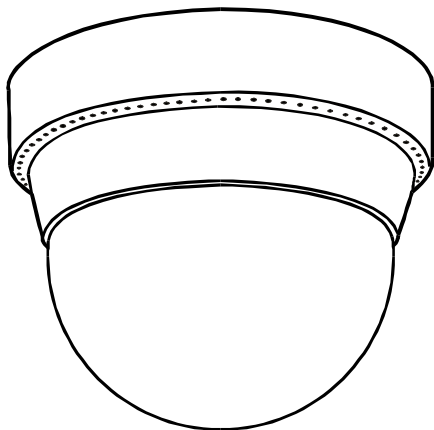# Installation and Operation Manual

A-DS1B
A-DS1C

1/3" CCD B/W & 1/4" CCD COLOR
MOTORIZED DOME CAMERA

ADT®

A tyco INTERNATIONAL LTD. COMPANY

Please read this manual thoroughly before use, and keep it handy for future reference.

FCC COMPLIANCE STATEMENT

INFORMATION TO THE USER: THIS EQUIPMENT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS B DIGITAL DEVICE, PURSUANT TO PART 15 OF THE FCC RULES. THESE LIMITS ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST HARMFUL INTERFERENCE IN A RESIDENTIAL INSTALLATION. THIS EQUIPMENT GENERATES, USES AND CAN RADIATE RADIO FREQUENCY ENERGY AND, IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTIONS, MAY CAUSE HARMFUL INTERFERENCE TO RADIO COMMUNICATIONS. HOWEVER, THERE IS NO GUARANTEE THAT INTERFERENCE WILL NOT OCCUR IN A PARTICULAR INSTALLATION. IF THIS EQUIPMENT DOES CAUSE HARMFUL INTERFERENCE TO RADIO OR TELEVISION RECEPTION, WHICH CAN BE DETERMINED BY TURNING THE EQUIPMENT OFF AND ON, THE USER IS ENCOURAGED TO TRY TO CORRECT THE INTERFERENCE BY ONE OR MORE OF THE FOLLOWING MEASURES :
- REORIENT OR RELOCATE THE RECEIVING ANTENNA
- INCREASE THE SEPARATION BETWEEN THE EQUIPMENT AND RECEIVER
- CONNECT THE EQUIPMENT INTO AN OUTLET ON A CIRCUIT DIFFERENT
  FROM THAT TO WHICH THE RECEIVER IS CONNECTED
- CONSULT THE DEALER OR AN EXPERIENCED RADIO/TV TECHNICIAN
  FOR HELP

CAUTION: CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE MANUFACTURED COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

THIS CLASS A DIGITAL APPARATUS MEETS ALL REQUIREMENTS OF THE CANADIAN INTERFERENCE-CAUSING EQUIPMENT REGULATIONS.

CET APPAREIL NUMÉRIQUE DE LA CLASSE A RESPECTE TOUTES LES EXIGENCES DU RÈGLEMENT SUR LE MATÉRIEL BROUILLER DU CANADA.

FEATURES

CAMERA

• **1/3" CCD B/W**
  1/4" CCD COLOR — **Image Sensor** - This is the part of the camera that produces a high quality picture.

• **Wide Angle 3.6mm Lens** - Allows a large area to be monitored from a single camera.

• **Electronic Iris** - Automatically adjusts the camera for changes in lighting to ensure an optimal picture at all times.

⚠ **Notice :** *The user of this system is responsible for checking and complying with local, state, and federal laws and statutes concerning the recording and monitoring of audio signals.*

• **Accessory Input** - Allows the use of alarm contacts, motion sensors and two-way intercoms.

WARNING : *To reduce the risk of fire or electric shock, do not expose this product to rain or moisture.*

REMOTE DOME CAMERA CONTROL SYSTEM (4CH)

• **Remote pan/tilt control** through 6pin multi-cable.

• Observation system compatible.

• Wireless IR remote emulates the keys on the monitor.

• Easy in stallation with mounting adaptor plate.

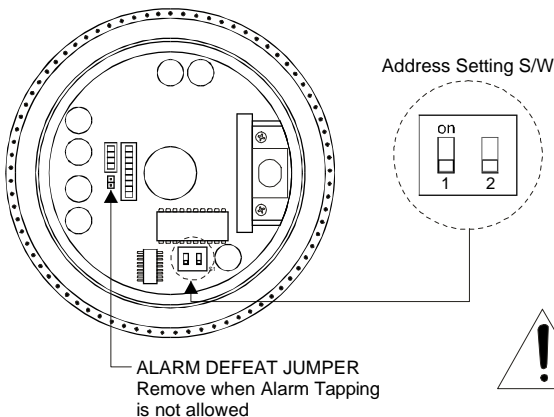# INSTALLATION WITH THE OBSERVATION OR QUAD MONITOR SYSTEM

ADDRESS & ALARM DEFEAT JUMPER SET

BASE

SWIVEL

open   close
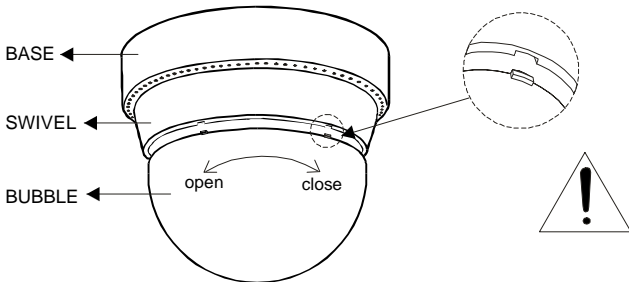
BUBBLE

When you open the bubble,
Please hold swivel, and then
twist the bubble softly, other wise
you may break inside gear.

close: turn the bubble to cw
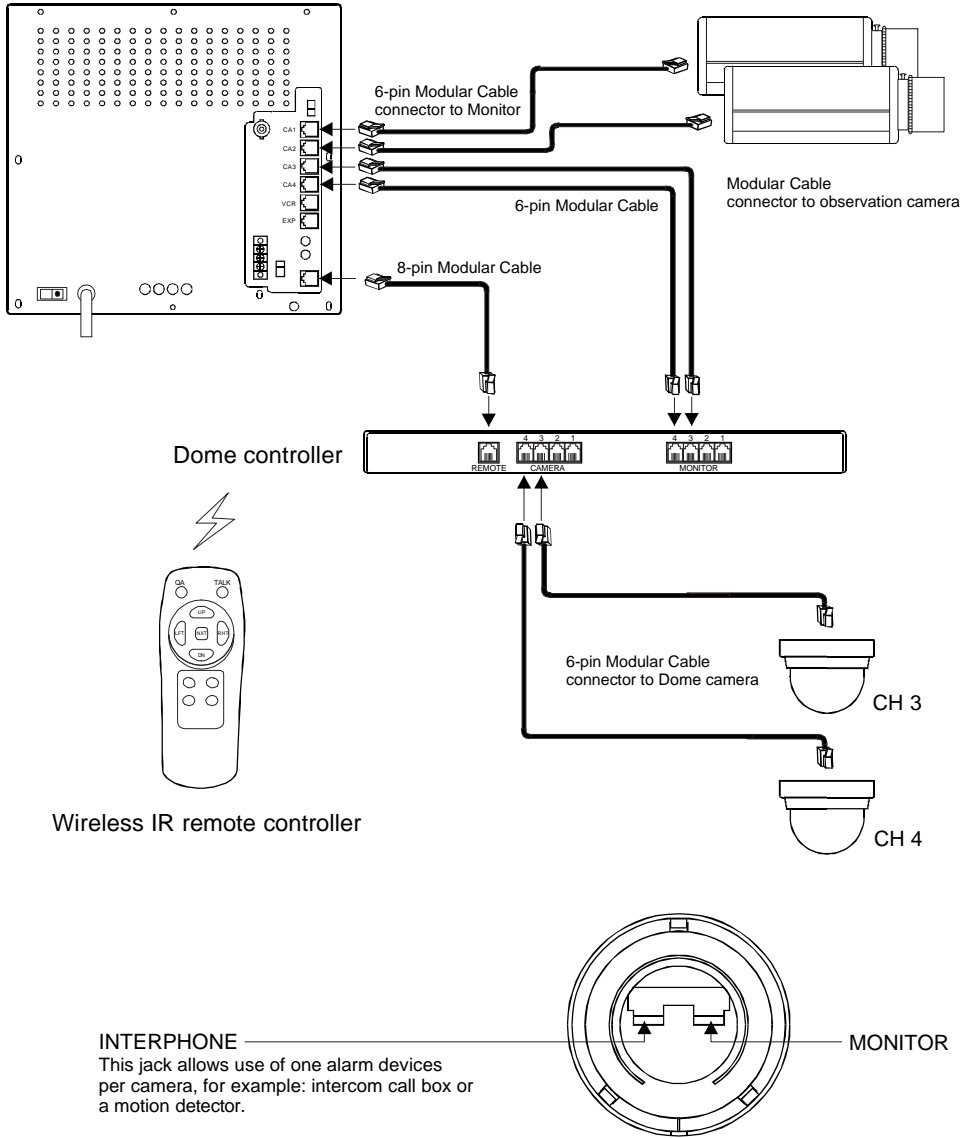**open:** turn the bubble to ccw

Inside the Dome camera

Address Setting S/W

on

1   2

CHANNEL SELECT S/W

1	2	
OFF	OFF	CH 1
ON	OFF	CH 2
OFF	ON	CH 3
ON	ON	CH 4
OFF	OFF	Wired Remote

ALARM DEFEAT JUMPER
Remove when Alarm Tapping
is not allowed

ex) If your monitor has two cameras on
CH1, CH2, your new remote dome
camera could installed CH3, CH4.
You should change address of the
remote dome cameras to CH3, CH4.

BE SURE TO CONNECT CABLES CORRECTLY TO APPROPRIATE LOCATION OF THE EACH EQUIPMENTS.

REAR OF THE MONITOR	REAR OF THE CONTROLLER		DOME CAMERA
	MONITOR	CAMERA	
CH 1	1	1	CAMERA 1 (OFF OFF)
CH 2	2	2	CAMERA 2 (ON OFF)
CH 3	3	3	CAMERA 3 (OFF ON)
CH 4	4	4	CAMERA 4 (ON ON)
REMOCON	REMOTE (8-PIN)		

4CH TYPE (Example of installation of two remote dome camera on Quad / Observation monitor system with two camera installed already.)

6-pin Modular Cable connector to Monitor

Modular Cable connector to observation camera

6-pin Modular Cable

8-pin Modular Cable

Dome controller

REMOTE   CAMERA   MONITOR

6-pin Modular Cable connector to Dome camera

CH 3

CH 4

Wireless IR remote controller

QA   TALK

UP

ON

INTERPHONE
This jack allows use of one alarm devices
per camera, for example: intercom call box or
a motion detector.

MONITOR

Bottom view of the dome camera

REMOTE DOME CONTROL SYSTEM (1CH)

• 4″ Frush mounting dome camera

• Easy install with 6pin modular connector

• Remote pan/tilt control

• Observation system compatible (compatible to observation camera)

• Wired remote controller for pan/tilt

If your Observation/Quad monitor has already installed more than one or two cameras and needed only one remote dome camera, then 1CH wired remote dome controller with one dome camera is recommended.

1 CH DOME CAMERA CONTROLLER

Wired Remote Controller
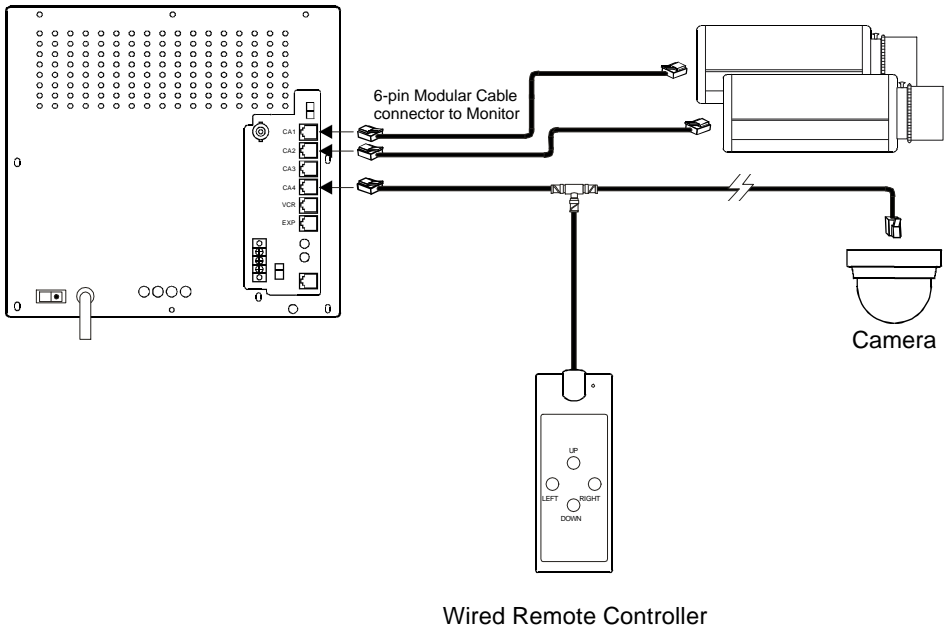
BEFORE YOU BEGIN INSTALLATION

- Proper safety equipment for the location and type of installation.
- Proper lift equipment to reach the installation.
- Safe features of the lift equipment.

BE SURE

- Electrical power is not connected to the dome and Observation/Quad monitor during installation.

VERIFYING AND UNPACKING

- **4CH TYPE**

  Verify that all parts have arrived and their configuration is correct.
    - Remote controller unit
    - B/W or Color dome camera
    - One 60ft cable (6-pin)
    - Two 10ft multi-cable (6-pin, 8-pin)
    - IR Remote control (Required 2 AAA batteries, not included)

- **1CH TYPE**

  Verify that all parts have arrived and their configuration is correct.
    - Wired remote controller   - One 60ft cable
    - B/W or Color dome camera   - Modular In-Line coupler

INSTALLATION PROCEDURE

Be sure that no power is connected to dome camera and Observation/Quad monitor.

1. Twist open the clear dome cover to CCW to reach inside the dome camera.

2. Set the camera ID according to the position you want to connect on the back of the monitor. (CAM 1, CAM 2, CAM 3, CAM 4)

⚠️   ex) If you want to use the dome camera as camera 2, then ID of the dome camera should be set as camera 2 (on off), refer page 4, address setting.
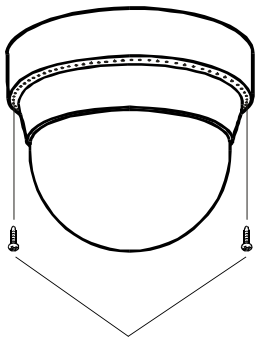
3. Place the main controller on the desk or proper appropriate location.

4. Connect the main controller and the Observation/Quad monitor with 10ft multi-cables.

5. Wiring the 60ft multi-cable from monitor to dome camera location.

6. Attach the adaptor plate on the ceiling, using M3x15 screws(included).

7. Connect one end of the 60ft cable to the connector of the dome camera. (named monitor)

**8.** Twist the base of the dome camera to the adaptor plate on the ceiling until heard "click" sound.

⚠️ *Do not turn the clear bubble or swivel, when you attach the dome to adaptor plate.*
Please hold base and turn the base cw. or ccw.

9. Attach the other end of RJ-11 connector to the back of the main control unit's connector.(named camera)

10. Adjust panning angle with two screws(supplied).

screw for panning angle adjustment.

Adaptor plate

M3 x 15 screw

Hook

Base (hold base when you twist to attach the dome to adaptor plate)

Swivel

Bubble
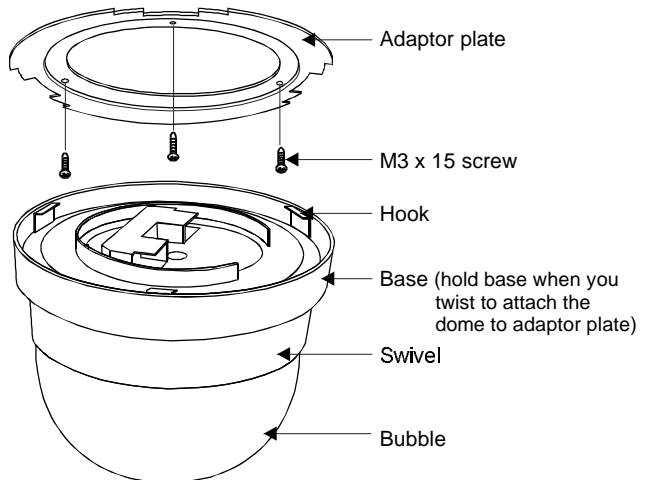
11. Repeat sequence 1 through 9 until install all dome cameras.

12. Insert two AAA size batteries (not included) into IR remote controller.

OPERATION GUIDE FOR IR REMOTE
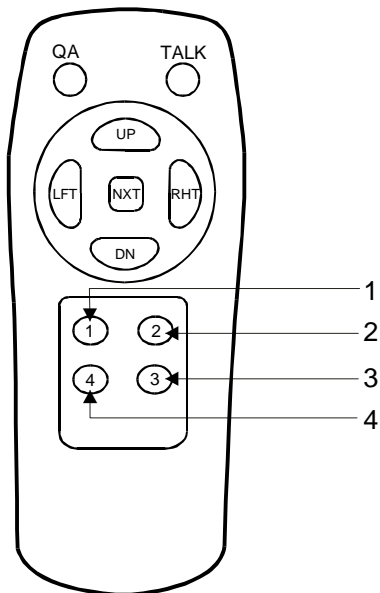
1. QUAD MODE

QA : Toggle s/w for quad and auto switcher mode.
TALK : Pressing this button will send the audio from the microphone in the
monitor to the selected camera′s intercom.
UP / DOWN, LEFT / RIGHT : Move camera′s direction.
NEXT : Select active camera to controlled LEDs on front of the main controller.
will advance ON each press.
1 ~ 4: Press and release will freeze screen. (TOGGLE)

2. AUTO SWITCHER MODE

QA : Press and release turn to auto switcher mode (TOGGLE)
1 : Press and release will switch to camera 1
2 : Press and release will switch to camera 2
3 : Press and release will switch to camera 3
4 : Press and release will switch to camera 4

Next : *Do not use this key in Switcher mode, unless active camera and the picture*
on the screen does not match. In swither mode, LEDs the monitor and
main controller should be matched in sequence.

CONTROLS

CONTROL MODES

IR remote could control up to four main control units.
Press ″QA″ and ″1″ keys simultaneously will set the IR remote to ″MODE 1″.
″QA″ + ″1″ ———————— ″MODE 1″ (Factory Default)
″QA″ + ″2″ ———————— ″MODE 2″
″QA″ + ″3″ ———————— ″MODE 3″
″QA″ + ″4″ ———————— ″MODE 4″

MAIN CONTROLLER PCB

If you want to use more than on controller in same location, you need to set ID(s1)
of the controller.

1 : Active camera
2 : Halt (reaches limit)
3 : Remote
4 : Ir window

1	2	
OFF	OFF	MODE 1 (Factory Default)
ON	OFF	MODE 2
OFF	ON	MODE 3
ON	ON	MODE 4
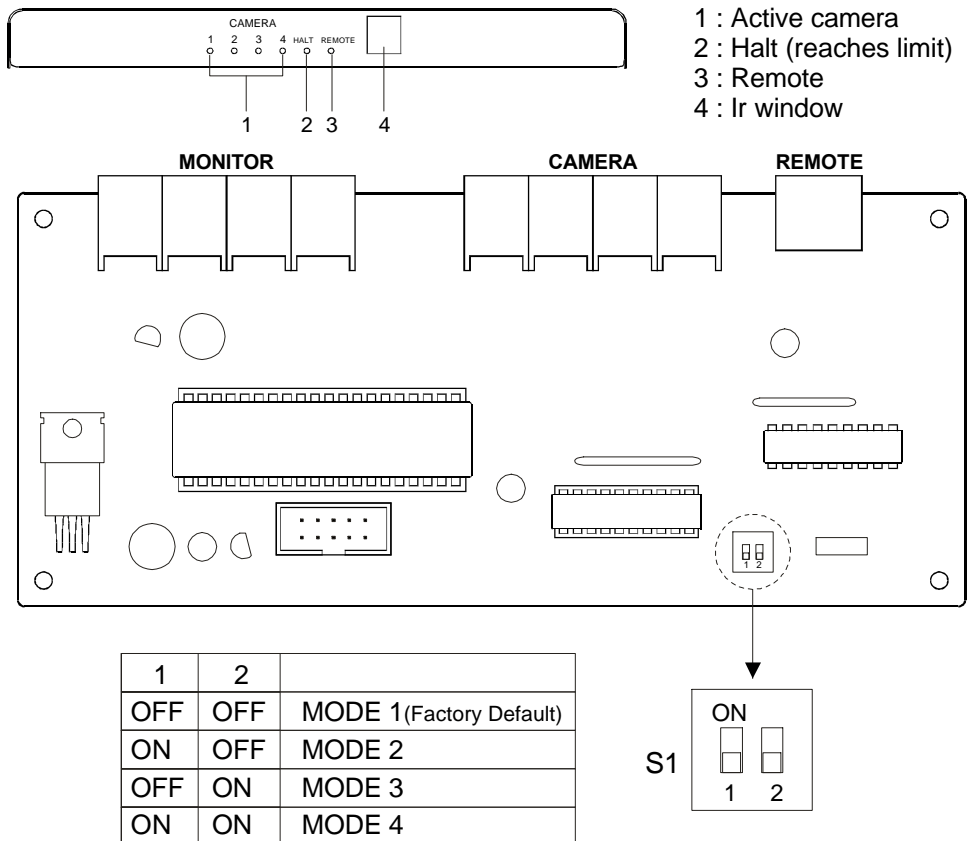
SPECIFICATIONS (1/3" CCD B/W CAMERA)

Power Source	15 VDC (From Monitor)
Image Sensor	1/3" Interline Transfer CCD
Active Pixels (H x V)	512 x 492
Image Sensor Area	4.8mm H x 3.7mm V
Signal to Noise	46 dB (AGC OFF)
Electronic Iris	1/100,000 Sec.
Synchronization	External
Signal Format	525 Lines, 2:1 Interlace
Video Output	1.0Vp-p (75 Ohms)
Ambient Temperature	14°F to 122°F (-10°C to 50°C)
Ambient Humidity	0 - 96% Non-Condensing
Size Camera	Ø126 x 95mm
Controller	305mm(W) x 33mm(H) x 280mm(D)
Resolution	> 380 TV lines
Min. scene illumination	0.02 Lux (F1.4)
Lens	3.6mm (F3.8)
Power consumption	
wired remote controller	MAX. 0.5Watts
wireless IR remote controller	MAX. 0.2Watts
controller	MAX. 1Watts
camera	MAX. 2.0Watts
Panning angle	340°
Tilting angle	80°
Pan/tilt speed	25°±10%/sec
MAX. Operating range	Expandable up to 240ft(72m)
Connector	6 Pin modular

SPECIFICATIONS (1/4" CCD COLOR CAMERA)

Power Source	15 VDC (From Monitor)
Image Sensor	1/4" Color CCD
Active Pixels (H x V)	512 x 492
Signal to Noise	46 dB (AGC OFF)
Electronic Iris	1/60 ~ 1/100,000 secretary.
Synchronization	External (VRI)
Signal Format	525 Lines, 2:1 Interlace
Scanning Frequency (H / V)	15.734KHz / 59.94KHz
Video Output	1.0Vp-p (75 Ohms)
Ambient Temperature	14°F to 122°F (-10°C to 50°C)
Ambient Humidity	0 - 96% Non-Condensing
Size Camera	Ø126 x 95mm
Controller	305mm(W) x 33mm(H) x 280mm(D)
Resolution	> 330 Lines
Min Illumination	2 Lux 50IRE (F1.2)
Lens	3.6mm F2.0
Power consumption	
wired remote controller	MAX. 0.5Watts
wireless IR remote Controller	MAX. 0.2Watts
controller	MAX. 1Watts
camera	MAX. 2.0Watts
Panning angle	340°
Tilting angle	80°
Pan/tilt speed	25°±10%/sec
MAX. Operating range	Expandable up to 240ft(72m)
Connector	6 Pin modular
Gamma Correction	0.45
AGC	Internal, automatic
White Balance	Auto

REMOTE CONTROLLER SYSTEM

4CH SYSTEM	EA
Remote dome camera	1
4CH Controller	1
IR Remote	1
60ft Multi-cable (6pin)	1
10ft Multi-cable (6pin)	1
10ft Multi-cable for (8pin)	1

SINGLE CH SYSTEM	EA
Remote dome camera	1
One channel controller	1
60ft Multi-cable	1
Modular In-Line coupler	1

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