ACT

+12-24V AC/DC

ORANGE

ENTRY READER

0V
INTERLOCK (PB2)
PUSH BUTTON
DOOR CONTACT
BLACK
YELLOW
BROWN

0V
BUZZER
OP3
OP2
WHITE
BLUE
GREEN

TAMPER

RED

BATCH: 98XX-1
PRODUCT: ACT20 REV2.1
SERIAL NUMBER: 012345

0 1 2 3 4 5 6 7 8 9

Cable: 8 Core Screened, Max 30m

Connect to 12Vdc

ORANGE

SENSE UNUSED

OPTIONAL EXIT READER

SENSE
CLOCK
DATA
+5V
0V
RED
GREEN

ENTRY/EXIT READER

TAM

BATCH: 96X
PRODUCT: ACT1
SERIAL NUMBER:

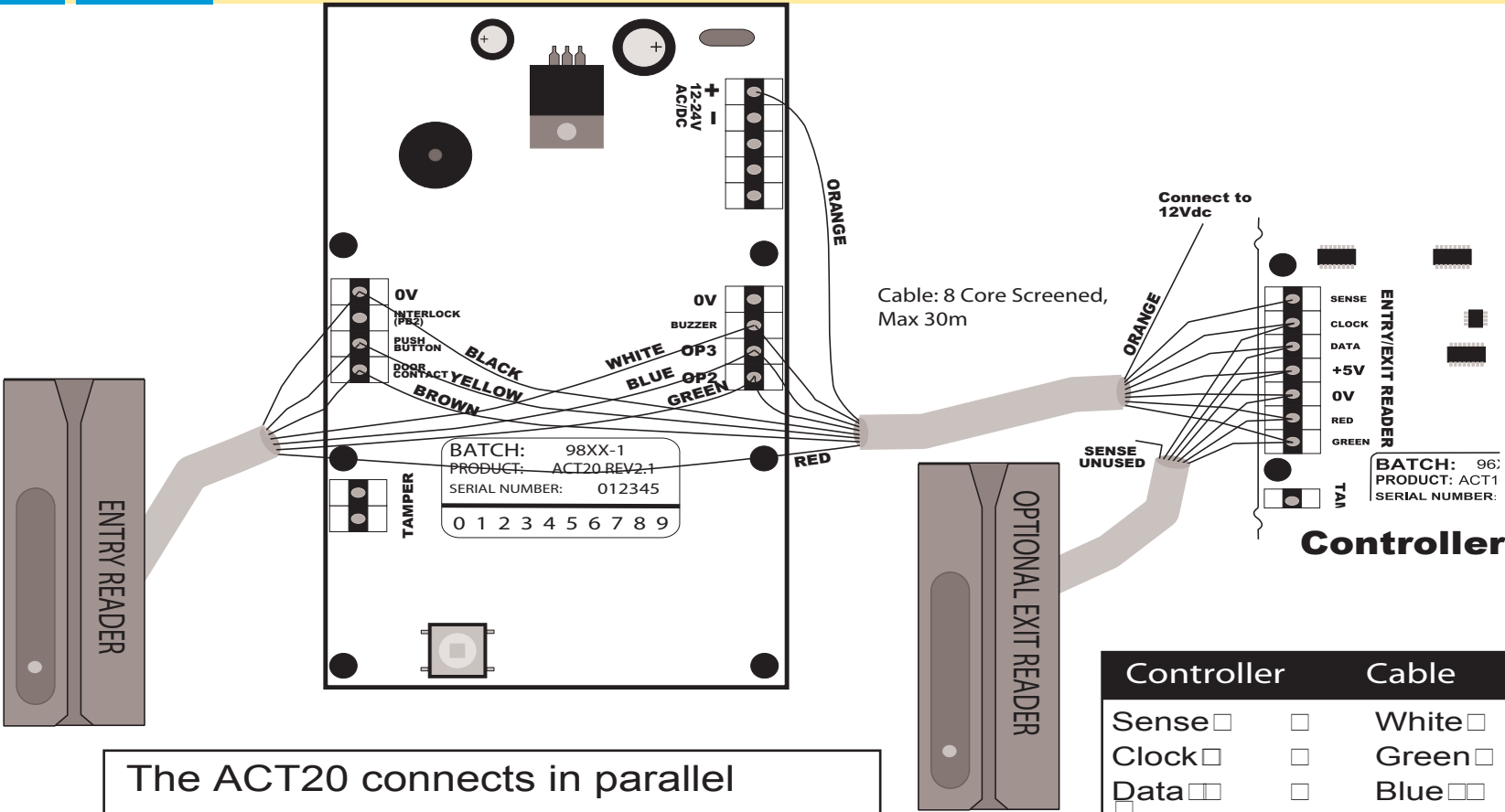**Controller**

The ACT20 connects in parallel between the reader and the controller. An extra line (ORANGE) is used to bring +12VDC power to the ACT20. The shields should be joined.

Controller	Cable	ACT20
Sense	White	Buzzer
Clock	Green	OP2
Data	Blue	OP3
+5V	Red	
0V	Black	0V
Red LED	Brown	Door Contact
Grn LED	Yellow	Push Button
+12V	Orange	+12V

access control TECHNOLOGY

ACT20 Pin Entry Keypad

The ACT20 is a rugged metal-housed pinpad for use with a separate controller. It is usually used in conjunction with an ACT1010 magnetic swipe card reader for pin and swipe operation. Physically similar to the ACT10, the function of this device is quite different. The ACT20 is a slave device which transmits each keypress directly to the system controller. The unit is connected to the controller via an 8 core screened cable. The same cable may be used to carry the signals from a swipe reader as the ACT20 connects in parallel (refer to diagram).

Pin Pad Cable Connections

Core	Colour	Description
1	White	Media Sense (open collector)
2	Green	Clock (open collector)
3	Blue	Data (open collector)
4	Red	5V Power (for reader only)
5	Black	0V Ground
6	Brown	Red LED control (negative applied)
7	Yellow	Green LED control (negative applied)
8	Orange	12V Power (for ACT20 only)
	Shield	Bonded to Reader housing

ACT20 Specification

Voltage	12VDC nominal (10.5-16V)
Current	20mA standby, 75mA maximum
Output Sink Current	50mA maximum
Operating Temperature	-10 ^{o}C to +55 ^{o}C
Cable	8-core screened (shared with reader)
Reader Distance	Max 30m from controller

Operation with ACT1000 Controller

PIN entry on the ACT1000/2000 or Ds100 is selected by setting the **PIN Required** option in the Installer menu/Door settings/Timed actions menu for the doors in question. A valid PIN must also be entered for the required group or user.

The unit acts as a slave to the ACT1000/2000 controller and is connected in parallel with the reader (swipe or proximity). Normally the unit is dormant with only the standby LED illuminated. When a pin only entry is required the X button must be pressed before the pin code is entered, the keypad backlight and all LEDs illuminate. When a pin code is required with a swipe card the pin code is entered after the card is swiped. The ACT1000/2000 will process the entered PIN/Card and illuminate the red or green LED to indicate access granted or denied.

Note that the ACT20 may only be used with *clock and data* readers.