-K1500PWI	MINI RED WALL PHN W/SPCL WRNG	3
INTVIDEO	ISS-DSD5022FC	21.5” LED MONITOR HDMI VGA 2XBNC LOOPING 12VDC	3
INTVIDEO	EK-1RT	SPEAKER S/S ENCL 30W TAMPERS	1
INTVIDEO	IC630DB6WH	WALL PLATE TELEPHON POST 6P6C SCRW TERMINALS WHITE	3
INTVIDEO	CE-UAP	ACY, UNIV ADAPTER PLATE FOR VESA 100-200-300	3
INTVIDEO	WG-12505509	22/2PR 1PR SHLD CM/CL2 5CBX GY	1000
INTVIDEO	WG-50135001	RG59 W/ 18/2 SIAMSE 5C RL WHT	1500
INTVIDEO	WG-50885506	24/4 C5E PLENUM CMP 5C BX BLUE	500
INTVIDEO	TLP602	TRIPP SURGE STRIP 6 OUTLET 2FT CORD	1
IPNETW	WMMG-7-27-5SP	4G CP REMOTE ANTENNA KIT WITH XX' CABLE	1
IPNETW	TA0-650BLP4-N0N	NEW VERSION AT&T SIM NO WIFI COMPACT ROUTER	1
IPNETW	GS105NA	NETGEAR 5-PORT GIGABIT SWITCH	1
IPNETW	ATT-SIM	AT&T SIM CARD	1

Digital Witness to I3 Conversion – "What to Expect"
Store Manager Please Read and Sign!!!

Why are We here?

An ISS technician is here to conduct a Survey for a future upgrade to the existing Digital Witness system with a new Interface Interactive, I3 system. Technician is to install security equipment trademark Digital Witness. This will include installation of cameras, monitors, red phones, and security devices in the store. The technician will re-wire for these devices, if needed, test the full system, clean work areas, and remove all install related packing materials.

How Long will we be here?

This will be a 4+ day install. In the next couple weeks, Technicians will be returning and will be to convert the camera and alarm systems. We will be adding an audio system, with an additional day of troubleshooting if needed.

What will Change?

- **Red Phones will "ring" in your ear when you pick them up** – like placing a call
- **How you view and retrieve video is different** – quick guide provided
- **Cameras may be in a different order on the screen** – standardizing for all stores
- **Alarm Zone numbers may be different**– standardizing for all stores

What will *NOT* Change?

- **All alarm user codes remain the same** – please test yours before tech leaves
- **Most cameras, red phones and security devices** – re-using existing devices
- **How you use the system** – just keep using it the same as you have been

What does the MOD need to do?

- **Make sure the office area in front of equipment is clear** The tech will spend most of the day in here.
  Also show the tech where the boxes are that were shipped to site from Interface.
- **Participate in Site Survey with ISS Technician**
  Please review this document, complete steps and initial.
- **Carefully read the Certificate of Completion document**
  When we return, the tech will provide you with a document to sign at the end of the install. Please do not hesitate to mark any box as "No" where it applies and describe the reason so we can work to correct it for you.
- **Make sure you understand the system before the tech leaves** – Please test a voice down, your alarm code, DVR access, and ask any questions you have before signing the Certificate of Completion.

MOD INITIALS: _____ DATE: _____

APPENDIX 5:
Recorder Logins

There are two logins on the recorder. One for the installing technician's use to program and setup the recorder and another for the DG manager's use.

Logins and passords are cAsE SensiTive!

The ADMIN login for local recorder programming and setup of the recorder is.
IMPORTANT: DO NOT SHARE THIS LOGIN INFORMATION WITH ANYONE AT THE STORE.

Login admin
Password IS1xxxxx, where xxxxx represents the last 5 digits of the NAV Account Number
EXAMPLE: **DG14523N** – the admin password will be **IS14523N**

The Technician login for local recorder programming and setup of the recorder is.
IMPORTANT: DO NOT SHARE THIS LOGIN INFORMATION WITH ANYONE AT THE STORE.

Login ISSHIK
Password InterVision!

The DG managers login for the recorder is.
ONLY SHARE THIS LOGIN INFORMATION WITH DG MANAGER.

Login manager
Password manager1

APPENDIX 6:
IP7 Troubleshooting Guide

Verify the status of the Power, Ready, and Link LEDs. 90% of your trouble shooting will be resolved from the first step of verifying the LED statuses within the first 30 minutes.

1. Blue Power LED off - check power
2. Red Link LED
   a. On - next step
   b. Off - check physical network connection
3. Red Ready LED
   a. On steady, you are registered with the TalkMaster Server
   b. Off, IP7 MZC board is bad. Replace move on
   c. Ready LED Flashing – check that physical network connection is correct. This connection should be on the same switch as the DVR and Alarm panel. If you can access the DVR and see video but the IP7 MZC is still not showing up in TalkMaster you must verify the network settings.

Run the local TalkMaster software and verify that the IP address settings are correct for this location. If this is not an ISS tech onsite one must be dispatch, however if you have any level of confidence these setting are correct or the onsite tech has confirmed these setting escalate to Level 2 to look at the store network.

If the IP7 MZC can be seen in TalkMaster but the audio extension is not reachable:

1. Have Steve Hicks or Don Kaffenberger verify the extension programming
2. Check to see if this site is on Back-up, this is a known issue. The fix would be to get this site back on primary until Level 3 can resolve this issue.

Site is online:

Go through all TalkMaster settings and verify all programmed entries are correct as detailed in programming guide.
Upon verifying all settings are correct then check Authorized IP Endpoint, save, then from the firmware console right mouse on the device and Reset Connection. The connection should drop and reconnect quickly. Now go back to the TalkMaster console and click the Update Now button at the bottom of the screen. You are ready for testing.

Red Phones:

If the system is online and you can connect but cannot switch zones or the Red Phones are not functioning properly.

a. Verify that the IP7 MZC is running the most current firmware. (IP7 = 7.1.1.37) (ZC = 6:2)

b. Verify ZC tab settings the first, third, fourth, and fifth options are checked (option two unchecked)
c. Verify the zone groups are set on the Zone Group tab
d. If any of the functions on the ZC tab is not working it may help to uncheck all items, save, then recheck these items and save again.

1. To test the Red Phone operation, inbound calls:

Connect to the store and have the tech lift each Red Phone one at a time to verify talk path communication and quality of connection.

Issues:

If any of the Red Phones demonstrates operational issues remove the connection from the IP7 Tip and Ring terminals and have tech trouble shoot the phone device.

If none of the Red Phones are functioning properly have the onsite tech remove all the Tip and Ring phone connections from the IP7 and have him verify all electrical functionality of each phone. In many cases you will find one or several phones that is causing the overall issue thus not allowing any of the phones to operate. Once the tech has verified electrically the operational functionally of the phones have him land only one phone at a time and verify communication operation to you. Electrical functionality would consist of no grounds, shorts, opens, or high resistance to the phone device. Without any phones connected to the IP7's Tip and Ring terminals one should read approximately 12vdc. With a phone connected but remaining on-hook there should be little change and with the phone lifted off-hook the voltage should drop to around 8vdc. During this testing process the onsite tech should also check the voltage to the IP7 board (12vdc-13.65vdc) and the presence on a properly landed ground on the IP7 board.

2. To test the Red Phone operation, outbound calls:

In TalkMaster on the eSIP tab Option 1, the device is set to Dial SIP Extension on PTT. The PTT is the lifting of the Red Phone handset off of the cradle. At the bottom of this Option 1 page there is a place to enter an Out Dial Extension. This extension would be set to 8015 for the device to call the C3 on normal operation. For testing purposes set this extension to 8019 click save and then login to the Emergency Phone Test group ACC. Now when the onsite tech lifts the Red Phone it will call your phone directly or any person currently logged into this group. Using this setting you will be able to test with the onsite tech the operational outbound call functionally of each phone without engaging the C3 operators. Once all testing has been verified and completed, change the extension back to 8015, click save; now the C3 will get these calls. This functionally works independently of whether or not the site is on test.

Audio Zones:

The purpose of the IP7 MZC is to deliver two way audio communication. The IP7 MZC board is connected to the Mic\Speaker boards via a ribbon cable. The ribbon cables can only be installed in one direction on the boards but there are two connection jacks on each zone board. The ribbon cable from the IP7 MZC must connect on the port marked Zones 1-48 to the port marked From Zones on the first zone board and the port marked To Zones to the port marked From Zones on the Second zone board and so on.

Zone switching\Volume\Quality:

1. Now we understand how these boards are connected. In the previous steps you verified the proper Firmware was installed and now we need to verify the connectivity and operation. From the main TalkMaster screen find the device you are working with, highlight the device and perform a right mouse click and select Get Health. The most important Item is at the bottom of the list and is labeled Errors: Verify this says (None). You probably have already confirmed this from the steps above during your testing but this is important. If any errors exist you must have the onsite tech cycle power to the IP7 and you will possibly need to update firmware and reset power again. If these steps do not fix this error issue there is no need to go further as this board must be replaced.

2. Once the above items are confirmed the next step is to click on the ZC tab Options in TalkMaster and as stated above verify the items check but also make sure you have the number of zones this site has listed. You can list more zones than you have but not less. Then click on the Zone Groups tab and verify you have checked the box in front of Available Zones. Next you will notice a number that is greyed out; this could be 4 or 8 or so on. If these items are correct move on to step 4, if not move to step 3.

3. If the number of the Available Zones box is zero or doesn't reflect the number of actually zones via zone boards that are connected to the IP7 MZC you have a data communication issue between the IP7 MZC and the zone boards. This issue can be cause by a bad IP7 MZC board, one or more bad zone boards, a bad or improperly connected ribbon cable or a field wiring issue. The issue most likely requires escalation.

4. The Zone boards have clearly marked terminals indicating where the Mics and Speakers are landed. The onsite tech must verify that the speaker wires landed on the zone boards have approximately 8 Ohms of resistance. This range can go from 4 Ohms to 16 Ohms but optimal would be 8 Ohms. The Mic wiring should be free of shorts, grounds or opens and of Shielded wire with the drain wire landed on the GND terminal only with the other end wrapped around the cable and taped preventing contact to ground. Once connected to the site, switch through the available zones by pressing *1 through *8 for zones one through eight and *9 for all zones on and *0 for all zones off. Each zone will have two red LEDs one for Mic and One for Speaker, verify with the onsite tech the operation of these LEDs. If the zones are not switching and indicating properly verify the Zone Group settings in Talk Master, and if still non-operational jump back to step 3.

5. When testing the Mics and Speakers at a site with the tech verify each zone has ample volume without distortion and background interferences. The zone boards have volume controls for Mic and Speaker for each zone. The top Blue volume controls are for the speakers and the bottom white volume controls are for the Mics. Generally, a midrange setting is desirable, but depending upon the store's background noises and Mic\Speaker placement these setting may need to be adjusted.

Certificate of Completion and Acceptance

Your system was installed by trained technicians to meet the high standards of our quality assurance program.

Customer Name: _____ Branch #: _____

Installation Address: _____

City: _____ State: _____ Zip: _____ Date Installed: _____

Job #1: _____ Install Ticket #: _____ P.O. #: _____

Job #2: _____ Install Ticket #: _____ P.O. #: _____

Job #3: _____ Install Ticket #: _____ P.O. #: _____

Account #: _____ Confirmation #: _____

Type of System:
- ◯ Secure Broadband
- ◯ Access Control
- ◯ Managed Access
- ◯ Structured Cabling
- ◯ Digital Voice
- ◯ Fire/Life Safety
- ◯ Camera Surveillance
- ◯ Supervisory System
- ◯ Intrusion
- ◯ Interactive Video
- ◯ Other: _____

Monitoring:
- ◯ Not Monitored
- ◯ Monitored by UL Listed Central Station
- ◯ Remote Video Monitoring

If Monitored, type of transmission link:
- ◯ Phone Lines
- ◯ Radio/Cellular/Broadband Backup

UL Listing *(if required)*: _____ Type of Listing: _____ Certificate #: _____

I have received and understand the following:

- ◯ System Training & Operation
- ◯ Emergency Contact List
- ◯ Referral Program Details
- ◯ System User's Guides
- ◯ Backup Options
- ◯ Alarm Permit Information
- ◯ Monitoring Procedures
- ◯ Keys to Panel
- ◯ Other: _____

	yes	no
Was installation completed in accordance with the Agreement?	◯	◯
Were decals and/or signs installed to your satisfaction?	◯	◯
Was the installation completed to your satisfaction?	◯	◯
Are camera image views to your satisfaction? ◯ N/A	◯	◯
Was technician wearing protective shoe coverings when entering your location? *(Residential Only)*.	◯	◯
Was the work area left clean and in order?	◯	◯
Were you properly instructed on the operation of the system?	◯	◯
Were our installers knowledgeable and helpful?	◯	◯
Did we meet your expectations?	◯	◯
Would you refer us to a friend or associate?	◯	◯
Are phones working properly?	◯	◯

Comments: _____

The customer named below hereby certifies that all equipment referred to in the Agreement, Schedule of Protection or Addendum has been delivered, is fully installed and it is in good operating order. Customer unconditionally accepts the equipment and authorizes commencement of billing in accordance with the Agreement.

_____ _____

Customer or Company Representative Signature *Date*

_____ _____

Customer or Company Representative Name Printed *Title*

Interface Simplify To The Power Of One.

ACO 7245, 6860 Lic. # 469046

Top-Company | Bottom-Customer

CertificateOfCompletion&Acceptance020717

Dollar General Device Checklist

Please complete the following checklist at the end of your trip. After, please fill out the list of parts that need to be ordered to site. Note that each site should have 16 cameras, 3 PVMs, at least 1 emergency phone, and 2 panic buttons.

CAMERAS	Installed in the correct location per guide	Needs to be relocated*	On site, but not installed*	Not on site, or is damaged and needs replacement*	*Please provide additional notes and materials needed (amount of cabling, connectors, etc):
Cam 1 – Front door					
Cam 2 – Register 1					
Cam 3 – Register 2/Safe					
Cam 4 – Office view					
Cam 5 – Men's Undergarments					
Cam 6 – Cosmetics					
Cam 7 – First Aid/Cough					
Cam 8 – Refrigeration					
Cam 9 – Back Aisle					
Cam 10 – Liquid Laundry					
Cam 11 – Receiving					
Cam 12 – DSD					
Cam 13 – Health					
Cam 14 – Register 3/Safe					
Cam 14 – Rear exterior (ONLY if store has no register 3)					
Cam 15 – Mullion					
Cam 16 – Front Exterior					
TOTAL # OF CAMERAS ON SITE:					
Additional camera notes:					

PVMS **PVM 1 – 32"** **PVM 6 – 21.5"** **PVM 10 – 21.5"**	Installed in the correct location per guide	Needs to be relocated*	On site, but not installed*	Not on site, or is damaged and needs replacement*	*Please provide additional notes and materials needed (amount of cabling, connectors, etc) :
PVM 1 – Cam 1 Entry Doors					
PVM 6 – Cosmetics					
PVM 10 – Liquid Laundry					
TOTAL # OF PVMS ON SITE:					
Additional PVM notes (Missing/broken mounts, wrong sized PVMs, etc):					

EMERGENCY PHONES/PANIC BUTTONS	
How many emergency phones are on site?	
Are they installed? If so, where?	
How many panic buttons are on site?	
Are they installed? If so, where?	

PART LIST – To be ordered/provided by the customer

QTY	Part Number	Part Description
	ISS-DS2CC52D9TAVPIT	Dome Camera
	F8-EM900FP1	Pinhole camera
	Housing for pinhole camera	ISS-00112
	21.5" Monitor	ISS-DSD5022FC
	32" Monitor	CE-VT320-C
	CE-CMHL-6B	PVM TELESCOPE CEILING MNT BRKT 6'2"-11'5" 60LB BLK
	CE-CM-SX-6-B	PVM TELESCOPING CEILING MNT BRCKT 3FT-5FT6IN BLACK
	CE-CP6	3' to 5'9" camera pole W=white B= black
	CE-CG2X2.5	10" to 4' 5" Ceiling tile mount
	CE-CG2X2 612	6' to 12' Ceiling tile mount
	CE-CP12W	White pole mount for cameras
	CE-CM-LX-12B	8' Black pole mounts for monitors
	ISS-PC140	Pendant cap
	ISS-WMS	Short wall mount for exterior camera
	CE-UAP	Universal adapter plate
	PL-HUBM	Hold up button
	VK-SP496	Emergency phone
The following can be used as a reference while building the quote for labor and materials on the following page. Cabling/connectors are to be provided by the technician and not by the customer:		
	WG-31045512	22/4 stranded cable
	WG-32705512	22/2 pair with 1 pair shielded
	WG-50885506	CAT5 cable
	WG-53555012	RG59-18/2 Siamese cable

QUOTE FOR REMAINING WORK EXCEEDING 8 HOURS

Work needed to Complete	**Point of Contact – Name & Number**	**Total Labor Hours & Hourly rate**	**Number of Techs**	**List of Materials**	**Total Cost to Crosscom**
Example: *Relocation of cam 6 & 11* *Run cable for cam 6 & 11*	*John Doe – 555-555-5555*	*2 hours@ $50/hr*	*1*	*75' RJ45: $22* *4 BNC connectors: $10*	*$132*

ALARM SKILLSET

Digital Witness New Build Install Guide 2019

Confidential and Proprietary

Date of Guide, March 29, 2019

Revision 1.0.0

Revision Control:

Current version: 3/18/2019, V1.0.0
Previous version: New Guide
Changes: None

COMMUNICATIONS DIRECTORY

Responsibilities	Contact Information	
Onepath TAC Cabling, Missing Equipment, Site Log In, Cabinet Health Check	Direct	(800) 493-0016, Opt 3
Project Manager Paul Mack Installation Communication	Direct Cell Email	(314) 595-0232 (314) 734-9298 Paul.Mack@interfacesys.com
Earth City ISS TTU Activate SIM Broadband Connection Issues	Direct	(888) 269-7535
Technician Support / Help Desk Verify configuration, review tested signals, and make final preparation of site to go online.	Direct Email	(866) 227-8180 installs@interfacesys.com
Interface "CHAT		www.interfacesys.com/technicians

Overview:

In this installation, you will be installing the Interface Security Systems Interactive solution called **Digital Witness**. With the Digital Witness solution, you can **virtually observe the entire store by the use of cameras, speakers and microphones. Our Central Station is able to** watch, listen to and speak directly to any Dollar General location from our central command centers. This real-time technology provides video and audio verification to law enforcement and significantly reduces false alarms. You will be installing an all-in-one cabinet containing a DVR, alarm panel, two-way audio devices, as well as communication devices to send the information back to ISS monitoring.

For the installation, there will be two FEs or technicians on-site. This Install Guide outlines the responsibility for the **ALARM FE**. Some overlap of responsibilities may occur for each Field Engineer however, the Alarm FE will be considered the **"Lead Technician"** and is ultimately responsible for the site's successful completion.

This will be a four-day installation, with Milestone Goals required to completed by the end of each installation day. Please read this Install completely before starting any work on site.

REQUIRED TOOLS

Ladder (Minimum 8' step ladder)

Alarm/Security Standard Tool Kit, (Including, but not limited to):

- Multi-Meter
- #1, #2 and #3 Phillips Head Screwdrivers
- 1/4", 3/16 and 5/16" Flat-Blade Screwdrivers
- Phillips and Flat-Blade "Tweaker" Screwdriver
- 8" Torpedo Level
- Diagonal Cutters
- Wire Strippers, (capable to 22 gauge stranded)
- Long-Nose Pliers10"
- Adjustable wrench
- Crimping tool – RJ45 Plug
- Utility knife
- Protective eyewear

Butt Set

Label Maker, With Supplies

Wire Tracer/Toner

25' Tape Measure

Fish Tape

"Green" Sticks

Coax BNC Crimp Tool/Compression Tool

RJ45 Crimp Tool

3/8" 18-Volt Cordless Drill, w/ Spare Battery, ("Hammer" function recommended but not required)

Set of Standard Jobber Drill Bits

Set of Masonry Drill Bits

Digital Camera, (Cell phone camera will suffice)

Cell Phone

REQUIRED MATERIAL/SUPPLIES

22/4 Cable – Minimum 500' (Plenum preferred)

Fastener Assortment

RJ45 Connectors

Coax Connectors

Tie Wraps, ("ZIP Ties)

Splice Caps, ("B" Connectors)

TRAINING VIDEOS

If at any time during this conversion, you get stuck, or have a question about a particular subject, Interface Security Systems has published a series of **Training Videos** to assist you in answering your questions before you have to make a call or log onto "CHAT" to get assistance. Topics covered in these Training Videos include:

- **EOL Resistors**
- **Iverify Cabinet Circuit Board Identification**
- **Iverify Cabinet Wiring Identification**
- **Digital Witness Cabinet Identification**
- **Mounting the Digital Witness Cabinet**
- **Umbilical Cable Connection**
- **Red Phone Troubleshooting**

To logon onto the training video site, go to http://marcom.interfacesys.com/Pwd/DW/login.html and enter username: **tech** password: **training2017** and simply "click" on the **Training Video** you wish to review.

BASIC INSTALLATION TIMELINE

ALARM SKILLSET SCOPE	HOURS	NETWORK SKILLSET SCOPE	HOURS
DAY 1			
Inventory Parts List	0.5	Inventory Parts List	0.5
Alarm System Installation	6.0	Install Audio Cabinet, CP Online Run Burg Panel RJ45	2.0
		Audio Wires Pulled to Location	5.5
Alarm Testing and Bring On-Line	1.5		
DAY 2			
CCTV Wire Pulls/Camera Install (If additional time is available start/complete PVM installation)	8.0	CCTV Wire Pulls/Camera Install (If additional time is available start/complete PVM installation)	8.0
DAY 3			
New DVR Installation Power Supply Installation	6.0	Install and connect all audio devices	6.0
Focus and Zoom Cameras	2.0	Test Audio Devices	2.0
DAY 4			
Any Remaining Tasks	4.0	Any Remaining Tasks	4.0
Signage	1.0	Rapid Response testing	4.0
Photo Tasks and Close Out Documentation	3.0		

Milestone 1:

- Inventory parts shipped to site. If there are any parts shortages, contact TAC immediately.
- Audio Cabinet with Broadband connection will be installed. NO 4G GSM COMMUNICATION FOR THE ALARM PANEL will be used for this deployment except in the rare occurrence where the Broadband connection is defective.
- The alarm end devices installed.
- Alarm Panel and Zone Expansion Module installed and converted to Plano/C3 monitoring.
- Minimum Perimeter Burg will be tested and activated with C3 before 12:00 noon the day of the install.
- Audio device pre-wire.

Milestone 2:

- Pre-wire for the Cameras.
- Install the cameras at their proper location.

Milestone 3:

- Installation of the new DVR monitor and mouse on the manager's desk.
- Installation of the new camera power supply.
- Connection of the DVR, audio cabinet, and re-connection of the alarm Broadband connections to the Netgear switch.
- Install Emergency Phones.
- Connect all audio over to the audio cabinet, speakers, mics and Emergency Phones.
- Test the audio capability.

Milestone 4:

- Test Remote View capability of DVR.
- Place site on Rapid Response status with C3, Plano.

Exception Scope of Work

- For all Exception work, the Addendum Request will be created from the Cognito Site Surveys.
- The Project Manager will create the Addendum Request and send to the Account Manager for the Addendum Creation and approvals.
- ALL APPROVALS WILL NEED TO GO THROUGH S.O.E. FOR TICKET CREATION.
- After exception work is complete, a Final Audit will be conducted with the PM before leaving site.

PRIOR TO ENTERING STORE.

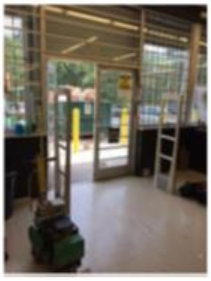
a. Ensure you have the correct ISS monthly password. If you do not know the current password, contact Onepath TAC, at (800) 493-0016 Option 3.
b. Contact Installs via "CHAT" to have them place the existing alarm system placed on test for the duration of the alarm conversion.

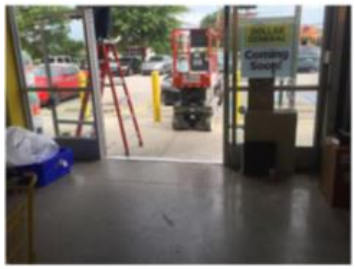
PRELIMINARY SET-UP

a. Before entering the site, call Onepath TAC at (800) 493-0016 Option 1 for pre-arrival login.
b. Enter the premise and introduce yourself as a representative of Interface Security Systems and that you are there to convert the security system.
c. Show the MOD a copy of the "What to Expect" document, Appendix 4. Make sure the MOD initializes this document acknowledging he or she knows what is involved with the installation.
d. Photograph all boxes shipped to site.
e. Un-box and verify the parts on-site match the Parts List, APPENDIX 3. Notify Onepath TAC IMMEDIATELY if any equipment is missing.

PHOTOGRAPH THE EXISTING EAS SYSTEM

a. BEFORE YOU BEGIN ANY WORK ON THIS CONVERSION, PLEASE TAKE A PHOTO OF THE "EAS" SYSTEM AT THE FRONT DOOR. THE "EAS" SYSTEM IS THE ANTI-THEFT RF TOWERS AT EACH SIDE OF THE FRONT DOOR.
b. Stand back approximately 10 to 12 feet from the Front Door.
c. Take a photograph of the Front Door that includes the theft deterrent towers. See example below. Please be aware that the "towers" may not be present, but we still require a picture of the Front Door:





d. If the "towers" are damaged laying on the floor, please take a photo of that as well. This will be a required Photo Task to be submitted at the conclusion of the install. See the example below:

ALARM SKILLSET MILESTONE ONE:

INSTALL THE ALARM SYSTEM

Temporarily Power Up and Program the New Panel:

a. Open the new panel box and locate and remove the transformer.
b. Set the panel up in close proximity to an outlet on the MODs office.
c. Temporarily connect the transformer to the panel, (terminals 1 and 2), using enough wire to reach a nearby outlet. DO NOT PLUG THE PANEL IN AT THIS TIME. You will be temporarily powering up the panel and temporarily connecting to Port 4 of the Unmanaged Switch. We will need to wait until the Network Skillset FE temporarily powers up the Audio Cabinet.
d. Temporarily connect the keypad to the panel. (terminals 4, 5, 6 and 7, observing power and data polarity).
e. When the Network Skillset FE powers up the Audio Cabinet, power up the panel and verify the lights are lit up on the panel.
f. Address the keypad (if the keypad has no display)
g. Once the power is applied to the panel, proceed immediately to the keypad and press and hold the 1 & 3 keys for about 2-3 seconds until the address of the keypad is displayed. (It will normally display as 31 on a new keypad).
h. Change the address to 16 by pressing 1 and 6 and then pressing the * (star) key twice. Failure to do this will result in no display being shown on the keypad until the address is changed.
i. Please note that the panel may go into alarm or trouble at this time. If the keypad starts beeping, press 1234-1 to silence any alarms (if 1234 does not work, press 4112-1).
j. Document the MAC ID and CRC for the Vista 21IP panel on the worksheet at the end of this Guide. You will need this information prior to calling the ISS Alarm Programming Team. The MAC ID and the CRC numbers on the side of the box that contains the Vista 21IP alarm panel. You may also obtain the MAC ID and CRC numbers from the white sticker affixed to the right upper corner of the Vista 21IP.

k. Have the Store Number, MAC and CRC numbers, and the Standard Zone List in front of you prior to contacting the Installs Team via CHAT.
l. Log on to CHAT and request to program the panel.
m. Follow any instructions given to you by Installs.
n. Once programming is complete, the master code will be 1234. The keypad will display "DOWNLOAD COMPLETE". At this time, the new "Installer Code" will have been programmed into the panel. Enter [3434] [800] on the keypad. "Installer Code 20" will be displayed on the keypad. Enter [*99] to exit programming mode.
o. Once you have verified the "Installer Code" is working, you can power down the new Vista21 IP panel.
p. Before you begin the alarm installation, there are "rules" that must be strictly adhered to. These rules are as follows:
    - All available end field devices must be installed. Included in the Parts List shipped to the site are (5) Door Contacts, (2) Glass Break Detectors, (2) 35' Motion Detectors, (2) 100' Motion Detectors, (1) 360 Degree Motion Detector, a Keypad, Zone Expansion Module, and Alarm Panel.
    - You must adhere to the Standard Zone List. There will be no exceptions without prior approval from the Project Manager.
    - Run all alarm wire from Manager's Office to field device end point. All zone wires will be ran using 22/4 plenum. Keypad wire will be ran using 18/4 plenum.
    - All wiring will be installed using wire-control rings, and/or "J" hooks, according to local code and guidelines. IT IS UNACCEPLTABLE TO LAY WIRES LOOSE ABOVE THE DROP CEILING. It is acceptable to use the same wire chase for alarm, audio and video.
    - **ENSURE TO LABEL ALL OF THE WIRES AT THE HEAD END EQUIPMENT LOCATION.**

a. The Standard Zone list and proper device is as follows:

ZONE NUMBER	ZONE DESCRIPTION	ZONE TYPE	LANDED ON	DEVICE
1	FRONT DOOR(S)	ENTRY/EXIT	PANEL	7939WG-WH
2	STOCK ROOM MAN DOOR	PERIMETER	PANEL	7939WG-WH
3	SIDE EMERGENCY EXIT	PERIMETER	PANEL	7939WG-WH
4	LEFT REAR MOTION	INTERIOR FOLLOWER	PANEL	CK-FG1625
5	RIGHT REAR MOTION	INTERIOR FOLLOWER	PANEL	CK-FG1625
6	LEFT FRONT GLASSBREAK	PERIMETER	PANEL	CK-IS25100TC
7	RIGHT FRONT GLASSBREAK	PERIMETER	PANEL	CK-IS25100TC
8	PANEL TAMPER	PERIMETER	PANEL	GI-TSC20
9	OFFICE MOTION	INTERIOR FOLLOWER	4219 - ADDRESS (7)	CK-DT8035
10	STOCK ROOM MOTION	INTERIOR FOLLOWER	4219 - ADDRESS (7)	CK-DT8035
11	OVERHEAD DOOR, IF EXISTING	PERIMETER	4219 - ADDRESS (7)	USE EXISTING CONTACT
12	FRONT 360 MOTION	INTERIOR FOLLOWER	4219 - ADDRESS (7)	DS938Z
13	OPTIONAL ZONE	*	4219 - ADDRESS (7)	USE EXISTING CONTACT
14	POS OFF HOOK	24-HOUR SILENT	4219 - ADDRESS (7)	PHONE OFF HOOK SWITCH
15	OFFICE PHONE OFF HOOK	24-HOUR SILENT	4219 - ADDRESS (7)	PHONE OFF HOOK SWITCH
16	STOCKROOM PHONE OFF HOOK	24-HOUR SILENT	4219 - ADDRESS (7)	PHONE OFF HOOK SWITCH
17	REGISTER 1 HUB	24-HOUR SILENT	WIRELESS	PL-HUBM & 5816
18	REGISTER 2 HUB	24-HOUR SILENT	WIRELESS	PL-HUBM & 5816

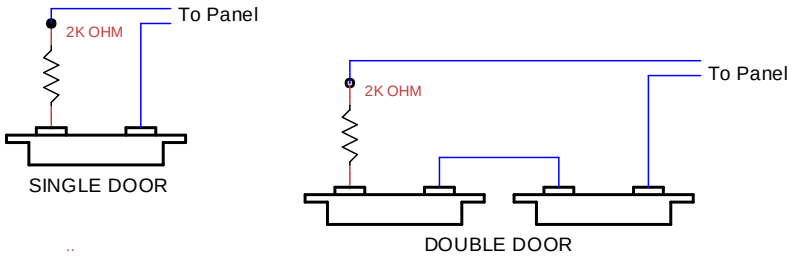
b. Perform a walk-through before installing the alarm system. A typical site will consist of Front and Rear Doors, Emergency Door, Front and Rear Motion Detectors, Stock Room Motion Detector, Cash Wrap HUBs, Panel, and a single Keypad.

c. Start with installing the end devices:

NOTE: The end of line resistors will be true EOLRs. Resistors will be installed at the devices. 2K ohm resistors will be used throughout this installation for the alarm panel as well as the expansion modules.

- To determine whether the EOLRs need to be swapped out, read the resistor color code. RED-BLACK-RED-GOLD, is a 2K ohm resistor. Any other color scheme on the resistor will require you to replace the resistor.
- If you cannot see the resistor, place your meter in the ohm's position.
- Place your meter leads on the zone wires, (red lead on one wire, black lead on the other).
- If you read 2k ohms, (+/- 10%), continue with landing the zone wires on the umbilical pull-apart connectors.
- **If you read anything other than 2k ohms, (+/- 10%), for normally closed loops, you will need to replace the end-of-line resistor with a 2k ohm resistor.**

d. Double doors shall have separate **Door Contacts** for each door. If there are multiple front door contacts, they will be wired in series. The Front Door, whether there is a single or double front door, the Front Door will be Zone One.



e. If automatic sliding door, the manufacturer has provided built in contacts that you will connect to the alarm panel. See **APPENDIX xx** for installation instructions. **Note: Opening the fascia of the automatic door will not void the manufacturer's warranty. If you have any concern, please contact the ISS PM for more information.**

f. Install the Rear Stockroom door contact, Zone 2.

g. Install the Side Emergency Exit door contact, Zone 3.

h. For Zones 4 and 5, Left and Right Rear Motion Detectors, mount on the rear wall. 3' in from each corner facing toward the front of the store. Mount these Motion Detectors 12' up, basically centered in the outside aisles. DO NOT CORNER MOUNT THESE DETECTORS.

i. For the Front Glass Break Detectors, Zones 6 and 7, the goal is to cover all the store front glass. The Glass Break detectors are to be mounted on the ceiling, 2 to 3 feet in front of the glass and no more than 25 feet apart. There are (2) Glass Break detectors included in the original shipment. IF YOU NEED MORE THAN THE (2) GLASS BREAKS THAT WERE SHIPPED, PLEASE CONTACT YOUR PROJECT MANAGER.

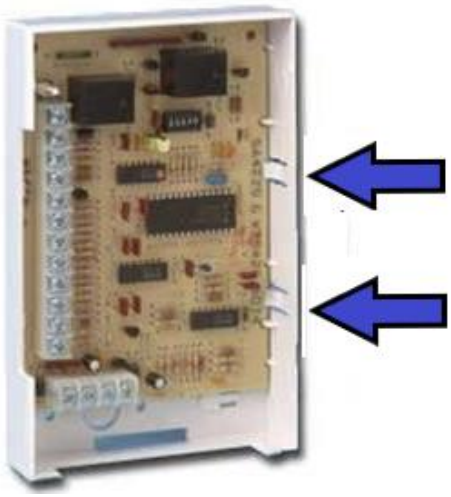
j. The Dual Tech Motion Detector should be installed in the Manager's Office with a mounting height between 7'- 10'. Corner mount the motion detector opposite of the office door, staying within mounting height parameters.

k. The 360 Degree Motion Detector will be mounted directly over the safe. If the safe is in the Manager's Office, do not install the 360-degree motion.

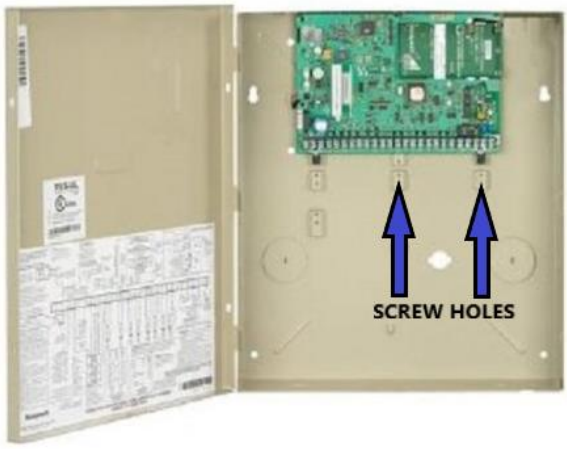
INSTALL THE PANEL AND ZONE EXPANSION MODULE

a. Install the NEW Vista 21IP Alarm Panel in the Manager's Office. Install the 4219 Zone Expansion Module inside the alarm enclosure underneath the alarm panel by removing the plastic cover over the expansion module.

b. Separate the Expansion Board from the back cover by releasing the two tabs, (shown below), and lifting the board out of the backplate.



c. Install the plastic cover by screwing two sheet metal screws in the cabinet. Do not screw all the way in but leave out an approximately 1/8" "shoulder", to slide on the expansion module backplate onto the screws.

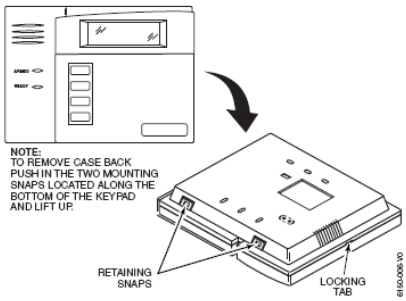


d. Slide the backplate over the screws and re-install the Zone Expansion Module.
e. It will not be necessary to re-install the top cover.
f. Run all alarm wire from Manager's Office to field device end point. All zone wires will be ran using 22/4 plenum. Keypad wire will be ran using 18/4 plenum.
g. All wiring will be installed using wire-control rings, and/or "J" hooks, according to local code and guidelines. IT IS UNACCEPLTABLE TO LAY WIRES LOOSE ABOVE THE DROP CEILING. It is acceptable to use the same wire chase for alarm, audio and video.
h. ENSURE TO LABEL ALL OF THE WIRES AT THE HEAD END EQUIPMENT LOCATION.
i. If you have zones on your site that are not on the Zone List Template, you can add these zone numbers and zone descriptors in the slots that state "NOT USED" on the template.
j. Connect the power wires for motion and glass break detectors as indicated below:
    - Connect the BLACK wire(s) to terminal 4 (-)
    - Connect the RED wire(s) to terminal 5 (+)

k. Next, land the keypad wiring to the data and power terminals as indicated below:
   - Connect the BLACK wire to terminal 4 (-)
   - Connect the RED wire to terminal 5 (+)
   - Connect the GREEN wire to terminal 6
   - Connect the YELLOW or WHITE wire to terminal 7

INSTALL THE NEW KEYPAD

a. Install the keypad by first the keypad by using a small screwdriver to separate the keypad from its back-plate.



REMOVING THE KEYPAD FROM THE BACK-PLATE

b. Pull the wiring through the provided hole. Observe that the screw holes that are oriented sideways are at the top and that any writing on the bracket is not upside down before screwing the bracket to the wall.
c. Hold the keypad back plate up to the wall and use a level to determine it is straight.
d. Secure the backplate to the wall.
e. Strip about a ¼ inch of the insulation off of the four wires.

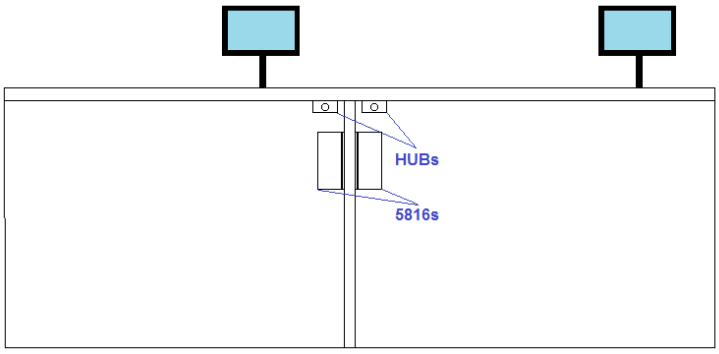
BACK-PLATE OF THE 6160 KEYPAD

TERMINAL CONNECTORS OF THE 6160 KEYPAD

f. Mount the keypad back plate using the appropriate hardware.
g. Affix the Keypad Sticker supplied in the install packet to the right side of the Keypad.
   - Connect the Red wire to the positive (+) terminal.
   - Connect the black wire to the negative (-) terminal.
   - Connect the yellow (or white) wire to the Y terminal.
   - Connect the Green wire to the G terminal.
h. Test each connection by gently pulling on the wire to ensure that it does not slip out of the terminal. Also make sure that no loose wire strands are going to touch and short out the keypad.
i. Mount the keypad onto the mounting bracket by inserting the bottom hinges on the keypad into the bottom of the bracket. Hinge the keypad upward and snap the retaining tabs into place by applying a bit of pressure on the upper corners of the face of the keypad.

INSTALL THE CASH WRAP HOLD UP BUTTONS

a. These HUBs will be installed under Register 1 and Register 2.
b. The HUBs will be mounted under the counter per the following illustration:



c. There are screws supplied with the Hold-Up Buttons and Transmitters. YOU ARE NOT REQUIRED TO USE THESE SCEWS IF IT WILL DAMAGE THE CABINETRY OR IF THEY ARE TOO LONG AND WILL EXPOSE THE SCREW POINTS ON THE OUTSIDE OF THE CABINETS. PLEASE USE THE PROPER SCREWS FROM YOUR HARDWARE STOCK OR PURCHASE THE CORRECT SCREWS AT A LOCAL HARDWARE STORE. YOU WILL BE RESPOSIBLE FOR THE REPAIR OR REPLACEMENT OF ANY DAMAGED CABNETRY DUE TO SCREWS PENITRATING THE OPPOSITE SIDE OF THE CABINET.
d. TWO-SIDED TAPE, GLUE OR SILICONE IS NOT ACCEPTABLE TO USE FOR THE HOLD-UP OR TRANSMITTER INSTALLATION.
e. Please notate the Serial Number and POS position for alarm programming. Give this Serial Number and POS Position during the final panel programming connection.

CONNECT CAT5E CABLE

a. You may need the assistance of the Network FE for the next step. Run a permanent CAT5 cable from the Alarm Panel to the Audio Cabinet.
b. Make an RJ45 plug using a 568B Pin Out and plug one end of the CAT5E Patch cable to the Ethernet port on the Vista 21IP Alarm Panel.
c. With the Network FE having completed the Audio Cabinet installation, make an RJ45 plug, 568B Pin Out, and plug the other end of this cable into Port 4 of the unmanaged switch.

ACTIVATE COMMUNICATION AND DOWNLOAD PANEL PROGRAMMING

a. Have the MAC ID and CRC from the panel, the store number and any other pertinent information that the Installs Representative asks.
b. Contact Installs via “CHAT” and request to program panel.
c. Follow any instructions given to you by the Installs Team Member.
d. The keypad will display “DOWNLOAD COMPLETE” when finished. At this time, the new “Installer Code” will have been programmed into the panel.
e. Enter [3434] [800] on the keypad. “Installer Code 20” will be displayed on the keypad. Enter [*99] to exit programming mode.
f. Once you have verified the “Installer Code” is working, you can move on to the next section.

CORRECT ANY RESIDUAL ALARM ISSUES

a. Check the sites keypad for open zones and “check” status of the alarm system.
b. Repair or replace any zone that is faulted using the supplied end devices.

TEST THE ENTIRE SYSTEM

a. A full and complete test of the new ALARM system is required. Contact PLANO TTU via "Chat", APPENDIX 1, to inform PLANO TTU that you are about to proceed with the Alarm System test, and they will ensure the system is still on test and adjust the time, if required.
b. **Please note that the Emergency Phone off-hook zones may not clear at this time. Ask the Installs team member to temporarily remove zones from programming.**
c. Start with arming the panel. Wait for the Exit Delay to complete, open the Front Door and wait for the Entry Delay to complete. The alarm will start sounding at this time. Continue "tripping the rest of the zones on the Alarm System. NOTE: Your alarm may start sounding before the Entry Delay completes. This occurs when a Motion Detector is tripped. Once the alarm starts sounding, perform a walk-test tripping all zones.
d. Once all of the zones have been sent, disarm the system. DO NOT FORGET TO TEST THE TWO CASH WRAP HUBs.
e. Through "CHAT" - DW-STANDARD INSTALLATION inquire about signals received, and PLANO TTU will verify all alarm signals received. After confirmation of ALL the alarm signals, if this is successful, PLANO TTU will "make active" the alarm system.
f. After successful completion of the audio portion, the site will be placed in TEMP BURG Status.
g. THIS IS THE COMPLETION OF YOUR MILESTONE ONE SCOPE. DO NOT GO TO THE NEXT STEP UNTIL ALL OF THE ALARM SIGNALS HAVE BEEN RECEIVED, VERIFIED AND THE ALARM IS ACTIVE.
h. Close and lock the alarm cabinet and use a #8 sheet metal screw to secure the panel key to the alarm panel cabinet demonstrated in the illustration below:

i. This concludes your Day One Scope of Work. If you still have time, it is acceptable to continue with the CCTV installation process.

ALARM SKILLSET MILESTONE TWO:

AUDIO AND CCTV INSTALLATION – Day 2 Scope of Work is the same for both FEs

c. Before you begin the CCTV conversion, there are "rules" that must be strictly adhered to. These rules are as follows:
    - **YOU WILL BE REQUIRED TO RUN NEW VIDEO SIAMEZE WIRE TO THE NEW CAMERA LOCATIONS. MAKE SURE THE COAX WIRE AND BNC CONNECTORS ARE IN GOOD CONDITION AFTER PULLING.**
    - You must adhere to the Standard Camera Label List. There will be no exceptions without prior approval from the Project Manager.
    - Every camera will be installed at a specific location and display a specific view required for each camera. Sample pictures are provided in this Guide.
d. The Standard Camera Label list and proper device location is as follows:

CAMERA NO.	CAMERA DESCRIPTION	VIEW DEFINITION
1	ENTRY DOORS	*ABOVE THE FRONT ENTRY DOORS, ALL OF THE DOOR CAPTURED IN THE FRAME
2	REGISTER 1	ABOVE OR SLIGHTLY BEHIND THE REGISTER ONE CASHIER CAPTURE THE POS IN FRAME
3	REGISTER 2/SAFE	VIEW DOWN THE CASH WRAP AISLE, CAPTURE REGISTERS AND SAFE.
4	OFFICE DOOR/DESK	VIEW CAPTURING DESK TOP AND DOOR, NOT THE BACK OF THE MANAGER SITTING AT DESK.
5	MEN'S UNDERGARMENTS	VIEW CAPTURING PACKAGED MEN'S UNDERGARMENTS
6	COSMETICS	*VIEW CAPTURING COSMETIC AISLE.
7	FIRST AID & COUGH	VIEW CAPTURING FIRST AID AND COUGH MEDICINE AISLE
8	REFRIGERATION	VIEW LOOKING ACROSS REFRIDGERATORS, GOAL IS TO CAPTURE SLIP AND FALLS
9	BACK AISLE	VIWE LOOKING ACROSS THE REAR AISLE OF THE STORE
10	LIQUID LAUNDRY	*VIEW CAPTURING LIQUID LAUNDRY SECTION OF THE LAUNDRY AISLE
11	RECEIVING	CAPTURE THE MAN DOOR AND AS MUCH OF RECEIVING AS POSSIBLE
12	DSD	SIDE VIEW OF INSIDE FRONT DOOR DELIVERY STAGING AREA
13	HEALTH	CAPTURE BAND AID, ANTISEPTIC AISLE
14	SAFE	VIEW DOWN THE CASH WRAP AISLE, CAPTURE REGISTERS AND SAFE.
15	FRONT DOOR MULLION	HEIGHT STRIP CAMERA, CAPTURE CUSTOMER FACES AS THEY ARE LEAVING THE STORE
16	FRONT EXTERIOR	CAPTURE EXTERIOR FRONT ENTRANCE AREA
*	PVM CAMERA	

e. There are also (3) required PVM, (P)ublic (V)iew (M)onitors required for every site. Front Entrance, Liquid Laundry Aisle, and Cosmetic Aisle are all the required locations for the PVMs. THIS REQUIRES AN ADDITIONAL SIAMESE COAX WIRE PULL TO THESE THREE LOCATIONS.

RUN ALL CCTV SIAMESE FROM CAMERA AND PVM LOCATIONS TO THE DVR

a. Run all camera coax wire from Manager's Office to the camera end point. All camera wires will be ran using coax "Siamese" plenum.
b. All wiring will be installed using wire-control rings, and/or "j" hooks, according to local code and guidelines. IT IS UNACCEPLTABLE TO LAY WIRES LOOSE ABOVE THE DROP CEILING. It is acceptable to use the same wire chase for alarm, audio and video.

NOTE: Camera 3 and Camera 14 "RULES" to determine Siamese wire run locations.

c. If there are ONLY 2 Cash Register Stations in the store, Camera 3 will be labeled REGISTER 2 AND SAFE, and the camera view will look like the following illustration:

d. The camera will be mounted above and to the left of the cash register, aimed down the "aisle" behind the Cash Registers and capturing the Safe in the frame.
e. Camera 14 now becomes the Rear Exterior Door camera.

f. If there are three Cash Register Stations in the store, Camera 3 becomes **REGISTER 2 CAMERA** with the following view:

g. Camera 14 then becomes **REGISTER 3 AND SAFE CAMERA, with no EXTERIOR REAR DOOR CAMERA.**

h. A Floor Plan drawing may be made available to you. Contact your Project Manager if you need this document.
i. YOU WILL BE REQUIRED TO LEAVE A 25', (OR MORE, WHEN REQUIRED), SERVICE LOOP FOR EVERY WIRE AT THE DEVICE END, AND A 10' SERVICE LOOP AT THE HEAD END.
j. Terminate the Camera and PVM end of the wire run with a BNC connector, once the wire run is complete.
k. **NEATLY COIL UP YOUR SERVICE LOOP ENDS AND LEAVE ABOVE THE CEILING. THESE CONNECTIONS WILL BE MADE LATER IN THIS INSTALL.**

PVM LOCATIONS

PVM NO.	PVM DESCRIPTION	DESCRIPTION OF PVM VIEW
1	CAMERA 1 - ENTRY DOORS	install 32" pole-mounted PVM if no PVM on existing system
2	CAMERA 10 - LIQUID LAUNDRY	install 22" pole-mounted PVM if no PVM on existing system
3	CAMERA 6 - COSMETICS	install 22" pole-mounted PVM if no PVM on existing system

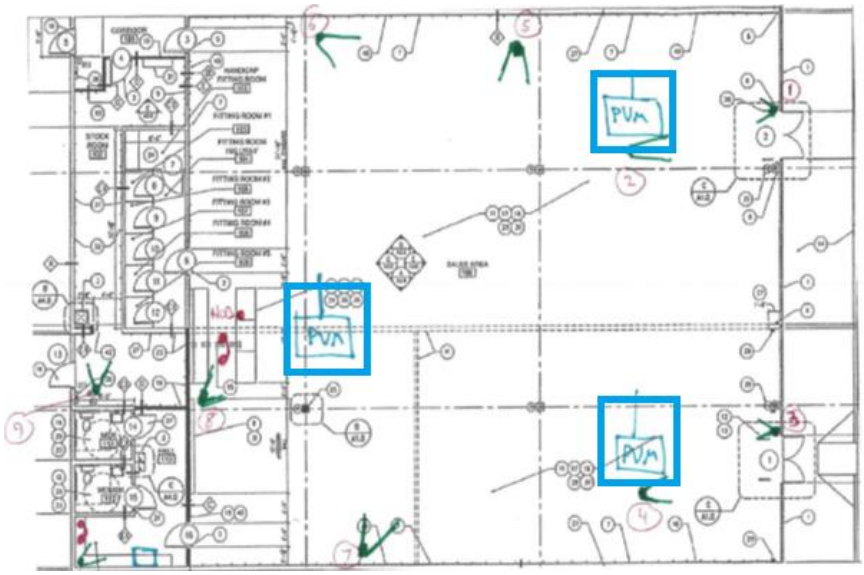
INSTALL CAMERAS AND PVMS

a. ENSURE TO LABEL ALL THE WIRES AT THE HEAD END EQUIPMENT LOCATION. You must leave 25 feet of extra cable at each camera drop, plus the length of the camera drop, to be safe leave 35'.
b. All cameras must be installed between 10 to 14 feet above ground. Exterior cameras, if any, may be mounted higher to avoid any possible vandalism. Use the camera mounts provided according to the manufacturer's specifications.

c. Because of the different floor plans for each store, there is no "General Camera Location" illustration included in this Guide. Please refer to your specific Floor Plan for you site at the end of this Guide.

HIKVISION TURBO DOME CAMERA

d. Install all the cameras at the designated location according to the Camera label Template discussed earlier.
e. It is acceptable to connect the BNC and power wires to the camera at this time. The Head-End connection will be made later.
f. Install the PVM on Sales floor using the extension pole. The length of these poles may vary depending on ceiling height. (See your Floor Plan for locations).
g. Entrance 32" PVM is facing front entrance displaying just the Front Entrance camera. The Cosmetic 21.5" PVM will be hung above the **Cosmetic Aisle** displaying the camera view. The **Liquid Laundry Aisle** camera, 21.5" PVM, will be displaying the Laundry camera only.

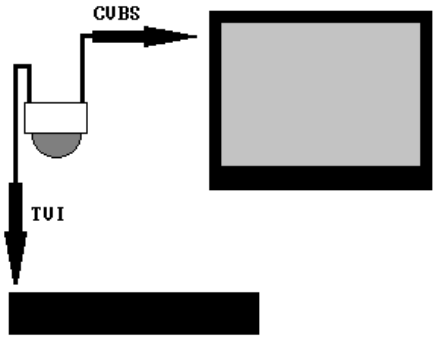


PVM LOCATION

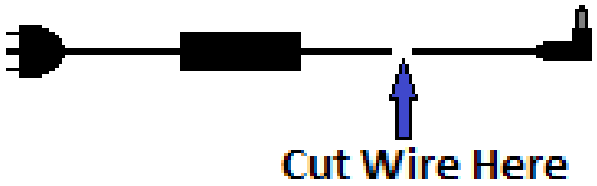
l. Bottom of PVM must measure in height between 9 feet from ground.
m. If required, extend the power transformer wire using 18/4 wire, doubled, using red and white as the [+] leg, black and green as the [-] leg.
n. Mount the PVM using the monitor mounting pole provided. Install these mounts in accordance with the manufacturer's specifications.

o. The below illustration gives basic instructions on how the camera and PVM are to be wired for the PVM monitors:

POWER – CAMERA POWER SUPPLY
TVI/TURBO CONNECTOR - DVR COAX WIRE RUN
CVBS/ANALOG CONNECTOR – PVM COAX WIRE RUN



p. Power Wiring – You will notice the 21.5" PVMs are 12vdc powered monitors, not 120vac. The reason we use the 12vdc devices is so that we can extend the power wire, UP TO (60) FEET, in order to power these monitors without having to install a new power outlet.
q. This is accomplished by "cutting in" a length of 22/4 or 18/4 on the low-voltage side of the transformer.
r. Determine the length of wire you will need to reach the outlet from the monitor, and cut wire to



length. DO NOT USE 22/2 or SMALLER DIAMETER WIRE FOR THIS CONNETION. If you are using 22/4 or 18/4 wire, strip back wire jacket and twist the RED and WHITE together and then twist the GREEN and BLACK wire together.

s. **IMPORTANT** - This is a polarity sensitive connection. Make sure you observe polarity when making this connection. ALWAYS CONNECT THE RED/WHITE PAIR, (if using 22/4 or 18/4) OR THE RED WIRE, (if using 18/2), to the low voltage transformer wire WITH THE WHITE STRIPE RUNNING THE LENGTH OF THE WIRE. The GREEN/BLACK PAIR, (if using 22/4 or 18/4) OR THE BLACK WIRE, (if using 18/2), to the low voltage transformer wire WITH NO WHITE STRIPE.
t. The connection can be made using either wire nuts or "B" style crimp connectors.

CAMERA SAMPLE VEIWS

CAMERA 1 – FRONT DOOR

CAMERA 2 – REGISTER 1

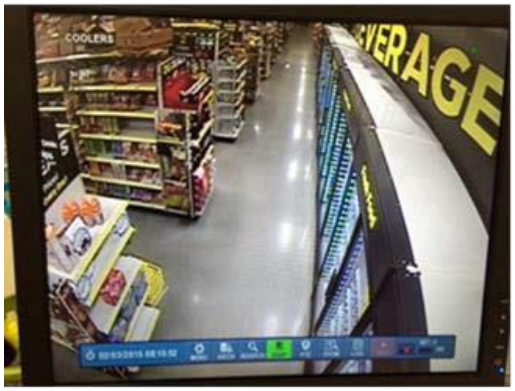
CAMERA 3 – REGISTER2/SAFE

CAMERA 4 - OFFICE

CAMERA 5 – MEN'S UNDERGARMENTS

CAMERA 6 – HEALTH AND BEAUTY

CAMERA 7 – FIRST AID AND COUGH



CAMERA 8 – REFRIDGERATION

CAMERA 9 – BACK AISLE

CAMERA 10 – LIQUID LAUNDRY

CAMERA 11 – RECEIVING

CAMERA 12 – DSD

CAMERA 13 – HEALTH

CAMERA 14 – REGISTER 3/SAFE, (SELECT STR

CAMERA 15 – MULLION CAMERA

CAMERA 16 – FRONT EXTERIOR

CAMERA 14 – REAR EXTERIOR, (OPTIONAL CAMERA VIEW IF NO REGISTER 3 IS ON SITE)

Public View Monitors (PVM) – Each site is required to have 3 PVMs. These PVMs are required to be in the following 3 locations facing a specific direction and showing specific video content. Please see the below template to bring site up to expected standard.

PVM NO.	PVM VIDEO CONTENT	PVM LOCATION	PVM FACING
1 – 32" monitor	CAMERA 1 - ENTRY DOORS	10-20' inside front door, directly in front of door	PVM should be facing the customers as they enter the building
2 – 22" monitor	CAMERA 10 - LIQUID LAUNDRY AISLE	Physically mounted within the aisle in which the camera is viewing	Facing down the protected aisle so that shoppers in the aisle can see themselves in the aisle – PVM centered in aisle can face either aisle direction
3 – 22" monitor	CAMERA 6 – COSMETICS AISLE	Physically mounted within the aisle in which the camera is viewing	Facing down the protected aisle so that shoppers in the aisle can see themselves in the aisle – PVM centered in aisle can face either aisle direction

EXAMPLE PVM VIEWS

PVM ONE, (CAMERA 1 – FRONT ENTRANCE)

PVM TWO, (CAMERA 10 – LIQUID LAUNDRY)

PVM THREE, (CAMERA 6 – COSMETICS)

Once all of the coax wire has been run and the cameras are installed, your Milestone Two Scope of work is complete.
NOTE: THERE IS NO TTU EVENT FOR THIS STEP.

ALARM SKILLSET MILESTONE THREE:

INSTALL THE NEW DVR

f. Unbox the new DVR and install the DVR on top and in one back or the other of the MODs desk.
g. Unbox and mount the new camera power supply. Ensure you are not too far away from the Interactive system's UPS Power Supply.
h. Plug the DVR power into the UPS Power Supply.
i. Connect the VGA cable, and USB mouse cable to a USB Port at the rear of the DVR and leave hang over the top of the DVR.
j. Route the camera coax wires to the rear of the DVR. Now would be a good opportunity to employ some wire management on the camera coax wires.
k. Connect the camera video BNC connectors in the proper order according to the Camera Label template.
l. Neatly route the camera power wires up to the new Power Supply.
m. ENSURE THE CAMERA POWER SUPPLY IS UNPLUGGED OR SWITCHED OFF.
n. Connect all camera power wires to the Camera power supply.
o. If not already done so, permanently re-route the CAT5 wire from the **Alarm Panel** to Port 4 of the unmanaged switch in the Audio cabinet.
p. Permanently route the CAT5 wire from the **DVR Ethernet port** on the rear of the DVR to Port 3 of the unmanaged switch in the Audio cabinet.
q. Again, take the time to employ wire management by using tie-wraps to secure camera coax wire, camera power wires and Ethernet cable coming from the DVR. The final result should look neat and professional.
r. Power up the DVR and Camera Power Supply.
s. Un-box the manager's office display and secure the leg assembly to the VGA.
t. Connect the power wire and VGA cable to the monitor and set on top of the DVR.
u. At this time, you should the camera views displayed on the monitor. If not, please contact Level 1 support at Onepath TAC.
v. Return to each camera to focus and zoom the camera image to match the SAMPLE VIEWS illustrated earlier in this guide.
w. Power up all three PVMs and ensure the proper image is displayed on each monitor.
x. After all camera views have been adjusted, contact Installs via "CHAT" to verify remote connection to the DVR and that all camera view match the sample template.
y. A "VV" Close Code will be issued at this time if you have successfully completed the CCTV portion of this install.

ALARM SKILLSET MILESTONE FOUR:

COMPLETE ANY REMAINING TASKS, HANG SIGNAGE AND COMPLETE ALL PHOTO TASKS

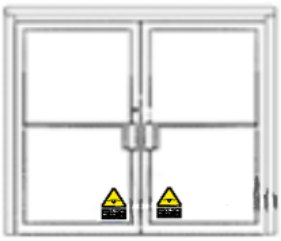
a. At this time, please complete all remaining that are incomplete. This includes any wire management needed, clean up that has not been done, or testing that has not completed to date. **You must receive a "VV" Close Code from the Installs team before continuing on to install store signage.**
Once the "VV" Close Code has been issued, INSTALL STORE SIGNAGE

SHIPPED TO SITE:

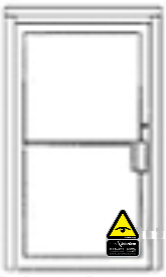
(4) "Warning" Outdoor Signs
(4) Yellow Triangle Door Decals
(3) Red Phone Receiver Decals
(2) Hikvision Client Quick Reference Guide, (11x17 Laminated)
(2) Digital Witness Associate Training Guide, (11x17 Laminated)

a. Remove any and all existing security signage. This includes any Iverify signage, any red, white and blue INTERFACE door decals and outdoor signs, (illustrated below).

b. Install the yellow triangle door decals as follows on the front double doors:

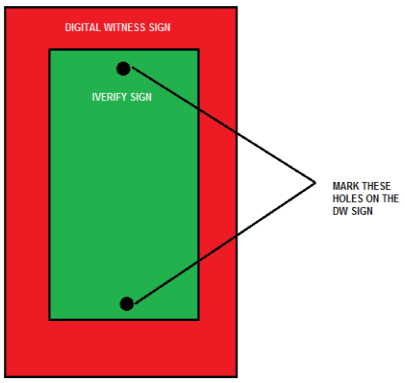


c. For the side emergency exit and rear stockroom man door, install the decal on the lower corner, door handle side.

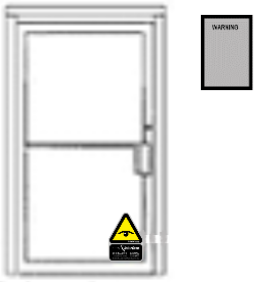


d. Install the exterior “WARNING” wall signs. There could be up (4) outdoor signs. For the outdoor “WARNING” signs install at eye-level, one each on either side of of the front door, and for the stockroom and side emergency exit store, install eye-level on the door handle side. There are two acceptable fasteners to attach these signs to a brick sided building. You may drill into the brickwork with ¼” masonry drill bit and install the red nylon anchors or use 1 ½” “TAP-CON” brand screws. Make sure the sign is level before permanently mounting to the outside wall. USE A LEVEL, then pre-mark the hole locations.

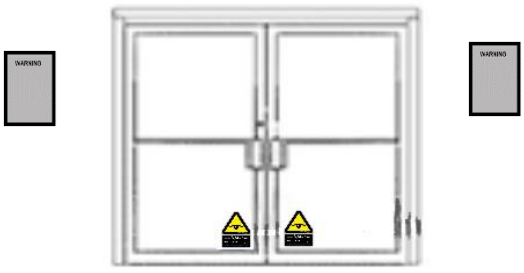
e. To install the outdoor signs on a metal sided building, place the sign on the wall where it is to be mounted, LEVEL THE SIGN, and mark the holes. Use sheet metal screws and secure the sign to the building.
f. IF THE STOREFRONT IS ALL GLASS, DO NOT SCREW INTO THE ALUMINUM WINDOW DIVIDERS. SIMPLY USE TWO-SIDED TAPE ACROSS THE TOP AND BOTTOM OF THE SIGN AND INSTALL DIRECTLY TO THE GLASS FROM THE INSIDE OF THE STORE.
g. If this is a brick building, follow the "marking" procedure above, pre-drill the holes with a ¼" masonry bit, install the provided nylon anchors and secure the sign to the wall.
h. If this is a brick building, and you do not have access to a masonry bit and hammer drill, locate the Iverify or other existing security company sign that was removed. Center the sign on top of the Digital Witness sign and mark the holes with a "sharpie" pen. Drill the holes and reuse the existing nylon anchors. See the illustration below:



i. Location of the "WARNING" signs for single and double-doors below:



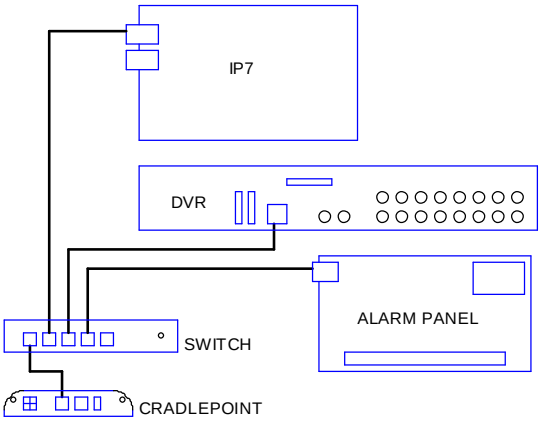
i. The last decal set will go onto the back of the Red Phone receiver so that it is visible when the phone is on-hook.



VERIFY YOUR WORK BEFORE CLOSE-OUT

a. Ensure all video is displayed on the video screen in the manager's office.

b. Ensure all Broadband connections inside the Audio Cabinet are correct. Connection diagram below:



COMPLETE CLOSEOUT PROCESS:

a. All Burg have been tested with the exception of the Emergency Phone HUBs and Off Hooks so there will only be (5) zones to test with Plano C3.
b. Contact the Installs team via "CHAT"
c. Installs will connect you to the monitoring center, C3.
d. C3 will verify all audio, Emergency phones and Off-Hook zones are working properly.
e. PLANO "INSTALLS" TTU will issue a RAPID RESPONSE close code after test and turn up. Record this on your SR.
f. Clean all work areas
g. Dress all cabling and secure and loose wiring. THE INSTALL MUST LOOK NEAT AND PROFESSIONAL OR A CLOSE CODE WILL NOT BE ISSUED.
h. Complete all remaining photo tasks. (Photos are required in real time for closure with One Path TAC.
i. Train EU on new alarm system and confirm codes are working
j. Have MOD confirm all registers, phones, and store equipment is working properly.
k. Box up all devices removed from the Manager's office, such as the DVR, Cradlepoint, Switch, etc., and ready them for shipping back to One Path.
l. Have MOD fill out Certificate of Completion and sign.
m. Call into One Path TAC and Close SR.

REQUIRED PHOTO TASKS

1. Photo of the camera monitor showing all camera views
2. Photo of installed KP with decal
3. Photo of PVM One with PVM view displayed
4. Photo of the alarm panel door open.
5. Photo of Camera Power Supply and P/S wire management
6. Photo of the Front Door signge installed
7. Photo of the emergency phones, signage installed
8. Photos of the outdoor signage installed
9. Photos of each Turbo Camera you installed
10. Photo of the signed Certificate of Completion

APPENDIX 1:
Alarm Panel Operation

Alarm Panel Operations

- **To Disarm** (Turn off) - Enter your 4 digit code plus 1 (off)
  Example: If your 4 digit code is 2222, you would press 2222-1 to turn off the system upon entering the store or if the siren is sounding. 2222 is the example used for all codes below. When doing any of the examples shown use your 4 digit passcode instead of 2222.

- **To Arm** (turn on) the system *when leaving* - Enter your 4 digit code plus 2 (away) Example enter 2222-2

- **To Arm** the system and *remain in the building* - Enter your 4 digit code plus 3 (stay). This will arm the doors but not the interior motion detectors. Example enter 2222-3

- **To Bypass** (temporarily disable) a zone – Enter you 4 digit code plus 6 (bypass) plus the 2 digit zone number. Enter 2222 6 02 this will bypass zone 2.

- **To Silence Alarms** – Enter your 4 digit code plus 1 (off) Note: The keypad will display ALARM + the zone that went off. You must clear the alarm memory to be able to arm the system again.

- **To Clear Alarm Memory** - Enter your 4 digit code plus 1(off) two times. Example, enter 222-1 and 222-1 again.

- **Turning the chime on or off -** Keypad chimes upon opening an entry door – Enter your 4 digit code plus 9 (chime) Enter 2222-9 to turn on and enter 222-9 again to turn off.

- **Testing the system –** Call Interface to put the system on test. Arm the system to the away mode and trip all devices. Disarm the system when done and clear the alarm memory. Call Interface to verify signals.

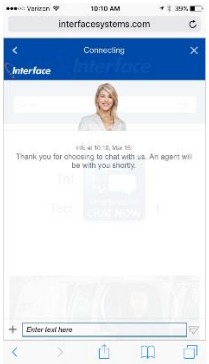
APPENDIX 2:
"CHAT" Setup

Steps for Initiating Chat with Interface Live Agents:

1. Go to http://www.interfacesystems.com/technicians and click on Interface Live Chat button in page center.

2. Next you will be asked several questions in a **mandatory** pre-chat survey. Answer all the questions to ensure your chat is routed to the right team. **DW-SATNDARD INSTALLATION.**

3. After you click to submit, you will be routed to a queue to wait for the next available agent from the appropriate helpdesk.



4. You are now connected to Interface Live.

APPENDIX 3:
Parts List

Burg Parts:

SYSTEM	Item No.	Item Description	Qty Per Site
BURG	PL-HUBM	HOLD-UP BUTTON DPDT MOMENTARY	4
BURG	5816WMWH	DOOR/WINDOW TRANSMITTER W/MAGNET WHITE	2
BURG	4219	8 ZONE EXPANDER	1
BURG	GI-TSC20	DO NOT ORDER, USE STOCK	1
BURG	6160RF	KEYPAD ALPHA ADEMCO	1
BURG	7939WG-WH	SURFACE MNT CONT GY HNYWL LOGO	5
BURG	CK-DT8035	PIR WIRED,35 DUAL TEC, TAMPER,100LB	2
BURG	CK-FG1625T	ACOUSTIC GLASSBREAK TAMP FORMC	2
BURG	CK-IS25100TC	100’ MOTION DETECTOR	2
BURG	DS938Z	360 DEGREE MOTION DETECTOR	1
BURG	VISTA-21IP	8 ZN INTEGRATED IP CNTRL PANEL	1

Audio Cabinet Parts:

SYSTEM	Item No.	Item Description	Qty Per Site
INTVIDEO	UMB-INTER-6MIC	6 MICROPHONE ZONE HARNESS	1
INTVIDEO	UMB-INTER-6SPK	6 SPEAKER ZONE HARNESS	1
INTVIDEO	AX-OLS200	12 VOLT DC 10 AMP OLS P/S	1
INTVIDEO	ISS00151	INTERFACE LARGE AUDIO ENCLOSURE	1
INTVIDEO	EK-800	AMPLIFIER 10 WATT	5
INTVIDEO	CBL-10P12IN	10 PIN 12IN RIBBON CABLE FOR IP7-MZC-FD & IP7-ZX4L	2
INTVIDEO	IP7-MZC-FD	AUD, BOARD 2WAY AUDIO PRIMARY DA	1
INTVIDEO	IP7-ZX4L	AUD, BOARD 2WAY AUDIO 4ZONE EXPANDER DA	2

INTERVIDEO Parts:

SYSTEM	Item No.	Item Description	Qty Per Site
INTVIDEO	4A-XP400	400VA 200W UPS	1
INTVIDEO	CE-CM-SX-6-B	PVM TELESCOPING CEILING MNT BRCKT 3FT-5FT6IN BLACK	3
INTVIDEO	FS2X2XCAPWHFOOT	FOOT INCRAMENTS OF FS2X2WH6NM	3
INTVIDEO	ISS-EXT-MIC	EXTERIOR MICROPHONE	1
INTVIDEO	ISS-INT-MIC	INTERIOR MICROPHONE	4
INTVIDEO	PW-PS1250F1	DEPLETE STOCK THEN USE PW-PS1250F1	2
INTVIDEO	AX-OLS200	12 VOLT DC 10 AMP OLS P/S	1
INTVIDEO	AX-VR1T	24VAC TO 12VDC 1AMP REGULATOR	1
INTVIDEO	ISS-00112	HOUSING HEIGHT STRIP CAMERA(NO CAMERA)DUAL FP POSI	1
INTVIDEO	ISS-8GBUSBDRIVE	4246820 - KINGSTON USB FLASH DRIVE - 8 GB	1
INTVIDEO	ISS-DSD5032FLB	32IN LED MONITOR HDMI DVI VGA 1XBNC 24VDC LOOPING	1
INTVIDEO	ISS-PC140	PENDANT CAP 140MM FITS ISS-DS2CE56D5TAVPIR3 + MORE	2
INTVIDEO	ISS-WMS	WALL MOUNT SHORT W/ JUNCTION BOX-ORDER PENDANT	2
INTVIDEO	KTC-KEZC2MIP4	MINI HD-TVI PINHOLE METAL CASE CAMERA	1
INTVIDEO	PPP-P3AC24168CB	PREFERRED POWER SUPPLY 24VAC, 16 OUTPUT, 8 AMP	1
INTVIDEO	EK-70	SPEAKER 20W INTERIOR PAINTABLE	4
INTVIDEO	ISS-DS2CC52D9TAVPIT	DEPLETE STOCK - USE ISS-DS2CC52D9TAVPIT	15
INTVIDEO	ISS-DS7316HUHIF4N	DEPLETE STOCK - THEN USE ISS-DS7316HUHIF4N	1
INTVIDEO	VK-K1500PWI	MINI RED WALL PHN W/SPCL WRNG	3
INTVIDEO	ISS-DSD5022FC	21.5” LED MONITOR HDMI VGA 2XBNC LOOPING 12VDC	3
INTVIDEO	EK-1RT	SPEAKER S/S ENCL 30W TAMPERS	1
INTVIDEO	IC630DB6WH	WALL PLATE TELEPHON POST 6P6C SCRW TERMINALS WHITE	3
INTVIDEO	CE-UAP	ACY, UNIV ADAPTER PLATE FOR VESA 100-200-300	3
INTVIDEO	WG-12505509	22/2PR 1PR SHLD CM/CL2 5CBX GY	1000
INTVIDEO	WG-50135001	RG59 W/ 18/2 SIAMSE 5C RL WHT	1500
INTVIDEO	WG-50885506	24/4 C5E PLENUM CMP 5C BX BLUE	500
INTVIDEO	TLP602	TRIPP SURGE STRIP 6 OUTLET 2FT CORD	1
IPNETW	WMMG-7-27-5SP	4G CP REMOTE ANTENNA KIT WITH XX' CABLE	1
IPNETW	TA0-650BLP4-N0N	NEW VERSION AT&T SIM NO WIFI COMPACT ROUTER	1
IPNETW	GS105NA	NETGEAR 5-PORT GIGABIT SWITCH	1
IPNETW	ATT-SIM	AT&T SIM CARD	1

APPENDIX 4:

Digital Witness to I3 Conversion – "What to Expect"
Store Manager Please Read and Sign!!!

Why are We here?

An ISS technician is here to conduct a Survey for a future upgrade to the existing Digital Witness system with a new Interface Interactive, I3 system. Technician is to install security equipment trademark Digital Witness. This will include installation of cameras, monitors, red phones, and security devices in the store. The technician will re-wire for these devices, if needed, test the full system, clean work areas, and remove all install related packing materials.

How Long will we be here?

This will be a 4+ day install. In the next couple weeks, Technicians will be returning and will be to convert the camera and alarm systems. We will be adding an audio system, with an additional day of troubleshooting if needed.

What will Change?

- **Red Phones will "ring" in your ear when you pick them up** – like placing a call
- **How you view and retrieve video is different** – quick guide provided
- **Cameras may be in a different order on the screen** – standardizing for all stores
- **Alarm Zone numbers may be different**– standardizing for all stores

What will *NOT* Change?

- **All alarm user codes remain the same** – please test yours before tech leaves
- **Most cameras, red phones and security devices** – re-using existing devices
- **How you use the system** – just keep using it the same as you have been

What does the MOD need to do?

- **Make sure the office area in front of equipment is clear** The tech will spend most of the day in here.
  Also show the tech where the boxes are that were shipped to site from Interface.
- **Participate in Site Survey with ISS Technician**
  Please review this document, complete steps and initial.
- **Carefully read the Certificate of Completion document**
  When we return, the tech will provide you with a document to sign at the end of the install. Please do not hesitate to mark any box as "No" where it applies and describe the reason so we can work to correct it for you.

- **Make sure you understand the system before the tech leaves** – Please test a voice down, your alarm code, DVR access, and ask any questions you have before signing the Certificate of Completion.

MOD INITIALS: _____ **DATE:** _____

APPENDIX 5:

Recorder Logins

There are two logins on the recorder. One for the installing technician's use to program and setup the recorder and another for the DG manager's use.

Logins and passords are cAsE SensiTive!

The ADMIN login for local recorder programming and setup of the recorder is.
IMPORTANT: DO NOT SHARE THIS LOGIN INFORMATION WITH ANYONE AT THE STORE.

Login admin
Password IS1xxxxx, where xxxxx represents the last 5 digits of the NAV Account Number
EXAMPLE: **DG14523N** – the admin password will be **IS14523N**

The Technician login for local recorder programming and setup of the recorder is.
IMPORTANT: DO NOT SHARE THIS LOGIN INFORMATION WITH ANYONE AT THE STORE.

Login ISSHIK
Password InterVision!

The DG managers login for the recorder is.
ONLY SHARE THIS LOGIN INFORMATION WITH DG MANAGER.

Login manager
Password manager1

APPENDIX 6:
IP7 Troubleshooting Guide

Verify the status of the Power, Ready, and Link LEDs. 90% of your trouble shooting will be resolved from the first step of verifying the LED statuses within the first 30 minutes.

1. Blue Power LED off - check power
2. Red Link LED
   a. On - next step
   b. Off - check physical network connection
3. Red Ready LED
   a. On steady, you are registered with the TalkMaster Server
   b. Off, IP7 MZC board is bad. Replace move on
   c. Ready LED Flashing – check that physical network connection is correct. This connection should be on the same switch as the DVR and Alarm panel. If you can access the DVR and see video but the IP7 MZC is still not showing up in TalkMaster you must verify the network settings.

Run the local TalkMaster software and verify that the IP address settings are correct for this location. If this is not an ISS tech onsite one must be dispatch, however if you have any level of confidence these setting are correct or the onsite tech has confirmed these setting escalate to Level 2 to look at the store network.

If the IP7 MZC can be seen in TalkMaster but the audio extension is not reachable:

1. Have Steve Hicks or Don Kaffenberger verify the extension programming
2. Check to see if this site is on Back-up, this is a known issue. The fix would be to get this site back on primary until Level 3 can resolve this issue.

Site is online:

Go through all TalkMaster settings and verify all programmed entries are correct as detailed in programming guide.
Upon verifying all settings are correct then check Authorized IP Endpoint, save, then from the firmware console right mouse on the device and Reset Connection. The connection should drop and reconnect quickly. Now go back to the TalkMaster console and click the Update Now button at the bottom of the screen. You are ready for testing.

Red Phones:

If the system is online and you can connect but cannot switch zones or the Red Phones are not functioning properly.

a. Verify that the IP7 MZC is running the most current firmware. (IP7 = 7.1.1.37) (ZC = 6:2)
b. Verify ZC tab settings the first, third, fourth, and fifth options are checked (option two unchecked)
c. Verify the zone groups are set on the Zone Group tab
d. If any of the functions on the ZC tab is not working it may help to uncheck all items, save, then recheck these items and save again.

1. To test the Red Phone operation, inbound calls:

Connect to the store and have the tech lift each Red Phone one at a time to verify talk path communication and quality of connection.

Issues:

If any of the Red Phones demonstrates operational issues remove the connection from the IP7 Tip and Ring terminals and have tech trouble shoot the phone device.

If none of the Red Phones are functioning properly have the onsite tech remove all the Tip and Ring phone connections from the IP7 and have him verify all electrical functionality of each phone. In many cases you will find one or several phones that is causing the overall issue thus not allowing any of the phones to operate. Once the tech has verified electrically the operational functionally of the phones have him land only one phone at a time and verify communication operation to you. Electrical functionality would consist of no grounds, shorts, opens, or high resistance to the phone device. Without any phones connected to the IP7's Tip and Ring terminals one should read approximately 12vdc. With a phone connected but remaining on-hook there should be little change and with the phone lifted off-hook the voltage should drop to around 8vdc. During this testing process the onsite tech should also check the voltage to the IP7 board (12vdc-13.65vdc) and the presence on a properly landed ground on the IP7 board.

2. To test the Red Phone operation, outbound calls:

In TalkMaster on the eSIP tab Option 1, the device is set to Dial SIP Extension on PTT. The PTT is the lifting of the Red Phone handset off of the cradle. At the bottom of this Option 1 page there is a place to enter an Out Dial Extension. This extension would be set to 8015 for the device to call the C3 on normal operation. For testing purposes set this extension to 8019 click save and then login to the Emergency Phone Test group ACC. Now when the onsite tech lifts the Red Phone it will call your phone directly or any person currently logged into this group. Using this setting you will be able to test with the onsite tech the operational outbound call functionally of each phone without engaging the C3 operators. Once all testing has been verified and completed, change the extension back to 8015, click save; now the C3 will get these calls. This functionally works independently of whether or not the site is on test.

Audio Zones:

The purpose of the IP7 MZC is to deliver two way audio communication. The IP7 MZC board is connected to the Mic\Speaker boards via a ribbon cable. The ribbon cables can only be installed in one direction on the boards but there are two connection jacks on each zone board. The ribbon cable from the IP7 MZC must connect on the port marked Zones 1-48 to the port marked From Zones on the first zone board and the port marked To Zones to the port marked From Zones on the Second zone board and so on.

Zone switching\Volume\Quality:

1. Now we understand how these boards are connected. In the previous steps you verified the proper Firmware was installed and now we need to verify the connectivity and operation. From the main TalkMaster screen find the device you are working with, highlight the device and perform a right mouse click and select Get Health. The most important Item is at the bottom of the list and is labeled Errors: Verify this says (None). You probably have already confirmed this from the steps above during your testing but this is important. If any errors exist you must have the onsite tech cycle power to the IP7 and you will possibly need to update firmware and reset power again. If these steps do not fix this error issue there is no need to go further as this board must be replaced.

2. Once the above items are confirmed the next step is to click on the ZC tab Options in TalkMaster and as stated above verify the items check but also make sure you have the number of zones this site has listed. You can list more zones than you have but not less. Then click on the Zone Groups tab and verify you have checked the box in front of Available Zones. Next you will notice a number that is greyed out; this could be 4 or 8 or so on. If these items are correct move on to step 4, if not move to step 3.

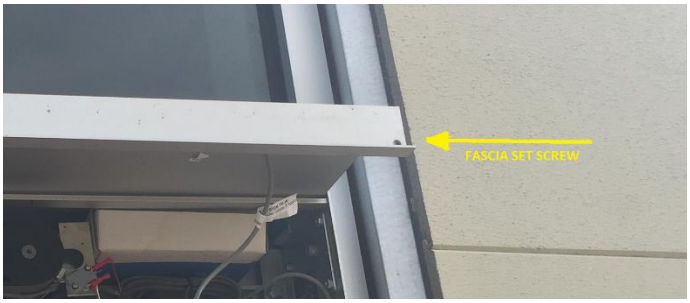
3. If the number of the Available Zones box is zero or doesn't reflect the number of actually zones via zone boards that are connected to the IP7 MZC you have a data communication issue between the IP7 MZC and the zone boards. This issue can be cause by a bad IP7 MZC board, one or more bad zone boards, a bad or improperly connected ribbon cable or a field wiring issue. The issue most likely requires escalation.

4. The Zone boards have clearly marked terminals indicating where the Mics and Speakers are landed. The onsite tech must verify that the speaker wires landed on the zone boards have approximately 8 Ohms of resistance. This range can go from 4 Ohms to 16 Ohms but optimal would be 8 Ohms. The Mic wiring should be free of shorts, grounds or opens and of Shielded wire with the drain wire landed on the GND terminal only with the other end wrapped around the cable and taped preventing contact to ground. Once connected to the site, switch through the available zones by pressing *1 through *8 for zones one through eight and *9 for all zones on and *0 for all zones off. Each zone will have two red LEDs one for Mic and One for Speaker, verify with the onsite tech the operation of these LEDs. If the zones are not switching and indicating properly verify the Zone Group settings in Talk Master, and if still non-operational jump back to step 3.

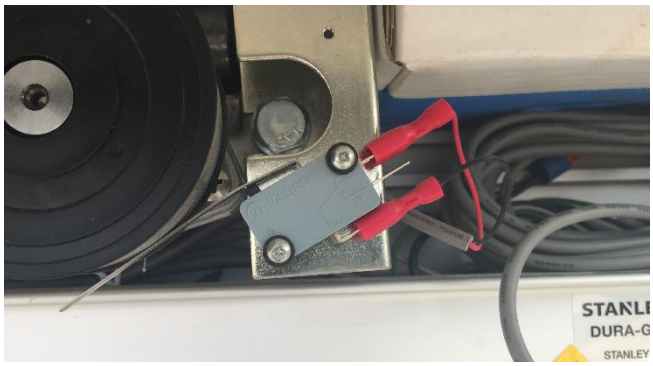
5. When testing the Mics and Speakers at a site with the tech verify each zone has ample volume without distortion and background interferences. The zone boards have volume controls for Mic and Speaker for each zone. The top Blue volume controls are for the speakers and the bottom white volume controls are for the Mics. Generally, a midrange setting is desirable, but depending upon the store's background noises and Mic\Speaker placement these setting may need to be adjusted.

APPENDIX 7:
Automatic Door Wiring Instructions

1. **Automatic Door Wiring Instructions:**
   - **a.** Remove the screws that hold the automatic door fascia. There are (4) set screws across the bottom of the fascia.



   - u. Lift the fascia up, (fascia is hinged), and locate the "door closed" microswitch. This microswitch is located on the right side of the door.



   - v. Ensure the BLACK wire is landed on the "COMMON" switch terminal, and the RED wire is landed on the "NORMALLY CLOSED" switch terminal.
   - w. Un-roll the flying lead from the microswitch and route this wire up through the door header through the drywall, up to the open ceiling.
   - x. Install the 2K EOL resistor on the BLACK wire of the flying lead.
   - y. Connect the flying lead from the microswitch to the alarm wire from the panel.
   - z. Re-secure the fascia in the proper fashion

APPENDIX 8:
Zone Doubling

Typical resistor use
"End of the line" (EOL) resistors are used to monitor the integrity of the wiring so that the panel will report any damage that may occur to the wiring. They will normally be located at the last device on a zone (e.g. inside a motion detector or connected to contact terminals etc.). In some cases, there may be more than one device connected to a zone, in this case the last detector on the wire will have a resistor but any other detectors on that wire will normally not.

Zone doubling
Zone doubling is used to turn an 8-zone alarm panel into a 15 zone alarm panel without adding zone expansion boards. When the zone doubling feature is turned on in the panel's programming, it allows for the use of 2 different zone loops (zone wiring) to be connected to a single zone's screw terminals but still be seen by the panel as 2 different zones. This is accomplished by using 2 different value (size) resistors connected separately to 2 different wiring loops.

Zone doubling is not used for zone 1 because it can be used as a fire zone and utilize 2 wire smoke detectors. Although zone 1 can be reprogrammed as a non-fire zone, it still does not allow the use of zone doubling.

The Vista 21IP panel uses 6.2k resistors (blue, red, red, gold) to identify zones 10 through 16 and 3k resistors (orange, black, red, gold) for zones 2 through 8. These resistors are included inside the panel kit in a bag labeled **WAZONEDBL- KT Zone Doubling Kit**.

Certificate of Completion and Acceptance

Your system was installed by trained technicians to meet the high standards of our quality assurance program.

Customer Name: _____ Branch #: _____

Installation Address: _____

City: _____ State: _____ Zip: _____ Date Installed: _____

Job #1: _____ Install Ticket #: _____ P.O. #: _____

Job #2: _____ Install Ticket #: _____ P.O. #: _____

Job #3: _____ Install Ticket #: _____ P.O. #: _____

Account #: _____ Confirmation #: _____

Type of System: ◯ Secure Broadband ◯ Access Control ◯ Managed Access ◯ Structured Cabling
◯ Digital Voice ◯ Fire/Life Safety ◯ Camera Surveillance ◯ Supervisory System
◯ Intrusion ◯ Interactive Video ◯ Other: _____

Monitoring: ◯ Not Monitored ◯ Monitored by UL Listed Central Station ◯ Remote Video Monitoring
If Monitored, type of transmission link: ◯ Phone Lines ◯ Radio/Cellular/Broadband Backup
UL Listing *(if required)*: _____ Type of Listing: _____ Certificate #: _____

I have received and understand the following:

◯ System Training & Operation ◯ Emergency Contact List ◯ Referral Program Details
◯ System User's Guides ◯ Backup Options ◯ Alarm Permit Information
◯ Monitoring Procedures ◯ Keys to Panel ◯ Other: _____

	yes / no
Was installation completed in accordance with the Agreement?	◯ ◯
Were decals and/or signs installed to your satisfaction?	◯ ◯
Was the installation completed to your satisfaction?	◯ ◯
Are camera image views to your satisfaction? ◯ N/A	◯ ◯
Was technician wearing protective shoe coverings when entering your location? *(Residential Only)*.	◯ ◯
Was the work area left clean and in order?	◯ ◯
Were you properly instructed on the operation of the system?	◯ ◯
Were our installers knowledgeable and helpful?	◯ ◯
Did we meet your expectations?	◯ ◯
Would you refer us to a friend or associate?	◯ ◯
Are phones working properly?	◯ ◯

Comments: _____

The customer named below hereby certifies that all equipment referred to in the Agreement, Schedule of Protection or Addendum has been delivered, is fully installed and it is in good operating order. Customer unconditionally accepts the equipment and authorizes commencement of billing in accordance with the Agreement.

_____ _____
Customer or Company Representative Signature *Date*

_____ _____
Customer or Company Representative Name Printed *Title*

Interface Simplify To The Power Of One.

ACO 7245, 6860 Lic. # 469046

Top-Company | Bottom-Customer

CertificateOfCompletion&Acceptance020717

Certificate of Completion and Acceptance

Your system was installed by trained technicians to meet the high standards of our quality assurance program.

Customer Name: _____ Account #: _____

Installation Address: _____

City: _____ State: _____ Zip: _____

Job #: _____ Install Ticket # _____ Confirmation #: _____ Branch #: _____

Type of System:
◯ Secure Broadband ◯ Access Control ◯ Managed Access ◯ Structured Cabling
◯ Digital Voice ◯ Fire/Life Safety ◯ Camera Surveillance ◯ Supervisory System
◯ Intrusion ◯ Interactive Video ◯ Other: _____

Monitoring: ◯ Not Monitored ◯ Monitored by UL Listed Central Station ◯ Remote Video Monitoring

If Monitored, type of transmission link: ◯ Phone Lines ◯ Radio/Cellular/Broadband Backup

UL Listing *(if required):* _____ Type of Listing: _____ Certificate #: _____

I have received and understand the following:

◯ System Training & Operation ◯ Emergency Contact List ◯ Referral Program Details
◯ System User's Guides ◯ Backup Options ◯ Alarm Permit Information
◯ Monitoring Procedures ◯ Keys to Panel ◯ Other: _____

	yes	no
Was installation completed in accordance with the Agreement?	◯	◯
Were decals and/or signs installed to your satisfaction?	◯	◯
Was the installation completed to your satisfaction?	◯	◯
Are camera image views to your satisfaction? ◯ N/A	◯	◯
Was technician wearing protective shoe coverings when entering your location? *(Residential Only)*.	◯	◯
Was the work area left clean and in order?	◯	◯
Were you properly instructed on the operation of the system?	◯	◯
Were our installers knowledgeable and helpful?	◯	◯
Did we meet your expectations?	◯	◯
Would you refer us to a friend or associate?	◯	◯
Are phones working properly?	◯	◯

Comments: _____

_____

_____

The customer named below hereby certifies that all equipment referred to in the Agreement, Schedule of Protection or Addendum has been delivered, is fully installed and it is in good operating order. Customer unconditionally accepts the equipment and authorizes commencement of billing in accordance with the Agreement.

_____ _____
Customer or Company Representative Signature *Date*

_____ _____
Customer or Company Representative Name Printed *Title*

Interface® Simplify To The Power Of One®

ACO 7245, 6860 Lic. # 469046