PRODUCT MANAUL

Remote Display Units

TWO BUTTON, P/N 10-2630 (RDU2)
TEN BUTTON, P/N 10-2631 (RDU10)
FOURTEEN BUTTON, P/N 10-2646 (RDU14)

P/N 06-610, Rev. 0
June 2011

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DOCUMENT HISTORY

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Revision	Section	Date	Reason for Change
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TABLE OF CONTENTS

LIST OF EXHIBITS

1.0 ABOUT THIS MANUAL

This manual is intended to be a complete reference for the Programming, Operation and Service of Fike's RDU2 (P/N 10-2630, RDU10 (P/N 10-2631) and RDU14 (P/N 10-2646) remote display units. The information contained in this manual shall be used by factory trained service technicians who are authorized to work on this product. This manual also serves as the User's Manual for the product.

The first-time installer and/or user should thoroughly read and understand the instructions contained within this manual before using this device. These instructions must be followed to avoid damage to the equipment itself or adverse operating conditions caused by improper programming and operation.

1.1 RELATED DOCUMENTATION

Further details about the product referenced in this document can be found in the following manuals.

Document Title	Part Number
CyberCat™ 254/1016, Installation Manual	06-326
CyberCat™ 254/1016, Operation & Maintenance Manual	06-326-2
Cheetah Xi™, Product Manual	06-356
Cheetah Xi™ 50, Product Manual	06-369
CyberCat™, Product Manual	06-326
CyberCat™ 50, Product Manual	06-368
Remote Display Unit, Installation Instructions	06-611

Exhibit 1: Related Documentation

1.2 PRODUCT SUPPORT

If you have a question or encounter a problem not covered in this manual, you should first try to contact the distributor who installed the Fike system. Fike has a worldwide distribution network. Each distributor sells, installs, and services Fike equipment. Look on the back of the cabinet door, there should be a sticker with an indication of the distributor who installed the system. If you can not locate the distributor, please call Fike Customer Service for locating your nearest distributor, or go to our web-site at www.fike.com. If you are unable to contact your installing distributor or you simply do not know who installed the system, you can contact Fike Technical Support at (888) 628-3453, Option 2, Monday through Friday, 8:00 am to 4:30 pm CST.

1.3 SAFETY INFORMATION

Important safety admonishments are used throughout this manual to warn of possible hazards to persons or equipment.

⚠Caution

Cautions are used to indicate the presence of a hazard which will or may cause damage to the equipment if safety instructions are not followed or if the hazard is not avoided.

Note: Provides information on installation, operation, maintenance, performance or general tips that are important but not hazardous to anything or anyone.

1.4 TERMS USED IN THIS MANUAL

The following are various terms used in this manual with a brief description of each.

Term	Description
Ω	Symbol for “ohm”. Unit of resistance.
Abort State	(Main Panel “Abort” Yellow LED ON, Piezo) The Abort occurs when an input circuit configured for abort operation has been activated while an alarm condition is present. The abort state is a non-latching event and is intended for preventing a suppression zone from advancing to the release state. (Available in Cheetah Xi only)
AC Normal State	(Main Panel “AC Normal” Green LED ON) The system is in the AC Normal state when appropriate AC power is being applied to the system.
Alarm State	(“Alarm” Red LED ON, Piezo) The alarm occurs when an input circuit configured for alarm operation (typically a detector or contact device) has been activated. The alarm state is a latching event in the CyberCat/Cheetah Xi. The operator will be required to RESET the panel in order for the panel to exit/clear the alarm state.
Normal State	(“Trouble” Yellow LED OFF) The system is in the normal state when the power supply and all circuits are configured properly, connected, and responding properly. The system remains in normal state until a trouble condition occurs.
Notification Appliance	A fire alarm system component such as a bell, horn, speaker, light, or textual display that provides audible, tactile, or visible output, or any combination thereof. The device notifies building occupants of system status. This manual interchanges the terms notification and audible appliance.
Nonpower-Limited	A circuit designation given for wiring purposes. The amount of current flowing through the circuit is unlimited vs. being limited, or power-limited. AC power and Battery wiring is Non Power-limited.
Power-Limited	A circuit designation given for wiring purposes. The amount of current flowing through the circuit is limited (typically by fuse) vs. being unlimited, or non-power-limited. The addressable loops and output circuits are power-limited. The circuit has a maximum power that flows through it or it current limits and opens the circuit.
Pre-Discharge State	(Main Panel “Pre-Discharge” Red LED ON, Piezo) Pre-Discharge occurs when an input circuit configured for alarm operation has been activated and the Suppression Pre-Discharge type is satisfied. The Pre-Discharge state is a latching event in the Cheetah Xi. The operator will be required to RESET the Cheetah Xi in order for the panel to exit/clear the Pre-Discharge state.
Release State	(Main Panel “Release” Red LED ON, Piezo) Release occurs when an input circuit configured for manual release operation has been activated or the Pre-Discharge automatic countdown has expired with no Abort input active. The release state is a latching event in the Cheetah Xi. The operator will be required to RESET the Cheetah Xi in order for the panel to exit/clear the release state.
RS-485	A data communication standard produced by the Electronics Industry Association (EIA). This standard was developed to allow for reasonable success in transferring data over specified distances and/or data rates. Maximum cable length is 4,000 feet (1,219 m) using Belden 9841 or equivalent twisted pair shielded low capacitance cable.
Supervisory State	(“Supervisory” Yellow LED ON, Piezo) The supervisory state occurs upon activation of a supervisory input circuit. The supervisory state is non-latching and will follow the status of the supervisory input contact.
Trouble State	(“Trouble” Yellow LED ON, Piezo) The trouble state occurs upon any detectable condition which could impair system operation including connection problems, ground faults, hardware problems, power problems, or configuration problems. Certain trouble conditions are latching; others allow the system to reset upon trouble condition removal. Depending upon the type of trouble condition, the system may or may not remain operational. When the system is in trouble state, it is not in the normal state.
Zone	A defined area within the protected premises. A zone can define an area from which a signal can be received, an area to which a signal can be sent, or an area in which a form of control can be executed. A particular area being protected. This term is used to create the relationship between activation inputs to notification outputs and peripherals.

2.0 PRODUCT DESCRIPTION

Fike's Remote Display Units (RDU) are a compact, cost-effective, 80 character, backlit LCD remote annunciators for use with Fike's CyberCat 254, CyberCat 1016, CyberCat 50, Cheetah Xi and Cheetah Xi 50 control panels. The remote display mimics the display of the host control panel and displays system status information. Up to 31 remote displays may be connected to the host panels RS485 peripheral bus.

The RDU10 and RDU14 remote displays are capable of two-way communication with the host control panel. They provide control switches that allow remote control of critical system functions (e.g., Drill, Acknowledge, Silence and Reset). A key-switch is provided on the RDU10 and RDU14 that prevents unauthorized operation of the control switches.

2.1 FEATURES

(Typical all RDUs unless noted otherwise)

- 80-character Liquid Crystal Display (4 x 20)
- Mimics current display information from the host panel
- System status LEDs for Power, Alarm, Trouble, Supervisory, and Alarm Silenced to provide indication of system status
- Control switches for system Drill, Acknowledge, Silence and Reset functions (RDU10 and RDU14)
- User interface buttons for navigation through annunciator screen menus
- Supervised by host control panel
- Key switch enables/disables control switches (RDU10 and RDU14)
- Displays time and date during normal operation
- Up to 31 remote displays per host panel
- May be powered by from the host panel or by battery backed, regulated, power-limited power supply listed for Fire Protective Signaling Use (requires 24 VDC)
- Local piezo sounder configurable ON/OFF for notification of a new event
- 800 event history buffer
- Can be located up to 4,000 feet (1,219 m) from host control panel
- Surface or semi-flush mountable
- Suppression releasing countdown display
- Can be configured to annunciate specific zone events only

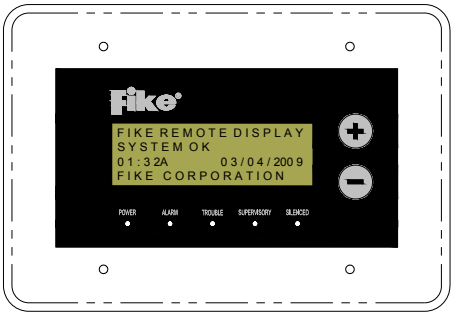

Exhibit 2: RDU2 (P/N 10-2630)

Exhibit 3: RDU10 (P/N 10-2631)

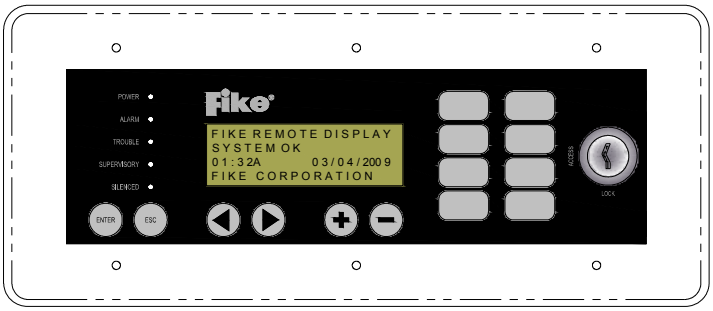

Exhibit 4: RDU14 (P/N 10-2646)

2.2 LED INDICATORS

All of the RDUs are equipped with five LEDs that provide visual indication of the status of the associated control panel. The Alarm, Trouble, and Supervisory LED's have two functionalities; Blinking or ON. If an LED is blinking, there is a new event that has not been silenced or acknowledged. The Silence LED will illuminate steady ON once the event has been acknowledged or silenced.

AC POWER

This is a green LED which turns on when AC input power at the control system panel is within the normal range and is operating using AC input power. The panel constantly monitors for a loss of AC power. Whenever a loss is detected, this LED will turn off. This LED also extinguishes and the panel switches to secondary power (typically lead-acid batteries) when AC power drops below 85% of rated input AC. There is a brown-out window, where once the AC input restores or returns to 90% of the rated input AC, the control panel returns the AC POWER to normal. On reset with no AC present, the LED will come on briefly until the AC loss signal is detected.

ALARM

This is a red LED which flashes when the control panel records an Alarm event. Press the **ACK** or **SILENCE** button to change the LED to a steady-on condition. All Alarm events are latching events. The LED will turn off if the Alarm event clears and the operator presses the RESET button.

TROUBLE

This is a yellow LED which flashes when the control panel records a Trouble event. Press the **ACK** or **SILENCE** button to change the LED to a steady-on condition. The LED will turn off if all of the non-latching TROUBLE events are cleared or an operator presses the RESET button. The following are latching troubles which will require the panel to be reset to clear the TROUBLE from the display if the trouble is resolved: LOOP CLASS A OPEN, LOOP SHORT.

SUPERVISORY

This is a yellow LED which flashes when the control panel records a Supervisory event. Press the **ACK** or **SILENCE** button to change the LED to a steady-on condition. The LED will turn off if the Supervisory event clears or an operator presses the RESET button.

SILENCED

This is a yellow LED which turns on when the SILENCE button at the remote display or the control panel is pressed. If a new event occurs in the silenced zone, it will re-sound the silenced audibles and the SILENCE LED will turn off. Silencing the audibles will require a subsequent press of the SILENCE switch.

2.3 SWITCH FUNCTIONS

Each RDU is equipped with membrane (control) switches that provide event navigation and control functions to the operator. The RDU10 and RDU14 are both equipped with a key-switch that utilizes a standard Fike key. With the key-switch in the "LOCK" position, most of the control switches are disabled. With a Fike key inserted and turned (clockwise) to the "ACCESS" position, all of the control switches are enabled. Never leave the key inserted in the remote display as this will allow unauthorized use.

A brief description of the operation of each switch is provided as follows.

2.3.1 USER INTERFACE SWITCHES

When pressed, the switch will increment the display to the next event even with the RDU access key in the 'LOCK' position. It is also used during configuration of the RDU to increment the field indicated by the cursor to the next valid value. *Provided on all RDUs.*

When pressed, the switch will decrement the display to the previous event even with the RDU access key in the 'LOCK' position. It is also used during configuration of the RDU to decrement the field indicated by the cursor to the previously valid value. *Provided on all RDUs.*

When pressed, the switch will toggle the RDU display between System Event and Event Source display screens. It is also used during configuration of the RDU to move the cursor forward to the next valid cursor position. *Provided on RDU10 and RDU14 only.*

When pressed, the switch will toggle the RDU display between System Event and Event Source display screens. It is also used during configuration of the RDU to move the cursor backward to the previous valid cursor position. *Provided on RDU10 and RDU14 only.*

To use this switch, the key-switch must be turned to the "ACCESS" position. When pressed, the switch will cause the RDU to accept the data value in the selected field or move to the next screen. *Provided on RDU10 and RDU14 only.*

To use this switch, the key-switch must be turned to the "ACCESS" position. When pressed, the switch will toggle the RDU display to the previous screen. Pressing this switch while the Normal Standby screen is displayed will cause the RDU to display its current Firmware version on the bottom row for a few seconds. *Provided on RDU10 and RDU14 only.*

2.3.2 CONTROL SWITCHES FOR RDU10 ONLY

The key-switch must be turned to the "ACCESS" position to use these switches.

When the RESET switch is pressed and released, the remote display sends a reset command to the control panel. The control panel will then command the peripherals (Remote Display) to reset. This will turn off all notification appliance circuits, temporarily turns off resettable power to field devices, and sends a "SYSTEM RESET" message to the FACP display, remote displays and printers. Any Alarm or trouble that exists after a Reset will resound the system.

When the **ACK**NOWLEDGE switch is pressed and released, the remote display sends an acknowledge command to the control panel. This will silence the local piezo sounder, the sounders located in all other system annunciators and the control panel sounder. The Acknowledge function also changes any flashing Alarm, Trouble, or Supervisory LED's to steady ON.

When the SILENCE switch is pressed and released, the remote display will send a silence command to the control panel. The switch performs the same functions at the Acknowledge switch. In addition, if an alarm exists, any active notification appliances will also silence (provided that they can be silenced). The silence will cause any flashing alarm, trouble or supervisory LED to change to steady ON.

When the Drill switch is pressed and released, the remote display will send a drill command to the control panel. This will turn on any notification appliances with drill enabled. To exit this mode, once started, the panel must be reset.

2.3.3 PROGRAMMABLE CONTROL SWITCHES FOR RDU14 ONLY

The RDU14 is equipped with eight programmable control switches. The switches are numbered as shown in Exhibit 5 below.

Exhibit 5: RDU14 Programmable Switches

By default, the switches are programmed as follows:

1 - Reset	5 – Step Alarm
2 - Silence	6 – Step Supervisory
3 - Acknowledge	7 – Step All
4 - Drill	8 - Walktest

Each switch can be assigned any of the following functions. All functions, except for the 'STEP' functions, are protected by the key-switch; which requires the key-switch to be turned to the "ACCESS" position before the switch function is enabled. Other functions are toggles, where the first press activates the function and the second press deactivates the function.

- *NONE* - This function disables the button, nothing will happen when the user presses it.
- *RESET* - This function will reset the Control System panel. The Control System panel will then command the peripherals (Remote Display) to reset.
- *ACKNOWLEDGE* - This function will send the acknowledge command to the Control System panel. The acknowledge silences the Control System Panel local audible and the Remote Display local audible. The acknowledge function also changes any flashing Alarm, Trouble, or Supervisory LED's to steady ON.
- *SILENCE* - This function will send the silence command to the Control System panel. The Control System Panel local audible and the Remote Display local audible will both silence. Any active notification appliances will also silence (provided that they can be silenced). The silence will cause any flashing alarm, trouble or supervisory LED to change to steady ON.
- *DRILL* - This function will activate the drill mode on the Control System panel. Any notification appliances with drill enabled will become active. To exit this mode, once started, the panel must be reset.
- *PROCESS* - This function will activate or deactivate (toggle) a process event for the assigned zone. Any outputs assigned to the process state for the assigned zone will activate or deactivate (toggle).
- *WALK-TEST* - This function will activate the Walk-test function of the panel.
- *IR TOOL* - This function will enable/disable (toggle) activation of the Remote Infrared tool. This will enable the IR function on one loop at a time. Pressing again will turn that loop IR enable off and enable the next loop.

- *STEP ALARM* - This function will display the next alarm history record present on the system since the last panel reset, and cause the '+' and '-' keys to only step through the alarm events.
- *STEP SUPERVISORY* - This function will display the next supervisory history record present on the system since the last panel reset, and cause the '+' and '-' keys to only step through the supervisory events.
- *STEP TROUBLE* - This function will display the next trouble history record present on the system since the last panel reset, and cause the '+' and '-' keys to only step through the trouble events.
- *STEP ALL* - This function will display the next event in the total history record present on the system since the last panel reset, and cause the '+' and '-' keys to step through the events.
- *FAN RESTART* – This function will initiate the panel's automatic fan restart sequence.
- *ZONE DISABLE* - This function will disable/enable (toggle) a single panel zone.

The RDU14 is designed to allow insertion of slide-in labels for identification of the programmable switch functions. The insert is approximately 2 ¾" long x ¾" wide (2 rows of insert). Avery templates 11407, 11417, 11457 and 11459 are suggested compatible templates for use on creating inserts.

3.0 PROGRAMMING

Both the RDU and the associated control panel must be configured before proper communication and supervision between the two devices can occur. This information presented in this section outlines the configuration changes that must be made to each RDU and the host control panel.

NOTE: The configuration changes made in this section can also be made using the C-Linx programming software. Refer to Fike document 06-448, "C-Linx Manual" for more details.

3.1 CONFIGURE CONTROL PANEL FOR EXPANDED COMMUNICATIONS PROTOCOL

The associated control panel must be configured to utilize "Expanded" panel communications protocol (V3.00 or higher panel operating firmware); otherwise event messages will appear garbled on the RDU screen. The configuration changes can be made through the control panel's Peripherals configuration menu (CMD SET) as shown below.

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	E	V	A	C	:	N	O	N	E		S	T	A	T	U	S	:	E	X	P
B	H	I	S	T	O	R	Y		X	M	I	T	:	C	O	M	P	A	C	T
C	H	I	S	T	O	R	Y		P	A	C	K	I	N	G	:	O	F	F	
D	H	I	S	T	O	R	Y		M	E	S	S	A	G	E	:	E	X	P	

Exhibit 6: Peripheral Command Set Screen

- Row A (STATUS) – This field must be set to 'EXP'
- Row D (HISTORY MESSAGE) – This field must be set to 'EXP'

NOTE: With HISTORY XMIT set to 'COMPACT', not all messages shown on the host control panel display are transmitted to the remote display.

3.2 CONFIGURE CONTROL PANEL TO RECOGNIZE AND SUPERVISE RDU

The associated control panel must be configured to recognize the presence of the RDU on the peripheral bus. The configuration changes can be made through the control panel's Peripherals configuration menu as shown below.

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	P	E	R	I	P	H	E	R	A	L		A	D	D	R	:		0	2	
B	T	Y	P	E	:		R	E	M		D	I	S	P		1	0	K	E	Y
C	S	U	P	E	R	V	I	S	E	:		Y	E	S		Z	:	0	0	0
D	P	E	R	I	P	H	E	R	A	L		M	S	G					0	2

Exhibit 7: Peripheral Configuration Screen

- Row A (PERIPHERAL ADDR) – This field must be incremented to match the peripheral address set on the RDU (02-32).
- Row B (TYPE) – This field must be set to match the device type installed at the designated peripheral address.
- Row C (SUPERVISE) – This field allows you to select if the control panel will supervise the connection between itself and the RDU (YES/NO).
- Row C (Z:000) – This field allows you to assign a zone number to the RDU if it is to be utilized for Zone Event Filtering or Countdown Filtering by zone (See Section 5.3). The RDU will display events for the indicated zone only when this field is set.
- Row D - 20 character custom message field for the RDU. This message is displayed if the communication between the panel and the RDU is lost or if any other component trouble event should occur.

3.3 RDU2 CONFIGURATION

The RS485 address must be set on the RDU2 itself for communication on the panel's peripheral bus. By default, the unit is shipped from the factory set to address 02.

To set the address, remove P1 power terminal block from the backside of the RDU; then press and hold + switch. While continuing to hold + switch, re-install P1 power to access the RDU addressing menu shown below.

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	‘	+	‘		I	N	C	R	E	M	E	N	T	S		A	D	D	R	
B	‘	-	‘		D	E	C	R	E	M	E	N	T	S		A	D	D	R	
C	‘	+	‘		&		‘	-	‘		S	E	T	S		A	D	D	R	
D		A	D	D	R		=		V	V										

Exhibit 8: RDU2 Peripheral Address Screen

vv = Peripheral address (02). This must match the address configured in the host control panel (02-32). Press the ‘+’ or ‘-‘ keys to change this number.

Press the ‘+’ & ‘-‘ keys simultaneously to set the address. When the address is set the word “SAVED” appears to the right of the address on the screen.

Unplug the power to the RDU and re-apply it to enter normal operating mode.

3.3.1 RDU2 C-LINX CONFIGURATION

The remaining RDU2 configuration changes must be made using Fike’s C-Linx programming software.

Add the RDU to the control panels Peripheral Device list using the following steps:

1. Select Peripheral Devices from C-Linx Project Explorer screen. The screen will display the peripheral device list (2-32).
2. Select the RS485 address of the RDU being added to the system (row will be highlighted).
3. Select the Device Type drop down arrow and choose the Remote Display 2 Key option.

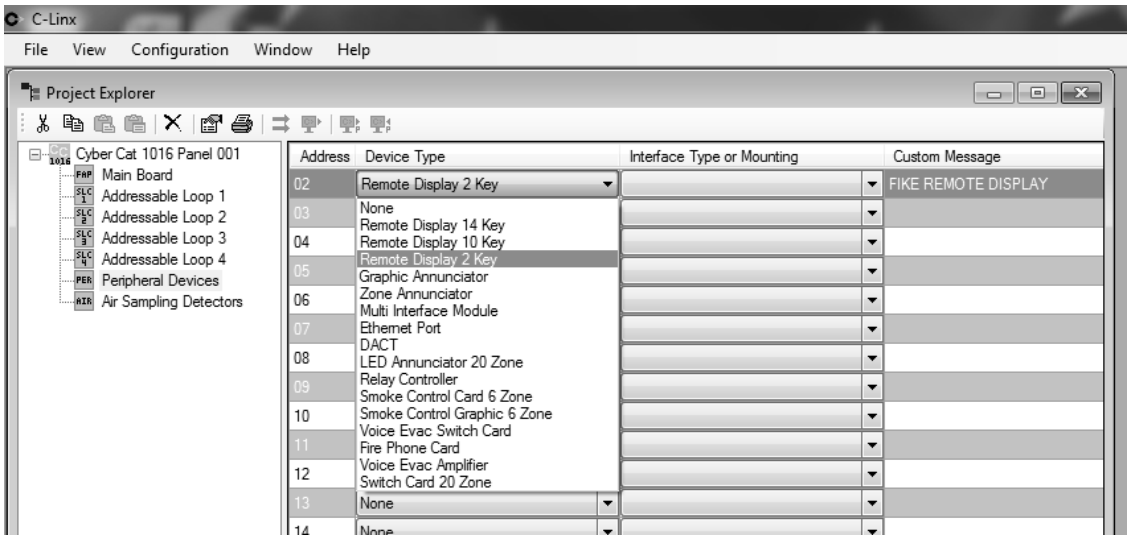

Exhibit 9: C-Linx Peripheral Device List Screen

4. Double-click anywhere on the device row to open the configuration screen for the individual peripheral device.

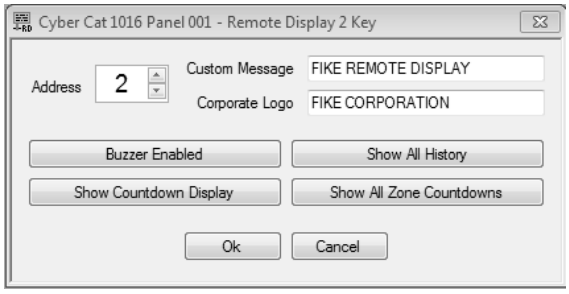

Exhibit 10: Configuration Screen

Available configuration options are detailed as follows:

Address (02) - This field allows you to select the peripheral address of the selected device. This field must match the address configured in the RDU (02-32).

Custom Message – This field allows you to assign a 20 character custom message, which is displayed on the top line of the RDU when event messages are not displayed. By default, this field is set to "FIKE REMOTE DISPLAY" unless changed. This message can only be changed through C-Linx.

Corporate Logo – This field allows you to assign a 20 character custom message, which is displayed on the bottom line of the RDU when event messages are not displayed. By default, this field is set to "FIKE CORPORATION" unless changed. This message can only be changed through C-Linx.

Buzzer Operation - **Enables** or disables the RDU buzzer.

Countdown Display - Configures RDU to "**Show Countdown Display**" or "Show Release Imminent". These options are applicable only when RDU is connected to a Fike Cheetah Xi™ suppression panel.

History Filtering - This filters the RDU to display only events associated with the Zone number that is indicated in the control panel's Peripheral configuration for the Remote Display (See Section 3.2). Allowable options are "**Show All History**" or "Filter History by Zone".

Countdown Filtering - This sets the RDU to not show releasing countdowns or to only show countdowns in the Remote Display zone indicated in the panel's Peripheral configuration (See Section 3.2), or to show all countdowns.

ⓘ**NOTE:** Zone Event Filtering and Countdown Filtering will only work if the RDU2 is configured to be supervised by the control panel (See Section 3.2).

These changes will be sent to the RDU when the system configuration file is downloaded into the control panel.

ⓘ**NOTE:** To Factory Initialize the RDU2, simultaneously hold down the '+' and '-" keys while applying power to it. The screen will remain blank for a few seconds, then will show the "System OK" screen.

3.4 RDU10 CONFIGURATION

The RDU10 can be configured using the units programming screen. Entry into the programming screen can be attained by inserting the unit key into the key-switch and turning it to the ACCESS position. The LCD display will indicate "PRESS ENTER TO CONFIGURE" for approximately 2 seconds. Press the ENTER key to access the configuration screen shown below. Should you fail to press the ENTER key fast enough to access the configuration menu, re-key the key-switch back to LOCK, then back to ACCESS again.

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	F	I	K	E		R	E	M	O	T	E		D	I	S	P	L	A	Y	
B	A	D	D	R		=		0	2					E	A			B	T	
C																				
D	P	E	R	I	P	H	E	R	A	L		I	D		#	v	v			

Exhibit 11: RDU10 Configuration Screen

The ◄► keys are used for moving the cursor to the desired field to change. Use the +/- keys for changing the value in the selected field to the next/previous option available as noted below. Refer to the Operations section of this manual for a complete description of the keypad and key-switch operation. Defaults are noted with the letter in parenthesis next to the description:

- Row A (FIKE REMOTE DISPLAY) - This is an editable text string of 20 characters that allows you to assign a custom message to the remote display.
- Row B (Default values shown in Exhibit 9)

  ADDR - This field allows you to set the peripheral address for the remote display (02-32). This must match the address configured in the control panel.

  E - This field allows you to set whether the RDU will display all system events or only events associated with the zone number that is indicated in the control panel's peripheral configuration for the Remote Display (See Section 5.2). '**E**' = Enabled (ALL Zones) or **'D'** = Disabled (Filter by Zone).

  A - This field allows you to set how the RDU will display releasing countdowns. **'A'** = Show all releasing countdowns, **'Q'** = Do not show releasing countdowns, or **'Z'** = Only show countdowns in the remote display zone indicated in the panel's Peripheral configuration.

  ⓘ**NOTE:** Zone Event Filtering and Countdown Filtering will only work if the 10-button remote display is configured to be supervised by the control panel (See Section 5.2).

  B – This field allows you to enable/disable the RDU buzzer. '**B**' = Buzzer enabled or '**O**' = Buzzer disabled (off/silent).

  T – This field allows you to enable the RDU to display the releasing countdown time that is shown during pre-discharge. '**T**' = Display releasing countdown time or '**M**' = Display "RELEASE IMMINENT" message.
- Row D (PERIPHERAL ID #VV) - This is an editable text string of 20 characters. The 'VV' will be set to the configured peripheral address by default unless this message is changed through editing.

ⓘ**NOTE:** To Factory Initialize the RDU10, enter the Configuration Menu as described above. Move the cursor to the farthest right position on Row B and press +/- until a '**C**' is displayed. Press the ENTER key with the '**C**' displayed to factory initialize the unit.

3.5 RDU14 CONFIGURATION

The RDU14 can be configured using the units programming screen. Entry into the programming screen can be attained by inserting the unit key into the key-switch and turning it to the ACCESS position. The LCD display will indicate "PRESS ENTER TO CONFIGURE" for approximately 2 seconds. Press the ENTER key to access the configuration screen shown below. Should you fail to press the ENTER key fast enough to access the configuration menu, re-key the key-switch back to LOCK, then back to ACCESS again.

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	F	I	K	E		R	E	M	O	T	E		D	I	S	P	L	A	Y	
B	A	D	D	R		=		0	2					E	A			B	T	
C	P	x		F	U	N	C		=		*Y*	*Y*	*Y*	*Y*	*Y*	*Y*	*Y*	*Y*	*Y*	*Y*
D	P	E	R	I	P	H	E	R	A	L		I	D		#	v	v			

Exhibit 12: RDU14 Configuration Screen

The ◄► keys are used for moving the cursor to the desired field to change. Use the +/- keys for changing the value in the selected field to the next/previous option available as noted below. Refer to the Operations section of this manual for a complete description of the keypad and key-switch operation. Defaults are noted with the letter in parenthesis next to the description:

- Row A (FIKE REMOTE DISPLAY) - This is an editable text string of 20 characters that allows you to assign a custom message to the remote display.
- Row B (Default values shown in Exhibit 10)

  ADDR - This field allows you to set the peripheral address for the remote display (02-32). This must match the address configured in the control panel.

  E - This field allows you to set whether the RDU will display all system events or only events associated with the zone number that is indicated in the control panel's peripheral configuration for the Remote Display (See Section 5.2). '**E**' = Enabled (ALL Zones) or **'D'** = Disabled (Filter by Zone).

  A - This field allows you to set how the RDU will display releasing countdowns. **'A'** = Show all releasing countdowns, **'Q'** = Do not show releasing countdowns, or **'Z'** = Only show countdowns in the remote display zone indicated in the panel's Peripheral configuration.

  ⓘ**NOTE:** Zone Event Filtering and Countdown Filtering will only work if the remote display is configured to be supervised by the control panel (See Section 5.2).

  B – This field allows you to enable/disable the RDU buzzer. '**B**' = Buzzer enabled or '**O**' = Buzzer disabled (off/silent).

  T – This field allows you to enable the RDU to display the releasing countdown time that is shown during pre-discharge. '**T**' = Display releasing countdown time or '**M**' = Display "RELEASE IMMINENT" message.
- Row C (P**x**) – This field allows you to select any of the eight programmable switches for programming. This field is directly tied to the '**y**' fields on Row C. See Exhibit 5 for switch numbering.
- Row C (**y**) – This field allows you to select the panel function that will be assigned to the programmable switch selected (P**x**). Refer to Section 2.3.3 for complete list of switch functions. When the switch is set for Process or Zone Disable, Row D will display P**x** ZONE = **XXX**. The '**XXX**' fields allow you to assign the switch function to a specific zone.
- Row D (PERIPHERAL ID #VV) - This is an editable text string of 20 characters. The 'VV' will be set to the configured peripheral address by default unless this message is changed through editing.

ⓘ**NOTE:** To Factory Initialize the RDU14, enter the Configuration Menu as described above. Move the cursor to the farthest right position on Row B and press +/- until a '**C**' is displayed. Press the ENTER key with the '**C**' displayed to factory initialize the unit.

4.0 OPERATION

System event messages are displayed similar to that of the main Control Panel with the exception that the RDU will only display CURRENT events. The display will latch on the first Alarm, Trouble, or Supervisory event received, with the exception that Alarm events take precedence over Trouble and Supervisory and will always be displayed over them.

Additional events received are stored in the RDU's 800 event history buffer on a first in – first out basis, unless and Alarm message is received. If an Alarm message is received, the RDU will stop discarding messages and will retain the 50 messages received before the receipt of the Alarm message. The RDU will retain its history until the main panel is reset. Events prior to a system reset must be obtained at the main panel.

All events stored in the RDU's history buffer can be displayed by pressing either the '+' or '-' keys on the Remote Display to increment or de-increment through the history. Should additional event messages be received while viewing history events, they will be displayed as previously described.

NOTE: With the "Compact" "HISTORY XMIT" format set in the Control Panel, not all messages shown on the Control Panel display are transmitted to the Remote Display or shown on it.

4.1 RELEASING COUNTDOWNS

There is not a specific display screen associated with releasing countdown information. When the Control Panel connected to the Remote Display is in the process of counting down to a release (as a result of a pre-discharge or manual release input) the countdown will also be shown on the Remote Display (if configured to do so). After a release has occurred through the Control Panel, the Remote Display will indicate that it has, and the zone that it occurred in, unless the '+' or '-' key is then used to change the history message being displayed. If more than one simultaneous Release sequence occurs in the Control Panel and RDU is configured for all zones/display countdowns, the Remote Display shows information for the one that releases first (or that is scheduled to release first).

4.2 HOW EVENTS ARE DISPLAYED

There are two main user screens used on the Remote Display:

Normal Standby Screen

The Normal Standby Screen is present when the main Control System, which is being monitored, is normal and no events are coming from the panel, but communication link is still established with the panel. The main Control System supervises the Remote Display. The system time is shown in hours and minutes on this screen.

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	F	I	K	E		R	E	M	O	T	E		D	I	S	P	L	A	Y	
B	S	Y	S	T	E	M		O	K											
C	1	2	:	2	9	P					0	1	/	0	1	/	2	0	1	1
D	P	E	R	I	P	H	E	R	A	L		I	D		#	0	2			

Exhibit 13: Normal Standby Screen

- Row A - Will display 'FIKE REMOTE DISPLAY', unless this message has been changed.
- Row B – Will display 'SYSTEM OK', unless a system event occurs.
- Row C - Will display system time and date.
- Row D – Will display 'PERIPHERAL ID #02', unless the message has been changed.

The firmware version of the RDU is shown on the bottom line of Normal Standby Screen for a few seconds when the Remote Display is powered up. To briefly display the firmware version on the RDU2, simultaneously press the + and – switches while in the Normal Standby screen. To briefly display the firmware version on the RDU10 and RDU14, simply press the ESC key while in the Normal Standby screen.

System Events Display

The System Event Screen is displayed when an event is received from the control system. The information displayed generally mirrors the information provided by the associated control panel. The Custom Message will be displayed from the device/panel that originated the event (if configured for network/show all).

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	E	V	E	N	T		M	E	S	S	A	G	E							
B	C	U	S	T	O	M		M	E	S	S	A	G	E						
C	1	2	:	2	9	P					0	1	/	0	1	/	2	0	1	1
D	E	V	E	N	T						X	X	X		O	F		Y	Y	Y

Exhibit 14: System Event Screen

- Row A – Displays the panel event message. The System's Control Manual details a complete list of all possible event messages, description of messages, and tips to step through events.
- Row B – Displays the custom message for the device associated with the system event.
- Row C - Displays system time and date.
- Row D (EVENT) – Will display the event number (XXX) and the total number of events received (YYY).

Pressing the ◄► keys while the Event Message is displayed, will toggle the display to the Event Source Information Screen. The Event Source screen is only accessible for events that have associated source information, such as for events originating from loop sensors. The System's Control Manual details a complete list of all possible event messages, description of Messages, and tips to step through events.

	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0
A	P	N	L	#	#	#		L	O	O	P	#		A	D	D	R	#	#	#
B	C	U	S	T	O	M		M	S	G		P	A	N	E	L		0	0	1
C	1	2	:	2	9	P					0	1	/	0	1	/	2	0	1	1
D	E	V	E	N	T						X	X	X		O	F		Y	Y	Y

Exhibit 15: Event Source Screen

- Row A (PNL) – Displays the panel, loop and device address number associated with the event. May display other event related information in cases such as VESDA.
- Row B – Will display the custom message for the associated control panel.
- Row C - Will display system time and date of the event.
- Row D (EVENT) – Will display the event number and the total number of events received.

If no events have been communicated to the display from the Control Panel, it will indicate 'NO RECORD".

5.0 REMOTE DISPLAY SPECIFIC MESSAGES

The RDU provides a 20 character description of an event. Refer to the Control System Product Manual for a complete description of events and the proposed tips for resolution of each. The following event messages are directly related to the RDU:

Event Display	Description	Suggested Corrective Action
NO RECORD	No events have been communicated to the remote display by the panel since reset.	This is displayed if there are no events present and the user presses the +/- button.
PANEL COMMS LOST	The remote display has lost communication link from the panel. The remote display normally receives a communication from the panel every few seconds. If it does not see that signal for a short time this error will result.	Check wiring and connections between panel and remote display. Use Panel Peripheral Diagnostics Menu to monitor Communication. As last resort, remove remote display and take over close to panel and wire in with short pieces of wire to see if it communicates from there. If so, trouble is in circuit/wiring between panel and Remote Display.
PANEL COMMS RETURNED	Panel communication has returned to Remote Display.	This event clears the PANEL COMMS LOST trouble. No action is necessary.
PERIPH #*aa* ACKNOWL	Peripheral device with address ***aa*** has caused the panel to acknowledge events (same as pressing the remote keypad **ACK** switch).	If it is known that personnel are pressing the ACK switch from the remote terminal, no action is necessary. Change the Peripheral to not allow access of switches if desired.
PERIPH #*aa* DRILL ON	Peripheral device with address ***aa*** has caused the panel to activate the drill feature. This action is a latching action and can only be stopped by resetting the control panel.	If it is known that personnel are pressing the DRILL switch from the remote terminal, no action is necessary. Change the Peripheral to not allow access of switches if desired.
PERIPH #aa MISSING	Panel has lost communication to a peripheral device with address **aa** on the peripheral bus (RS485).	Check the addressing of the device (configured through software on the Remote Display to #02-32). Terminate the RS485 appropriately with a 100 ohm resistor on the last RS485 device. Check the 24V power at the device. Temporarily move the Remote Display directly at the panel to eliminate field troubles. Check any fuses on the Remote Display. Factory Initialize the Remote Display as referenced in the Programming section.
PERIPH #*aa* RESET	Peripheral device with address ***aa*** has caused the panel to reset (same as pressing the remote keypad **RESET** switch).	If it is known that personnel are pressing the RESET switch from the remote terminal, no action is necessary. Change the Peripheral to not allow access of switches if desired.
PERIPH #aa RETURN	Panel communication has returned to peripheral device with address **aa** on the peripheral buss (RS485).	This event clears the PERIPH MISSING trouble. No action is necessary.
PERIPH #aa SILENCE	Peripheral device with address **aa** has caused the panel to silence (same as pressing the remote keypad **SILENCE** switch).	If it is known that personnel are pressing the SILENCE switch from the remote terminal, no action is necessary. Change the Peripheral to not allow access of switches if desired.

Exhibit 16: RDU Event Messages

Event Display	Description	Suggested Corrective Action
PERIPH #aa TRB CLEAR	Peripheral device address **aa** is reporting a trouble condition has cleared. This event clears the **PERIPH TROUBLE** event.	This event clears a PERIPH TROUBLE event. No action is necessary.
PERIPH #aa TROUBLE	Peripheral device with address **aa** is reporting a trouble condition. The peripheral should be investigated to determine the cause.	Locate the peripheral and determine the trouble at the peripheral device.
PER #aa Zxxx DISABLE	Peripheral device with address aa has caused the disabling of zone xxx.	If it is known that personnel are pressing the Zone ENAB/DISABLE switch from the remote peripheral, no action is necessary. Change the Peripheral to not allow access of Zone ENAB/DIABLE feature if desired.
PER #aa Zxxx ENABLE	Peripheral device with address aa has caused the enabling of zone xxx.	This event clears the ZONE DISABLE event. If it is known that personnel are pressing the Zone ENAB/DISABLE switch from the remote peripheral, no action is necessary. Change the Peripheral to not allow access of Zone ENAB/DIABLE feature if desired.
PERIPH #02 IR DISABLE	Peripheral device with address **aa** has caused the panel to disable the IR Remote tool feature.	If it is known that personnel are pressing the IR ENAB/DISABLE switch from the remote terminal, no action is necessary. Change the Peripheral to not allow access of IR ENAB/DIABLE feature if desired.
PERIPH #aa IR ENA Lx	Peripheral device with address **aa** has caused the panel to enable the IR Remote tool feature for Loop x.	If it is known that personnel are pressing the IR ENAB/DISABLE switch from the remote terminal, no action is necessary. Change the Peripheral to not allow access of IR ENAB/DIABLE feature if desired.
PERIPH #aa WALKTEST	Peripheral device with address **aa** has caused the panel to enter Walk-test mode (same as entering the walk-test from the control panel).	If it is known that personnel are pressing the WALKTEST switch from the remote terminal, no action is necessary. Change the Peripheral to not allow access of switches if desired.

Exhibit 17: RDU Event Messages Continued

6.0 REPLACEMENT PARTS LIST

Part Number	Description
10-2360	RDU2 (includes printed circuit board and trim ring)
10-2631	RDU10 (includes printed circuit board and trim ring)
10-2646	RDU14 (includes printed circuit board and trim ring)
02-11881	Masonry Box, 3 gang (ordered separately)
02-11892	Space Age ESB back-box, 3 gang, Red (order separately)
02-2123	Masonry Box, 4 gang (ordered separately)
02-11893	Space Age ESB back-box, 4 gang, Red (order separately)
02-4811	Masonry Box, 5 gang (ordered separately)
02-11894	Space Age ESB back-box, 5 gang, Red (ordered separately)
02-2316	Screw, 6-32, ½" slotted
02-11209	Terminal Block, 4 position (removable)
02-11813	Terminal Block, 5 position (removable)
02-4983	Panel Key Only (without cam)
02-2519	100 Ω, ¼ watt, 5%, RS485 Termination resistor
70-2040	RDU2, Stainless Steel Trim Ring/Cover Plate
70-2041	RDU10, Stainless Steel Trim Ring/Cover Plate
70-2042	RDU14, Stainless Steel Trim Ring/Cover Plate

Exhibit 18: Spare Parts List

7.0 OPERATIONAL POSTINGS

The following operational postings provide instructions to the user on how use the remote display unit. They can be downloaded from Fike Forums. The instructions must be framed and displayed next to each remote display unit in accordance with NFPA 72, National Fire Alarm and Signaling Code.

- P/N 06-627, RDU2 Operating Instructions
- P/N 06-628, RDU10 Operating Instructions
- P/N 06-629, RDU14 Operating Instructions

Reserved for future use.

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